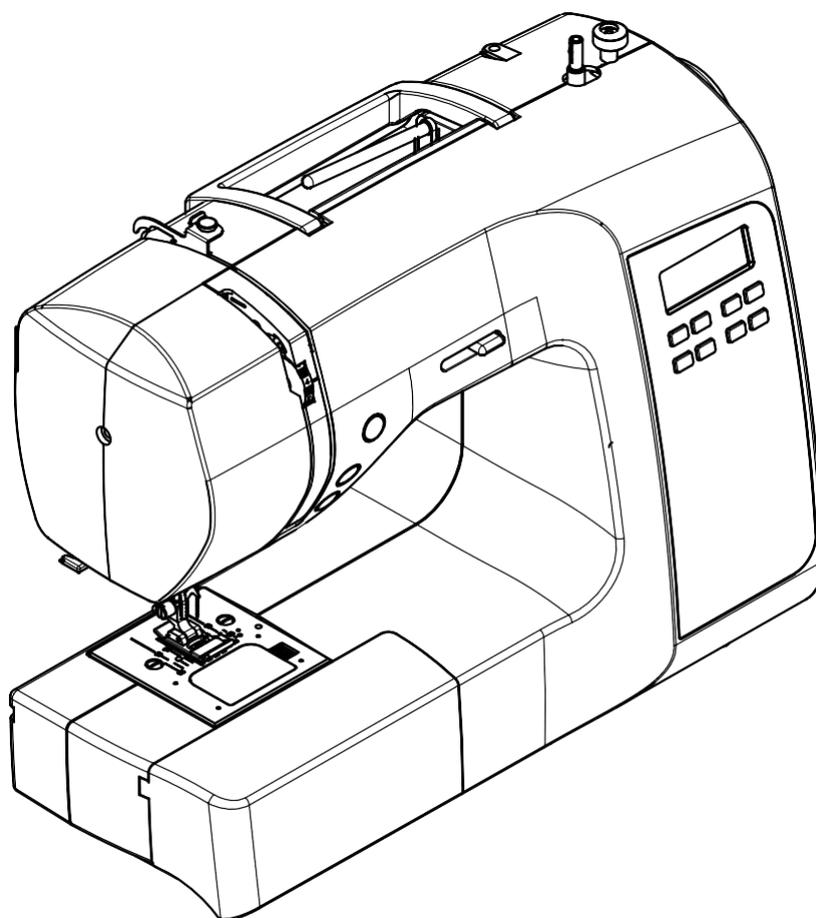


INSTRUCTION MANUAL

SC220



SINGER®

This household sewing machine is designed to comply with IEC/EN/CSA C22.2 No.60335-1 & 60335-2-28 and UL1594

IMPORTANT SAFETY INSTRUCTIONS

When using an electrical appliance, basic safety precautions should always be followed, including the following: Read all instructions before using this household sewing machine. Keep the instructions at a suitable place close to the machine. Make sure to hand them over if the machine is given to a third party.

DANGER - TO REDUCE THE RISK OF ELECTRIC SHOCK:

- A 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, removing covers, lubricating or when making any other user servicing adjustments mentioned in the instruction manual.

WARNING - TO REDUCE THE RISK OF BURNS, FIRE, ELECTRIC SHOCK, OR INJURY TO PERSON:

- Do not allow to be used as a toy. Close attention is necessary when this sewing machine is used by or near children.
- Use this sewing machine only for its intended use as described in this manual. Use only attachments recommended by the manufacturer as contained in this manual.
- 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 service center for examination, repair, electrical or mechanical adjustment.
- 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.
- Keep fingers away from all moving parts. Special care is required around the sewing machine needle.
- Always use the proper needle plate. The wrong plate can cause the needle to break.
- Do not use bent needles.
- Do not pull or push fabric while stitching. It may deflect the needle causing it to break.
- Wear safety glasses.
- Switch the sewing machine off ("0") when making any adjustment in the needle area, such as threading needle, changing needle, threading bobbin, or changing presser foot, etc.
- Never drop or insert any object into any opening.
- Do not use outdoors.
- Do not operate where aerosol (spray) products are being used or where oxygen is being administered.
- To disconnect, turn all controls to the off ("O") position, then remove plug from outlet.
- Do not unplug by pulling on cord. To unplug, grasp the plug, not the cord.
- The foot control is used to operate the machine. Avoid placing other objects on the foot control.
- Do not use the machine if it is wet.
- If the LED lamp is damaged or broken, it must be replaced by the manufacturer or its service agent or a similarly qualified person, in order to avoid a hazard.
- If the supply cord connected with the foot control is damaged, it must be replaced by the manufacturer or its service agent or a similarly qualified person, in order to avoid a hazard.
- 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."

SAVE THESE INSTRUCTIONS

FOR EUROPE ONLY:

This appliance can be used by children aged from 13 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. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.

The noise level under normal operating conditions is less than 75dB(A).

The machine must only be used with foot control of type "ES01FC" manufactured by ZHEJIANG HENGQIANG SEWING MACHINE GROUP CO., LTD.

FOR OUTSIDE EUROPE:

This sewing machine 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 sewing machine by a person responsible for their safety. Children should be supervised to ensure that they do not play with the sewing machine.

The noise level under normal operating conditions is less than 75dB(A).

The machine must only be used with foot control of type "ES01FC" manufactured by ZHEJIANG HENGQIANG SEWING MACHINE GROUP CO., LTD.

INTENDED USE

Optimal use and maintenance are described in these instructions. This product is not intended for industrial use. Additional assistance, by region, may be found on the web at www.singer.com.

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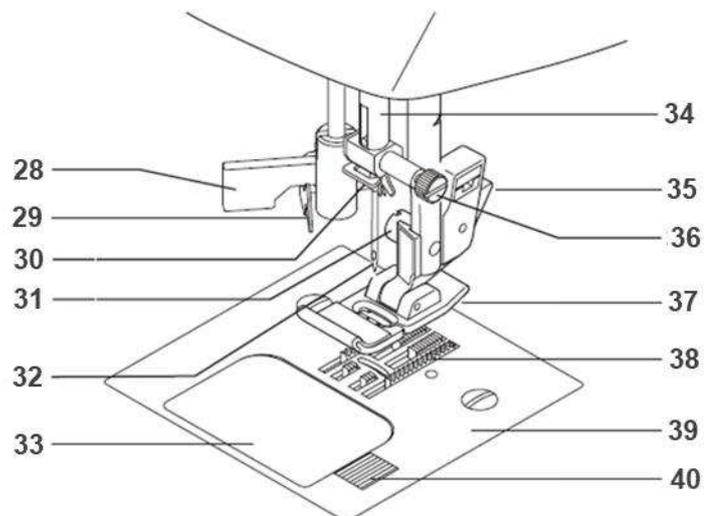
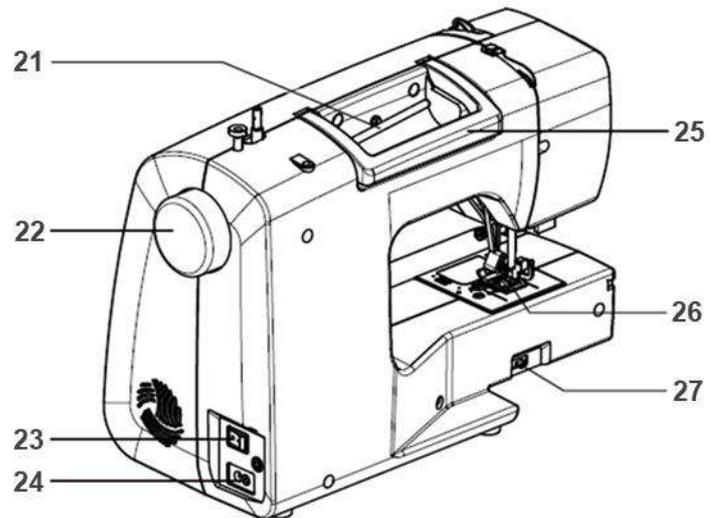
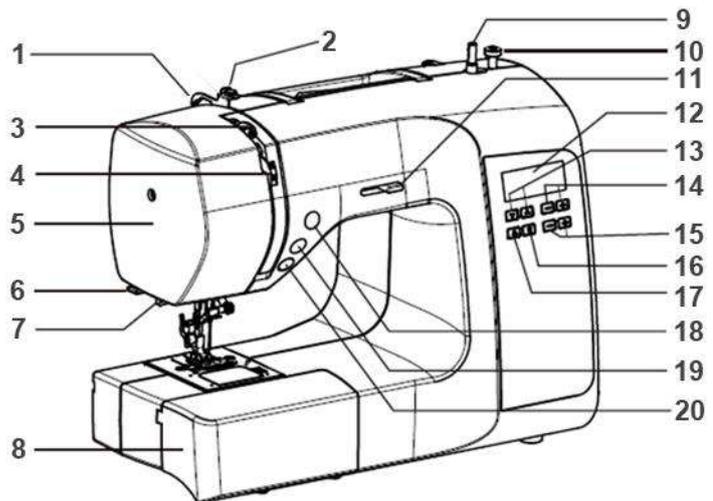
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KNOWING YOUR SEWING MACHINE

MACHINE IDENTIFICATION

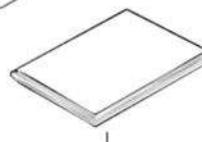
1. Thread guide
2. Bobbin winding tension disk
3. Thread take-up lever
4. Thread tension control
5. Face cover
6. Thread cutter
7. Buttonhole lever
8. Removable storage compartment
9. Bobbin winding spindle
10. Bobbin winding stopper
11. Sewing speed control
12. LCD display
13. Pattern selection button
14. Stitch length adjustment button
15. Stitch width adjustment button
16. Twin needle mode switch
17. Letter mode button
18. Needle up/down button
19. Reverse stitch button
20. Start/Stop Button
21. Horizontal spool pin
22. Hand wheel
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24. Cord socket
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28. Automatic needle threader
29. Needle threader thread guide
30. Thread guide
31. Presser foot screw
32. Needle
33. Bobbin cover plate
34. Needle bar
35. Foot release button
36. Needle clamp screw
37. Presser foot (J)
38. Feed teeth
39. Needle plate
40. Bobbin cover release button
41. Power line cord
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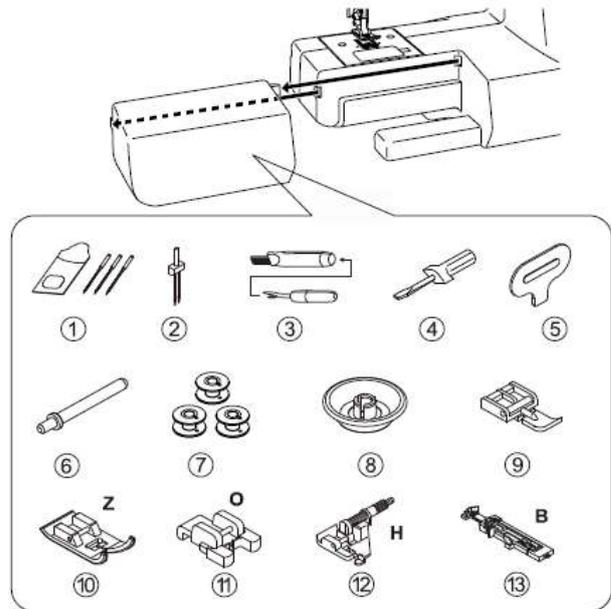


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KNOWING YOUR SEWING MACHINE

ACCESSORIES

1. Needles
2. Twin needle
3. Seam ripper/ lint brush
4. Small screwdriver
5. Screwdriver for needle plate
6. Auxiliary spool pin
7. Bobbins (4 total - 1 in machine) *
8. Spool pin cap
9. Zipper foot
10. Satin stitch foot (Z)
11. Button sewing foot (O)
12. Blind hem foot (H)
13. Buttonhole foot (B)



The foot that comes on your Sewing machine is called the All Purpose foot (J) and will be used for the majority of your sewing. The Satin Foot (Z) is another very useful foot and should be used for most decorative sewing.

*** Important! Your machine uses SINGER® Class 15J bobbins. Use only this style of bobbin in your machine.**

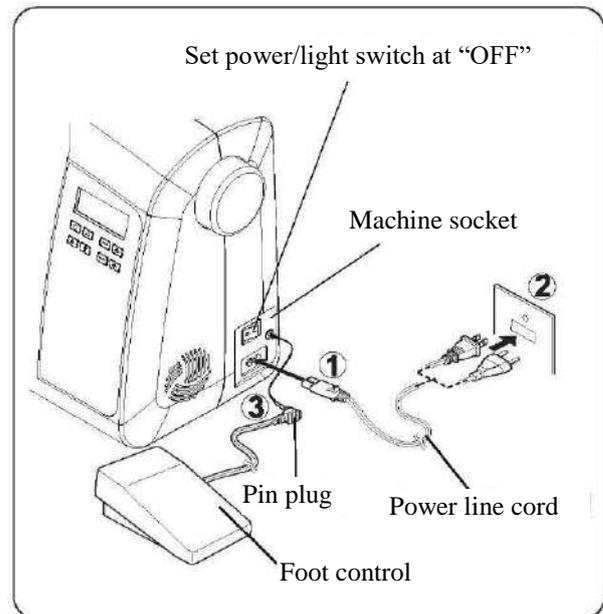
SETTING UP YOUR MACHINE

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

POWER LINE CORD, FOOT CONTROL

Make sure that the sewing machine is turned off (the power switch is set to "O"), then connect the plug of the power line cord into the cord socket (1) and wall outlet (2) as illustrated. Connect the foot control plug (3) into the machine socket.

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.



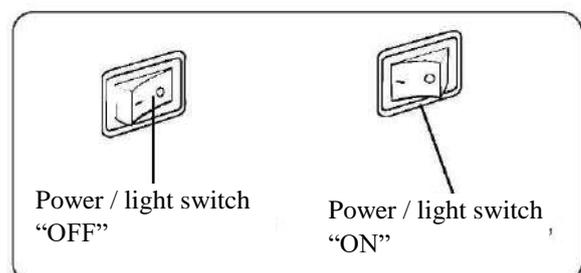
CAUTION

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 needles, etc., machine must be disconnected from the power supply.



KNOWING YOUR SEWING MACHINE

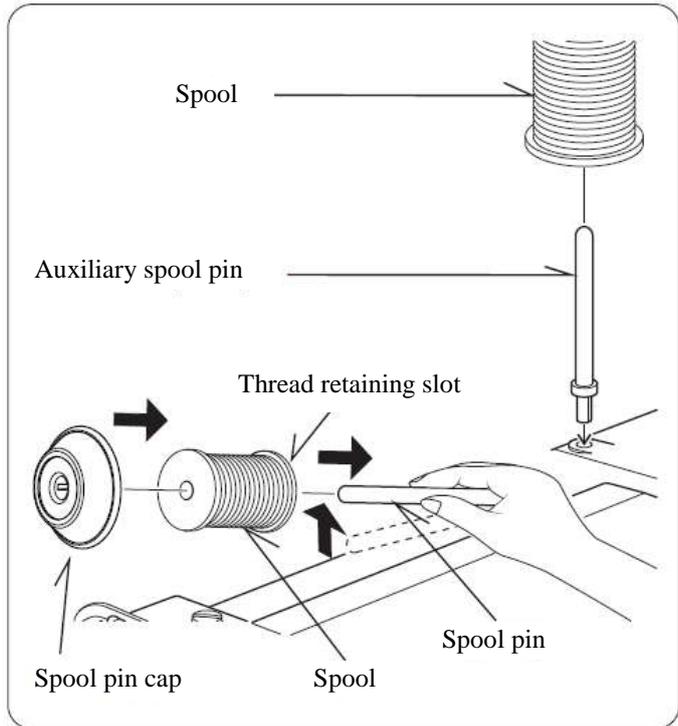
SPOOL PINS

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.

