

# *ergo*<sup>3™</sup>Embroidery/Sewing Machine Owner's Manual Model 385.19010200



### IMPORTANT SAFETY INSTRUCTIONS

When using an electrical appliance, basic safety precautions should always be followed, including the followings: Read all instructions before using this appliance.

### **DANGER**— To reduce the risk of electric shock:

- 1. An appliance should never be left unattended when plugged in. Always unplug this sewing machine from the electric outlet immediately after using and before cleaning.
- 2. Always unplug before replacing a sewing machine bulb. Replace bulb with same type rated 13.2 V, 3 Watts.

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

- 1. Do not allow to be used as a toy. Close attention is necessary when this sewing machine is used by or near children.
- 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 or changing the presser foot, and the like.
- 15. Always unplug this sewing machine from the electrical outlet when removing covers, lubricating, or when making any other adjustments mentioned in this owner's manual.
- 16. Hold plug when rewinding into cord reel. Do not allow plug to whip when rewinding.

## SAVE THESE INSTRUCTIONS

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.

#### **PROTECTION AGREEMENTS**

#### In the U.S.A.

#### **Master Protection Agreements**

Congratulations on making a smart purchase. Your new Kenmore® appliance 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.

Purchase a Master Protection Agreement now and protect yourself from unexpected hassle and expense.

The Master Protection Agreement also helps extend the life of your new appliance. Here's what's included in the Agreement:

- ☑ Expert service by our 12,000 professional repair specialists
- ✓ Unlimited service and no charge for parts and labor on all covered repairs
- "No-lemon" guarantee replacement of your covered product if more than three 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 non-technical and instructional assistance on products repaired in your home, plus convenient repair scheduling
- Power surge protection against electrical damage due to power fluctuations
- Rental reimbursement if repair of your covered product takes longer than promised

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.

Sears has over 12,000 professional repair specialists, who have access to over 4.5 million quality parts and accessories. That's the kind of professionalism you can count on to help prolong the life of your new purchase for years to come. 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 guaranteed professional installation of home appliances and items like garage door openers and water heaters, in the U.S.A. call 1-800-4-MY-HOME®

#### In Canada

#### **Maintenance Agreements**

Your purchase has added value because you can depend on Sears HomeCentral® for service. With over 2400 Service Technicians and access to over 900,000 parts and accessories, we have the tools, parts, knowledge and skills to ensure our pledge: We Service What We Sell.

Your Kenmore® appliance is designed, manufactured and tested to provide years of dependable operation. Yet any major appliance may require service from time to time. The Sears Maintenance Agreement offers you an outstanding service program, affordably priced.

#### The Sears Maintenance Agreement

- Is your way to buy tomorrow's service at today's price.
- Eliminates repair bills resulting from normal wear and tear.
- · Provides for non-technical and instructional assistance.
- Even if you don't need repairs, provides an annual Preventive Maintenance Check, at your request, to ensure that your appliance is in proper running condition.

Some limitations apply. For information concerning Sears Canada Maintenance Agreements, call 1-800-361-6665.

#### **Machine Specifications**

Item	Specification
Sewing speed (Maximum):	Over 820 s.p.m.
Stitch length:	5 mm (Maximum)
Stitch width:	7 mm (Maximum)
Stitch package (Stitch functions):	1160
(Built-in stitches):	Conventional 673 built-in stitches with 447 built-in embroidery
	design
Buttonhole:	1 step built-in buttonhole
Machine dimensions:	W 18.9" (481.1 mm) x D 9.2" (234.5 mm) x H 12.8" (326.2 mm)
Weight (Net):	23.9 lbs (11kg)

#### **Kenmore Sewing Machine Warranty**

#### Full 25 Year Warranty on Internal Mechanical Components

For 25 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.

#### Full Two Year 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 two-year warranty does not include light bulbs, which are expendable parts only included in the 90 day warranty described below.

#### Full 90 Day Warranty on All Parts and Mechanical Adjustments

For 90 days from the date of purchase, Sears will provide free parts replacement and mechanical service necessary for the proper operation of this sewing machine, except for normal maintenance as described in the owner's manual.

Warranty service is available by returning this sewing machine to the nearest Sears Service Center in the United States. If this sewing machine is used for commercial or rental purposes, warranty service is available for only 90 days from the date of purchase.

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

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Warranty service is available by returning this sewing machine to the nearest Sears Service Center in Canada. If this sewing machine is used for commercial or rental purposes, warranty service is available for only 90 days from the date of purchase.

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

Sears Canada, Toronto, Ont., M5B 2B8

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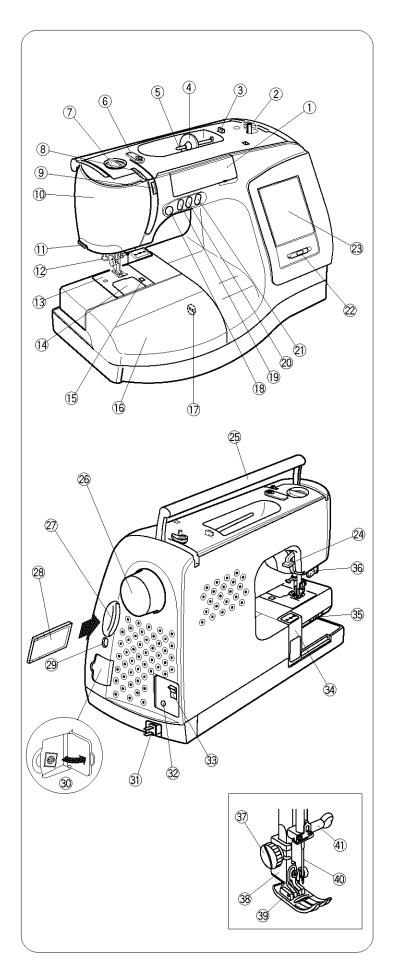
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#### **SECTION I. NAME OF PARTS**

#### **Names of Parts**

- 1) Flip-top quick reference chart
- 2 Bobbin winder spindle
- 3 Bobbin thread cutter
- 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
- (1) 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
- Start/stop button
- 19 Reverse button
- 20 Auto-lock button
- ② Up/down needle button
- 22 Speed control lever
- ② Visual touch screen
- ② Presser foot lifter
- 25 Carrying handle
- 26 Hand wheel
- 27 PC card slot
- 28 ATA PC Card (optional)
- 29 Card eject button
- 30 RS-232C port
- 31 Power supply plug (cord reel)
- 32 Machine socket
- 33 Power switch
- 34 Carriage (for embroidery)
- 35 Drop feed dog lever
- 36 Buttonhole lever
- 37 Thumb screw
- 38 Foot holder
- 39 Presser foot
- 40 Needle
- 41 Needle clamp screw



#### **Available Accessories and Attachments**

To order parts and accessories listed below, call:

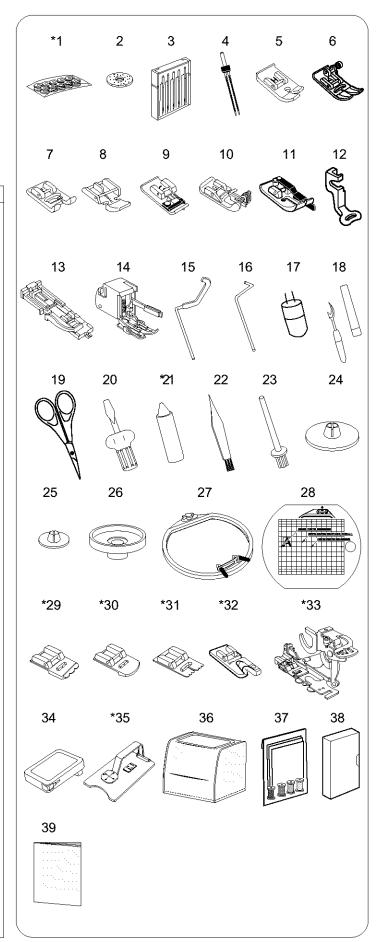
1-800-366-PART (1-800-366-7278)

6 am - 11 pm, CST, 7 days a week

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	826815000	Twin needle
5	823801015	H:Straight stitch foot
6	832523007	A: Zigzag foot
7	822804118	F: Satin stitch foot
8	829801002	E:Zipper foot
9	822801001	C:Overedge foot
10	820817015	G:Blind hem foot
11	200008004	O:1/4" seam foot
12	830810031	P:Embroidery foot
13	830823118	R:Automatic buttonhole foot
14	214508002	Walking foot
15	214015007	Quilter bar (for walking foot)
16	802422002	
17	000009907	Light bulb
18	560406104	Seam ripper/Buttonhole opener
19	822814007	Scissors
20	820832005	Large screwdriver
21	*741814003	Oil
22	802424004	Lint brush
23	625031500	Additional spool pin
24	822020514	Large spool holder
25	822019509	Small spool holder
26	829803004	Spool stand
27	851801104	F:Embroidery hoop
28	851801403	Template
29	*200002008	Piping foot
30	*200003009	Gathering foot
31	*200005001	Pin-tuck foot
32	*200013105	Hemmer foot (2mm)
33	*941620000	
34	043271155	Foot control
35	*851401007	Clothsetter
36	851813006	
37	851821007	
38	851816009	I
39	851820006	Template sheet
		ot furnished with the machine, but may be ctions above.



#### SECTION II. GETTING READY TO SEW

#### **Connecting Machine to Power Supply**

- 1) Power supply plug
- (2) Power switch
- ③ Outlet
- (4) Red marker
- (5) Foot control
- 6 Foot control plug
- (7) Machine socket
- Turn off the power switch ②. Insert the foot control plug
   into the machine socket ⑦.
- 2. Insert the power supply plug 1 into the outlet 3.
- 3. Turn the power switch ② to turn on the power and sewing lights.

#### Notes:

- If you turn off the power switch, wait 5 seconds before turing it on again.
- Hold plug when rewinding into cord reel. Do not allow plug to whip when rewinding.

#### **Before Using Your Sewing Machine**

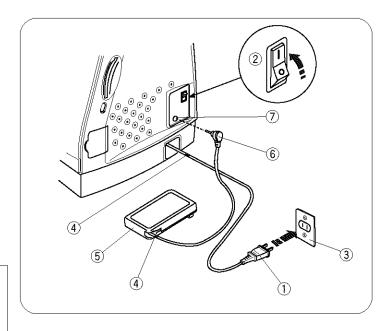
Before using your sewing machine for the first time, place a waste fabric under the presser foot and run the machine with thread for a few minutes. Wipe away any oil which may appear.

#### 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

Press the button to start or stop the machine. This button can be used either in conventional sewing mode or Embroidery mode. In conventional sewing mode, the machine starts running slowly for the first few stitches; it then runs at the speed set by the speed control lever.

#### 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, 6 and 7: 4 5 5 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, 6 and 7: 4 S S 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**

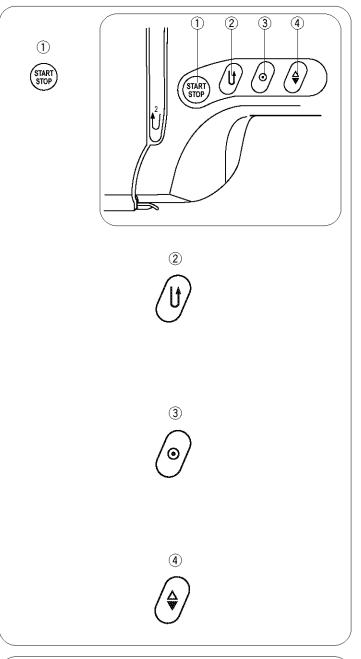
4 Up/down needle button

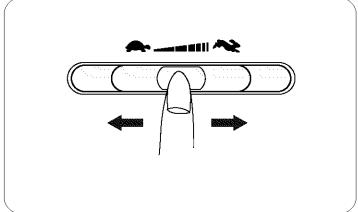
Press this button to bring the needle up or down.

#### 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 385.19010XXX (XXX represents numbers 000 through 999).

#### Note:

The Kenmore Elite sewing machine model 19010 is equipped with an automatic shutdown safety feature to prevent overheating. Follow safety instructions that appear on the visual touch screen.



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.

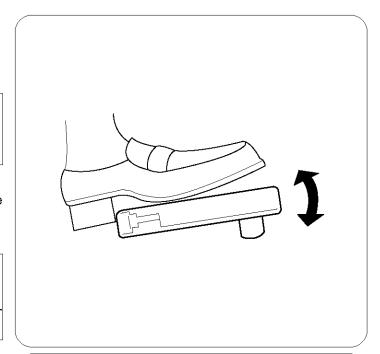
Turn the pressure dial 1 and set the desired number at the setting 2.

- 1 Pressure dial
- ② Setting mark

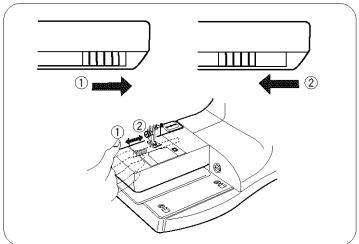
#### To Drop or Raise the Feed Dogs

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.







#### **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.

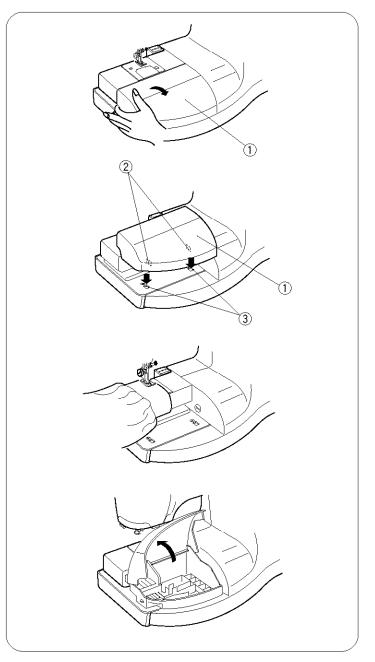
- 1 Extension table
- 2 Tabs
- ③ Holes

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.

In Conventional sewing set mode, you can adjust the freearm length. To adjust the free-arm length, please refer to page 20.

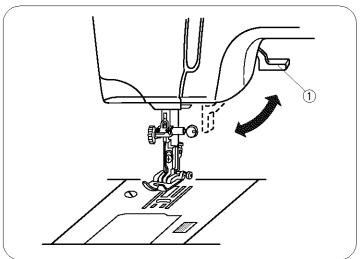
Open the lid of the extension table and you can conveniently store feet and accessories in the handy compartments.



#### **Presser Foot Lifter**

1 Presser foot lifter

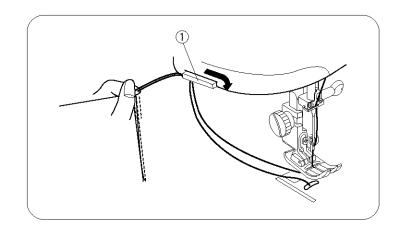
The presser foot lifter raises and lowers the presser foot. You can raise it higher than the normal up position for easy removal of the presser foot or to help you place heavy fabric under the foot.



#### **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.

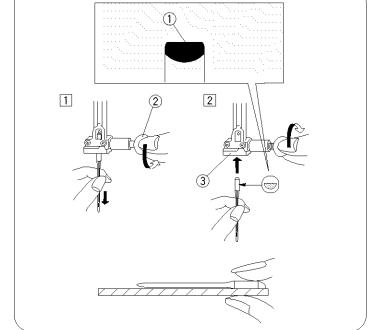


#### **Changing Needle**

- 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**

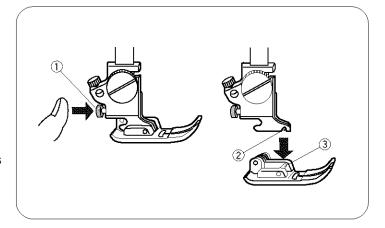
- 1) Snap-on button (red button)
- 2 Groove
- ③ Pin

#### 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.

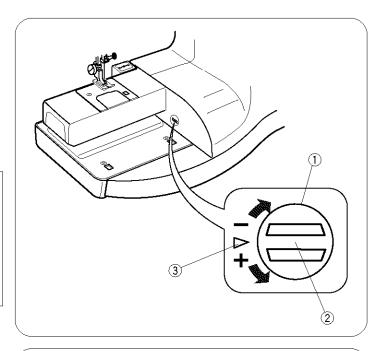
if decorative stitch patterns, letters, or numbers are distorted, correct it with the feed balancing dial.

