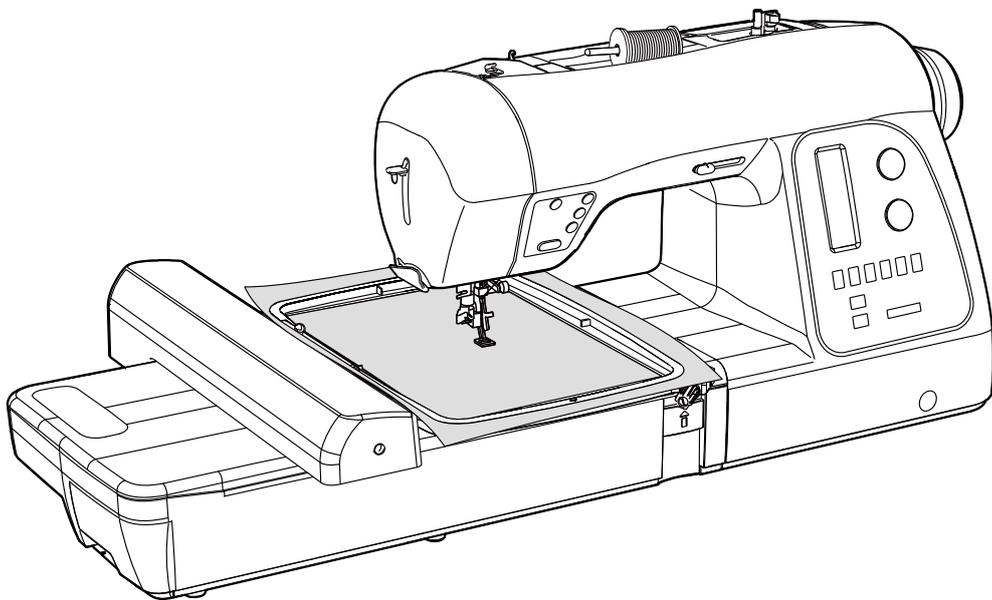


# SINGER®



## SEQS-6700

### INSTRUCTION MANUAL

# IMPORTANT SAFETY INSTRUCTIONS

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

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

1. This sewing machine should never be left unattended when plugged in. Always unplug this sewing machine from the electric outlet immediately after using and before cleaning.

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

1. Do not allow to be used as a toy. Close attention is necessary when this sewing machine is used by or near children.
2. This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance.
3. Use this sewing machine only for its intended use as described in this manual. Use only attachments recommended by the manufacturer as contained in this manual.
4. 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 the sewing machine to the nearest authorized dealer or service center for examination, repair, electrical or mechanical adjustment.
5. If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.
6. Never operate the sewing machine with any air openings blocked. Keep ventilation openings of the sewing machine and foot control free from the accumulation of lint, dust, and loose cloth.
7. Never drop or insert any object into any opening.
8. Indoors use only.
9. Do not operate where aerosol (spray) products are being used or where oxygen is being administered.
10. To disconnect, turn switch to the off („0“) position, then remove plug from outlet.
11. Switch off or unplug the appliance when leaving it unattended, unplug the appliance before carrying out maintenance or replacing lamps.
12. Do not unplug by pulling on cord. To unplug, grasp the plug, not the cord.
13. Keep fingers away from all moving parts. Special care is required around the sewing machine needle.
14. Never sew with a damaged needle plate as this can cause needle to break.
15. Do not use bent needles.
16. Do not pull or push fabric while stitching. It may deflect the needle causing it to break.
17. Switch the sewing machine off (“0”) when making any adjustments in the needle area, such as threading needle, changing needle, threading bobbin, or changing presser foot, etc.
18. Always unplug sewing machine from the electrical outlet when removing covers, lubricating, or when making any other user servicing adjustments mentioned in the instruction manual.
19. To avoid electrical shock never put the machine nor the mains cable or mains plug into water or other liquids.
20. The LED lamp maximum power is 0.3w, maximum voltage is DC 5v, if the LED lamp is damaged, you should not use the product and send it to the manufacture or service agent to repair or replace at once.
21. Attention the following to avoid injury:
  - Unplug the foot controller of the appliance when leaving it unattended:
  - Unplug the foot controller of the appliance before carrying out any maintenance.

## **CAUTION**— Moving parts-To reduce risk of injury, switch off before servicing. Close cover before operating machine.

## **SAVE THESE INSTRUCTIONS**

This product is for household use, or equivalent.

### **FOOT CONTROL (USA & Canada only)**

Use Model YC-485 EC or Model JF-1000 with this sewing machine.

### **POLARIZED PLUGS CAUTION (USA & Canada only)**

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

**This appliance complies with EEC Directive 2004/108/EC covering the electromagnetic compatibility.**



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

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### For European version

#### Sewing machine

Dimensions: 567 mm × 240 mm × 317 mm  
Mass of the equipment: 10.8 kg

#### Embroidery unit

Dimensions: 504 mm × 411 mm × 141 mm  
Mass of the equipment: 3.0 kg

Rated Voltage: 230 V ~

Rated Frequency: 50 Hz

Rated input: 64 W

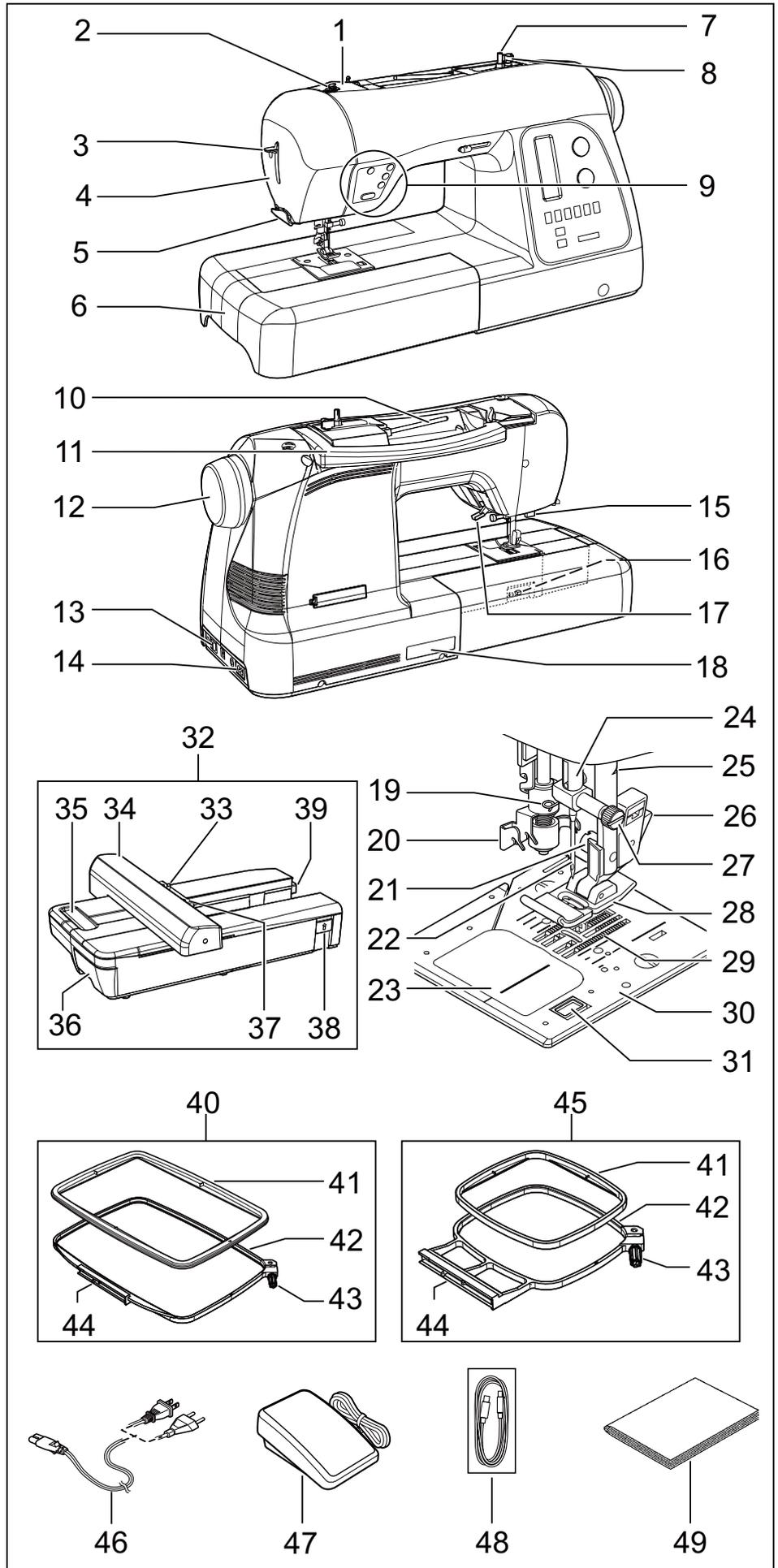
Using ambient temperature: Normal temperature

Acoustic noise level: less than 70 db(A)

# 1. GETTING TO KNOW YOUR MACHINE

## MACHINE IDENTIFICATION

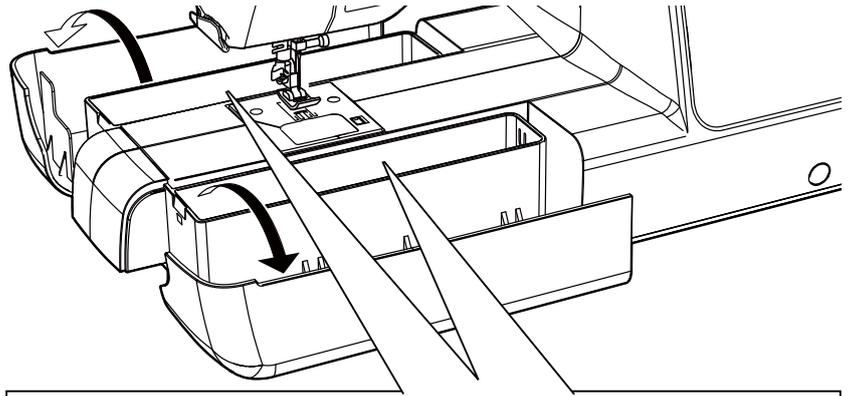
1. Pre-tension guide
2. Bobbin winding tension disk
3. Threading lever
4. Face cover
5. Thread cutter/holder
6. Extension table (Accessory box)
7. Bobbin winder spindle
8. Bobbin winder latch
9. Operation buttons
10. Horizontal spool pin
11. Handle
12. Hand wheel
13. Power/light switch
14. Cord socket
15. Buttonhole lever
16. Feed dog control
17. Presser foot lifter
18. Identification plate
19. Thread guide
20. Twin thread guide
21. Presser foot screw
22. Needle
23. Bobbin cover plate
24. Needle bar
25. Alternate thread cutter
26. Foot release button
27. Needle clamp screw
28. All purpose foot
29. Feed dogs
30. Needle plate
31. Bobbin cover release button
32. Embroidery unit
33. Hoop release lever
34. Carriage
35. Handle
36. Accessory drawer
37. Hoop bracket
38. Release lever
39. Connector
40. Large hoop
41. Inner frame
42. Outer frame
43. Hoop adjusting screw
44. Hoop mounting plate
45. Small hoop
46. Power line cord
47. Foot control
48. USB cable
49. Instruction manual



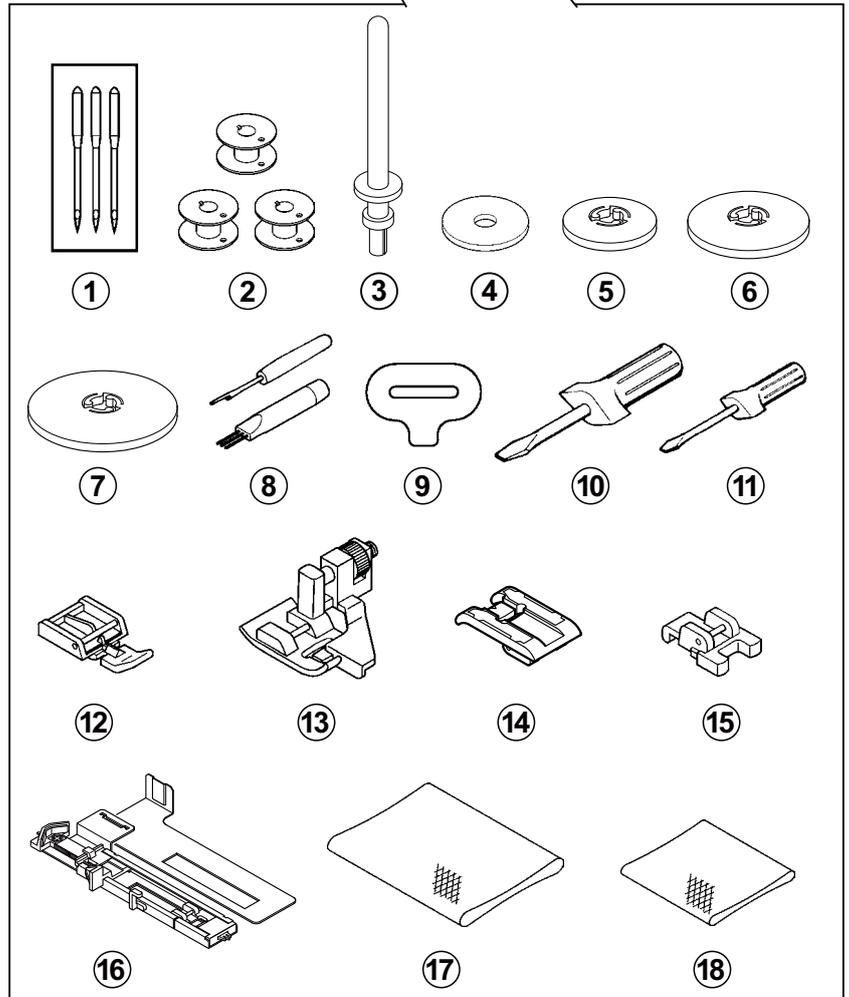
NOTE: Be sure the USB cable is attached to your machine when doing embroidery.

## ACCESSORIES FOR SEWING MACHINE

Sewing machine accessories are located in the storage compartments of the removable extension table, as indicated by the diagram.



1. Needles
2. Bobbins
3. Auxiliary spool pin
4. Spool pin felt disc
5. Spool pin cap (mini)
6. Spool pin cap (small)
7. Spool pin cap (large)
8. Buttonhole opener/Brush
9. Screwdriver for needle plate
10. Screwdriver (large)
11. Screwdriver (small)
12. Zipper foot
13. Blind hem foot
14. Satin foot
15. Button sewing foot
16. Buttonhole foot and underplate
17. Thread spool net (long)
18. Thread spool net (short)



**The foot that comes on your sewing machine is called the all purpose foot and will be used for the majority of your sewing.**

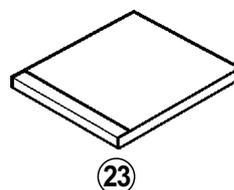
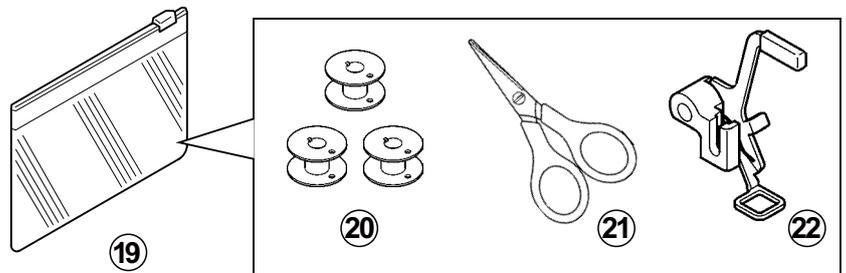
**The satin foot (14) is another very useful foot and should be used for most decorative sewing.**

**When purchasing additional bobbins, be sure they are class 15 J.**

## FOR EMBROIDERY

Embroidery accessories are located in the vinyl bag, packaged with the embroidery unit.

19. Vinyl bag
20. Bobbins
21. Scissors
22. Embroidery presser foot
23. Embroidery software CD



To install the software, refer to the CD insert for more information.

## SET UP YOUR MACHINE

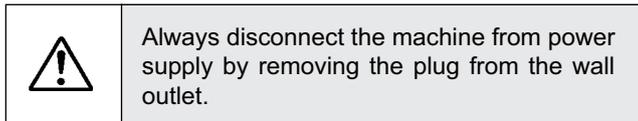
Be sure to wipe off any surplus oil from needle plate area before using your machine the first time.

### POWER LINE CORD/FOOT CONTROL

Connect the plug of the power line cord into the cord socket (1) and your wall outlet (2) as illustrated.

Connect the foot control plug into the machine socket (3), when using sewing machine only.

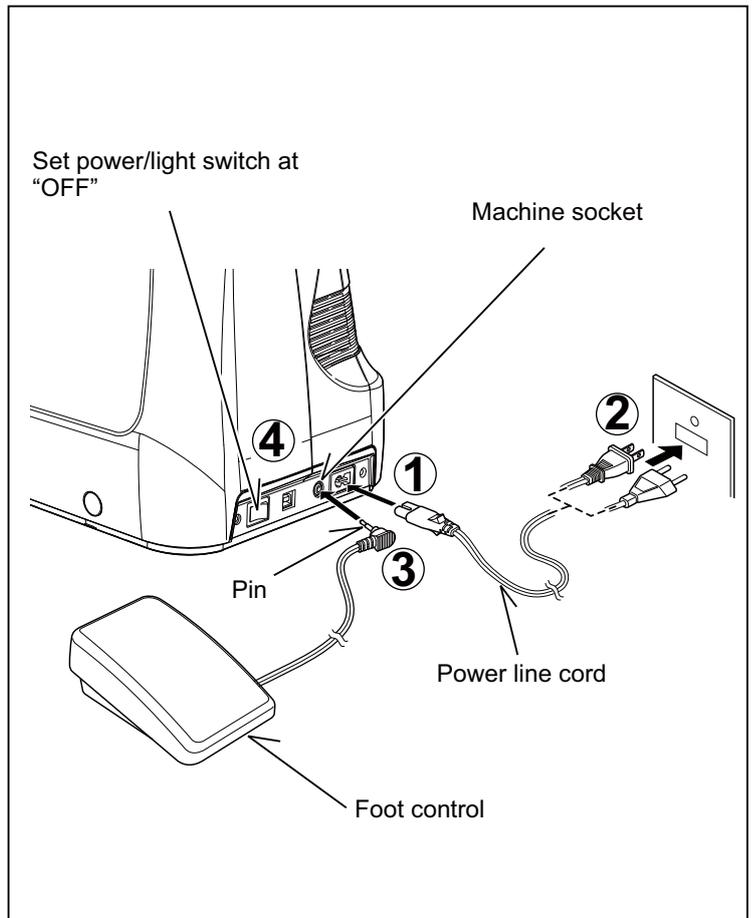
NOTE: In sewing mode, the machine can be operated either with or without the foot control (see page 15).



### POWER/LIGHT SWITCH

Your machine will not operate until the power/light switch is turned on. The same switch controls both the power and the light.

When servicing the machine, or when changing needles or lights, etc., the machine must be disconnected from the power supply.



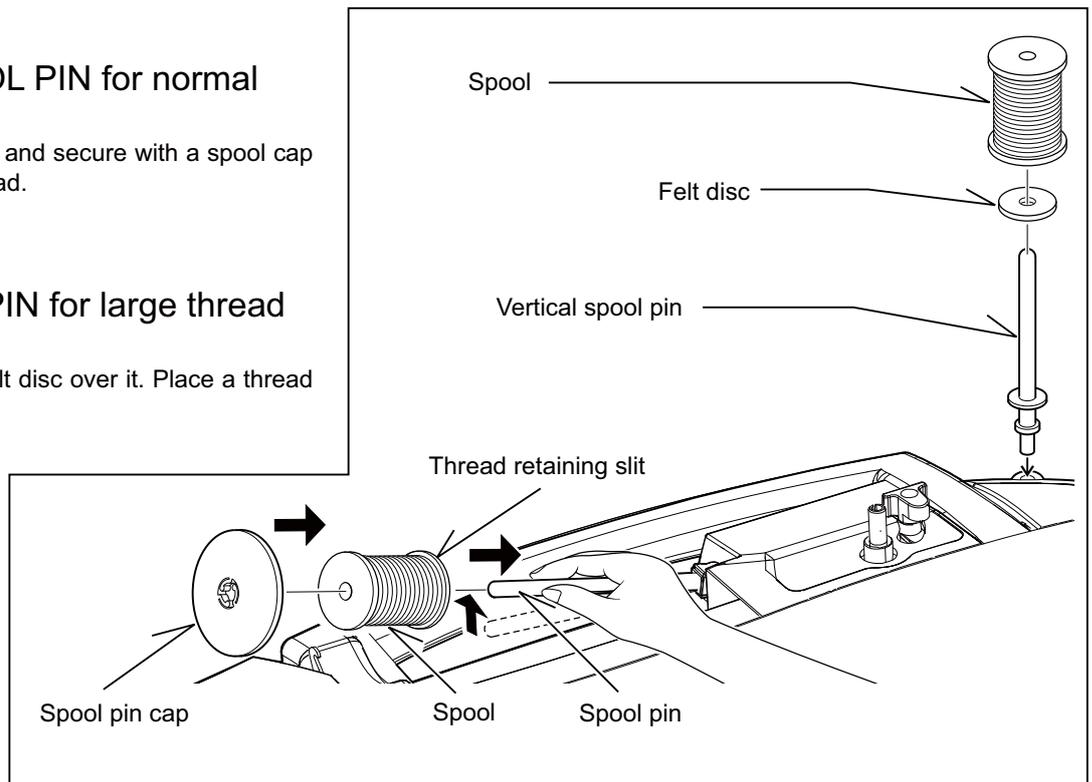
## SPOOL PINS

### HORIZONTAL SPOOL PIN for normal thread spool

Place thread spool on the pin and secure with a spool cap to ensure smooth flow of thread.

### VERTICAL SPOOL PIN for large thread spool

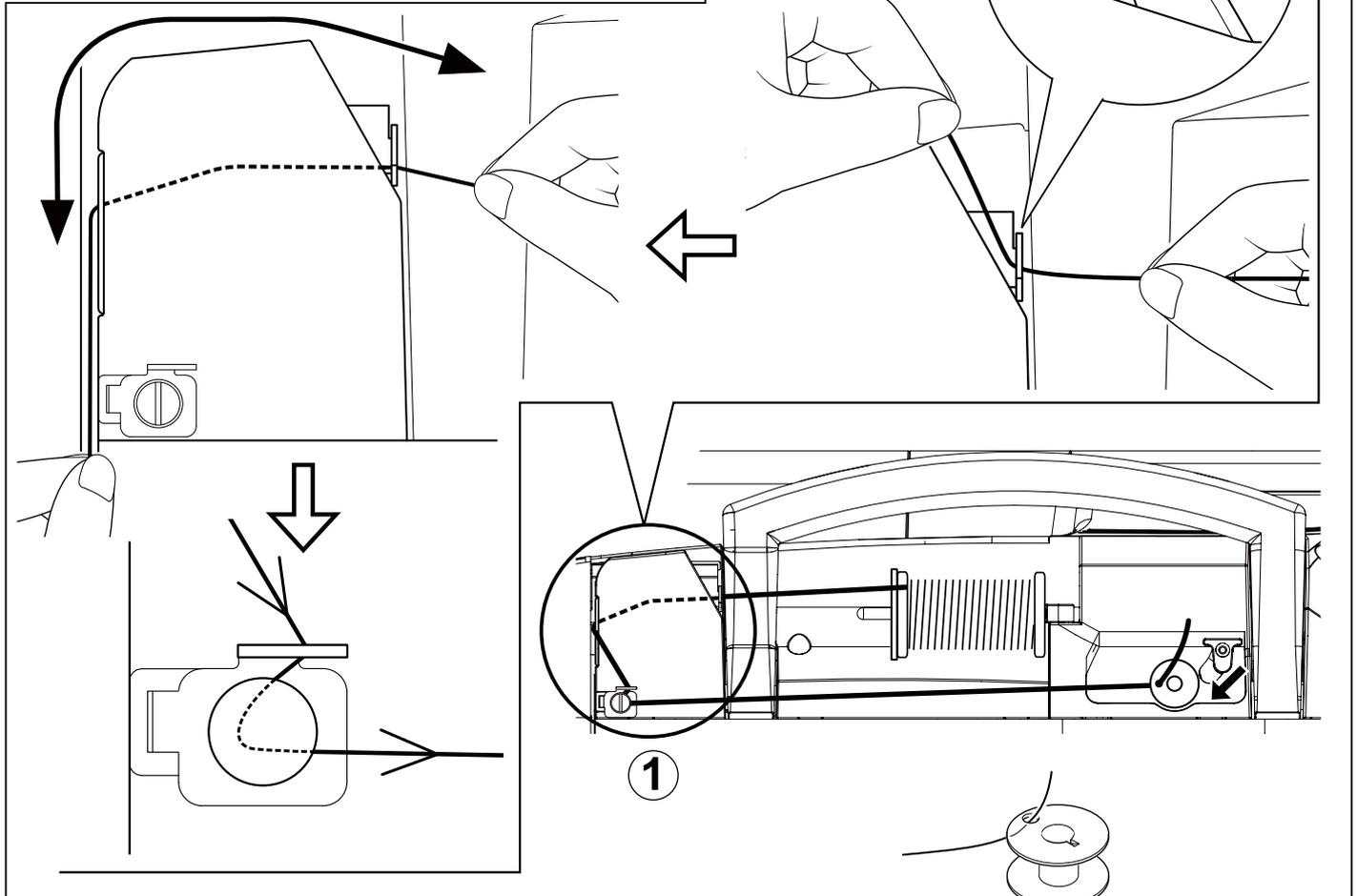
Attach the spool pin. Place felt disc over it. Place a thread spool on the spool pin.



## WINDING BOBBIN

Be sure to use Class 15 J bobbins.

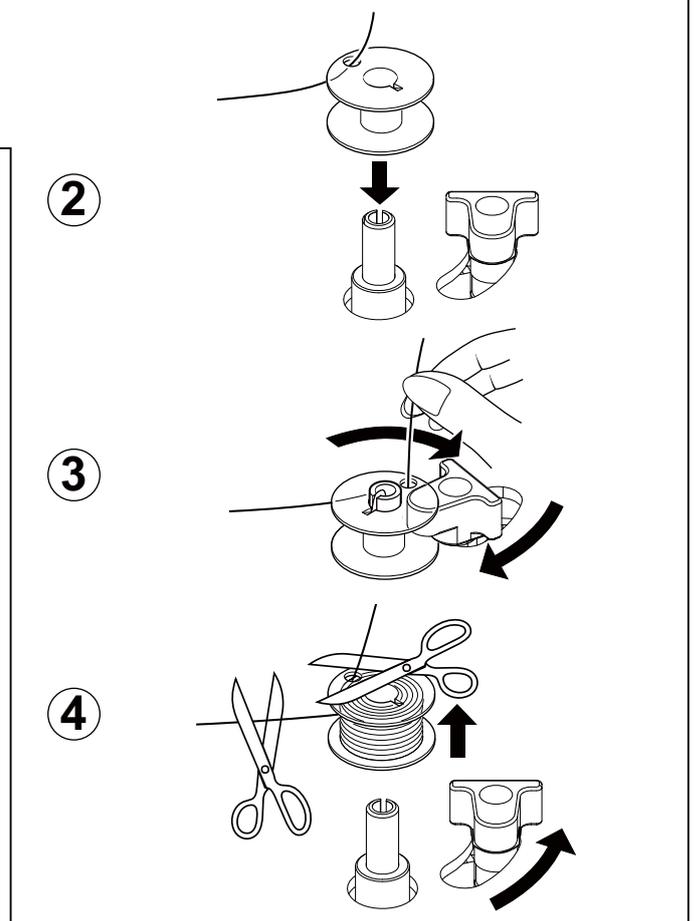
1. Place a spool of thread on the spool pin, and secure it with the spool pin cap. Pull the thread out from the spool and place it through thread guides as shown in illustration.



2. Put end of thread through the hole in bobbin as shown. Place bobbin onto the bobbin winder spindle as far as it can go.

3. Holding onto the end of the thread, push the bobbin winder latch against the bobbin until it clicks and bobbin starts to rotate.

4. Bobbin will disengage automatically and the winding mechanism will stop when the bobbin is full. To stop the bobbin winding at any time during the winding process, push the Start/Stop button and move the bobbin winder latch to the right. Remove the wound bobbin and cut the thread tail.



## THREADING THE BOBBIN THREAD

1. Raise the needle to its highest position by rotating the hand wheel counter clockwise (toward you).

2. Remove the bobbin cover plate by pushing the release button to the right. Bobbin cover will pop up sufficiently to allow you to remove the cover.

3. Insert the bobbin making sure the bobbin rotates counter-clockwise when you pull the thread.

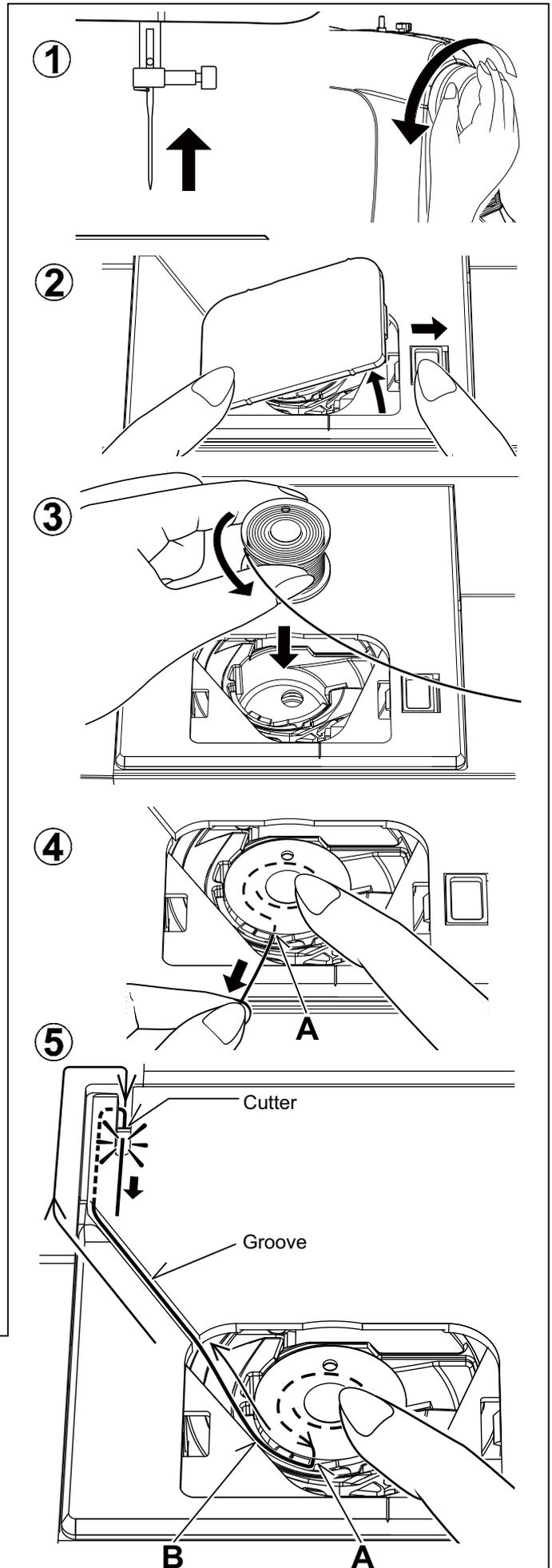
**NOTE: This is a very important step. The bobbin must rotate counterclockwise when thread is pulled.**

4. Pull thread through the slot (A) and then to the left.

5. With a finger held gently on top of the bobbin, pull the thread until it stops in the slot (B). Then pull the thread along the groove on the needle plate until it is snipped with cutter on the top left.