AUXILIARY SPOOL PIN for large thread spool

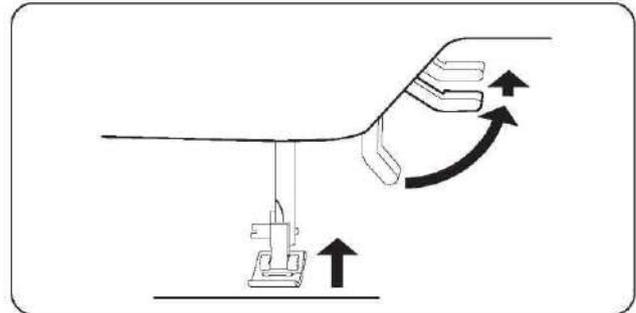
Attach the auxiliary spool pin. Place a spool of thread on the spool pin. The spool pin cap is not used with the auxiliary spool pin.



PRESSER FOOT LIFTER

There are three positions for your presser foot.

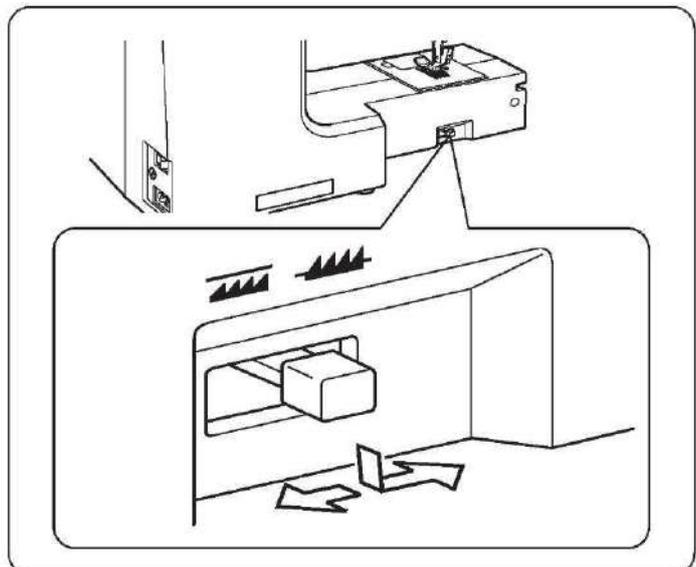
1. Lower the presser foot to sew.
2. Raise the lifter to the middle position to insert or remove fabric.
3. Lift it to its highest position to change the presser foot to insert or remove thicker fabric.



FEED TEETH CONTROL

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

Note: To re-engage the feed teeth, move the lever to its raised position, then turn the handwheel one full revolution.



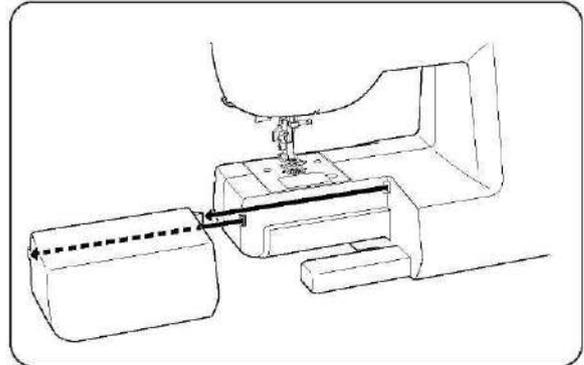
KNOWING YOUR SEWING MACHINE

CONVERTING TO FREE-ARM SEWING

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

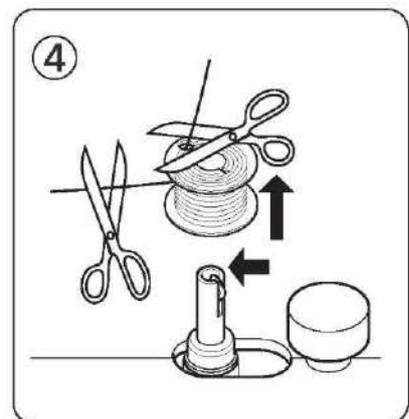
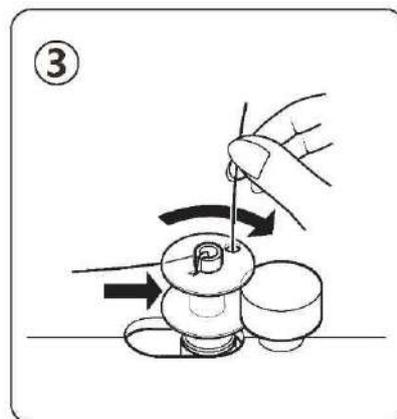
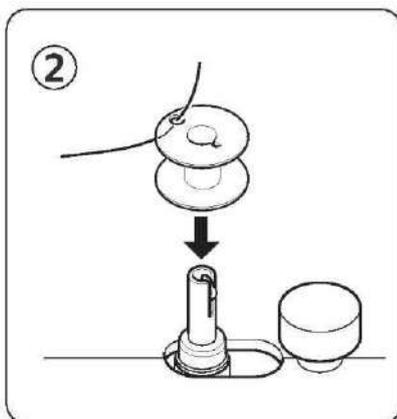
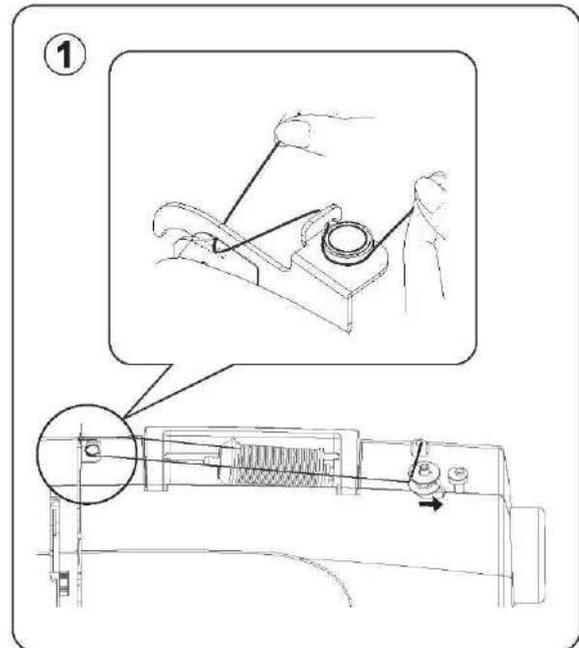
With the removable storage compartment in position, it provides a large working surface as a standard flat-bed model. To take off the removable storage compartment, hold it firmly with both hands and pull it off to the left as shown. To replace, slide the removable storage compartment back into place until it clicks.

With the removable storage compartment off, the machine converts into a slim free-arm model for sewing children's clothing, sleeve cuffs, trouser legs, and other hard-to-reach places.



WINDING THE BOBBIN

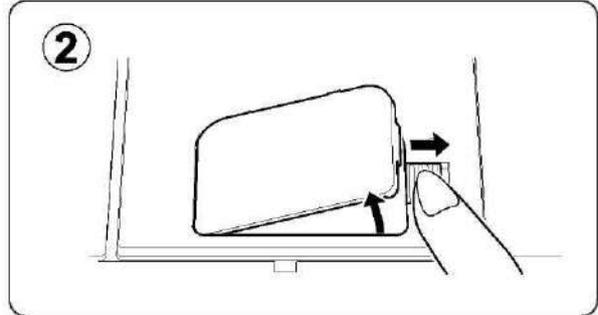
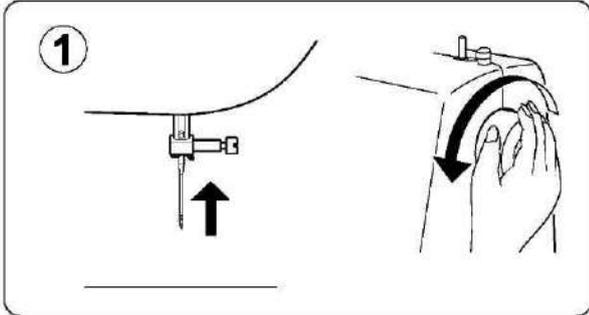
1. Place a spool of thread on the spool pin, and secure it with the spool pin cap. Pull the thread out from the spool and place it through thread guides as shown in illustration. **It is very important to make sure the thread is pulled snugly into the bobbin winding tension disk, or the bobbin will not wind properly.**
2. Put end of thread through the hole in bobbin as shown.
3. Push bobbin winding spindle to far left position, if it is not already there. Place bobbin onto the bobbin winding spindle with end of thread coming from top of bobbin. Push bobbin winding spindle to the right until it clicks. Hold onto end of thread.
4. Start machine. Bobbin will automatically stop turning when completely filled. Push the bobbin winding spindle to the left to remove bobbin and cut thread.



KNOWING YOUR SEWING MACHINE

THREADING THE BOBBIN THREAD

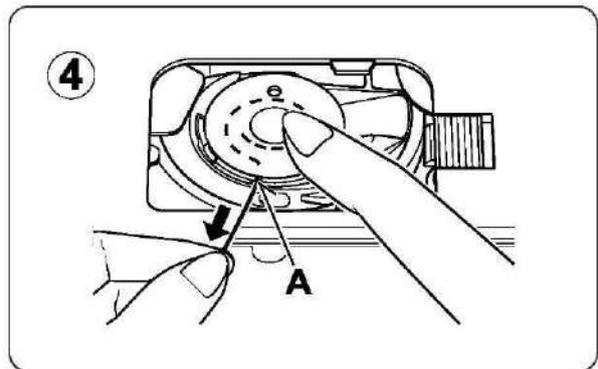
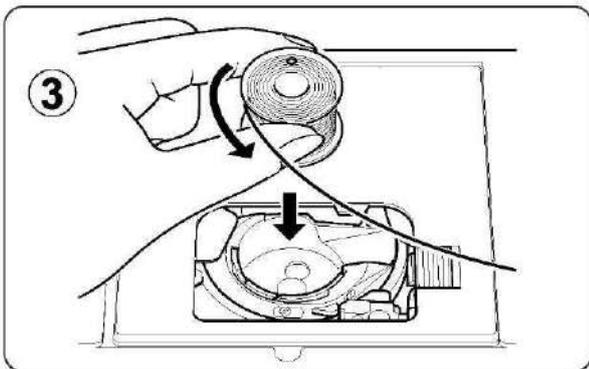
1. Raise the needle to its highest position by rotating the hand wheel toward you.
2. Remove the bobbin cover plate by pushing the release button to the right. Bobbin cover will pop up sufficiently to allow you to remove the cover.



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

NOTE: This is a very important step as the bobbin can become unthreaded and cause sewing problems if it rotates clockwise.

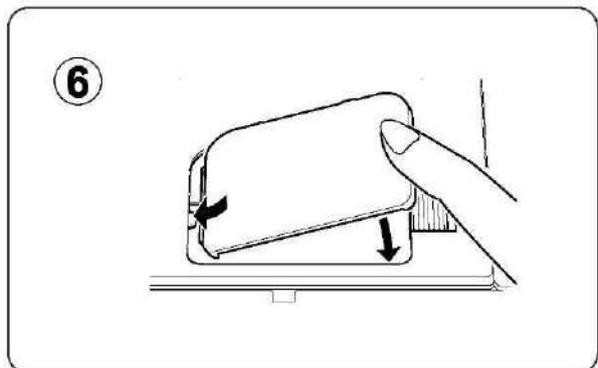
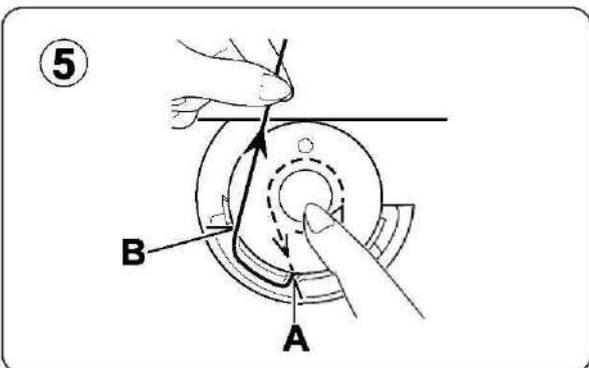
4. Pull thread through the slot (A) and then to the left.



5. With a finger held gently on top of the bobbin, pull the thread until it stops in slot (B). Then pull about 6" (15 cm) of thread and lead it towards back of the machine under the presser foot.

NOTE: This is also a very important step to assure the bobbin thread does not slip out of position.

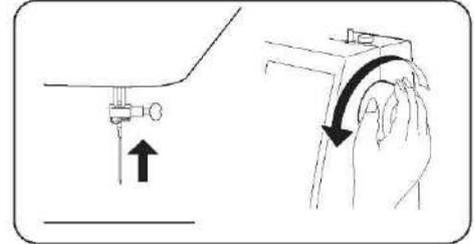
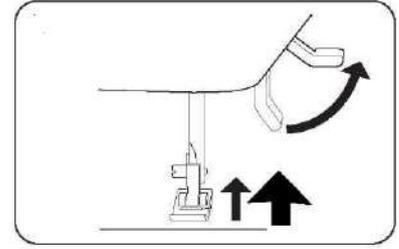
6. Replace the bobbin cover plate onto the needle plate.



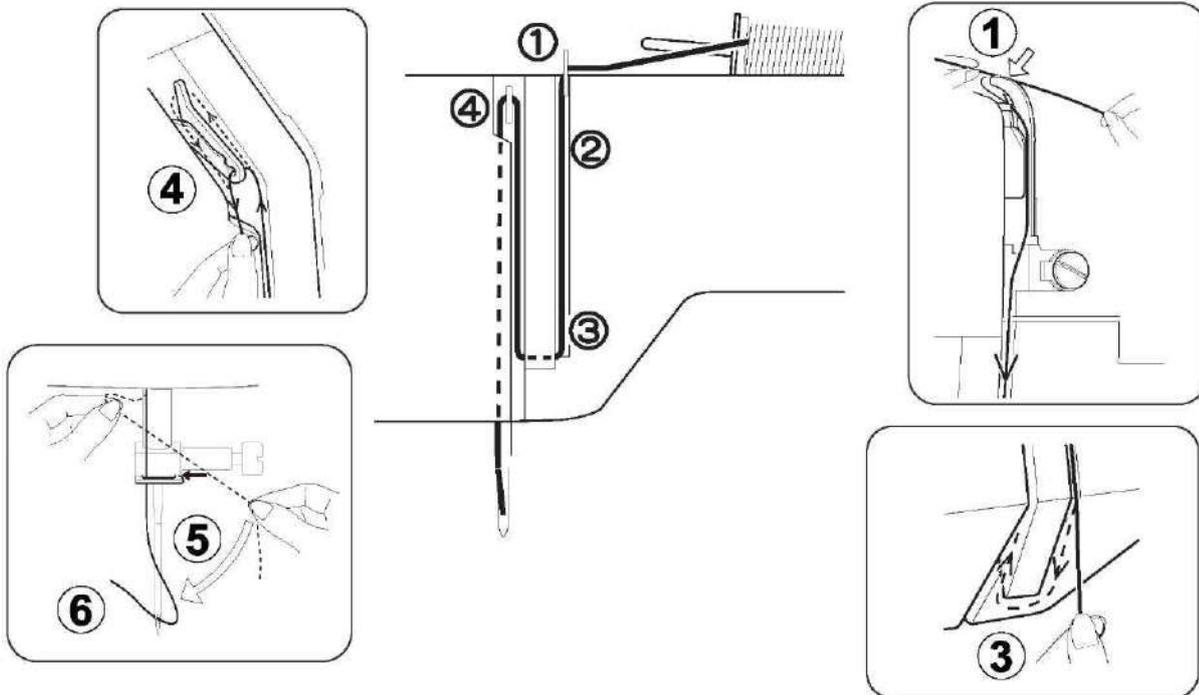
KNOWING YOUR SEWING MACHINE

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 toward you until the needle is in its highest position and the thread take-up is visible.
- 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 guide (1).
- * Pull the thread into the tension discs (2) (which are located inside the machine). Then guide the thread to the bottom of the groove.
- * Do a U-turn around the inside of the tab (3).
- * Pass the thread through the thread take-up (4) from right to left.
- * Pull the thread into the inside of the take-up lever until it reaches the eye of the lever.
- * Guide the thread into the thread guide (5).
- * Pass the thread through the eye of the needle (6) 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 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 miss-threaded the machine and need to re-thread it.