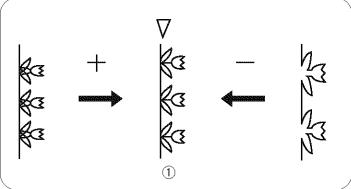
#### Notes:

- 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.
- 1 Feed balancing dial
- 2 Groove on the dial
- 3 Standard setting mark
- 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 Correct shape

#### Note:

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





#### **Presser Foot Types**

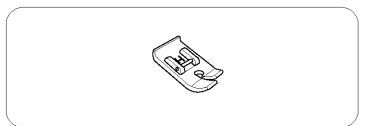
#### Zigzag foot (Foot A)

Use this foot for both straight and zigzag stitching.



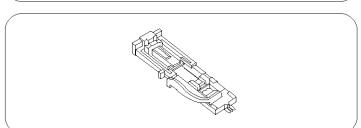
#### Straight stitch foot (Foot H)

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



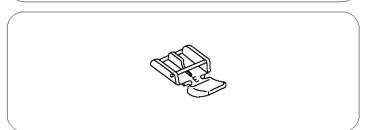
#### Automatic buttonhole foot (Foot R)

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.



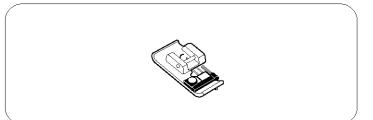
#### Zipper foot (Foot E)

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.



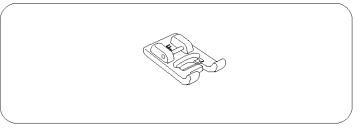
#### Overedge foot (Foot C)

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.



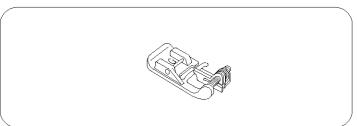
#### Satin stitch foot (Foot F)

Use this foot for satin stitch and outlining applique.



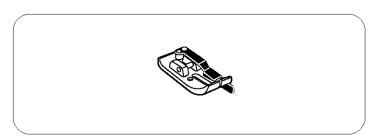
#### Blind hem stitch foot (Foot G)

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.



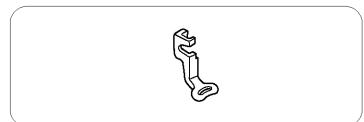
#### • 1/4"Seam foot (Foot O)

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



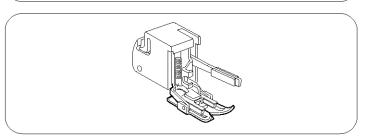
#### • Embroidery foot (Foot P)

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)
	Single Knits, Jersey, Swimwear, Tricot	Blue Ball Point	11 (75) 11 (75)
	Leather, Suede	Wedge Point Leather	11 (75)
Medium	Flannel, Velour, Velvet, Muslin, Velveteen, Poplin, Corduroy, Broadcloth, Linen, Chintz, Gabardine, Felt, Terry, Burlap, Quilted Fabrics	Red	14 (90)
	Double Knits, (synthetic and natural) Stretch Velour, Stretch Terry, Sweater Knits	Ball Point	14 (90)
	Leather, Vinyl, Suede	Wedge Point Leather	14 (90)
Heavy	Denim, Sailcloth, Ticking	Denim	16 (100)
	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)

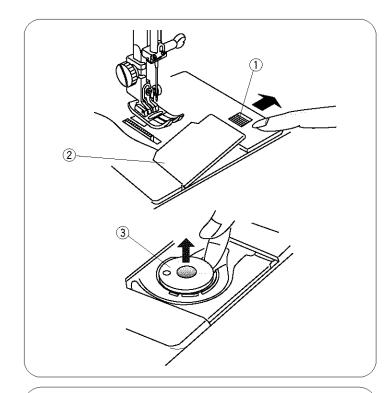
#### **Bobbin Winding**

#### · 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.

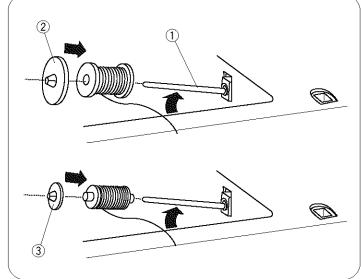


#### · Horizontal spool pin

- 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.

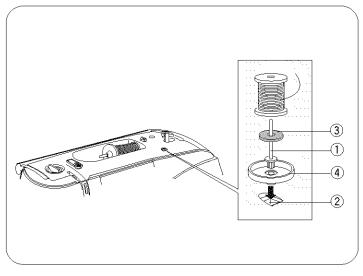


#### · Additional spool pin

- 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.

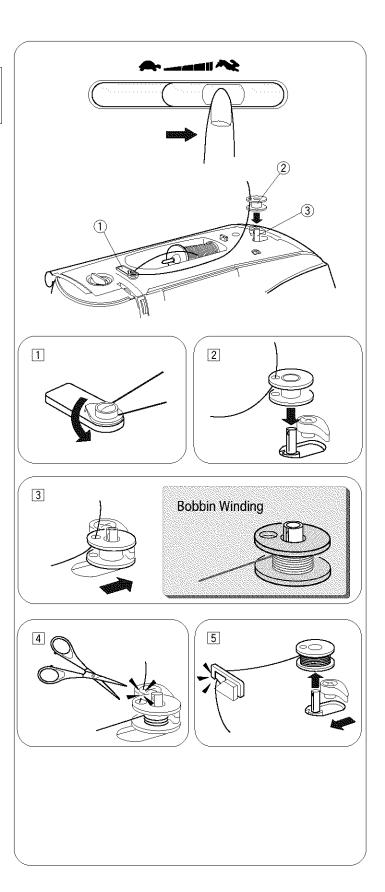


#### **Bobbin Winding**

#### 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. The visual touch screen shows "Bobbin Winding".
- 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, it will stop automatically. Return the bobbin to its original position by moving the spindle to the left, and cut the thread as shown.



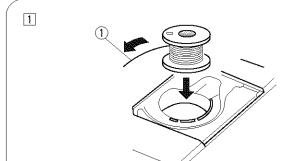
#### Inserting the bobbin

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

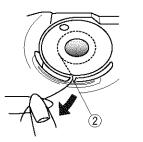
3 Draw the thread to the left, sliding it between the tension spring blades.

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

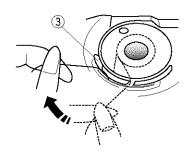
5 Attach the hook cover plate. Check the threading by referring to the diagram 4 shown on the hook cover plate.



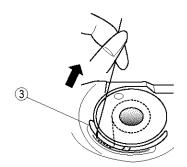
2



3



4

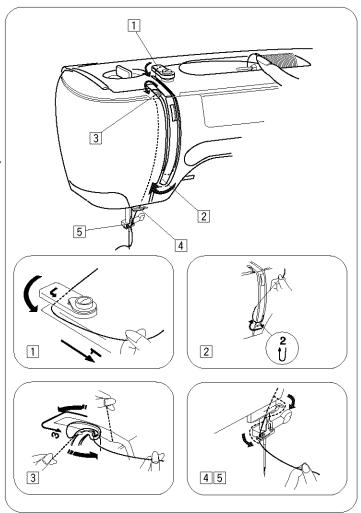


5

#### **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.



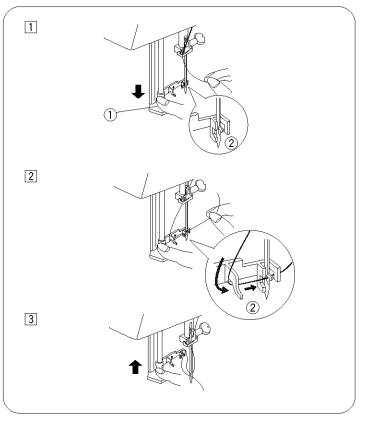
#### · Built-in needle threader

- 1 Knob
- 2 Hook
- 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 100 is recommended.

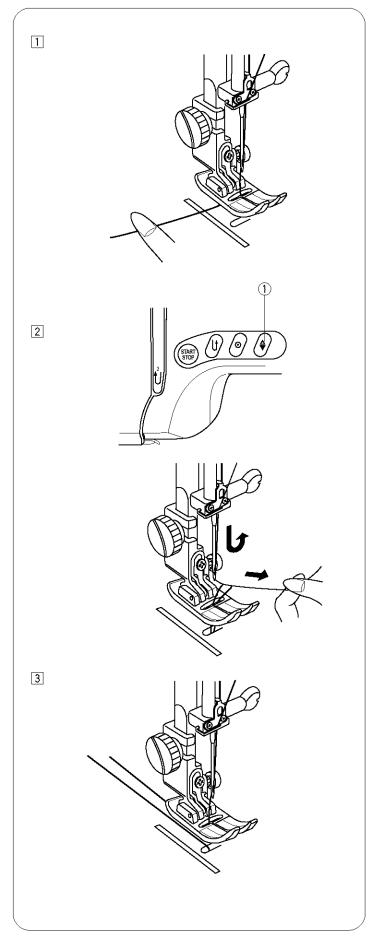


#### • Drawing up bobbin thread

- 1) Up/down needle button
- 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.



#### 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 Mode key

Press mode key 1 to enter the Mode selection.

#### 2 Conventional sewing mode key

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

- · Utility stitches
- · Buttonhole stitches
- · Satin stitches
- · Decorative stitches
- Monogramming

#### ③ 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/Writer 19000 (Reader/Writer 19000 sold separately.)
- Editing

#### 4 Open file key

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

#### (5) 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.

#### 6 Quick help mode key

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

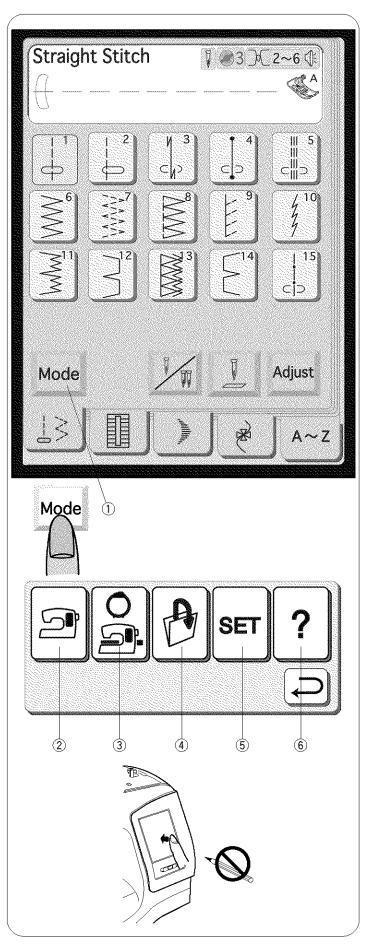
#### **CAUTION:**

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.



#### Pattern Selection

Press the stitch pattern indication key to select the desired stitch pattern.

- 1) Name of stitch
- 2 Stitch image
- 3 Selected needle type (single or twin)
- 4 Suitable pressure dial number
- (5) Suitable thread tension number
- 6 Sound mark (the mark will disappear when the sound volume set to 0)
- Suitable presser foot

#### **Utility Stitches**

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

In the Conventional sewing mode, there are 6 categories of sewing to choose from.

#### **8 Utility stitches**

You can select 15 types of utility stitches.

#### Buttonhole stitches

You can select 7 buttonhole variations, darning, tacking and eyelet.

#### 10 Satin stitches

You can select the desired satin stitches, elongation patterns and also program assorted stitch combinations.

#### (1) Decorative stitches

You can select decorative stitches and also program assorted stitch combinations.

#### 12 Monogramming

You can make monograms and combinations of letters, symbols and patterns.

#### (13) Mode Key

Press the Mode key to enter the Mode selection.

#### 14 Twin needle key

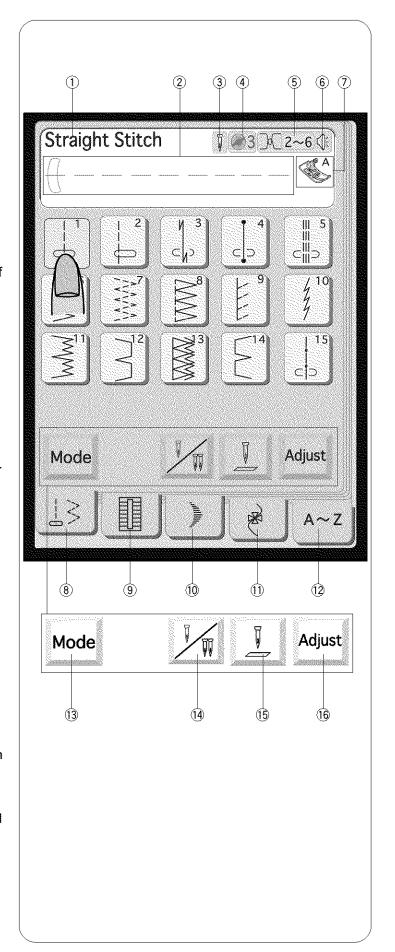
Press twin needle key to enter the twin needle sewing mode.

#### 15 Needle up/down key

You can set the needle position with this key, up or down when the machine stops.

#### 16 Adjust key

When you press this key, the stitch adjusting window will open. You can change setting to stitch length and width by pressing the + or - key.



#### **Machine Settings**

When you press the SET key, the following four mode keys will be displayed and you can customize settings within each mode. You can select your desired mode by pressing the corresponding key.

#### (1) Common set mode

In this mode, machine operation and function (screen contrast, beep sound, etc.) can be adjusted and set for both embroidery and conventional sewing.

#### 2 Conventional sewing set mode

In this mode, free-arm length can be adjusted and set.

#### 3 Embroidery set mode

In this mode, sewing function for embroidery can be adjusted and set.

#### 4 Flag mode-language selection

In this mode, you can select one of 3 languages for the visual touch screen.

#### Common Set Mode

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

#### (1) 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.

#### (2) Sound control

The buzzer volume can be adjusted. The volume level can be set from 0 to 10. The default setting is 5.

#### 3 Sewing light

The dual sewing lights can be individually set "On" or "Off" depending upon your sewing needs.

Press key 4 to light up the needle plate area.

Press key 5 to light up the free arm area.

When both lamps are "On" it provides a well-lit sewing area.

#### 6 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.

#### Page key

You can turn the pages by pressing the page key.

Press key to view the next page.

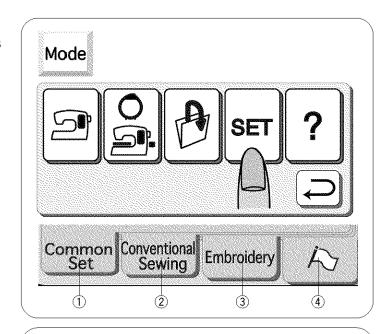
Press key to view the previous page.

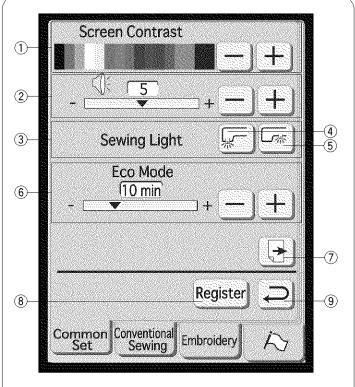
#### 8 Register key

Press Register key to register the new setting and to exit the common set mode.

#### 9 Return kev

Press key to exit the common set mode without registering the new setting.





#### 10 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 11 or imm 12 key to select the unit you prefer.

#### (13) 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.

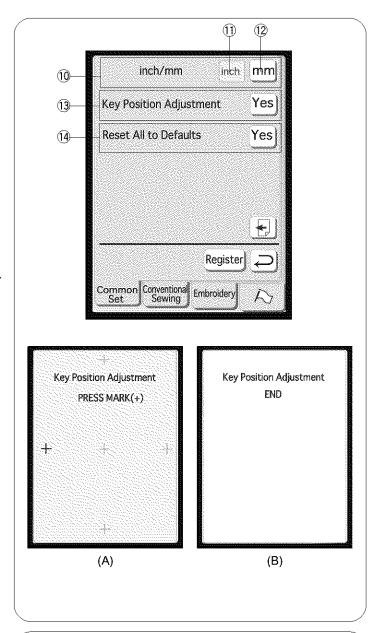
The window will close and go back to the original screen with the new setting being registered.

