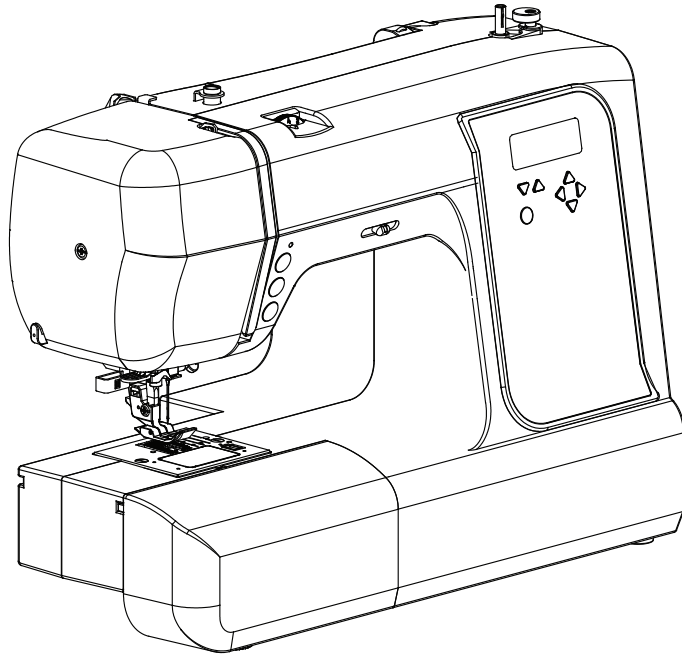
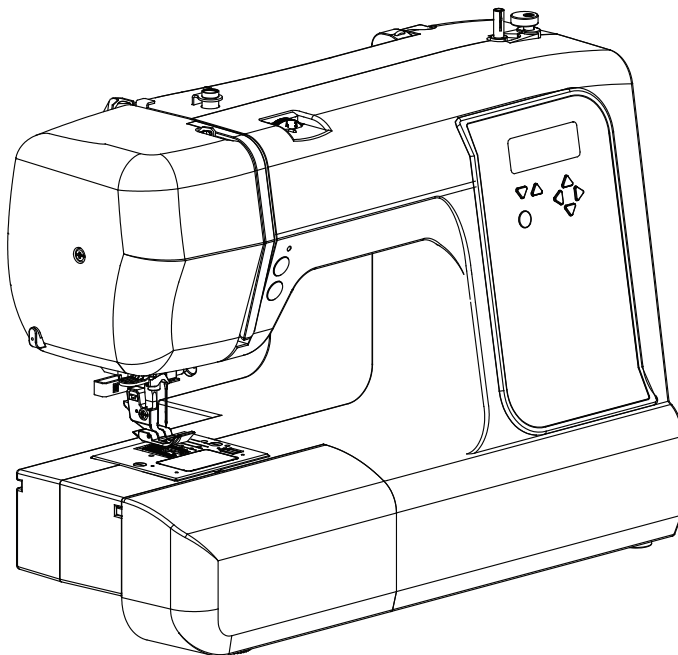


210x297

INSTRUCTION MANUAL



KP6210



KP6210A

"IMPORTANT SAFETY INSTRUCTIONS"

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

Read all instructions before using this sewing machine.

DANGER - To reduce the risk of electric shock:

1. An appliance should never be left unattended when plugged in.
2. Always unplug this appliance from electric outlet immediately after using and before cleaning.

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

1. Read the instructions carefully before you use the machine.
2. Keep the instruction at a suitable place close to the machine and hand it over if you give the machine to a third party.
3. Use the machine only in dry locations.
4. Never leave the machine unattended with children or elderly people due to they may not be able to estimate the risk.
5. This appliance can be used by children aged from 14 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. (For Europe)
6. Children shall not play with the appliance. (For Europe)
7. Cleaning and user maintenance shall not be made by children without supervision. (For Europe)
8. Always switch off the machine if you carry out preparation for work (change the needle, feed the yarn thru the machine, change the footer, etc.).
9. Always unplug the machine if you leave it unattended, to avoid injury by expediently switch on the machine.
10. Always unplug the machine if you carry out maintenance (oiling, cleaning).
11. Don't use the machine if it's wet or in humid environment.
12. Do not unplug by pulling on the cord. To unplug, grasp the plug, not the cord.
13. If the LED lamp is damaged or broken, it must be replaced by a qualified person, in order to avoid a hazard.
14. Never place anything on the pedal.
15. Do not use the machine if the air vents are blocked. Keep the ventilation openings of the machine and foot pedal free from lint, dust etc.
16. The machine may only be used with foot pedal type 4C-333B.
17. Do not dispose of electrical appliances as municipal waste, use separate collection facilities.
18. Contact your local government for information regarding the collection systems available.
19. If electrical appliances are disposed of in landfills or dumps, hazardous substances can leak into the groundwater and get into the food chain, damaging your health and well-being.
20. When replacing old appliances with new ones, the retailer is legally obligated to take back your old appliance for disposal at least for free of charge.
21. The appliance is not to be used 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. (For outside Europe)
22. Children being supervised not to play with the appliance. (For outside Europe)
23. For the foot controller, If the supply cord is damaged, it must be replaced by the manufacturer or its service agent or a similarity qualified person in order to avoid a hazard.

"SAVE THESE INSTRUCTIONS"

This sewing machine is intended for household use only.

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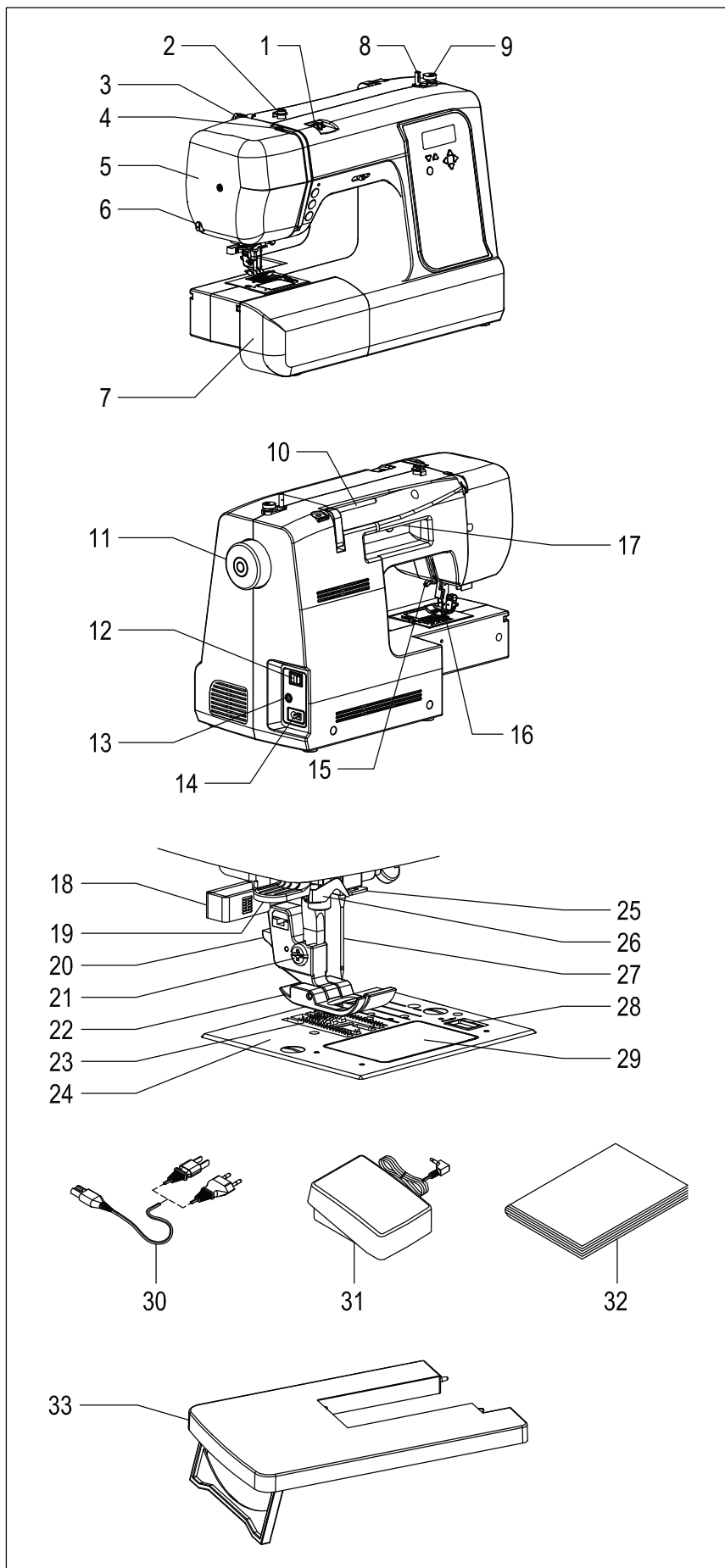
For European version

Dimensions: 438 mm x 200 mm x 315mm
 Mass of the equipment: 6.8 kg
 Rated Voltage: 220~240 V
 Rated Frequency: 50 Hz
 Rated input: 45 W
 Using ambient temperature: Normal temperature

1. KNOWING YOUR SEWING MACHINE

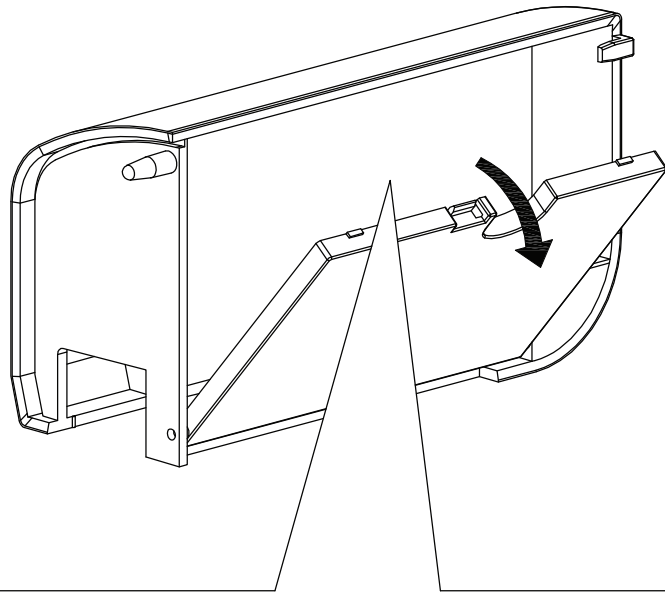
MACHINE IDENTIFICATION

1. Threading tension dial
2. Bobbin winder thread guide
3. Thread guide
4. Take up lever
5. Face plate
6. Thread cutter
7. Extension table (Accessory box)
8. Bobbin winder shaft
9. Bobbin winder stopper
10. Horizontal spool pin
11. Hand wheel
12. Power/light switch
13. Foot control socket
14. Cord socket
15. Needle clamp screw
16. Presser foot lifter
17. Handle
18. Buttonhole lever
19. Needle threading lever
20. Presser foot release button
21. Presser foot screw
22. Presser foot
23. Feed dog
24. Needle plate
25. Thread guide
26. Threading guide
27. Needle
28. Bobbin case cover release button
29. Bobbin case cover
30. Power line cord
31. Foot control (Type:4C-333B)
* Optional parts for KP6210
* Standard parts for KP6210A
32. Instruction manual
33. Large extension plate (Optional part)



ACCESSORIES

1. Needles
2. Bobbins (4 total - 1 in machine)
3. Auxiliary spool pin
4. Spool pin felt discs
5. Spool pin cap
6. Screwdriver for needle plate
7. Buttonhole opener/seam ripper and brush
8. Oiler (Optional part)
9. Darning plate
10. Zipper foot
11. Blind stitch foot
12. Satin stitch foot
13. Buttonhole stitch foot
14. Screwdriver

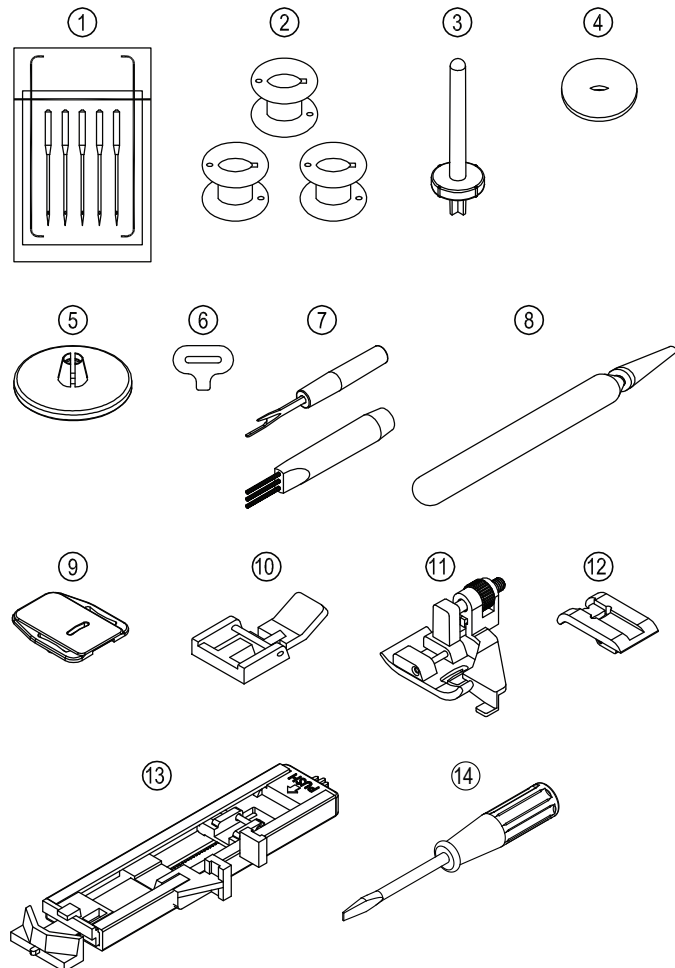


The Foot that comes on your Sewing machine is called the General Purpose Foot and will be used for the majority of your sewing.

The Satin Foot (12) should be used for most of your decorative sewing especially

HONEYCOMB , STAR  etc.

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



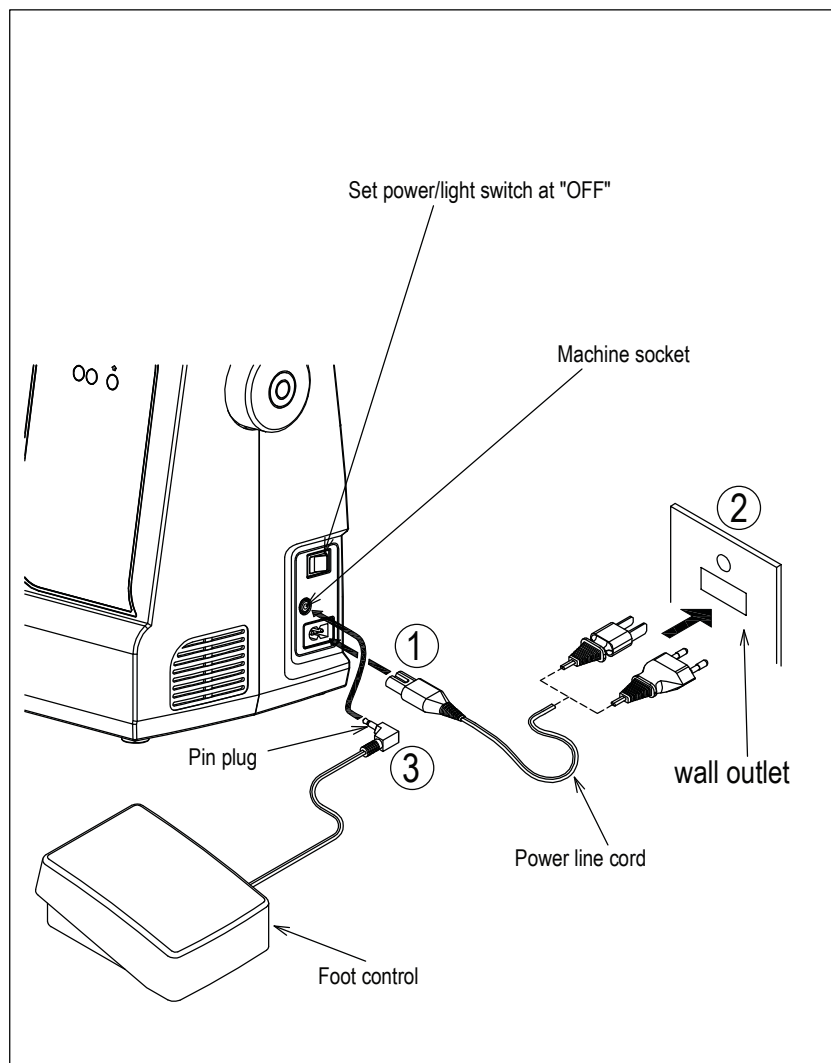
SETTING UP YOUR MACHINE

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

POWER LINE CORD/FOOT CONTROL

- (1) Connect the power cord and plug as illustrated.
- (2) Connect the foot pedal into the machine socket as illustrated.

NOTE: When foot control is disconnected, the machine will not operate. (Model KP6210A)



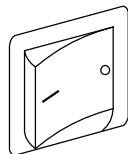
Always disconnect the machine from power supply by removing the plug from the wall-outlet.

POWER/LIGHT SWITCH

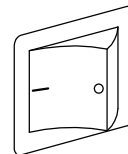
Your machine will not operate until the power/light switch is turned on. The same switch controls both the power and the light.

When servicing the machine, or changing needle, etc., machine must be disconnected from the power supply.

Power/light switch at "OFF"



Power/light switch at "ON"



SPOOL PINS

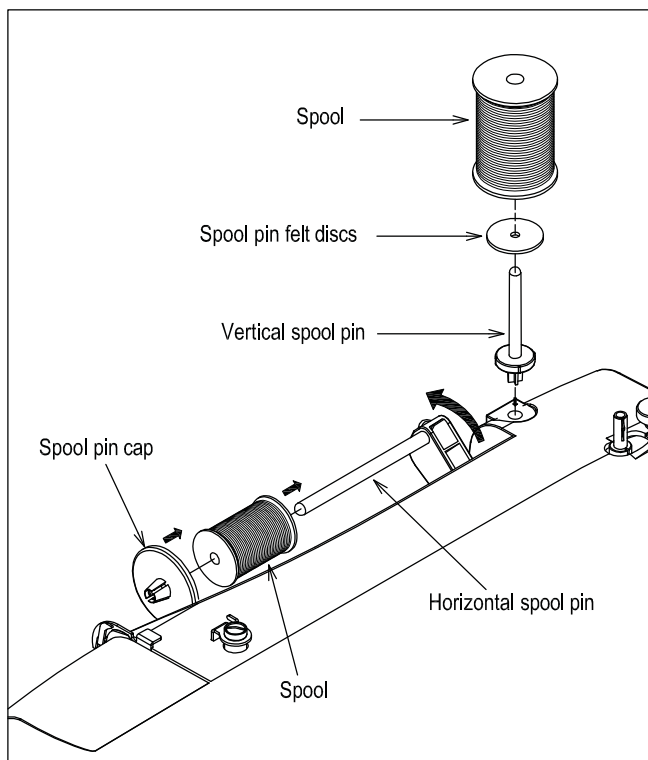
HORIZONTAL SPOOL PIN for normal thread spool

Place thread spool on the pin and secure with a spool cap to ensure smooth flow of thread. If the thread spool has a thread retaining slit, it should be placed to the right.

Select the correct spool pin cap according to the type and diameter of the spool. The spool pin cap should always be larger than the spool itself.

VERTICAL SPOOL PIN for large thread spool

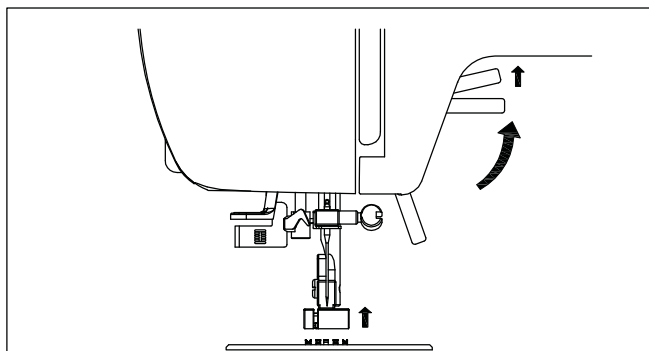
Attach the spool pin. Place the felt disc over it. Place a thread spool on the spool pin.