KNOWING YOUR SEWING MACHINE

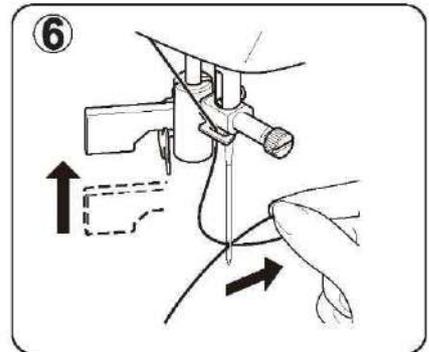
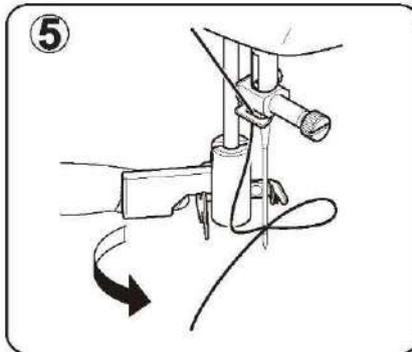
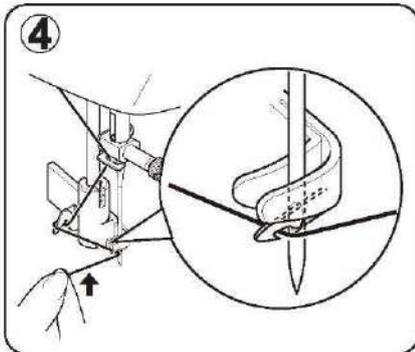
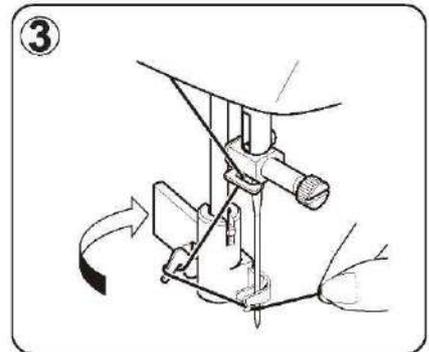
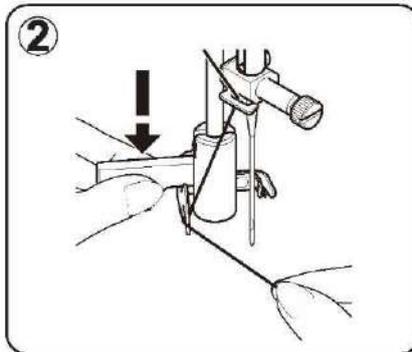
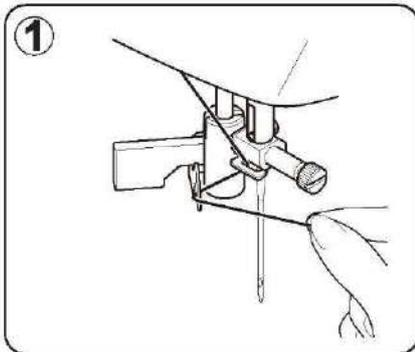
USING AUTOMATIC NEEDLE THREADER

Raise the needle to its highest position by rotating the hand wheel towards you.

1. Hook thread around thread guide, as illustrated.
2. Pull down lever while holding the end of thread.
3. Rotate the lever to the rear of the machine until the hook pin come though the eye of the needle.
4. Guide the thread into the hook pin and then lightly pull the thread upward.
5. Return the lever and needle will be threaded automatically, pulling a loop of thread though the eye of the needle.
6. Release the lever and pull thread away from you. Pull the loop to bring the rest of the thread tail through the needle.

NOTE: For smooth threading it is recommended you select straight stitching when using the needle threader.

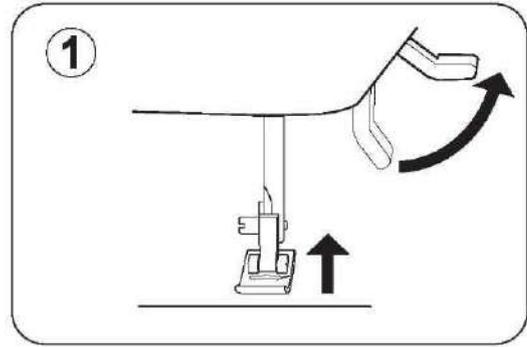
Automatic needle threader cannot be used for twin needle.



KNOWING YOUR SEWING MACHINE

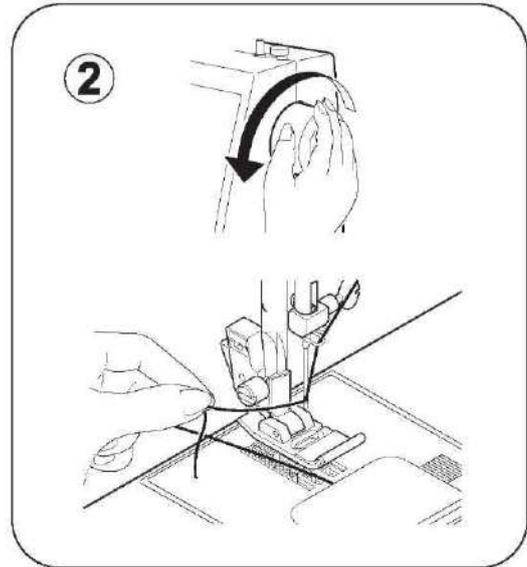
DRAWING UP BOBBIN THREAD

1. Raise the presser foot lifter.

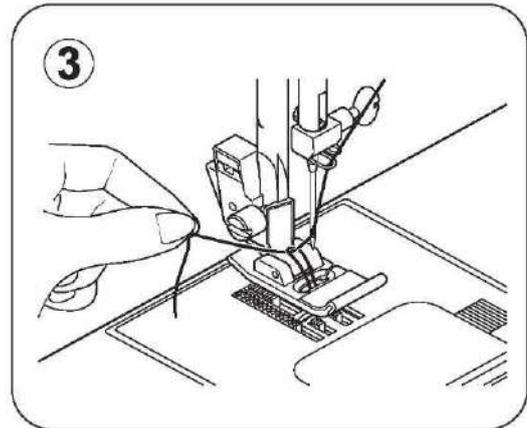


2. Holding needle thread loosely with your left hand, turn hand wheel toward you with your right hand first lowering the needle and continuing until the needle comes to its highest position.

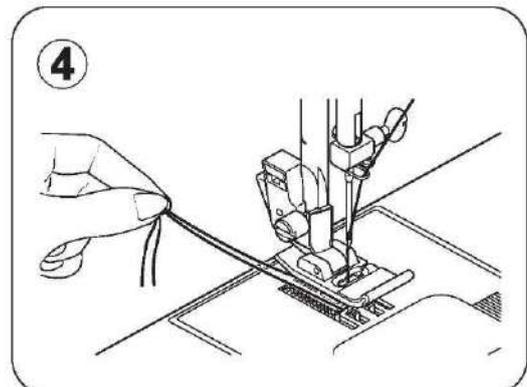
NOTE: A quick way to pick up the bobbin thread is, with straight stitch selected, touch and release the reverse button. Your machine will perform one down-up cycle and stop with the needle up. Always stopping with the needle “fully up” is one of the features of your computer sewing machine.



3. Lightly pull up the top thread, and pick up bobbin thread, which will appear through the needle plate slot.



4. Pull both top and bobbin threads together toward the back of the machine under the presser foot, leaving about 6" (15 cm) clear.



KNOWING YOUR SEWING MACHINE

NEEDLE, THREAD AND FABRIC CHART

Your fabric will determine the choice of needle and thread. The following table is a practical guide to needle and thread selection. Always refer to it before a new sewing project. And be sure to use the same size and type of thread in the bobbin as in the top thread supply.

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.			
Light-Weight	Batiste Chiffon Tricot Silk	All-Purpose Polyester Silk	12/80
Medium-Weight	Corduroy / Flannel Gabardine / Cotton Linen / Wool	All-Purpose Polyester	14/90
Medium-Heavy	Canvas / Denim Duck / Sailcloth	All-Purpose Polyester Topstitching	16/100 18/110
Knits	Bonded Knits Double Knit Jersey / Tricot	All-Purpose Polyester Nylon	12/80 14/90 16/100



CAUTION

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

CHANGING THE NEEDLE

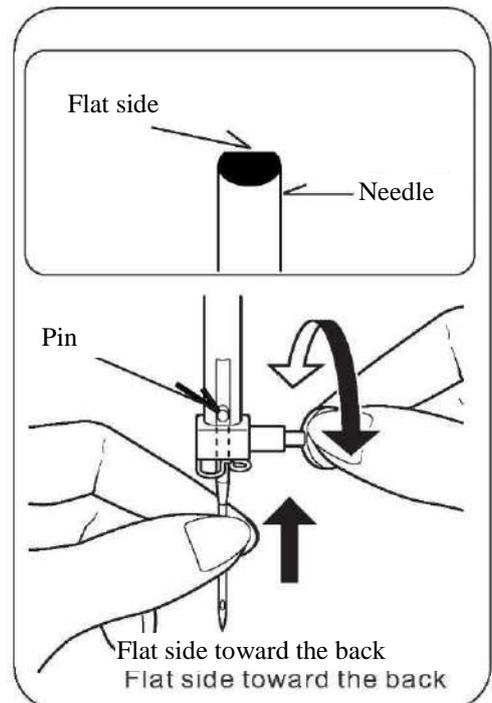
1. Raise the needle bar to its highest position by turning the hand wheel toward you.
2. Loosen the needle clamp screw by turning it toward you.
3. Remove the needle by pulling it downward.
4. Insert the new needle into the needle clamp with the flat side toward the back.
5. Push the needle up as far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

NOTE: Tighten snugly, but do not over tighten.

Helpful Hint: Placing a scrap of fabric under the presser foot and lowering the presser foot makes it easier to change the needle and will preclude dropping the needle into the needle plate slot.



Change the needle often. As a general rule, needles, should be changed every 6-8 hours of actual stitching time.



KNOWING YOUR SEWING MACHINE

ADJUSTING TOP THREAD TENSION

Most of your sewing will be done with the tension control set at “4”.

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.

Make any adjustments with presser foot 'down'.

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

ZIGZAG AND DECORATIVE SEWING

For zigzag sewing and decorative stitch functions, 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 on the bottom side of your fabric.

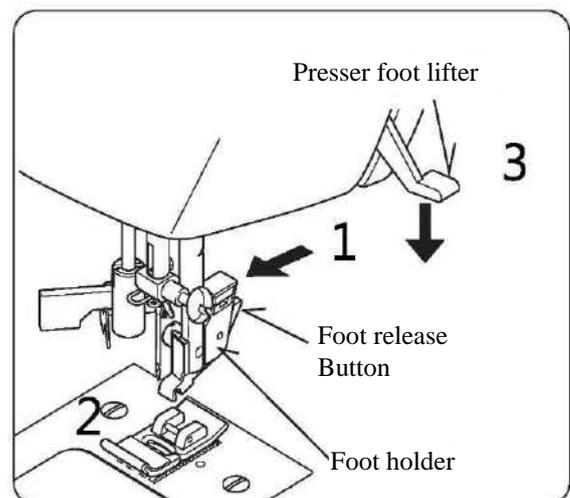
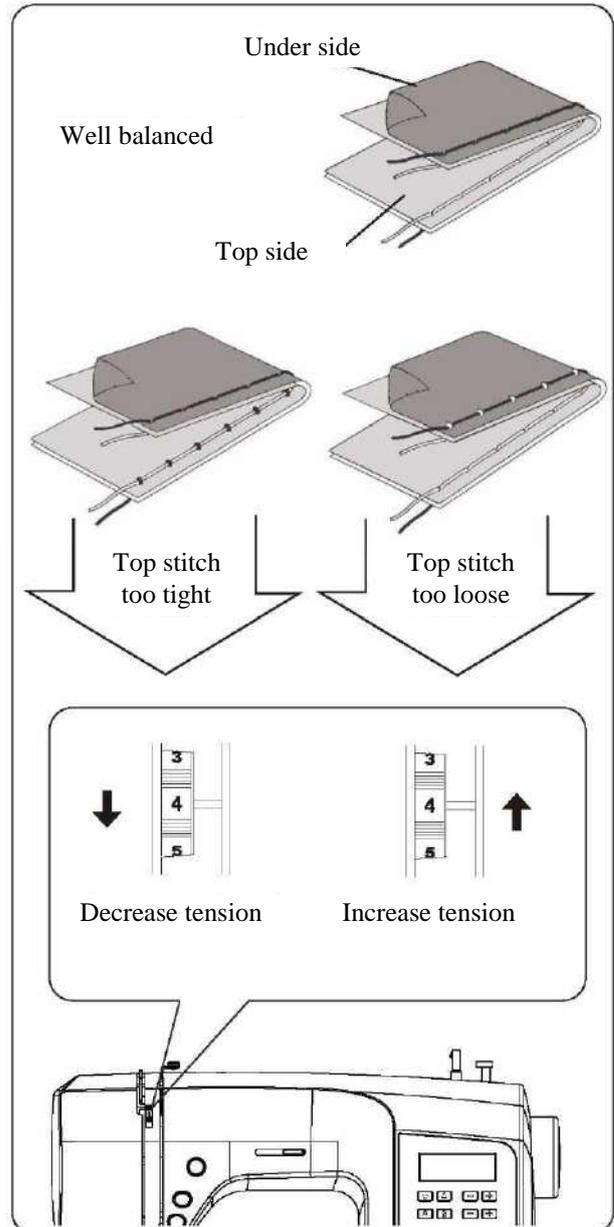
BOBBIN TENSION

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

CHANGING PRESSER FOOT

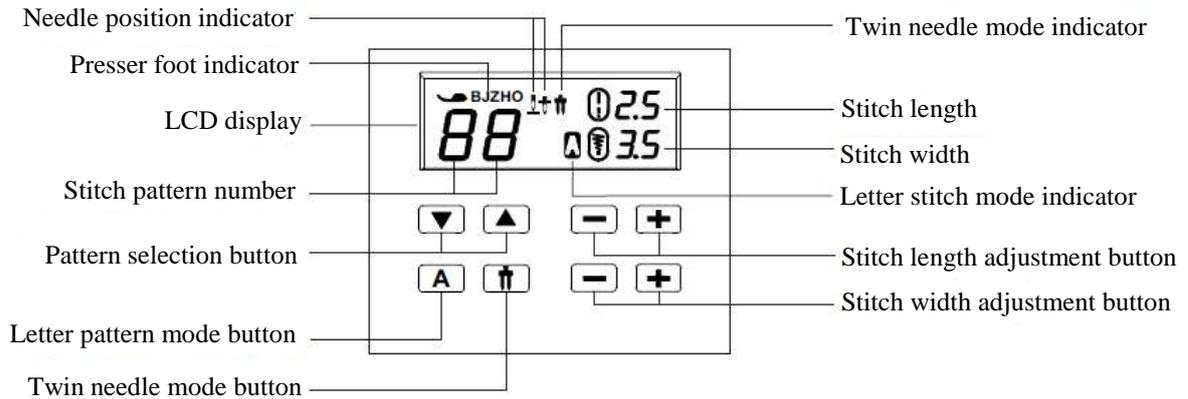
Be sure needle is in the up position. Raise presser foot lifter.