#### (4) Reset all to defaults

By pressing Yes key, you can reset all the settings to their original setting (the same settings as when you purchased the machine).

#### **Embroidery Set Mode**

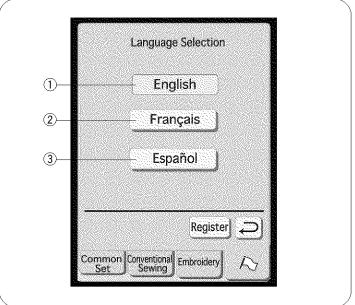
For detailed instructions on embroidery sewing please refer to page 61.



#### Flag Mode-Language Selection

You can select one of the following 3 languages by pressing the desired language key.

- 1 English
- 2 French
- 3 Spanish



#### Straight Stitch

Stitch pattern:
 Needle thread tension
 Presser foot A:
 Presser foot H:
 Tor 2
 2 to 6
 Zigzag foot
 Straight stitch foot

(5) Pressure dial 3



When using the straight stitch foot, make sure to adjust the needle position to 3.5. Otherwise the needle may hit the sewing foot and possibly break.

## 

(3)

(4)

(2)

(1)

#### 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

and hold the reverse button 1).

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

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.

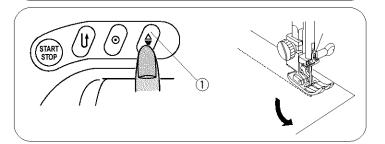
- 2 Raise the presser foot. Remove the fabric, draw it to the back.
- 3 Cut the thread by using the thread cutter. Now the threads are cut the proper length for starting the next seam.

## 

#### Changing sewing direction

① Up/down needle button

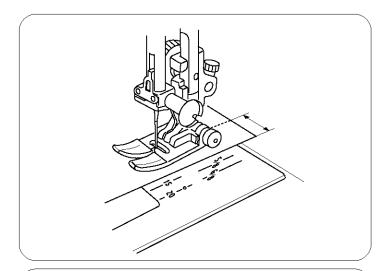
Stop the machine and bring the needle down into the fabric by pressing the up/down needle button ①. Raise the presser foot. Pivot the fabric around the needle to change the sewing direction as directed. Lower the presser foot and sew in a new direction.



#### · 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.

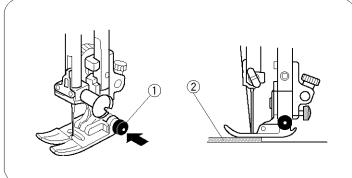
#### Quilting

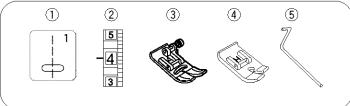
Stitch pattern:
 Needle thread tension
 Presser foot A:
 Zigzag foot

4 Presser foot H: Straight stitch foot

⑤ Quilter

6 Pressure dial 3



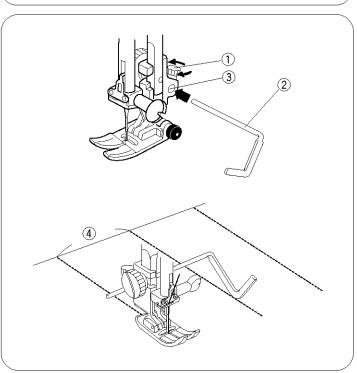




When using the straight stitch foot, make sure to adjust the needle position to 3.5. Otherwise the needle may hit the sewing foot and possibly break.

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**

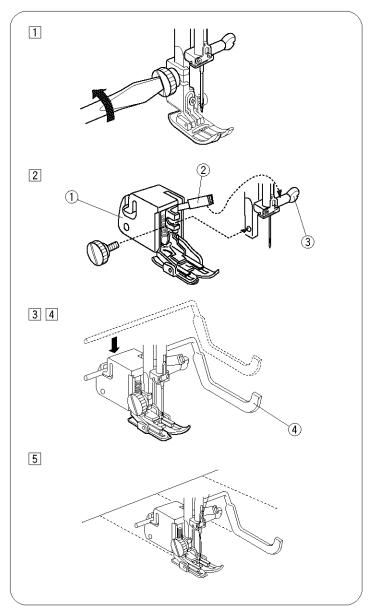
The walking foot is effective in preventing the fabric (light materials, knits, real and imitation leather etc.) from slipping or puckering, because it sandwiches the material between the upper and the lower feed dog on the machine. The quilting bar can also be attached on the walking foot to

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. The walking foot helps you to feed bulky layers of fabric smoothly.
- 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.



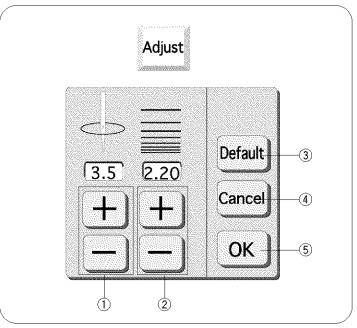
#### **Manual Adjustment of Straight Stitches**

Press the Adjust key.

The adjusting window displays the  $\pm$  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 befault 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 key, the adjust window will close and the setting remains unchanged.
- (5) **Ok key:** When you press the ok key, your settings are registered.



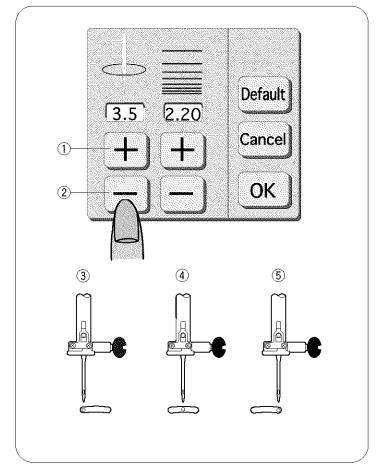
#### · Changing needle drop position

- 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  $\boxed{\pm}$  key, the needle moves to the right.

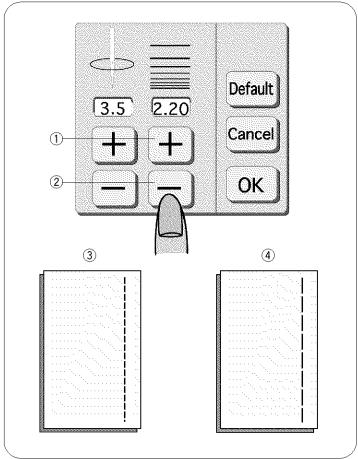
When you press the - key, the needle moves to the left.



#### · Changing stitch length

- 1) + key
- 2 key
- 3 1.0
- 4 5.0

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



## Adjust 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.

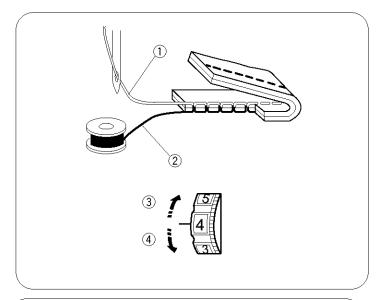
Results depend on:

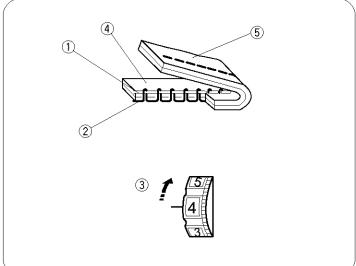
- · stiffness and thickness of the fabric
- · number of fabric layers
- type of stitch

#### 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.

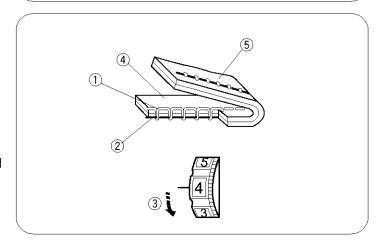




#### Tension is too loose

- 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

Stitch pattern:
 Needle thread tension
 Presser foot A:
 Presser foot H:
 Straight stitch foot

⑤ Pressure dial

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

Press pattern 3 on the visual touch screen.

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

#### Note:

When using the straight stitch foot, make sure to adjust the needle position to 3.5. Otherwise the needle may hit the sewing foot and possibly break.

#### **Locking Stitch**

Stitch pattern:
 Needle thread tension
 Presser foot A:
 Presser foot H:
 Straight stitch foot

(5) Pressure dial 3

This unique stitch is used where an invisible locking stitch is needed. Press pattern 4 on the visual touch screen.

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

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

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

#### Note:

When using the straight stitch foot, make sure to adjust the needle position to 3.5. Otherwise the needle may hit the sewing foot and possibly break.

#### **Triple Stretch Stitch**

Stitch pattern:
 Needle thread tension
 Presser foot A:
 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.

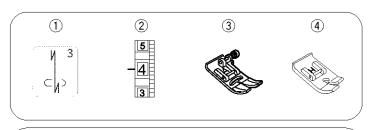
Use it to reinforce areas such as crotch and armhole seams.

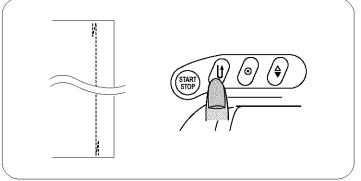
Also use it when constructing items such as backpacks for extra strength.

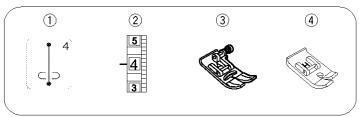
Press pattern 5 on the visual touch screen.

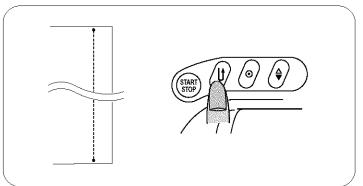
#### Note:

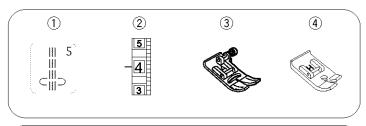
When using the straight stitch foot, make sure to adjust the needle position to 3.5. Otherwise the needle may hit the sewing foot and possibly break.

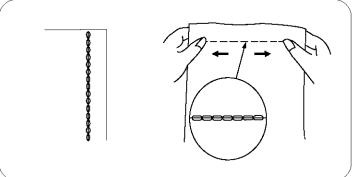










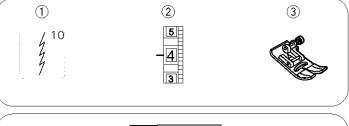


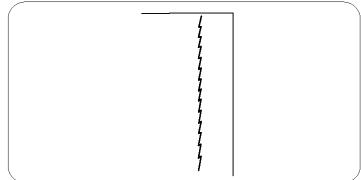
#### Stretch Stitch

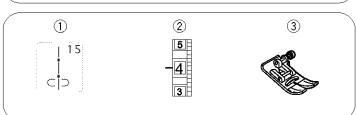
Stitch pattern:
 Needle thread tension
 Presser foot A:

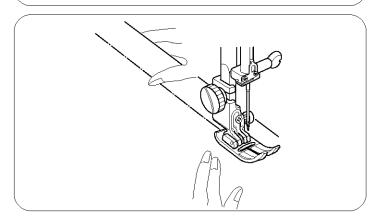
4 Pressure dial 3

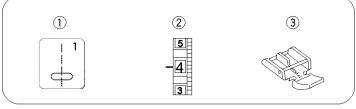
This is a narrow stretch stitch designed to eliminate puckering on knit fabrics and bias seams, while permitting the seam to be pressed completely open flat.

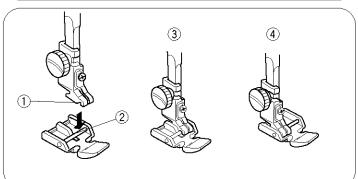












#### **Basting Stitch**

Stitch pattern:
 Needle thread tension
 Presser foot A:
 Pressure dial

The basting stitch is used to hold fabric layers together during fitting. Use a fine needle so as not leave permanent needle marks on fabrics.

Press pattern 15 on the visual touch screen. Drop the feed dogs (see page 6).

Depress the foot control. The machine will take one stitch and stop automatically.

Hold the fabric taut and slide it to where you want the next stitch, then depress the foot control again.

Continue in this manner sliding the fabric sideways or forward.

#### 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. 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 0, and sew basting stitch (5) the entire length of the zipper tape.

#### To sew

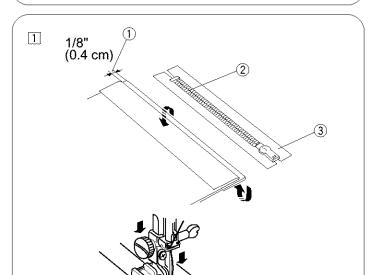
- 1 1/8" (0.4cm) fabric margin
- 2 Zipper teeth
- 3 Zipper tape
- 1 Attach zipper foot on right-side of pin.

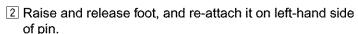
Fold back the upper layer seam allowance. Fold back the lower layer seam allowance to leave a 1/8" (0.4 cm) margin of fabric  $\bigcirc$ .

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

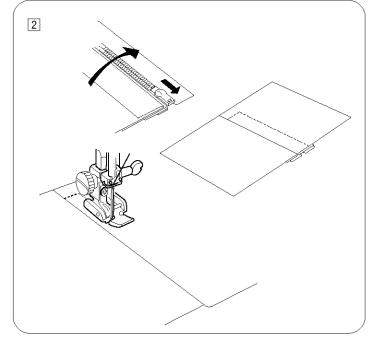
Align zipper foot with margin edge. Return thread tension and stitch length to original settings. Sew a seam the entire length of zipper tape, removing pins as you go. Before reaching pull-tab, stop the machine with needle in the fabric and raise the foot, then unzip a few inches to clear a path for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

Remove fabric and close zipper.





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

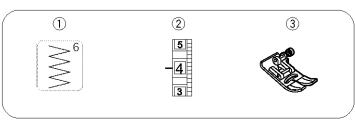
① Stitch pattern: 6
② Needle thread tension 3 to 7

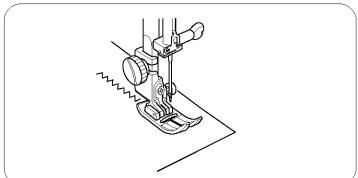
③ Presser foot A: Zigzag foot

(4) Pressure dial

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.





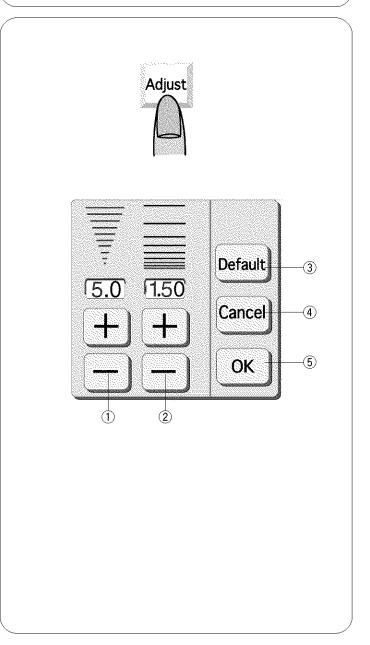
## Manual Adjustment of Zigzag Stitch Width and Length

Press the Adjust key.

The adjusting window display the  $\boxed{+}$  and  $\boxed{-}$  keys for stitch width and stitch length.

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

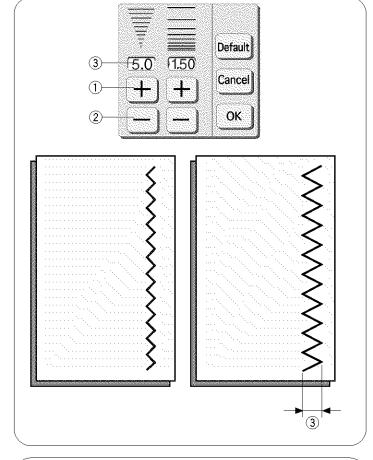
- 1) Stitch width adjusting keys
- 2 Stitch length adjusting keys
- 3 **Default key:** When you press befault key, all settings in the adjusting window will return to their default settings (the same settings as when you purchased the machine).
- 4 Cancel key: When you press key, the adjust window will 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

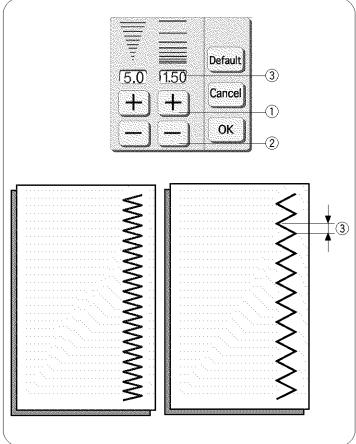
Stitch width is adjusted with the + and - keys. The larger the number, the wider the stitch width. Press the + key to increase the stitch width. Press the - key to decrease the stitch width.