PRESSER FOOT LIFTER

There are three positions for your presser foot.

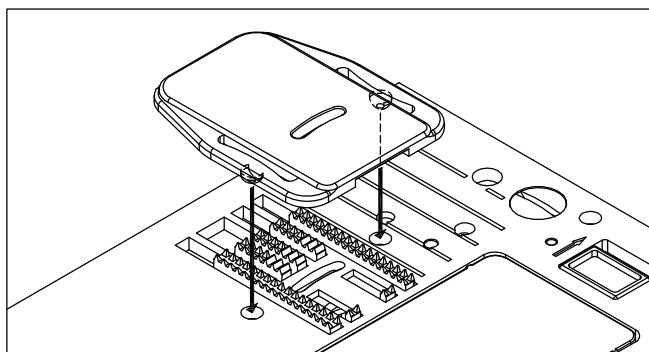
1. Lower the presser foot to sew.
2. Raise the lifter to the middle position to insert or remove fabric, and to change presser foot.
3. Lift it to its highest position to insert or to remove thick fabric.



DARNING PLATE

Use the darning plate when you need to control fabric feeding for button sewing, free motion work and free motion darning.

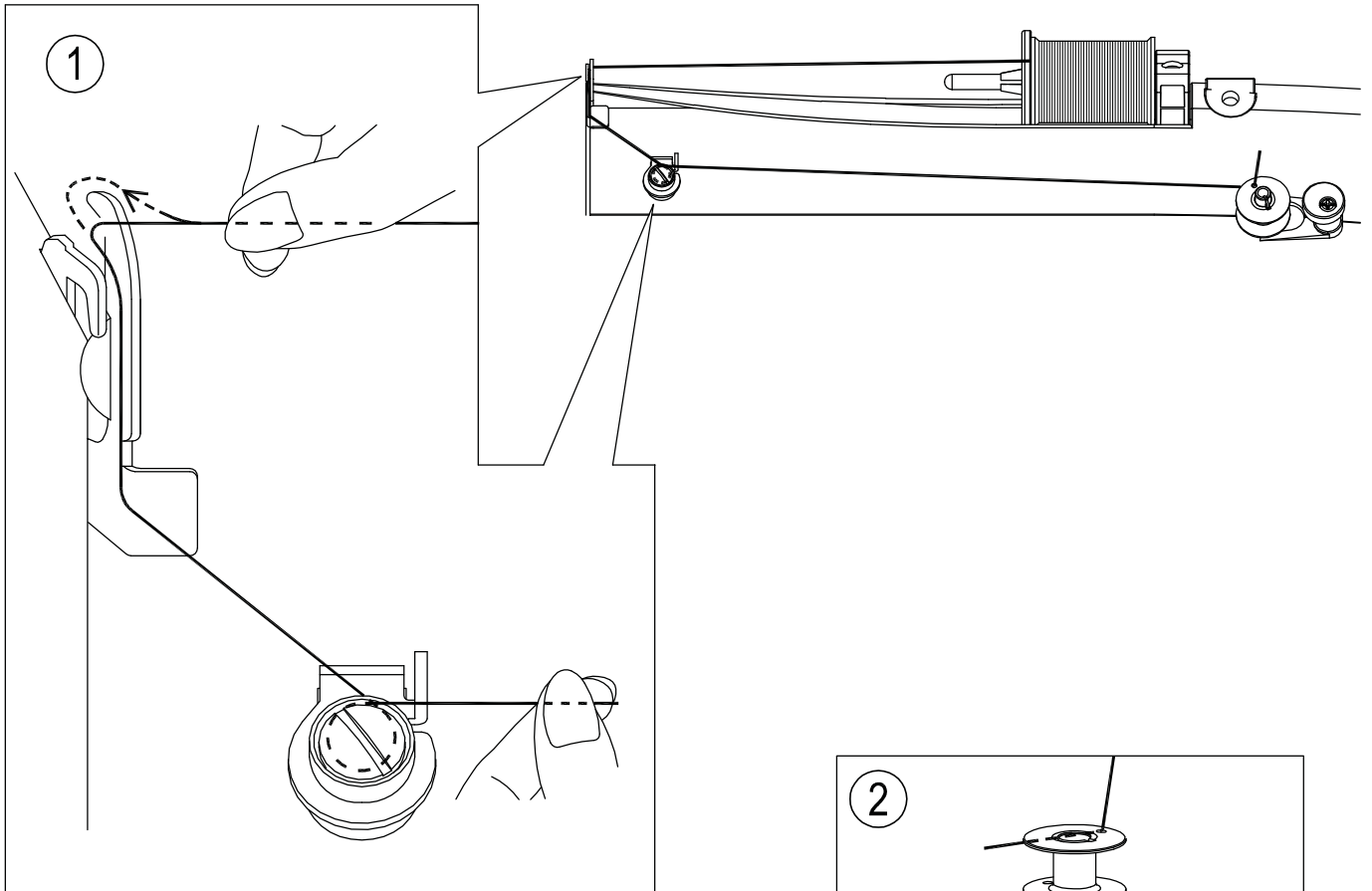
Raise needle and presser foot, and position darning plate onto the needle plate with the two pins on the back inserted to the holes of needle plate.



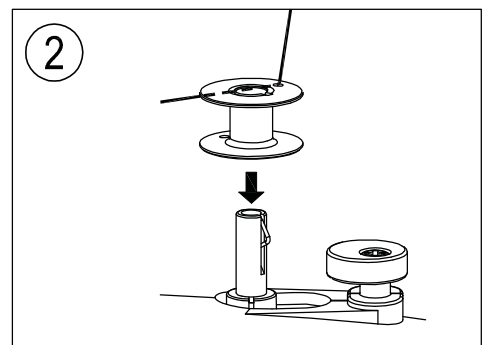
WINDING THE BOBBIN

Be sure to use class 15 J bobbins.

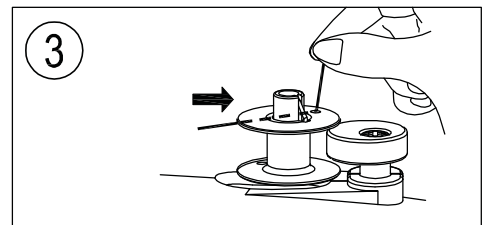
1. Place a spool of thread on the spool pin, and secure it with the spool pin cap. Pull the thread out from the spool and place it through thread guides as shown in illustration.



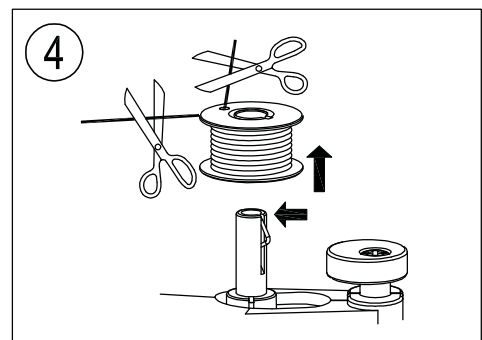
2. Put end of thread through the hole in bobbin as shown.



3. Push bobbin winder shaft to far left position, if it is not already there. Place bobbin onto shaft with end of thread coming from top of bobbin. Push bobbin winder shaft to the right until it clicks. Hold onto end of thread.



4. Start machine. After the bobbin has begun to fill, stop to cut the thread tail. Step on the foot control again to continue to fill the bobbin. The bobbin will automatically stop turning when completely filled. Push shaft to the left to remove bobbin and cut thread.



THREADING THE BOBBIN THREAD

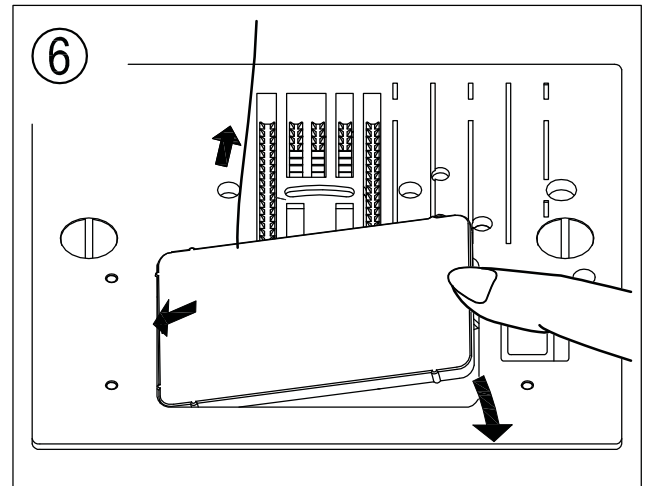
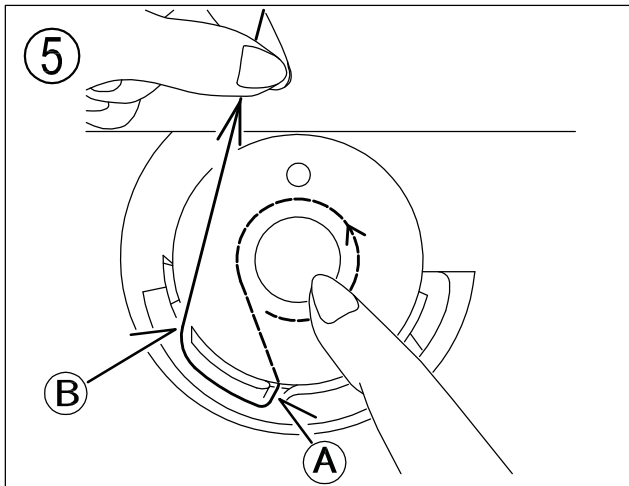
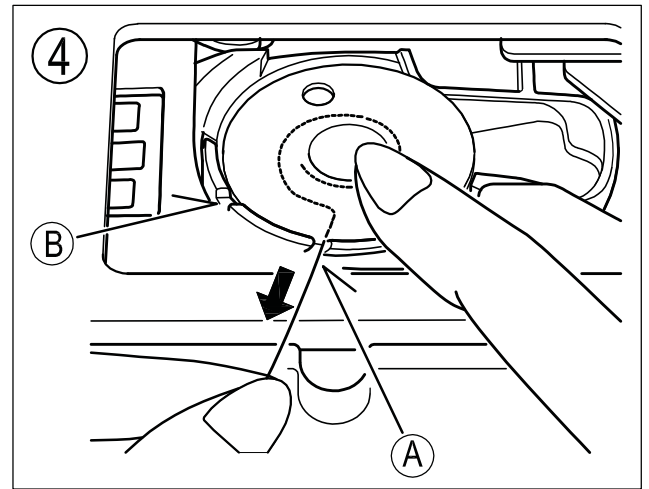
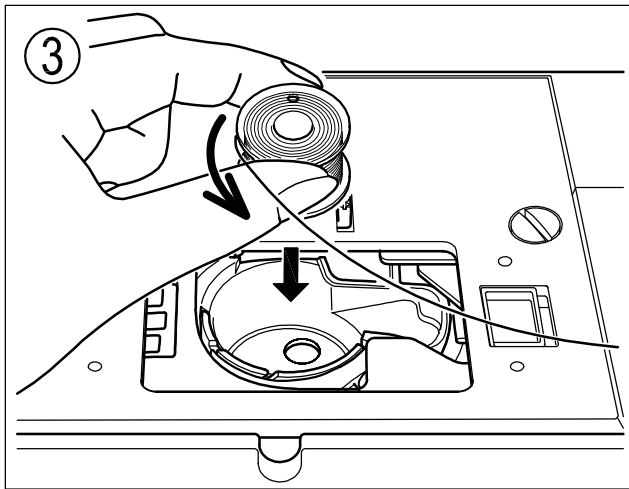
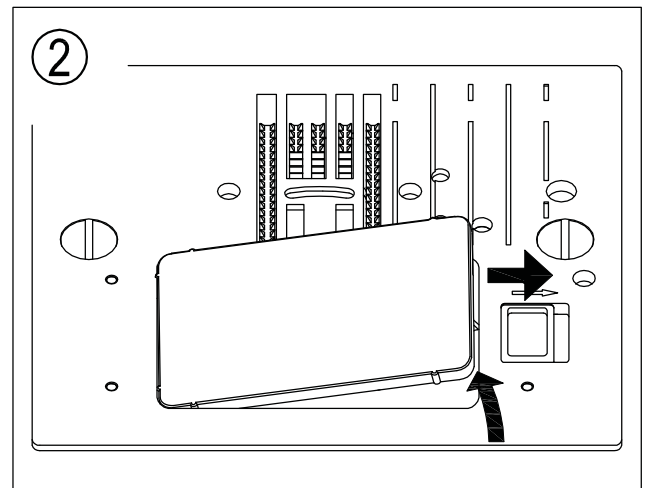
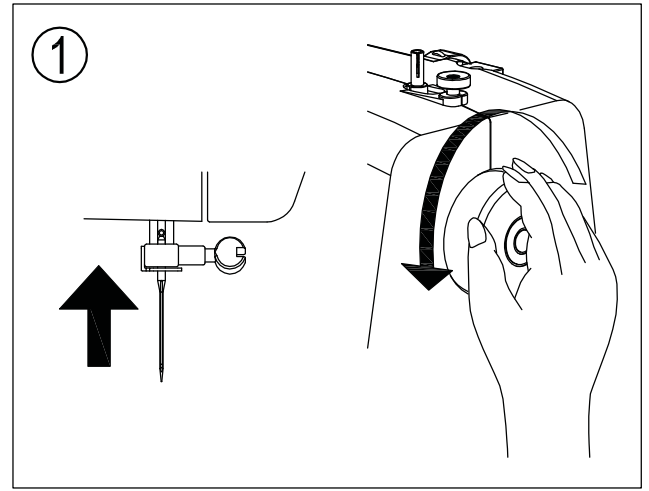
1. Raise the needle to its highest position by rotating the hand wheel counter clockwise.
2. Remove the bobbin cover plate by pushing the release button to the right. Bobbin cover will pop up to allow you to remove the cover.
3. Insert the bobbin making sure the bobbin rotates counterclockwise when you 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 your finger placed gently on top of the bobbin, pull the thread until it reaches the slot (B).

NOTE: Sewing can start without picking up the bobbin thread.

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



THREADING THE TOP THREAD

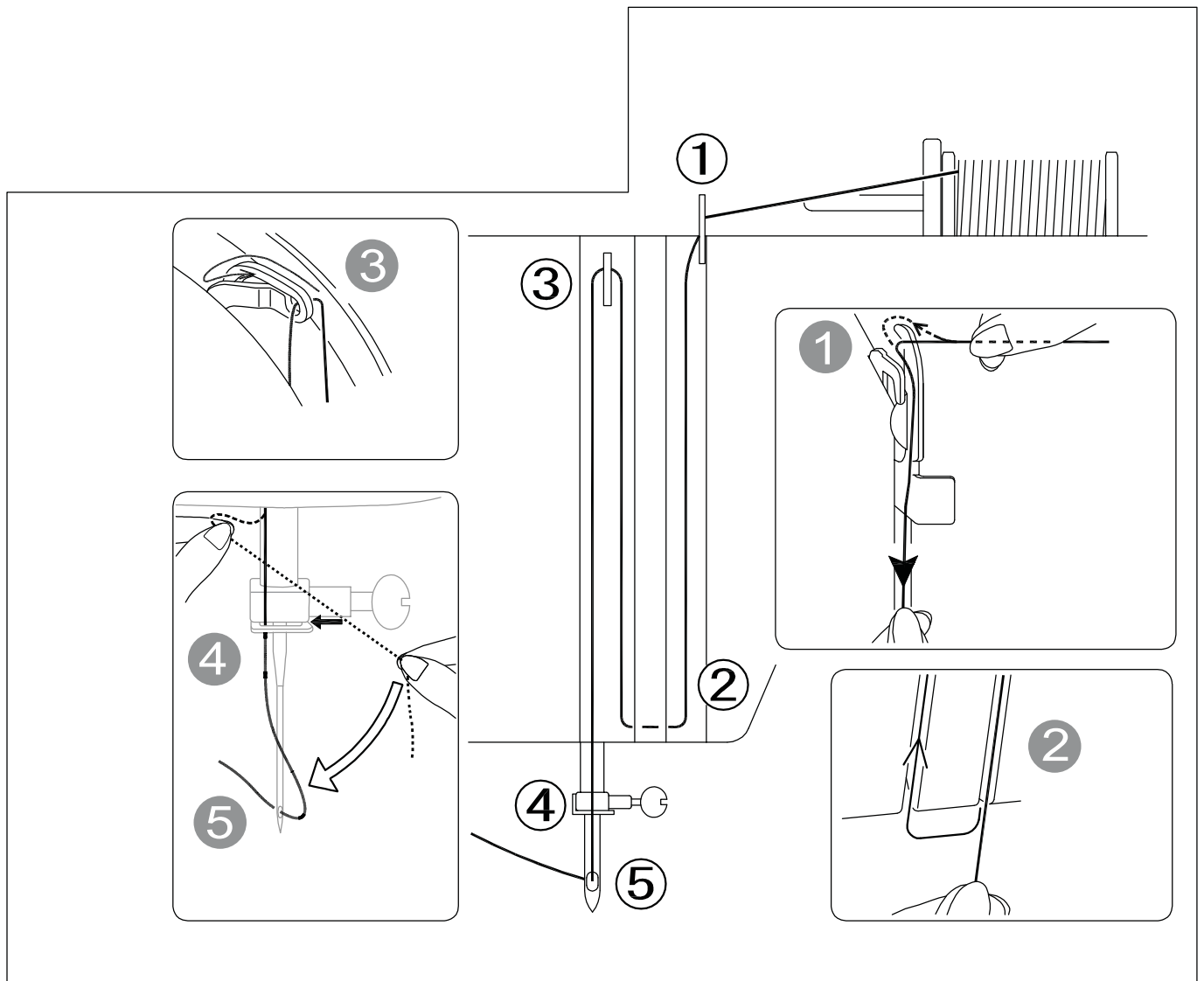
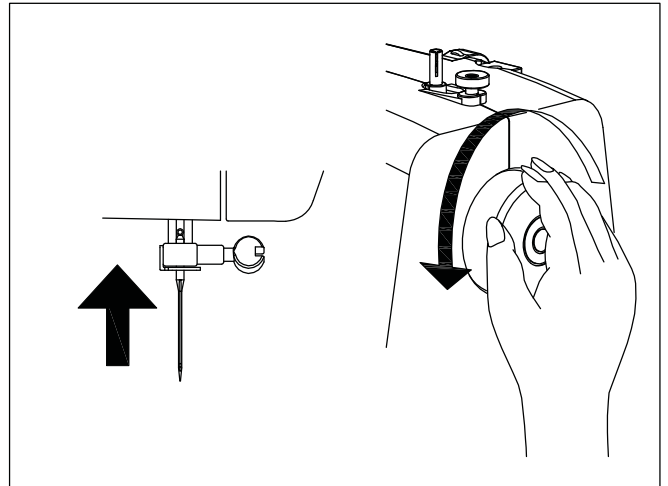
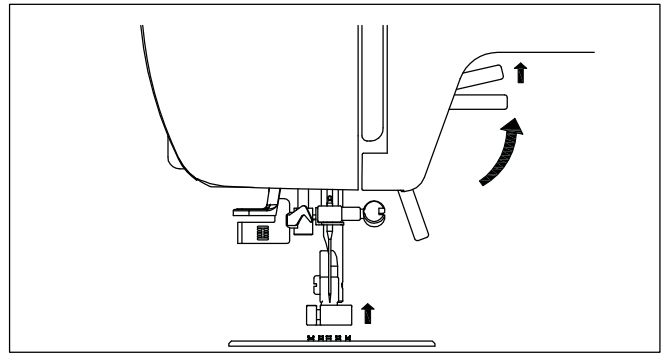
A. Raise the presser foot lifter. Always be sure to raise presser foot lifter before threading the top thread. (If the presser foot lifter is not raised, correct thread tension cannot be obtained.)

B. Turn the hand wheel counter-clockwise 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.

1. Draw thread into thread guide using both hands.
2. While holding thread near spool, draw thread down into the tension area and then around the check spring holder.
3. Firmly draw thread up and through tack-up lever from right to left.
4. Draw thread down and slip it into needle bar thread guide.
5. Thread needle eye from front to back.