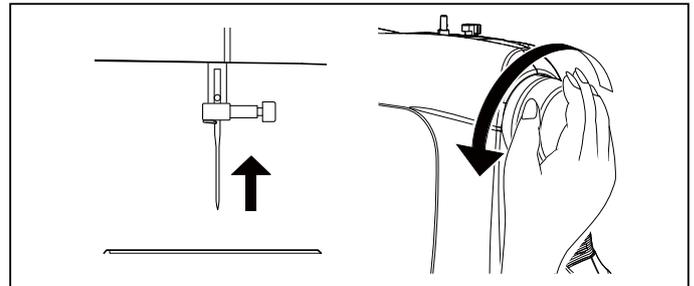
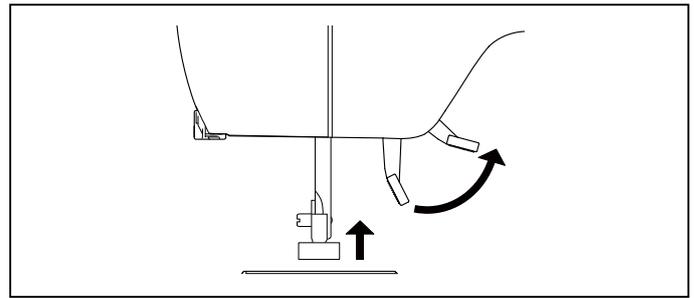
**NOTE: Sewing can be started without having to pull up the bobbin thread.**

6. Replace the clear bobbin cover plate onto the needle plate.



## THREADING THE TOP THREAD

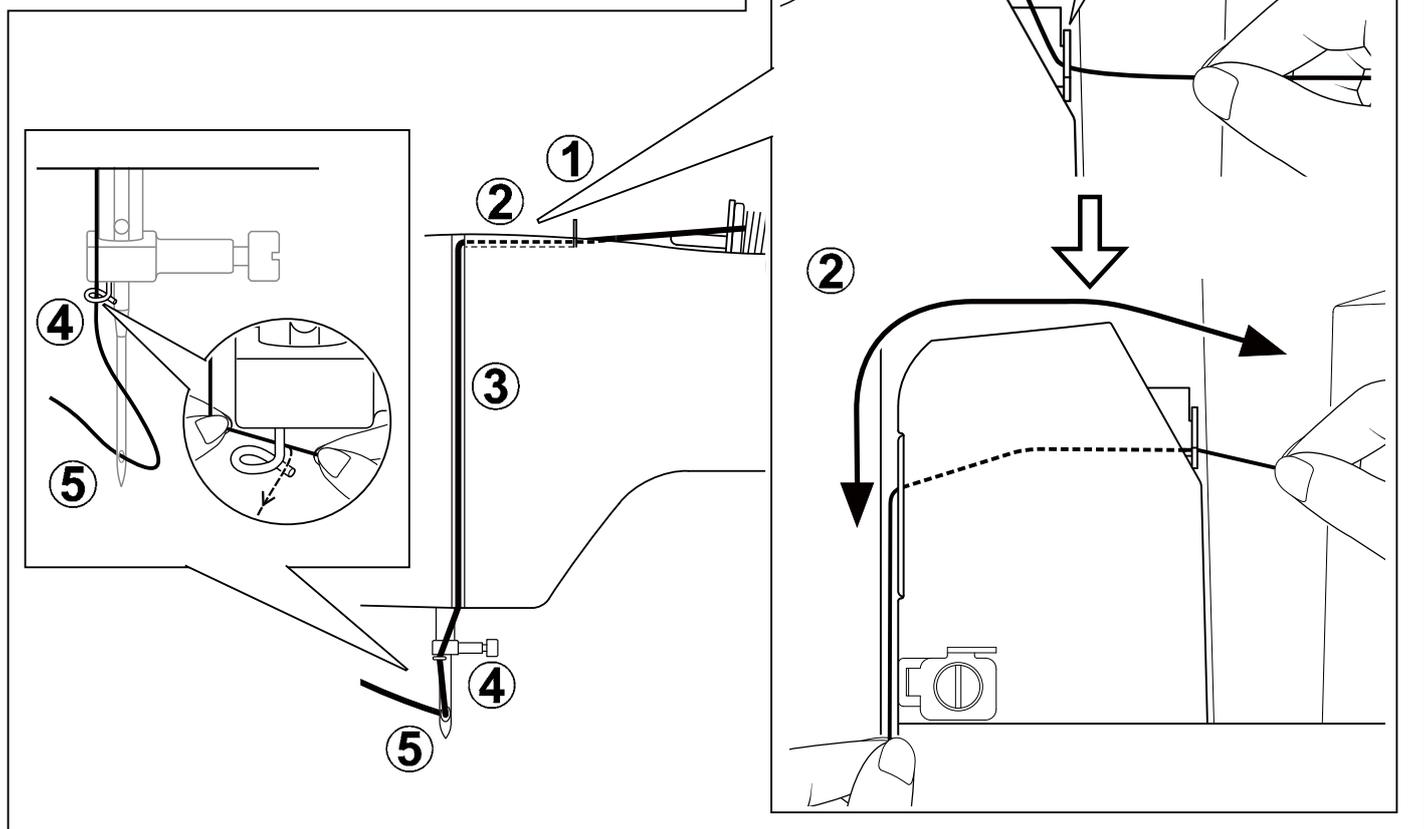
- A. Raise the presser foot lifter. Always be sure to raise the presser foot lifter before threading the top thread. (If the presser foot lifter is not raised, correct thread tension cannot be obtained.)
- B. Turn the hand wheel counter clockwise (toward you) until the needle is in its highest position.
- C. Thread the machine with your left hand while firmly gripping the thread with your right hand in the following order as illustrated.
- \* Guide the thread through thread guides (1 & 2), and then pull it down along the groove (3).
  - \* Guide the thread into the thread guide (4).
  - \* Pass the thread through the eye of the needle (5) from front to back. (See following page for instructions on operation of the Automatic Needle Threader.)



### IMPORTANT:

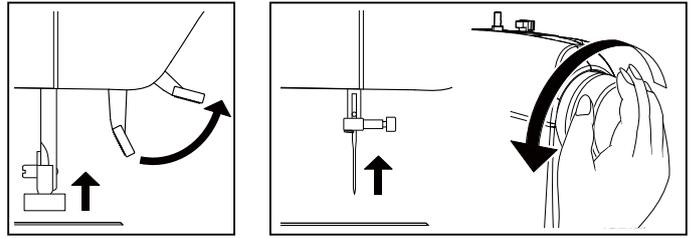
To verify that the machine is threaded properly in the tension discs, do this simple check:

- 1.) With the presser foot raised, pull the thread towards the back of the machine. You should detect only a slight resistance and little or no deflection of the needle.
- 2.) Now lower the presser foot and again pull the thread towards the the back of the machine. This time you should detect a considerable amount of resistance and much more deflection of the needle. If you do not detect the resistance you have mis-threaded the machine and need to re-thread it.



## USING AUTOMATIC NEEDLE THREADER

★ Be sure to raise the presser foot lifter and raise the needle to its highest position before threading.



1. Thread the machine with your left hand while gripping the thread with your right hand. Hook thread to the thread guide on the needle bar and pull it toward you leaving about 4" (10 cm) clear.
2. Hook thread into the twin thread guides (A and B).
3. Pull thread gently into the thread cutter/holder to cut and hold it in place.

**Don't pull thread with strong force or thread may be pulled off from needle hole after threading.**

### NOTE:

- ★ For smooth threading, it is recommended that the machine be set for straight stitch (in center needle position) when using the automatic needle threader.
- ★ Heavy thread cannot be threaded through fine needle.
- ★ Don't lower the threading lever while the machine is in operation or the threading hook may be broken.

4. Pull down the threading lever to its lowest position until the twin thread guide rotates and stops.

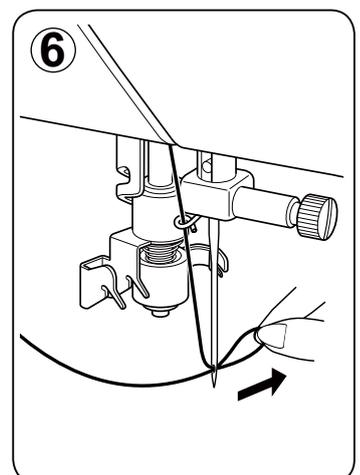
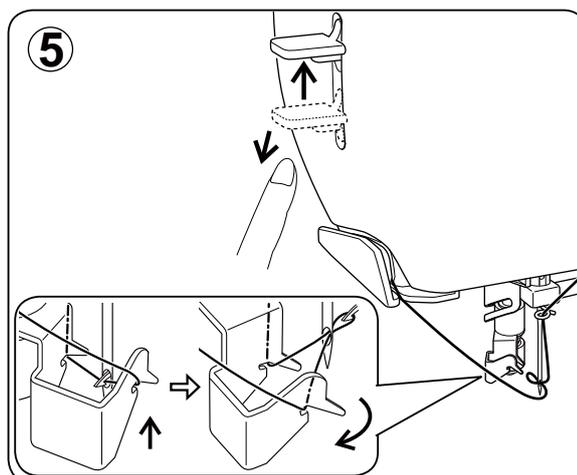
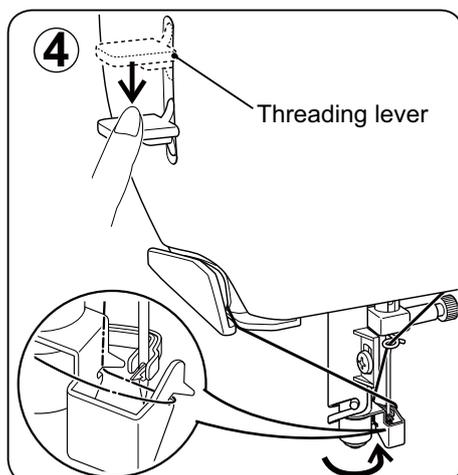
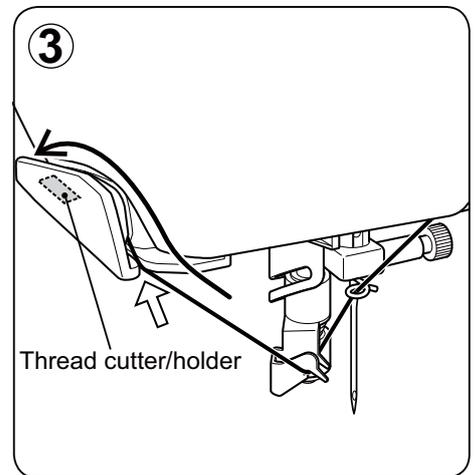
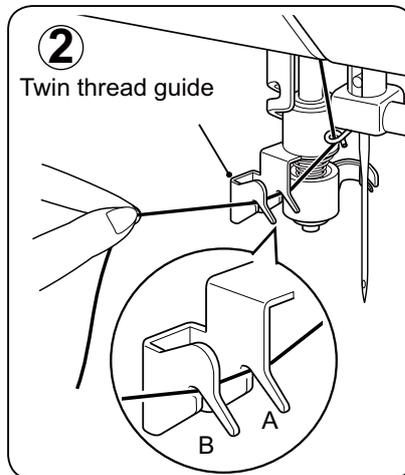
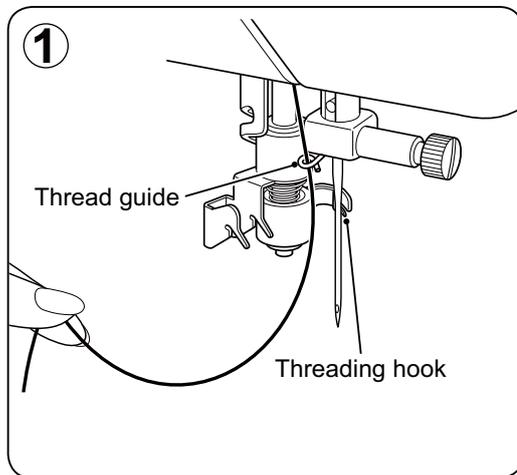
**Make sure that the guide doesn't touch fabric, etc.**

**IMPORTANT:** If the needle cannot be threaded with the Automatic Needle Threader due to particular qualities of the thread, or if the thread is too thick for the needle being used, then manually thread the needle after hooking the thread through the thread guide on the needle bar.

5. Release the threading lever and needle will be threaded automatically. If it should not return to the original position, raise it gently by hand.

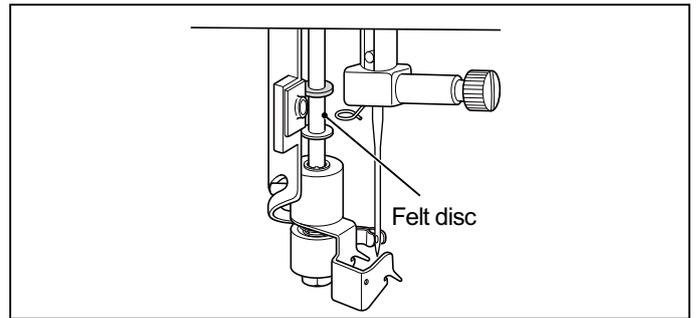
6. Pull thread loop away from you.

**If the needle has not been threaded correctly, re-thread from STEP 1.**

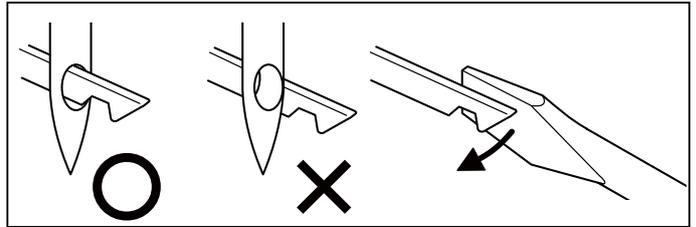


**HELPFUL SUGGESTIONS:**

★ If the machine is not used frequently, put a drop of sewing machine oil onto the felt disc.



★ If the threading hook is deviated from needle hole, adjust the position of the hook using a small screw driver.



## NEEDLE, THREAD AND FABRIC CHART

Your fabric will determine the choice of a needle and thread. The following table is a practical guide to needle and thread selection. Always refer to it before a new sewing project. For general sewing, the same size and type of thread is used in the bobbin as in the needle.

### IMPORTANT:

**Use only SINGER brand needles for best results. The use of alternative brand needles can cause tension issues or unsatisfactory results.**

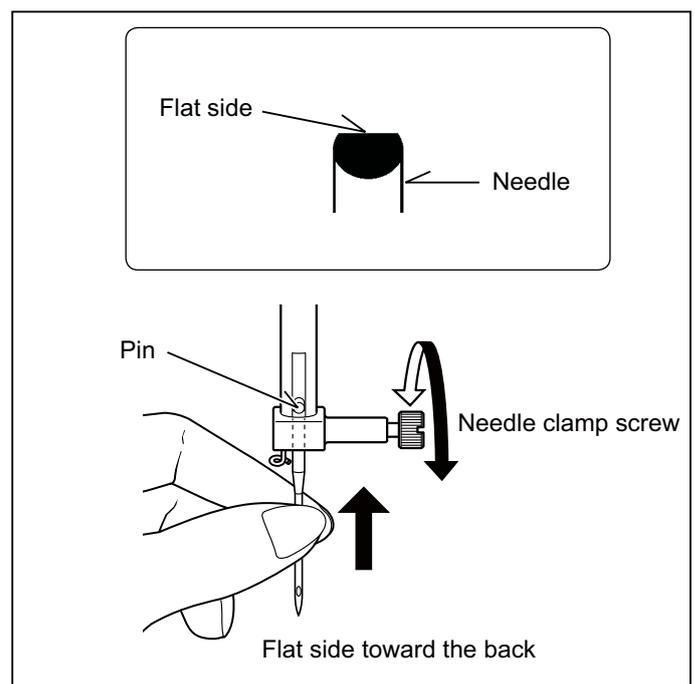
FABRICS		THREAD	NEEDLES	
The fabrics below can be of any fiber: cotton, linen, silk, wool, synthetic, rayon, blends. They are listed as examples of weight.				
			<b>TYPE</b>	<b>SIZE</b>
<b>Light-Weight</b>	Batiste Chiffon Crepe	Cotton-wrapped Polyester 100% Polyester * Mercerized Size 60	2000 or 2020 red shank	11/80 orange band
<b>Medium-Weight</b>	Corduroy Flannel Gabardine Gingham Linen Muslin Wool Crepe	Cotton-wrapped Polyester 100% Polyester * Mercerized Size 50 Nylon	2000 or 2020 red shank	14/90 blue band
<b>Medium-Heavy</b>	Bonded Wovens Canvas Coating Denim Duck Sailcloth	Cotton-wrapped Polyester 100% Polyester * Mercerized Size 40 * "Heavy Duty"	2000 or 2020 red shank	16/100 purple band 18/110 yellow band
<b>Knits</b>	Bonded Knits Double Knit Jersey Tricot	Cotton-wrapped Polyester Polyester Nylon	2001 or 2045 yellow shank	11/80 orange band 14/90 blue band 16/100 purple band



Always disconnect the machine from power supply by removing the plug from the wall outlet.

### Changing the needle

1. Raise the needle bar to its highest position by turning the hand wheel counter clockwise (toward you).
2. Loosen the needle clamp screw by turning it toward you.
3. Remove the needle by pulling it downward.
4. Insert the new needle into the needle clamp with the flat side toward the back.
5. Push the needle up as far as it can go.
6. Tighten the needle clamp screw firmly with the screw driver.



## ADJUSTING TOP THREAD TENSION

**Helpful Hint:** A slight adjustment to a higher number or a lower number may improve sewing appearance.

### STRAIGHT STITCHING

The correct appearance of your stitching is largely determined by the balanced tension of both top and bobbin threads. The tension is well balanced when these two threads 'lock' in the middle of layers of the fabric you are sewing.

If, when you start to sew, you find that the stitching is irregular, you will need to adjust the tension control. Do this, however, only after you have determined that the machine is correctly threaded (see page 7).

Make all adjustments with presser foot 'down'.

A balanced tension (identical stitches both top and bottom) is usually only desirable for straight stitch sewing.

### ZIGZAG, SATIN STITCH, DECORATIVE and BUTTON HOLE SEWING

For zigzag sewing, satin stitch and decorative stitch functions, thread tension should be less than that for straight stitch sewing.

It is recommended to decrease thread tension for buttonholes.

You will always obtain a nicer stitch and less puckering when the upper thread appears slightly on the bottom side of your fabric.

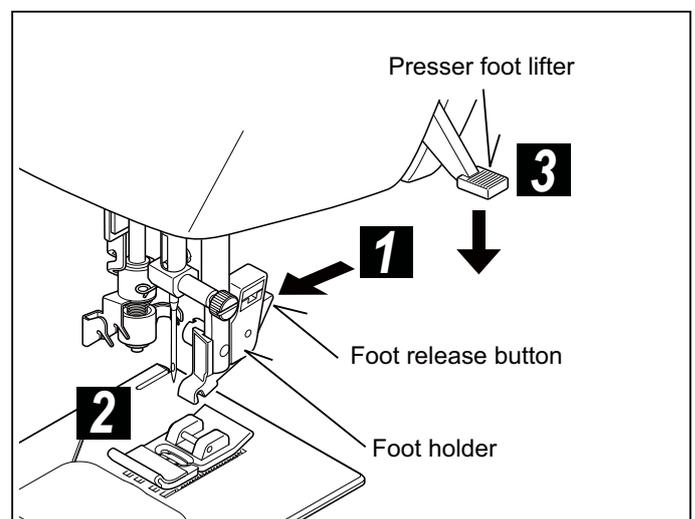
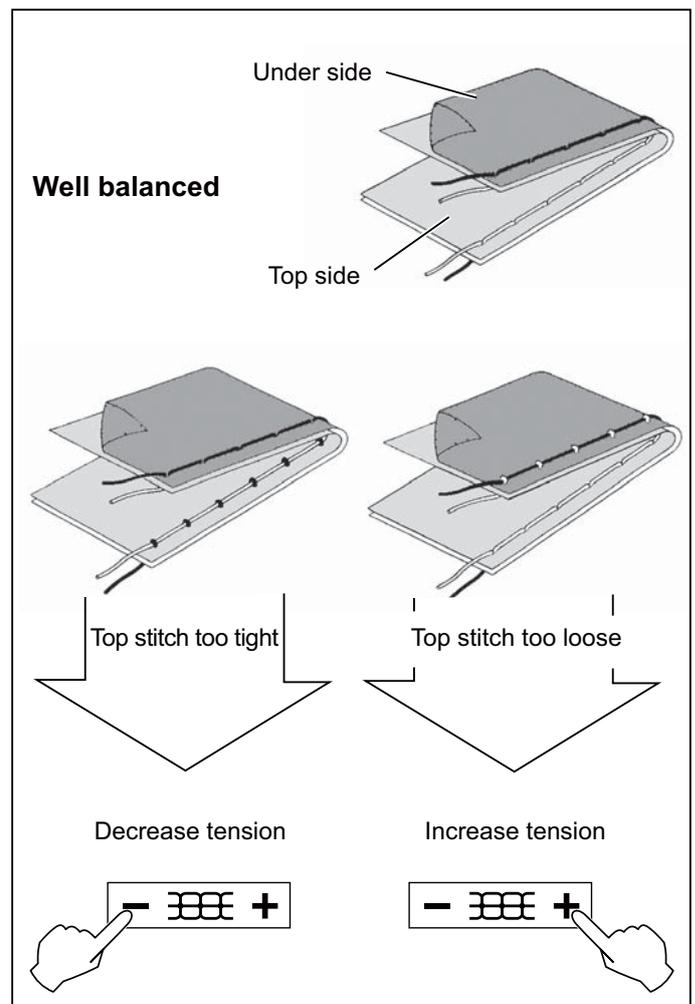
### BOBBIN TENSION

**The bobbin tension has been correctly set at the factory, so you do not need to adjust it.**

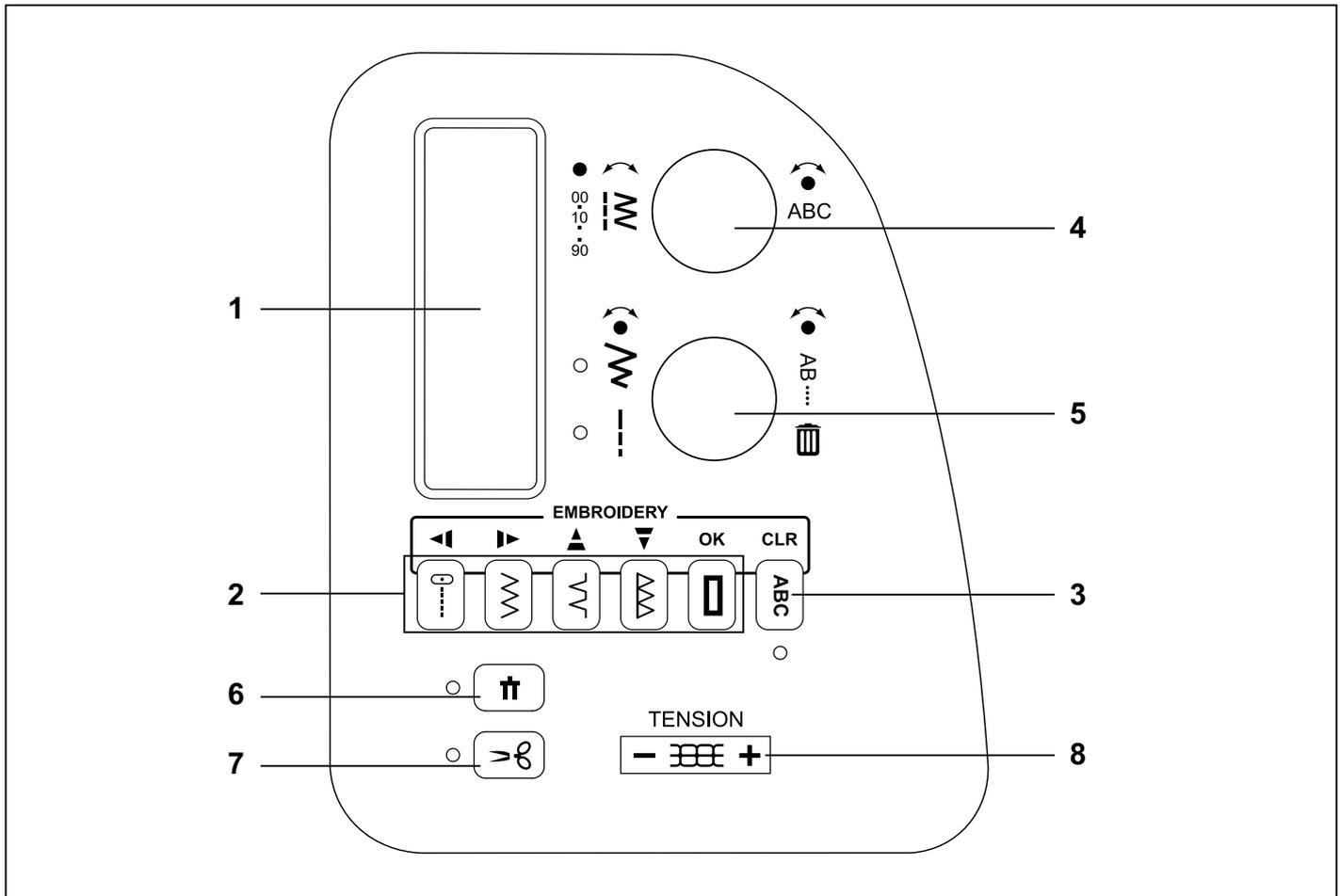
### CHANGING PRESSER FOOT

Be sure the needle is in the highest position. Raise presser foot lifter.

1. Push presser foot release button to remove the foot.
2. Place the desired foot on the needle plate aligning the presser foot pin with the foot holder.
3. Lower the presser foot lifter so that the foot holder snaps on the foot.



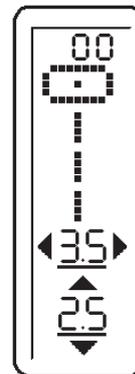
# CONTROL PANEL FUNCTIONS



## 1. LCD DISPLAY

When turning on the machine without the embroidery unit attached, straight stitch number 00, is selected. The information on the display changes for regular sewing, programming and embroidering. For regular sewing, the LCD display shows the number of the selected stitch, an image of the stitch, and stitch width and stitch length settings.

See page 13 for information about the display when creating a stitch program, and page 52 for information about the display when embroidering.



## 2. DIRECT SELECTION BUTTONS

Frequently used stitches are available by the direct selection buttons. Simply press a button to select that stitch.

## 3. PROGRAM MODE BUTTON

Press this button to enter Program Mode. Read more about programming under 4 and 5 below.

#### 4. STITCH SELECTION DIAL

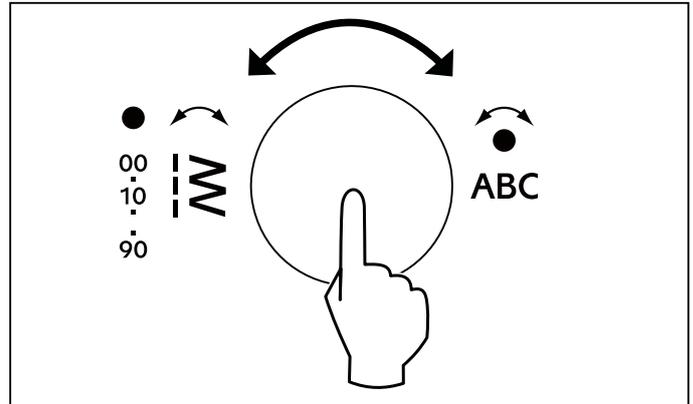
There are two main categories of stitches:

- utility and decorative stitches that are sewn continuously (buttonholes are also included here)
- stitches that are sewn in single repetitions and can be programmed into longer sequences.

Turn the dial to browse the available stitches one by one. Press the center of the dial to step ten stitches at a time.

**Example: To select stitch number 52, press the center of the dial five times and then turn the dial two steps clockwise.**

When the “ABC” Program Mode button has been pressed (see 3 above) turning the Stitch Selection Dial will browse through letters and other programmable stitches. Selected stitch will be sewn in one repetition only. Press the center of the dial to program selected stitch.



#### 5. STITCH SETTING/SCROLL AND DELETE PROGRAM DIAL

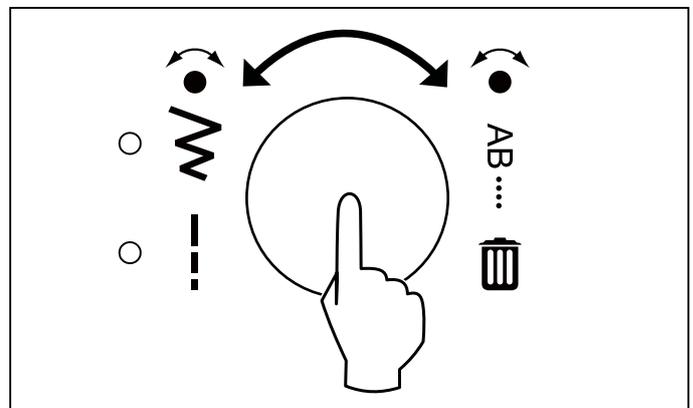
##### Setting Stitch Width and Stitch Length

In sewing mode, stitch width (needle position for straight stitch) and stitch length are displayed. Width and length are automatically set to default for all stitches when turning on the machine. Default numbers are underlined.

Press the center of the dial to toggle between stitch width and stitch length setting. A LED indicator is lit next to the selected setting. Turn the dial to adjust the selected setting. The numbers change on the display as you turn, and the underlining is removed, indicating that the new setting is not default.

**Note: When an arrow on either side of the stitch width/ stitch length value number disappears, the machine is set at the maximum or minimum stitch width or length available for that particular stitch.**

The settings made for each stitch are saved until the machine is turned off.



##### Scroll program and delete programmed stitches

When the “ABC” Program Mode button has been pressed (see 3 above) turning the lower dial will scroll through the programmed letters and stitches, displaying your program as it will be stitched out.

Press the center of the dial to delete the last stitch in the program. Press repeatedly or keep the center of the dial pressed to continue deleting letters and/or programmed stitches one at a time.

## 6. TWIN NEEDLE BUTTON

When using twin needles, press the twin needle safety button regardless of the stitch you selected. Doing so will reduce the stitch width automatically and save broken needles and possible damage to your machine.

When the button is pressed, the LED indicator next to the button is lit, indicating that Twin Needle Button is activated. When turning the Stitch Selection Dial, the machine now automatically skips all stitches that are not suitable for twin needle, and a beep will sound when selecting buttonhole pattern with the direct selection button, indicating that buttonholes cannot be sewn with twin needle.

**Note: Always select the Twin Needle Button prior to selecting a pattern. This will preclude any possibility of the twin needle breaking.**

**To disengage the Twin Needle Button and return the machine to normal sewing mode, either press the Twin Needle button again or turn the machine off. Twin Needle sewing is only active when the LED light next to the Twin Needle button is lit.**

It is recommended that you use SINGER Style 2025 twin needles.

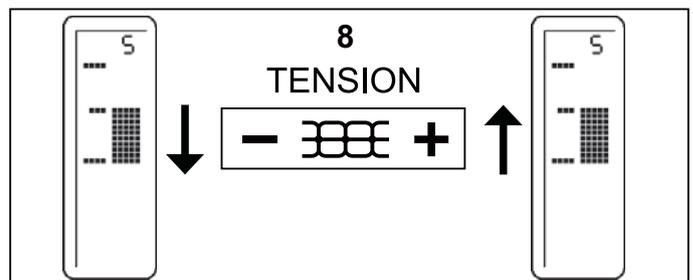
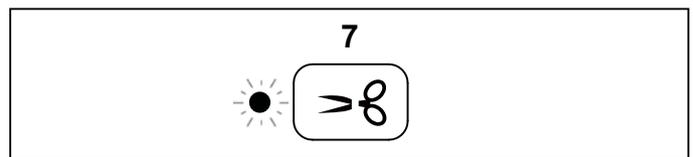
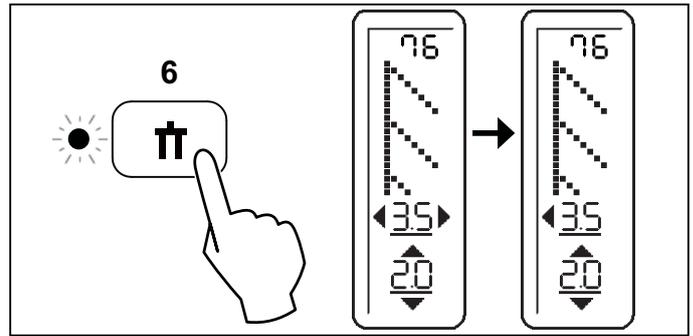
## 7. THREAD CUTTING MODE

Press this button to activate Thread Cutting Mode. The machine will automatically cut the top and bobbin thread every time you stop sewing. When activated, the LED indicator next to the button is lit.

**Note: Twin needle safety and Thread cutting mode cannot be enabled at the same time.**

## 8. THREAD TENSION CONTROL BUTTON

Press - to decrease and + to increase thread tension. While pressing the button, thread tension adjustment mode is displayed on LCD screen.