# · 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.



# Adjust 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.

# 

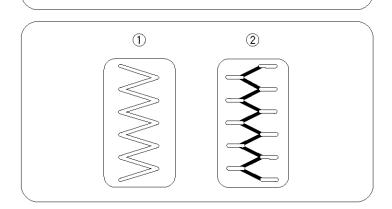
(2)

(1)

#### 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

Stitch pattern:
 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  $\P$ .

#### Note:

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)

Stitch pattern:
 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.

#### Note:

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

Stitch pattern:
 Needle thread tension
 Presser foot A:

7
3 to 6
Zigzag foot

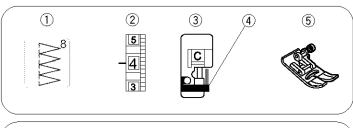
4 Pressure dial 3

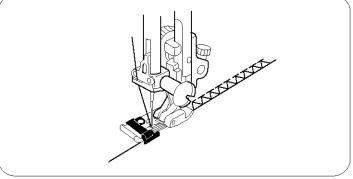
#### Seam finishing

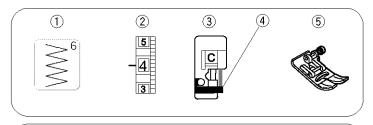
This stitch is used to finish the seam allowance on synthetics and other fabrics that tend to pucker. The stitch is also excellent for darning and mending tears. Place your fabric to allow a 5/8" (1.5 cm) seam. Trim excess close to stitching. Be careful not to cut the stitches.

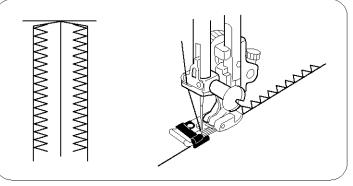
# Mending

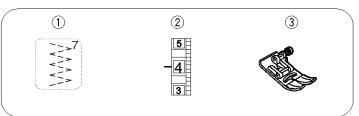
Position the tear under the needle so that the stitch catches both sides.

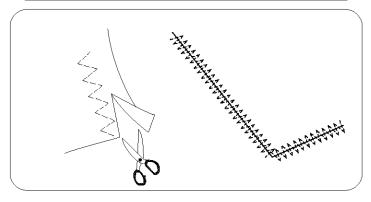












# Serging

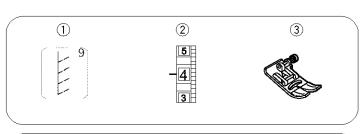
Stitch pattern:
 Needle thread tension
 3 to 7

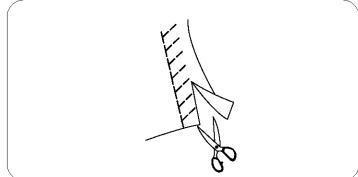
③ Presser foot A: Zigzag foot

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.





# **Double Overedge Stitch**

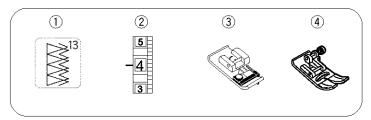
Stitch pattern:
 Needle thread tension
 3 to 7

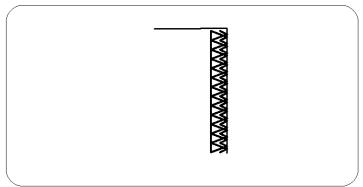
③ Presser foot C: Overedge foot④ Presser foot A: Zigzag foot

5 Pressure dial

This stitch is an excellent stitch for fabrics that tend to fray extensively such as linens and gabardines.

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





# **Blind Hem Stitch**

Stitch pattern:
 Needle thread tension
 to 4

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
- ® 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 ?.

# Shell Tuck

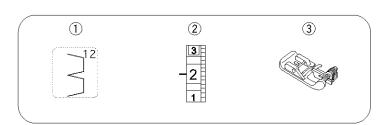
① Stitch pattern: 14 ② Needle thread tension 6 to 8

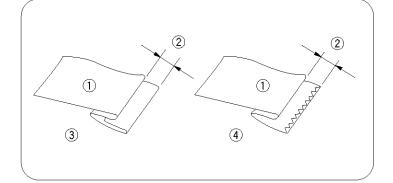
③ Presser foot F: Satin stitch foot

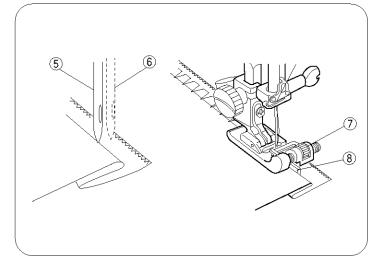
(4) Pressure dial 3

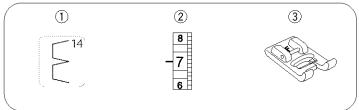
Use a lightweight fabric (tricot, for example). Fold the fabric in bias and stitch on the fold. Allow the needle to just clear the folded edge to create a shelled edge. You may need to increase the needle thread tension slightly.

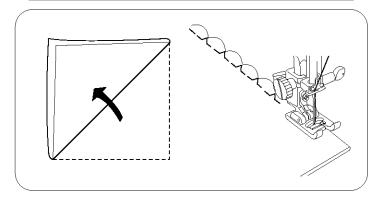
If you sew rows of shell stitches, space the rows at least 5/8" (1.5 cm) apart. You can also sew shell stitches on knits or soft silky woven fabrics, in any direction.











# SECTION IV. BUTTONHOLE

#### Various kinds of buttonholes and their uses

#### 1 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.

#### 2 Round end BH

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

#### (3) Fine fabric BH

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

#### 4 Keyhole BH

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

#### 5 Rounded keyhole BH

This buttonhole is used for thicker buttons on medium weight fabrics.

#### 6 Stretch BH

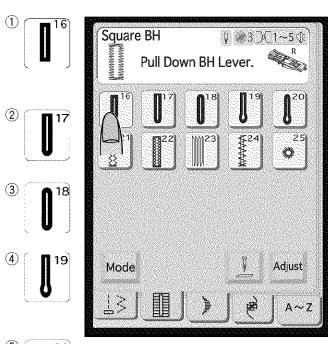
This buttonhole can be used on stretch fabrics. It can also be used as a decorative buttonhole.

#### (7) Knit BH

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

#### Notes:

- To sew the buttonholes 17 to 22, follow the same procedure as Square BH (See page 37 to 38.).
- 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 button to determine the position of the buttonhole on the fabric.
- · Use interfacing on stretch fabrics.







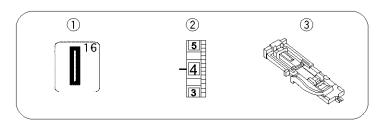


# Square BH

① Stitch pattern: 16 ② Needle thread tension 1 to 5

③ Presser foot R: Automatic buttonhole foot

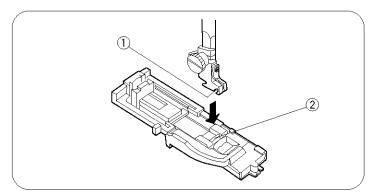
(4) Pressure dial



# • 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.

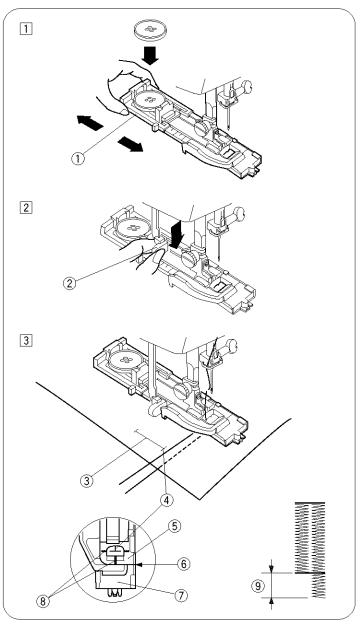
Insert the garment under the foot, and lower the needle to the starting point 4 of the mark 3.

Then lower the automatic buttonhole foot.

- 3 Mark for placement of buttonhole
- 4 Starting point
- (5) Slider
- 6 There should be no gap.
- 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:

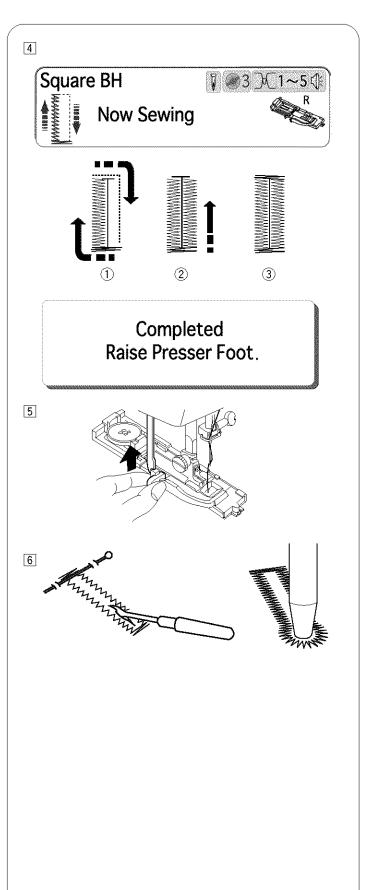
The machine will sew the back bartack, and the machine will stop automatically.

#### · To repeart 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  $[\pm]$  and [+] keys for buttonhole width adjustment.

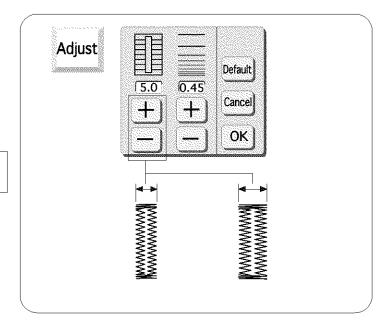
Press the + key to increase the buttonhole width.

Press the key to decrease the buttonhole width.

Press the ox key to register the settings.

#### Note:

The default setting is 5.0.



# · Changing buttonhole stitch density

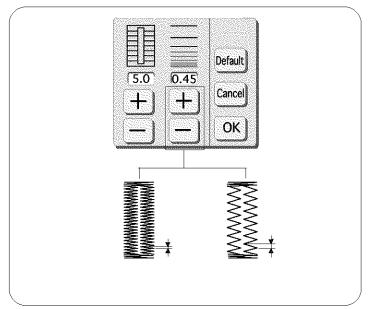
Press the  $\pm$  key to make the buttonhole stitch density looser.

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.

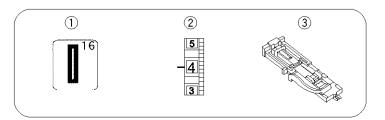


# **Corded Buttonhole**

① Stitch pattern: 16 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

- 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.

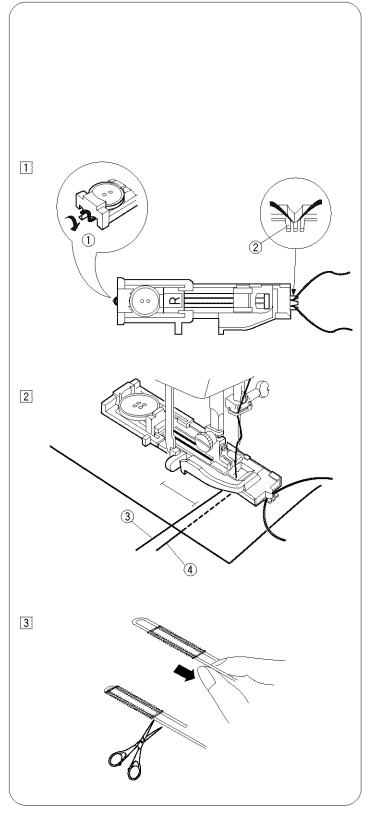
- 1 Spur
- 2 Forks
- 2 Press the start/stop button and sew the buttonhole. Each side of the buttonhole and the bartacks will be sewn over the cord.

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 handsewing needle. Draw them to the wrong side of the fabric
and knot.

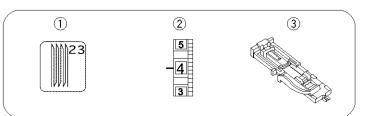


# Darning

① Stitch pattern: 23 ② Needle thread tension 3 to 6

3 Presser foot R: Automatic buttonhole foot

Pressure dial



#### To sew

1 Button holder

Select the pattern 23.

Pull the button holder 1 fully to the rear.

Place the garment under the foot. Press the up/down needle button twice. Remove the fabric to the left to draw both threads under the foot and put the fabric back under the foot.

Lower the foot. Press the start/stop button, the machine will lock stitch, sew rows of darning, lock stitch and stop automatically.

Repeat sewing by turning the fabric to reinforce it.

#### Note:

The maximum size of darning is 3/4"(2 cm) long and 1/4" (0.7 cm) wide.

- ② Maximum length 3/4" (2 cm)
- 3 Maximum width 1/4" (0.7 cm)

#### · To sew a shorter darning

- 4 Reverse button
- (5) Required length

To sew a darning less than 3/4" (2 cm) long, first stop the machine after sewing the required length (5), then press the reverse button (4). The required length (5) has now been determined.

Now restart the machine and continue sewing until the machine stops automatically.

#### To sew the same size darning

Simply restart the machine to sew another darning of the same size.

To sew the next darn at a different size, press the cancel key.

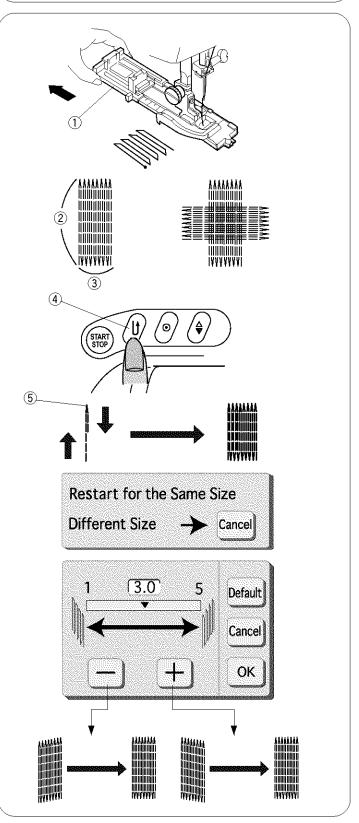
#### To adjust the evenness of darning

You can correct the unevenness of darning by pressing the [+] or [-] key.

If the left corner is lower than the right side, press the key to correct it, and vice versa.

#### Note:

The default setting is 3.0.



# **Tacking**

① Stitch pattern: 24 ② Needle thread tension 3 to 6

③ Presser foot F: Satin stitch foot

4 Pressure dial 3

Tacking is used to reinforce pockets, crotches and belt carriers where extra strength is needed. Select pattern 24 and attach the satin foot F.

The machine will sew a tacking of 9/16" (1.5 cm) length automatically.

① 9/16" (1.5 cm)

#### Note:

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

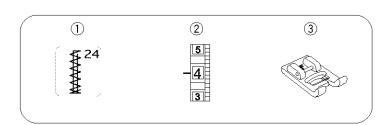
#### To sew a shorter tack

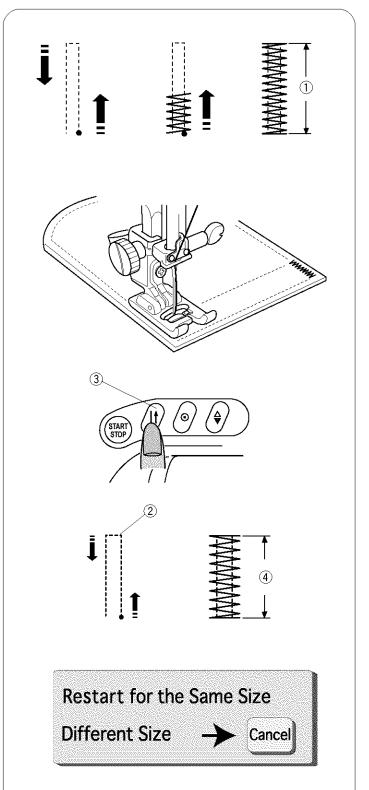
When you sew a tack less than 9/16" (1.5 cm) in length, sew to the required length ② and press the reverse button ③ and the machine will memorize the tack length ④.