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.

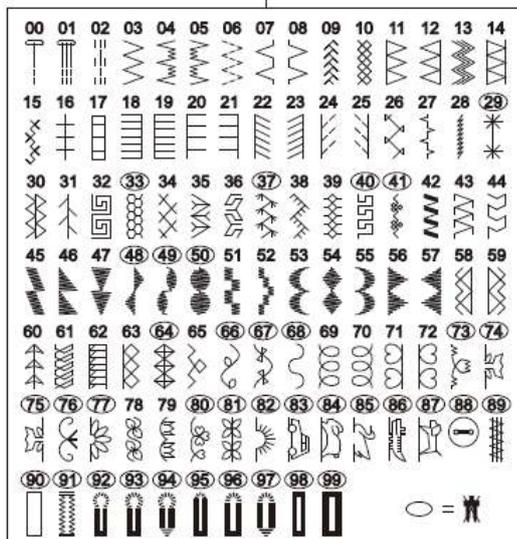


KNOWING YOUR SEWING MACHINE

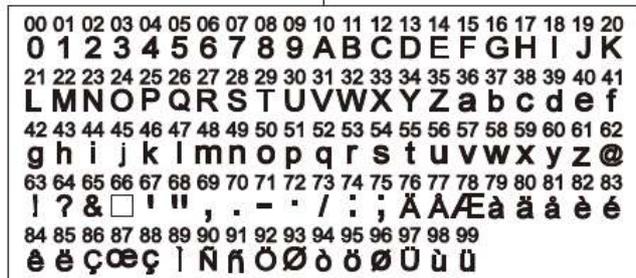
FUNCTIONS OF CONTROL PANEL



Pattern number reference guide



Letter pattern number reference guide



Letter pattern mode

While the button is pushed, **A** will be appeared on the LCD. Press the **▲** or **▼**. The number of the selected letter number is displayed. The machine sews automatically one complete cycle of pattern string and stops.

Twin needle mode

When using twin needles, push the twin needle mode 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.

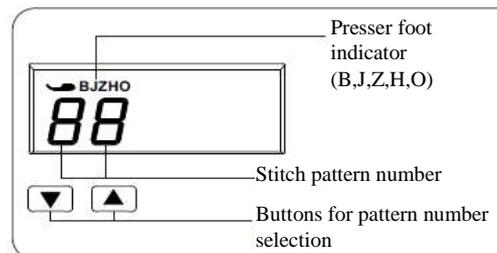
When the button is pushed, **†** will appear on the LCD.

Patterns with circled numbers in the pattern reference guide cannot be selected and a beep will sound. ○ = ✖

PATTERN NUMBER SELECTION BUTTONS

When the machine is turned on, straight stitch is selected and pop-up screen for individual preference settings appears on the LCD display.

Press the **▲** or **▼** side of to increase or decrease the number by one. Long press the **▲** or **▼** side of to decrease or reduce the number by ten.



NOTE: The presser foot to be used is indicated by the letter (B,J,Z,H,O) right **☞** to the right of the stitch number.

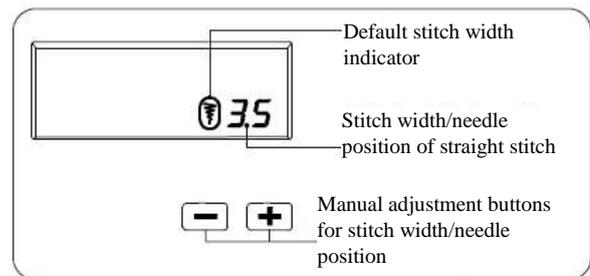
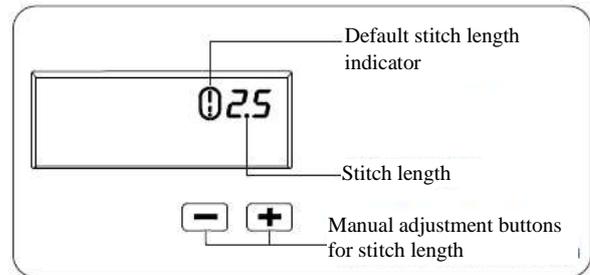
KNOWING YOUR SEWING MACHINE

STITCH LENGTH AND STITCH WIDTH / NEEDLE POSITION ADJUSTMENT BUTTONS

Your sewing machine will display your stitch settings as an Auto/Default stitch Length and Width.

You can manually change the length, width or needle position for straight stitch according to your preference pushing manual adjustment buttons.

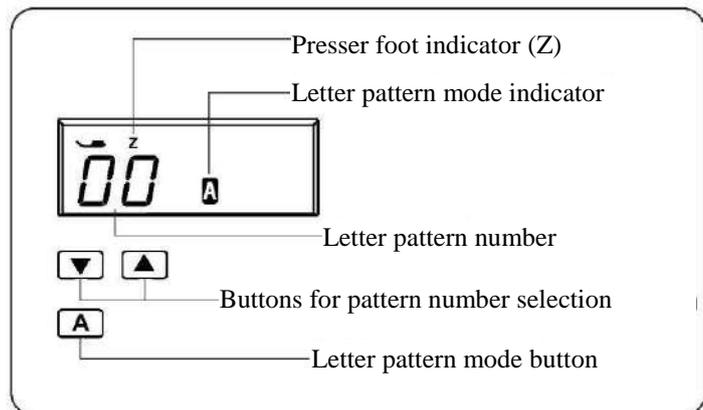
When the stitch length or stitch width is changed from the default setting, around or disappears from the LCD. When the stitch length or stitch width is reset back to the default setting, reappears around or in the LCD.



LETTER PATTERN NUMBER SELECTION

While the button is pushed, A will be appeared on the LCD screen and pattern "0" is selected. The LCD screen will display the number of the letter pattern you wish to stitch.

Press the or side of to increase or decrease the number by one. Long press the or side of to increase or decrease the number by ten.

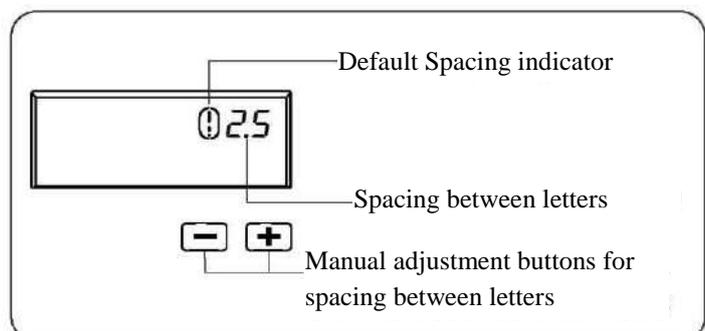


ADJUST THE SPACING BETWEEN LETTERS

Your sewing machine will display your stitch settings at an Auto/Default stitch Length and Width.

You can manually change the spacing between letters according to your preference pushing manual adjustment buttons.

When the spacing is changed from the default setting, around disappears from the LCD. When the spacing is reset back to the default setting, reappears around in the LCD.



The machine sews one cycle of the pattern and stops.

KNOWING YOUR SEWING MACHINE

OPERATION BUTTONS

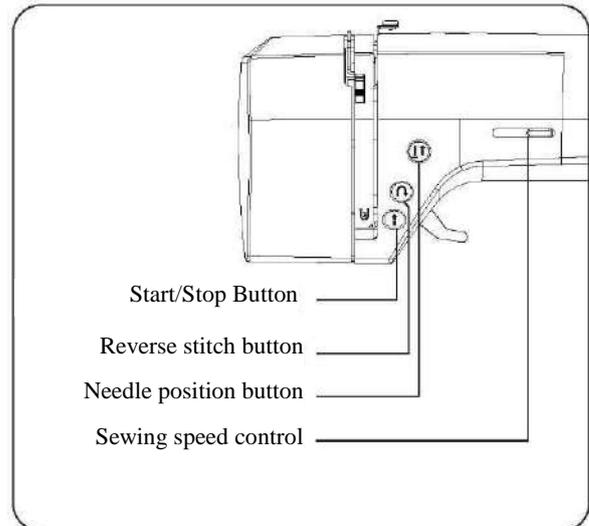
The operation buttons help you to easily perform various basic sewing machine operations.

START/STOP BUTTON (↑)

When sewing without having the foot control connected, the machine starts slowly when the start/stop button is pushed.

When it is pushed again, needle moves and stops at its highest position.

When using foot control, simply press foot pedal with your foot until you reach a slow even speed. The harder you push, the faster the machine will sew. Release pressure on foot pedal to stop the machine.



NOTE: When foot control is connected, start/stop button cannot be used.

NEEDLE UP/DOWN BUTTON (↑↓)

Press the needle position button to raise or lower the needle.

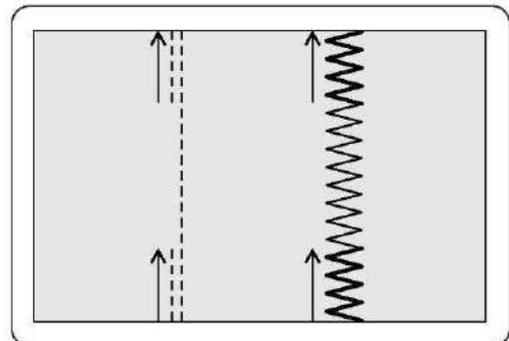
Pressing the button twice sews one stitch.

DUAL PURPOSE REVERSE/TACKING STITCH BUTTON (↺)

Reverse stitch function for straight and zigzag stitches

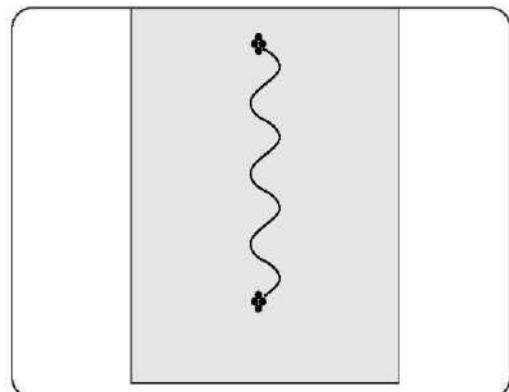
Reverse sewing is carried out while the reverse stitch button is pushed.

The machine will continue to sew in reverse as long as the reverse button is pressed.



Tacking stitch function for tie-off of other stitches

The sewing machine makes 4 tiny tacking stitches to tie off the sewing on all patterns except straight, zigzag and buttonhole stitches. The position of the tacking stitches will be at the exact spot in the pattern where the reverse/tacking stitch button is pushed.



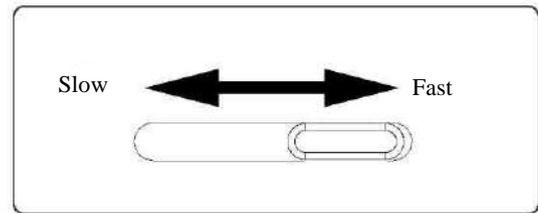
NOTE: This function is very useful for tying off the sewing pattern to avoid raveling at the start and end of sewing.

KNOWING YOUR SEWING MACHINE

SEWING SPEED CONTROL

Sewing speed is set by using the sewing speed control. The sewing speed control is moved horizontally to determine the amount of speed required.

Regardless of the setting, maximum speed may be limited depending on which pattern has been selected.



NOTE: When using the foot control, if the sewing speed control is set on the lower setting, the machine will not sew faster than the speed at which the speed control is set, even when the foot control is fully depressed.

HELPFUL MESSAGES

If an incorrect operation is made, a helpful message will be displayed. When a helpful message is displayed, fix the problem following the instructions below.

<p>The bobbin winder is moved to the right. → Move bobbin winder to left when it is not used.</p>	
<p>Buttonhole lever is not lowered or raised. → Lower buttonhole lever when sewing buttonholes. → Raise buttonhole lever when sewing stitch patterns.</p>	
<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>	

Audible signal	The buzzer sounds when
Beep	Normal operation
Beep-beep	Invalid operation
Beep-beep-beep	Invalid machine setting
Beep-beep-beep-beep-beep	The machine is jammed

KNOWING YOUR SEWING MACHINE

USEFUL SEWING TIPS

Various ways to achieve better sewing results are described below.
Refer to these tips when sewing.

1. Trial sewing

Use different stitch width and length for trial sewing. When you have finished, select the best looking stitch width and length for correct sewing.

For the trial sewing, use a piece of fabric and thread that are the same as those used for your project, and check the thread tension and stitch length and width. Since the results differ depending on the type of stitching and the number of fabric layers sewn, perform the trial sewing under the same conditions that will be used with your project.

2. Changing the sewing direction

When stitching reaches a corner, stop the sewing machine.

- 1). Leave the needle lowered in the fabric (under the needle plate) by pressing the needle position button.
- 2). Raise the presser foot lever, and then turn the fabric by using the needle as a pivot.
- 3). Lower the presser foot lever and continue sewing.

3. Sewing curves

- 1). Stop sewing, and then slightly change the sewing direction to sew around the curve.
- 2). When sewing along a curve while using a zigzag stitch, select a shorter length in order to obtain a finer stitch.

4. Sewing thick fabrics

*** If the fabric does not fit under the presser foot**

Raise the presser foot even higher to bring the presser foot to its highest position. Then place the fabric under the presser foot. (See page 4 to raise the presser foot.)

5. Sewing elastic fabric or the fabric that is easy to cause skipping stitches

Use ball point needle and longer stitch length. If necessary, add a layer of stabilizer under the fabric for better sewing.

6. Sewing thin fabric or silk

Some fine fabrics or silk can be slippery and more difficult to handle, so it can be helpful to place a light weight stabilizer underneath the fabric for easier sewing.

7. Sewing stretch fabrics

First, baste fabrics together, and then sew without stretching the fabric.