## FUNCTIONS OF OPERATION SWITCH PANEL

### 1. TACKING STITCH MODE BUTTON

Press Tacking Stitch Button  and the sewing machine makes 4 tiny fixing stitches to tie off the sewing on all patterns. Press START/STOP to sew.

Press Tacking Stitch button when the machine is stopped so tacking stitch will be activated. The position of the tacking stitches will be at the exact spot in the pattern where the Tacking Stitch button is pushed. When the function is activated, the LED indicator next to the button is lit red.

### 2. THREAD CUTTER

Press Thread Cutter to automatically cut the top and bobbin threads.

### 3. NEEDLE STOP POSITION SELECTOR BUTTON

When the machine is turned on, needle is set at its up-stop position with upper LED lamp lit. When the button is pushed, needle is set at its down-stop position with lower LED lamp lit. Push it again and it will return to its up-stop position with upper LED lamp lit.

### 4. REVERSE STITCH BUTTON

Reverse sewing is carried out by pushing the reverse stitch button. The machine will sew 4 stitches in reverse and stop.

### 5. START/STOP BUTTON

When the Start/Stop button is pushed, the machine starts slowly, and when the button is pushed once more, the machine stops.

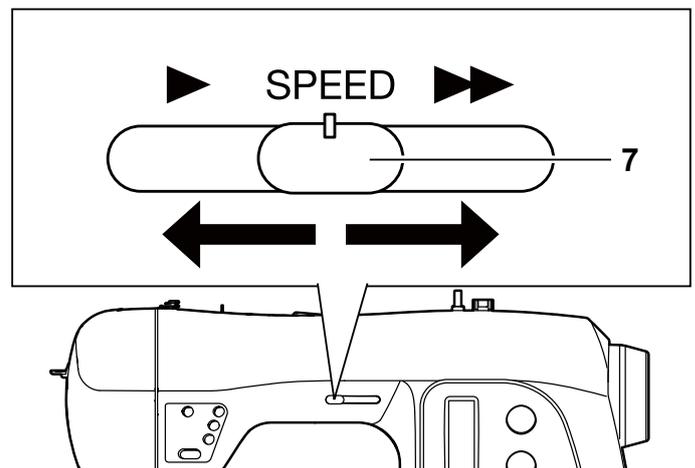
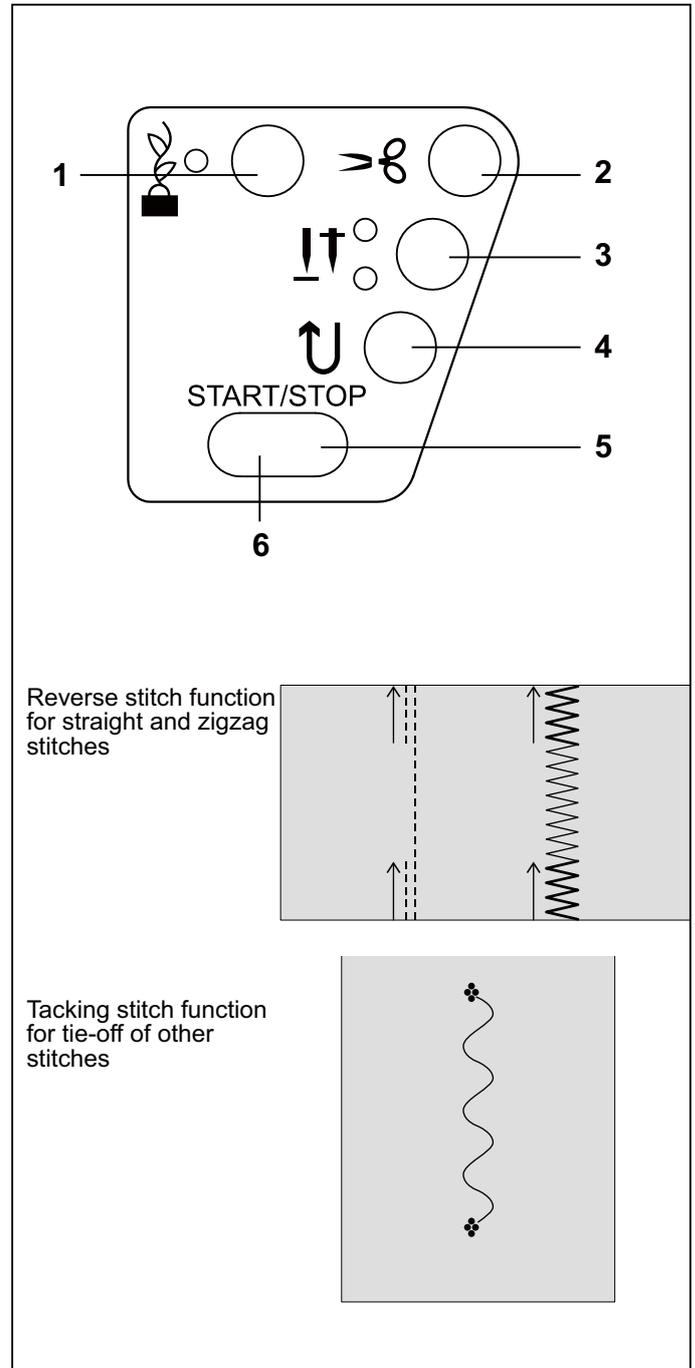
However, when foot control is plugged, the Start/Stop button will be inactive.

### 6. LED INDICATOR

- \* Green light indicates machine is ready to start.
- \* Red light indicates machine is operating.
- \* Flashing red light indicates a problem or an error.
  - \* Flashing for 2 - 3 seconds shows that an incorrect operation was made.
  - \* Continuous flashing indicates that the machine malfunctions.

### 7. SPEED CONTROL LEVER

Sliding the lever sets desired sewing speed. When foot control is used, the lever serves as a top speed limiter. The speed control lever can be used in both the sewing mode and the embroidery mode.



## 2. STARTING TO SEW

### QUICK REFERENCE TABLE OF STITCH LENGTH AND WIDTH

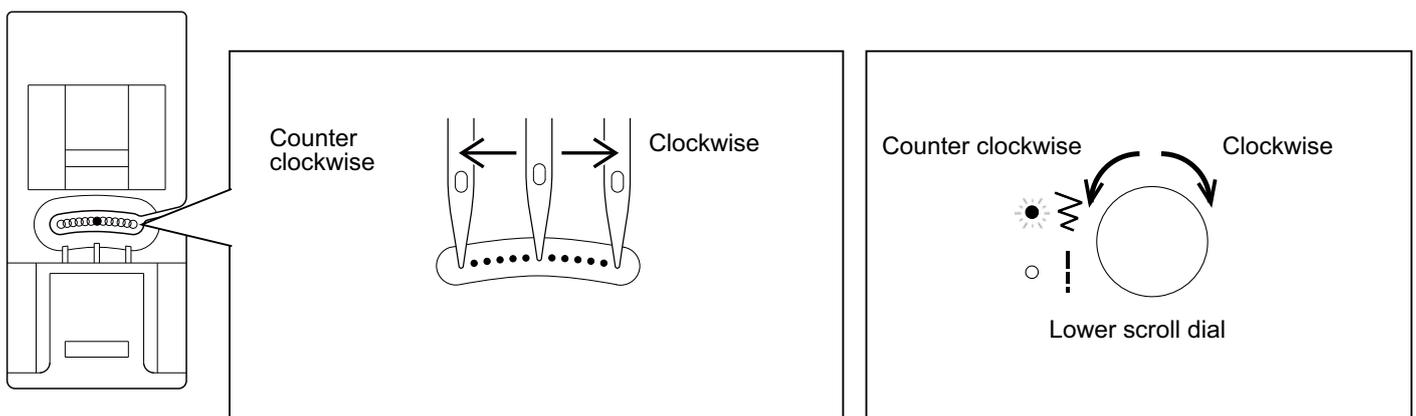
STITCH	No.	LENGTH		NEEDLE POSITION	
		AUTO	MANUAL	AUTO	MANUAL
	00	2.5	0.5 - 4.8	CENTER	LEFT - RIGHT *
	01	2.5	1.5 - 3.0	CENTER	LEFT - RIGHT *
	02	2.5	2.0 - 4.0	CENTER	-

STITCH	No.	LENGTH		WIDTH		STITCH	No.	LENGTH		WIDTH	
		AUTO	MANUAL	AUTO	MANUAL			AUTO	MANUAL	AUTO	MANUAL
	03	2.0	0.5 - 3.0	5.0	0 - 7.0		07	1.5	0.3 - 2.5	6.0	2.5 - 7.0
	04	2.0	0.5 - 3.0	5.0	0 - 7.0		08	2.0	1.0 - 3.0	3.0	1.0 - 6.0
	05	2.0	0.5 - 3.0	5.0	0 - 7.0		09	2.5	1.5 - 3.0	3.5	3.5 - 7.0
	06	2.0	1.0 - 3.0	3.0	2.0 - 7.0		10	2.0	1.0 - 3.0	6.0	3.0 - 6.0

#### \* Adjusting needle position for straight stitch

13 needle positions are available for quilting, top stitching etc.



STITCH	No.	LENGTH		WIDTH		STITCH	No.	LENGTH		WIDTH	
		AUTO	MANUAL	AUTO	MANUAL			AUTO	MANUAL	AUTO	MANUAL
	11	2.5	1.5 - 3.0	3.5	3.5 - 7.0		26	0.5	0.5 - 1.0	3.5	2.0 - 6.0
	12	2.0	1.0 - 3.0	3.0	1.0 - 6.0		27	0.5	0.5, 0.8	5.0	2.0 - 7.0
	13	2.5	1.5 - 3.0	-	-		28	1.3	1.0 - 2.0	6.3	3.8 - 6.3
	14	2.0	1.0 - 2.5	5.0	3.0 - 7.0		29	2.5	1.5 - 2.5	7.0	3.5 - 7.0
	15	2.5	1.5 - 2.5	5.0	3.0 - 7.0		30	1.8	1.5 - 2.5	5.0	3.0 - 7.0
	16	2.0	2.0 - 4.0	-	-		31	2.5	1.5 - 2.5	5.0	4.0 - 7.0
	17	-	-	5.0	5.0, 6.0		32	1.8	1.0 - 4.0	7.0	3.5 - 7.0
	18	2.5	1.5 - 3.0	5.0	2.0 - 7.0		33	2.5	1.5 - 2.5	5.0	3.0 - 7.0
	19	2.0	1.5 - 2.5	7.0	3.5, 7.0		34	2.5	1.0 - 2.5	7.0	3.0 - 7.0
	20	1.8	0.8 - 2.5	7.0	3.5, 7.0		35	2.5	1.0 - 2.5	7.0	3.0 - 7.0
	21	2.5	1.3 - 2.5	5.0	3.5 - 7.0		36	2.5	1.5 - 2.5	4.5	3.0 - 6.0
	22	2.5	1.5 - 2.5	5.0	3.5 - 7.0		37	2.5	1.5 - 2.5	7.0	3.5 - 7.0
	23	-	-	6.0	3.5, 6.0		38	2.5	1.5 - 2.5	4.5	3.0 - 6.0
	24	-	-	6.0	3.5, 6.0		39	2.5	1.5 - 2.5	5.0	3.5 - 7.0
	25	2.5	0.8 - 2.5	5.0	1.0 - 7.0		40	1.5	0.5 - 2.0	5.0	2.0 - 7.0

STITCH	No.	LENGTH		WIDTH		STITCH	No.	LENGTH		WIDTH	
		AUTO	MANUAL	AUTO	MANUAL			AUTO	MANUAL	AUTO	MANUAL
	41	2.5	1.5 - 2.5	5.0	3.5 - 7.0		56	0.5	0.5 - 1.5	7.0	3.5 - 7.0
	42	2.5	1.3 - 3.0	6.0	3.0 - 7.0		57	0.5	0.5 - 3.0	7.0	3.0 - 7.0
	43	2.0	1.5 - 3.5	4.5	2.0 - 7.0		58	0.5	0.5 - 3.0	7.0	3.0 - 7.0
	44	0.8	0.8 - 1.5	6.0	3.5, 6.0		59	2.5	1.5 - 2.5	7.0	3.5 - 7.0
	45	0.5	0.5 - 1.5	7.0	3.5 - 7.0		60	2.5	1.5 - 2.5	7.0	3.5 - 7.0
	46	0.5	0.5 - 1.5	7.0	3.5 - 7.0		61	0.8	0.8 - 1.5	7.0	3.5 - 7.0
	47	0.5	0.5 - 1.5	7.0	3.5 - 7.0		62	0.8	0.8 - 1.5	7.0	3.5 - 7.0
	48	0.5	0.5 - 1.3	6.0	3.0 - 6.0		63	0.5	0.5 - 1.5	7.0	3.0 - 7.0
	49	0.5	0.5 - 2.5	7.0	3.5 - 7.0		64	0.5	0.3 - 1.5	7.0	3.0 - 7.0
	50	0.5	0.5 - 1.5	7.0	3.0 - 7.0		65	0.5	0.5 - 1.5	7.0	3.0 - 7.0
	51	0.5	0.5 - 1.5	7.0	3.0 - 7.0		66	0.5	0.5 - 1.5	5.0	3.5 - 7.0
	52	0.5	0.5 - 1.5	7.0	3.5 - 7.0		67	0.8	0.8 - 1.5	6.0	3.5, 6.0
	53	0.5	0.5 - 1.5	7.0	3.5 - 7.0		68	2.5	1.5 - 3.0	3.0	1.0 - 7.0
	54	0.5	0.5 - 1.5	7.0	3.5 - 7.0		69	2.5	1.5 - 3.0	3.5	1.0 - 7.0
	55	0.5	0.5 - 1.5	7.0	3.5 - 7.0		70	2.0	1.5 - 3.0	6.0	3.0 - 6.0

STITCH	No.	LENGTH		WIDTH		STITCH	No.	LENGTH		WIDTH	
		AUTO	MANUAL	AUTO	MANUAL			AUTO	MANUAL	AUTO	MANUAL
	71	2.5	1.5 - 3.0	3.0	2.0 - 7.0		86	1.5	0.5 - 1.5	7.0	3.0 - 7.0
	72	2.5	1.5 - 3.0	3.5	1.0 - 7.0		87	2.5	1.5 - 2.5	5.0	3.5 - 7.0
	73	2.0	1.5 - 3.0	6.0	3.0 - 6.0		88	2.5	1.0 - 2.5	5.0	2.0 - 7.0
	74	2.5	1.0 - 3.0	4.0	2.0 - 6.0		89	-	-	-	-
	75	2.0	1.0 - 3.0	5.0	1.0 - 7.0		90	-	-	3.0	2.0 - 4.5
	76	2.0	0.8 - 2.5	3.5	1.0 - 6.0		91	0.5	0.5, 0.8	-	-
	77	2.5	1.5 - 2.5	5.0	3.0 - 7.0		92	-	-	-	-
	78	2.5	1.5 - 3.0	3.0	1.0 - 7.0		93	0.5	0.5, 0.8	-	-
	79	2.5	1.5 - 3.0	3.5	1.0 - 7.0		94	0.5	0.5, 0.8	-	-
	80	2.5	1.5 - 2.5	5.0	3.5 - 7.0		95	0.5	0.5, 0.8	-	-
	81	2.5	1.5 - 2.5	5.0	3.5 - 7.0		96	0.5	0.5, 0.8	-	-
	82	2.5	1.5 - 2.5	4.5	3.0 - 6.0		97	0.5	0.5, 0.8	-	-
	83	1.3	0.8 - 4.0	7.0	3.5 - 7.0		98	0.5	0.5, 0.8	-	-
	84	1.3	0.8 - 4.0	7.0	3.5 - 7.0		99	0.5	0.5, 0.8	-	-
	85	2.0	0.8 - 2.5	3.5	1.0 - 6.0						

## STRAIGHT STITCHING



Straight stitch is most frequently used for all types of sewing. Let's begin by following the steps below.

### 1. SETTINGS

Presser foot - All Purpose Foot

**NOTE: Based upon the weight of the fabric, slight "fine tuning" of the tension may be desired.**

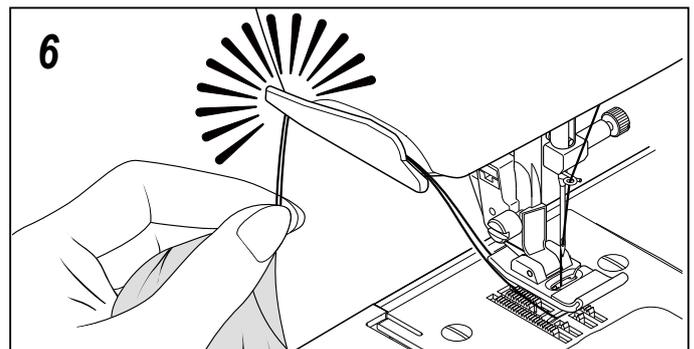
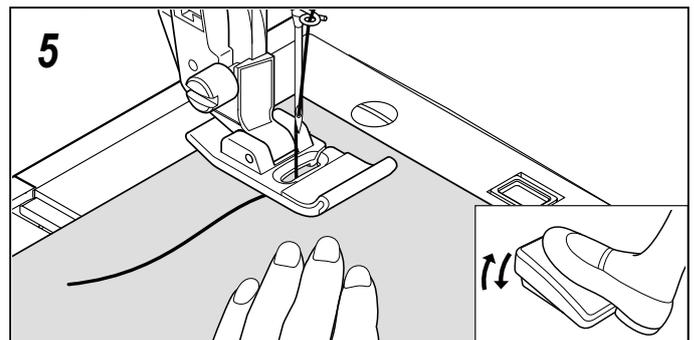
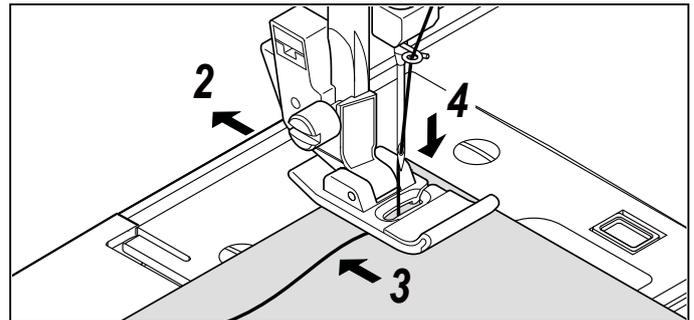
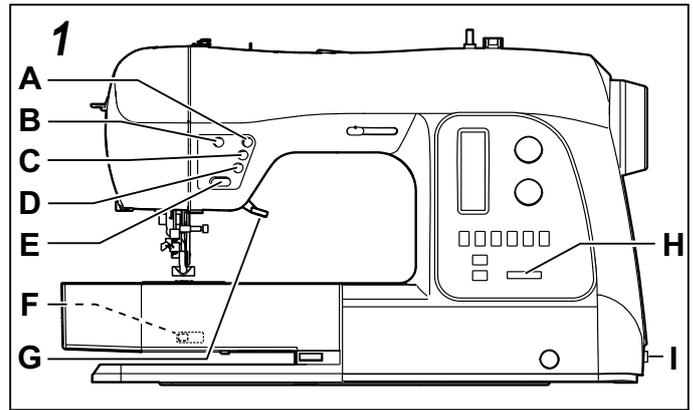
- A. Thread cutter
- B. Tacking stitch mode button
- C. Needle up/down position selector button
- D. Reverse stitch button
- E. Start/stop button
- F. Feed dog control (at rear side)
- G. Presser foot lifter
- H. Thread tension control button
- I. Power/light switch

**NOTE: Since a straight stitch has no width, the stitch width control is used to change the needle position.**

2. Pull both threads under the presser foot toward the left of the machine, leaving about 6" (15 cm) clear.
3. Place the fabric under the presser foot and lower the presser foot lifter.
4. Turn the hand wheel counter clockwise (towards you) until the needle enters the fabric.
5. Start the machine. Guide the fabric gently with your hands. When reaching the edge of the fabric, stop the sewing machine.

**NOTE: The Needle Plate has both Metric and Inch Markings as an aid for guiding your fabric when sewing a seam.**

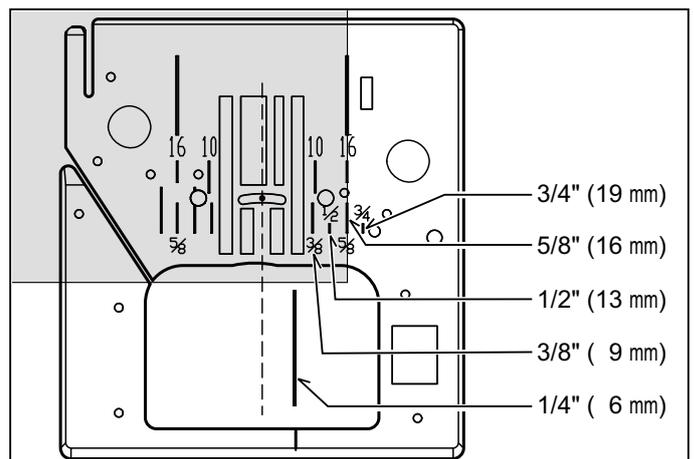
6. First turn the hand wheel counter clockwise (toward you) until the needle is in its highest position, then raise the presser foot. Draw the fabric to the rear and cut off excess thread with the thread cutter located on the bottom of the face cover, as shown.



## KEEPING SEAMS STRAIGHT

To keep the seam straight, use one of the numbered guide lines on the needle plate. The numbers indicate distance from the needle at its center position.

The guide line on the bobbin cover plate is a 1/4" (6mm) seam guide line, used for piecing quilt blocks or for sewing narrow seams.



## INSERTING ZIPPERS AND PIPING

SETTINGS: Presser foot - Zipper Foot

Use the zipper foot to sew to the right or left of the zipper. It can also be used to make or insert piping.

### INSERTING ZIPPERS

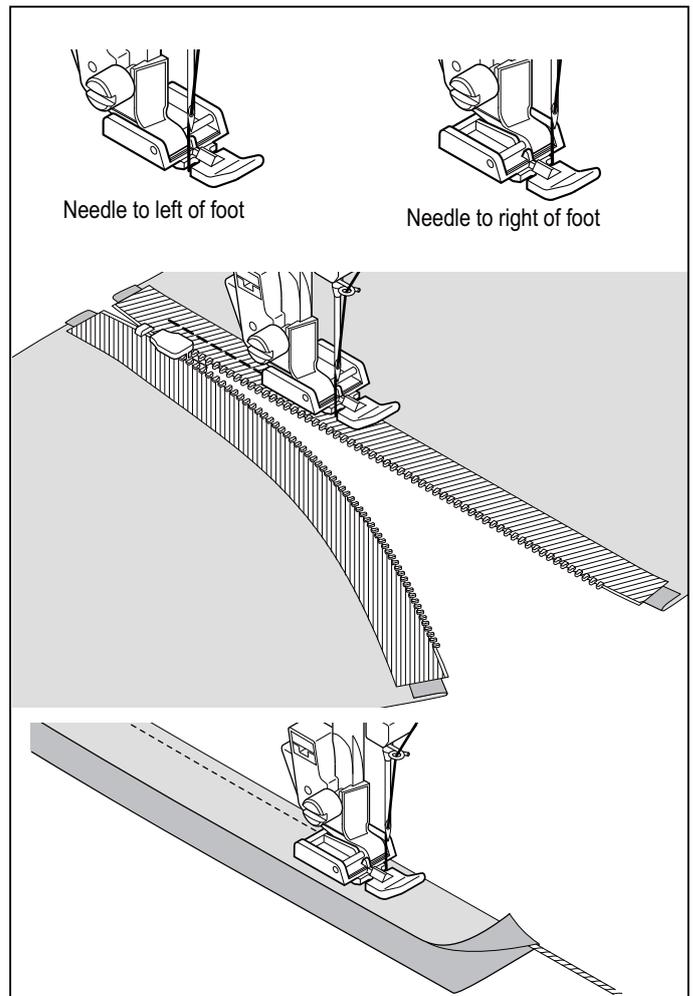
To sew down the right side, attach left side of zipper foot to presser foot holder so that the needle passes through the opening on the left side of the foot.

To sew down the left side, attach right side of foot to foot holder.

### PIPING

Create a piping by covering a filler cord with a bias strip of fabric. Attach the right side of the zipper foot to the foot holder so that the needle passes through the right side of the zipper foot. Baste the seam allowances together, enclosing the filler cord, forming seam tape for the piping.

**Helpful Hint: Slight adjusting of the needle position to sew closer to the piping may be accomplished with the Stitch Width Control.**

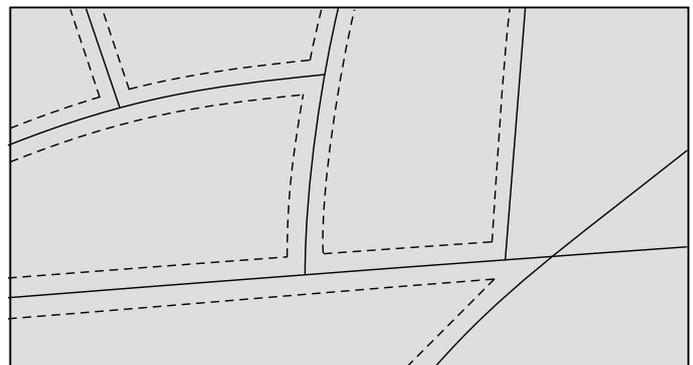


## HAND-LOOK QUILT STITCH

02

This stitch is designed to look like hand sewing for topstitching and quilting.

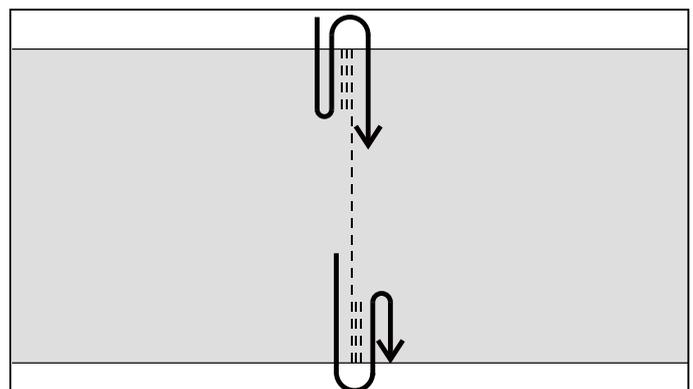
1. Thread bobbin with desired top stitching color.
2. Thread the needle with either invisible thread or with thread that is a color which blends in with the fabric color, so it doesn't show.
3. Increase thread tension toward 6 or higher until you achieve the desired appearance.
4. Set the stitch length at 4 (maximum).
5. Start to sew.



## STRAIGHT STITCH WITH AUTO TIE-OFF FUNCTION

16

1. Press the foot control and the machine will sew 4 stitches forward and then 4 stitches in reverse and continue to sew forward until the foot control is released.
2. Press the reverse button and the machine will sew 4 stitches in reverse and then 4 stitches in forward and stop.

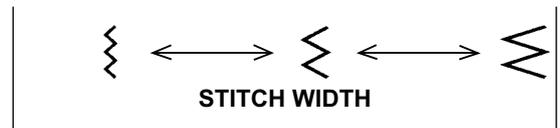
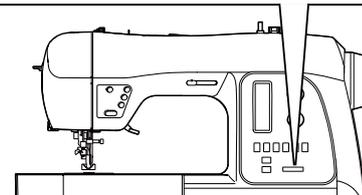
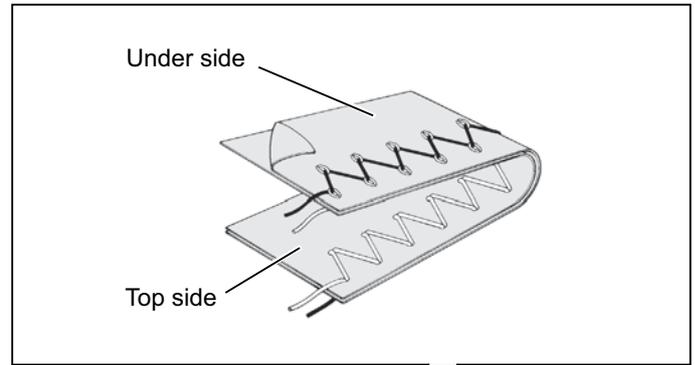


## ZIGZAG STITCHING



SETTINGS : Presser foot - All Purpose Foot

The top thread may appear on the bottom depending on the thread, fabric, type of stitch and sewing speed, but the bobbin thread must never appear on the top of the fabric.



## ADJUSTING STITCH WIDTH AND LENGTH

 is values set automatically when pattern (No. 03) is set. The stitch length is 2 mm and the stitch width is about 5 mm.

 is the selection range when setting the value manually.

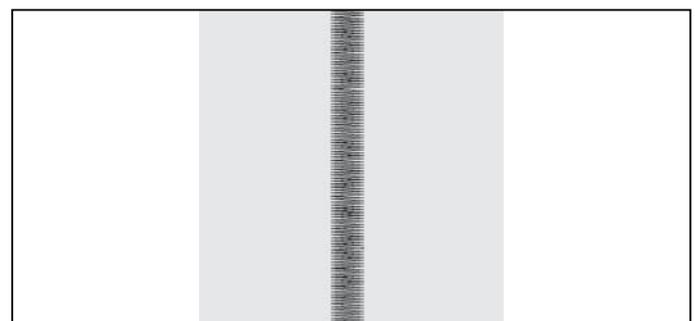
		STITCH WIDTH															
		mm	0	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0
STITCH LENGTH	0																
	0.3																
	0.5																
	0.8																
	1.0																
	1.3																
	1.5																
	1.8																
	2.0																
	2.5																
3.0																	

## SATIN STITCH

SETTINGS: Presser foot - Satin Foot

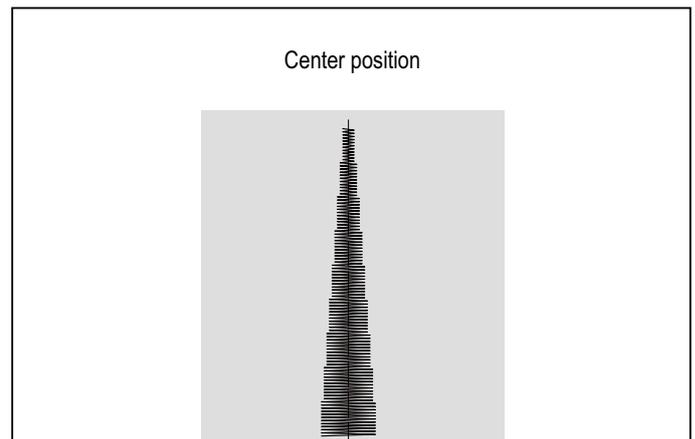
This is a closely spaced stitch used for appliqué, bar-tacking, etc. Slightly loosen the top thread tension for satin stitching. Set the stitch length between 0.5 and 2.0, depending on the weight of thread being used.

Use a backing of stabilizer to help avoid stitches puckering the fabric.



## PLACEMENT OF PATTERNS

Stitch width of pattern increases from center needle position as illustrated.



## BLIND STITCH



SETTINGS :Presser foot - Blind Hem Foot

– Regular blind stitch for normal fabrics

– Elastic blind stitch for soft, stretchable fabrics

1. First finish the raw edge. Do this by turning it under on fine fabrics or overcasting it on medium to heavyweight fabrics. Then turn the hem up the required depth, press and pin in place.
2. Now fold the fabric as illustrated.