- 2 Required length
- 3 Reverse button
- 4 Tack length

# To sew the same size tack

To sew another tack in the same size, simply restart the machine and it will stop automatically when finished sewing. To sew the next tack at a different size, press the key.





# **Eyelet**

① Stitch pattern: 25 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 25 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.

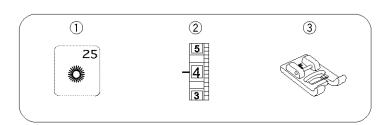
#### • To adjust the size of an eyelet

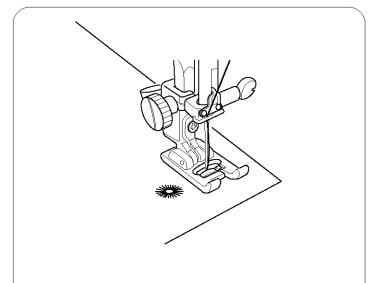
By pressing the adjust key, the manual adjusting screen will appear. If the sewing result of an eyelet is compressed or drawn out, try the other types of shape.

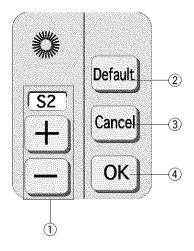
Press the |+ or the |- | key to adjust.

- ① Shape adjust key (S1-shape1, S2-shape2, S3-shape3)
- ② Default key

  When you press the befault 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 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, DECORATIVE STITCHES AND MONOGRAMMING

# **Key Functions**

# 1) Mode key

Press Mode key to enter the mode selection.

#### 2 Twin needle key

Press key to enter the twin needle sewing mode.

#### 3 Needle up/down key

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

#### 4 Adjust key

Press the was key to open the adjusting window.

## 5 Stitch width key

Press the stitch width [+] or [-] key to change the stitch width.

#### 6 Stitch length key

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

#### 7 Elongation key

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

#### (8) Default key

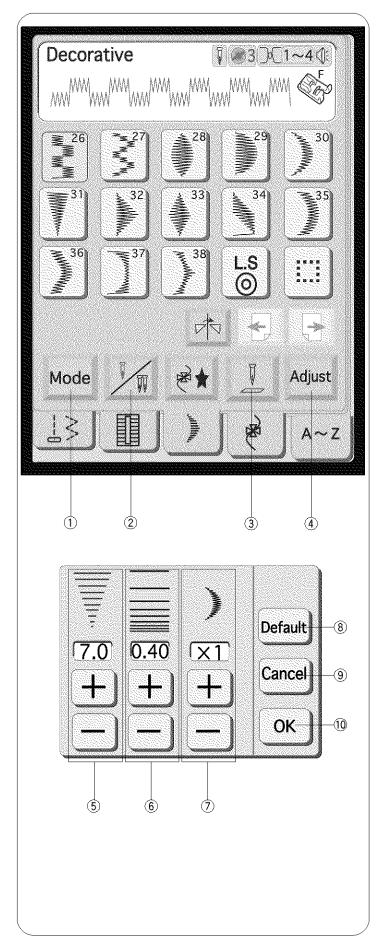
When you press the beautively, all setting in the adjusting window will return to default (the same settings as when you purchased the machine).

#### Cancel key

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

#### 10 OK key

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



#### 11 Program key

Press key to program pattern combination. When you press this key the following function keys will be displayed.

#### (12) Cursor keys

Press the keys to move the cursor to right or left. You can select a pattern to delete, 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.

#### (4) Vertical mirror key

Press the key for the mirror image of the pattern.

# 15 Page key

The 🚉 🔄 keys inform you that there are other pages to be displayed.

Press key to view the next page.

Press key to veiw the previous page.

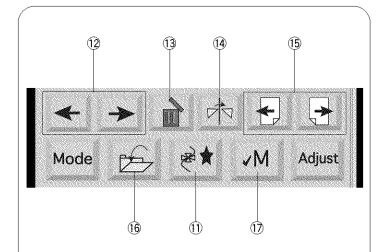
#### 16 Save file key

You can memorize the program that you made with the key.

#### 17 Memory check key

Press the key to see the entire monogramming while you are programming.

After you started sewing, the key indication will change to [8]. You can start sewing the monogramming from the beginning by pressing [8] key.



# One Cycle Pattern Sewing

Example: pattern 28, L.S

Stitch pattern:
 Needle thread tension
 3 to 4

③ Presser foot F: Satin stitch foot

4 Pressure dial

#### To sew

Press the \*\* key.

Select pattern 28

Select pattern L.S.

Start the machine to sew.

The machine will sew to end of the pattern and lock the stitches, then stop automatically.

# **Elongation Sewing**

Example: pattern 28

Stitch pattern:
 Needle thread tension
 to 4

③ Presser foot F: Satin stitch foot

(4) Pressure dial 3

#### To sew

Select pattern 28. Press the adjust key.

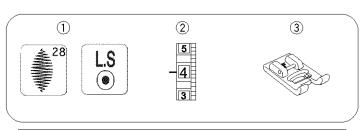
Press elongation  $\pm$  or - key to set the desired pattern length.

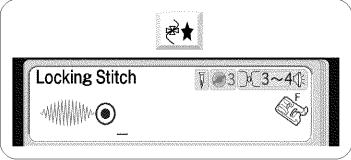
#### Note:

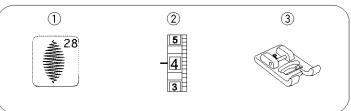
Elongation ratio is indicated by a multiple of the original pattern length.

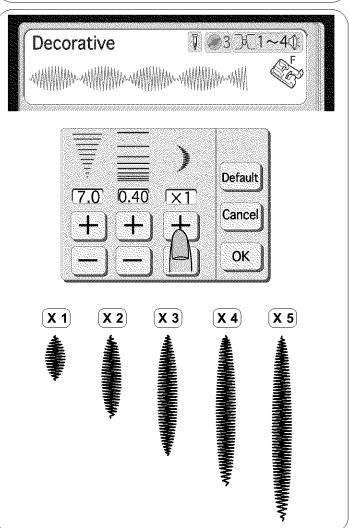
Press the  $\begin{tabular}{l} \hline \end{tabular}$  key. The setting is registered and the screen returns to the previous window.

Start to sew.









# **Programming Pattern Combination**

# Example: pattern 28 and 31

① Stitch pattern: 28, 31 ② Needle thread tension 3 to 4

③ Presser foot F: Satin stitch foot

4 Pressure dial 3

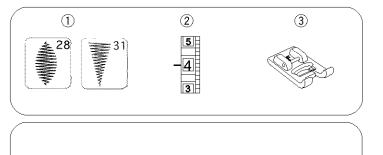
#### To sew

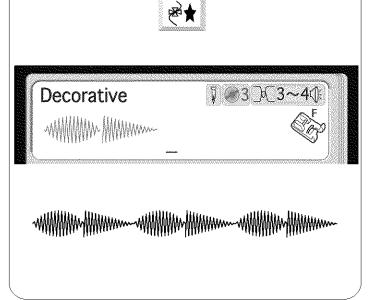
Press the \*key.
Select pattern 28.
Select pattern 31.

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 30

Stitch pattern: 30
 Needle thread tension 3 to 4

③ Presser foot F: Satin stitch foot

(4) Pressure dial 3

#### To sew

Press the \*key. Select pattern 30.

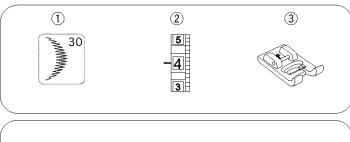
Press the 🖈 key.

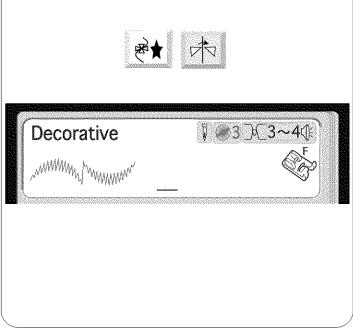
Select pattern 30.

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.





# Programming French Knot

#### Example: pattern 51, 39, 40

① Stitch pattern: 51, 39, 40 ② Needle thread tension 3 to 4

③ Presser foot F: Satin stitch foot

4 Pressure dial 3

#### To sew

① Pattern 39

2 Pattern 40

Press \*\* key.

Select pattern 51 (French knot).

Select pattern 39.

Select pattern 51.

Select pattern 40.

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.

# Combination of Satin Stitch and Decorative Stitch

Example: pattern 28, 70

① Stitch pattern: 28, 70 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 28.

Select the decorative stitch mode 6.

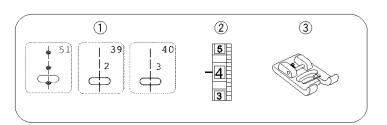
Select pattern 70.

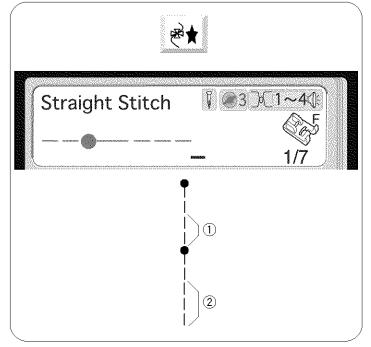
Start to sew. The machine will sew the pattern

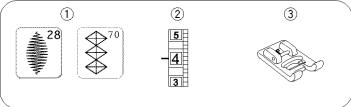
combination repeatedly.

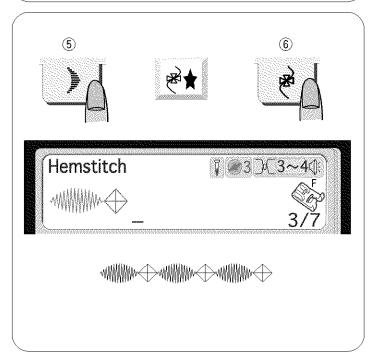
#### Note:

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: pattern 30

1) Stitch pattern: 28, 32, 70 2) Needle thread tension 3 to 4

③ Presser foot F: Satin stitch foot

4 Pressure dial

#### To sew

Press the ধ key.

Select pattern 28.

Select pattern 32.

Select pattern 70.

Start to sew (1).

Press start/stop key in the middle of a programmed pattern ②.

Press the B key.

The entire memorized pattern shows up 3.

You can start sewing the combination pattern from the beginning.

# Twin Needle Sewing

#### Notes:

 When you sew patterns with the twin needle, test the stitches first before you try.

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.

- Do not set the stitch width at more than 3.5, otherwise the needle will hit the needle plate and the needle will break.
- You can not sew the following patterns with twin needle, the message ② appears on the visual touch screen if you select one of them:

3, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 51, 86, 87, 88, 89, 90, 97, 98, 99, 110, 113, 116, 120, 121, 123, 124, 125, 126, 127 and 128.

#### To sew

Insert an additional spool pin, and put a felt on the spool pin. Draw both threads from the spools and pass them through the points from 1 to 5.

Make sure that the two strings of thread from the spools will not get tangled.

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

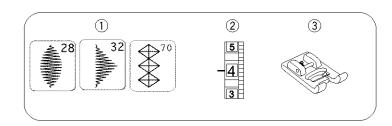
Thread the needles from the front to back.

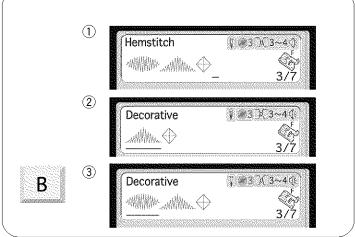
Press the twin needle key 1.

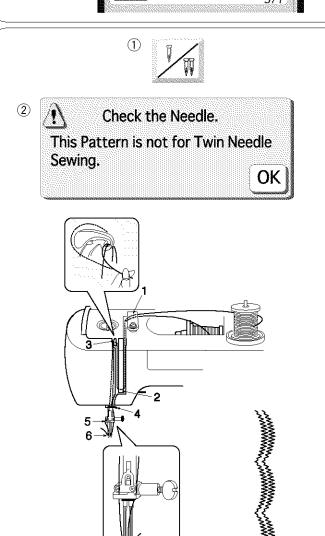
Select the desired pattern and sew.

#### 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.







# **Individual Pattern Adjustment**

# Example:patterns 28, 30 and 32

① Stitch pattern: 28, 30, 32 ② Needle thread tension 3 to 4

③ Presser foot F: Satin stitch foot

4 Pressure dial 3

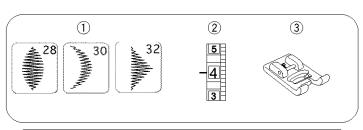
You can adjust the stitch width, stitch length and elongation ratio of each pattern in a combination individually.

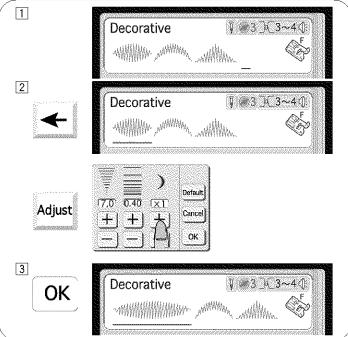
- 1 Change the elongation ratio of pattern 28 in the combination of patterns 28, 30 and 32.
- 2 Press the key so the cursor will go to the pattern you are going to change.

Press the Adjust key.

Change the elongation ratio by pressing the  $\boxed{+}$  or the  $\boxed{-}$  key.

3 Press ok key to register the adjustment and the screen will go back to the original window.
Start to sew.



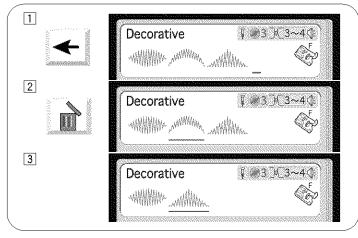


# Editing Programmed Patterns

#### Example:

To delete pattern 30 from the combination of patterns 28, 30 and 32.

- 1 Press the key to move the cursor under pattern 30 you would like to delete.
- 2 Press key.
- 3 Pattern 30 is deleted.



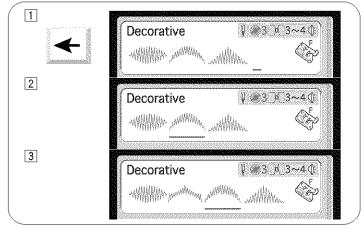
#### Example:

To insert pattern 38 between pattern 28 and 30 in the combination of patterns 28, 30 and 32.

- 1 Press the key to move the cursor under the pattern 30 you would like to insert.
- 2 Select pattern 38.
- 3 The pattern 38 will be inserted between pattern 28 and 30.

#### 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 64, 70, 30, 26, 31 and 38.

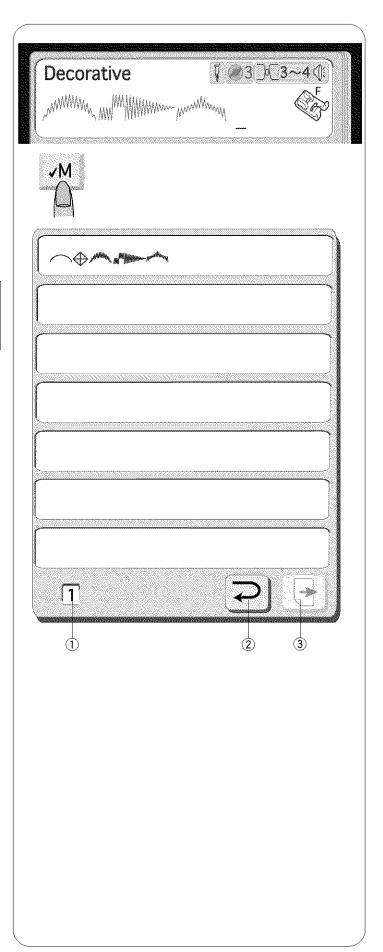
When the entire pattern combination is not displayed, press the [M] key to view the remaining patterns in combination.