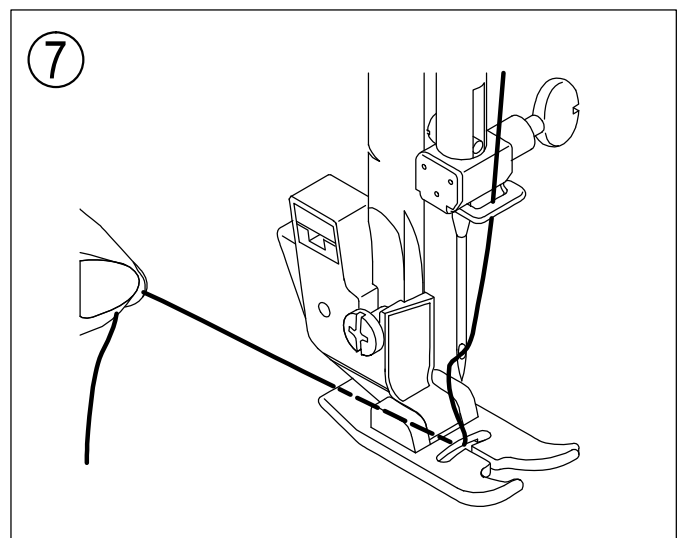
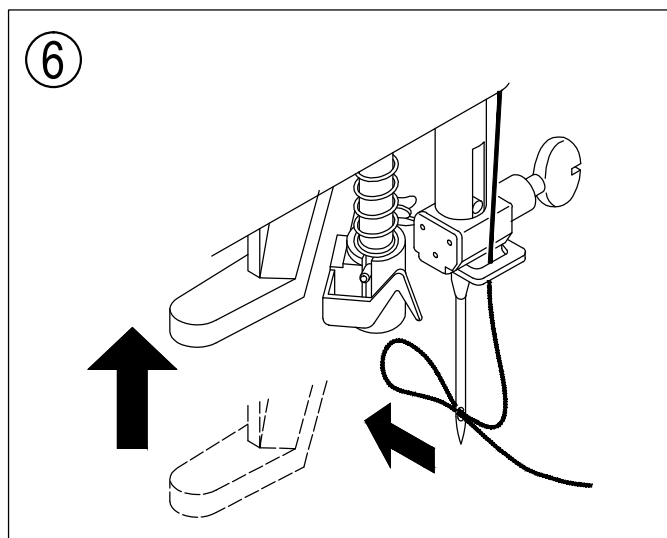
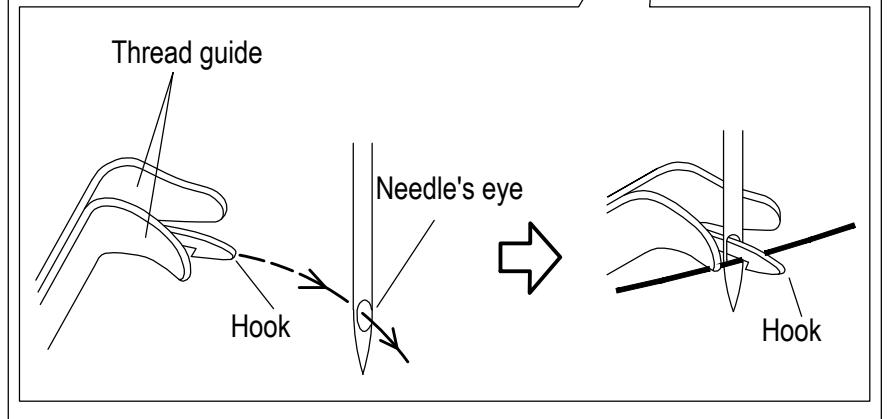
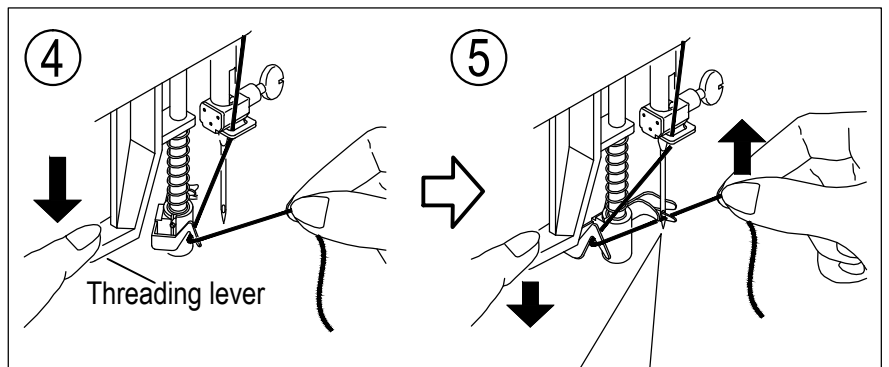
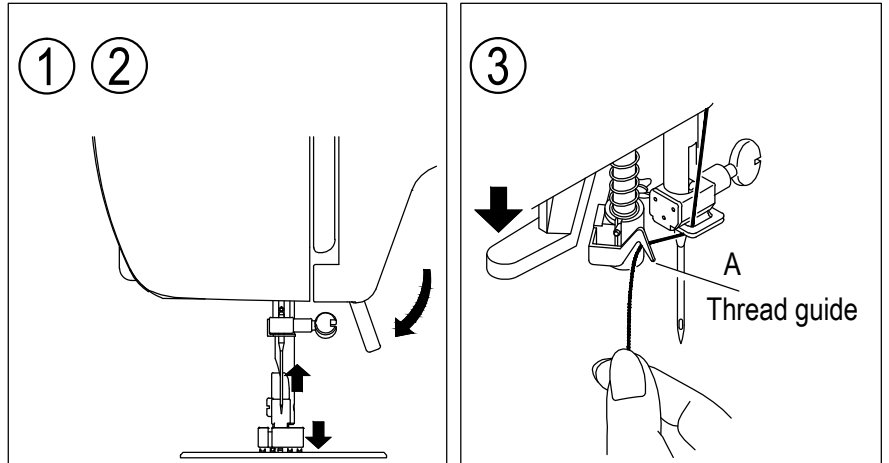
NOTE: You may want to cut the end of the thread with scissors for easier needle threading. Switch the power on after threading the machine and bobbin. You are now ready to sew.



USING AUTOMATIC NEEDLE THREADER

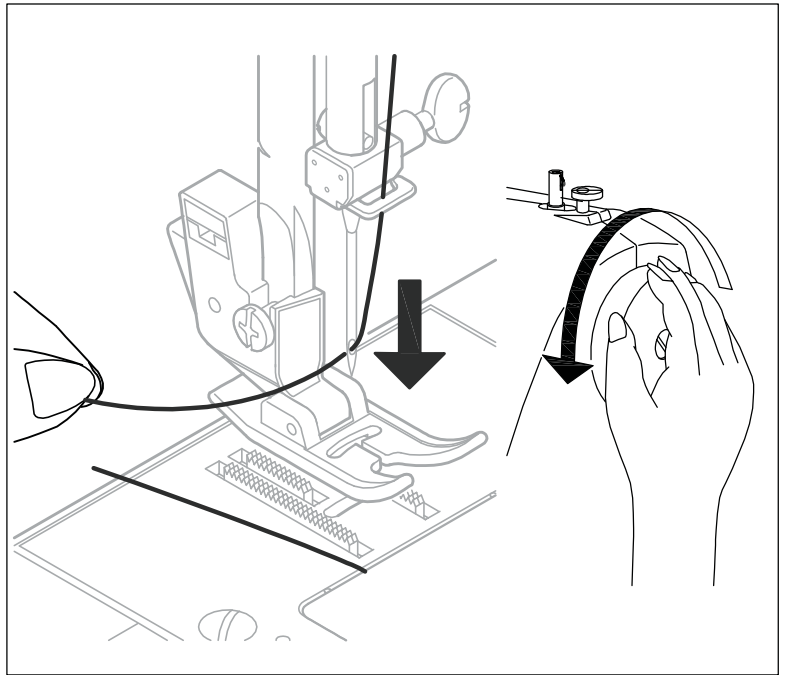
1. Lower the presser foot.
2. Raise the needle.
3. Lower the needle threader lever slowly. Pass thread round hook as inset A.
4. Lower the lever to its lowest position. Thread hook passes through needle eye.
5. Bring thread from hook A to the right side under the hook.
6. Hold the thread loosely, release the lever. A thread loop will pass through the needle eye.
7. Pull out the thread loop through the eye of the needle. Pass a 10 cm length of thread under the presserfoot.

NOTE: The needle threader is used with needles : sizes 11,14 and 16

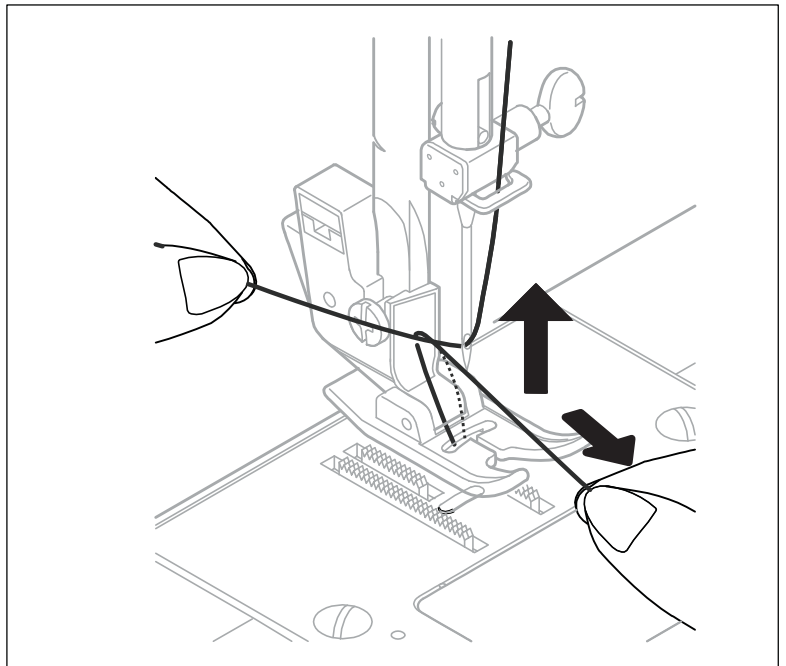


DRAWING UP BOBBIN THREAD

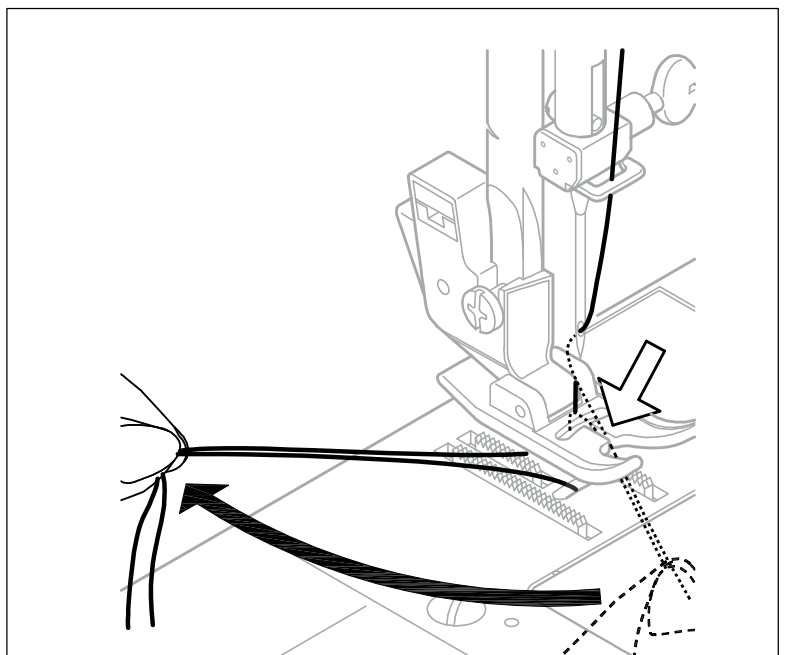
- ① Raise presser foot and hold the needle thread lightly with your left hand.



- ② Turn the balance wheel slowly towards you with your right hand until the needle goes down and continue turning balance wheel until the take-up lever is at its highest position. Lightly draw up the needle thread forming a loop of the bobbin thread.



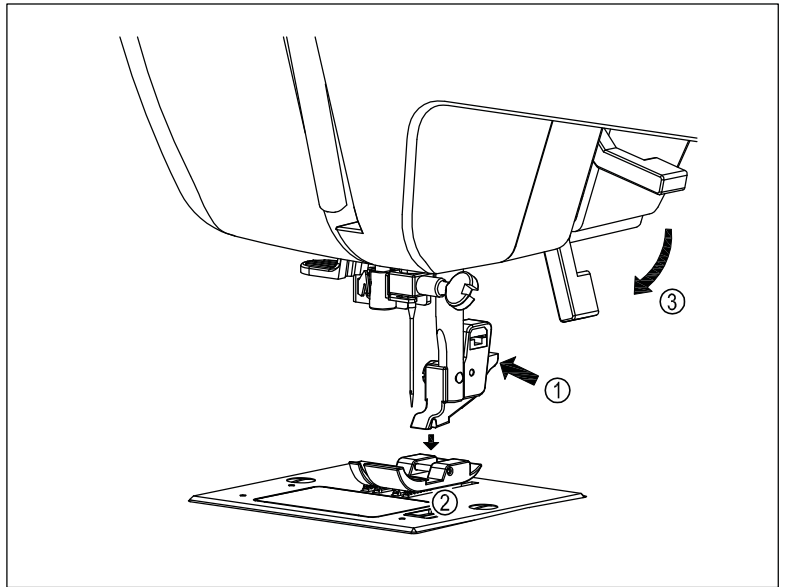
- ③ Pull 15 cm (6") of both threads back and under the presser foot.



CHANGING PRESSER FOOT

Be sure needle is in the up 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.

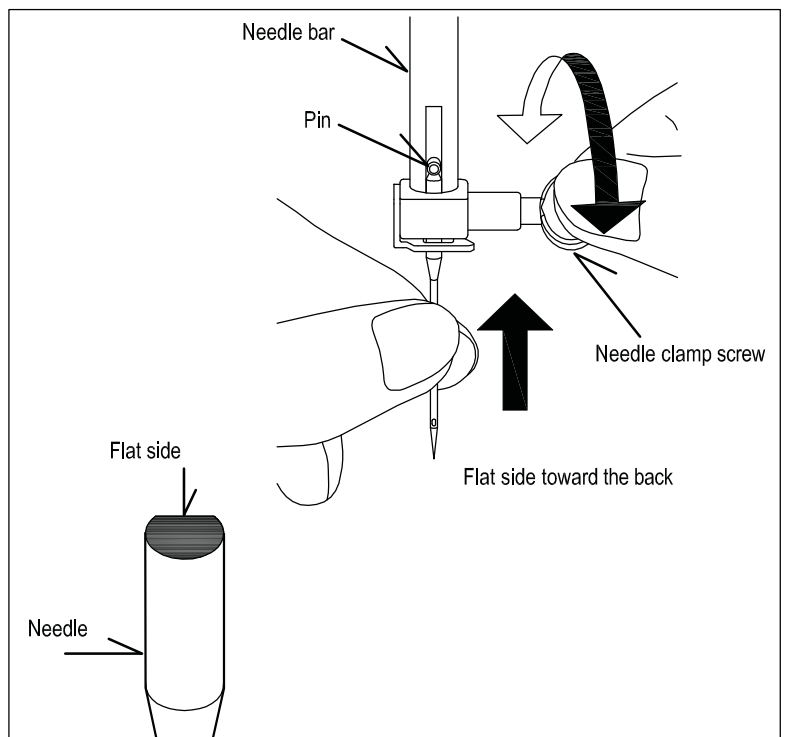


Always disconnect the machine from power supply by removing the plug from the wall-outlet.

CHANGING THE NEEDLE

1. Raise the needle bar to its highest position by turning the hand wheel counter clockwise.
2. Loosen the needle clamp screw by turning it counter clockwise.
3. Remove the needle by pulling it downward.
4. Insert the new needle into 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 by turning it clockwise.

Helpful Hint: placing a scrap of fabric under the presser foot and lowering the presser foot makes it easier to change the needle.



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 commencing a new project. Be sure to use the same size and type of thread in the bobbin as in the top thread supply.

	Fabrics	Threads	Needle Size
Light Weight	Crepe chine Voile lawn Organdy Georgette Tricot	Fine silk Fine cotton Fine synthetic Fine cotton covered Polyester	9 or 11
Medium Weight	Linen Cotton Pique Serge Double knits Percale	50 silk 50 to 60 cotton 50 to 60 synthetic Cotton covered Polyester	11 or 14
Heavy Weight	Denim Tweed Gabardine Coating Drapery and Upholstery fabrics	50 silk 40 to 50 cotton 40 to 50 synthetic Cotton covered Polyester	14 or 16
	Denim		Jeans Needle (16)

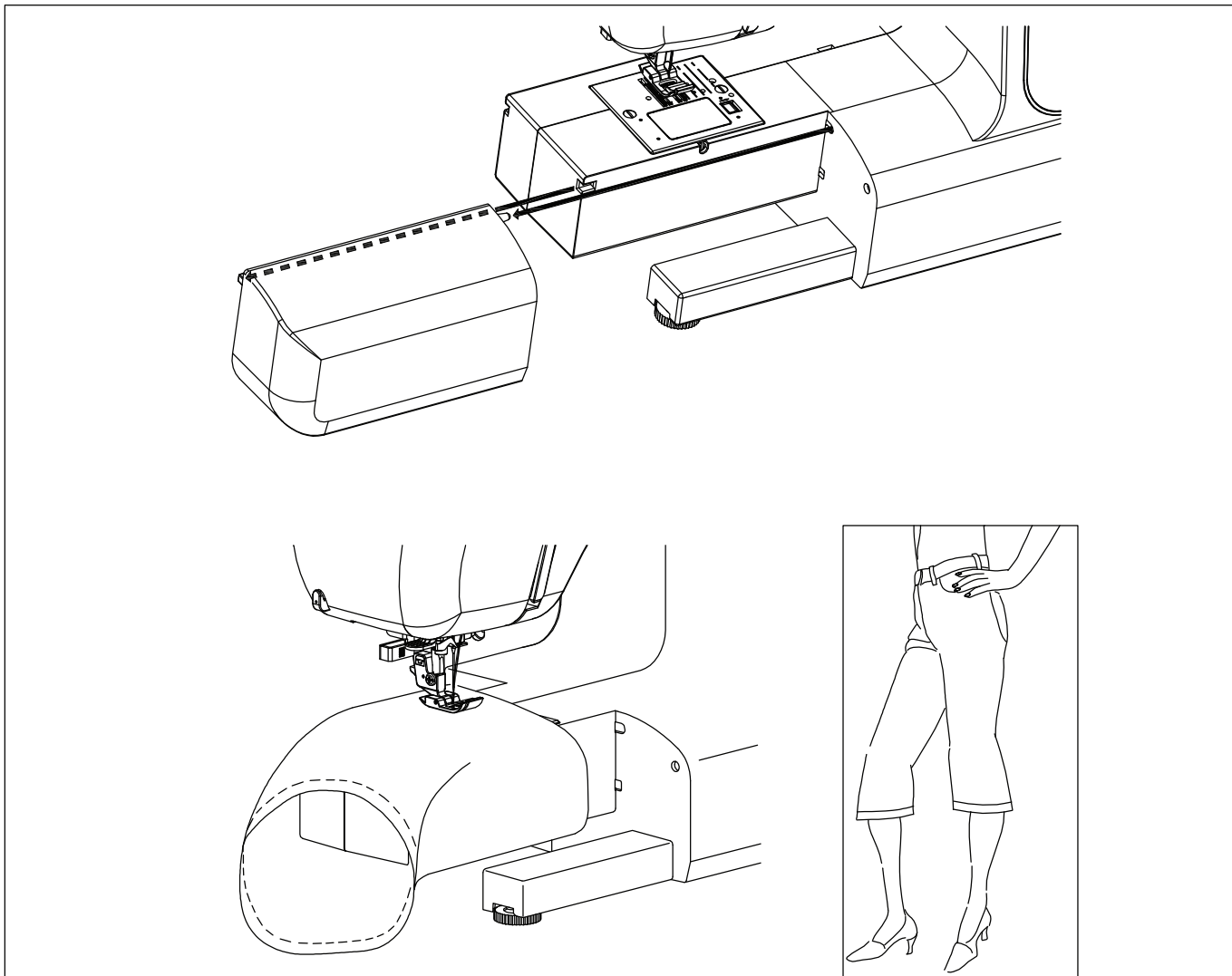
CONVERTING TO FREE-ARM SEWING

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

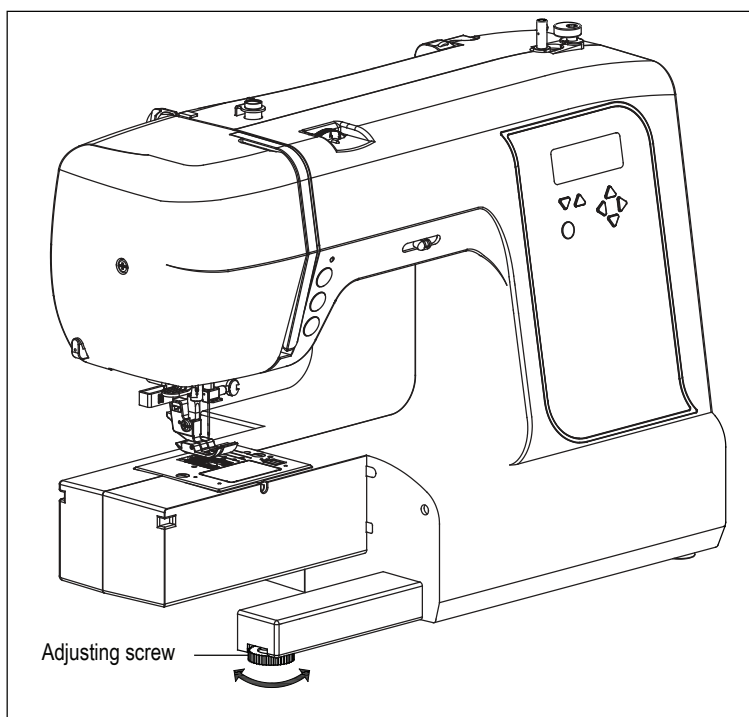
To remove the extension table, hold it firmly with your left hand and pull it off to the left as shown. To replace, slide the extension table back into place until it clicks.