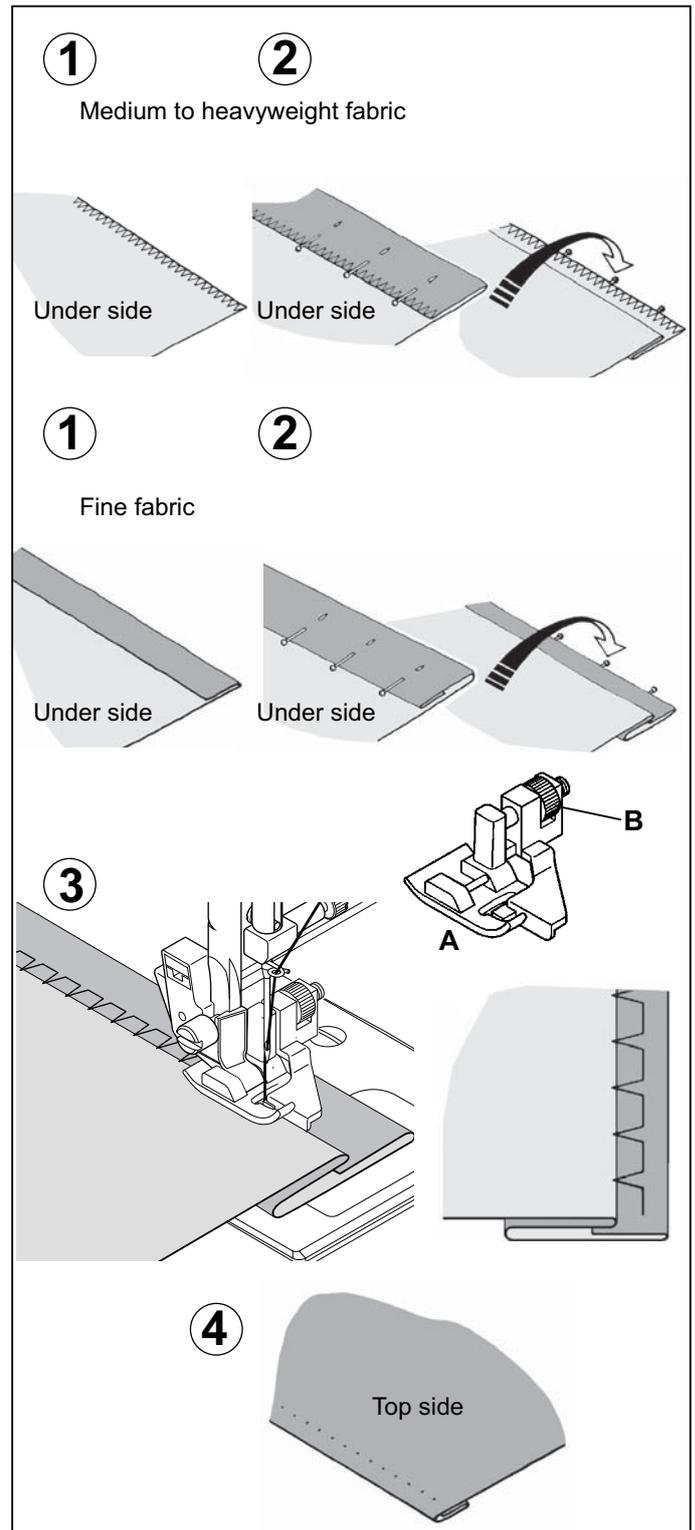
3. Place the fabric under the foot. Turn the hand wheel counter clockwise (toward you) by hand until the needle swings fully to the left. It should just pierce the fold of the fabric. If it does not, adjust the guide (B) on the Blind hem Foot (A) so that the needle just pierces the fabric fold and the guide just rests against the fold.

**NOTE: For a narrower or wider blind hem, first manually adjust the length and width controls to your desired length and width. Then adjust the guide on the foot.**

Sew slowly, guiding the fabric carefully along the edge of the guide.

4. When completed, the stitching is almost invisible on the right side of the fabric.

**NOTE: It takes practice to sew blind hem. Always make a sewing test first.**



## MULTI-STITCH ZIGZAG

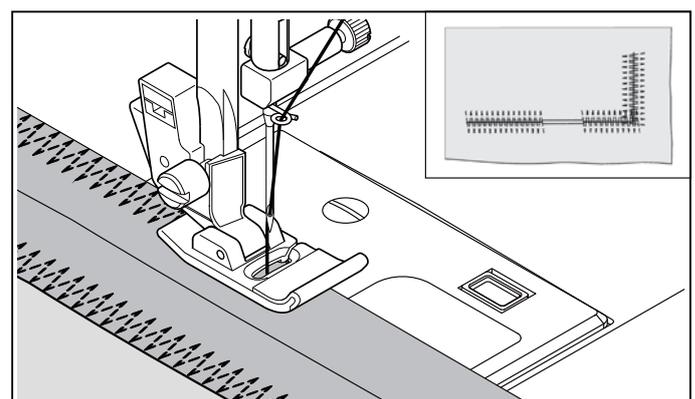


SETTINGS :Presser foot - All Purpose Foot

This is a strong stitch because as its name implies, it makes three short stitches where the normal zig-zag makes only one.

For this reason, it is recommended for overcasting most types of fabrics.

It is also ideal for mending tears, applying patches and inserting elastic.



## STRETCH STITCHES

SETTINGS :Presser foot - All Purpose Foot

Stretch stitches are mainly for use on knit or stretchable fabrics, but can also be used on woven fabrics.

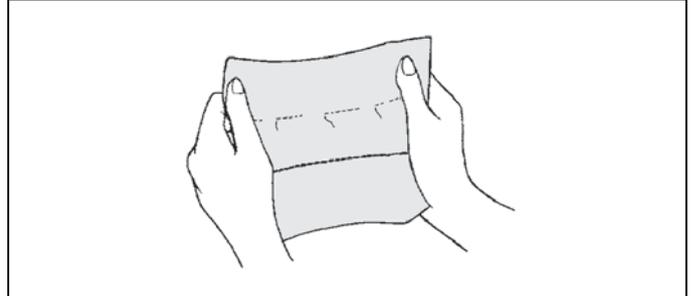
### STRAIGHT STRETCH STITCH



Straight stretch stitch is far stronger than an ordinary straight stitch because it locks three times - forwards, backwards and forwards.

It is particularly suitable for reinforcing the seams of sportswear in stretch and non-stretch fabrics, and for curved seams which take a lot of strain.

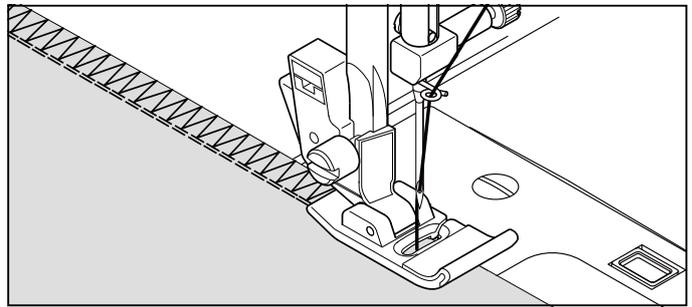
Use this stitch also to top-stitch lapels, collars and cuffs to give a professional finish to your garments.



### OVEREDGE STITCH



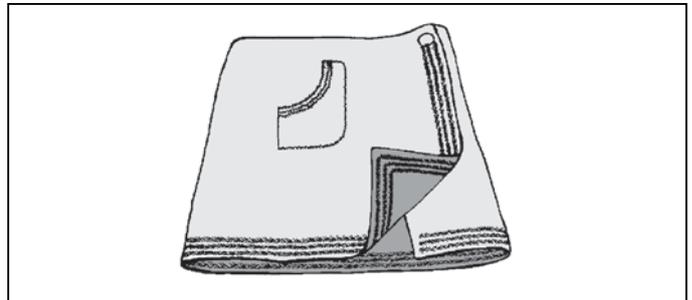
This stitch is especially used for making sportswear. It sews and finishes the seam in one operation. It is very effective for repairing raw or worn edges as well.



### RIC-RAC STITCH



The ric-rac stitch provides a bold topstitch for decorative borders. It is ideal for edging neck-bands, armholes, sleeves and hems.

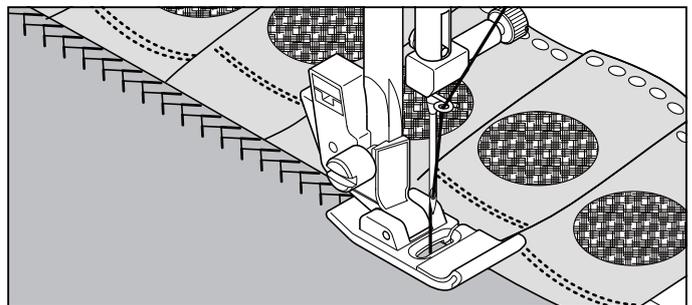


### FEATHER STITCH



This stitch can be used for topstitching and for attaching lace and trims.

It is also ideal for quilting applications and for edge-joining.

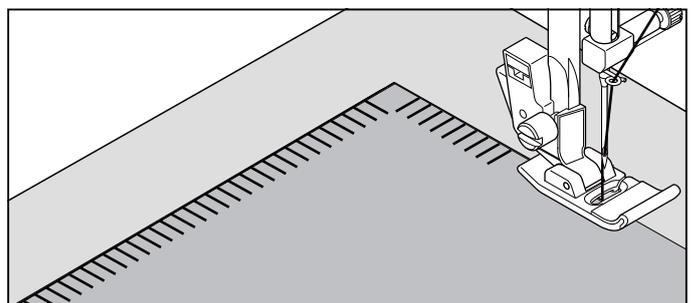


### BLANKET STITCH



This stitch is commonly used for machine appliqué, though it can be used decoratively as well.

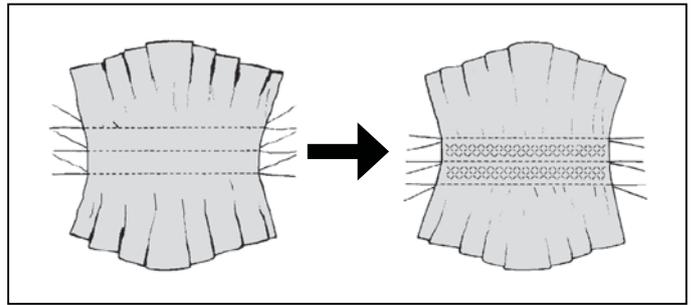
When used for applique, adjust the length or width of the stitch according to the desired look of the project.



## HONEYCOMB STITCH



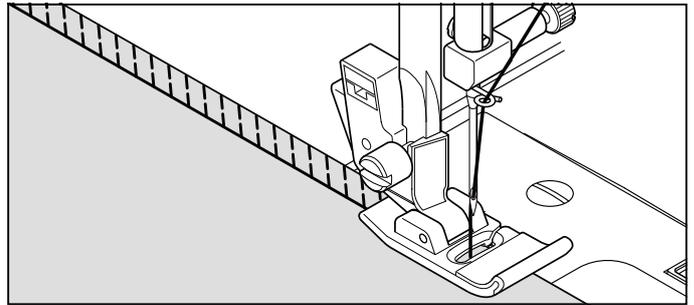
1. Make several rows of gathers across the fabric that you wish to smock.
2. With a narrow strip of fabric directly under the line of gathering, stitch over the gathers. The design will be a series of small diamonds.



## SLANT OVEREDGE STITCH



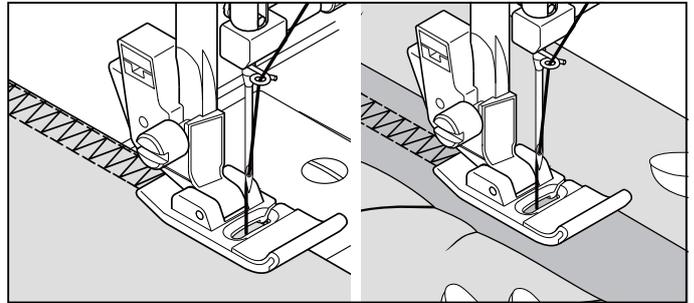
This stitch seams and overcasts in one operation to produce a narrow, supple seam, particularly suited to swimwear, sportswear, T-shirts, babywear in stretch nylon, stretch towelling, jersey and cotton jersey.



## TURKISH STITCH



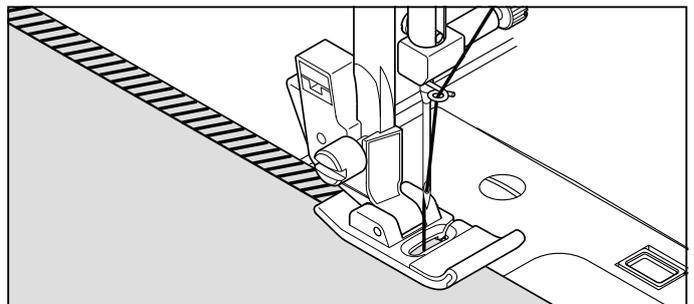
The Turkish stitch has three main uses. It is perfect for attaching flat elastic when making or repairing lingerie; and for overcasting and for seaming and overcasting in one operation on slightly stretch fabrics and non-stretch ones such as linen, tweed, and medium to heavy-weight cotton.



## SLANT PIN STITCH



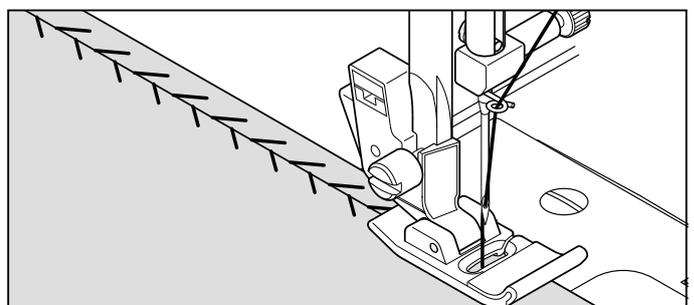
Use this stitch for decorative embellishment. It can also be used for seams on stretch fabrics. Sew near the raw edge of the fabric and trim close to the outside of the stitching.



## THORN STITCH



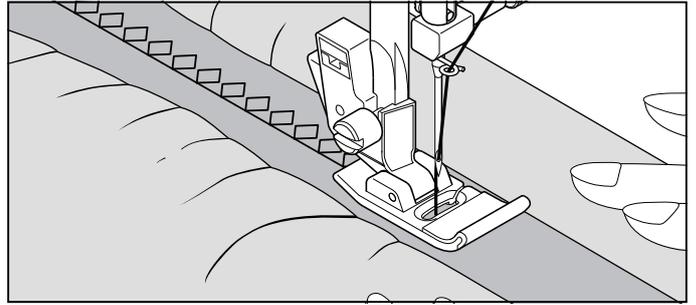
It is a versatile stitch used for joining fabric pieces and as a decorative touch.



## REINFORCED OVEREDGE STITCH



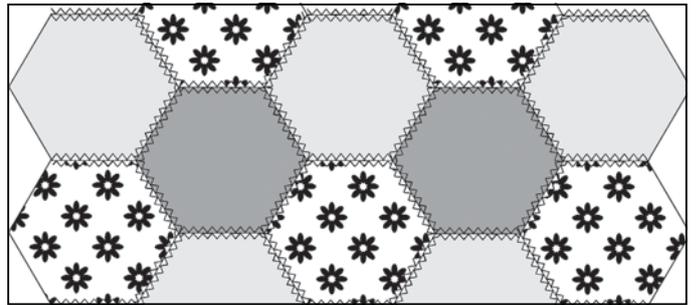
Both of these stitches can be used for attaching flat elastic. They can also be used for smocking as well as for seam finishing.



## WIZARD STITCH



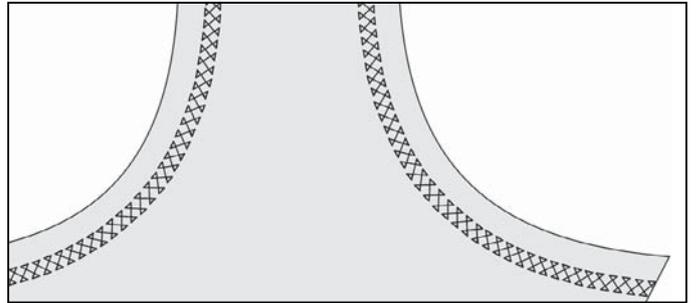
The Wizard stitch, as well as being a decorative stitch, is ideal for patching stretch fabrics such as jersey and knitwear.



## CROSSED STITCH



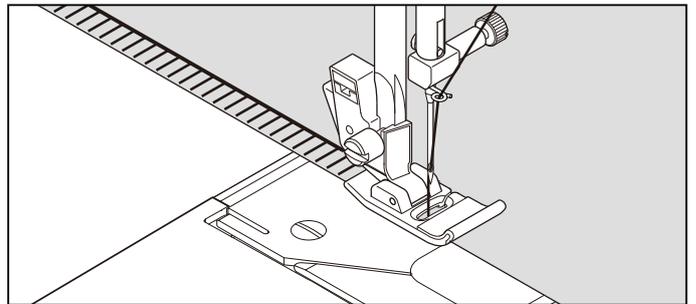
Use to sew and finish elastic fabrics or for decoration of borders.



## PIN STITCH



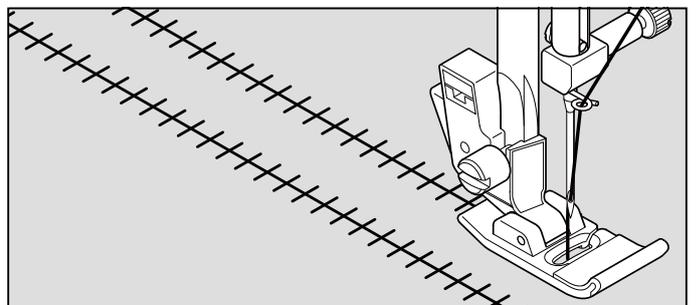
The Pin stitch is a traditional stitch pattern used for picot like edges and for appliqué work.



## ENTREDEUX STITCH



Useful for decorative stitching on borders and for use in heirloom sewing. The Entredeux stitch is most often sewn with a Wing Needle (SINGER Style 2040) to create holes in the stitch pattern.



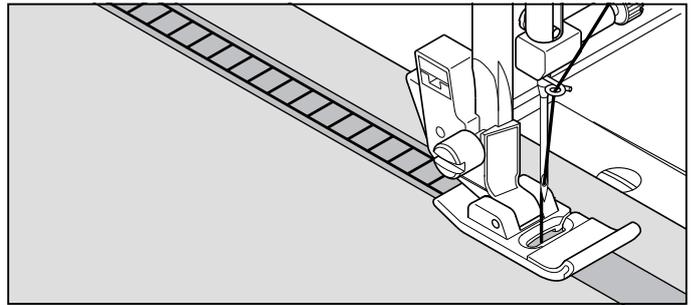
## LADDER STITCH 72

The Ladder stitch is primarily used for drawn thread hemstitching. It can also be used for sewing over thin tape in an opposite or same color. Place the stitch in the center and a special effect will be obtained for decoration.

Another use for the ladder stitch is couching over narrow ribbon, yarn or elastic.

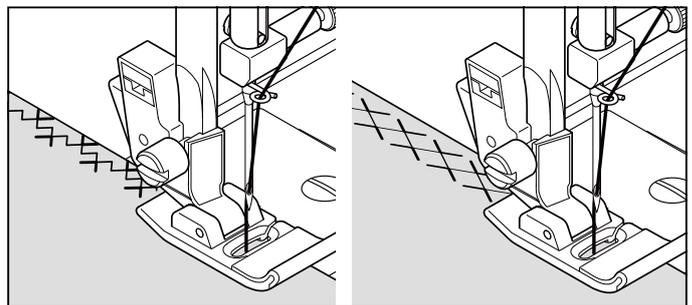
For drawn thread work, choose a medium to heavy weight linen-type fabric. After sewing, draw the thread out from within the ladder for an open, airy appearance.

**NOTE:** Be sure to sew accurately along the grain line, if you wish to draw out threads.



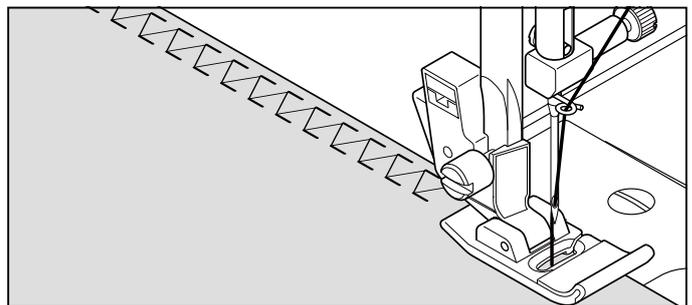
## CRISS-CROSS STITCH 73 82

Used to sew and finish stretch fabrics or for decoration especially of borders.



## FISHBONE STITCH 77

Use to create decorative borders and for embroidery.



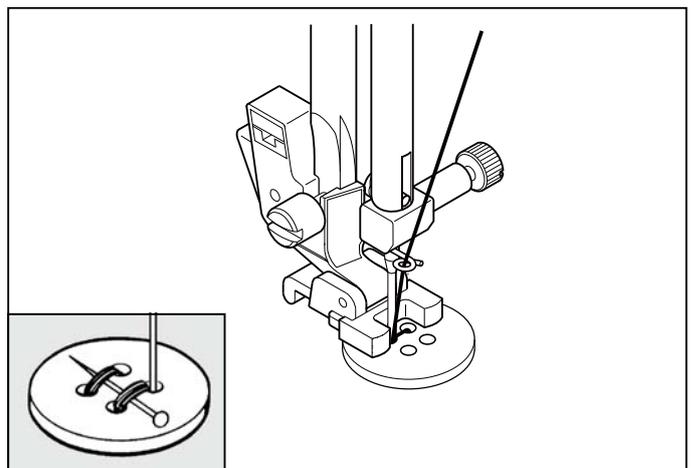
## SEWING ON A BUTTON 90

**SETTINGS** :Presser foot - Button Sewing Foot  
:Feed dog control - 

Position your fabric and button under the presser foot. Lower presser foot. Turn the hand wheel counter clockwise (toward you) to make sure the needle clears both the left and right openings of the button. Adjust width if required. Sew 10 stitches across.

If a shank is required, place a darning needle on top of the button and sew over top of it.

**Helpful Hint:** To secure thread, pull both threads to the backside of the fabric and tie together.

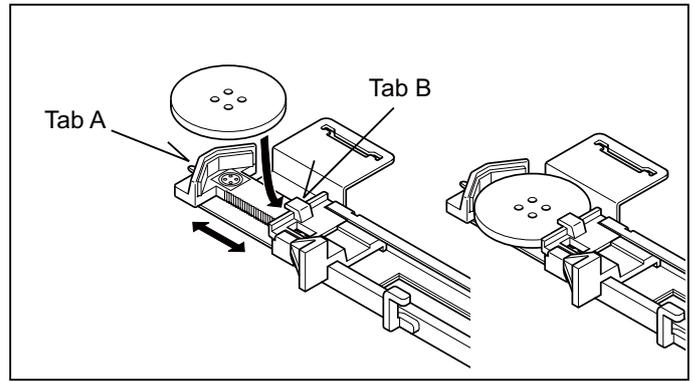


# BUTTONHOLES

## USING BUTTONHOLE FOOT

1. Insert a button in between tab A and tab B.
2. Buttonholes can be sewn to match the size of the button.

It is helpful to remove the extension table when sewing a buttonhole, to keep the foot from vibrating when moving across the table.

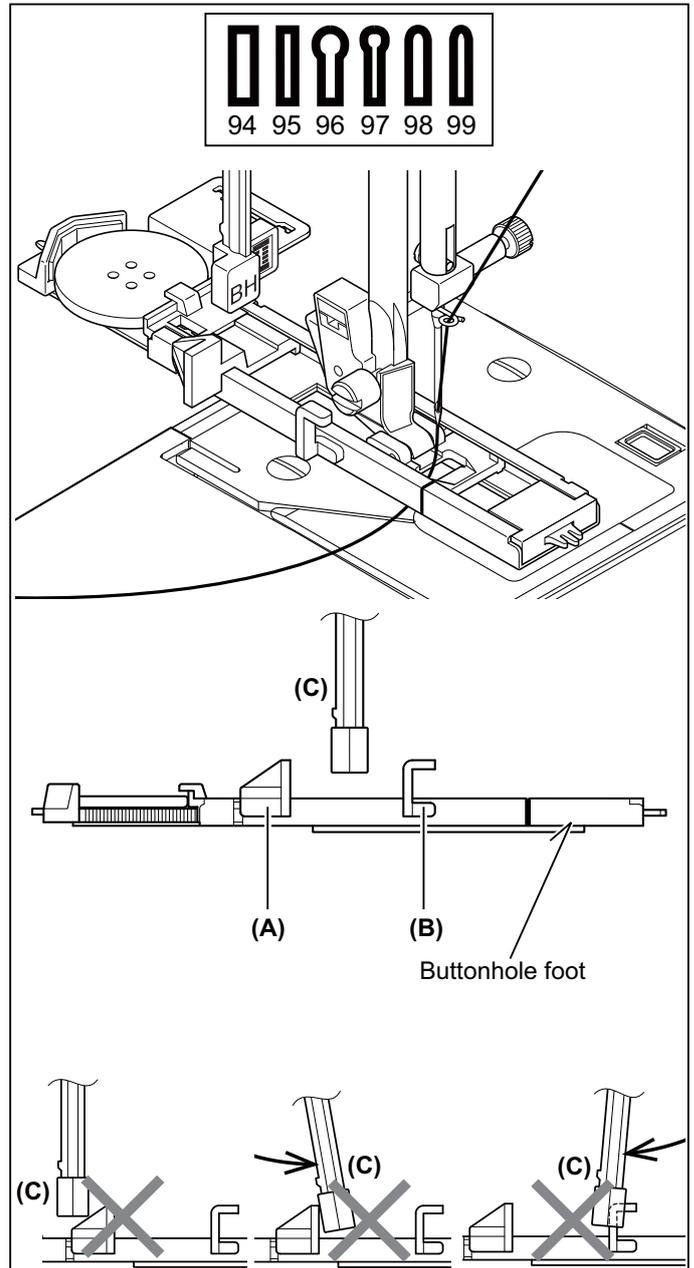


## PROCEDURE

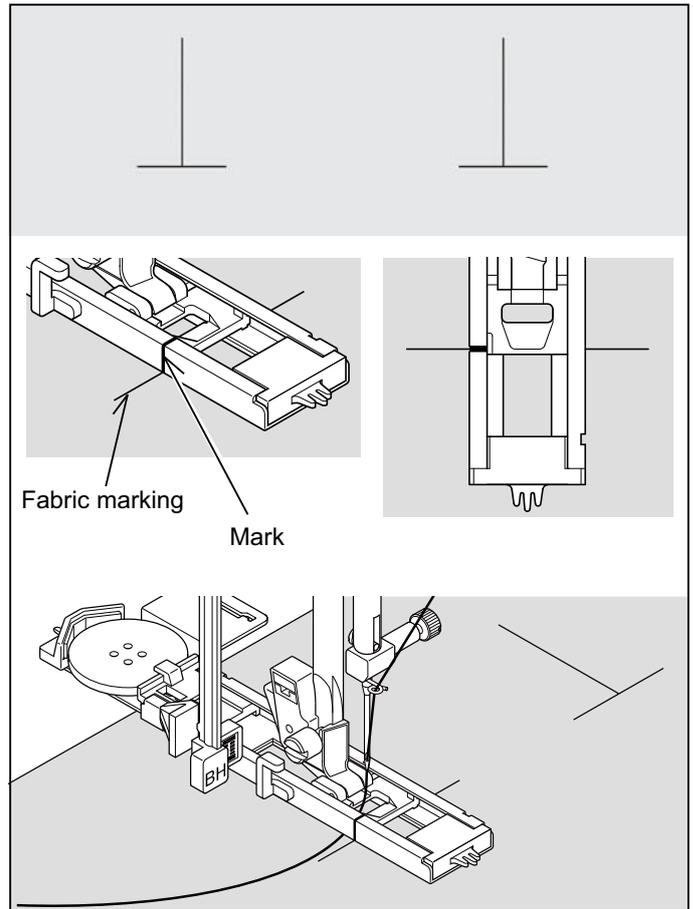
- \* Use an interfacing in the area of the garment where buttonholes are placed. Stabilizer or regular interfacing can be used.
- \* Make a practice buttonhole on a scrap of the fabric with the selected button.

1. Select one buttonhole pattern.
2. Replace the presser foot with the buttonhole foot. (Refer to "Changing presser foot" on page 11.)
3. Insert the button into the buttonhole foot. (Refer to "Using buttonhole foot" above.)

4. Set the buttonhole lever (C) so that it drops down vertically between the stoppers (A) and (B).

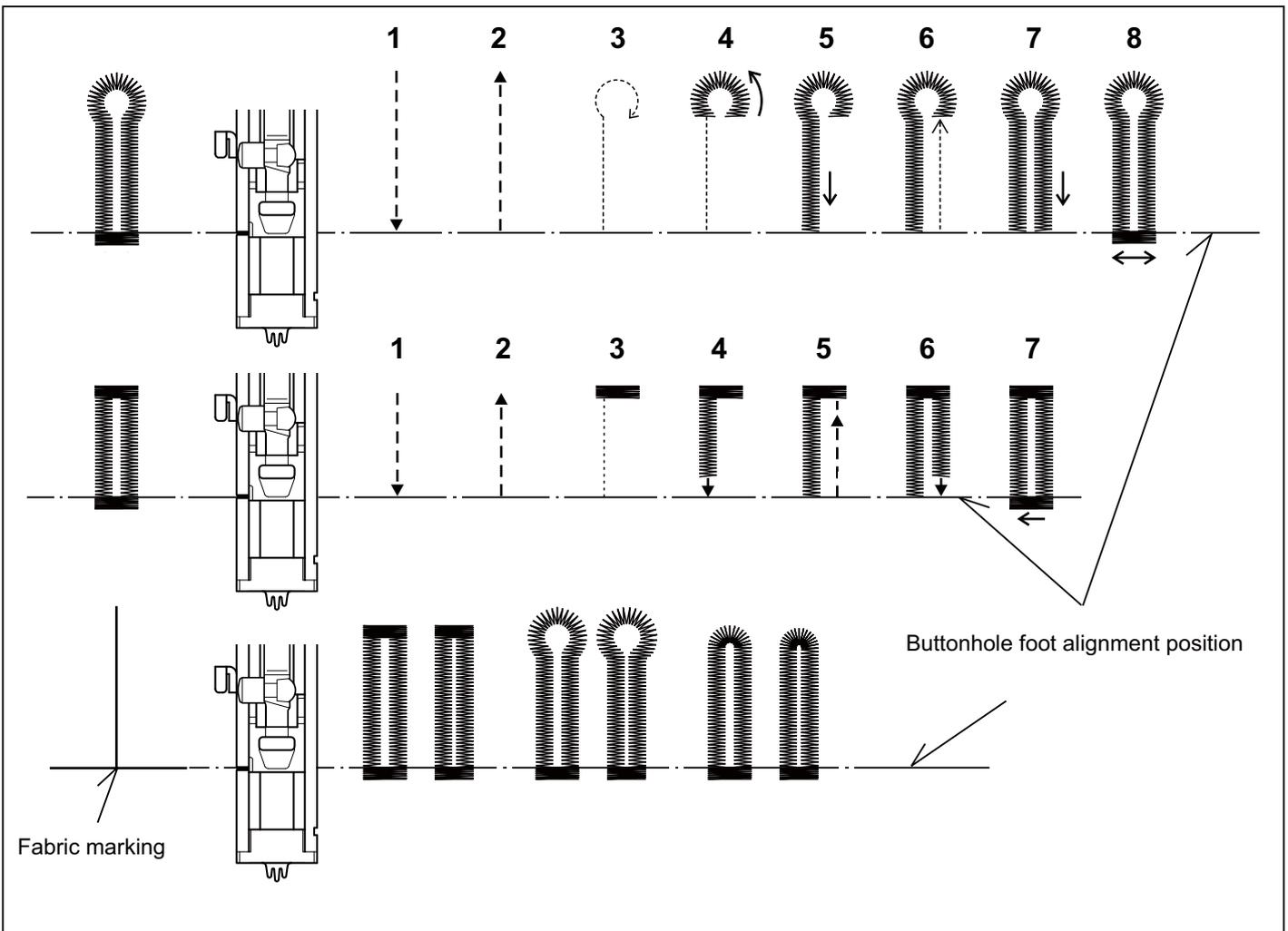


5. Carefully mark the position of buttonhole on your garment.
6. Place the fabric under the foot. Pull out the bobbin thread underneath the fabric to a length of about 4 inches to the rear.
7. Align the buttonhole mark on the fabric with the mark on the buttonhole foot, and then lower the buttonhole foot.

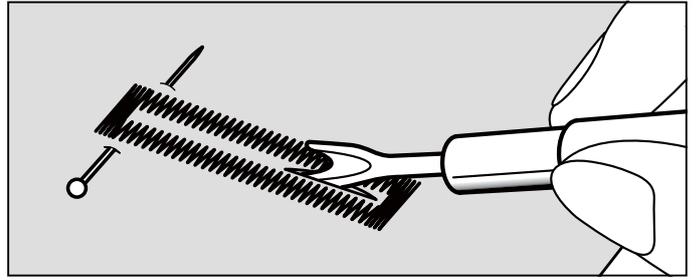


8. While holding the top thread, start the machine.

\* Sewing will be completed automatically in the following order.