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

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

#### Note:

The  $\begin{tabular}{l} \bot \\ \hline \end{bmatrix}$  key  $\begin{tabular}{l} \textcircled{3} \end{array}$  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  $\bowtie$  key  $\bigcirc$ , 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 ok 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 FILE NAME key to open the file name window. The alphabet keys are displayed in the window.

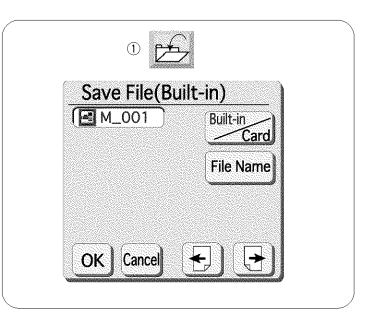
Press the keys to open the numeric key window. Press the s.s key to delete the last character.

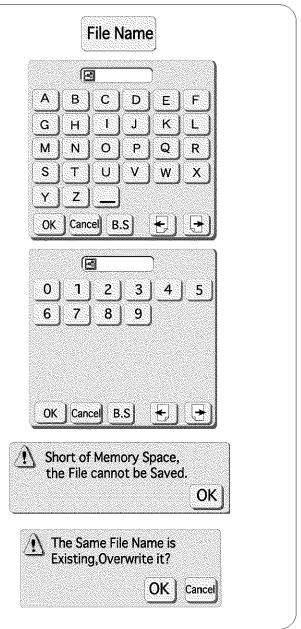
Press the key and the screen will return to the save file screen.

Enter the file name and press the ok 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 is Existing, Overwrite it?". If yes, press the ok key. If no, press the key.
- When none of 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 Model key, and then 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  $\stackrel{\bigstar}{\downarrow}$  keys to select the desired file to open.

Press the ok 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

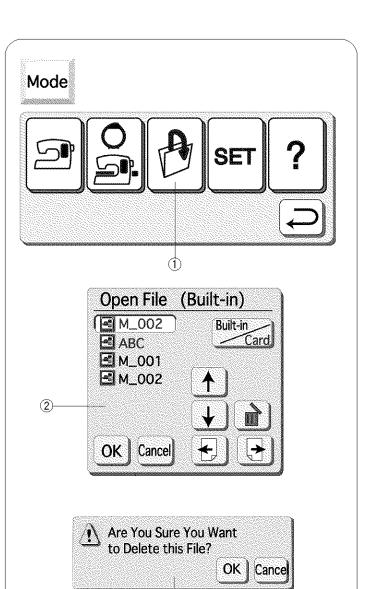
When you need to delete the saved file, select the file to delete by pressing the keys and press the key.

The confirmation window ③ will appear.

Press ok 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.



(3)

# MONOGRAMMING

#### 1) Font key

When you press key, the font selection window opens.

The following 2 fonts and symbols are available.

- ② Block type
- 3 Script type

Press the desired font key to select the font or symbol.

4 OK key

When you press key the desired font will be selected.

# **5** Cursor key

This key is for editing your monogram.

Press the key to move the cursor to the left.

Press the > key to move the cursor to the right.

#### 6 Delete kev

Press key to delete the pattern or monogram on the cursor.

#### Number/symbol key

You can select the number and symbols or alphabet letters by pressing [23] key.

#### 8 European accented letters key

You can select the European accented letters by pressing the key.

#### Mode key

Press the Model key to enter the mode selection.

#### 10 Save file key

You can save your program or monogram by pressing key.

#### (1) Memory check key

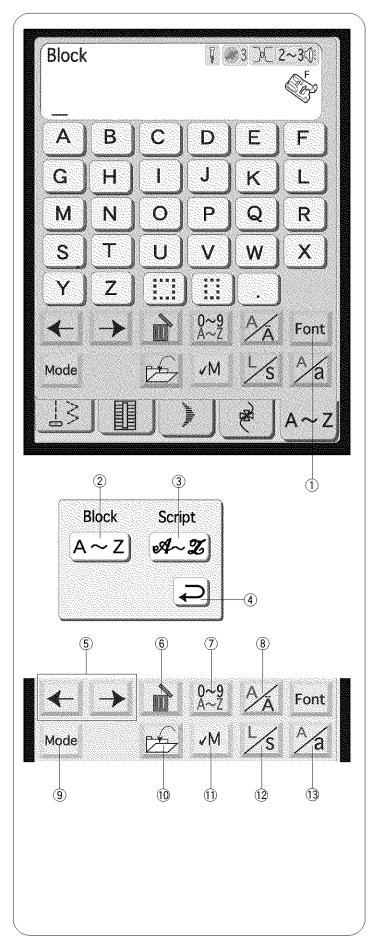
Press the [36] key to see the entire monogramming, while you are programming. After you started sewing, the key indication will change to [8]. You can start sewing the monogramming from the beginning by pressing [8] key.

#### 12 Letter size key

By pressing [5] key, the size of the letter will change approximately 2/3 of the full size letter. If you press it twice, the letter will go back to its original size.

#### ① Upper/lower case key

You can select the upper or lower case letters by pressing [24] key.



# Programming a Monogram

# **Example: Programming in block type**

Press the Font key and select block type letter.

Press 2 key and select upper case.

Press key and select large size.

Press "R". The cursor shifts to the right and "R" is automatically memorized.

Press 😭 key.

Press key and select small size.

Press "&", the cursor shifts to the right and "&" is automatically memorized.

Press key.

Press size key and select large size.

Press "B", the cursor shifts to the right and "B" is automatically memorized.

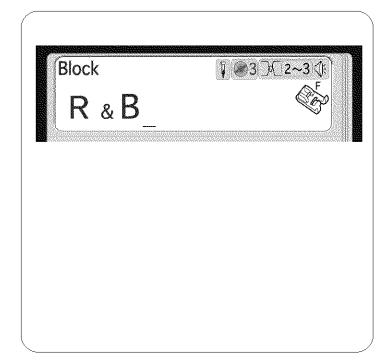
Start sewing until the machine stops automatically.

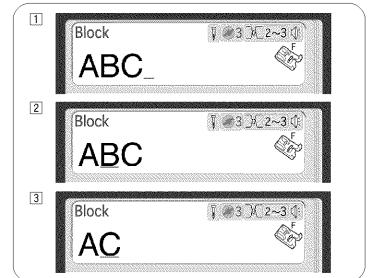
# **Editing a Monogram**

For example, we will edit the monogram of "ABC"

# **Deleting a Letter**

- 1 Press key and shift the cursor under the letter "B".
- 2 Press the key.
- 3 "B" is deleted.





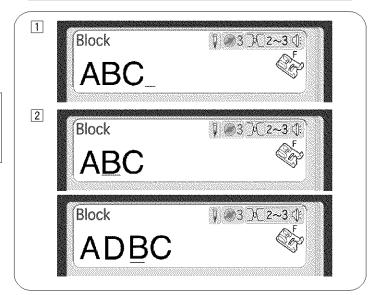
# Inserting a Letter (character)

- ☐ Press the key to shift the position of the cursor under the letter "B".
- Select letter "D". The letter "D" is inserted between "A" and "B".

#### Note:

You can save programmed monogramming stitch patterns.

To save a file, please refer to pages 52.

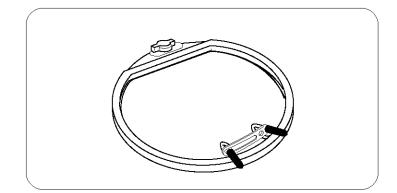


# **SECTION VI. EMBROIDERY**

# **Getting Ready to Sew Embroidery**

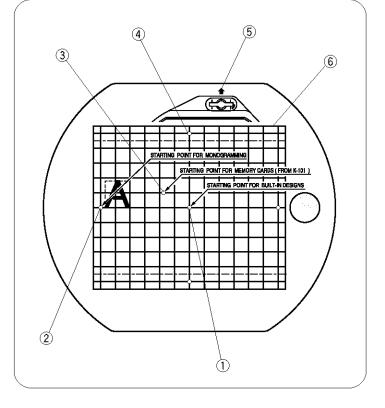
# Embroidery Hoop F

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 & Writer 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.

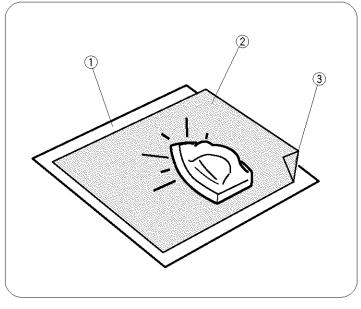
# Adhesive (iron-on) stabilizer

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.

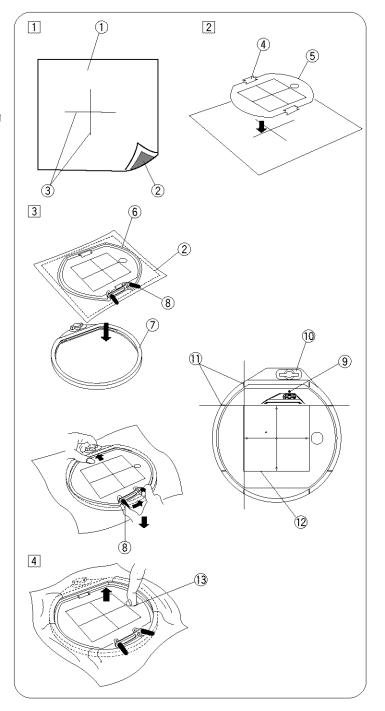


# To Set the Fabric in the Embroidery Hoop

- 1 Mark the reference lines 3 on the right side of the fabric where you wish to sew the design as illustrated using tailor's chalk.
  - 3 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 ⑤ to the fabric as shown to hold the template in place. (Transparent tape is recommended.)

- 4 Tape
- (5) Template
- 3 Place the fabric with the template attached to it over the outer hoop 7 and push the inner hoop 6 into the outer hoop 7.
  - Push the flat side of the inner hoop ⑥ into the flat side of the outer hoop ⑦.
  - While squeezing the knob ® together, push the round part of the inner hoop into the round part of the outer hoop so the material is secure.
    - 6 Inner hoop
    - Outer hoop
    - ® Knob
    - 9 Arrow mark
    - 10 Attaching lever
    - ① Marks (8 spots)
    - 12 Sewing area
- A Remove the template by putting your finger in the thumb hole (1) located on the template and lift up.
  - 13 The hole for removing the template



# To Attach the Embroidery Hoop to the Machine

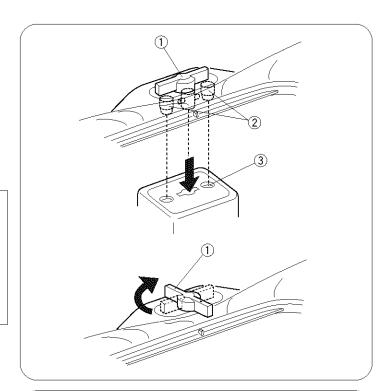
Turn the attaching knob ① so it is parallel with the hoop, and set it on the carriage.

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

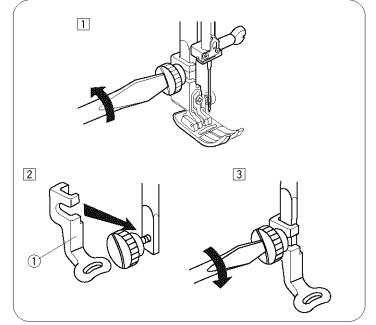
#### Notes:

- 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 63).



# 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
- 3 Tighten the thumbscrew securely with the screwdriver.



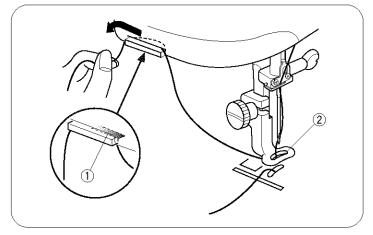
#### **Thread Holder**

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



# **Built-in Embroidery Designs**

#### 1 Embroidery mode key

Press the embroidery mode key ① to enter the Embroidery mode. The built-in embroidery designs are displayed on the visual touch screen when you select the professional style embroidery mode. The following 5 categories are available on the embroidery mode.

# ② Built-in designs

There are 22 built-in designs to choose from.

#### 3 Monogramming

There are 3 styles of built-in font to choose from (Gothic, Script, Cheltenham), 2-letters, 3-letters (built-in monogram initials layout) and built-in border designs.

#### (4) ATA PC Card

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

#### (5) Card Reader/Writer 19000

You can download embroidery designs from model 19000 series memory card library via reader/writer 19000 (optional item) to your Kenmore 19010.

#### 6 Edit mode

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

#### Pattern Selection Window

Press the embroidery mode key to open the embroidery window and press a built-in design key.

Model 19010 provides 22 ready to sew embroidery designs. There are 2 pages in the built-in pattern selection window.

#### 7) Page key

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

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

## 8 Hoop size

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



# **Embroidery Mode Set**

To customize a setting within Embroidery mode, press embroidery mode setting key ①.

1 Embroidery mode setting key

#### 2 Embroidery maximum speed

The maximum sewing speed can be changed from 400 to 650 spm for embroidery sewing.

The default setting is 650 spm.

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

speed.

#### ③ Grid size

You can change the grid size by choosing one of the following three settings:

3/16" (5 mm), 3/8" (10 mm), and 5/8" (15 mm).

The default setting is 3/8" (10 mm).

Press the [-] key to reduce the grid size.

Press the + key to increase the grid size.

#### (4) Centerline

You can show or hide the centerlines in the embroidery mode window.

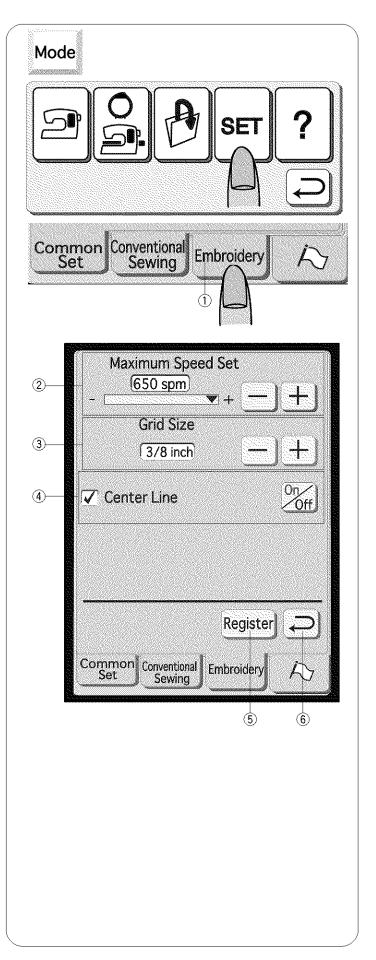
To show the centerline, press the **%** key to check the centerline box "On".

#### ⑤ Register key

Press Register key to register the new setting and to exit the set mode.

## 6 Return key

Press key to exit the set mode without registering the new setting.



# **Embroidery Screen**

When you select an embroidery design, the visual touch screen will show the design's parts and their sequence numbers, the thread color code, the presser foot to use, sewing time, number of colors needed and the embroidery's actual measurements. When you press the start/stop button, the machine will automatically start sewing.

#### 1) Jog keys

Adjust the hoop position with the jog keys ① so that the needle drop position ② comes right above the center of the centerlines ③ on the fabric.

- 1 Jog keys
- 2 Needle drop position
- ③ Centerlines

#### 4 Trace key

You can check the size of the sewing area by pressing the key. The carriage traces the outline of selected embroidery pattern.