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



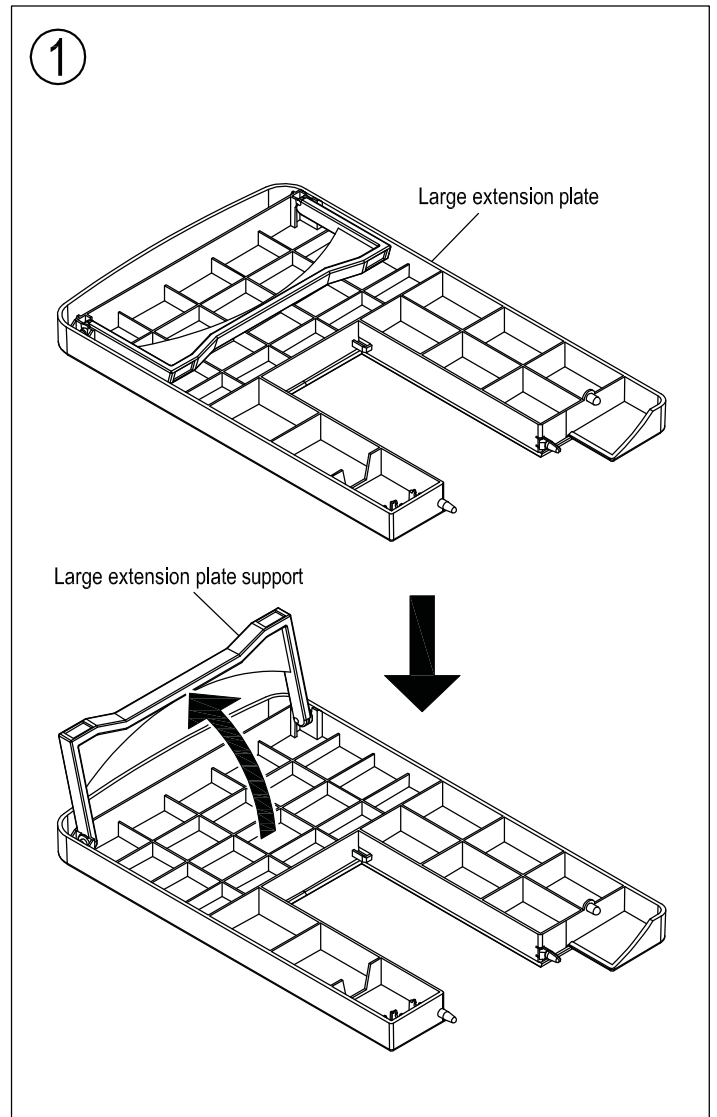
ADJUSTING THE BALANCE OF BOTTOM PLATE

When the sewing machine is placed on an uneven surface, turn the adjusting screw to adjust the height until the sewing machine is stable.



USING LARGE EXTENSION TABLE

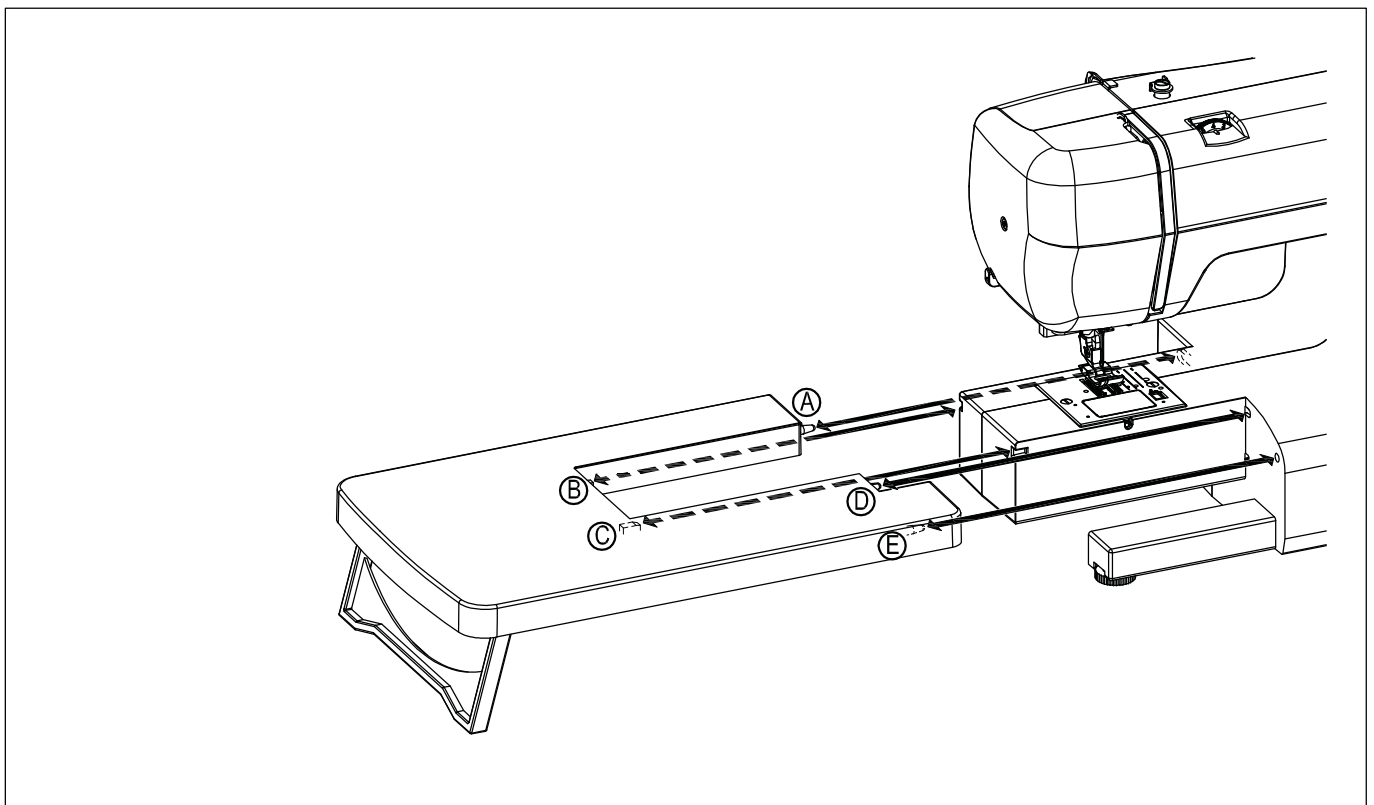
- ① Unfold the supporters of large extension table as per direction indicated by arrow.



- ② Place the large extension table along the machine body as illustrated.

Pull out the large extension table to left hand side of machine, machine will be reverting to free arm sewing mode.

The large extension table provide a larger working area than a standard extension table.



ADJUSTING TOP THREAD TENSION

90% of your sewing will be accomplished with word " 4 " exposed on the tension control dial on top of the machine.

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 thread. 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 18).

Make all adjustments with presser foot 'down'!

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

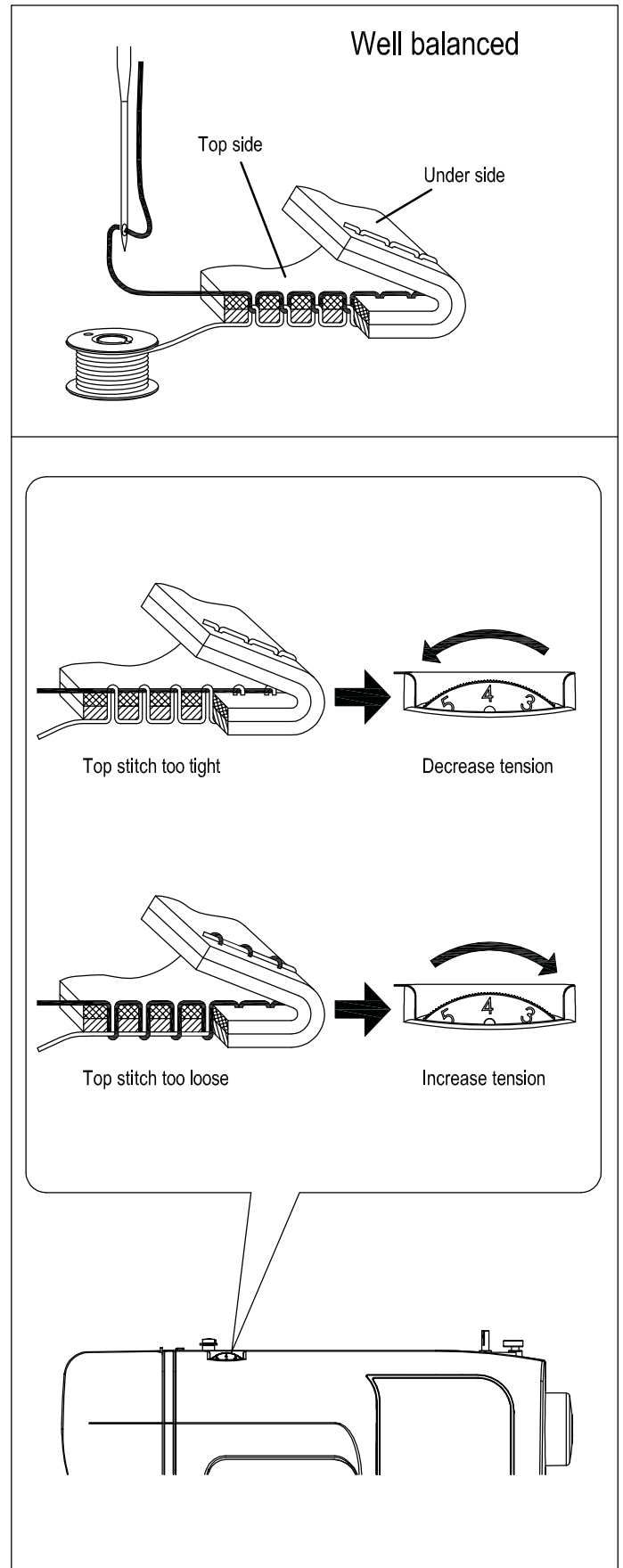
ZIGZAG AND DECORATIVE SEWING

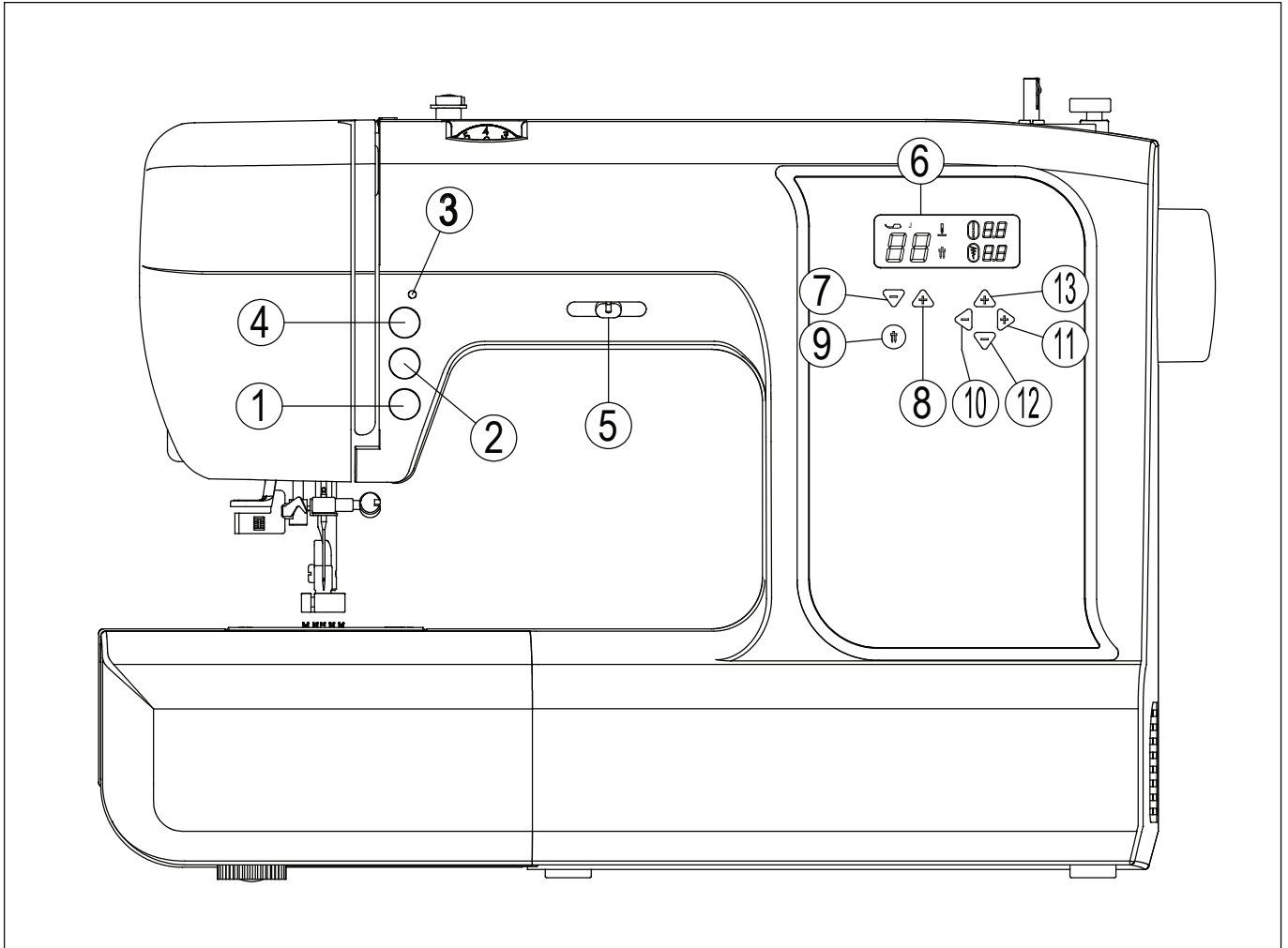
For zigzag sewing and decorative stitch function, thread tension should be less than for straight stitch sewing.

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.





CONTROL BUTTONS FUNCTIONS

① Start/stop button (If your machine has this function button)

Push this button lightly and machine will start to run. Push this button lightly again and the machine will stop to run.

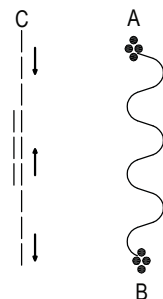
*When foot controller (pedal) is connected to the machine, the function of this button will be invalid.

② Reverse stitch/Tacking stitch button (2 functions)

A. When machine has stopped, push this button continually and then the machine will stitch 4 stitches slowly at same point (that is tacking stitch function) and then machine will automatically stop.

B. When machine is running, push this button continually and then the machine will stitch 4 stitches slowly at same point (that is tacking stitch function) and then machine will automatically stop (this function does not apply to straight stitch).

C. When machine is running, push this button continually and then machine will reverse slowly and will stitch forward again while the button is released (THIS FUNCTION IS APPLIED TO straight stitch only).



③ Needle up needle down button indicator

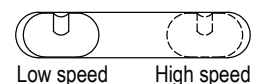
When needle is in the down position, the indicator will light up. When in up position, the indicator will turn off.

④ Needle up needle down button

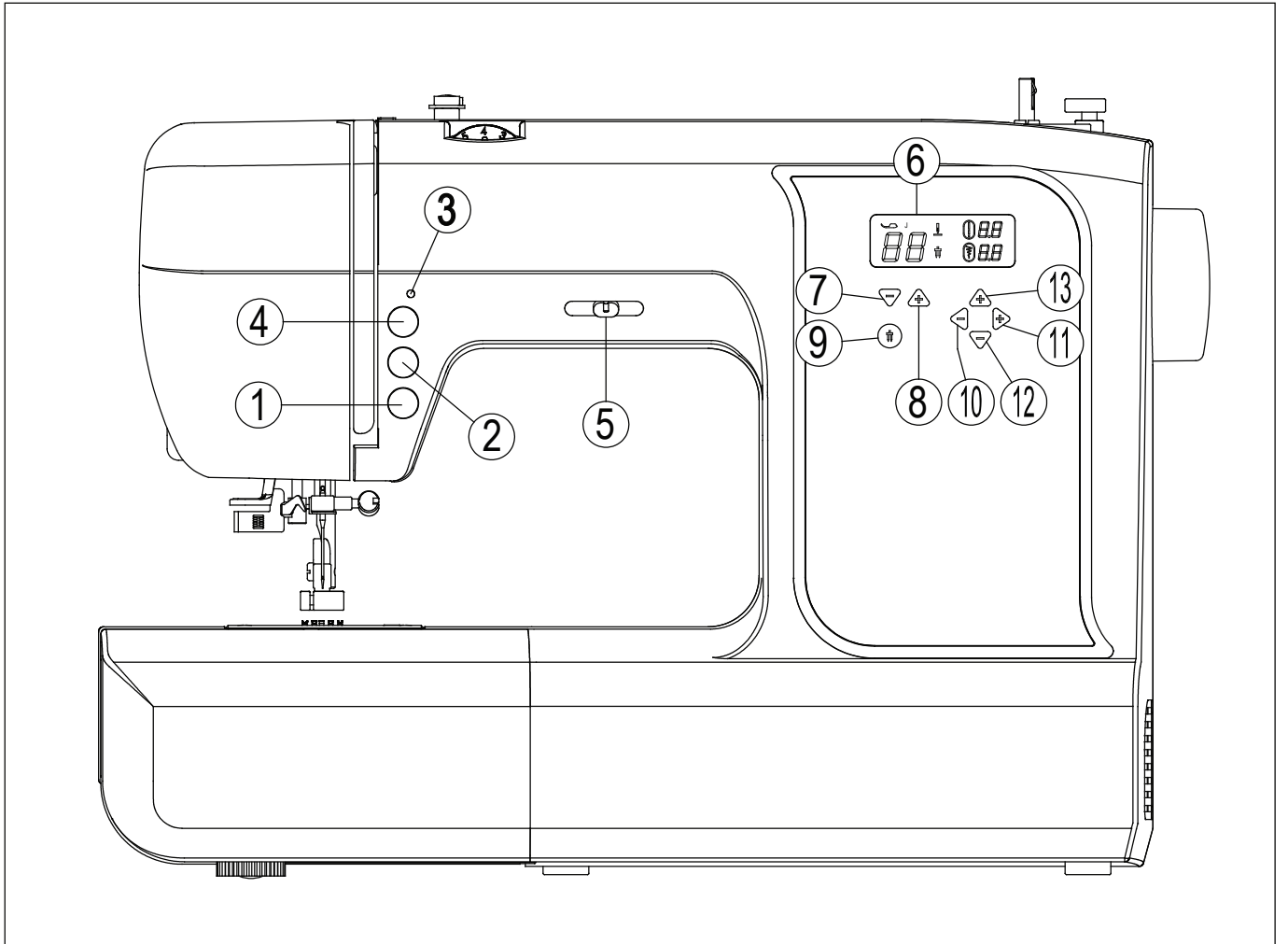
Push this button, needle will be down to needle down position. Push this button again, needle will be up to needle up position. (In normal condition, when machine stop after running, the needle will be stopped at needle up position).