9. When sewing is finished, use a buttonhole opener to open up the fabric in the center of the buttonhole. Be careful not to cut any of the bartack threads.

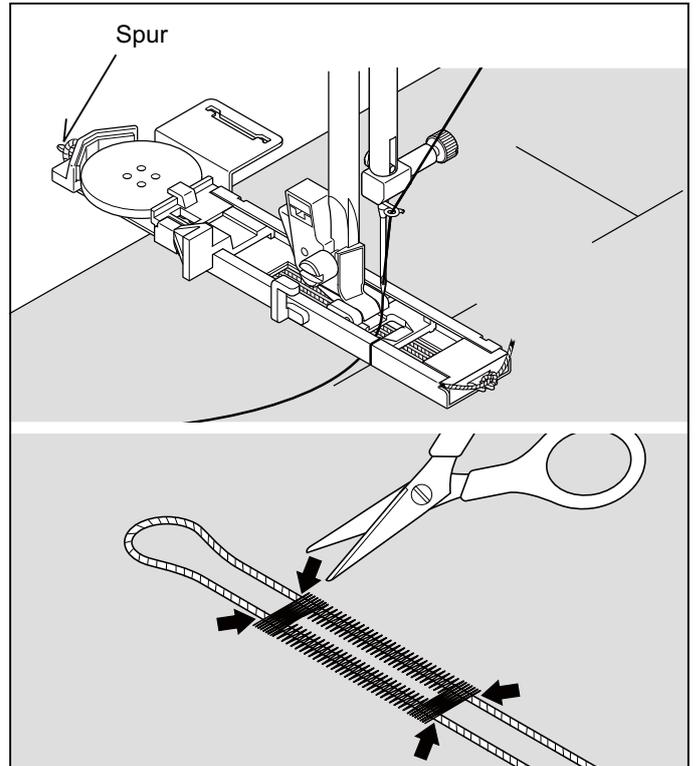


## CORDED BUTTONHOLES

Hook filler cord (crochet thread or buttonhole twist) over the spur and pull both ends of the cord forward under the foot and tie off the cord as shown in the illustration.

Sew buttonhole so that zigzag stitches cover the cord.

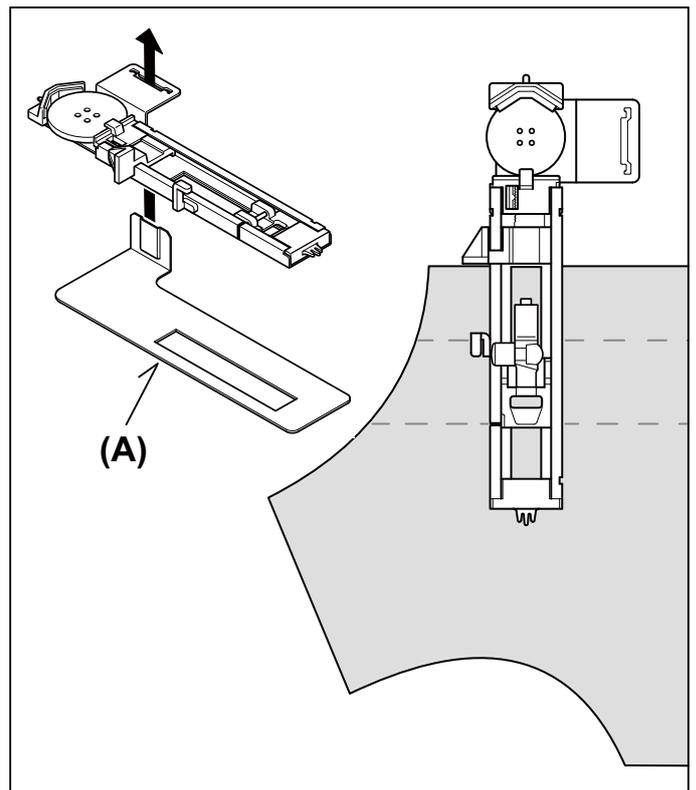
When completed, release the cord from the foot. Using a hand sewing needle, bring the cords to the wrong side of the fabric, then tie to secure. Trim the excess cords.



## BUTTONHOLING WITH HARD-TO-SEW FABRICS

When buttonholing with hard-to-sew fabrics or along the edge of multi-layered garments, attach the underplate (A) onto the buttonhole foot as illustrated to make perfect buttonholes.

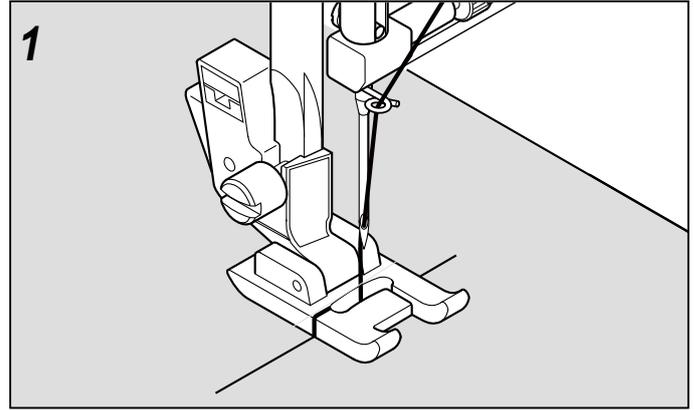
Place the fabric between the underplate and buttonhole foot.



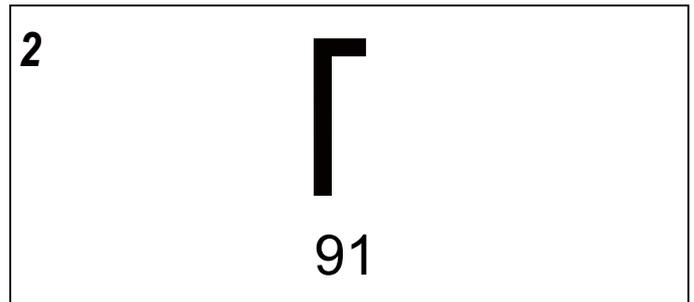
## MANUAL BUTTONHOLE

- \* Use the automatic buttonhole stitches (#94-99) and automatic buttonhole foot for buttons up to 1 3/4" (45mm) in length. For larger buttons use the satin foot and the manual buttonhole stitches (#91-93).
- \* Use the satin foot to create larger buttonholes.

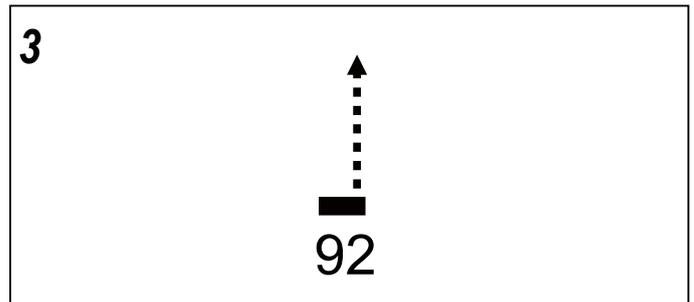
1. Carefully mark the buttonhole length on your garment. Place the fabric with the buttonhole marking under the satin foot so that the foot is positioned at the top of the buttonhole mark.



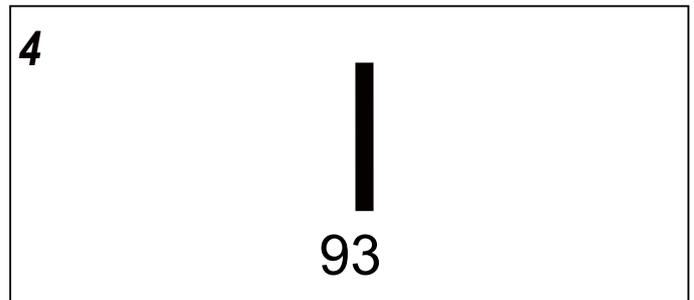
2. Start the machine to form first bartack and left side of buttonhole.



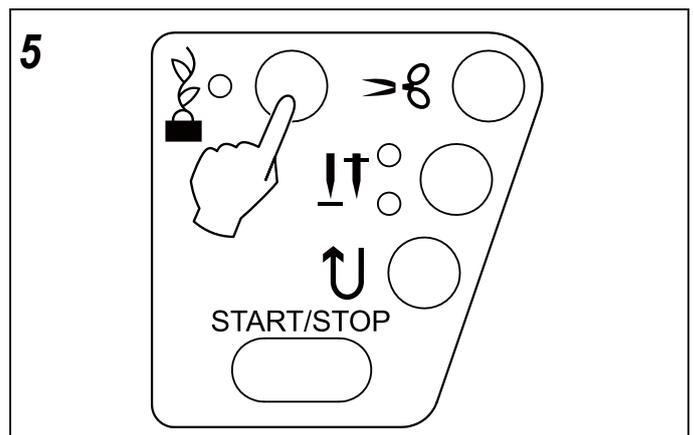
3. Sew second bartack and stitch backward until needle reaches beginning of buttonhole.



4. Stitch forward to the end of buttonhole mark to complete buttonhole.



5. Stop sewing when you have completed the buttonhole and press Tacking Stitch button to tie off.

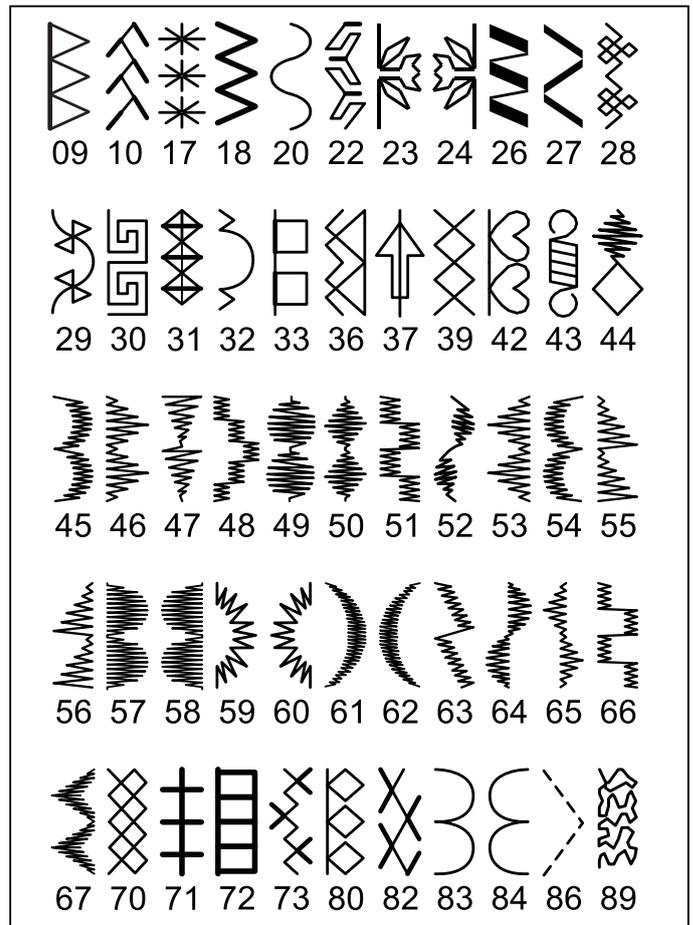


## DECORATIVE SEWING

Presser foot: Satin Foot.

Different types of decorative stitches are available. The following are examples of how to use and sew these stitches. You can use other stitches in the same way.

- Do a test sample on a scrap piece of the fabric being sewn, to check the stitch pattern to be used.
- Before starting to sew, check that there is enough thread wound onto the bobbin to make sure that the thread will not run out during sewing.
- Slightly loosen top thread tension.
- For best results use a stabilizer that is appropriate for the particular fabric that you are working with. For example, place a piece of tear-away stabilizer underneath the stitching area when working with a cotton fabric. (See page 38 for more help with stabilizer selection.)



## SUGGESTIONS FOR DECORATIVE STITCHING

### Scallop Stitch (45)

This is an ideal decorative stitch for finishing the edges of fabrics, such as those used for table linens or children's clothing. When sewing this stitch on a fabric edge, first sew the stitch with a stabilizer underneath the fabric. Trim the edge of the fabric along the edge of the stitch, being careful not to cut into the stitching.

### Pyramid (46)

This stitch can be used for embellishing bias binding or creating decorative borders on garments and home dec projects.

### Arrowhead (47)

In addition to using this pattern as a decorative stitch, it can also be used as a triangular backtack stitch for reinforcing places which can easily unravel. This is particularly useful for sewing both edges of pockets..

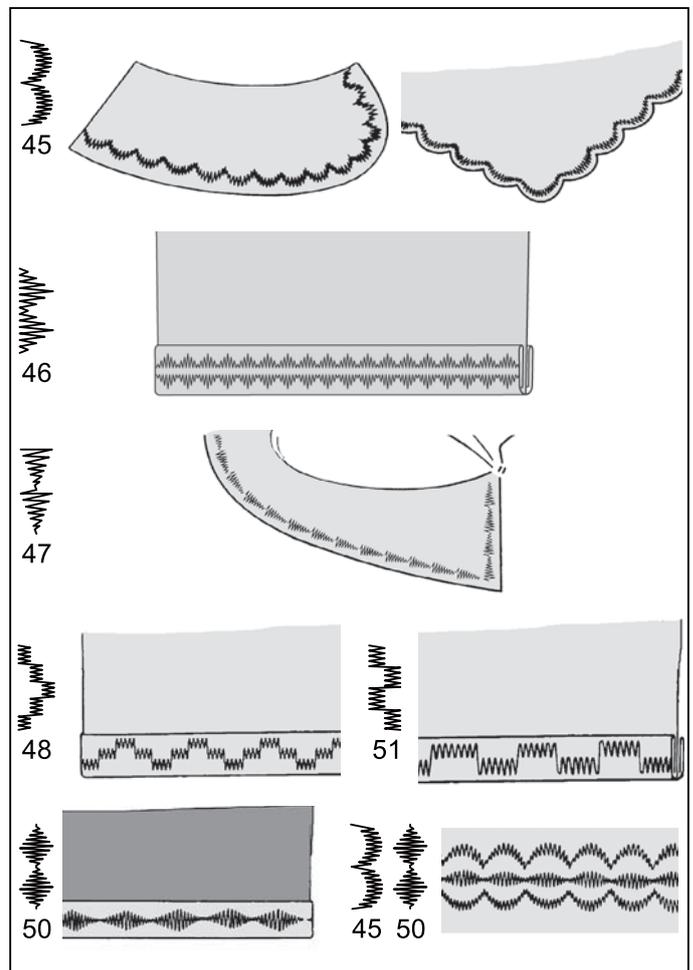
### Checker Board Zigzag (48) and Checker Double (51)

Use a bias tape and fold back the edge. Sew the checker stitch on top of this.

### Diamond (50)

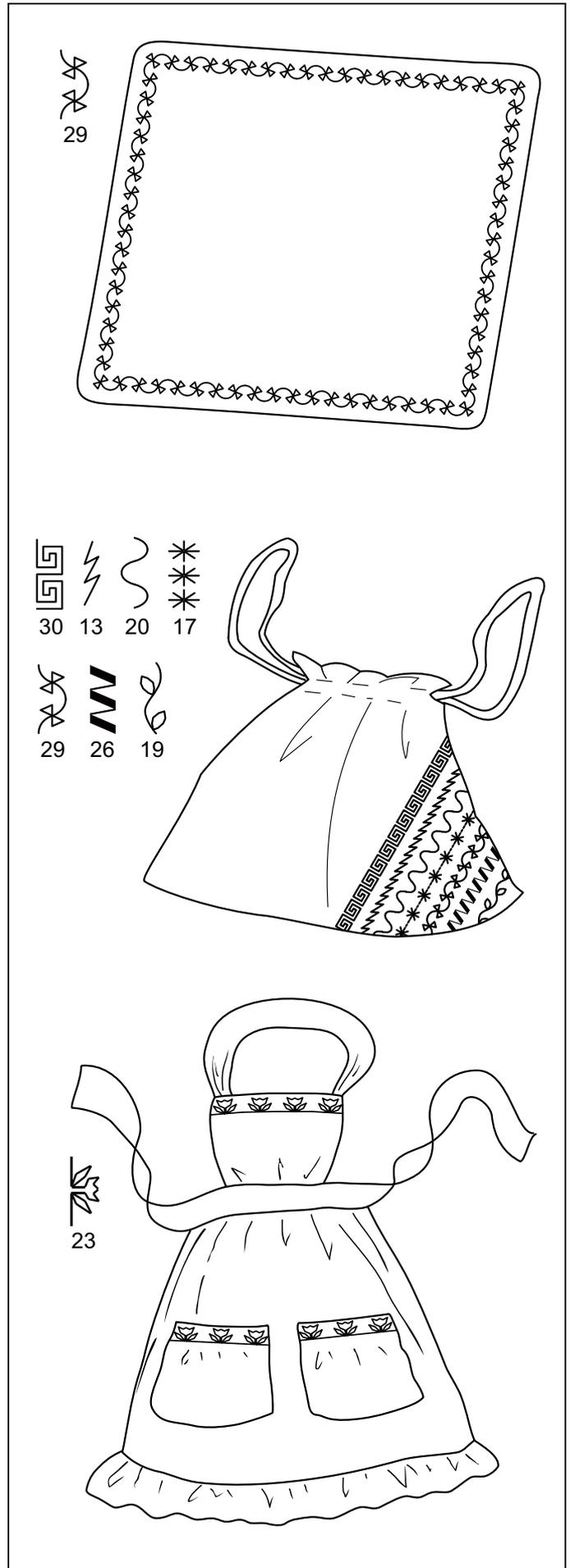
Fold over the edge of the fabric and use this stitch to tidy up the edge.

Scallop stitches and diamond stitches can be combined to create other attractive patterns.



## MORE SEWING EXAMPLES

See the sample to the right for more examples on how to use the decorative stitches.



### 3. PREPARATION FOR EMBROIDERY SEWING

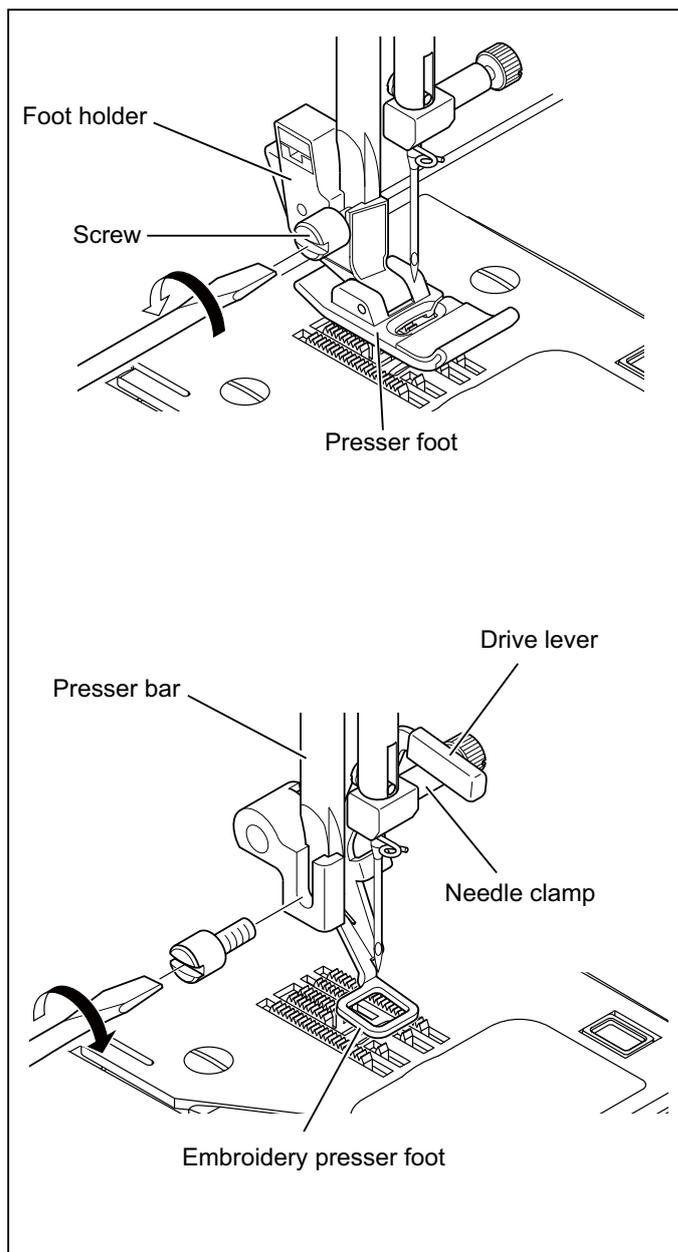
#### BEFORE ATTACHING EMBROIDERY UNIT

#### ATTACHING EMBROIDERY FOOT

 <b>CAUTION</b>	Always be sure to turn off power to machine before changing presser foot.
---	---

- \* Raise presser foot lifter.
  - \* Turn the hand wheel counter clockwise (toward you) until the needle is in its highest position.
1. Remove presser foot screw, presser foot and foot holder.
  2. Attach the embroidery presser foot behind presser bar so that the drive lever is above the needle clamp. Secure it by tightening presser foot screw.
  3. Turn hand wheel toward you to move needle up and down, and check that the embroidery presser foot moves up and down together with the needle.

 <b>CAUTION</b>	Be careful not to touch the needle when replacing presser foot.
---	---

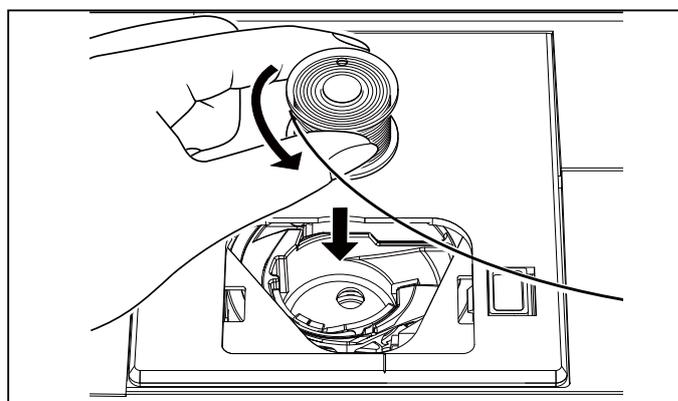


#### INSERTING THE BOBBIN

Refer to page 6.

- \* A large amount of thread is required for embroidering, so be sure to use a full bobbin.

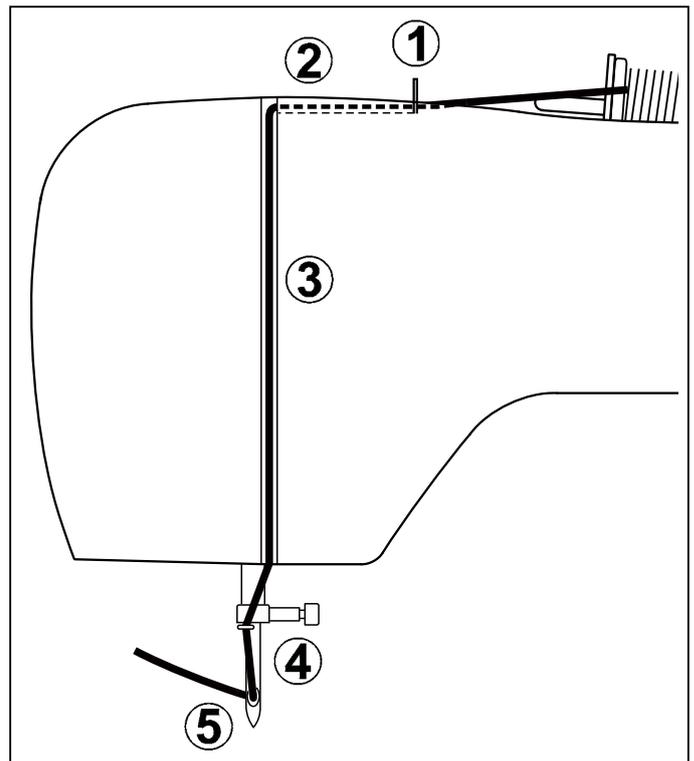
NOTE: During the embroidery process, bobbin thread creates lint which gradually accumulates in the bobbin case. It is recommended that the bobbin case is cleaned periodically to keep the machine running its best. See page 56 for information on cleaning the bobbin case.



## THREADING THE TOP THREAD

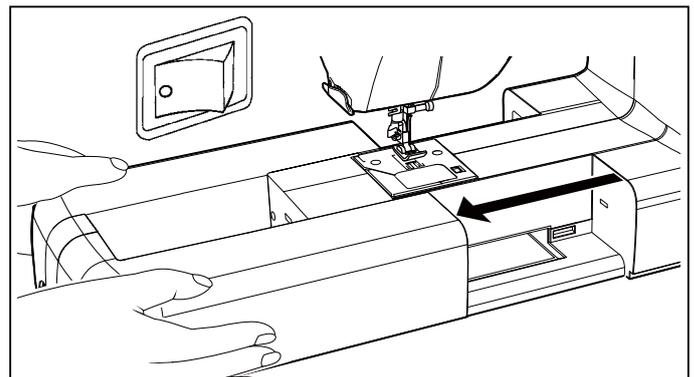
Refer to page 7 - 9.

NOTE: It is recommended to thread the upper thread before transmitting a design to the machine for embroidery.



## EXTENSION TABLE

1. Turn off power to machine.
2. Slide the extension table to left to remove it from machine.  
(Refer to page 54.)



## ATTACHING EMBROIDERY UNIT



Always be sure to turn off power to machine before installing embroidery unit.

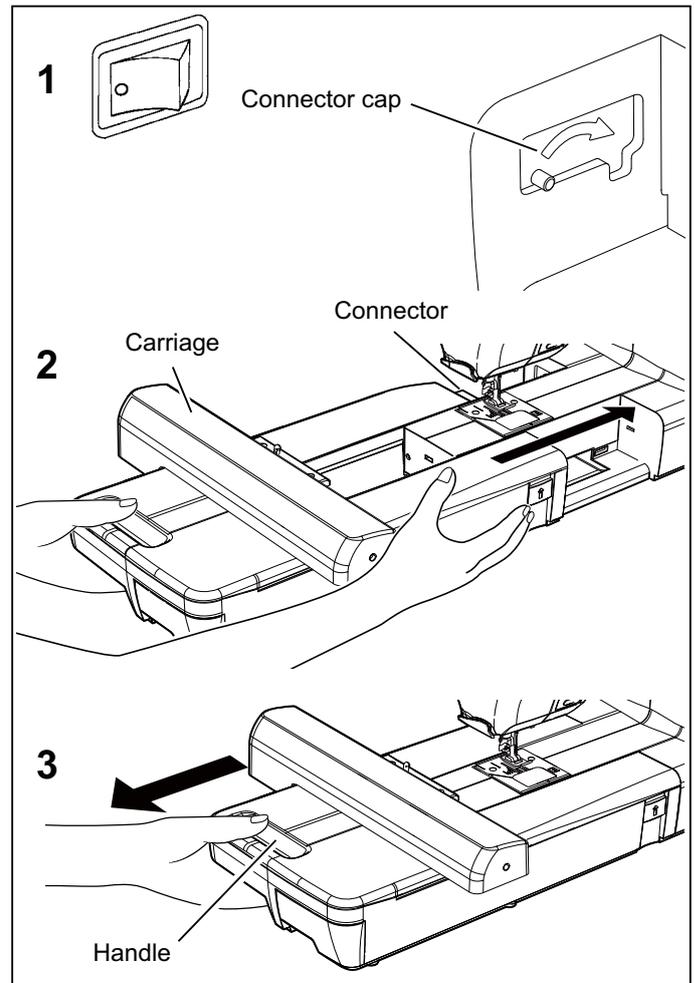
1. Turn off the machine.  
Turn connector cap to the right to open.
2. Slide the embroidery unit onto machine fitting connectors on the machine and embroidery unit. Slide the embroidery unit as far as it will go until it clicks into place.
3. To make sure that the embroidery unit is fully engaged, hold the handle of the embroidery unit and pull it towards the left direction, checking that the embroidery unit does not detach.

### Note:

If embroidery unit is not securely installed, the finished embroidery may be distorted. Make sure that the embroidery unit is pushed in as far as it will go.



Don't push the carriage or put strong pressure on the embroidery unit while attaching or during the embroidering process. Doing so may cause damage to the embroidery unit.



## REMOVING EMBROIDERY UNIT

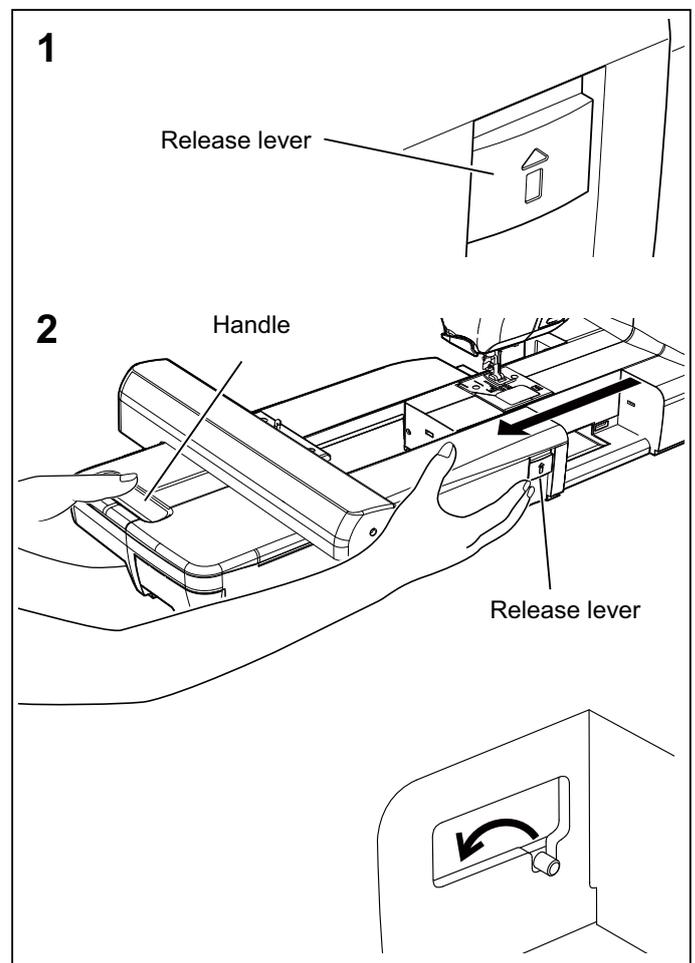
- \* Turn off the machine.
- \* Raise the presser foot.
- \* Remove embroidery hoop from machine.  
(Refer to page 40.)

1. Holding handle of embroidery unit, carefully slide toward the left while pressing release lever.

### Note:

Do not pull carriage when removing embroidery unit.

2. Turn the connector cap to the left to close for general sewing.



## SECURING FABRIC IN EMBROIDERY HOOP

NOTE: For information about using appropriate stabilizer, see page 38.

1. Loosen hoop adjusting screw and place fabric between inner and outer frame. Pull fabric edges to remove slack. NOTE: Apply stabilizer when appropriate, see page 38.

a. This mark ▼ on inner hoop should be placed to the front side (large hoop only).

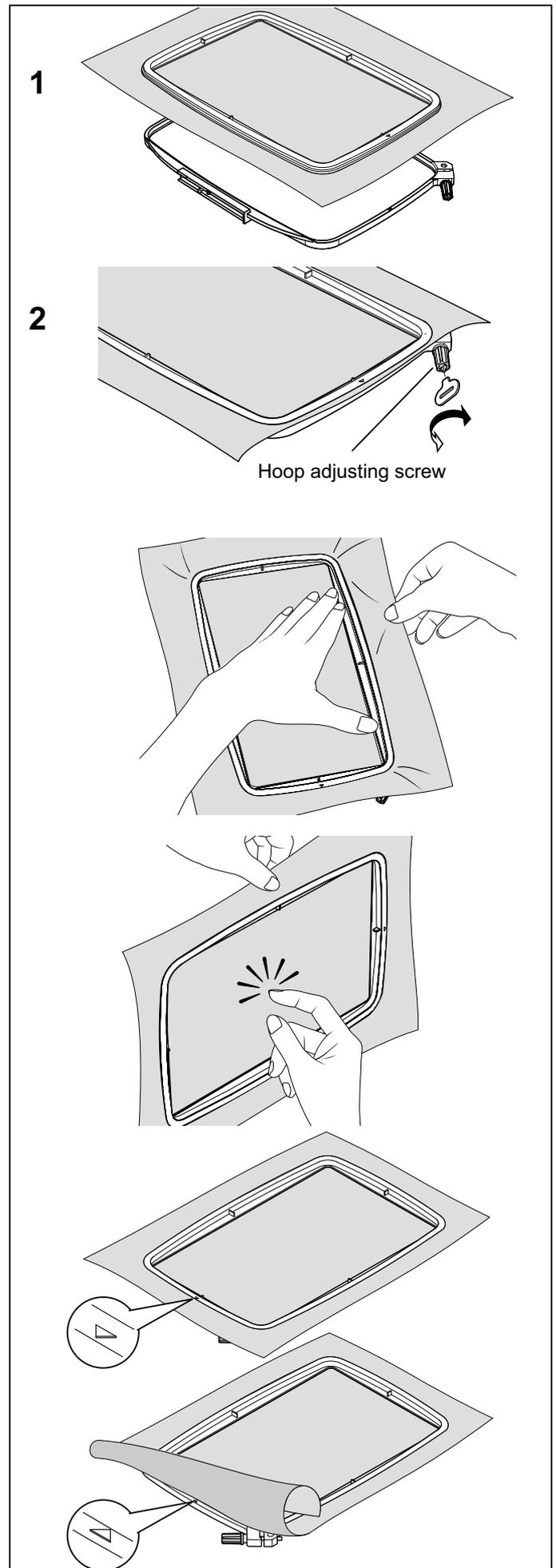
b. Check inner and outer hoop mark ▼▲ to match.