# **⑤** 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.

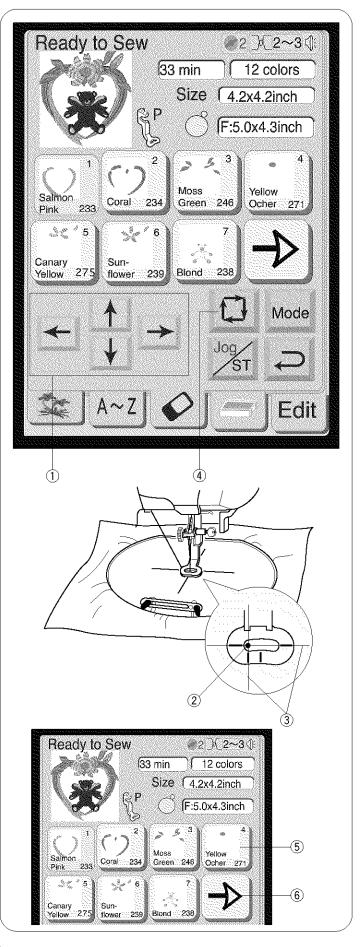
#### · Sewing a specific color/part by skipping

You can sew only a specific part of the design by skipping the parts before it.

Press the color/part key ⑤ previous to the part you wish to start sewing, and the skipped parts will turn to gray.

#### 6 Big arrow key

A big arrow key **(6)** will be displayed when there are more design parts to be displayed. Press it to view the other embroidery design parts.



#### ⑦ Return carriage key

Press the <u>L</u> 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.

#### ® Return key

When you press the key, the previous pattern selection screen will be displayed.

# 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 ① will disappear and the stitch back/forward keys ⑨ 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.

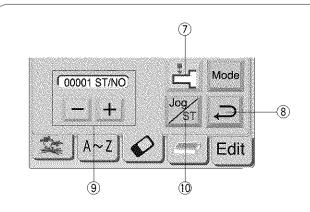
Press the + key to move the hoop ahead. The hoop will move forward 10 stitches every time you press this key.

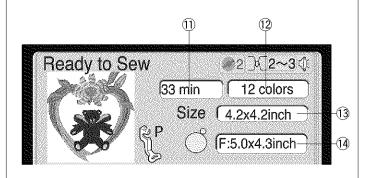
# 10 Jog/ST key

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.

In the right upper corner of the window, the following useful information is indicated.

- 1) The approximate sewing time in minutes
- 12 Number of thread color changes
- (13) Embroidery design size
- 14 Embroidery hoop and its size





# Starting to Sew Embroidery

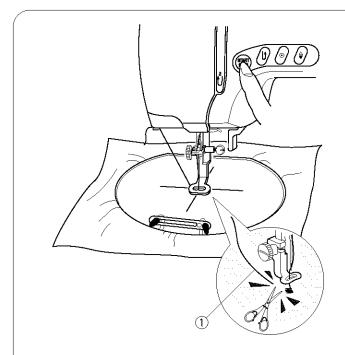
1 Loose thread

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 starting point and lower the presser foot.

Press the start/stop button to start sewing again and the machine will stop automatically after sewing is completed.



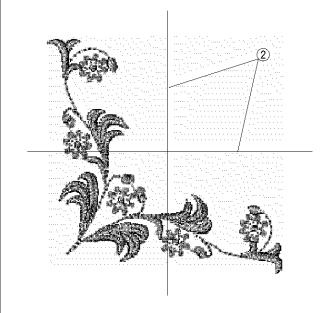
# **Sewing Results**

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

2 Centerlines on the fabric

#### Notes:

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



# **Monogram Embroidery**

Press embroidery mode key, and press the monogram key. The monogram selection screen will appear and Gothic upper case alphabet font will automatically be selected.

# Monogram Selection Screen

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 moves to the right.

#### 1) Font key

You can change the type of font for monogramming by pressing the [ront] key and selecting one of the five choices available.

The following fonts and monogramming sytles can be selected in the font selection window.

- (2) Gothic font
- 3 Script font
- (4) Cheltenham font
- (5) 3-letters
- 6 2-letters

When you press the key, the selection will be cancelled and the selection window closes.

#### Number/Letter key

When you press the will key, the number and symbols will appear. To select the number or symbol, press the corresponding key. Press the will key to return to the alphabet window.

# 8 European accented letter key

You can select the European accented letters, such as Umlaut, by pressing (%) key.

To select European accented letter, press the corresponding key.

Press the key to return to the alphabet window.

#### 9 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.

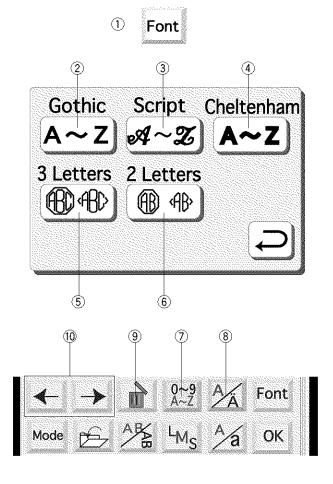
#### 10 Cursor key

Slide the cursor to the right or left by pressing either of the keys. To add letters/numbers/symbols (characters) into a monogram, move the cursor under the character.

#### Notes:

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





#### (1) OK key

The selected letter/number/symbol monogram combination is confirmed by pressing the ok key. After the key is pressed the screen will change to the embroidery screen.

## 12 Upper/lower case key

You can select upper or lower case letters by pressing the 1/21 key.

#### (3) Letter size key

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

#### 14 Horizontal/vertical key

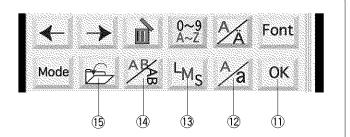
You can choose the direction of the embroidery, either horizontal or vertical.

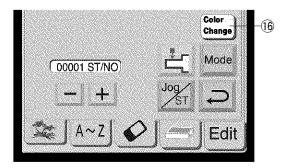
#### 15 File save key

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

# (6) Color change key

You can sew a multi-color monogram by changing the thread color of each letter if you press key. When you start sewing, the machine will automatically stop sewing after it finishes sewing one letter of programmed monogramming. Change the thread and start sewing again.





#### 2-letter Monogram

Press the Embroidery mode key and press the monogram key.

# 2 Letters AB (I G M R S Font OK **Edit** 1 1 2 Letters 2 Letters ® ⊕ì ABÚ 2 2 Letters AE() 3 2 Letters AE∜ 2 Letters 2 Letters (B) AB 🥡 2 2 Letters AEC 3 2 Letters AEG

#### Example: 2-Letters with a crest

- 1 Crest keys
- 1 Press Font key. Select 2-letters and press the crest key.
- 2 Select the letter "A". The cursor will move to the right.
- 3 Select the letter "B". The cursor will move to the right.
- 4 Press the okkey and the screen will change to the embroidery screen.
- 5 Press the start/stop button to start sewing and the machine will stop automatically after the sewing is completed.

#### Example: 2-Letters without a crest

- 1 Select 2-letters.
- 2 Select the letter "A". The cursor will move to the right.
- 3 Select the letter "B". The cursor will move to the right.
- 4 Press the key and the screen will change to the embroidery screen.
- 5 Press the start/stop button to start sewing and the machine will stop automatically after the sewing is completed.

#### Note:

The 3-letters monogram will be sewn in the same way as the 2-letters monogram.

#### Making corrections

To clear a selected crest and letters, press the key and reselect a new entry.

#### ATA PC Card

#### · 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, then 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 show up.

- 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® CompactFlash128MB or smaller to store stitch data.
- · Use only Sandisk® CompactFlash PC card adapter.

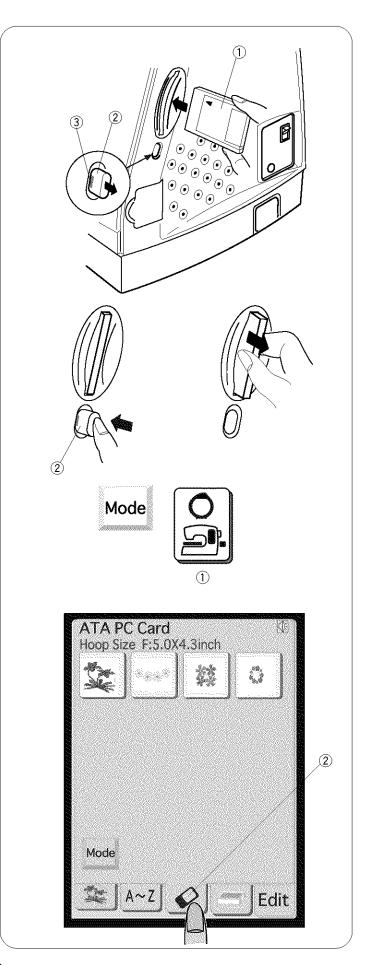
## Selecting the Card Designs

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

Press the Mode key, then 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.



#### Reader/writer 19000

You can download embroidery designs from model 19000 series memory card library via card reader/writer 19000 to your Kenmore 19010.

#### Note:

The Reader/writer 19000 is sold separately.

#### • Connecting Reader/writer 19000

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

Insert the two plugs into the card reader/writer 19000.

- 1) RS-232C cable
- 2 RS-232C connector
- 3 Reader/Writer 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/writer 19000, please refer to its instruction manual.



After the connection has been made with card reader 19000 and your machine, press the mode key, then press the embroidery mode key ①.

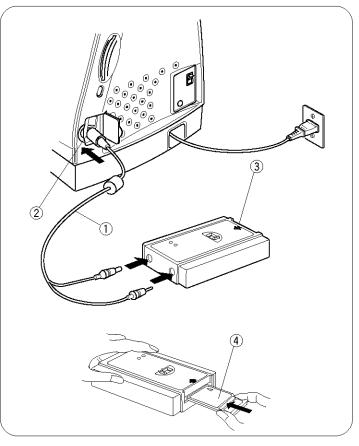
Press the card reader key 2.

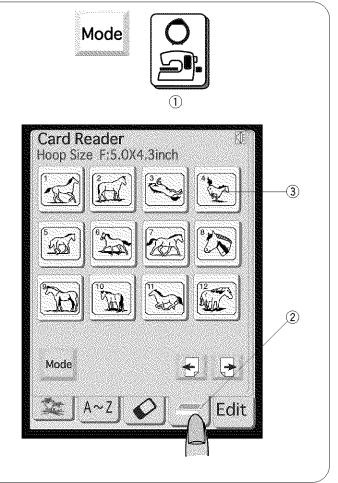
The pattern selection key will appear.

- 1 Embroidery mode key
- 2 Card reader key
- 3 Pattern selection key

#### Note:

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





#### **Edit Mode**

In the edit mode, you can edit and combine designs to create your original embroidery. Press the embroidery mode key ① and edit key ② to open the edit mode window.

- ① Embroidery mode key
- 2 Edit key

#### Pattern Selection Windows in the Edit Mode

You can open the built-in designs, monogram, and designs from the ATA PC card in the edit mode.

When you are in the edit mode, the background color of each window changes to green.

To import design patterns into the edit mode window, select the desired pattern in the pattern selection window. The screen will return to the edit mode window with the selected pattern display on the edit screen.

## Selecting the Pattern on the Edit Screen

The yellow-green frame surrounds the pattern when it is selected. To select another pattern, press on the image of the desired pattern on the edit screen.

You can move, rotate, resize and flip, etc., the selected pattern on the edit screen.

## Moving the Selected Design

You can move the selected pattern by pressing layout keys  $\widehat{1}$ .

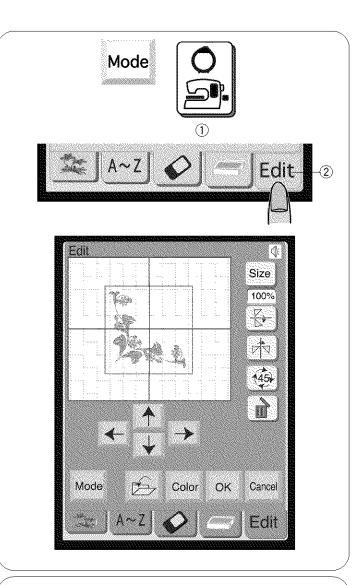
Press the layout keys ① to move the pattern to the desired position on the edit screen.

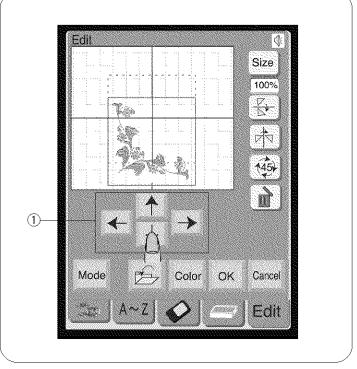
The carriage will not move when you are pressing the layout keys ① since the pattern position will move relative to the hoop, not to the machine.

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 62)





**Cancel Key** 

When you press the cancel key, any changes that have been made to the selected pattern will be cancelled.

1 Cancel key

#### Note:

When there is more than one pattern on the edit screen, you need to select the pattern that you wish to edit.

# Resizing the Selected Pattern

By pressing the size key, you may enlarge and reduce the size of the embroidery pattern from 90% to 120% of the original pattern size (depending on the size of original embroidery design). The size will change 10% each time you press the + or - keys.

2 Size key

Press the [+] key to enlarge the size of the pattern.

Press the | | key to reduce the size of the pattern.

When you press the ok key, the embroidery pattern at the new size will appear on the edit screen.

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

- 3 Plus key
- 4 Minus key
- (5) Ok key
- 6 Cancel key

#### Note:

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

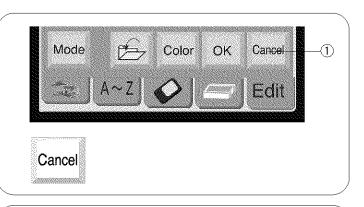
## Flipping the Selected Pattern

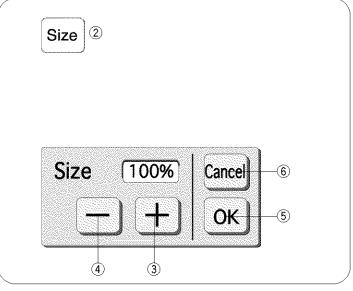
When you press the 🖈 or 🔂 key ①, you may embroider a mirror image of the pattern.

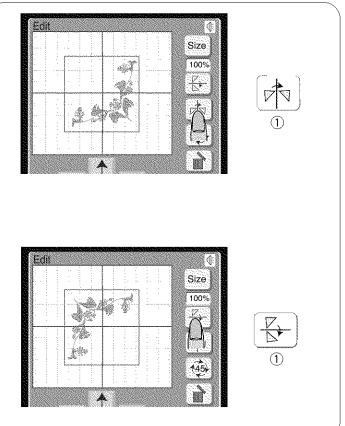
1 Mirror image keys

Press the key to flip patterns from left to right.

Press the key to flip from top to bottom.







### Rotating the Selected Pattern

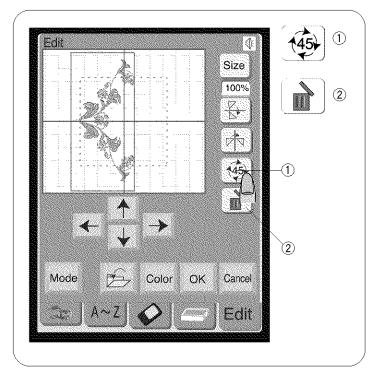
Each time you press the key, the embroidery pattern will rotate 45° clockwise.

1 Rotation key

#### **Delete Key**

When you press the key, the selected pattern will be deleted.

2 Delete key



## Changing the Fabric and Thread Colors

You can change the background color of the edit screen to simulate the fabric color that you are intending to use. The thread color of each of the selected pattern can also be changed to your preference.

#### · Fabric color change

Press the color key to open the color change window. 1 Color key

Select the desired color with the 🛨 🗲 keys ② and the desired color tone with the keys 3.

- ② Horizontal arrow keys
- 3 Vertical arrow keys

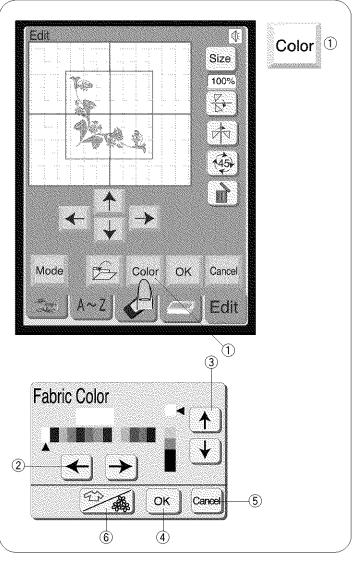
Press the ok key to register the new color setting, and the color change window will close.

If you do not want to change the colors, press the key to return to the edit mode window.