⑤ Speed adjust button (if your machine has this button equipped)

⊙ when foot controller is connected to the machine, the sewing speed is controlled by this speed adjust button.



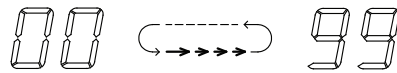
⑥ LCD Display



CONTROL BUTTONS FUNCTIONS

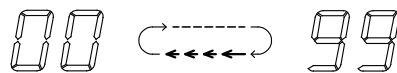
⑦ Pattern Numeral decreasing select button

Push this button, the digital on the LCD display will be decreased. keep to push this button continually and then the digital will be decreased continually rapidly.



⑧ Pattern Numeral increasing select button

Push this button, the digital on the LCD display will be increased. keep to push this button continually and then the digital will be increased continually rapidly.

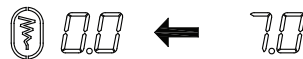


⑨ Twin needle switching function button

In normal condition, machine is set on single needle sewing function.

⑩ Stitch width decreasing select button

Push this button, the digital on the LCD display will be decreased. keep to push this button continually and then the digital will be decreased continually.



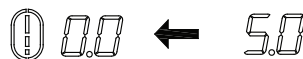
⑪ Stitch width increasing select button

Push this button, the digital on the LCD display will be increased. keep to push this button continually and then the digital will be increased continually.



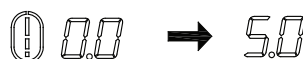
⑫ Stitch length decreasing select button

Push this button, the digital on the LCD display will be decreased. keep to push this button continually and then the digital will be decreased continually.



⑬ Stitch length increasing select button

Push this button, the digital on the LCD display will be increased. keep to push this button continually and then the digital will be increased continually.











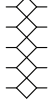

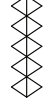





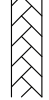

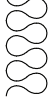





























2.STARTING TO SEW

QUICK REFERENCE TABLE OF STITCH LENGTH AND WIDTH

STITCH NO.	STITCH PATTERN	STITCH LENGTH		STITCH WIDTH		STITCH NO.	STITCH PATTERN	STITCH LENGTH		STITCH WIDTH	
		AUTO	MANUAL	AUTO	MANUAL			AUTO	MANUAL	AUTO	MANUAL
00		3.0	0.8 - 5.0	M	L ↔ R	13		2.0	1.0 - 2.6	5.0	2.0 - 7.0
01		3.0	0.8 - 5.0	L	L ↔ R	14		2.0	1.0 - 2.6	5.0	2.0 - 7.0
02		2.0	1.0 - 5.0	M	L ↔ R	15		1.0	1.0 - 2.0	5.0	4.0 - 7.0
03		2.6	2.0 - 4.0	M	L ↔ R	16		0.6	0.4 - 1.0	7.0	4.0 - 7.0
04		0	—	M	—	17		0.6	0.4 - 1.0	6.0	4.0 - 7.0
05		2.6	1.4 - 2.6	1.0	1.0 - 3.0	18		0.6	0.4 - 1.0	6.0	4.0 - 7.0
06		2.6	1.6 - 2.6	M	L ↔ R	19		0.6	0.4 - 1.0	7.0	4.0 - 7.0
07		2.0	0.0 - 2.6	5.0	2.0 - 6.0	20		0.6	0.4 - 1.0	7.0	4.0 - 7.0
08		1.0	0.4 - 2.0	6.0	2.5 - 7.0	21		0.6	0.4 - 1.0	7.0	4.0 - 7.0
09		2.0	1.0 - 3.0	3.0	2.0 - 5.0	22		0.6	0.4 - 1.0	7.0	4.0 - 7.0
10		2.0	1.0 - 3.0	3.0	2.0 - 5.0	23		0.6	0.4 - 1.0	7.0	4.0 - 7.0
11		2.0	1.0 - 3.0	3.0	2.0 - 5.0	24		0.6	0.4 - 1.0	7.0	4.0 - 7.0
12		2.0	1.0 - 3.0	3.0	2.0 - 5.0	25		0.6	0.4 - 1.0	6.0	4.0 - 7.0

STITCH NO.	STITCH PATTERN	STITCH LENGTH		STITCH WIDTH		STITCH NO.	STITCH PATTERN	STITCH LENGTH		STITCH WIDTH	
		AUTO	MANUAL	AUTO	MANUAL			AUTO	MANUAL	AUTO	MANUAL
26		0.6	0.4 - 1.0	6.0	4.0 - 7.0	39		2.6	1.0 - 2.6	5.0	4.0 - 7.0
27		0.6	0.4 - 1.0	7.0	4.0 - 7.0	40		2.6	1.4 - 2.6	5.0	4.0 - 7.0
28		0.6	0.4 - 1.0	7.0	4.0 - 7.0	41		2.6	1.4 - 2.6	5.0	4.0 - 7.0
29		2.6	1.4 - 2.6	5.0	2.5 - 5.5	42		2.6	1.4 - 2.6	7.0	4.0 - 7.0
30		2.6	1.4 - 2.6	5.5	4.0 - 7.0	43		2.6	1.4 - 2.6	7.0	4.0 - 7.0
31		2.6	1.4 - 2.6	5.5	4.0 - 7.0	44		2.6	1.0 - 2.6	5.0	4.0 - 7.0
32		2.6	1.4 - 2.6	5.0	4.0 - 7.0	45		2.6	1.0 - 2.6	5.0	4.0 - 7.0
33		2.6	1.4 - 2.6	5.5	4.0 - 7.0	46		2.6	1.4 - 2.6	7.0	4.0 - 7.0
34		2.6	1.4 - 2.6	4.0	2.0 - 7.0	47		2.6	1.4 - 2.6	6.0	4.0 - 7.0
35		2.6	1.4 - 2.6	4.0	2.0 - 7.0	48		2.6	1.4 - 2.6	5.0	4.0 - 7.0
36		2.6	1.4 - 2.6	5.0	4.0 - 7.0	49		2.6	1.4 - 2.6	7.0	4.0 - 7.0
37		2.6	1.4 - 2.6	5.0	3.0 - 5.0	50		2.6	1.4 - 2.6	7.0	4.0 - 7.0
38		2.6	1.0 - 2.6	5.0	4.0 - 7.0	51		2.6	1.4 - 2.6	7.0	4.0 - 7.0

STITCH NO.	STITCH PATTERN	STITCH LENGTH		STITCH WIDTH		STITCH NO.	STITCH PATTERN	STITCH LENGTH		STITCH WIDTH	
		AUTO	MANUAL	AUTO	MANUAL			AUTO	MANUAL	AUTO	MANUAL
52		2.6	1.4 - 2.6	7.0	4.0 - 7.0	65		2.0	1.4 - 2.6	6.0	4.0 - 7.0
53		2.6	1.4 - 2.6	7.0	4.0 - 7.0	66		2.0	1.4 - 2.6	6.5	4.0 - 6.5
54		2.6	1.4 - 2.6	7.0	4.0 - 7.0	67		1.8	1.4 - 2.6	6.5	4.0 - 6.5
55		2.6	1.4 - 2.6	7.0	4.0 - 7.0	68		1.2	1.2 - 2.6	6.5	4.0 - 7.0
56		1.2	1.2 - 2.6	6.5	5.0 - 6.5	69		1.4	1.4 - 2.6	5.0	4.0 - 7.0
57		1.8	1.2 - 2.6	6.0	4.0 - 7.0	70		1.6	1.4 - 2.6	7.0	4.0 - 7.0
58		2.6	1.4 - 2.6	5.0	4.0 - 7.0	71		1.6	1.4 - 2.6	6.5	4.0 - 6.5
59		1.6	1.0 - 2.6	6.0	4.0 - 7.0	72		1.6	1.4 - 2.6	7.0	4.0 - 7.0
60		2.6	1.4 - 2.6	5.0	4.0 - 7.0	73		2.6	1.4 - 2.6	7.0	4.0 - 7.0
61		2.6	1.4 - 2.6	6.0	4.0 - 7.0	74		2.0	1.4 - 2.6	7.0	4.0 - 7.0
62		1.0	1.0 - 2.6	7.0	4.0 - 7.0	75		1.8	1.4 - 2.6	7.0	4.0 - 7.0
63		1.4	1.2 - 2.6	5.0	4.0 - 7.0	76		1.6	1.4 - 2.6	7.0	4.0 - 7.0
64		2.6	1.4 - 2.6	6.5	4.0 - 6.5	77		1.8	1.4 - 2.6	7.0	4.0 - 7.0

STITCH NO.	STITCH PATTERN	STITCH LENGTH		STITCH WIDTH		STITCH NO.	STITCH PATTERN	STITCH LENGTH		STITCH WIDTH	
		AUTO	MANUAL	AUTO	MANUAL			AUTO	MANUAL	AUTO	MANUAL
78		1.8	1.4 - 2.6	7.0	4.0 - 7.0	91		0.6	0.4 - 1.0	3.5	3.5
79		1.6	1.4 - 2.6	7.0	4.0 - 7.0	92		0.6	0.4 - 1.0	5.0	5.0
80		2.6	1.4 - 2.6	7.0	4.0 - 7.0	93		0.6	0.4 - 1.0	5.0	5.0
81		2.4	1.4 - 2.6	5.0	5.0 - 6.5	94		0.6	0.4 - 1.0	5.0	5.0
82		1.8	1.4 - 2.6	6.5	4.0 - 6.5	95		0.6	0.4 - 1.0	5.0	5.0
83		1.8	1.4 - 2.6	7.0	4.0 - 7.0	96		0.6	0.4 - 1.0	3.5	3.5
84		1.6	1.4 - 2.6	7.0	4.0 - 7.0	97		2.0	1.4 - 2.4	5.0	5.0
85		1.8	1.4 - 2.6	6.5	5.0 - 6.5	98		1.0	1.0	3.0	3.0
86		2.4	1.4 - 2.6	6.5	5.0 - 6.5	99		2.0	2.0	6.0	6.0
87		2.4	1.4 - 2.6	6.5	5.0 - 6.5						
88		2.0	1.8 - 2.6	7.0	—						
89		0.0	—	3.0	2.0-5.0						
90		0.6	0.4 - 1.0	5.0	5.0						

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 : General Purpose Foot

Thread tension control: (4)

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

- A. Threading tension dial
- B. Reverse stitch button
- C. Start / Stop
- D. Presser foot lifter
- E. Pattern Numeral decreasing select button
- F. Pattern Numeral increasing select button
- G. Stitch width decreasing select button
- H. Stitch length increasing select button
- I. Stitch width increasing select button
- J. Stitch length decreasing select button

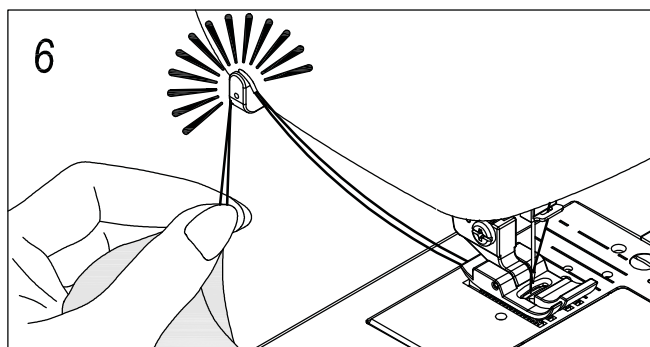
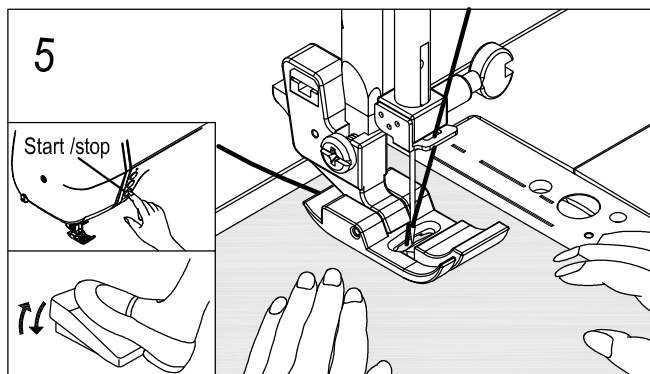
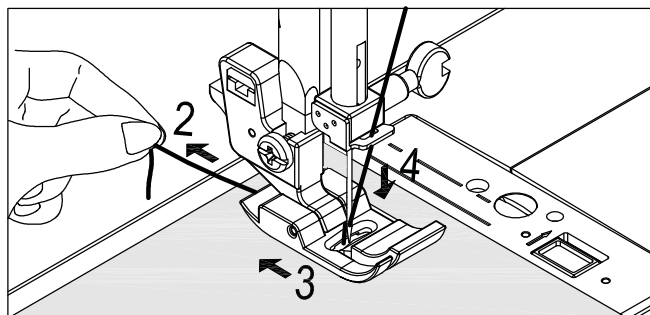
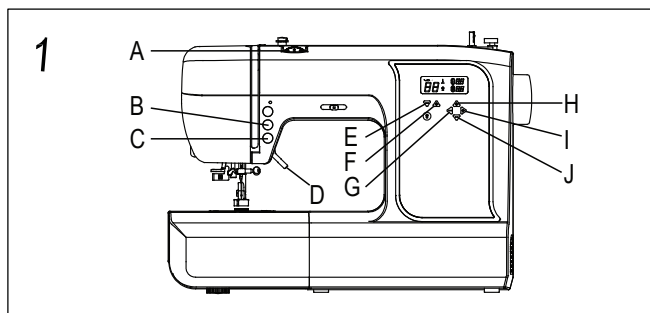
NOTE: Since a straight stitch has no width, the stitch width control is used to change the needle position.

2. Pull both threads under the presser foot toward the back of the machine, leaving about 6" (15mm) clear.
3. Place the fabric under the presser foot and lower the presser foot lifter.
4. Turn the hand wheel counter clockwise 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 Markings as an aid for guiding your fabric when sewing a seam.

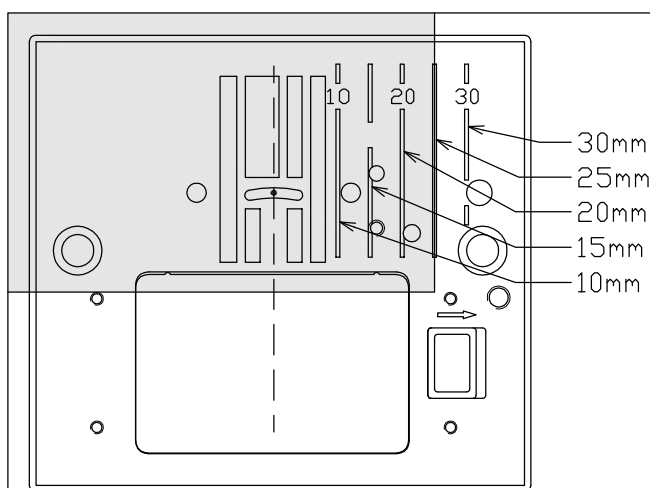
6. First turn the hand wheel counter clockwise until the needle is at its highest position, then raise the presser foot, draw the fabric to the rear and cut off excess threads with the thread cutter located on the top of face cover as shown.

NOTE: To secure the stitching and avoid raveling, press the reverse stitch button and sew a few stitches at the start and end of the seam.



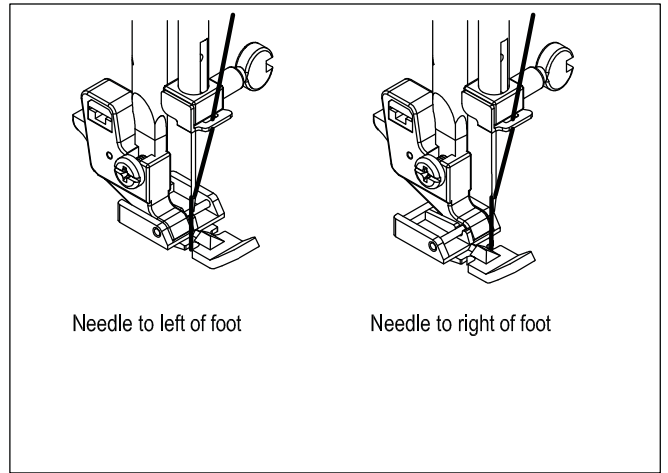
KEEPING SEAMS STRAIGHT

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



INSERTING ZIPPERS AND PIPING

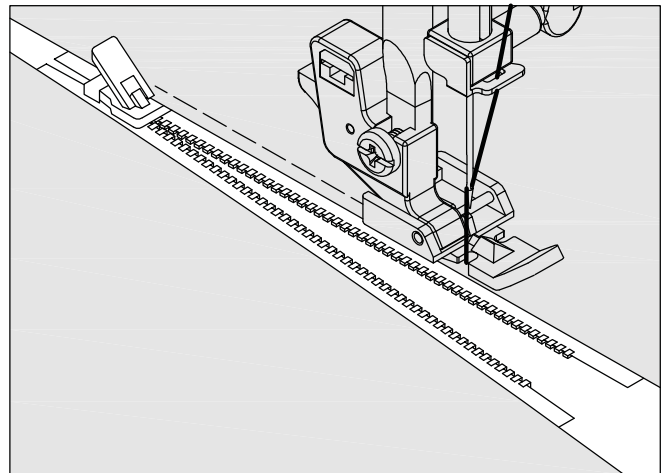
Use zipper foot to sew to the right or left of the zipper or to sew close to the cording.



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.



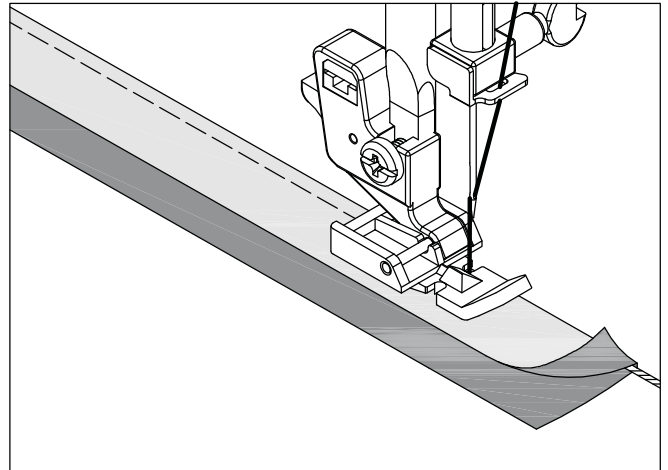
PIPING

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 a seam tape for the piping. Then, pin or tack to the main fabric piece for sewing.

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



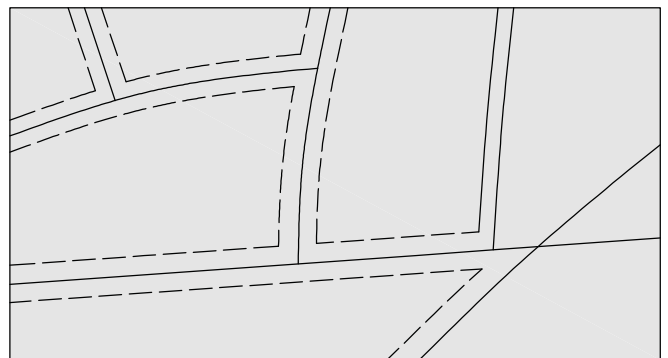
HAND-LOOK QUILT STITCH



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

1. Thread bobbin with desired top stitch color. When sewing the machine will pull this thread to the top.
2. Thread machine with invisible or lightweight thread that matches your fabric. This thread should not show.
3. Increase thread tension a little at a time and continue until you achieve the desired appearance.
4. Start to sew.

NOTE: For a dramatic appearance, experiment with different tension and stitch length combinations.