2. Slightly tighten the hoop adjusting screw and pull fabric edges to remove slack. Fit the two frames together by pressing down on the inner frame.

a. Tighten hoop adjusting screw.

b. Once fabric is properly positioned in embroidery frame with no slack, securely tighten the screw.

c. Tighten the fabric in the frames so that it makes a sound like a drum when the tightened surface is tapped with a finger.



## USING FABRIC AND STABILIZER

### FABRIC

Use stabilizer to produce best results when embroidering on the following fabrics.

- \* Fabrics which lack firmness or stability for embroidery, such as cotton, polyester, rayon, etc.

Lightweight fabrics such as this, may lack firmness or stability and when embroidered may pull in, which may result in problems such as shrinkage and puckering of the fabric around the embroidery area.

- \* Stretchy fabrics

The fabric may stretch when tightening the hoop, the result may be uneven embroidery. Furthermore, when the fabric is removed from the hoop after embroidery is complete, the fabric may shrink and cause the embroidered pattern to become distorted.

Embroidery can be applied to many types of fabrics, but it may be necessary to prepare the following fabrics in a special manner.

- \* For fabrics with a loopy or napped surface, such as towels, use a water-soluble stabilizer on both the topside and underside of the fabric. Depending on the project, a tear-away or soft mesh cut-away stabilizer may be used on the underside instead.

- \* Denim and linen are considered unstable because of the loose weave. Use a medium a medium weight cut-away stabilizer on the backside.

- \* T-shirt type fabric usually requires at least one, sometimes two layers of soft mesh-type cut-away stabilizer on the backside.

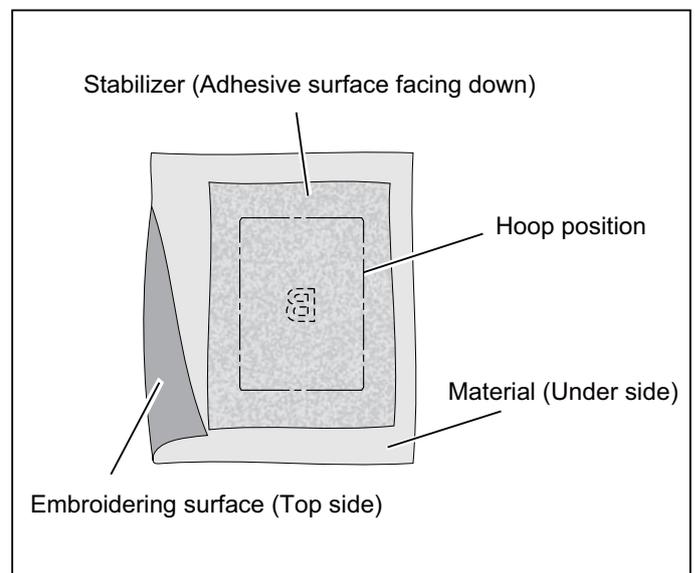
- \* For medium to heavyweight stable woven fabric, use a medium to heavy weight tear-away type stabilizer.

- \* For soft or sheer fabrics, use a rinse-away type stabilizer.

### STABILIZER

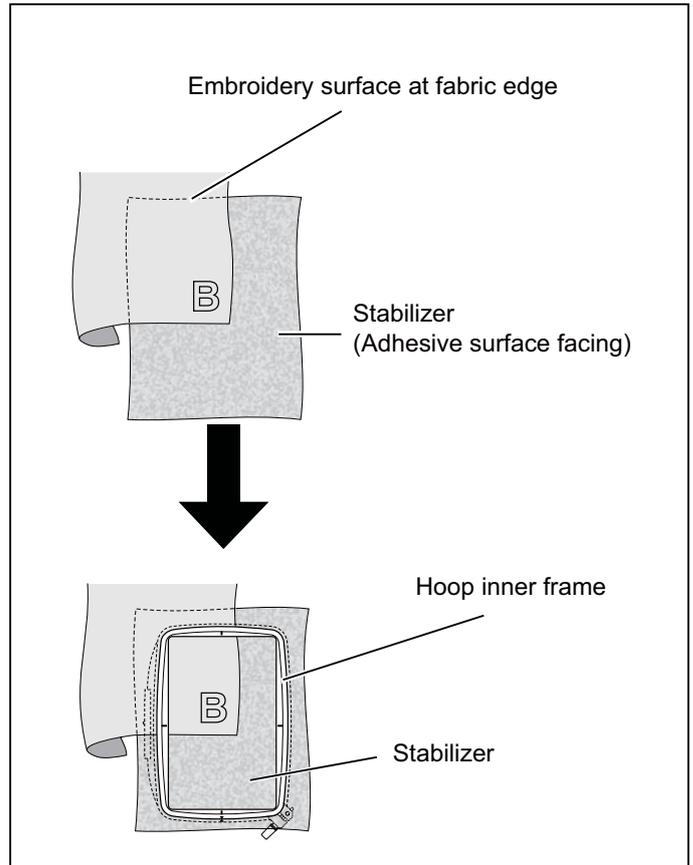
Stabilizer is a non-woven substance. There is a variety of stabilizers available: tear-away, cut-away, and wash-away. There are also specialty stabilizers such as those that are removed by applying heat, adhesive stabilizers, etc. Which stabilizer you choose will depend on the nature of the fabric on which you are embroidering. Always follow the manufacturer's instructions on how to use and apply the stabilizer correctly.

The stabilizer should be larger in size than the hoop with which it is being used. Follow stabilizer manufacturer's recommendations for use. Stabilizers can usually be obtained from a fabric store.

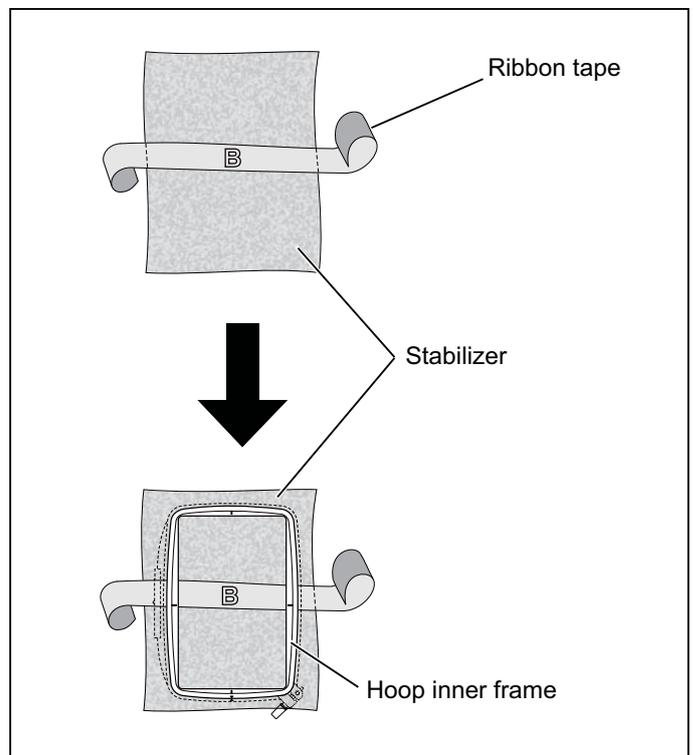


When embroidering onto fabric which is smaller than the hoop size, or when embroidering close to the edge of the fabric, attach the stabilizer as illustrated.

● **WHEN EMBROIDERING ALONG THE EDGE OF FABRIC SUCH AS A HANDKERCHIEF**

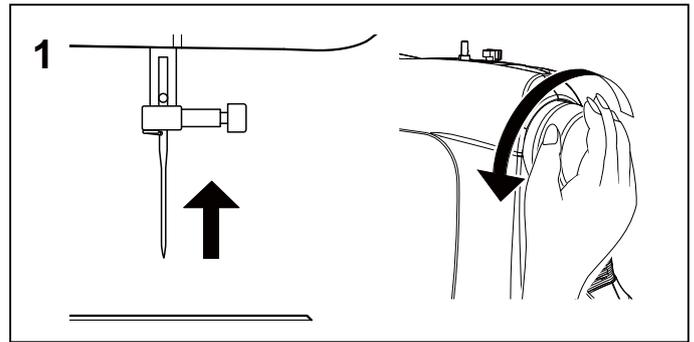


● **WHEN EMBROIDERING A NARROW PIECE OF FABRIC SUCH AS RIBBON TAPE**



## PREPARING THE MACHINE BEFORE INSTALLING THE HOOP

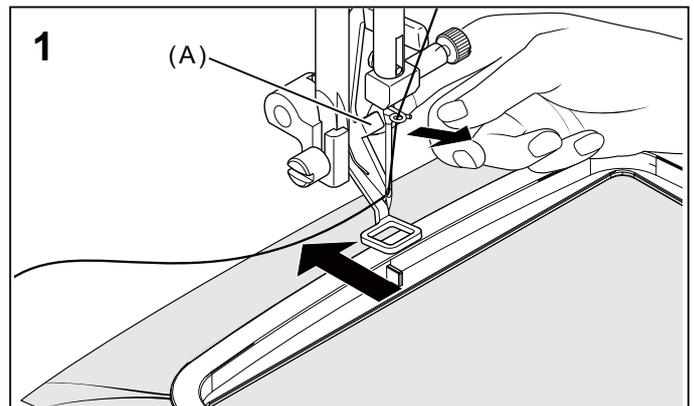
1. Turn hand wheel counter clockwise (toward you) until the needle comes to its highest position.



## ATTACHING AND REMOVING EMBROIDERY HOOP

1. Raise presser foot and needle, and push up lever (A) of embroidery foot with your finger and pass embroidery hoop under it.

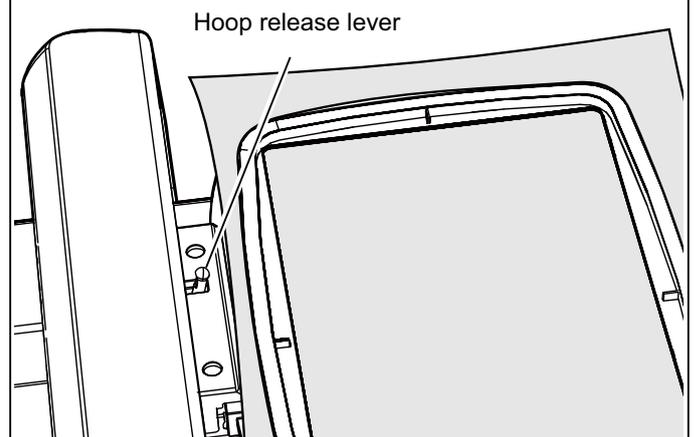
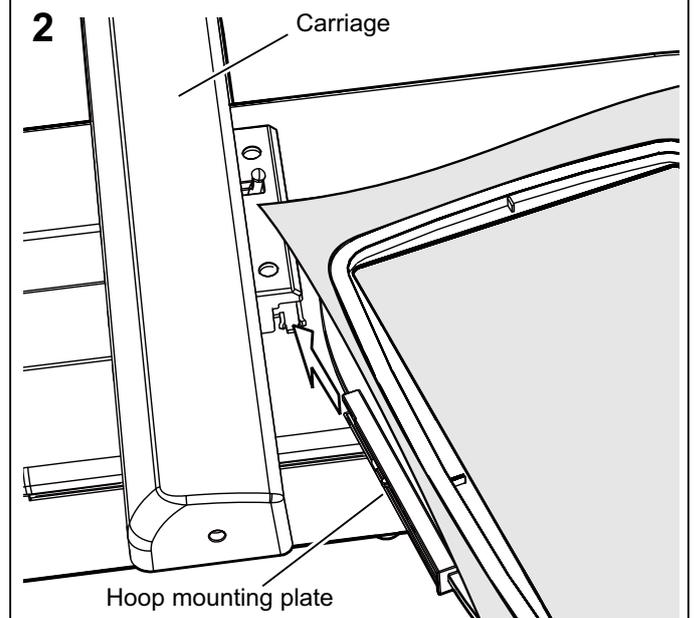
\* To remove, pull the hoop forward to slide it out from underneath the embroidery foot.



2. Slide the hoop onto the embroidery unit from front to back until it clicks into place.

\* To remove, press the hoop release lever and slide the hoop towards you.

**NOTE:** Before attaching the small hoop, turn on the power switch to move the carriage to the ready position.



## INSTALLATION OF SOFTWARE

In order to start using the software on your .PC you must first install the contents of the CD to your PC. This procedure is referred to as “**installation procedure**”. **Please follow the instructions below in order to successfully install the software for your FUTURA sewing & embroidery machine on your personal computer.**

The software for your FUTURA sewing & embroidery machine comes on a CD-ROM disc.

In most personal computers the default drive setting for a CD-ROM drive is “D:”

Please insert the installation software for your FUTURA sewing & embroidery machine into the CD-ROM disc receiver in your PC.

After some seconds, the Installation Procedure of the software will start automatically.

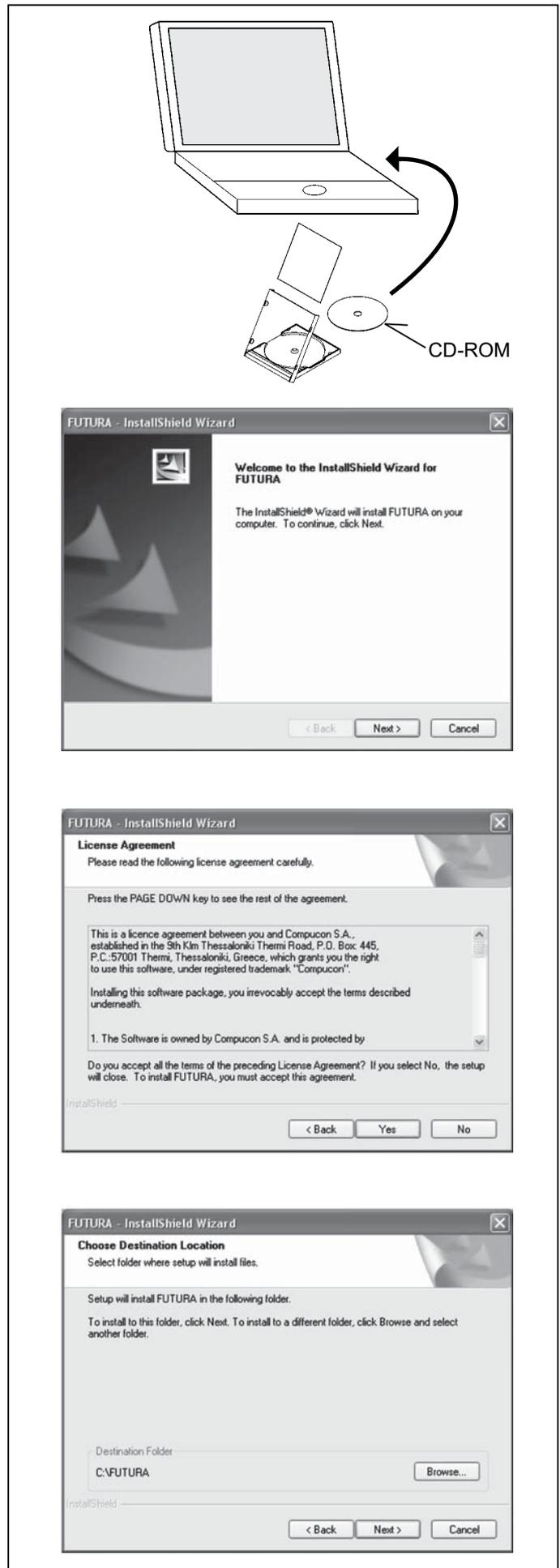
If after a short while, the software doesn't automatically start the installation process, you may start the installation procedure manually by going to the “Start” option of Windows, select “Run”, type “D:\FuturaStart.exe” and click on OK.

After some seconds the step-by-step installation of the software begins with the Welcome window.

Click on “Next” to move on to the next screen.

**After reading and agreeing with terms given in the License Agreement, please click on “Yes”, and again click on Next, and then select the directory where the software should be installed. It is highly recommended to use the selected default directory.**

Simply click on “**Next**” to continue.



Now you are prompted to select the **Program Folder** where the shortcut for the software will be stored.

Simply click on **“Next”** to continue.

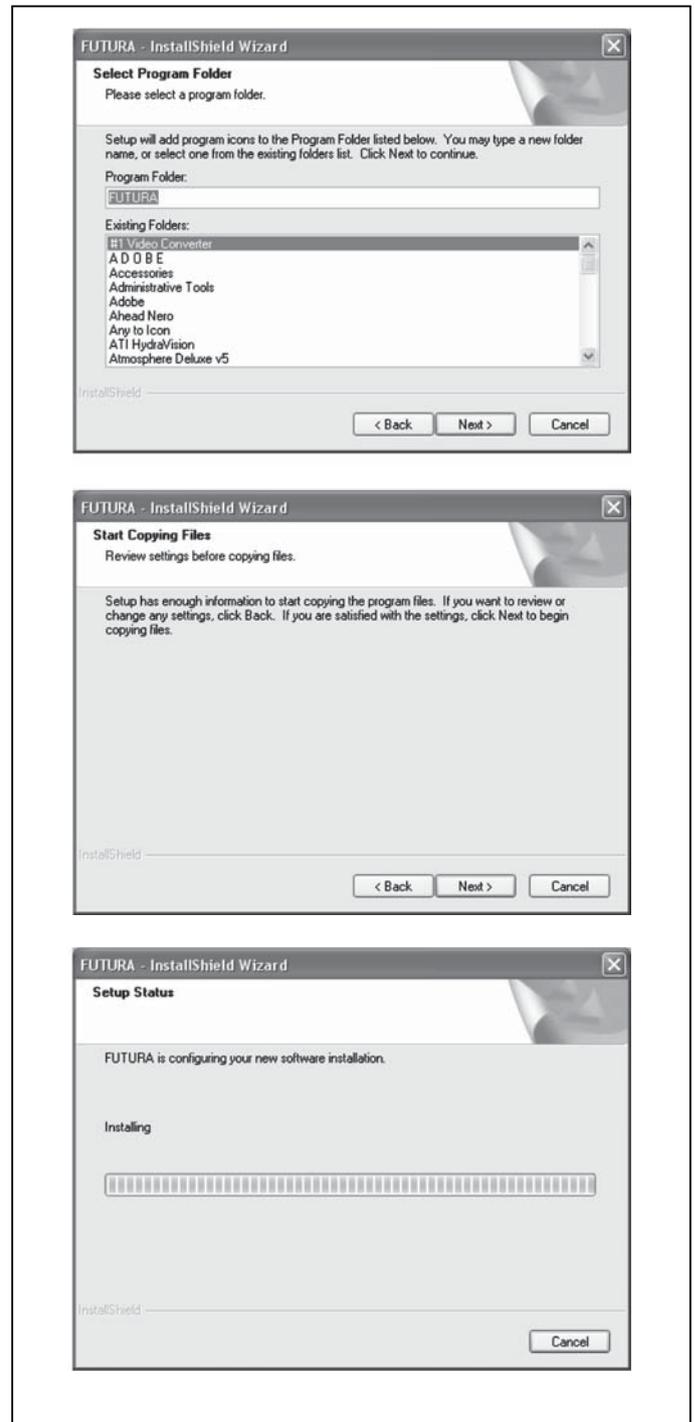
Finally you are requested to confirm all the selections made during the installation set-up.

Pressing the **“Next”** button will finally **start the copy and installation of the software files** to the given directory on the hard disk.

A **progress bar** will indicate the stage at which the installation procedure is. It will finish when it has reached to **100%**.

The installation procedure is finalizing all required actions and will automatically close after finish. Please wait for a short while until this happens.

If the installation utility identifies a **lack of available space on your hard disk**, an **error message** will prompt you to free some hard disk space before proceeding with the installation. You can always abort the installation procedure by clicking on **“Cancel”**.



## CORRECT START-UP PROCEDURE WHEN EMBROIDERING

The following steps must be followed for proper start-up protocol. If these steps are not followed precisely, you will get a “Transmission Pending” error message.

Boot up your computer, but do not open the embroidery software. Next attach the embroidery unit to your sewing machine and connect the USB cable between your computer and sewing machine.

1. Turn on your sewing machine. Make sure the needle has been moved to the highest position by turning the hand wheel towards you.
2. Double click on the FUTURA icon shortcut your desktop to open up the embroidery software.

3. You are now ready to select and transmit a design to your machine.

## FUNCTION BUTTONS WHEN EMBROIDERING

### OPERATION SWITCHES

#### ● THREAD CUTTER

Press Thread Cutter to automatically cut the top and bobbin threads whenever the machine is stopped.

If Thread Cutting Mode is active (see page 14), the machine will automatically cut the top and bobbin thread every time the machine stops at the end of a color block.

Use auto thread cut only when changing thread colors.

#### ● START/STOP BUTTON

When start/stop button is pushed, machines starts slowly. To stop the machine, push the button again and the machine will stop sewing and the needle automatically stops at its highest position.

#### ● FORWARD STITCH BUTTON

After the embroidery design has been transferred to the machine, the embroidery can be advanced one stitch at a time. *Note: The embroidery hoop will move as it is advancing through the design.*

To advance continuously, press and hold this button.

#### ● REVERSE STITCH BUTTON

To back up through a design that is already in progress, press the Reverse Stitch button. Pressing the button once will reverse one stitch at a time. To reverse continuously, press and hold this button. Design may be reversed all the way back to the first stitch of the design.

#### ● LED INDICATOR

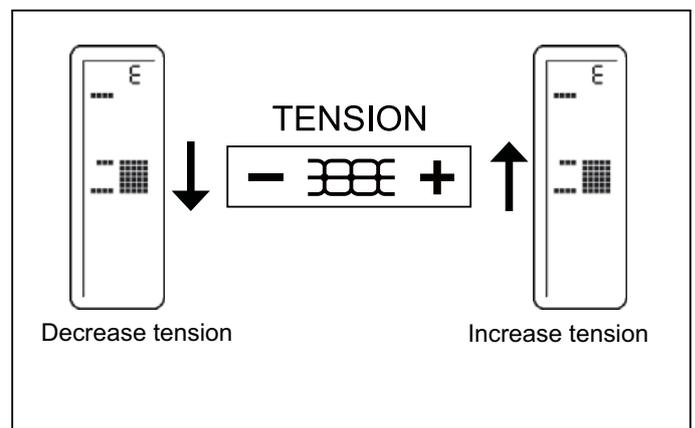
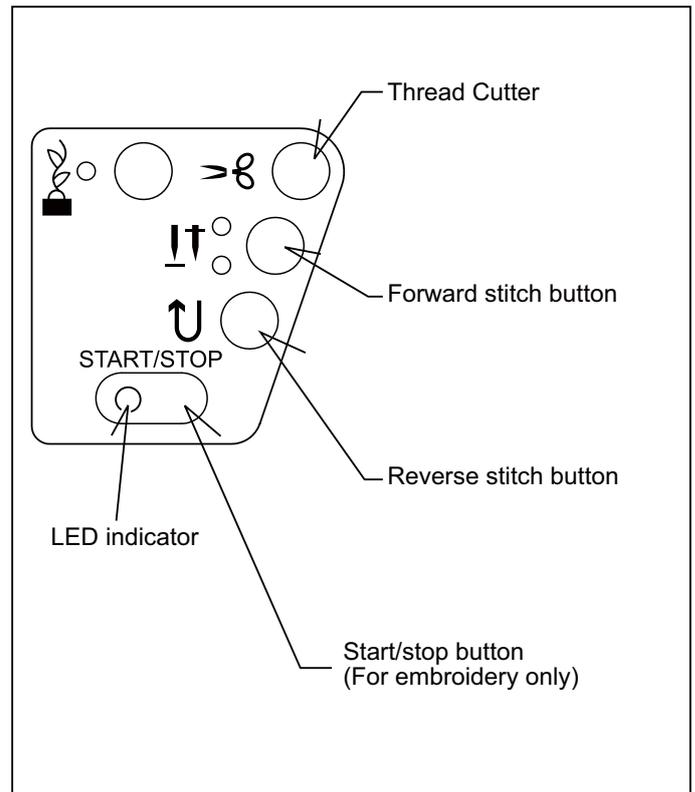
- \* Green light indicates machine is ready to start.
- \* Red light indicates machine is operating.
- \* Flashing red light indicates a problem or an error.
  - \* Flashing for 2 - 3 seconds shows that an incorrect operation was made.
  - \* Continuous flashing indicates that the machine malfunctioned or is malfunctioning.

### THREAD TENSION CONTROL

Thread tension is automatically set at "E" for embroidery, when the embroidery unit is attached.

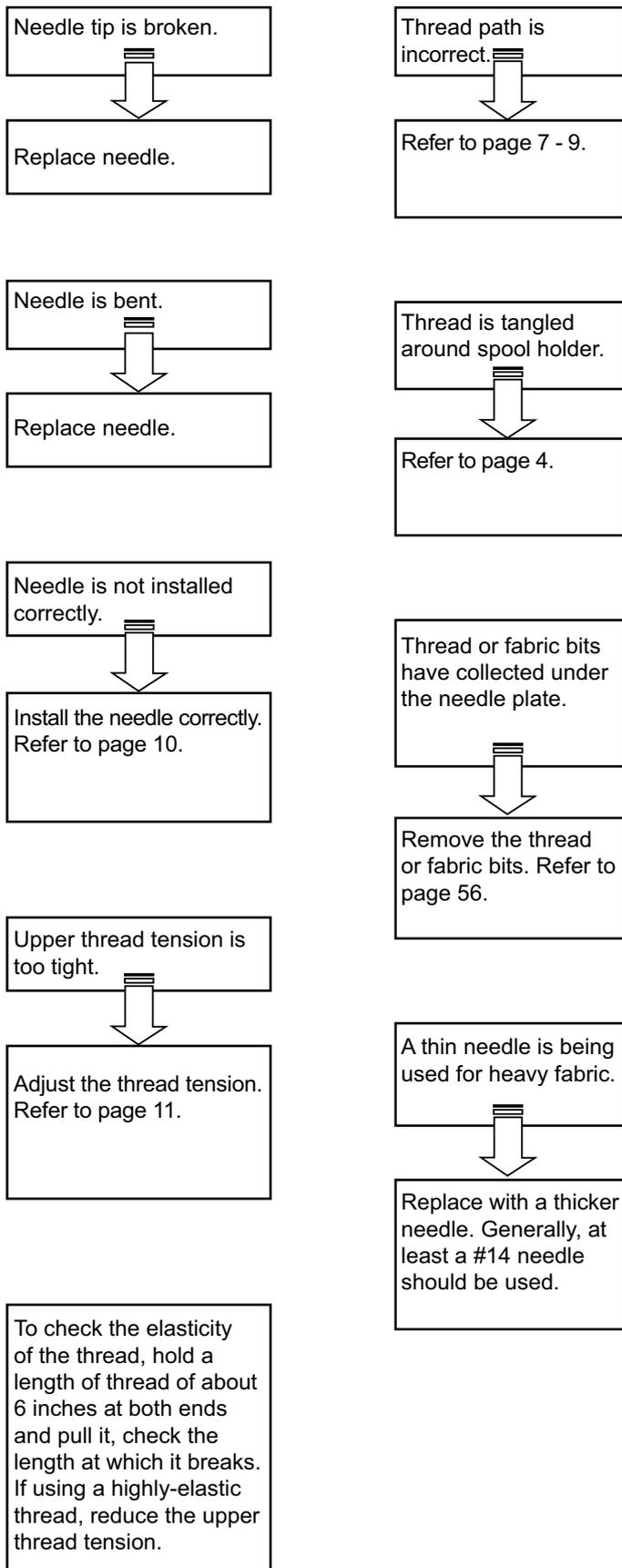
You may wish to re-adjust thread tension according to the type of fabric and thread being used.

**NOTE:** When sewing designs created by the software for Photo Stitch (optional) it is recommended to decrease the thread tension toward "0" and activate the Speed Limiter, by checking the box in Machine navigator, before sending the design to the machine. This ensures the best performance of the machine.

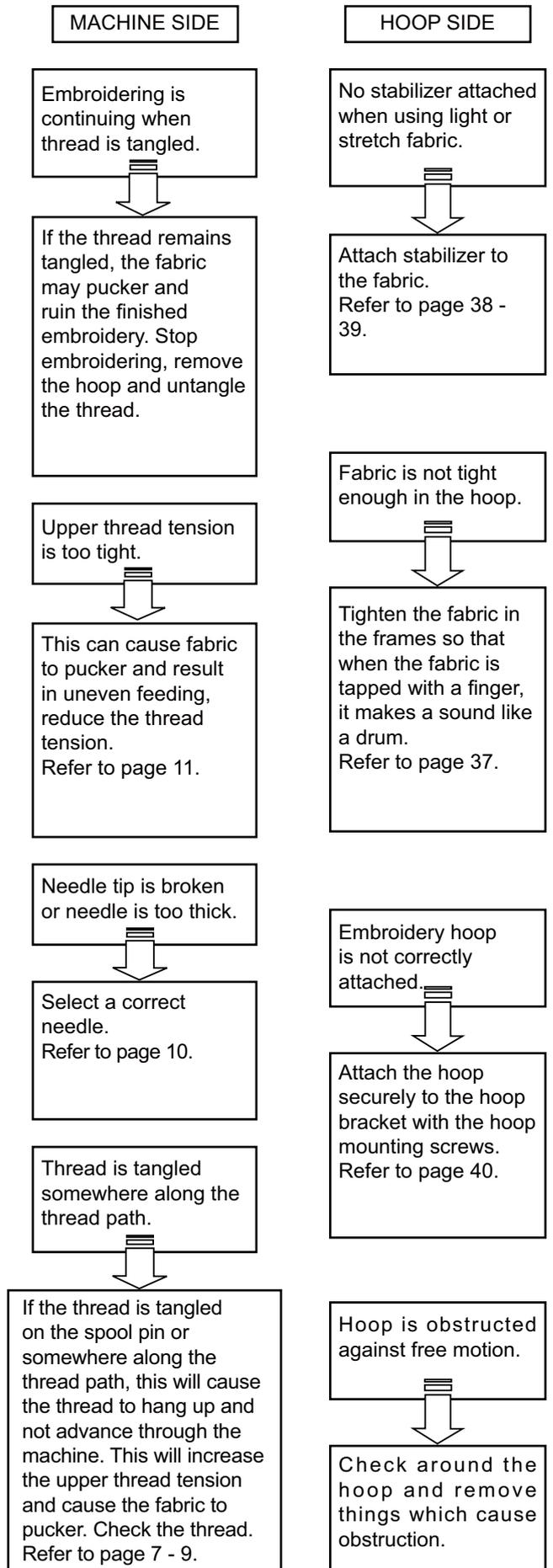


## TROUBLESHOOTING

### SKIPPED STITCHES AND THREAD BREAKAGES OCCUR



### EMBROIDERY PATTERN IS MIS-ALIGNED



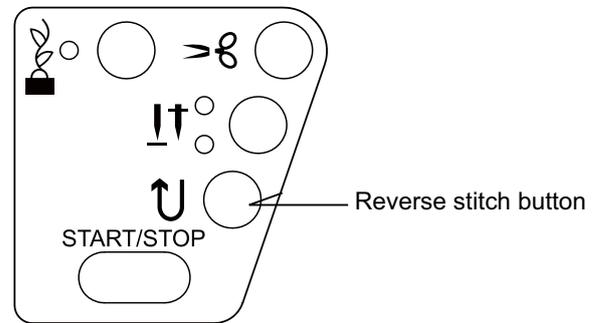
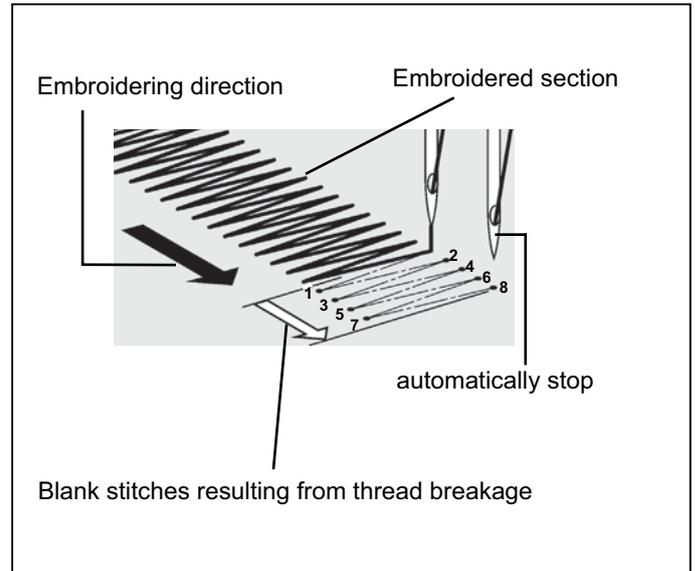
# HELPFUL INFORMATION FOR EMBROIDERING WITH FUTURA

## 1. If stitches are missing

If the embroidery machine detects that the thread has broken, it may continue to embroider up to about eight stitches without any thread (blank stitches) before it automatically stops.