- 4 OK key
- (5) Cancel key

You can switch to the thread color change window by pressing the A key.

6 Fabric/thread color key



#### · Thread color change

In this window you are able to change the assigned thread color of the selected part of the pattern.

Select the pattern and press the conkey to open the thread color change window.

Select the part you wish to change thread color by pressing the color/part key ①.

1 Color/part key

Select the desired color with the keys 2 and the desired color tone with the keys 3.

- 2 Horizontal arrow keys
- 3 Vertical arrow keys

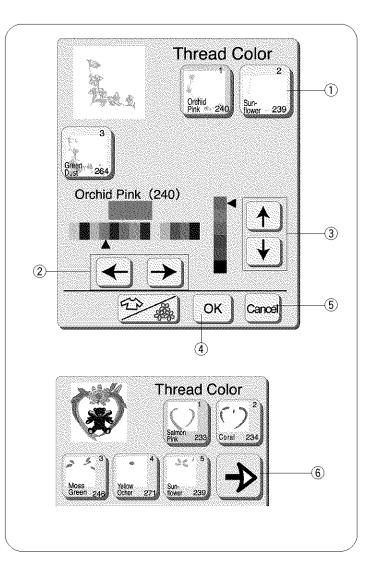
Press the ok key 4 to register the new color setting, and the color change window will close.

If you do not want to change the colors, press the cancel key to the edit mode window.

- 4 OK key
- **5** Cancel key

A big arrow key ⑥ will be displayed next to a color/part key when there are more design parts to be displayed. Press it to view the other embroidery design parts.

6 Big arrow key



## Pattern Combination (Example 1)

Select built-in pattern 3.

Press the edit key.

1 Press the layout keys 1 to move the pattern down and to the left.

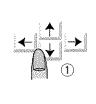
Edit

1

2

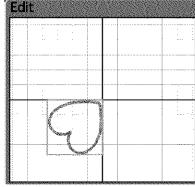
3

4



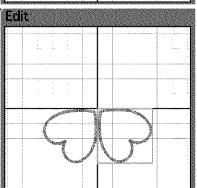
2 Press the key 2 5 times to rotate the pattern as illustrated. Return to the pattern selection window and select built-in pattern 3 again.

Press the layout keys ① again, then adjust the pattern down and to the left.





3 Press the key once 2 and then press key 3. Press the layout keys to move the pattern to the bottom right.





4 Select pattern 3 again.

Press the key 2 once and then press key 4.

Press the layout keys 1 to move the pattern to the top left of the screen.

Select pattern 3 again.

Press the key once.

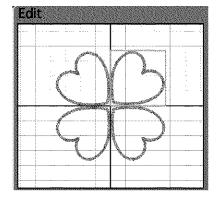
Press the layout keys ① to move the pattern to the top right of the screen.

Press the ok key.

The patterns in the edit screen combined and will be shown in the preview window as one design.

The color/part key of the combined design will also be shown.

Press the start/stop button to start embroidering.





## Pattern Combination (Example 2)

1 Select built-in pattern 20.

Press the edit key.

Open the built-in design window and select pattern 1.

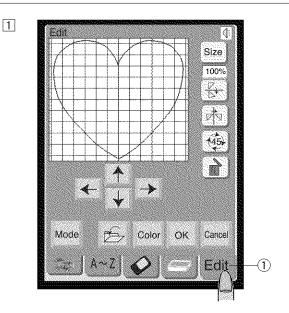
① Edit key

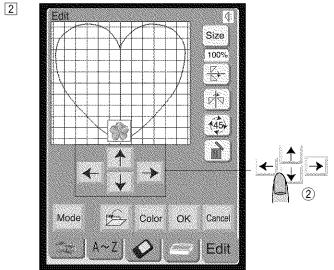
2 The screen returns to the edit mode window and pattern 1 will be displayed on the edit screen. With the layout keys 2, move pattern 1 on to the outline of pattern 20.

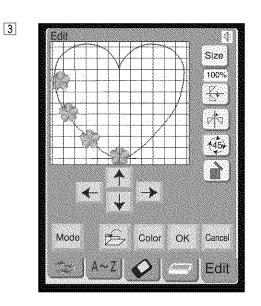
2 Layout keys

3 Select pattern 1 again and lay along the outline of pattern 20.

Repeat the above step to form a heart-shape with a series of pattern 1.







4 Select the built-in pattern 20 on the edit screen.

Press the key.

Press the ok key.

- 3 Delete key
- 4 OK key

5 The patterns in the edit screen are combined and will be shown in the preview window as one design.
The color/part key of the new combined design will also be shown.



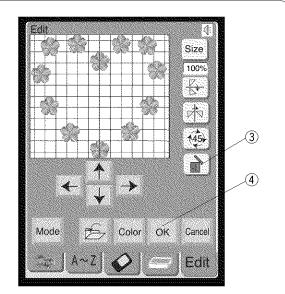
The embroidery stitch pattern is sewn as shown against the centerlines on the fabric.

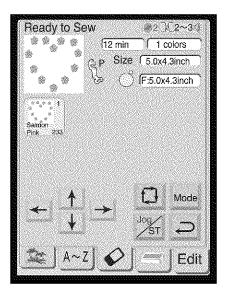
#### Note:

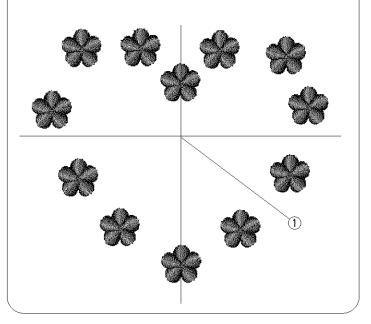
The starting point of the combined or edited design is always in the center of the hoop.

① Starting point

To save or open edited patterns or combinations, refer to page 52 to 53.







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#### SECTION VII. NORMAL MAINTENANCE

#### **CAUTION:**

- Unplug the machine.
- Do not dismantle the machine other than as explained in this section.
- Do not store the machine in a high-humidity area, near a heat radiator, or in direct sunlight.
- Clean the outside of the machine with a soft cloth and mild soap.

The model 19010 is equipped with dual sewing lights. One is located behind the face plate and the other is on the underside of the sewing arm.

## Replacing the Light Bulbs

#### **CAUTION:**

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

• To replace the light bulb behind the face cover Open the face cover ①.

Remove the rubber lamp socket ③ from the lamp holder ②.

Pull out the bulb 4 from the socket 3.

Insert the new light bulb to the socket, making sure to align the pins ⑤ with the holes on the socket.

Snap the socket back into the holder and close the face plate.

- 1 Face cover
- (2) Lamp socket
- (3) Lamp holder
- 4 Light bulb
- (5) Pins

#### To replace the light bulb on the underside of the sewing arm

Lay the machine on its back. Remove the clear window ① with the screwdriver as shown.

Pull out the rubber lamp socket ③ from the window.

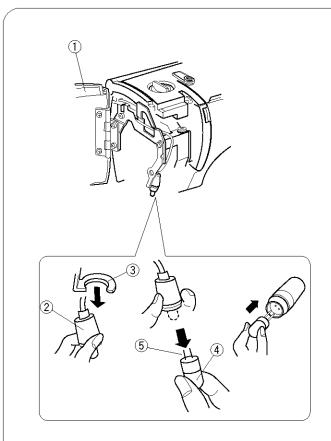
Remove the light bulb from the socket.

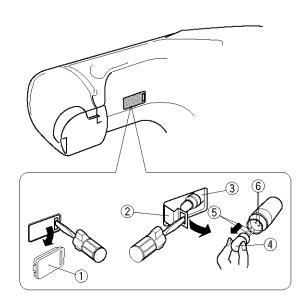
Insert a new bulb into the socket, making sure to align the pins (5) with the holes on the sockets.

Snap the socket back into the fork in the window.

Insert the window back into the opening on the machine.

- 1 Clear window
- 2 Lamp holder
- 3 Lamp socket
- 4 Light bulb
- (5) Pins
- 6 Holes

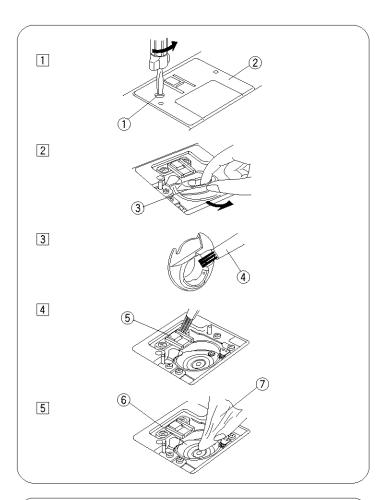




#### Cleaning the Hook Area

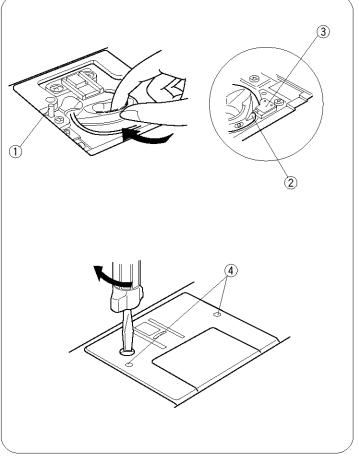
Press the up/down needle button to raise the needle, then unplug the sewing machine.

- 1 Remove the set screw 1 on the left hand side of the needle plate 2 with the screwdriver supplied with the machine. Remove the needle plate 2.
- 2 Take out the bobbin. Lift up the bobbin holder 3 and remove it.
- 3 Clean the bobbin holder with a lint brush 4.
- 4 Clean the feed dog 5 and hook race 6 with the lint brush 4.
- 5 Clean the hook race 6 with a soft dry cloth 7. (You may also use a vacuum cleaner.)
  - 1) Set screw
  - 2 Needle plate
  - 3 Bobbin holder
  - 4 Lint brush
  - 5 Feed dog
  - 6 Hook race
  - 7 Soft dry cloth

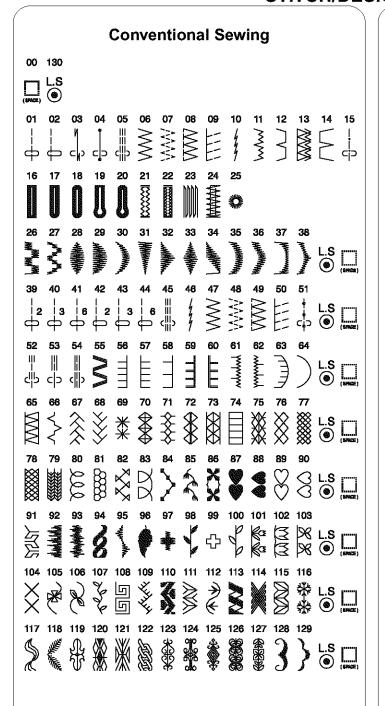


## **Assembling the Hook Race**

- 1 Insert the bobbin holder 1 so that the knob 2 fits next to the stopper 3 in the hook race.
- 2 Insert the bobbin.
- 3 Reattach the needle plate, aligning the guide holes 4 on the needle plate with the needle plate guide pins and tighten the screw.
  - 1 Bobbin holder
  - 2 Knob
  - 3 Stopper
  - (4) Guide holes



## STITCH/DESIGN CHART



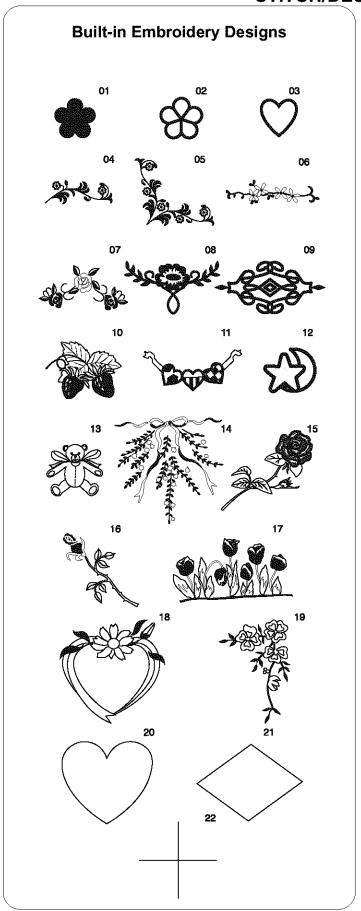
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# STITCH/DESIGN CHART



# **Built-in Embroidery Monogram**

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# **Troubleshooting**

Condition	Cause	Reference
Noisy operation.	Threads have been caught in the hook mechanism.     The feed dog is packed with lint.	Page 79 Page 79
The needle thread breaks.	<ol> <li>The needle thread is not threaded properly.</li> <li>The needle thread tension is too tight.</li> <li>The needle is bent or blunt.</li> <li>The needle is incorrectly inserted.</li> <li>The thread is too heavy for the needle.</li> <li>The needle thread is not set in the thread holder when embroidery sewing has started.</li> </ol>	Page 16 Pages 26, 32 Page 8 Page 8 Page 12 Page 59
The bobbin thread breaks.	<ol> <li>The bobbin thread is not threaded properly in the bobbin holder.</li> <li>Lint has collected in the bobbin holder.</li> <li>The bobbin is damaged and doesn't turn smoothly.</li> </ol>	Page 15 Page 79 Replace the bobbin.
The needle breaks.	<ol> <li>The needle is incorrectly inserted.</li> <li>The needle is bent or blunt.</li> <li>The needle clamp screw is loose.</li> <li>The needle thread tension is too tight.</li> <li>The threads were not drawn to the rear after the previous use.</li> <li>The needle is too fine for the fabric being sewn.</li> <li>Stitch width is improperly adjusted for the foot being used.</li> </ol>	Page 8 Page 8 Page 8 Pages 26, 32 Page 17 Page 12 See note in each section corresponding to the selected pattern.
Visual Touch Screen is not clear.	The contrast of the screen is not adjusted properly.	Page 20
ATA PC card does not work.	PC Card is not set correctly.     PC Card is damaged.     The wrong card has been used.	Page 68 Replace the card Page 68
Skipped stitches.	<ol> <li>The needle is incorrectly inserted.</li> <li>The needle is bent or blunt.</li> <li>The needle and/or threads are not suitable for the work being sewn.</li> <li>A blue needle is not being used for sewing stretch, very fine fabrics and synthetics.</li> <li>The needle thread is not threaded properly.</li> <li>The wrong needle is used.</li> <li>The embroidery hoop is not set properly.</li> <li>The fabric is not pulled tightly enough on the embroidery hoop.</li> </ol>	Page 8 Page 8 Page 12 Page 12 Page 16 Change the needle. Page 59 Page 58
Seam puckering.	<ol> <li>The needle thread tension is too tight.</li> <li>The needle thread or the bobbin thread is not threaded properly.</li> <li>The needle is too heavy for the fabric being sewn.</li> <li>The stitch length is too long for the fabric.</li> <li>The fabric is not pulled tightly enough on the embroidery hoop.</li> </ol>	Pages 26, 32 Pages 15, 16, 17 Page 12 Page 25, 31 Page 58
The machine doesn't work.	The machine is not plugged in.     A thread is caught in the shuttle race.	Page 4 Page 79
Strange sounds occur when the machine is switched on.	<ol> <li>Something is caught between the embroidery carriage and the arm.</li> <li>The carriage is touching something around the machine.</li> </ol>	Page 59 Remove the object. Page 59

## **Troubleshooting**

Condition	Cause	Reference
Patterns are	The correct presser foot is not used.	Use the correct foot.
distorted.	2. The needle thread tension is too tight.	Pages 26, 32
	3. The embroidery hoop attaching knob is loose.	Page 59
	4. The carriage is bumping into something around the machine.	Page 59
	5. The fabric is not pulled tightly enough on the embroidery hoop.	Page 58
	6. The fabric is caught or pulled for some reason when sewing embroidery.	Stop the machine & Free the fabric.
Pattern selection	The bobbin winder spindle is in the winding position.	Page 14
key does not work.	2. The control circuit is not working correctly.	Turn the switch off & turn it on again.
	3. Key position is out of alignment.	Page 21

For customer assistance call or e-mail: 1-877-SEWING-U (1-877-739-4648) 9 am - 4:30 pm, CST, Monday - Friday support@kenmore-sewing.com (U.S.A. only)

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