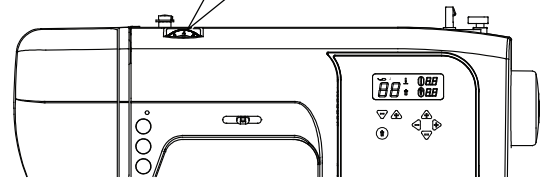
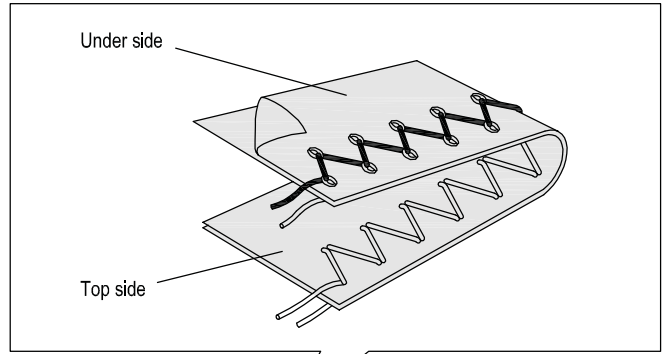
ZIGZAG STITCHING

SETTINGS


Presser foot : General Purpose Foot
 Thread tension control: (4)


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.

If bobbin thread is pulling to the top or you are experiencing puckering, slightly reduce the tension with the Threading tension dial.




ADJUSTING STITCH WIDTH AND LENGTH

 Dark grey box indicates the Auto/default value set automatically when the pattern is selected.
 For the Zigzag pattern the stitch length is 2 mm and the stitch width is 5 mm.

 The light grey boxes indicates all the possible personal preference options available to set manually.



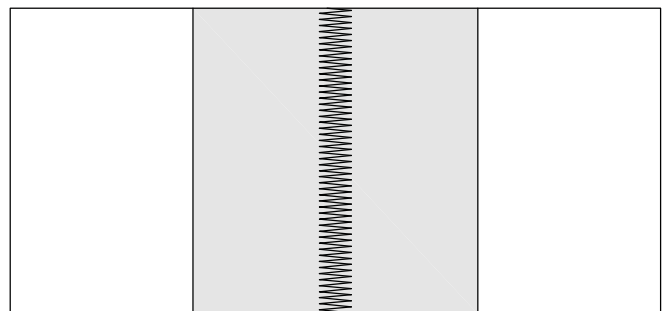
STITCH LENGTH	mm	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0
	0									
0.4										
0.6										
0.8										
1.0										
1.2										
1.4										
1.6										
1.8										
2.0										
2.6										

SATIN STITCH

This is a closely spaced zig-zag stitch used for applique, bartacking etc. Slightly loosen the top thread tension and manually adjust the stitch between 0.4 and 2.0 for satin stitching.

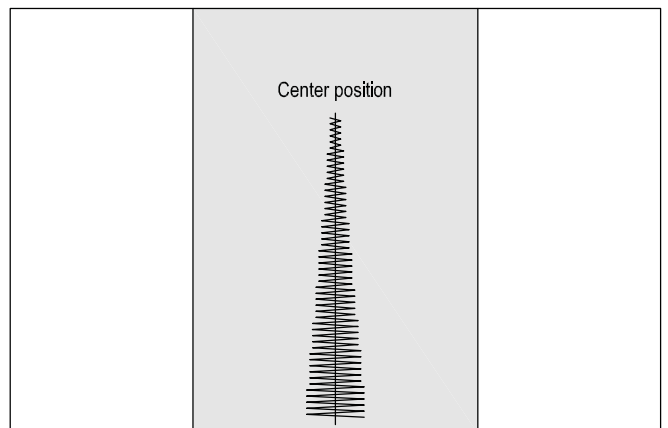
Use a backing of stabilizer for lightweight fabrics to avoid puckering.

NOTE: When sewing a dense (closely spaced) Satin Stitch, the Satin Stitch Foot MUST be used.



PLACEMENT OF PATTERNS

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



BLINDHEM STITCH





The blindhem stitch is primarily used for hemming curtains , trousers, skirts,etc.

SETTINGS

Presser foot : General Purpose Foot

Thread tension control: (4)

 - Regular blind stitch for normal woven fabrics

 - Elastic blind stitch for soft, stretchable fabrics

1. With matching thread finish the raw edge. On fine fabric, turn up and press a small 1/2" or less hem. On medium to heavyweight fabrics overcast the fabric's raw edge.

2. Now fold the fabric as illustrated with the wrong side up.

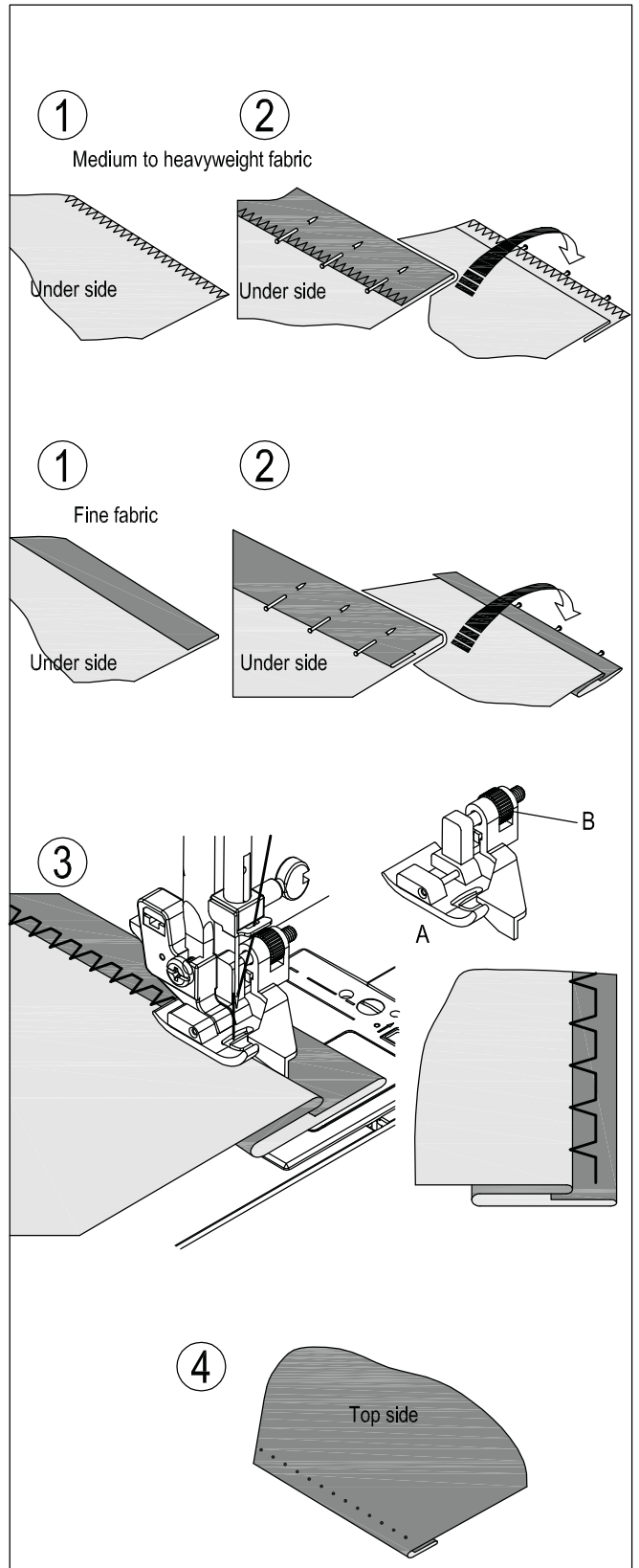
3. Place the fabric under the foot. Turn the handwheel counter clockwise by hand until the needle swings fully to the left. It should just pierce the fold of the fabric. If it does not, adjust the guide (B) on the Blindhem Foot (A) so that the needle just pierces the fabric fold and the guide just rests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

NOTE: In addition to the adjustment on the foot, the stitch width control can be used. The stitch width control changes the swing of the needle for a more narrow or wider stitch.

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 hems. Always make a sewing test first.



MULTI-STITCH ZIGZAG

SETTINGS

Presser foot : General Purpose Foot

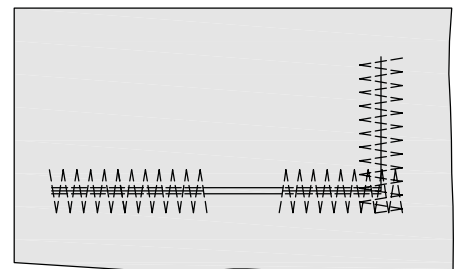
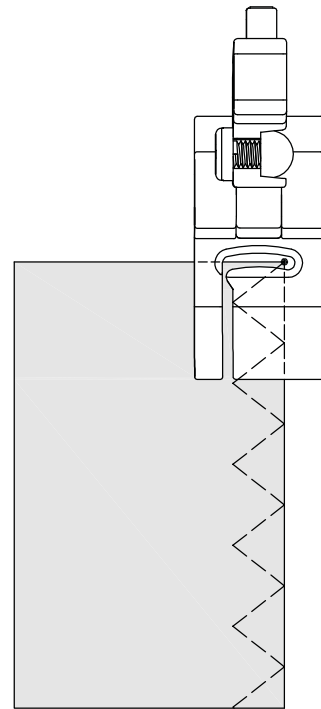
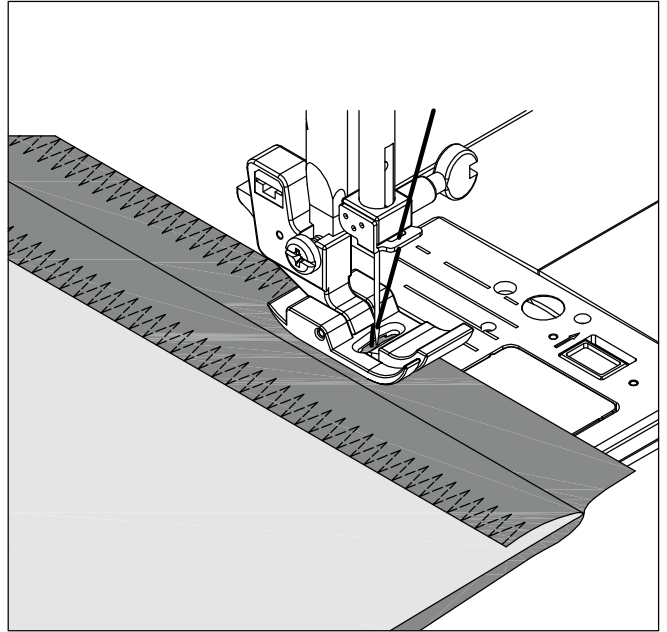
Thread tension control: (4)

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 highly recommended for overcasting all types of fabrics.

It is also ideal for bartacks, mending tears, patching, sewing toweling, and attaching flat elastic.

NOTE: Mending a tear or overedging as shown in illustration requires manual adjustment of the length control.



STRETCH AND DECORATIVE STITCHES

SETTINGS

Presser foot : General Purpose Foot

Thread tension control: (4)

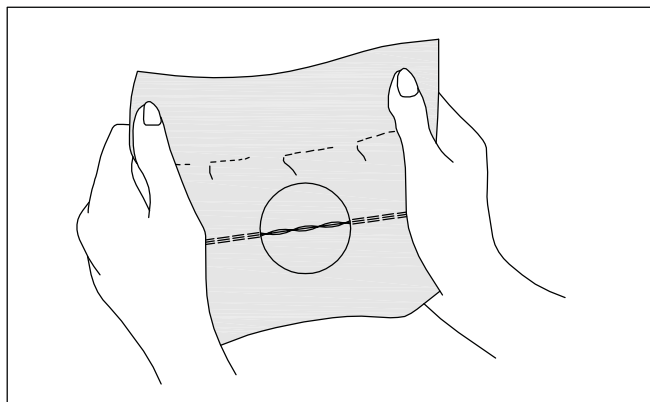
Stretch stitches are mainly for use on knit, or stretchable fabrics, but can also be used on woven fabrics.

STRAIGHT STRETCH STITCH

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

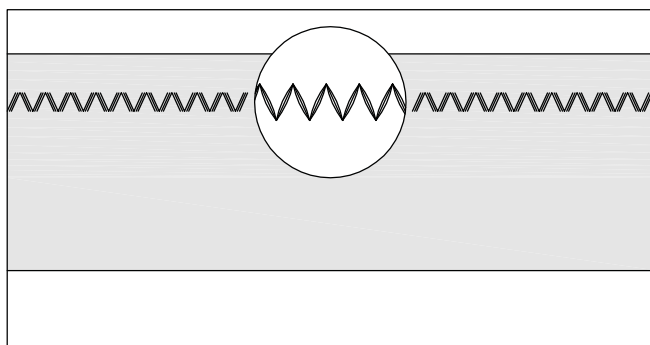
It is particularly suitable for reinforcing the seams of sportswear in stretch and non-stretch fabrics and for curved seams.

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



RIC-RAC STITCH

Ric-rac is primarily used for a decorative top-stitch. It is ideal for edging neck-bands, armholes, sleeves and hems. When manually adjusted to a very narrow width it also can be used for seaming in areas of great stress.



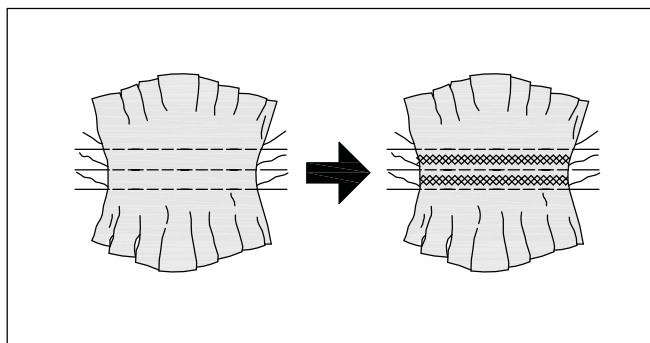
HONEYCOMB STITCH

The Honeycomb stitch is ideal for smocking and useful for overcasting and attaching elastic and stretch lace.

Make several rows of gathers across the fabric that you wish to smock.

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.

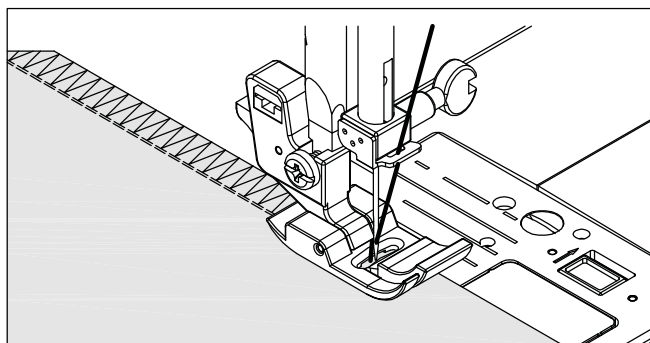
NOTE: When sewing the honeycomb stitch, the Satin Stitch foot MUST be used.



OVEREDGE STITCH

This is a similar stitch used by the garment industry in making sportswear - it sews and finishes the seam in one operation.

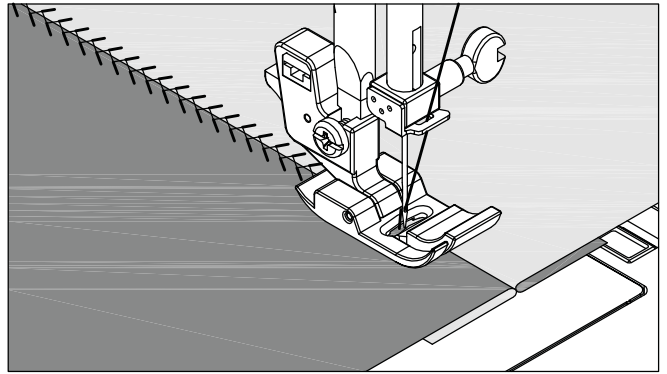
It's very effective for use in repairing worn edges of garments.



FEATHER STITCH

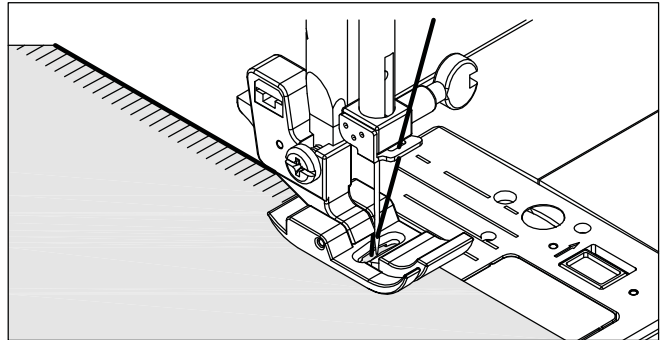
This stitch enables it to be used for top stitching, or attaching lace or inset panels when making lingerie.

It is also ideal for quilting applications and joining fabrics.



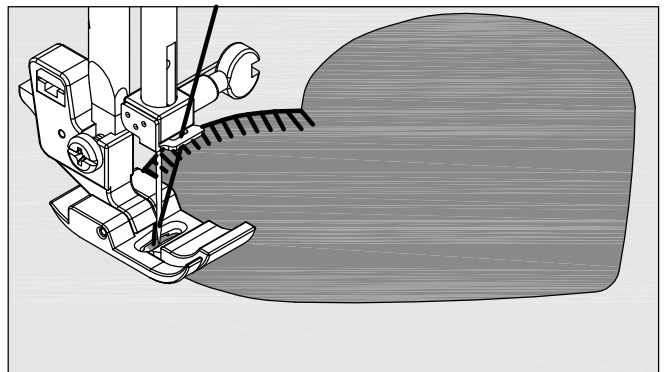
PIN STITCH

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



BLANKET STITCH

The Blanket stitch is traditionally a hand embroidery stitch used to put bindings on blankets. This multi-purpose stitch can also be used for attaching fringe, attaching edgings, couching, applique and drawn thread hemstitching.

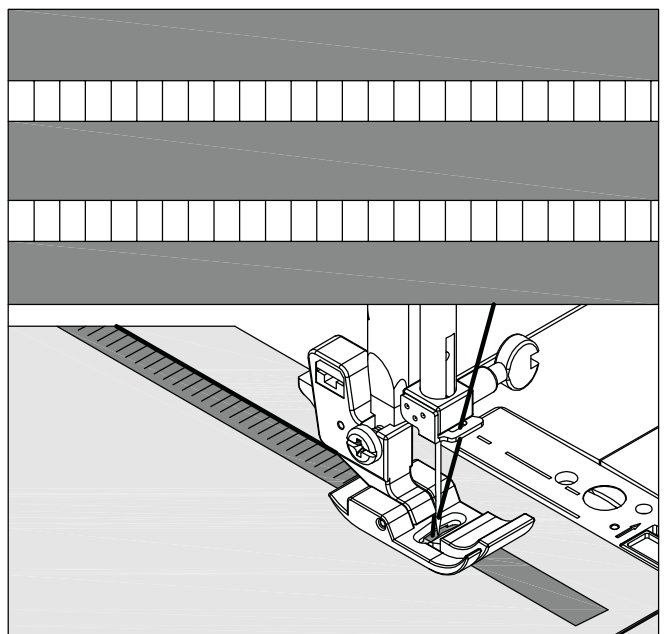


LADDER STITCH

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.

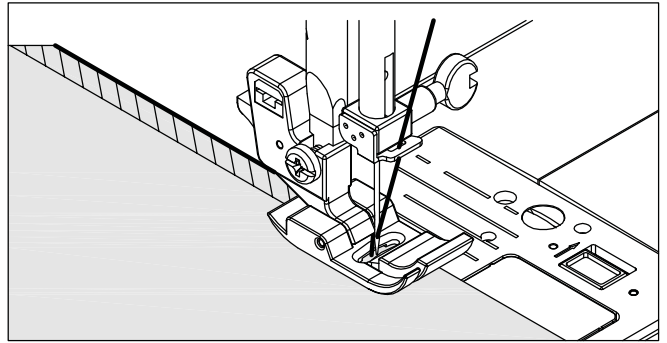
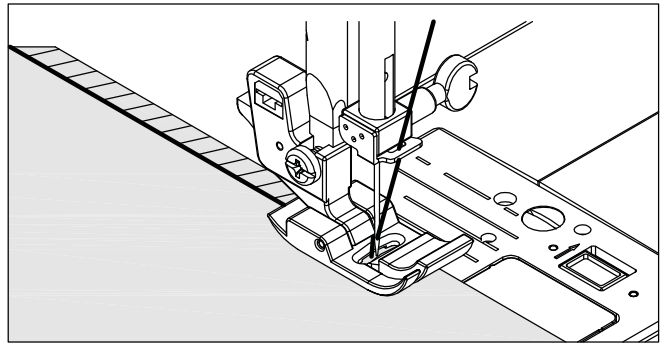
Another use for the ladder stitch is couching over narrow ribbon, yarn or elastic.