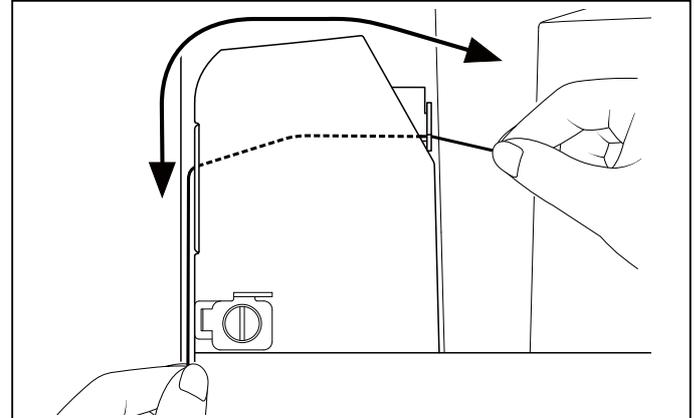
In such cases, use the following procedure to step back through the embroidering data to the point for continuing.

1. Press the reverse switch (stitch return) to step back through the embroidery data. The hoop will move back one stitch at a time. Step back through the data until the blank area has been completely passed over.
2. Restart the embroidery machine and continue embroidering.



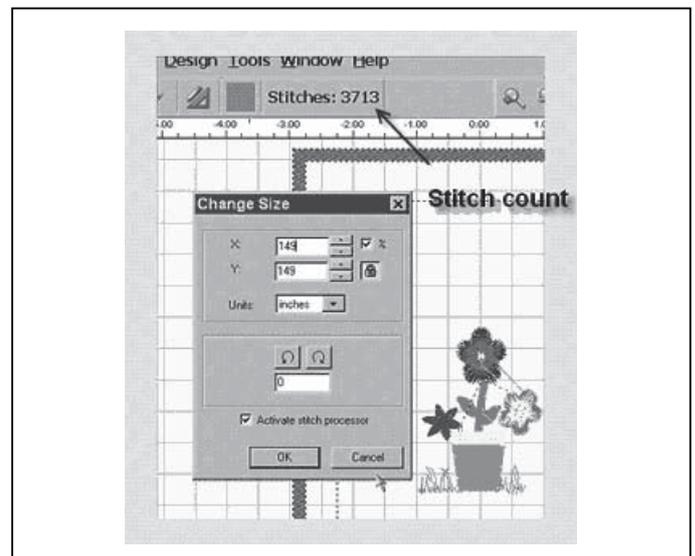
## 2. Computer screen says thread is broken, machine lights are flashing lights and making a beeping sound, but thread is not broken.

Upper thread is not in the thread tension. Rethread upper thread, (see 7 “Threading the Top Thread”.) Placing the small net that is supplied with the accessories over the spool of thread may ensure that the thread is unwinding properly.



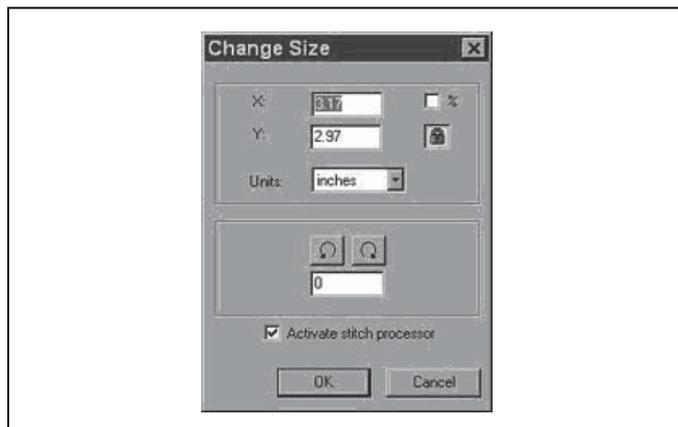
## 3. After resizing a design, the density of the stitching is either too tight or not tight enough.

The software will recalculate the stitch on an imported design when sizing, but only when using DESIGN>CHANGE SIZE option. It does have a limitation of re-sizing up to 149% and down sizing to 51% and while still being able to re-calculate the stitches correctly.



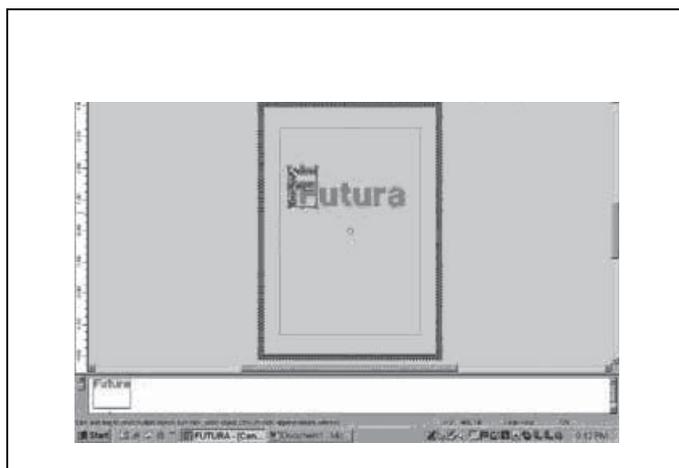
#### 4. Will the density of a design be adjusted when resizing design ?

When sizing designs in the software you can resize designs from the Library in the hoop on screen and keep the design integrity. All other formats should be changed in the DESIGN/CHANGE SIZE menu in order to change the stitch count.



#### 5. Resizing individual letters

You can resize individual letters after you have brought them into the hoop and exited the text window. Left click, drag a box around the desired letter, and size accordingly. Because the letters are built-in, the letter will keep the appropriate density.



#### 6. Deleting part of a design

Left click and drag a box around the desired area. To select additional areas, hold down the CONTROL key and left click on next area. Once selected, touch the DELETE key on your keyboard.

#### 7. Is there a way to increase the density of the lettering?

The density is set to a standard value of 4/10th of mm, which is usually the standard density used for Lettering. The value is not editable.

#### 8. Why does a design sometimes split up into very small segments? One color block can end up 'divided' into several blocks.

The machine has a certain limit of stitches that it can accept. So what most probably happens is that these are big blocks that are cut after exceeding the limit, leaving a certain number of stitches (could possibly be only a few) as a separate block.

## 9. TOP THREAD DOES NOT STAY IN THE NEEDLE EYE

If embroidering several color blocks in the same color the machine might cut the top thread too short. If that happens, deactivate Thread Cutting Mode (see page 28-29) to make sure the top thread stays in the needle eye.

## 10. AutoPunch™ and graphic files - Vector Art vs. Bitmapped Art

There are many different types of images or formats of graphic files. AutoPunch™ gives the best results when using vector type images, such as .wmf. The software must be able to recognize a color (block) of information. A “. bmp” can be made of millions of colors making it impractical for use.

Clipart falls into two basic categories, Vector Art and Bitmapped Art.

The software is capable of vectorizing the “.bmp” image, but it may lose detail, depending on the image. It is essential to understand about the type of artwork or image used with AutoPunch.

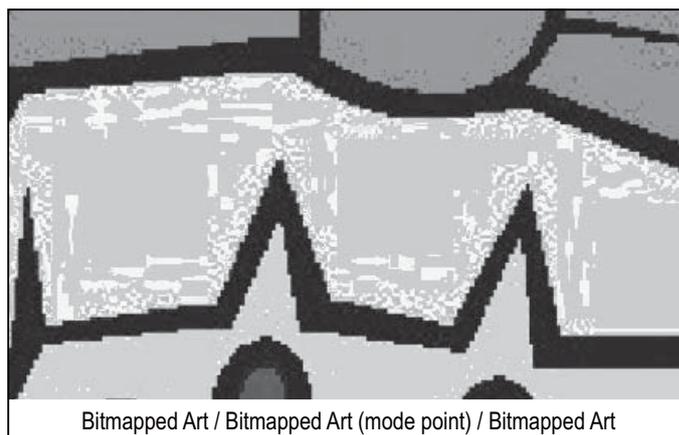
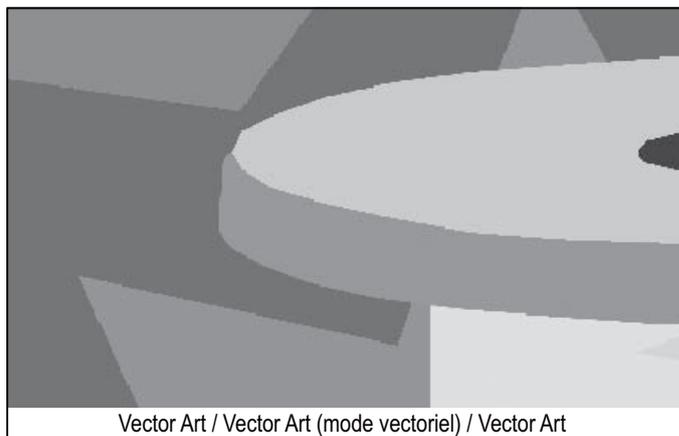
Vector Art is a clean “graphic” blocks of color – by simple definition. Some common formats - .wmf and .emf are two formats that the Auto Punch software can read.

Bitmapped Art is the type of “format” that is typically saved when scanning. The computer sees millions of colors to create the “realistic” type of image. Even a 3-color design that we see as simple has billions of pixels. Common formats recognized by the software: .bmp, .jpg, .tif, .pcx, .pcd, .tga, and .psd.

### Tips for AutoPunch™

- \* Scan art with a “high resolution” (200-300 DPI).
- \* Scan at 3-6 times larger than the intended output.

Lines that are too narrow to properly sew out are eliminated by the software when it cleans up the artwork.



## Multi-Hoop

Multi-Hooping is a special feature in the software that will allow embroidery data which is larger than a single embroidery hoop to be sent to the machine to stitch out, while making it easy to rehoop the fabric so that each part of the design lines up exactly. This embroidery data may be a single design that is too large for the hoop or a combination of smaller embroidery elements and/or lettering, that when combined together make a much larger finished design. See Fig. 1.

The Multi-Hoop feature splits the design elements in up to four different parts and then sews them precisely, matching one section to the other. When re-hooping the fabric, the Multi-Hoop feature will compensate for misalignment if the fabric has been placed slightly askew in the hoop.

When stitching an embroidery design that is too large for the hoop, it can be difficult to re-hoop the fabric with exact alignment. Multi-Hoop utilizes a system where three alignment points (A, B, and C) are input on cross lines that have been marked onto the fabric. When these points are input, they inform the machine exactly as to how the fabric is positioned into the hoop and will therefore sew the design to the alignment of the cross lines. If the fabric is slightly askew, this system will compensate for it and sew accordingly. Please note: the Multi-Hoop feature will only compensate for a slight misalignment in the vertical cross line. Please try to hoop the fabric as accurately as possible.

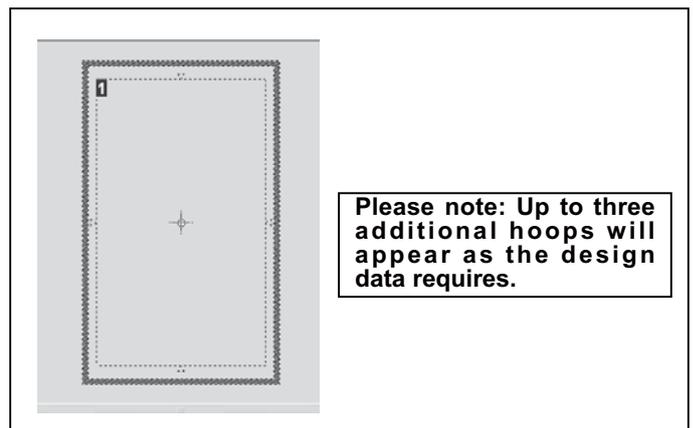
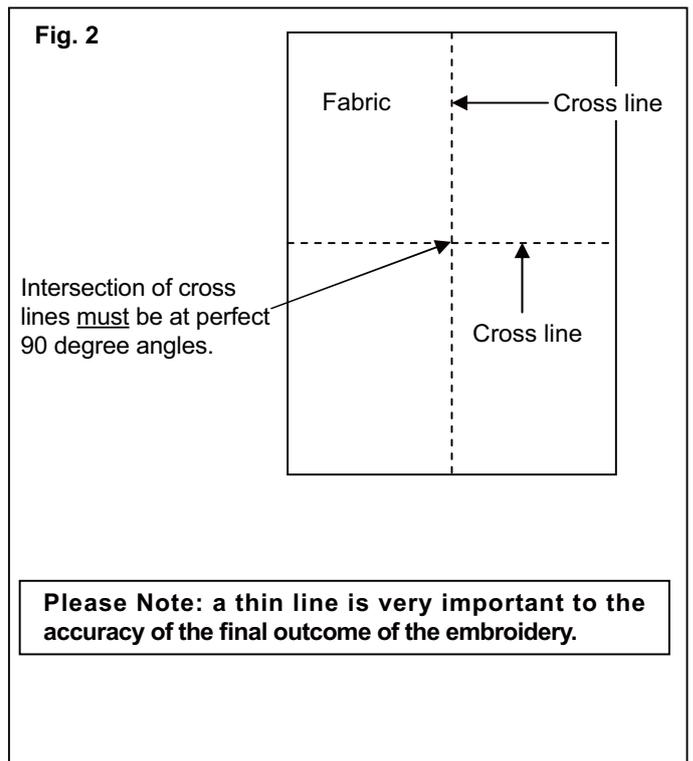
### Preparing the Fabric

*Please note: The fabric must be large enough to accommodate the amount of hoops that will be required to stitch out the design.*

1. Using a very fine-lined water soluble marker, mark a line vertically down the center of the fabric.
2. Mark a line horizontally across the center of the fabric. The vertical and horizontal lines must be at precise right angles to each other. These lines will now be referred to as the "cross lines". These cross lines will be used to set the fabric into the hoop according to the divided design layout.

### In the Software

1. Select **Tools** from the horizontal tool bar, select **Hoop** and then select **Multiple**.
2. A single hoop appears on the screen marked with **#1** in the upper left corner.



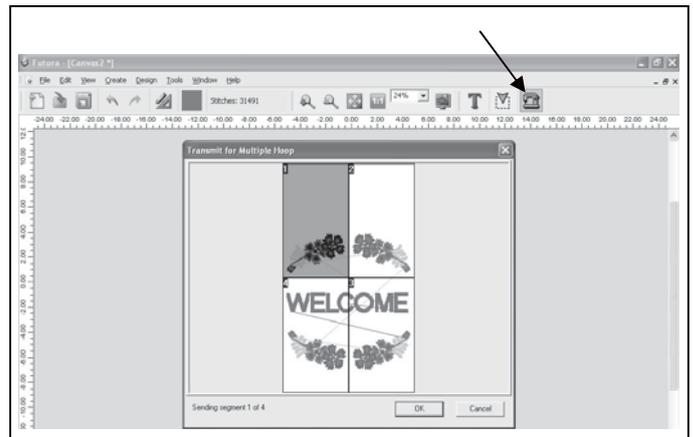
3. Select a large design or individual design elements and arrange them in the hoop area on the screen. The example shown uses lettering and designs from the Design Library that is built into the software. (Additional numbered hoops will appear as the design parts flow out of the first hoop section).



4. The design data is sent to the machine for sewing one section at a time. Click on the “Transmit to Machine” tool on the tool bar.

5. The grey area (#1 Hoop) is the first of the embroidery data that is sent to the machine for sewing.

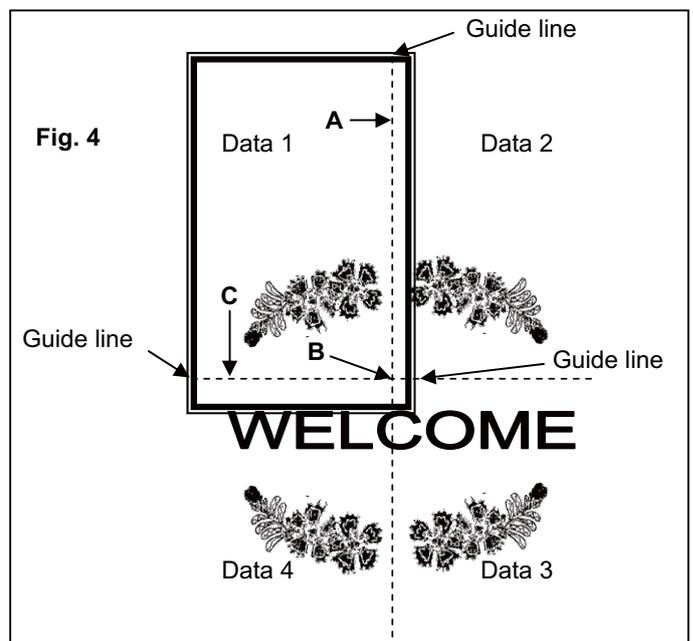
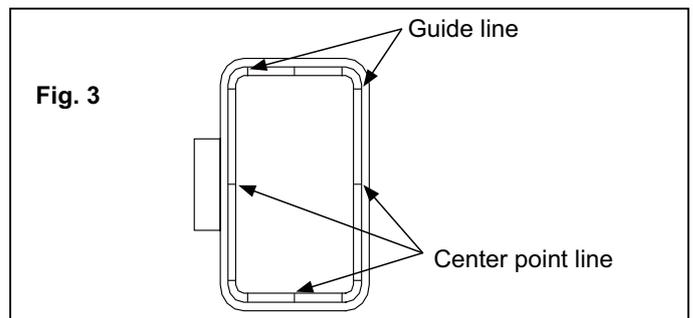
Set fabric and stabilizer into the hoop, aligning cross lines of data 1 within the guide line markings of the hoop. (See figures 2 and 3).



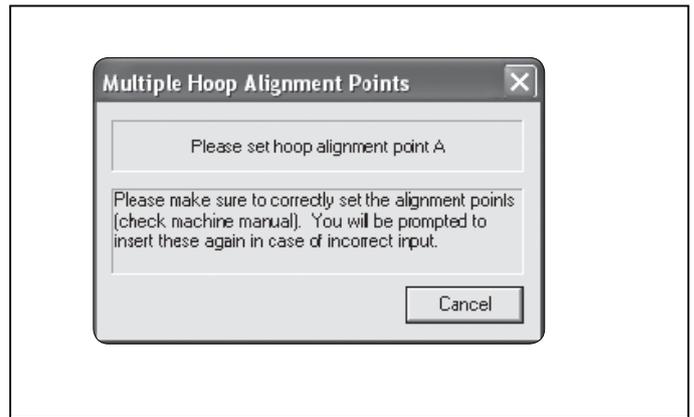
**There are two sets of markings on the inner hoop.**

On each side of the hoop there is a Center Hoop line which indicates the exact center of the hoop.

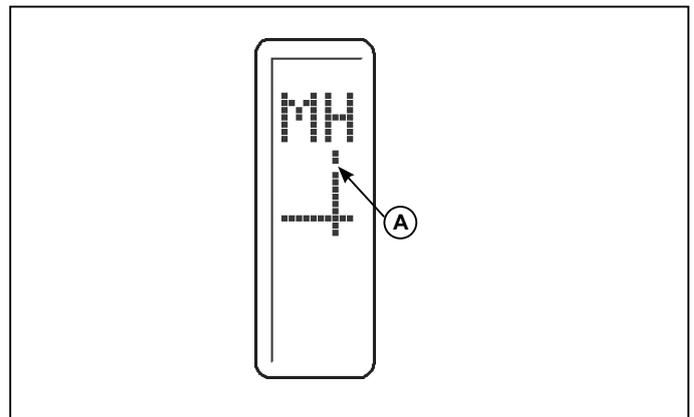
In each corner of the hoop there are markings which together define the maximum sewing area for Multiple Hooping. These marks are referred to as Guide lines. Guide lines are to be set on the horizontal and vertical cross lines on the fabric as shown.



6. The next screen prompts you to input the first of three alignment points, A, B, and C. These alignment points will inform the machine exactly where the crosslines are positioned in the hoop. It is extremely important that the points are accurately input on the cross lines.

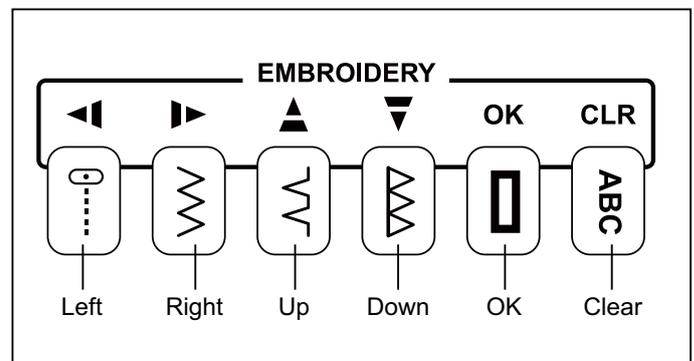


The machine display shows "MH" as illustrated, and the cross lines for data 1 with input point A blinking.



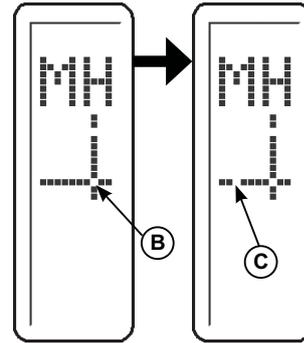
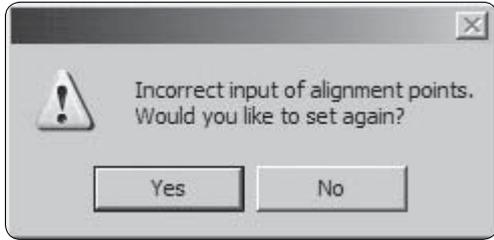
7. Use the shift buttons on the machine to move the hoop, until the needle comes to point A on the cross line, and push the OK button.

Note: If a mistake is made when entering the points, press the Clear button, to clear the point(s).

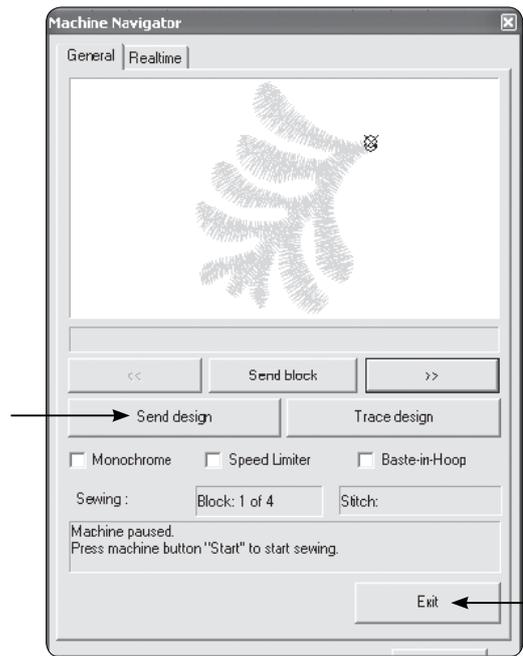


- Once point A is entered, the PC screen and machine display will prompt you to enter in points B and C. Follow the same procedures for inputting points B and C.

In a case where the three points were input wrong, and they do not form an exact right angle, the software will show the following error message and give you an opportunity to enter the alignment points again.

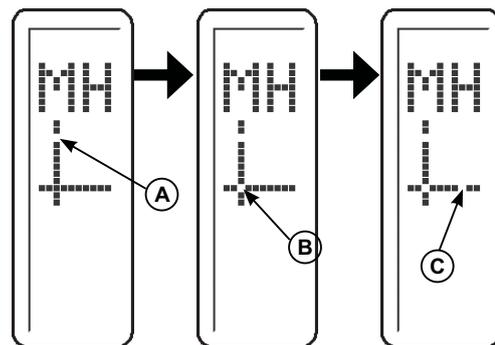


- When all three points are input, click on Send design in the Machine Navigator box to send design portion of data 1 to the machine. Embroider the design.
- After all colors of the design from hoop 1 have been embroidered, click on Exit in the Machine Navigator box and the screen will prompt you to enter the information from the data 2 area. Use the same procedure to re-hoop the fabric, send the data 2 design to the machine and input the A, B and C points.



The machine display will show the "cross line" positions in the hoop for data 2 and the input points A, B and C blinking. Embroider the data 2 design.

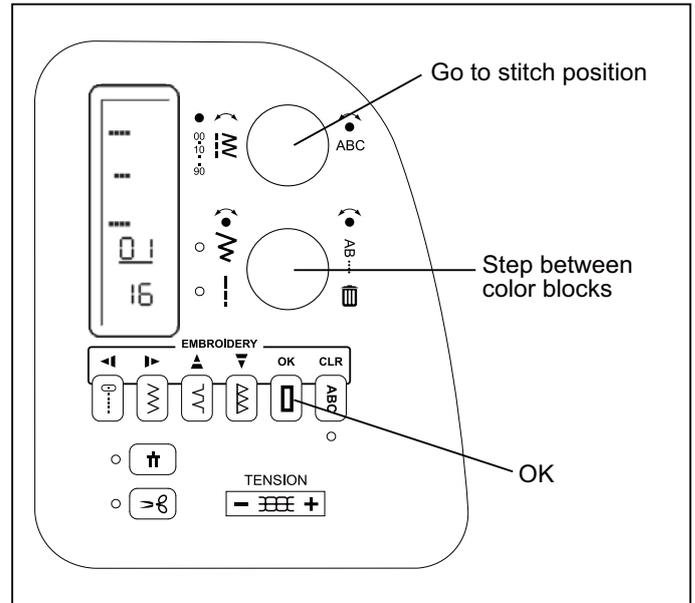
- Follow the same procedure for data 3 and data 4.



## CONTROL PANEL WHEN EMBROIDERING

When embroidering, the dials on the control panel are used to step through the design color by color and within a color block.

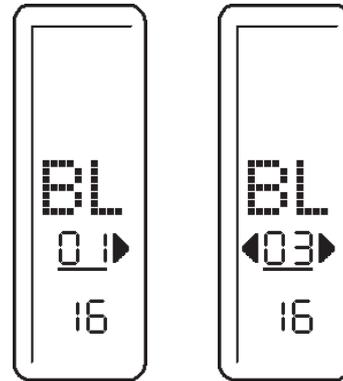
After transferring desired design(s) to your FUTURA sewing and embroidery machine, the display shows number of current color block and total number of color blocks as illustrated. The three horizontal lines indicate the beginning (bottom line), middle and end (top line) of the current color block. As the block is stitched out, a progress bar on the right side of the display will show the approximate current position in the color block.



## STEP BETWEEN COLOR BLOCKS

To step between the transferred color blocks, press the center of the lower dial. "BL" is shown on the display. The arrows indicate which direction you can step between the color blocks.

Turn the lower dial. The current color block number changes. When having reached desired color block, press OK. The hoop moves to the position of the first stitch in selected color block.



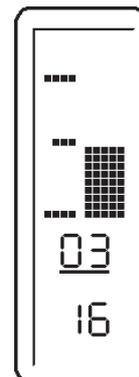
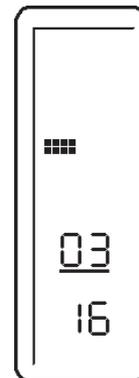
## GO TO APPROXIMATE STITCH POSITION WITHIN A COLOR BLOCK

To go to a certain part of current color block, press the center of the upper dial. The horizontal line on the display indicate the approximate current position in the color block.

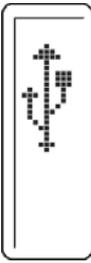
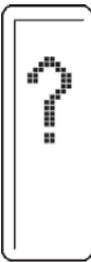
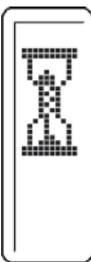
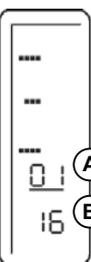
Turn the upper dial clockwise to step forward, and counter-clockwise to step backward in the design. Each step equals one tenth of the color block.

Example: If a color block contains 150 stitches, each step corresponds to 15 stitches.

When having reached desired position in the color block, press OK. The hoop moves to that position. Fine tune by using the Needle Stop Up/Down and Reverse buttons as described on page 43.



## HELPFUL MESSAGES WHEN EMBROIDERING

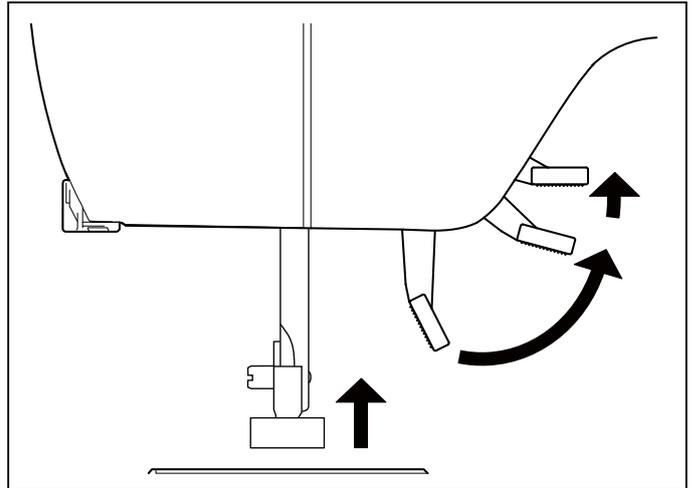
Display on control panel	Situation
	<p>Embroidery unit is mounted, but USB cable is not connected.</p> <p>or</p> <p>USB cable is disconnected after transferring embroidery data. In this case, the image is displayed for a few seconds, and then changed back to normal display. The transferred embroidery data is still available in the machine.</p>
	<p>USB cable is connected, but embroidery data is not transferred yet.</p> <p>All LED lamps are turned off.</p>
	<p>Embroidery data is being transferred.</p> <p>All LED lamps are turned off.</p>
	<p>Embroidery data has been completely transferred.</p> <p>The number of the current color block (A) (number one directly after transferring) and total number of transferred color blocks (B) are shown on the display.</p>
	<p>Embroidery in progress.</p> <p>The number of the currently stitched out color block (A) and total number of transferred color blocks (B) are shown on the display. The status bar indicates how far in the color block the machine has embroidered.</p>
	<p>When last block or one unit of endless hoop is completed.</p> <p>All LED lamps are turned off.</p>

## 4. OTHER THINGS YOU SHOULD KNOW

### PRESSER FOOT LIFTER

There are three positions for your presser foot.