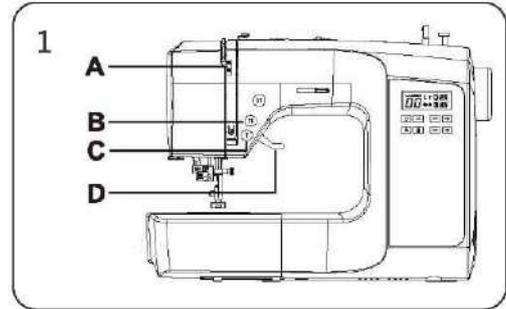
STARTING TO SEW

STRAIGHT STITCHING

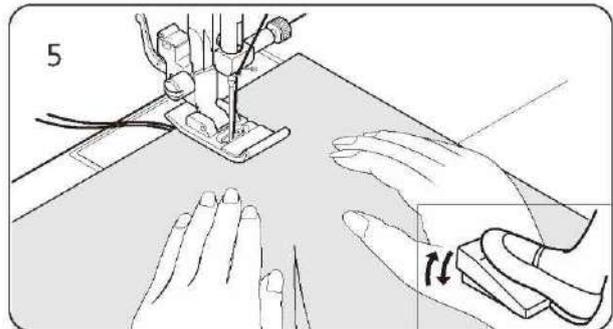
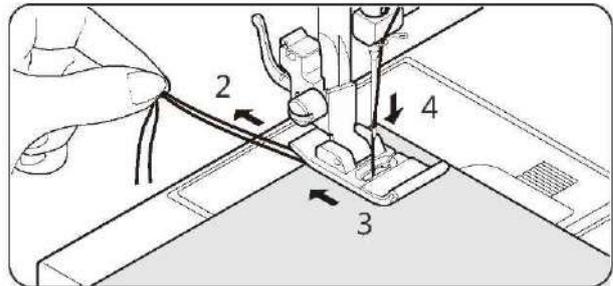
Straight stitch is most frequently used for every aspect of sewing. Lets learn how to sew following the steps below.

1. SETTINGS: Presser foot - All Purpose Foot (J)
Thread tension control - 4

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

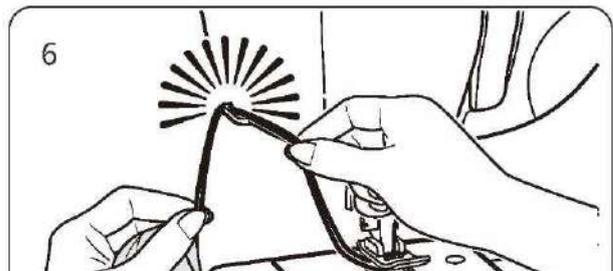


- A. Thread tension control
 - B. Needle position button
 - C. Reverse stitch button
 - D. Presser foot lifter
2. Pull both threads under the presser foot toward the back of the machine, leaving about 6" (15cm) clear.
 3. Place the fabric under the presser foot and lower the presser foot lifter.
 4. Turn the hand wheel toward you until the needle enters the fabric.
 5. Start the machine. Guide the fabric gently with your hands. When reaching the edge of the material, 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 handwheel toward you until the needle is at its highest position, then raise the presser foot, draw materials to the rear and cut off excess thread with the thread cutter located on the bottom of face cover as shown.

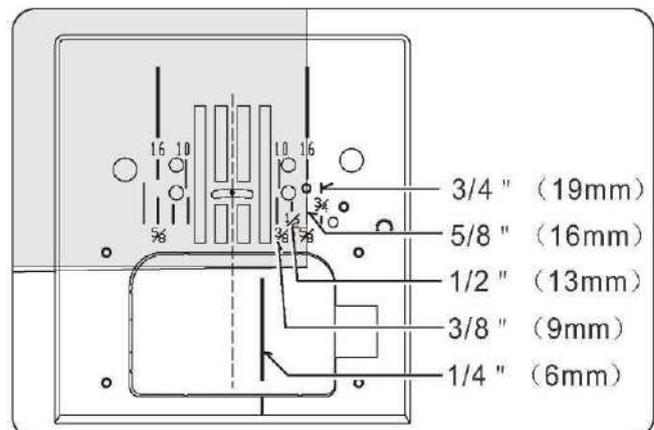


NOTE: To secure the stitching and avoid raveling, press the reverse stitch switch and sew a few stitches at the start and end of the seam.

KEEPING SEAMS STRAIGHT

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

The guide line on the bobbin cover plate is 1/4" (6mm) seam guide line which is used for piecing quilt blocks and also for narrow seams.



STARTING TO SEW

INSERTING ZIPPERS AND PIPING

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

INSERTING ZIPPERS

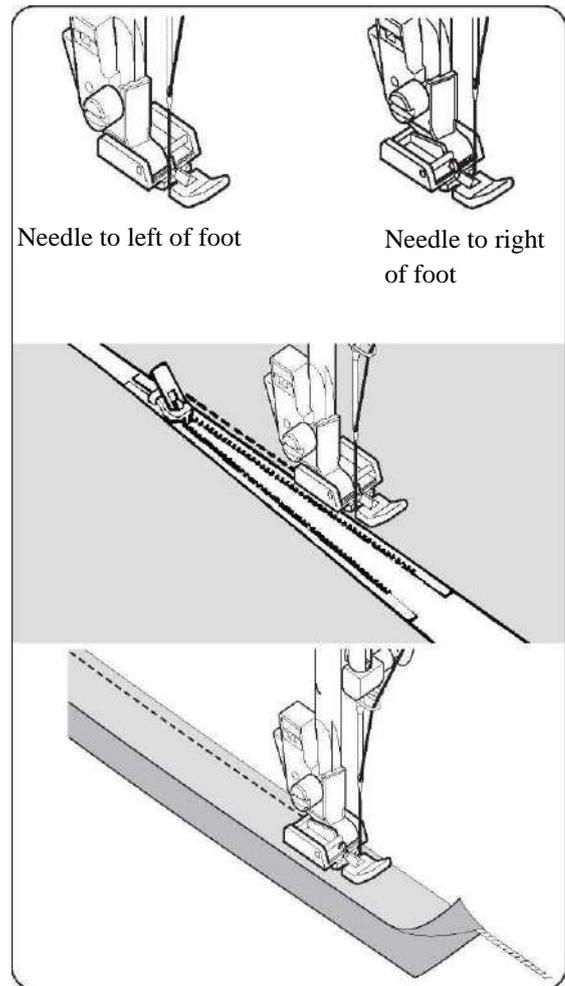
To sew down the right side, attach left side of zipper foot to presser foot holder so that the needle passes through the opening on the left side of the foot.

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

PIPING

To pipe soft furnishings, cover cord with a bias strip of fabric and pin or tack it to the main piece of fabric. Attach right side of zipper foot to foot holder so that needle passes through the opening on the right side of the foot.

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

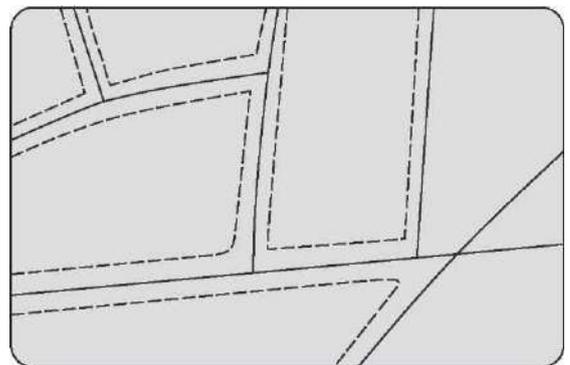


HAND-LOOK QUILTING STITCH



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

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



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

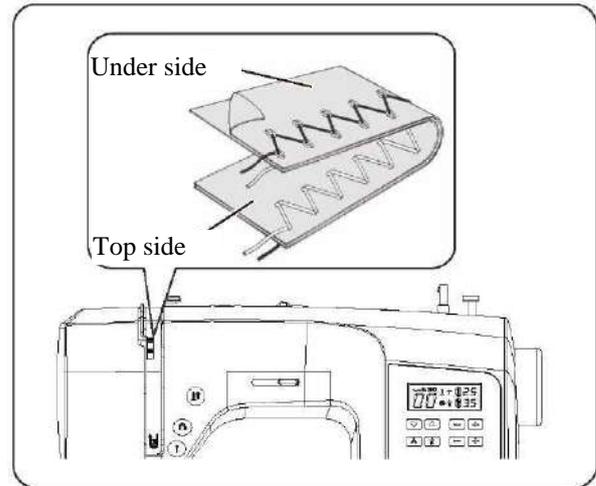
STARTING TO SEW

ZIGZAG STITCHING

SETTINGS: Presser foot – All Purpose Foot (J)
: 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 Thread Tension Control.

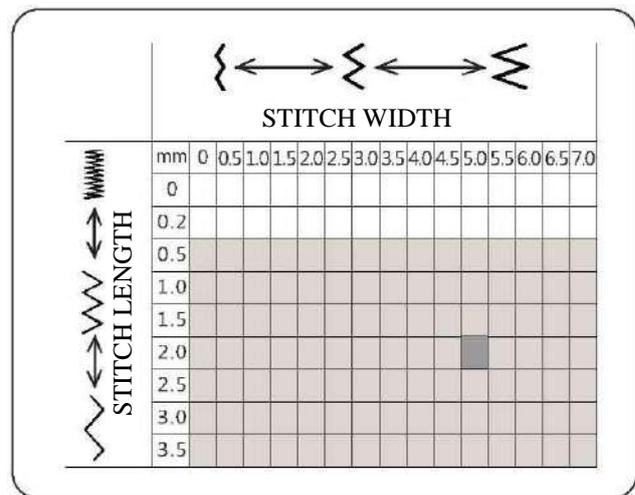


ADJUSTING STITCH WIDTH AND LENGTH

 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 indicate all the possible personal preference options available to set manual.

NOTE: The values shown in the chart are actual sewing lengths and widths and do not correspond to the scale and number markings on the sewing machine.



SATIN STITCH

This is a closely spaced attractive stitch for applique bar-tacking, etc. Slightly loosen the top thread tension and manually adjust the stitch length between 0.5 and 1.5 for satin stitching. Use a backing of stabilizer or interfacing to help 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.



STARTING TO SEW

BLIND HEM STITCH

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

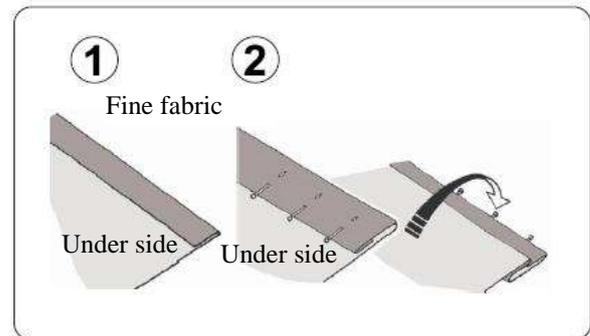
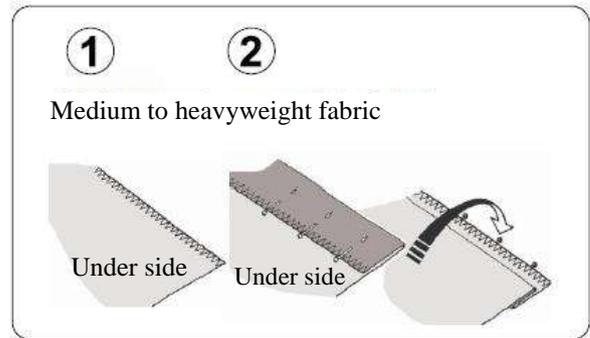
Settings: Presser foot - Blind Hem Foot (H)

Thread Tension Control: 4

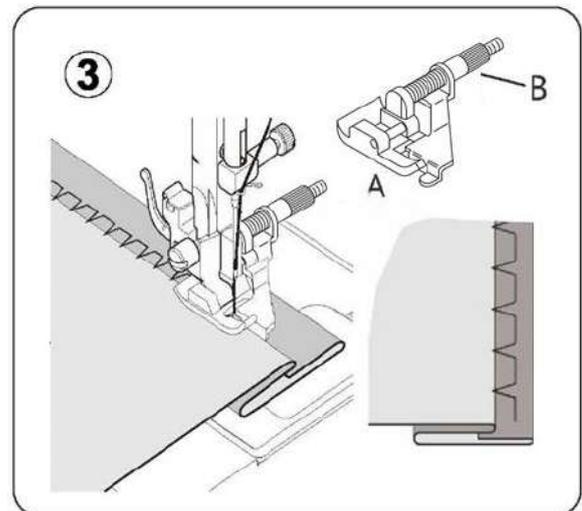
 --Regular blind stitch for woven fabrics

 --Elastic blind stitch for stretch 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 with the wrong side up.



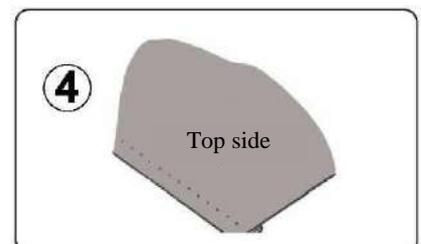
3. Place the fabric under the foot. Turn the handwheel towards you by hand until the needle swings fully to the left. It should just pierce the fold of the fabric. If it does not, adjust the guide (B) on the Blind Hem Foot (A) so that the needle just pierces the fabric fold and the guide just rests against 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 hems. Always make a sewing test first.

STARTING TO SEW

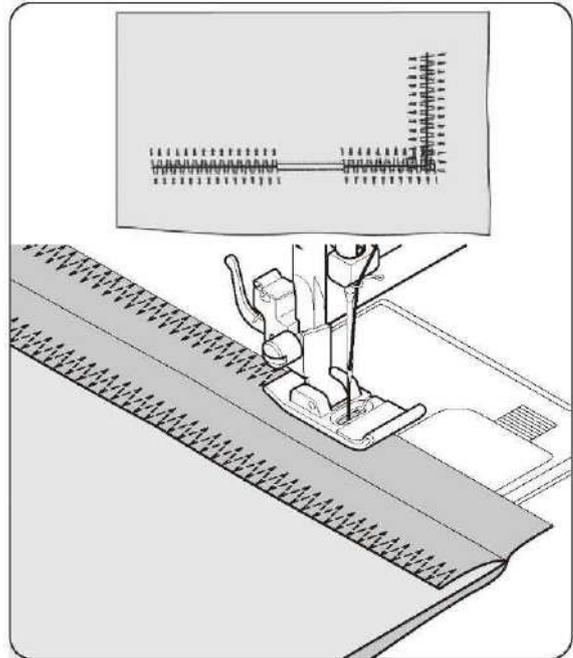
MULTI-STITCH ZIGZAG

SETTINGS: Presser foot - All Purpose Foot (J)
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, patch-work and attaching flat elastic.

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

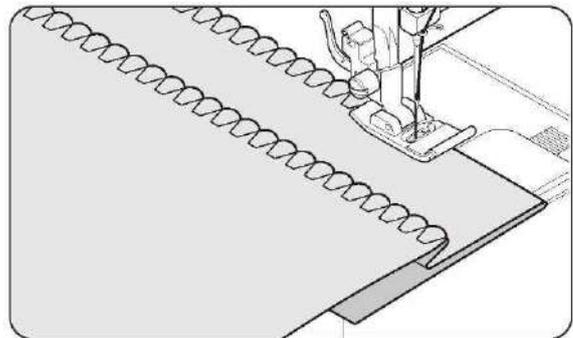


PICOT HEM STITCH

SETTINGS: Presser foot - All Purpose Foot (J)
Thread tension control - 4

Turn under the raw edge and press. Place the fabric right side up so that the zigzag part of the stitch sews just over the folded edge, pulling the fabric in to form a shell hem. Trim away excess fabric close to the stitching line.

Helpful Hint: For a pleasing appearance experiment with different width, length and tension settings.