For drawn thread work, choose a coarse linen type fabric and after sewing draw the thread out within the ladder for an open airy appearance.



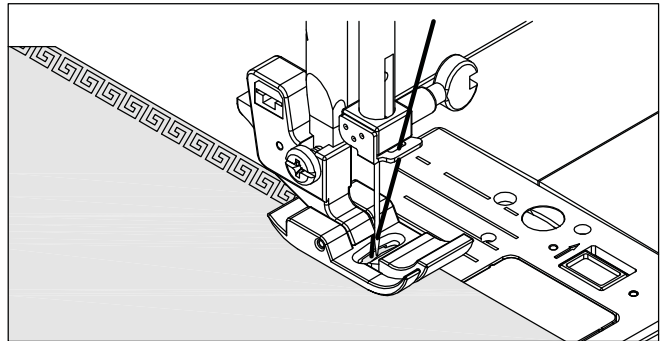
SLANT PIN STITCH

Excellent for hemstitching table and bed covers with an elegant touch. Picot-like stitch can also be made on sheer materials. Sew along the raw edge of fabric and trim close to the outside of the stitching.



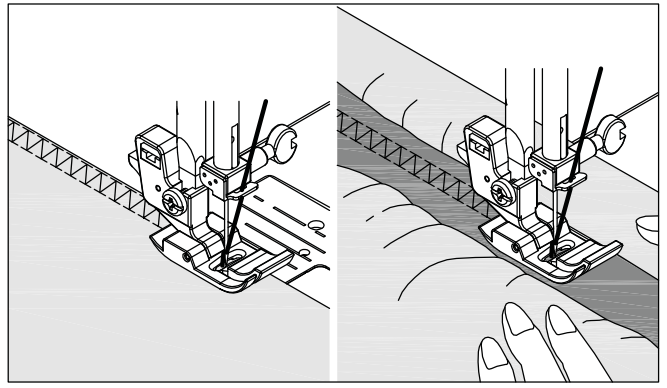
GREEK KEY STITCH

A traditional pattern suited for decorative borders, hems and edge finishings.



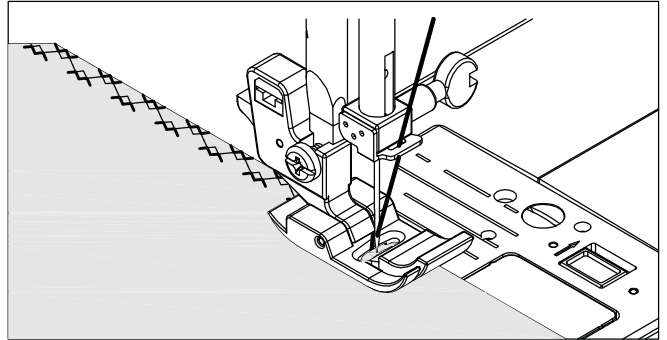
DOUBLE OVERLOCK STITCH

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



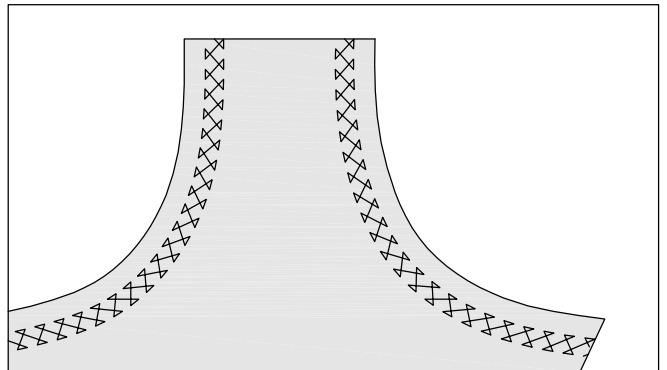
CRISS-CROSS STITCH

Used to sew and finish stretch fabrics or for decorative stitching, such as when creating a border.



CROSSED STITCH

Used to sew and finish elastic fabrics or for decorative stitching.



DECORATIVE PATTERNS

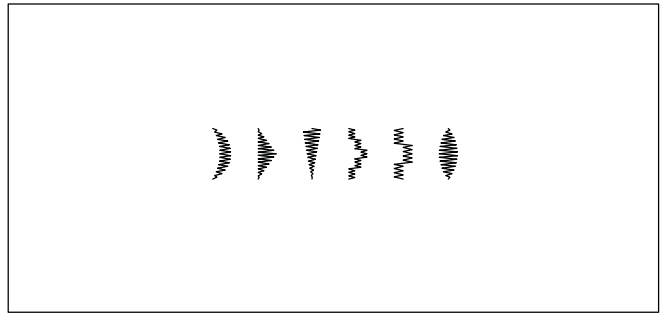
SETTINGS

Presser foot : Satin Stitch Foot

Thread tension control: (4)

- * Always practice on a scrap of the actual fabric from your project.
- * Before starting to sew, check that there is enough thread wound onto the bobbin to ensure that the thread will not run out during sewing.
- * Slightly loosen top thread tension.

Helpful Hint : For a more pleasing appearance experiment with a slightly lower (-) Tension setting.



IDEAS ON DESIGN STITCHING

Crescent pattern on collar

This is an ideal decorative stitch for the sleeves and collars of ladies' and children's clothes, and also for table linen edges.

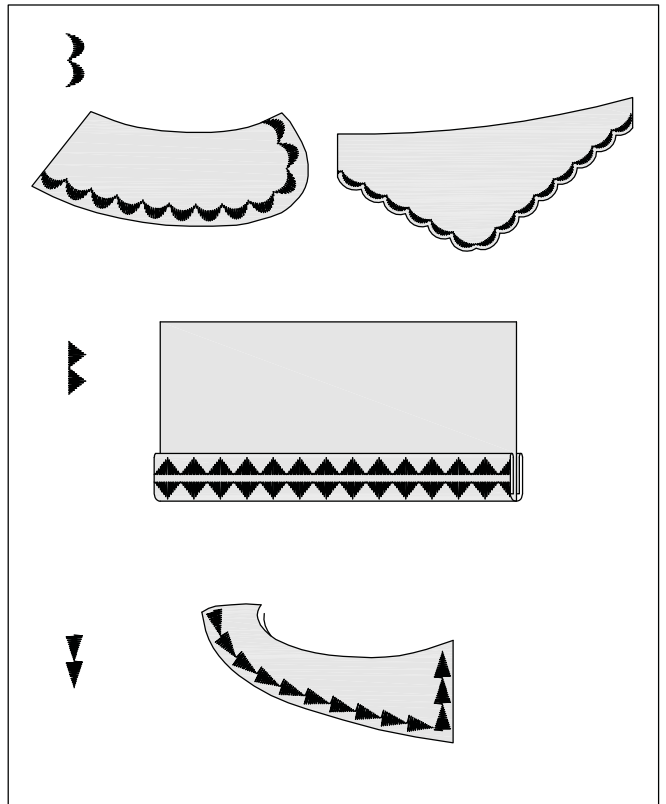
When using this stitch pattern for table linen edges, first sew the stitch and then trim the edge of the fabric along the edge of the stitch. Be careful not to cut the stitch at this time.

Pyramid on bias tape

Use bias tape and fold back the edge. Sew the pyramid pattern on top of this.

Arrowhead on lapel

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.



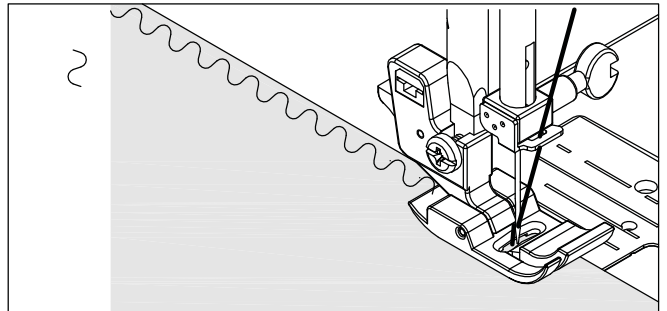
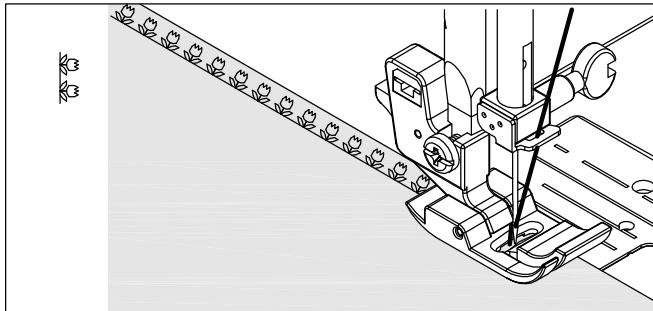
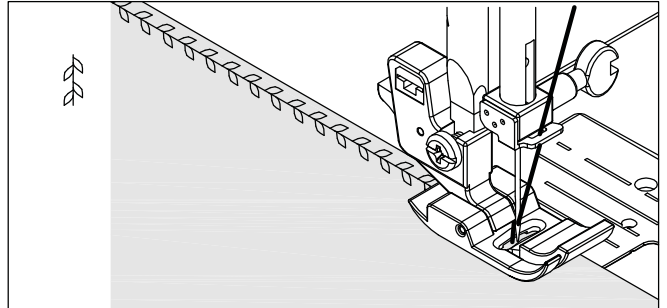
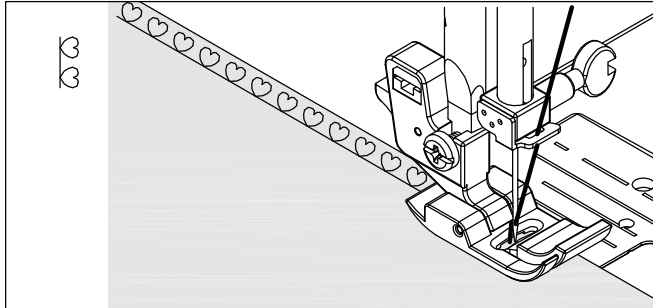
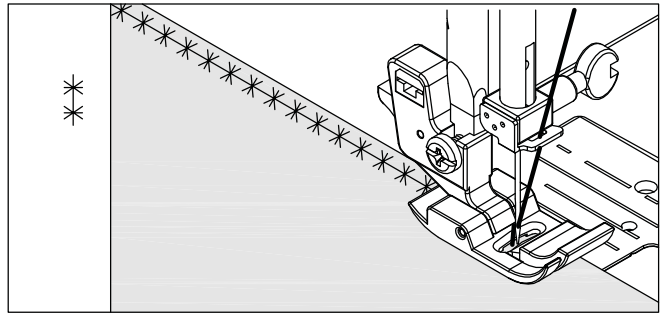
CONTINUOUS STITCHING

SETTINGS

Presser foot : General Purpose Foot
or Satin Stitch Foot

Thread tension control: (4)

These are the patterns often seen on borders or hems of garments and home decorating projects. Use whichever patterns suit your preference.

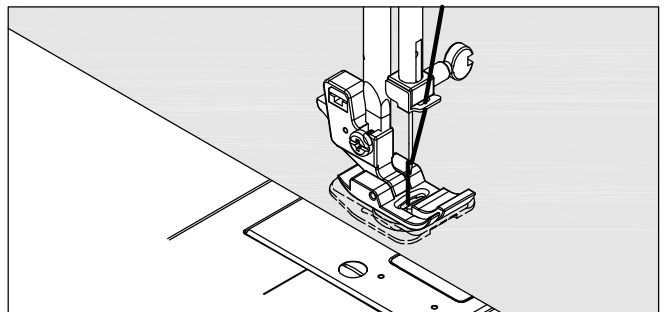


SEWING ON A BUTTON

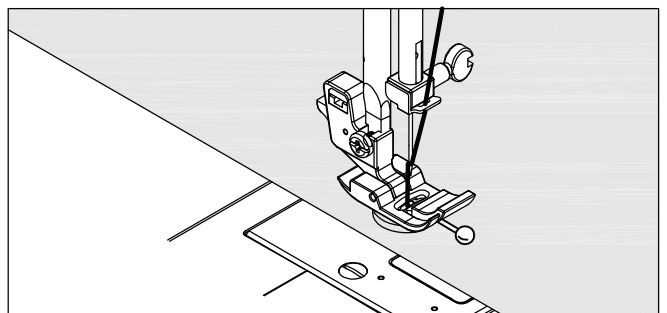
SETTINGS

Presser foot : General Purpose Foot

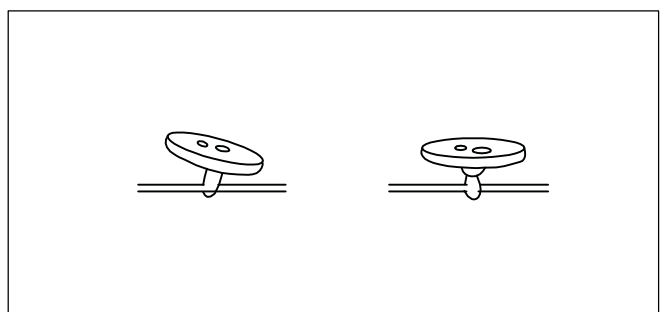
Position your fabric and button under the presser foot. Lower presser foot. Turn the handwheel to make sure needle clears both left and right openings of the button. Adjust width if required. Sew 10 stitches.



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



To strengthen the shank, cut the threads leaving a 20 cm (8") tail. Bring the needle thread down through the hole in the button and wind it around the shank. Draw the thread to the wrong side and knot.



SEWING A BUTTONHOLE

USING BUTTONHOLE FOOT

- The size of the buttonhole is automatically set by placing a button in the automatic buttonhole foot (R).
- The button holder of the foot takes a button size up to 2.5 cm (1") in diameter.
- Make a test buttonhole on a sample duplicating the fabric interfacing and seams of the actual garment.
- Place the button on the fabric sample and mark the top and bottom to determine the position of buttonhole.
- Use interfacing on stretch fabrics.

PROCEDURE

- ① Turn the handwheel toward you to raise the needle to its highest position. Raise the presser foot lifter.
- ② Attach the automatic buttonhole foot. (Refer to "Changing presser foot" on page 13.)
- ③ Pull the button holder to the back, and place the button in it. Push back the button holder toward you as far as it will go.
- ④ Select one of buttonhole patterns.
- ⑤ Insert the garment under the foot, and lower the needle at the starting point. Then lower the automatic buttonhole foot.

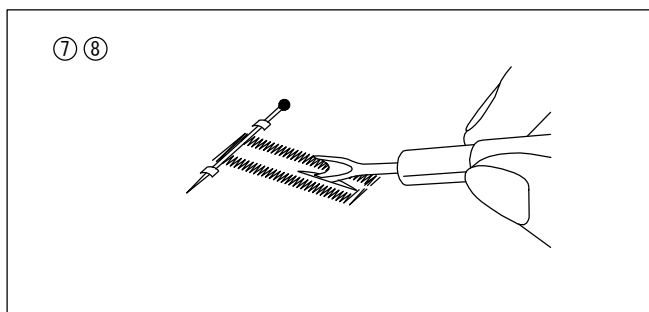
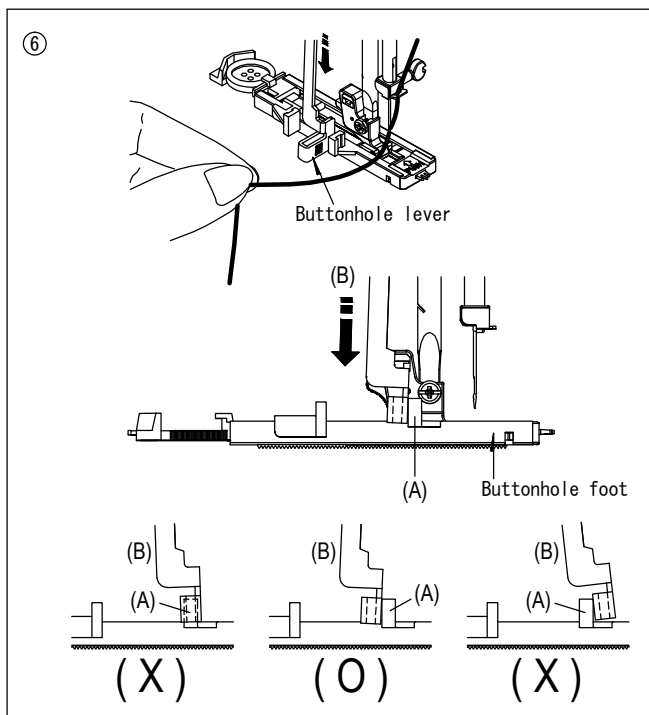
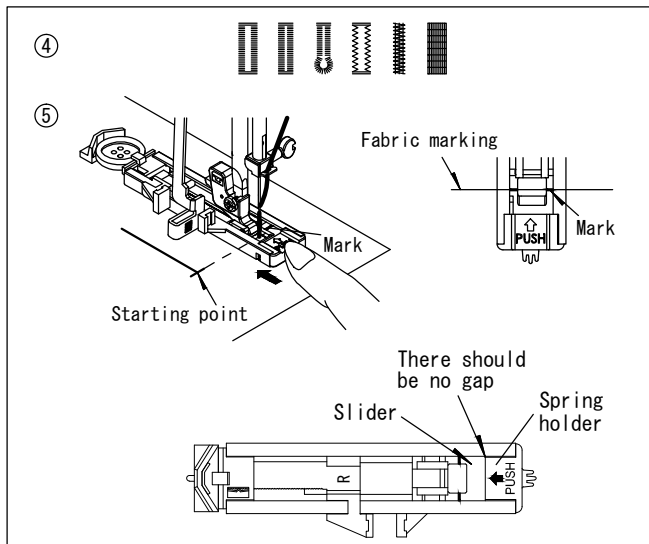
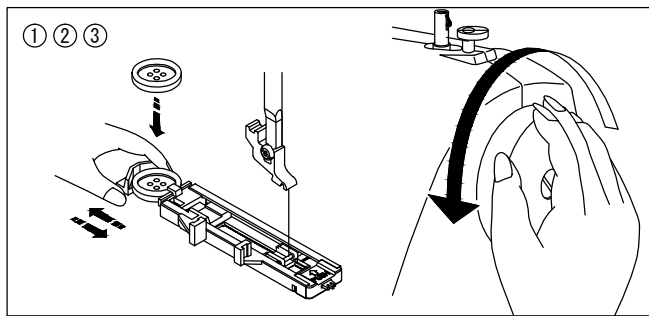
When you lay down the presser foot lever with your right hand, hold the buttonhole foot with your left hand and push it forward gently, to ensure there is no gap between slider and spring holder.

NOTE: There should be no gap between the slider and spring holder of the foot as shown.

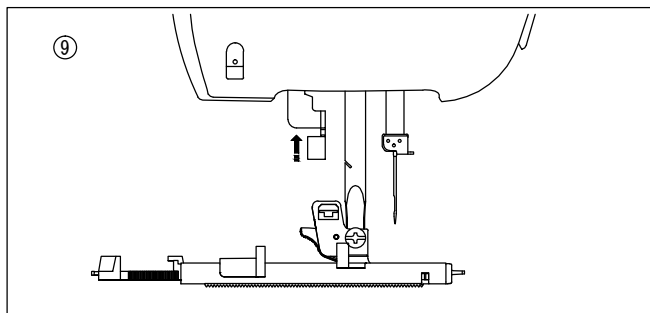
- ⑥ Pull the buttonhole lever down to the lowest point, and set it at the left side of point A.

While holding the top thread, start the machine.

- ⑦ Cut both needle and bobbin threads leaving about 10 cm (4") thread ends. Draw the needle thread to wrong side of fabric by pulling the bobbin thread. Then, knot the threads.
- ⑧ Insert a pin inside the bartack. Then cut the opening with a seam ripper. Take care not to cut the stitches.



- ⑨ When buttonhole sewing is finished, push the buttonhole lever upward as far as it will go.