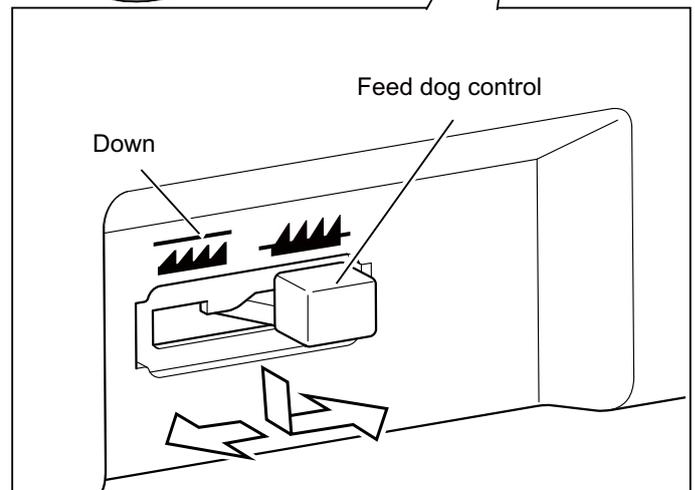
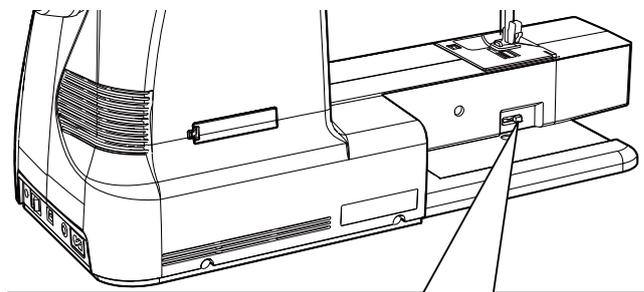
1. Lower the presser foot to sew.
2. Raise the lifter to the middle position to insert or remove fabric.
3. Lift it to its highest position to change the presser foot or to remove thick fabric.



### FEED DOG CONTROL

The feed dogs control the movement of the fabric that is being sewn. They should be raised for all general sewing purposes and lowered for darning, freehand embroidery and monogramming so that you, not the feed dogs, are moving the fabric.

You do not have to lower the feed dogs when attaching the embroidery unit, as they lower automatically.



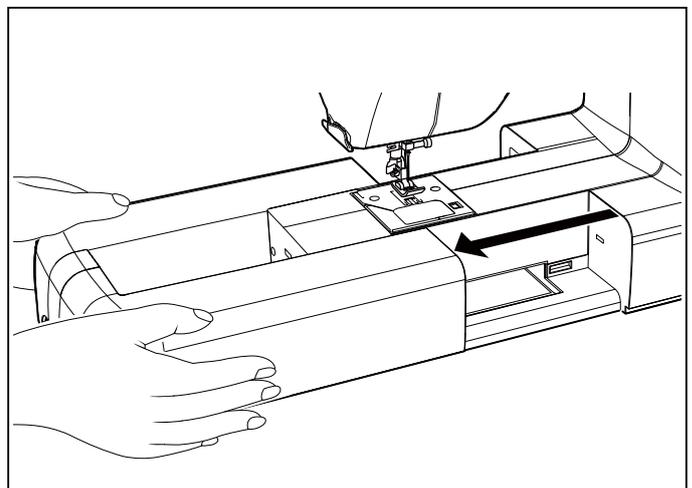
### CONVERTING TO FREE-ARM SEWING

Your machine can be used either as a flat-bed or as a free-arm model.

With the extension table in position, it provides a large working surface as a standard flat-bed model.

To remove the extension table, hold it firmly with both hands and pull it off to the left as shown. To replace, slide the extension table back into place until it clicks.

With the extension table removed the machine converts into a slim free-arm model for children's clothes, cuffs, trouser legs, and other hard-to-reach places.



# PERFORMANCE CHECKLIST

## GENERAL PROBLEMS

### Machine does not sew.

- \* Power switch is turned off.- Turn on the switch. (see page 4).
- \* Buttonhole lever is not raised when sewing stitch patterns.
  - Raise buttonhole lever. (see page 28 - 29).
- \* Buttonhole lever is not lowered when sewing buttonhole.
  - Lower buttonhole lever. (see page 28 - 29).

### Machine jams/knocks.

- \* Thread is caught in hook. - Clean hook. (see page 40).
- \* Needle is damaged. - Replace needle. (see page 10).

### Fabric does not move.

- \* Presser foot is not lowered - Lower presser foot. (see page 54).
- \* Stitch length is too short - Lengthen stitch length. (see page 12 - 13).
- \* Feed dogs are lowered - Raise feed dogs. (see page 54).

## STITCHING PROBLEMS

### Machine skips stitches.

- \* Needle is not all the way up into needle clamp. (see page 10).
- \* Needle is bent or blunt. - Replace needle. (see page 10).
- \* Machine is not threaded correctly. (see page 7 - 9).
- \* Thread is caught in hook. - Clean hook. (see page 40).

### Stitches are irregular.

- \* Needle size is not correct for thread and fabric. (see page 10).
- \* Machine is not threaded correctly. - (see page 7 - 9).
- \* Top thread tension is too loose. (see page 11).
- \* Fabric is being pulled or pushed against machine feeding action. - Guide it gently.
- \* Bobbin has not been wound evenly. - Rewind bobbin. (see page 5).

### Needle breaks.

- \* Fabric is being pulled or pushed against machine feeding action. - Guide it gently.
- \* Needle size is not correct for thread and fabric. (see page 10).
- \* Needle is not all the way up into the needle clamp. (see page 10).

## THREAD PROBLEMS

### Needle thread breaks.

- \* Machine is not threaded correctly. (see page 7 - 9).
- \* Top thread tension is too tight. (see page 11).
- \* Needle is bent. - Replace needle. (see page 10).
- \* Needle size is not correct for thread and fabric. (see page 10).

### Bobbin thread breaks.

- \* Bobbin case is not threaded correctly. (see page 6).
- \* Lint accumulates in bobbin case or hook. - Remove lint (see page 40).

### Fabric puckers.

- \* Top thread tension is too tight. - Adjust thread tension. (see page 11).
- \* Stitch length is too long for sheer or soft fabric. - Shorten stitch length. (see page 12 - 13).

## CLEANING HOOK AREA AND FEED DOGS



Always disconnect the machine from power supply by removing the plug from the wall-outlet.

To ensure the best possible operation of your machine, it is necessary to keep the essential parts clean at all times.

1. Raise the needle to its highest position.
2. Remove two screws on the needle plate (1) and slide the needle plate toward you as illustrated for removal.

3. Remove the bobbin case (2).

4. Clean the feed dogs and hook area with the lint brush. Put one drop of sewing machine (optional) oil on the hook race as indicated by the arrows. (A, B)

**NOTE: SINGER (page 57) Brand Sewing Machine Oil is suggested. DO NOT use "all purpose" as it is not suited for sewing machine lubrication.**

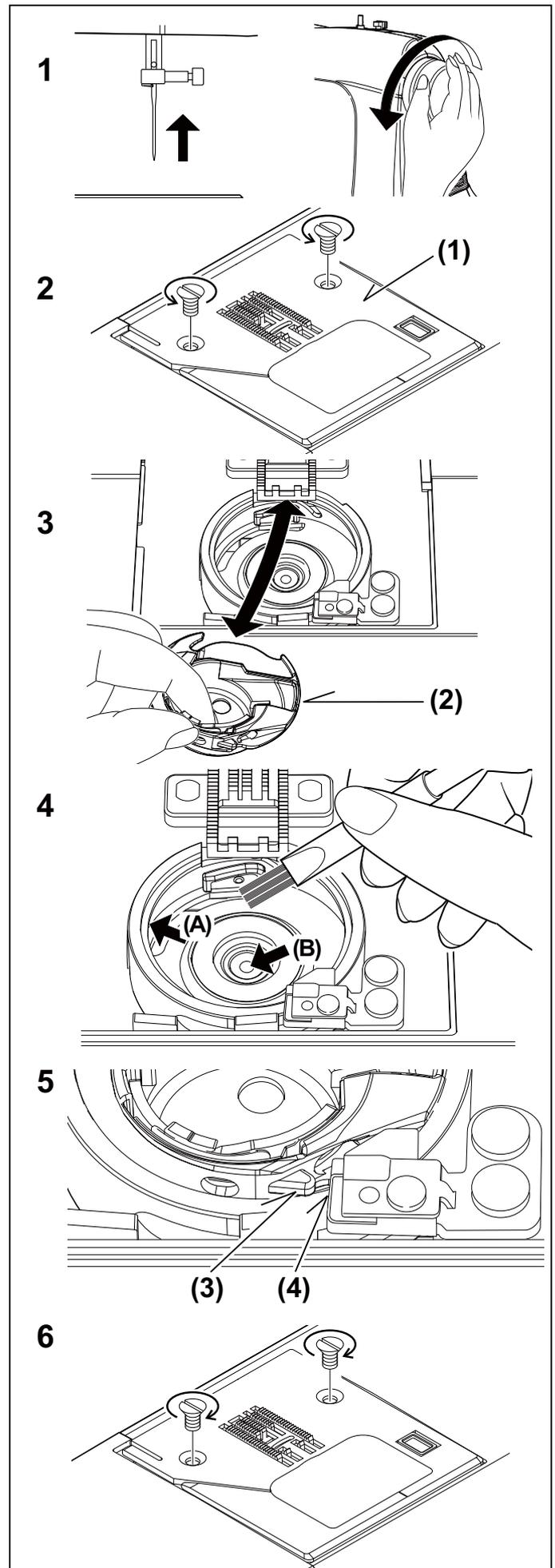
5. Replace the bobbin case with the projection (3) positioned against the spring (4).

6. Make sure that the needle is at its highest position and put and slide the needle plate into position as illustrated.

### Cleaning the sewing machine and footcontroller

After using, keep sewing machine and foot control (page 2) clean. Use dry rags to remove dust from the sewing machine and foot control (page 2).

NOTE: Use dry rags to avoid electrical shock.



## OILING INSIDE THE FACE COVER

1. Remove two screws and face cover.
2. Put one drop of sewing machine oil to the points indicated by arrows.

### Helpful Hints :

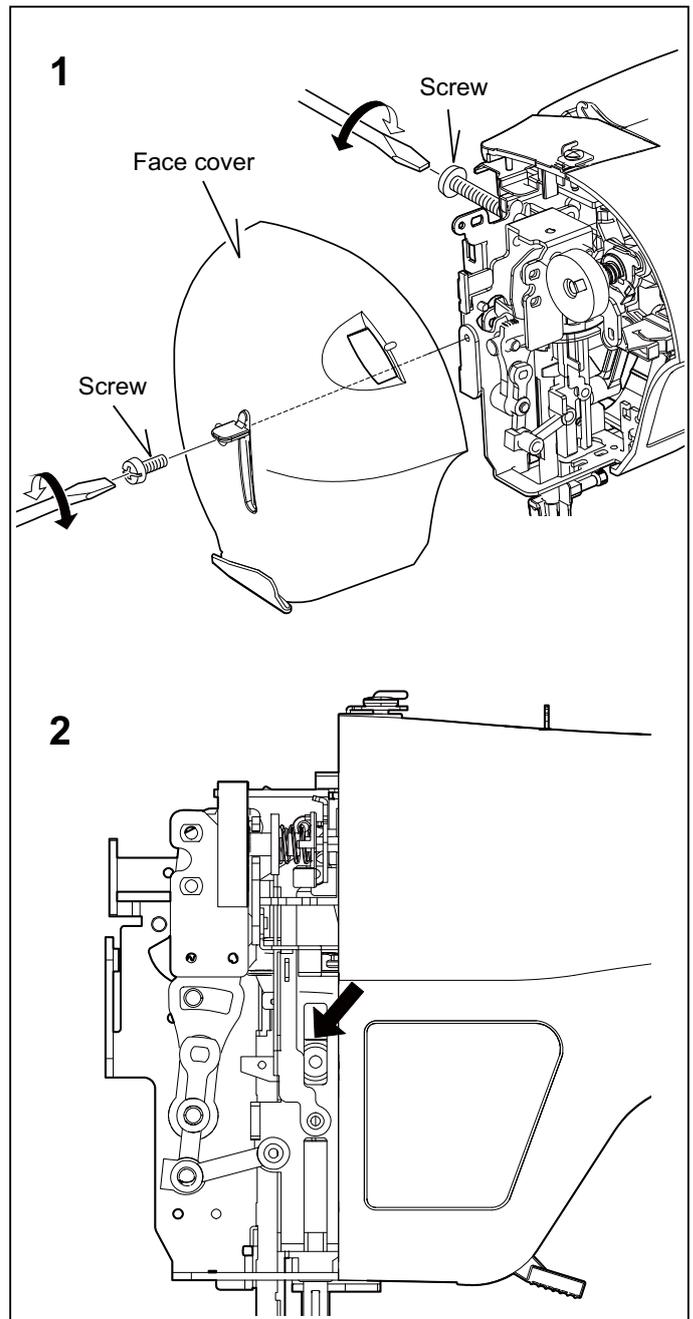
**For the machine used frequently : It should be oiled periodically.**

**For the machine used after a long interval : It should be oiled before it is used.**

### CAUTION:

**Always remove the dust and lint before oiling.**

**For best results always use SINGER Brand Sewing Machine Oil. Use of oil other than Sewing Machine Oil will cause damage to your machine.**



## SPECIAL ACCESSORIES

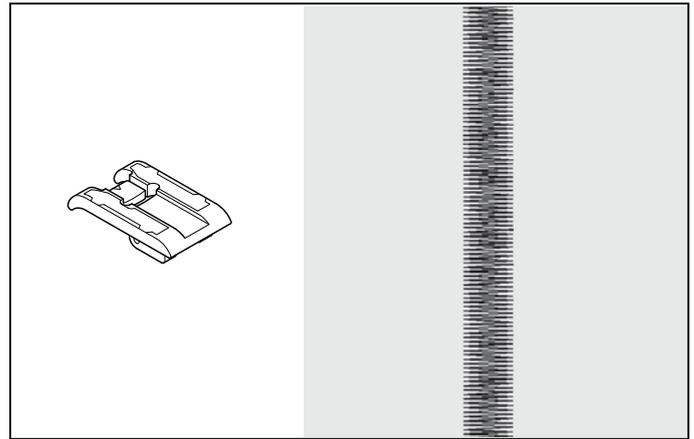
### SATIN FOOT

The Satin stitch foot is grooved on the bottom to permit dense stitching to pass under it easily. It is most useful for sewing satin stitches. It can also be used as an alternative to the All Purpose or All Purpose Foot when sewing stretch stitches.

Closely spaced zigzag (page 23) stitches are called satin stitches. This is an attractive stitch used primarily for appliqueing and bar tacking. Slightly loosen top thread tension for satin stitching. Use a backing of stabilizer or interfacing to avoid puckering.

**NOTE** on starting to sew with satin stitch foot:

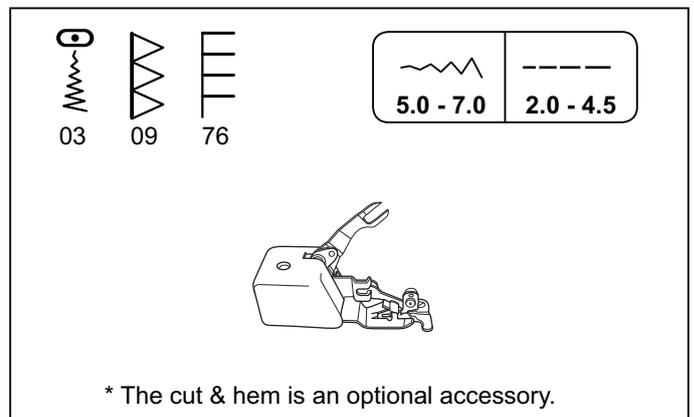
Pull both threads under the foot, to the left of the foot of the foot before starting to sew in order to hold threads with the foot or top thread may be entangled on the underside of fabric.



### CUT & HEM

This foot is used to trim excess material while sewing.

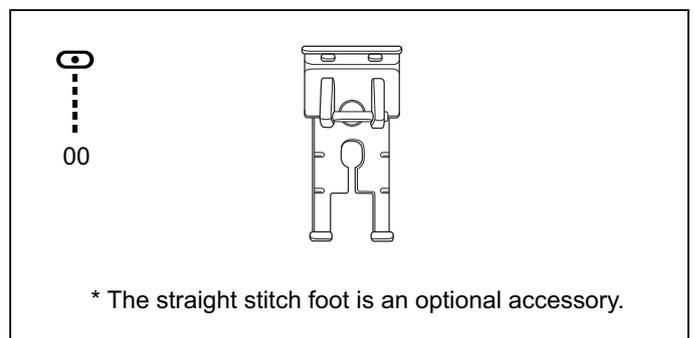
1. Move the plastic sleeve that covers the needle clampscrew to the right.
2. Attach the cut & hem, making sure the attachment's "arm" fits around the needle bar thumb screw. Tighten the thumb screw, securing the foot.
3. Slowly turn the hand wheel towards you; the needle should go over the the stitch finger on the foot. If the needle is hitting the metal stitch finger or metal side, then widen or narrow the stitch width. Never use a straight stitch.
4. Cut a 1/2" wide by 1" deep notch at the top edge of your fabric.
5. Place the fabric OVER the first metal platform and then UNDER the second metal platform. If the foot is not cutting, it is usually because the material is not placed OVER the first metal platform.
6. Sew slowly and gently guide the fabric. The cut & hem works best if no more than 1/2" is being trimmed.



### 1/4" FOOT

This foot provides a perfect 1/4" seam guideline, which is useful when piecing quilt blocks. Markings on the foot alert when to pivot the fabric.

1. Select straight stitch.
2. Snap on the 1/4" Foot.
3. Stitch the pre-cut fabric pieces together. Keep the fabric's edge even with the foot's right edge. There is no need to tie off at the seam ends.
4. Iron the seams flat, ensuring precision of your work and better alignment of all corners. All seam allowances should be positioned in one direction and preferably be placed under the darker-colored material, so they cannot be seen on the right fabric side.
5. Place matching strips together as desired and pin together at each corner, ensuring accurate alignment of all corners. Remember that even the smallest discrepancies will add up and distort your design. Join together the strips and iron the seams. Upon completion of your patchwork design, iron again on the right fabric side.



## OPEN TOE FOOT

This foot provides a more visible view of the area that you will be stitching. Because of its open area at the front, you can see markings much more easily.

1. Set machine to desired stitch.
2. With a marking pencil or chalk, trace the outline for your design or pattern on the right side of the garment. Hint: Use a marker that can be removed easily in case the stitching does not cover it completely.
3. Sew, following the outline you have traced onto your fabric.

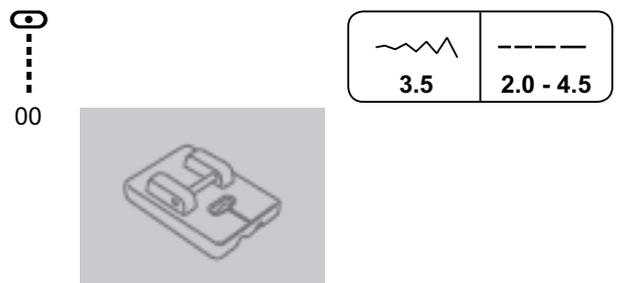


\* The open toe foot is an optional accessory.

## INVISIBLE ZIPPER FOOT

This foot provides a hidden closing on skirts, dresses and other garments.

1. Verify that the needle will line up with the opening of the foot before starting to sew.
2. Before closing the seam on your project, use a fabric marker to mark the desired bottom end of the zipper on both sides of the zipper opening.
3. Fold in and press the seam allowances of both opening edges and open out the pressed edges.
4. With right sides together, place the first half of the opened zipper along the first edge of the opening, ensuring that the teeth of the zipper end at the creased edge.
5. Baste in place.
6. Place the fabric under the presser foot, so that the teeth of the zipper are lined up with the groove of the zipper foot. Topstitch the zipper in place, ensuring that the needle penetrates the tape of the zipper close to the teeth. Continue sewing until the presser foot reaches the zipper's slider, backstitching at the end of the seam.
7. On the opposite side, close the zipper. With right sides together, make sure the two sides of the zipper are properly aligned. Pin in place, open the zipper and baste in place.
8. Place the fabric under the presser foot, so that the teeth of the zipper are again lined up with the groove of the zipper foot. Topstitch the zipper in place, ensuring that the needle penetrates the tape of the zipper as close to the teeth as possible.
9. Continue sewing the second seam until the presser foot reaches the zipper's slider, backstitching at the end.



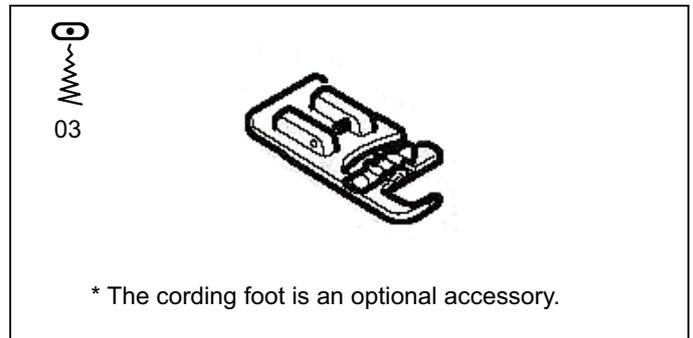
\* The invisible zipper foot is an optional accessory.

## CORDING FOOT

Sew over one, two or three standards of cord to embellish fabrics. Pearl cotton, embroidery floss or fine wool yarn can be used for cording.

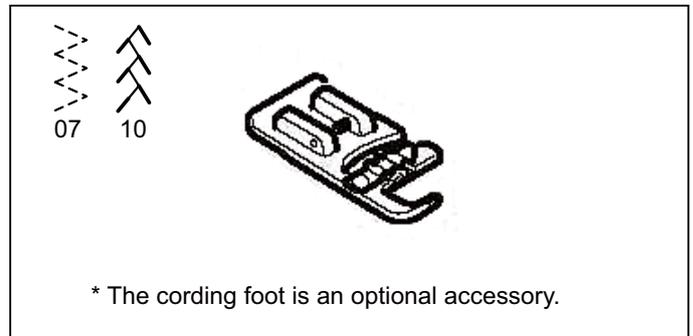
### Single cording

1. Mark the design on the fabric. Insert the cord in the center groove of the cording foot from the right side opening. Pull the cord about 5cm (2 inches) behind the foot.
2. The grooves of the foot will hold the length of the cord in place while the stitches are being formed over the cord.
3. Select the stitch and adjust the stitch width so that the stitches are just covering the cord. Lower the foot and sew slowly, guiding the cord over the design.



### Triple cording

1. Push the sewing thread to the left and insert three cords into the grooves of the foot and pull out 5cm (2 inches) of the cords behind the foot. Select the desired pattern and adjust the stitch width so that the stitches are just covering the cords. Lower the foot and sew slowly guiding the cords.

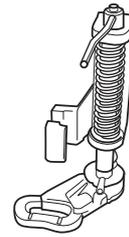


## DARNING / FREEHAND EMBROIDERY FOOT

This foot is used to create freehand embroidery, monograms and stippling when the machine is set in regular sewing mode (embroidery unit not attached).

1. Drop the feed dogs. To do so, remove the free arm. On the backside of the exposed area, move the lever from the right to the left.
2. Thread the needle with the machine embroidery thread. If you have chosen a rayon sheen as embroidery thread, use a special bobbin thread in the bobbin, called bobbin fill.
3. Place a stabilizer on the back layer of the fabric to create fabric stiffness and prevent distortion of the fabric during embroidering. The fabric stabilizer can be further secured by spraying it with a temporary adhesive.
4. Draw your chosen design, or letter for sewing a monogram, on the fabric using a disappearing fabric-marking pen.
5. Hoop the fabric. Pull it tight with an even tension.
6. Place the hooped fabric under the darning/ freehand embroidery foot and lower the foot.
7. Sew with a fast speed while guiding the fabric slowly.
8. When the design is complete, pull the threads to the back and neaten or tie a knot. Trim away the stabilizer and press the fabric.

For designs and monograms



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3.0 - 5.0

For freehand embroidery

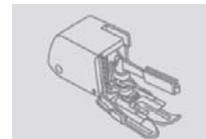


\* The darning / freehand embroidery foot is an optional accessory.

## EVEN FEED FOOT

This foot has its own set of feed dogs that work in conjunction with the machine's feeding system to improve the flow of fabric. This is particularly important when sewing several layers of fabric, such as in quilting. It is also valuable when matching plaids or stripes, and in sewing pile types of fabrics such as velour and ultra-suede.

1. Secure the walking foot to the shank, while making sure the extension arm slips over the needle clamp screw.
2. Tighten the thumb screw to secure the foot to the shank.
3. Place two pieces of fabric right sides together.
4. Sew seam from top to bottom.

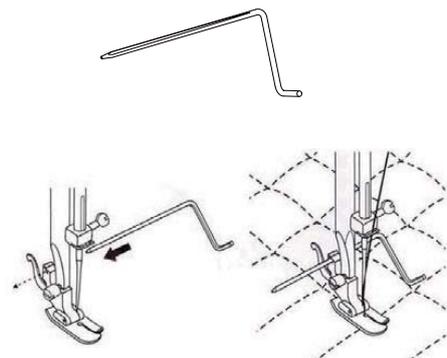


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3.0 - 5.0

\* The even feed is an optional accessory.

## EDGE GUIDE / QUILTING BAR

The edge guide/quilting bar is best utilized when paired with the all purpose foot or the 1/4" foot (optional accessory). The edge guide/quilting bar is used to sew perfect straight seams. It can be used to stitch parallel lines in quilting, or can be used to help guide you to sew 5/8 of an inch seam allowances. To attach the guide, simply insert it into the opening of the shank at the back of the presser foot on your machine.



\* The edge guide (quilting bar) is an optional accessory.

## TWIN NEEDLE

A twin needle produces two rows of parallel stitches for pintucks, double top stitching and decorative sewing.

When using twin needles, **When using twin needles, always engage the twin needle button**, regardless of the stitch you have selected. This will prevent broken needles and damage to your machine, regardless of the stitch you have selected. Use of a SINGER Brand twin needle (Style 2025) is strongly recommended.

The twin needle is not included with the SEQS-6700.

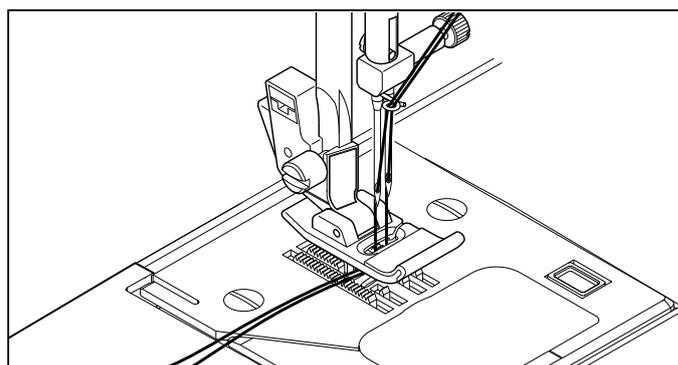
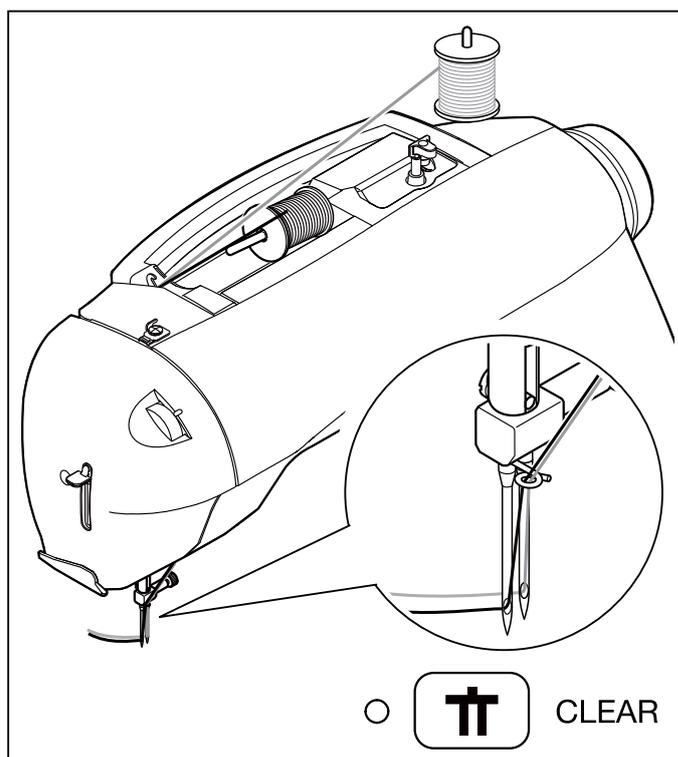
## THREADING THE TWIN NEEDLE

1. Place a spool on each spool pin. Thread the two threads as one. Draw one thread through each needle from front to back.
2. Pick up bobbin thread as for single needle sewing. Pull the three threads together under the presser foot to the back of the machine, leaving about 6" (15 cm) clear.

**NOTE: Needle threader cannot be used to thread the twin needle.**

### Helpful Hints:

1. **Always select the twin needle mode prior to selecting a pattern. This will preclude any possibility of the twin needle breaking.**
2. **To disengage twin needle sewing mode and return the machine to normal sewing mode, either press the twin needle button again or shut the machine off. Twin needle is only active when the twin needle switch is lit red.**



## WING NEEDLE

The wing needle (sometimes known as hemstitching needle) is most commonly used in heirloom sewing. A wing needle has wings that extend from either side of the needle. This extra wide needle will create holes in the fabric to produce a decorative effect.

The wing needle works best with stitches that have a repeated back and forth motion.

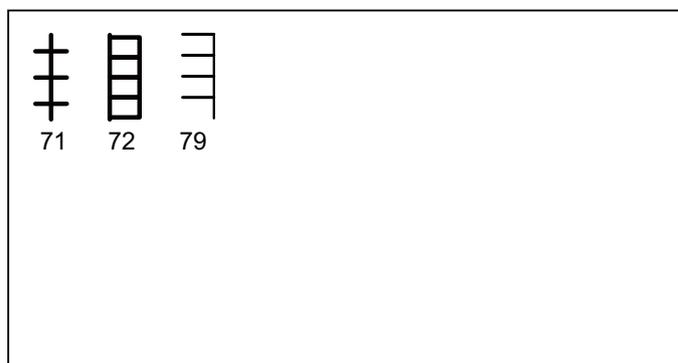
You will obtain better results if you use the wing needle in natural fibers such as cotton batiste, linen and silk.

It may be necessary to decrease the upper tension slightly for a better quality stitch, do a test sample before sewing your garment.

Do not use the built-in needle threader when working with the wing needle.

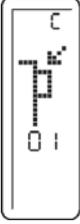
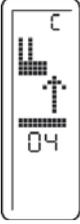
The wing needle is not included with the SEQS-6700.

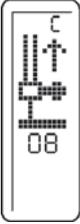
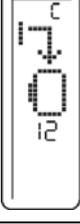
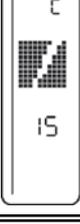
Use of a SINGER brand wing needle (Style 2040) is strongly recommended.



## HELPFUL MESSAGES

Messages are displayed with LED lamps above stitch pattern numbers on control panel and/or PC screen. When a message is displayed, fix the problem following the instruction in the message. The message will disappear once the problem has been fixed.

On control panel	Problem → Correction	Sewing	Embroidery
	<p>Machine is locked up due to thread entangled with bobbin case or rotation interrupted forcibly.            → Turn off power switch and eliminate the problem that caused the machine to stop.</p>	○	○
	<p>Bobbin winder is locked up due to thread entangled around spindle or rotation interrupted forcibly.            → Turn off power switch and eliminate the problem that caused the bobbin winder to stop.</p>	○	○
	<p>Buttonhole is selected on selection button, but buttonhole lever is raised.            → Lower buttonhole lever and begin sewing buttonhole.</p>	○	
	<p>Buttonhole lever is not raised.            → Raise buttonhole lever when sewing stitch patterns or embroidery.</p>	○	○
	<p>Foot control is connected while operating with start/stop button or start/stop button is pushed while foot control is connected.            → Disconnect foot control or restart sewing by depressing foot control.</p> <hr style="border-top: 1px dashed black;"/> <p>Foreign particle like tip of needle, screwdriver etc. is detected on machine socket for foot control.            → Remove foreign particle.</p>	○	

On control panel	Problem → Correction	Sewing	Embroidery
	Breakage of top thread is detected. → supply or rethread top thread and restart.	○	○
	Unable to start with needle lowered. → Raise needle and restart.		○
	Unable to start with presser foot lifted. → Lower presser foot and restart.	○	○
	Hoop size is too small to move hoop to original position. → Turn off power switch and attach larger hoop.		○
	Hoop size is smaller than embroidery data. → Attach appropriate hoop and restart.		○
	Defect in sewing data. → Transmit correct data.		○
 1-17 (Error message number)	System error occurs. → Turn off and on power switch to eliminate the problem that caused the system error to occur. If the error number should not disappear, consult an authorized technician.	○	○