SEWING ON A BUTTON

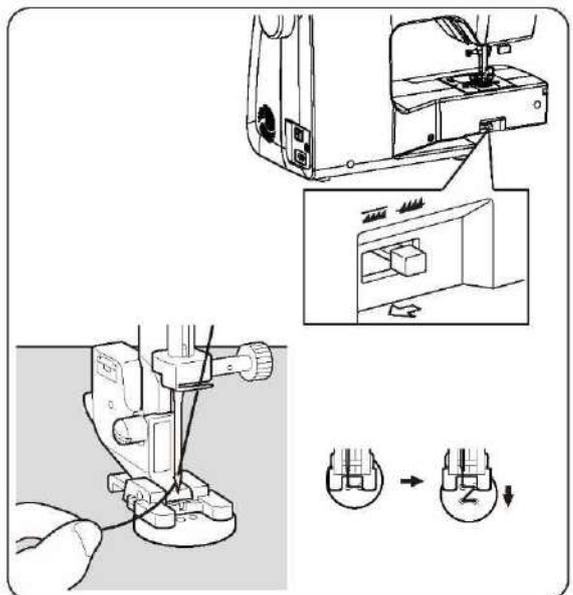
SETTINGS: Presser foot - Button Sewing Foot (O)
Feed teeth control - 

Push the lever in the direction of the arrow to drop the feed teeth, Attach Button Sewing Foot (O).

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 button. Adjust width if required. Sew 10 stitches across.

When attaching four-hole buttons, first sew the two holes closest to you. Then, slide the button so that the needle goes into the two holes toward the rear of the sewing machine, and then sew them in the same way.

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



STARTING TO SEW

DECORATIVE AND STRETCH STITCHES

SETTINGS: Presser foot - All Purpose Foot (J)
or Satin Stitch Foot (Z)
Thread tension control - 4

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

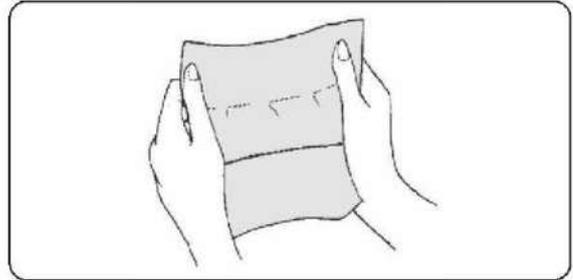
STRAIGHT STRETCH STITCH



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.

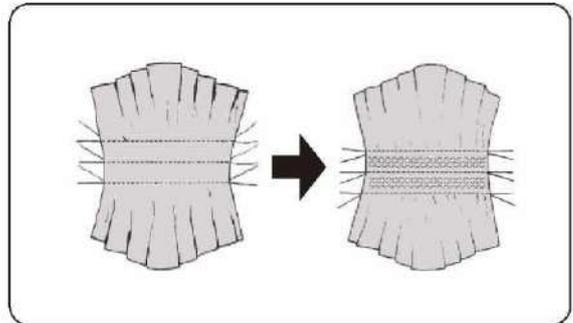


HONEYCOMB STITCH



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

1. For smocking, first make several rows of gathers across the fabric that you wish to smock.
2. Cut an underlay fabric (such as organdy) and place it under the shirring.
3. Sew the honeycomb stitch over the gathered rows, securing them in place.

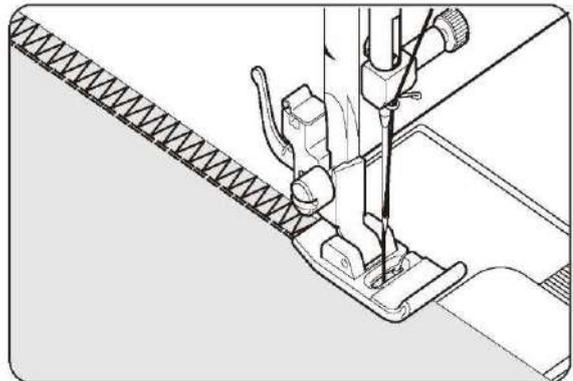


OVEREDGE STITCH



This is the same type stitch used by the garment industry in making sportswear - it forms and finishes the seam in one operation.

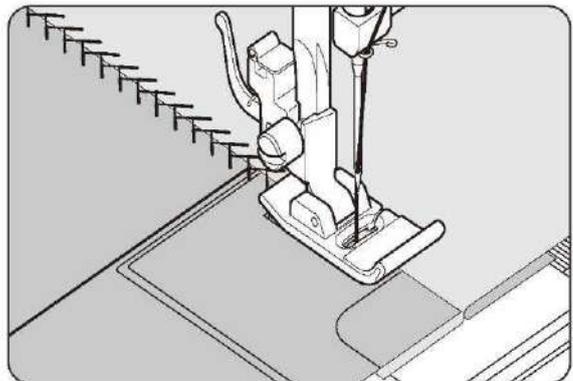
It's very effective for use in repairing raw or worn seams of garments.



FEATHER STITCH



The pleasing appearance of this stitch enables it to be used for decorative topstitching or for attaching laces and trims. It is also ideal for quilting applications and edge-joining.



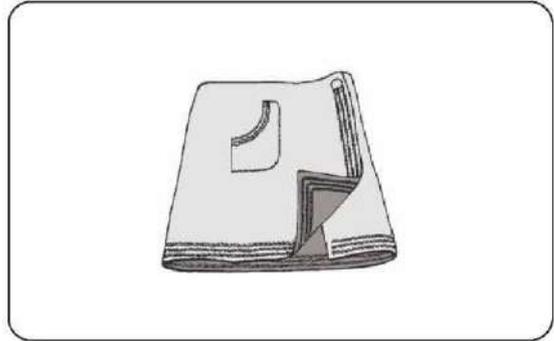
STARTING TO SEW

REINFORCED ZIGZAG STITCH



The reinforced zigzag stitch, is primarily used for a decorative topstitch. It is ideal for edging neck-bands, armholes, sleeves and hems.

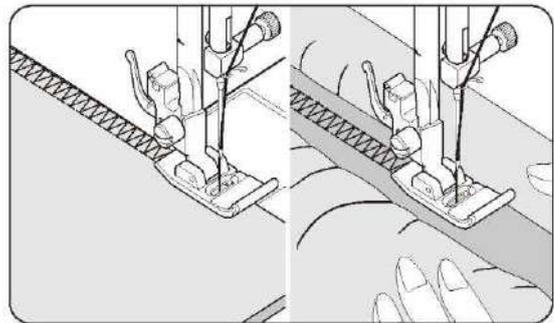
When manually adjusted to a very narrow width, it also can be used for sewing high stress seams.



DOUBLE OVERLOCK STITCH



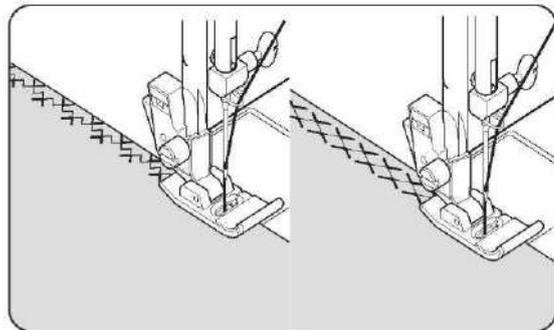
The Double overlock stitch has three main uses. It is perfect for attaching flat elastic, for overcasting, and for seaming and overcasting in one operation. It is primarily used on slightly stretch fabrics and non-stretch fabrics such as linen, tweed, and medium to heavy-weight cotton.



CRISS-CROSS STITCH



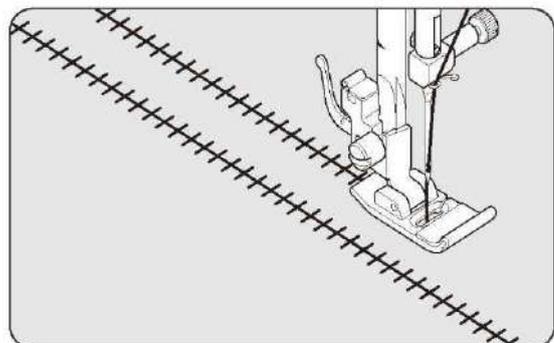
Used to sew and finish stretch fabrics or for decoration especially of borders.



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 to create holes in the stitch pattern.

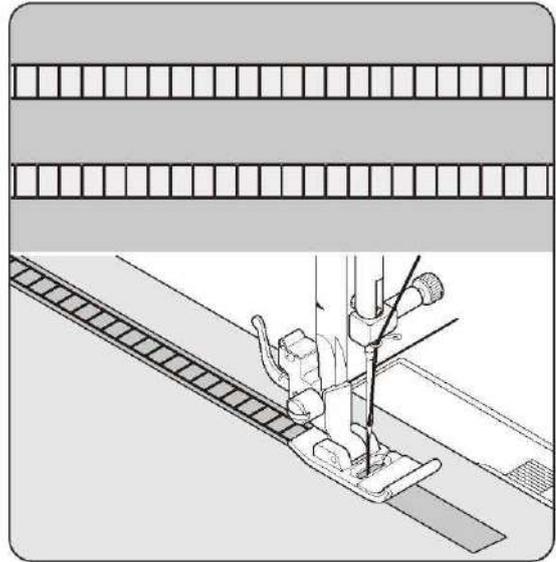


Helpful Hint: A slight + adjustment of the tension will increase the size of the hole when using a Wing Needle.

STARTING TO SEW

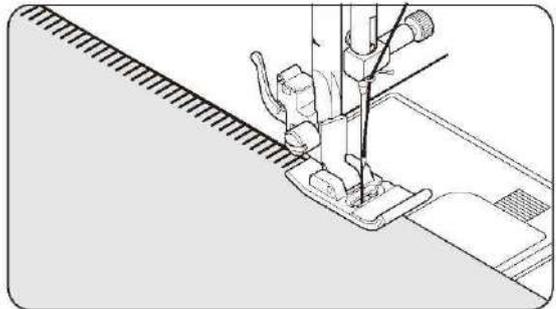
LADDER STITCH

The Ladder stitch is primarily used for drawn thread hemstitching. It can also be used for sewing over thin tape in a contrasting 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.



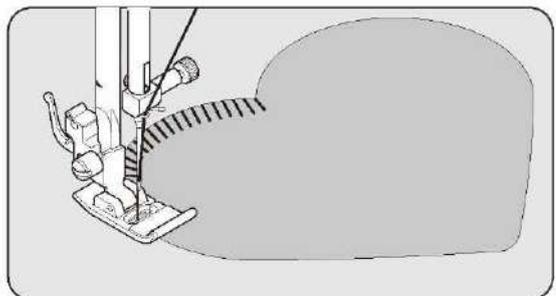
PIN STITCH

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



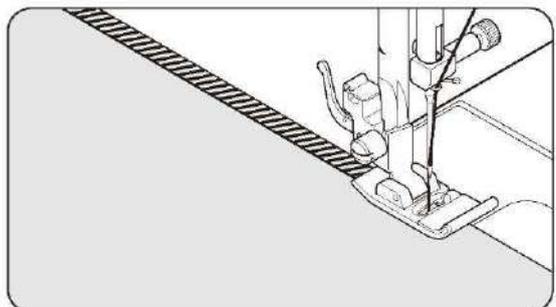
BLANKET STITCH

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



SLANT PIN STITCH

Excellent for hemstitching projects like table linens. 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.

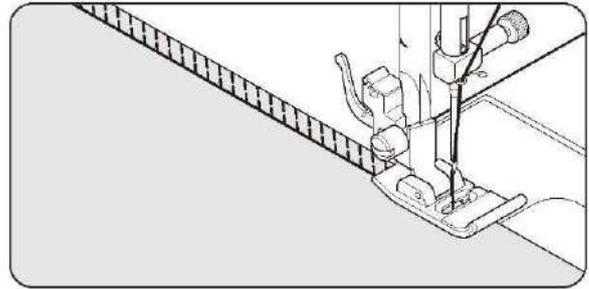


STARTING TO SEW

SLANT OVEREDGE STITCH



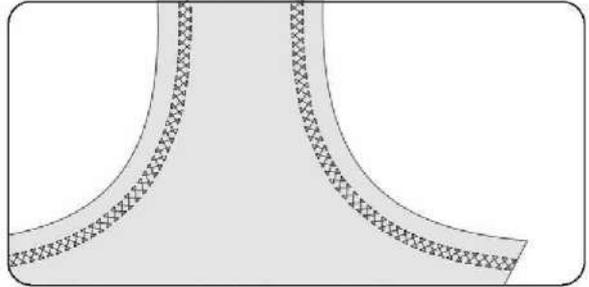
Seams and overcasts in one operation to produce a narrow, supple seam, particularly suited to swimwear, sportswear, T-shirts, stretch nylon, jersey and cotton jersey.



CROSSED STITCH



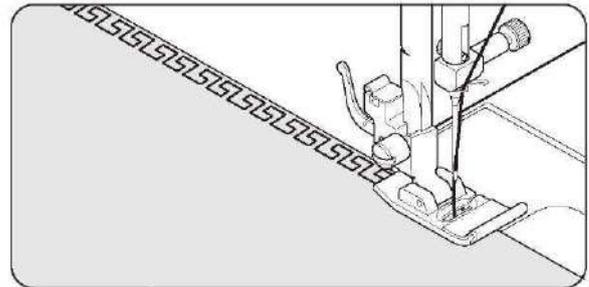
Use to sew and finish elastic fabrics or for decorative work.



GREEK KEY STITCH



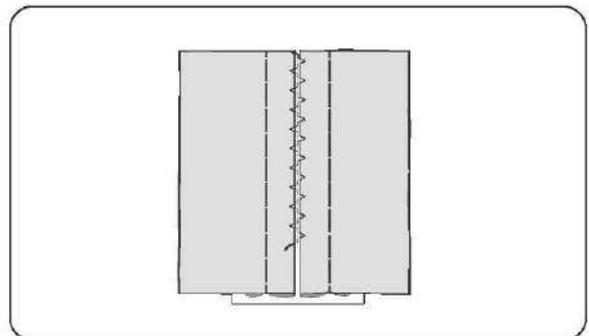
A traditional pattern suited for decorative borders and edge finishing.



BRIDGING STITCH



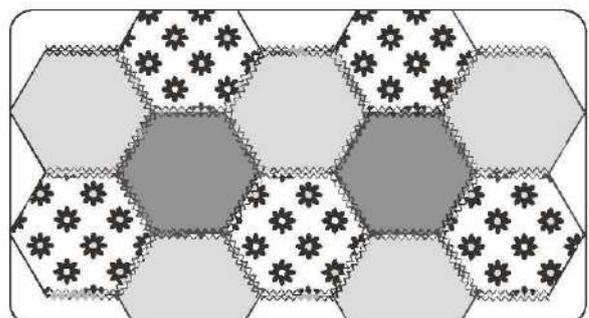
This is a popular decorative stitch. It can also be used for joining two separate pieces of fabric, leaving a little space in between. To attach two separate pieces of fabric together, leave a little space in between. To prepare the fabric: Fold under the seam allowances on the cut edges, and press. Baste folded edges and place over lightweight removable stabilizer with about 1/8" (0.3 cm) space between. Stitch over the 1/8" (0.3 cm) allowance, just catching the fabric fold on both sides with needle. Remove basting and stabilizer.



DOUBLE TRIANGLE STITCH



Used mainly for decorative machine stitching.