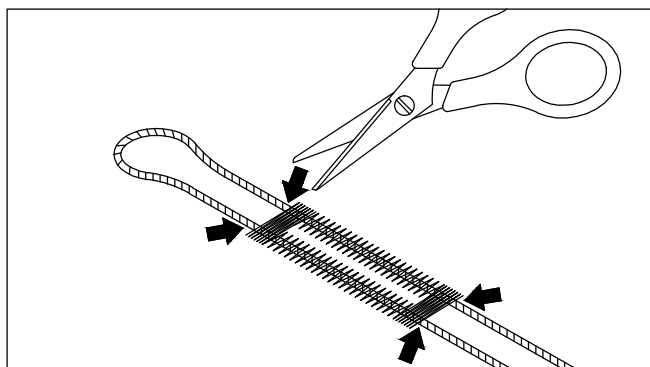
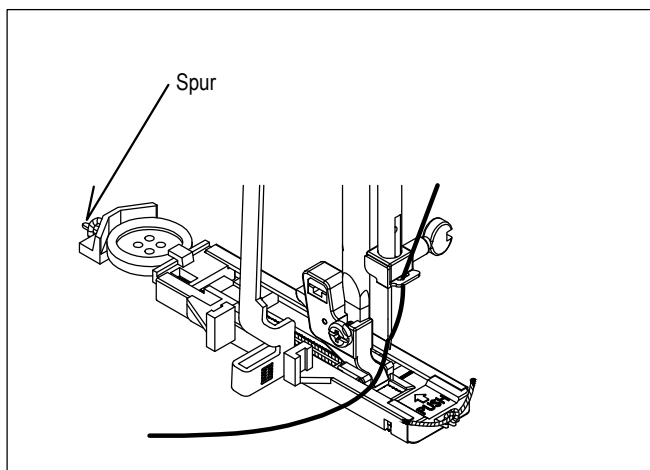


CORDED BUTTONHOLES

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 foot and snip off extra length.



DARNING STITCHES

SETTINGS


Presser foot : Buttonhole foot (R)


Thread tension control: 3 to 6


STARTING TO SEW

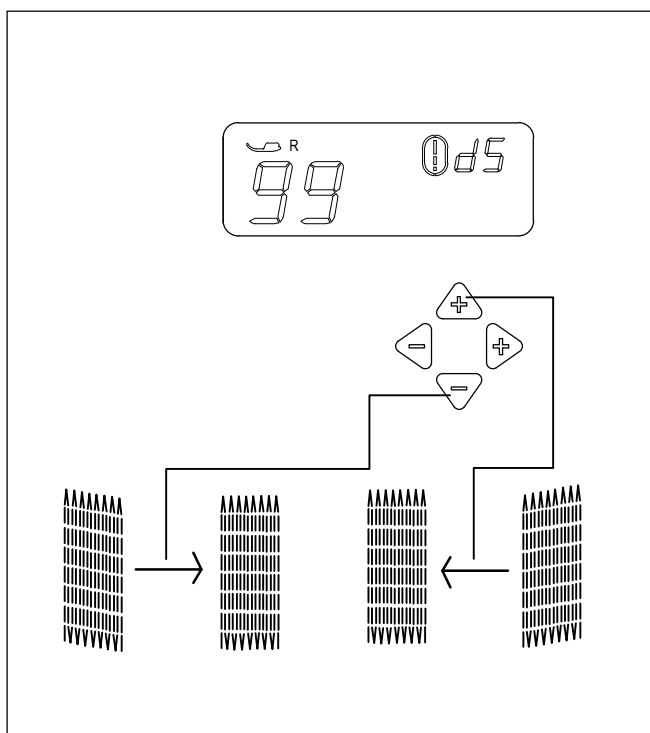
Refer to page 32, Sewing Button Hole Setting and Operating Procedures ①~⑥.

ADJUST THE EVENNESS OF THE DARNING

When the sewing darning, the upper right corner of the LCD screen will be displayed  d5 (default setting)

When right side is lower than the left side, press the  button to set the value to "d0" ~ "d4".

When left side is lower than the right side, press the  button to set the value to "d6" ~ "d9".



3. CARING FOR YOUR MACHINE

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 oil on the hook race as indicated by the arrows. (A,B)

NOTE: Sewing machine oil is suggested. DO NOT use "all purpose" oil as it is not suited for sewing machine lubrication.

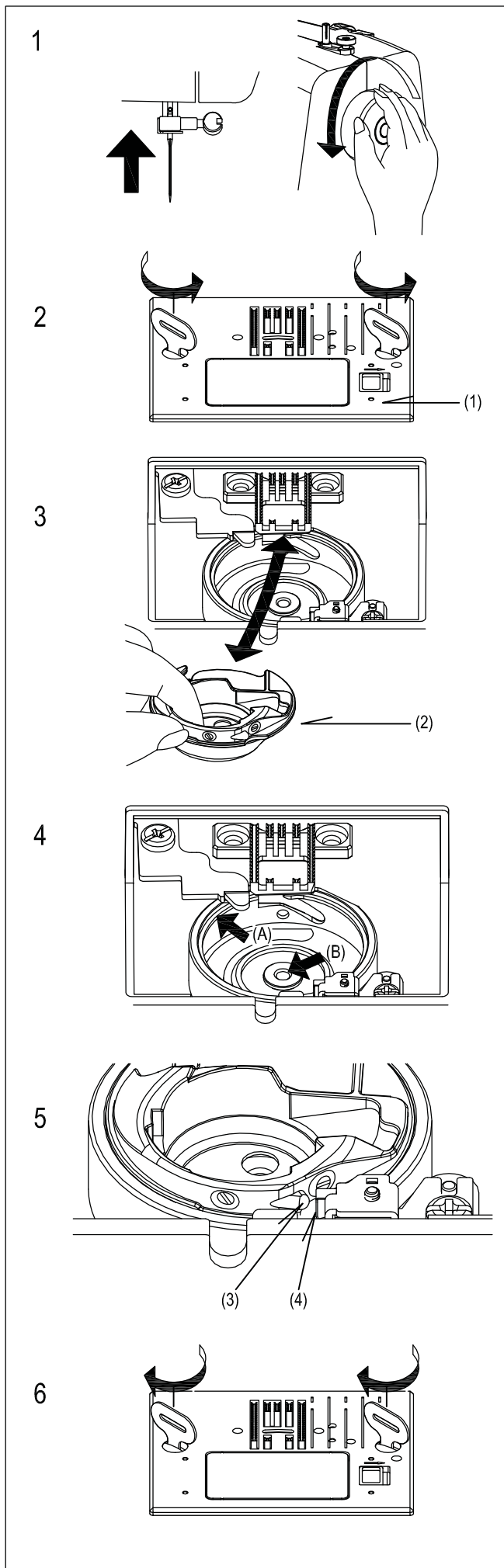
5. Replace the bobbin case with the projection (3) positioned against the spring (4).

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 foot controller

After use, keep sewing machine and foot controller clean. Use dry rags to remove dust from the sewing machine and foot controller.

NOTE: Use dry rags to avoid electrical shock.



4. OTHER INFORMATION

SATIN STITCH FOOT

The Satin stitch foot is grooved to permit dense stitching to pass under it easily. It is most useful for sewing satin stitches and as an alternative to the General Purpose Foot when sewing stretch stitches.

Closely spaced zig-zag 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 tissue paper or interfacing for lightweight fabrics to avoid puckering.

TWIN NEEDLE

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

Before inserting twin needles (sold separately) ensure you push the twin needle select button otherwise it can cause damage to the machine. Twin needles with a 2mm centre needle position is strongly recommended.

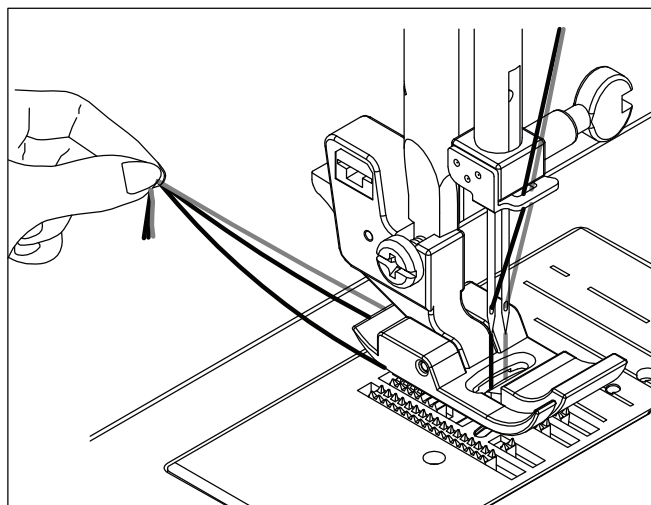
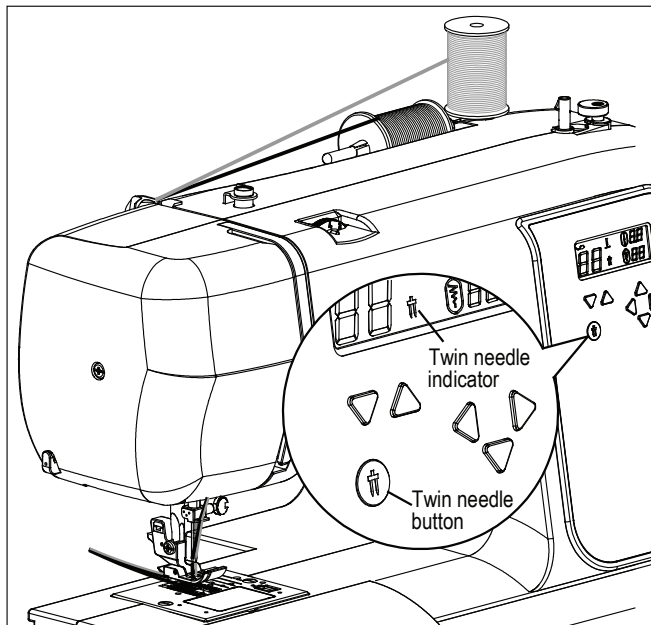
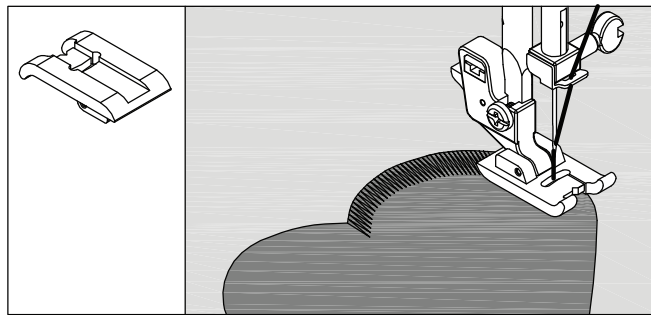
THREADING THE TWIN NEEDLE

1. Insert the second spool pin. 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" (15mm) of thread.

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

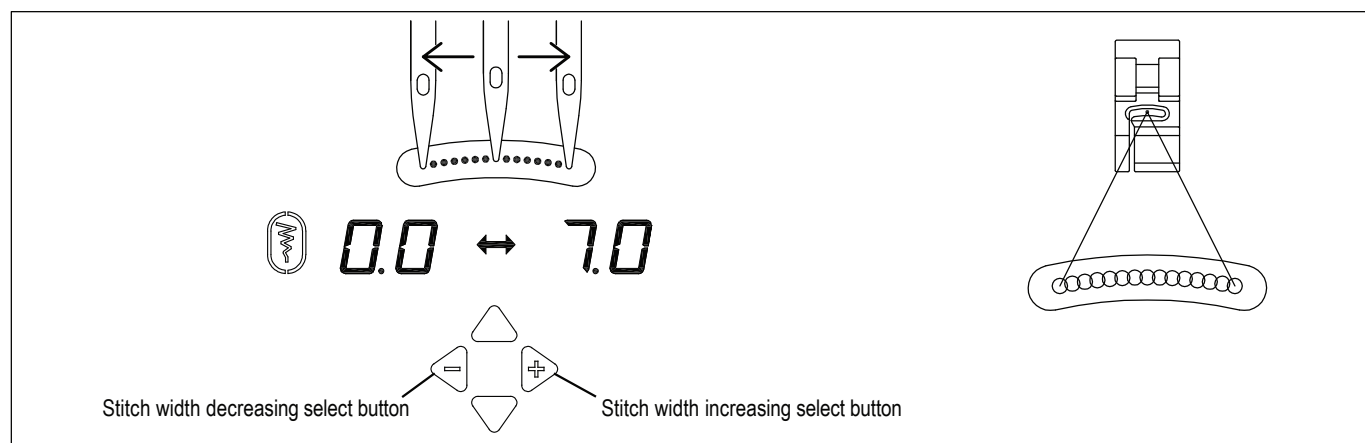
Helpful Hints:

1. To avoid the break of twin needle, please push the twin needle button before you selecting the stitch.
2. Turning off the machine returns the machine to normal sewing mode.



STRAIGHT STITCH NEEDLE POSITION

The position of the needle when sewing straight stitch may be adjusted to 15 different positions with the stitch width control as illustrated:



HINTS!!

MACHINE WILL BEEP A WARNING TONE AND FOLLOWING ERROR CODE WILL APPEAR ON DISPLAY SCREEN.

PF– Start the machine when presser foot is lifted up. 《lower down the presser foot》

OC – Bobbin winder is ON. 《push the bobbin winder reel to left hand side, see pic.4 on page 6 》

bL – Buttonhole sewing lever is in wrong position. 《put the buttonhole sewing lever to RIGHT position, see pic.6 on page 32 》

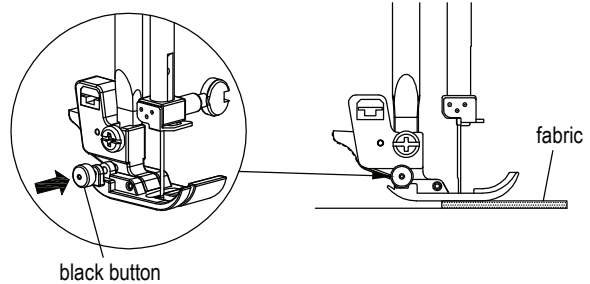
Fc – Foot controller is connected to the machine. 《Please use the foot controller to start the machine.》

Lo – The safety device has been activated. The motor locked up because the thread is tangled.

《Please remove the tangled thread, and then restart the machine.》

THICK FABRIC SEWING

1. Lower down the needle to the position of sewing, push the black button on presser foot.
2. Presser foot holder will lower down automatically.
3. Release the black button.

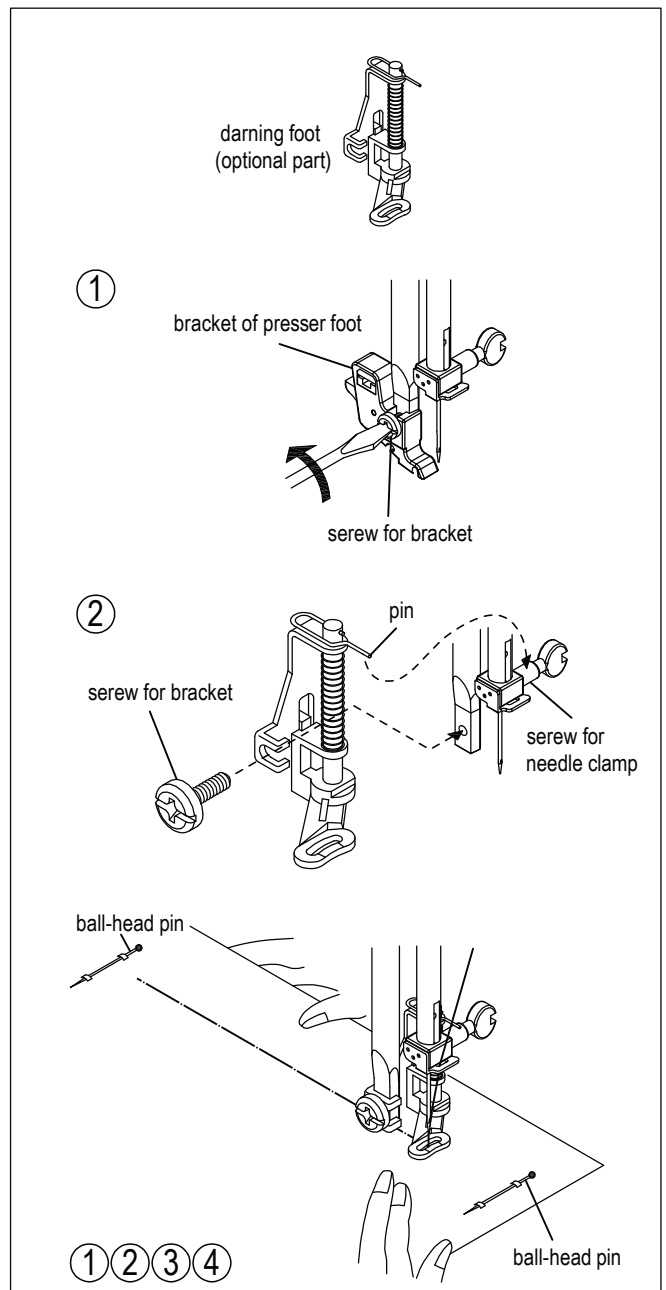


DARNING SEWING

INSTALL DARNING FOOT

1. Remove the bracket of presser foot.
2. Install the darning foot, put the screw into the hole on bracket and tighten the screw.

(Attention) To install darning foot, the pin on darning foot must be higher than the screw on needle clamp.



SEWING OF DARNING

1. Pull the upper thread and lower thread outward. Then, low down the darning foot.
2. Fix the both ends of fabric by ball-head pin.
3. After first stitch, machine will be stop automatically. Then, pull the fabric outward as long as you desired.
4. Repeat step 2 & 3, When sewing is completed, pull the thread and fabric outward and cut the threads.

5. PERFORMANCE CHECKLIST

Condition	Causes	Solutions	Reference
GENERAL PROBLEMS			
Machine does not sew.	Power switch is turned off.	Turn on the switch.	See page 4
	Buttonhole lever is not lowered when sewing	Lower buttonhole lever.	See page 30
	There is a gap between slider and spring holder on	Press the buttonhole foot lightly to avoid the gap	See page 30
	Bobbin winder is engaged.	Disengage bobbin winder.	See page 6
Machine jams/knocks.	Thread is caught in hook.	Clean hook.	See page 32
		Replace needle.	See page 11
Fabric dose not move.	Presser foot is not lowered.	Lower presser foot.	
	Stitch length is too short.	Lengthen stitch length.	See page 16
	Darning plate is placed on needle place.	Remove darning plate.	
Machine skips stitches.	Needle is not all the way up into needle clamp.	Re-fix the needle.	See page 11
	Needle is bent or blunt.	Replace needle.	See page 11
	Machine is not threaded correctly.	Re-threading.	See page 8
	Thread is caught in hook.	Clean hook.	See page 32
Stitch are irregular.	Needle size is not correct for thread and fabric.	Change either needle or thread.	See page 11
	Machine is not threaded correctly.	Re-threading.	See page 8
	Top thread tension is too loose.	Adjust top thread tension.	See page 14
	Fabric is being pulled or pushed against machine feeding action.	Guide it gently.	
	Bobbin has not been wound evenly.	Rewind bobbin.	
Needle breaks.	Fabric is being pulled or pushed against machine feeding action.	Guide it gently.	
	Needle size is not correct for thread and fabric.	Change to another type of needle. Change to another type of thread.	See page 11
	Needle is not all the way up into needle clamp.	Re-fix the needle.	See page 11
	Not push the twin needle button when use twin needle.	Push twin needle button.	See page 33
THREAD PROBLEMS			
Thread bunches.	Top and bobbin threads are not drawn back under presser foot before starting seam.	Draw both threads back under presser foot about 6" (15 cm) and hold until a few stitches are formed.	See page 19
Needle thread breaks.	Machine is not threaded correctly.	Re-threading.	See page 8
	Top thread tension is too tight.	Adjust top thread tension.	See page 14
	Needle is bent.	Replace needle.	See page 11
	Needle size is not correct for thread and fabric.	Change to another type of needle. Change to another type of thread.	See page 11
Bobbin thread breaks.	Bobbin case is not threaded correctly.	Re-threading.	See page 7
	Lint accumulates in bobbin case or hook.	Remove lint.	See page 32
Fabric puckers.	Top thread tension is too tight.	Adjust top thread tension.	See page 14
	Stitch length is too long for sheer or soft fabric.	Shorten stitch length.	See page 16