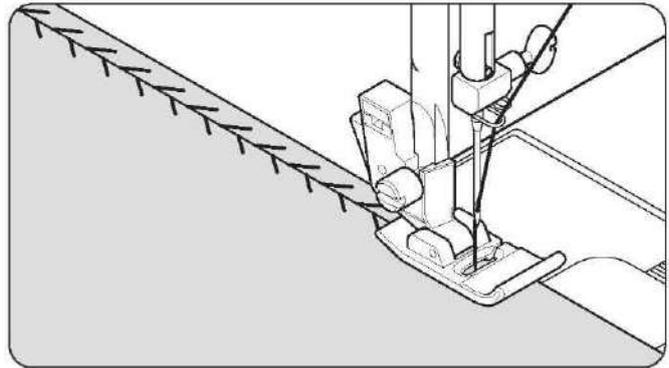


STARTING TO SEW

THORN STITCH



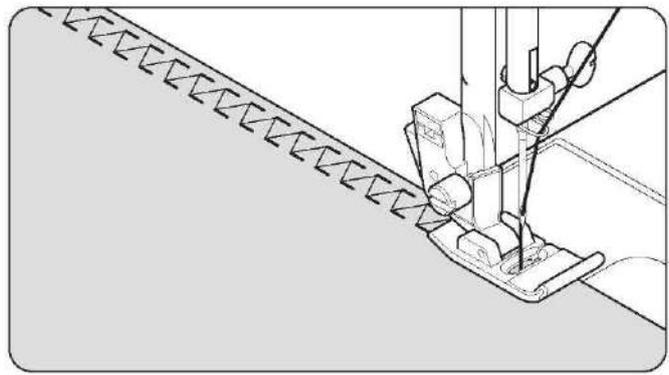
It is a versatile stitch used for joining fabric pieces and as a decorative embellishment.



STRAIGHT FEATHER STITCH



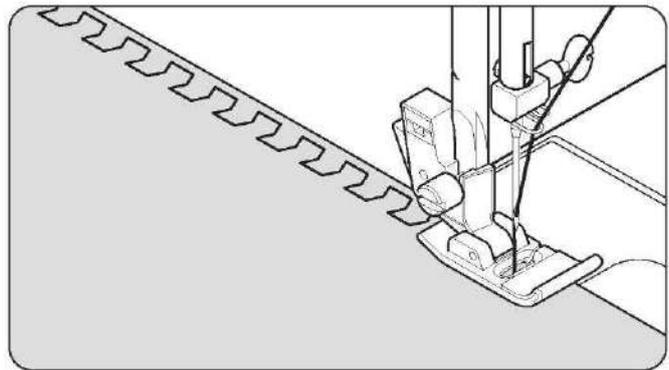
Use to create decorative embellishments.



CHEVRON STITCH



Use to create decorative embellishments.



STARTING TO SEW

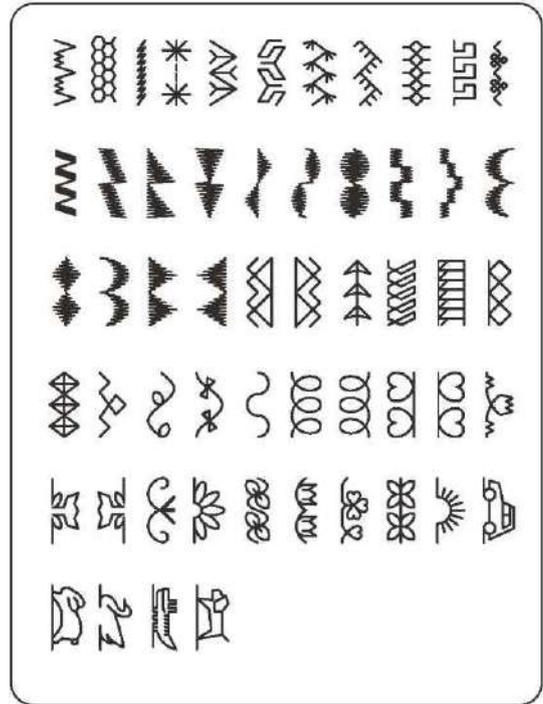
MORE DECORATIVE STITCHES

SETTINGS: Presser foot - All Purpose Foot (J)
or Satin Stitch Foot (Z)
Thread tension control - 4 or 3

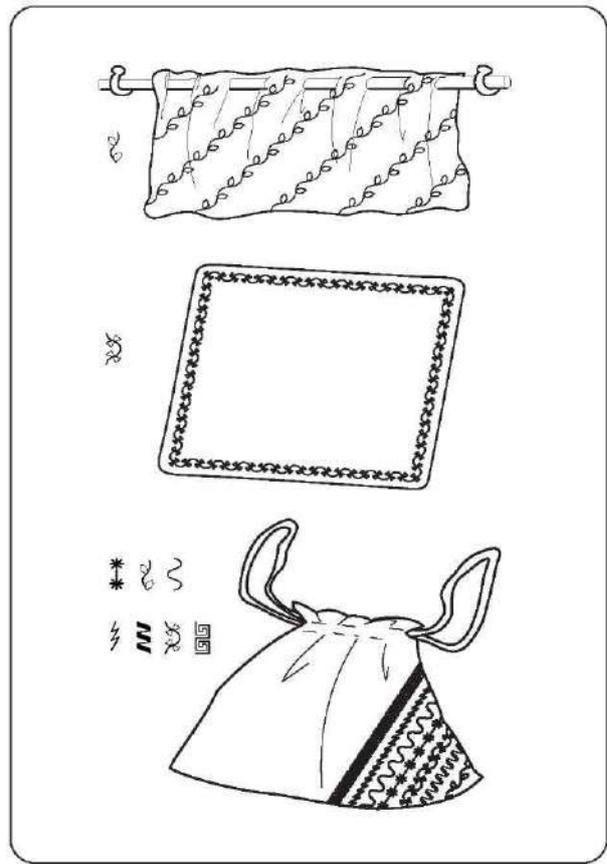
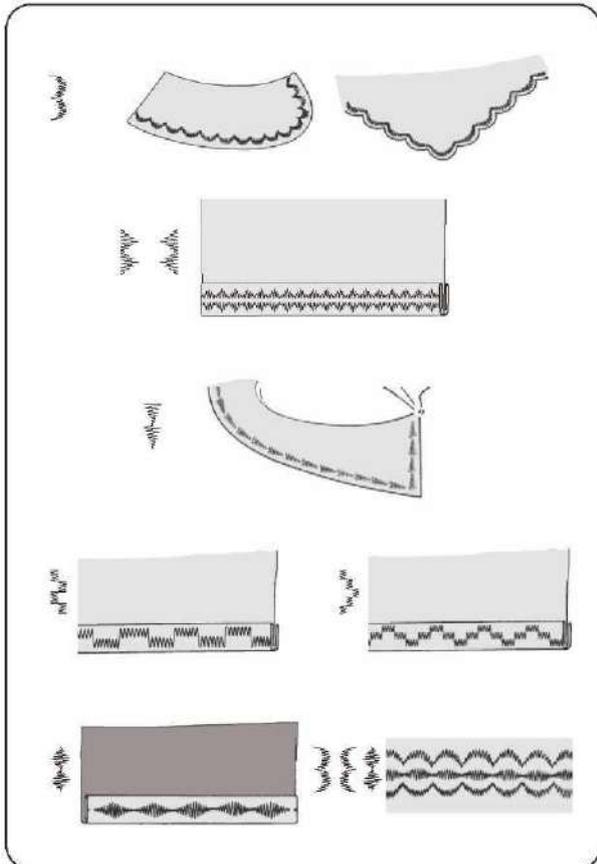
Following are examples of how to use and sew these stitches. You can use some other decorative stitches in the same way. You should carry out a test sewing on an extra piece of the fabric to check the decorative pattern and make any adjustments desired.

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.

For best results, stabilize fabric with a tear-away or wash-away stabilizer underneath when stitching.



Helpful Hint: Bobbin thread should not appear on the top side of the fabric, so it may be necessary to slightly lower the tension setting.



STARTING TO SEW

BUTTONHOLE SEWING

AUTOMATIC BUTTONHOLE

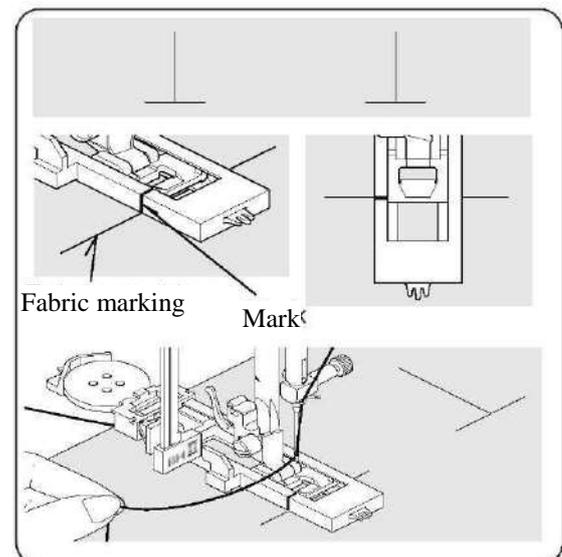
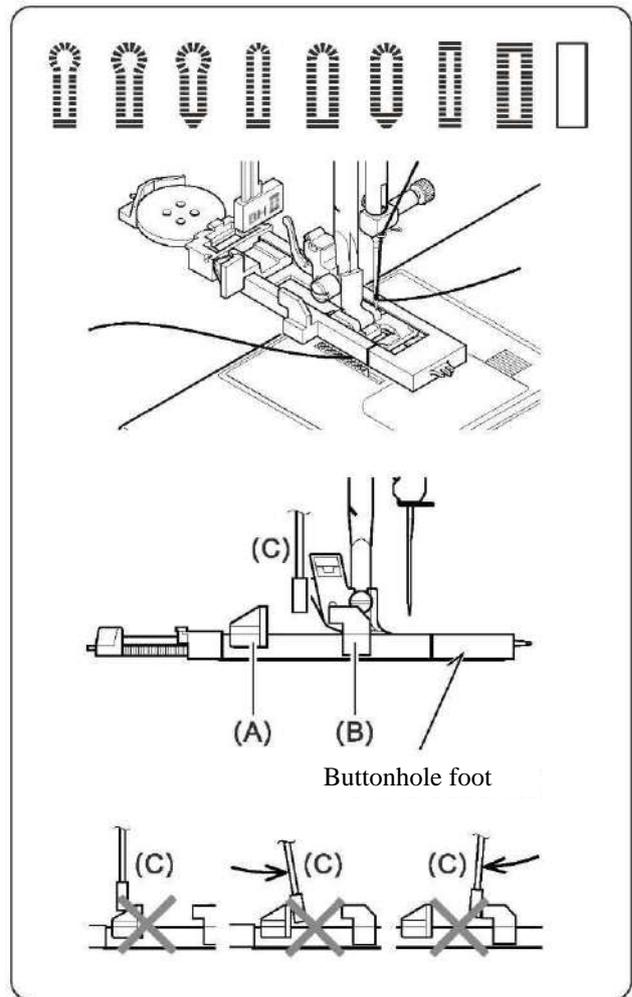
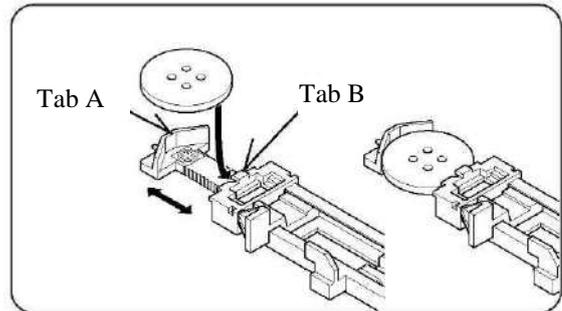
USING BUTTONHOLE FOOT

Your machine offers you a variety of buttonhole styles, sewn by a system that measures the size of the button and calculates the size of buttonhole required. All of this is done in one easy step.

PROCEDURE

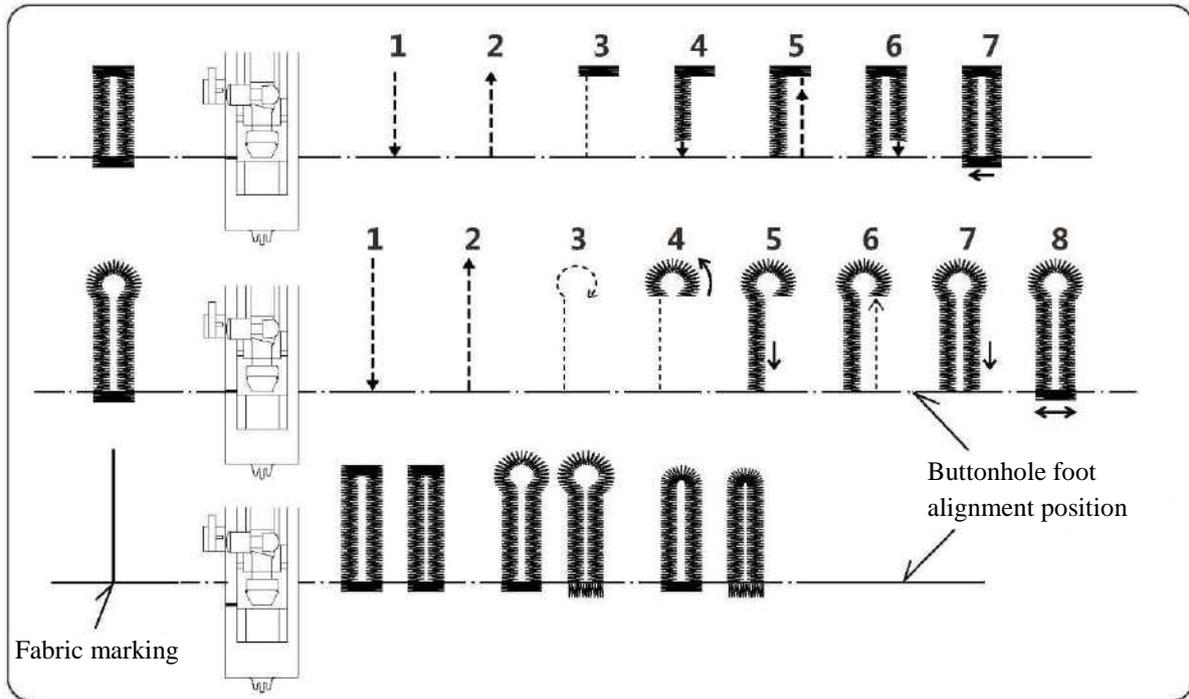
- * Use an interfacing in the area of the garment where buttonholes are placed. Stabilizer or regular interfacing can be used.
- * Make a practice buttonhole on a scrap of the fabric you are using. Then try the buttonhole with the selected button.

1. Select one of buttonhole patterns.
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. Lower 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.

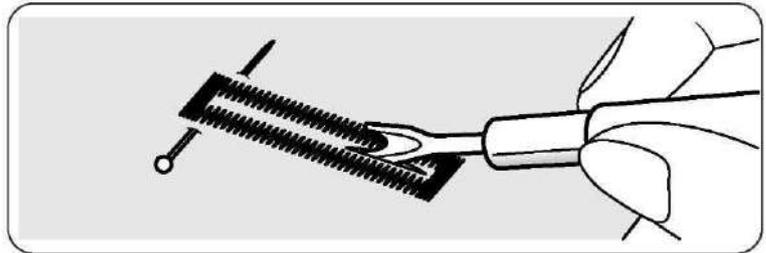


STARTING TO SEW

* Sewing will be completed automatically in the following order.



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

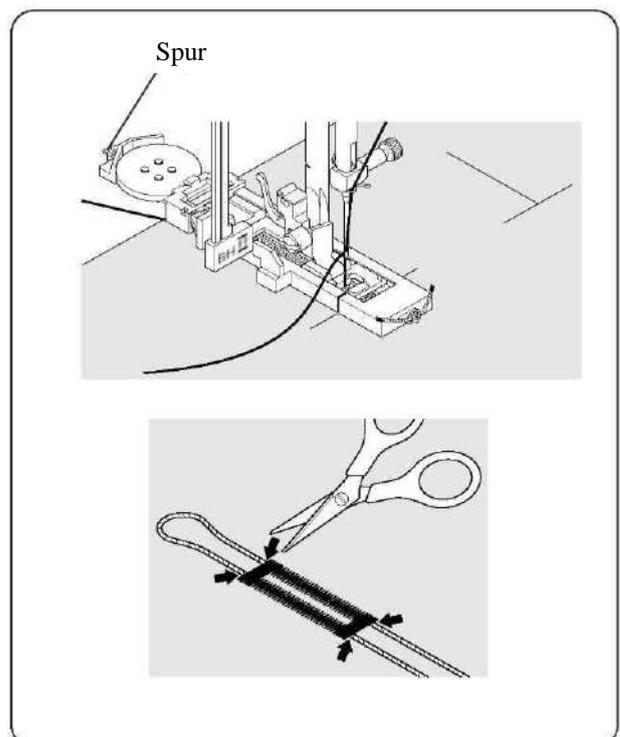


CORDED BUTTONHOLES

Hook filler cord (such as crochet thread or topstitching thread) 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.

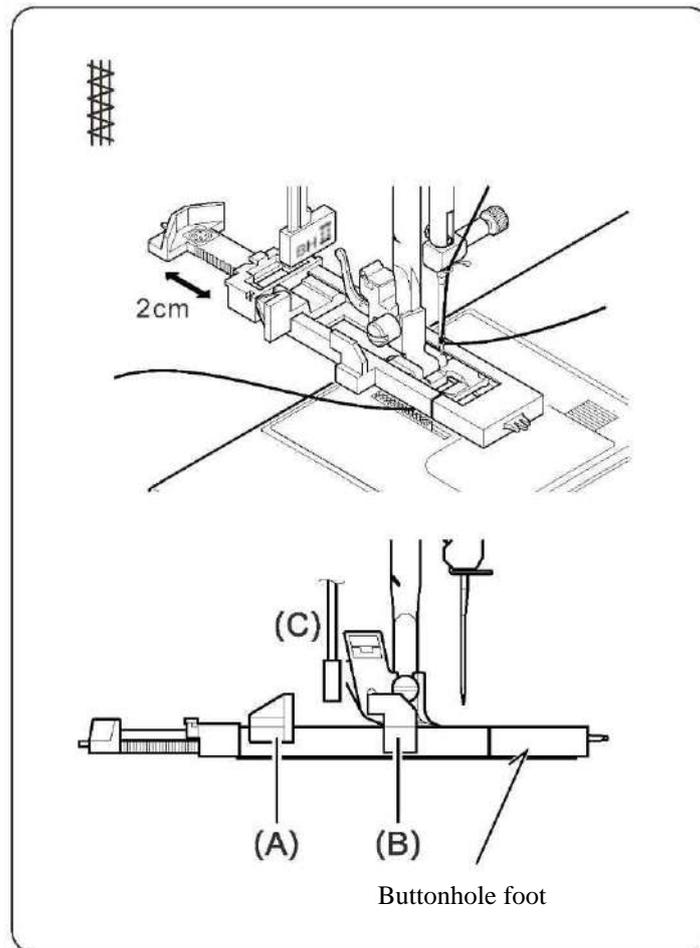


STARTING TO SEW

DARNING STITCH



1. Select the darning stitch pattern.
2. Pull the button holder open about 2cm.



3. Replace the presser foot with the buttonhole foot. (Refer to “Changing presser foot” on page 11.)
4. Lower the buttonhole lever (C) so that it drops down vertically between the stoppers (A) and (B).

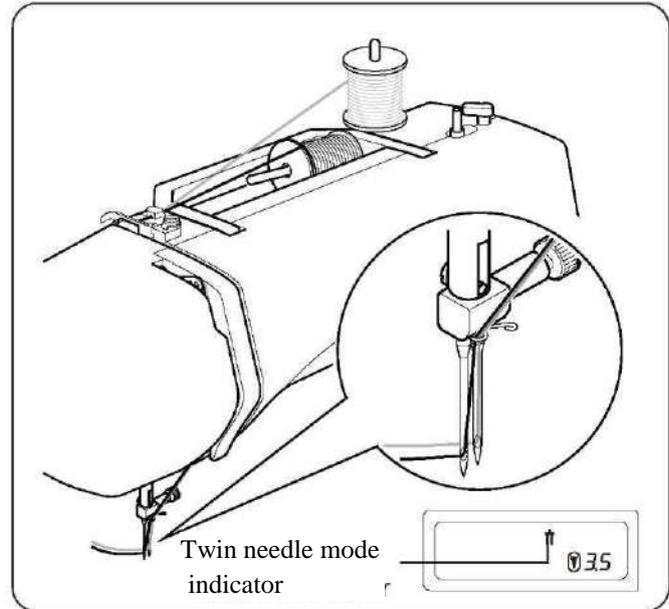
STARTING TO SEW

TWIN NEEDLE

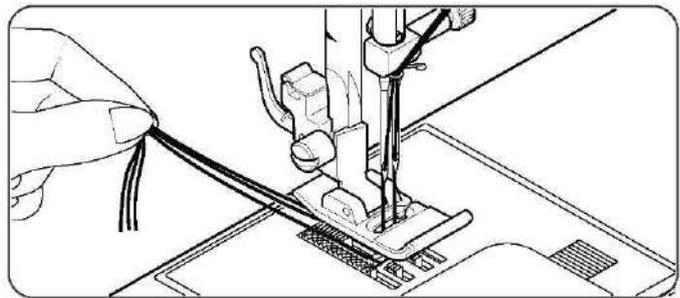
IMPORTANT: When using a twin-needles, set stitch width at 3.5 or less, or otherwise needle may be broken.

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

1. Insert the auxiliary 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" (15 cm) of thread.

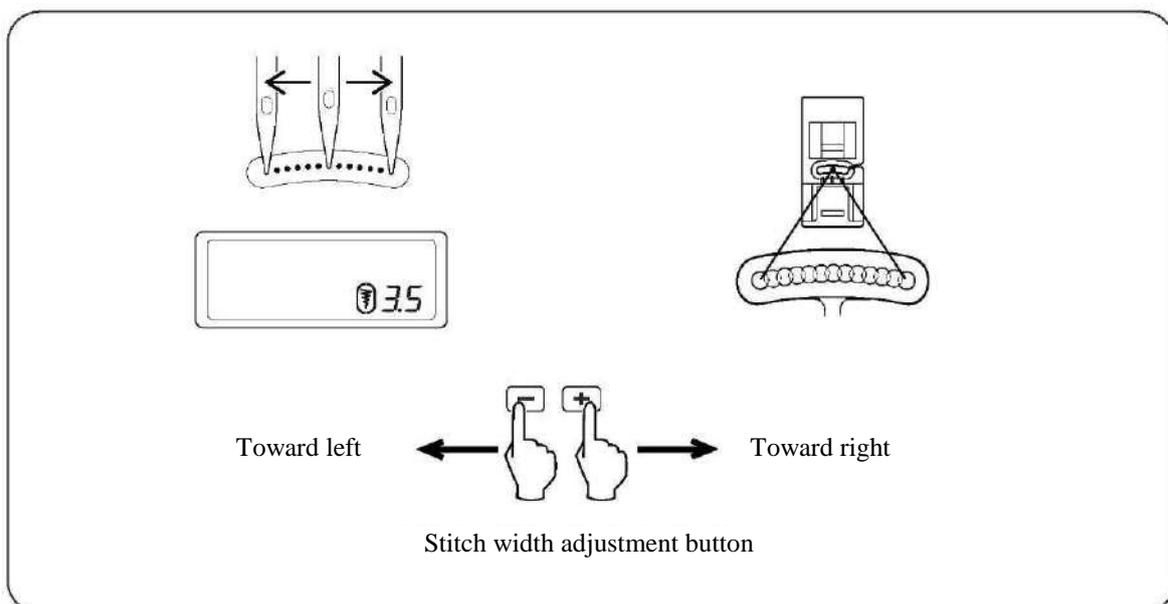


NOTE: Needle threader cannot be used to thread the twin needle.



STRAIGHT STITCH NEEDLE POSITION

The position of the needle when sewing straight stitch may be adjusted to anyone of 13 different positions with the Stitch Width Control as illustrated:



STARTING TO SEW

CLEANING THE FEED TEETH AND SHUTTLE AREA

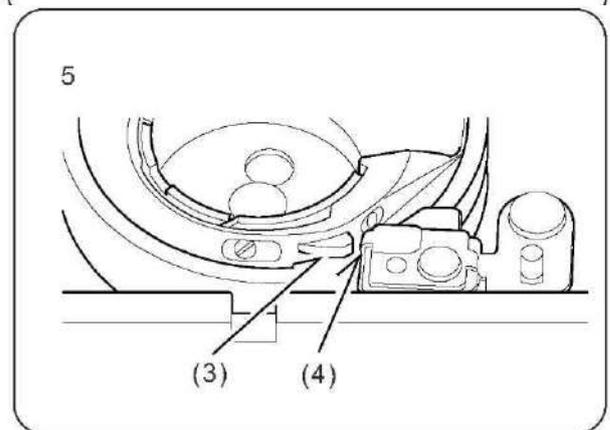
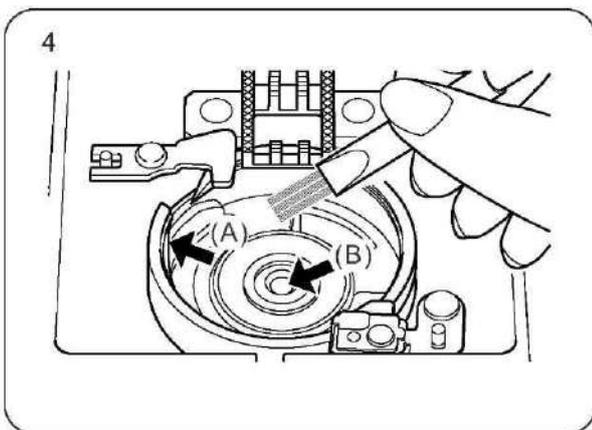
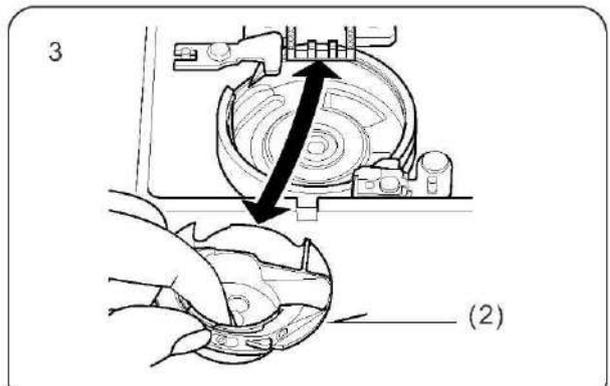
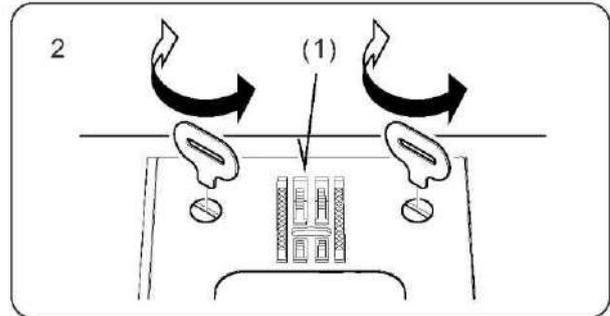
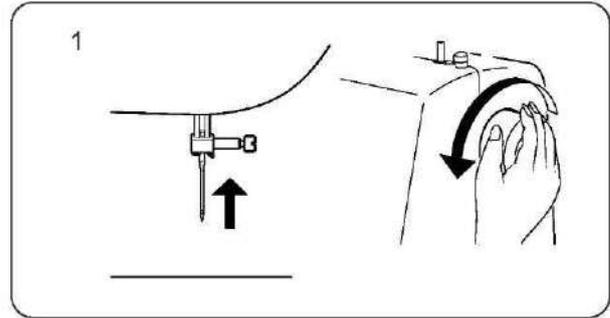


CAUTION

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 the needle plate (1).
3. Remove the bobbin case (2).
4. Clean the feed teeth and shuttle area with the lint brush. Put one drop of sewing machine oil on the shuttle race as indicated by the arrows (A,B).
5. Replace the bobbin case with the projection (3) positioned against the spring (4). Replace the needle plate.



PERFORMANCE CHECKLIST

GENERAL PROBLEMS

Machine does not sew.

- * Power switch is turned off. - Turn on the switch.
- * Buttonhole lever is not raised when sewing stitch patterns. - Raise the buttonhole lever.
- * Buttonhole lever is not lowered when sewing buttonhole. - Lower the buttonhole lever.
- * Bobbin winder is engaged. - Disengage the bobbin winder (see page 5).

Machine jams/knocks.

- * Thread is caught in the bobbin case. - Clean the bobbin case (see page 32).
- * Needle is damaged. - Replace the needle (see page 10).

Fabric does not move.

- * Presser foot is not lowered - Lower the presser foot.
- * Stitch length is too short - Lengthen stitch length.

STITCHING PROBLEMS

Machine skips stitches.

- * Needle is not all the way up into needle clamp. - Replace the needle (see page 10).
- * Needle is bent or blunt. - Replace the needle (see page 10).
- * Machine is not threaded correctly. - Threading the thread again (see page 7).
- * Thread is caught in the bobbin case. - Clean the bobbin case (see page 32).

Stitches are irregular.

- * Needle size is not correct for thread and fabric. - Reinstall the needle (see page 10).
- * Machine is not threaded correctly. - Threading the thread again (see page 7).
- * Top thread tension is too loose. - Adjust the top tension (see page 11).
- * Fabric is being pulled or pushed against machine feeding action. - Guide it gently.
- * Bobbin has not been wound evenly. - Rewind the 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. - Reinstall the needle (see page 10).
- * Needle is not all the way up into the needle clamp. - Replace the needle (see page 10).
- * Twin needle is being used but stitch width is set too wide. - Adjust the stitch width (see page 31).
- * Too much thread appears on the underside of stitching. - Clean the unnecessary thread.
- * Upper thread not correctly thread. - Threading the thread again (see page 7).

PERFORMANCE CHECKLIST

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 inches (10 cm) and hold until a few stitches are formed.

Needle thread breaks.

- * Machine is not threaded correctly. - Threading the thread again (see page 7).
- * Top thread tension is too tight. - Adjust the top tension (see page 11).
- * Needle is bent. - Replace needle (see page 10).
- * Needle size is not correct for thread and fabric. - Reinstall the needle (see page 10).

Bobbin thread breaks.

- * Bobbin case is not threaded correctly. - Threading the bobbin thread again (see page 6).
- * Lint accumulates in the bobbin case or the shuttle race. - Remove lint (see page 32).

Fabric puckers.

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

We reserve the right to change the machine equipment and the assortment of accessories without prior notice, or make modifications to the performance or design. Such modifications, however, will always be to the benefit of the user and the product.

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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.

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