

INSTRUCTION BOOK

MODEL 4623LE Plus

IMPORTANT SAFETY INSTRUCTIONS

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

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. Always unplug this appliance from the electric outlet immediately after using and before cleaning.
2. Always unplug before relamping. Replace bulb with same type rated 12 V a.c., 5 Watts.
3. Do not reach for the appliance that has fallen into water. Unplug immediately.
4. Do not place or store appliance where it can fall or be pulled into a tub or sink. Do not place in or drop into water or other liquid.

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

1. Do not allow to be used as a toy. Close attention is necessary when this appliance is used by or near children.
2. Use this appliance only for its intended use as described in this manual. Use only attachments recommended by the manufacturer as contained in this manual.
3. Never operate this appliance 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 appliance to the nearest authorized dealer or service center for examination, repair, electrical or mechanical adjustment.
4. Never operate the appliance with any air opening blocked. Keep ventilation openings of the sewing machine and foot controller free from accumulation of lint, dust, and loose cloth.

5. Never drop or insert any object into any opening.
6. Do not use outdoors.
7. Do not operate where aerosol (spray) products are being used or where oxygen is being administered.
8. To disconnect, turn all controls to the off (“○”) position, then remove plug from outlet.
9. Do not unplug by pulling on cord. To unplug, grasp the plug, not the cord.
10. Keep fingers away from all moving parts. Special care is required around the sewing machine needle.
11. Always use the proper needle plate. The wrong plate can cause the needle to break.
12. Do not use bent needles.
13. Do not pull or push fabric while stitching. It may deflect the needle causing it to break.
14. Switch the sewing machine off (“○”) when making any adjustment in the needle area, such as threading needle, changing needle, threading bobbin, or changing presser foot, and the like.
15. Always unplug the sewing machine from the electrical outlet when removing covers, lubricating, or when making any other user servicing adjustments mentioned in the instruction manual.

SAVE THESE INSTRUCTIONS

Designs and specifications are subject to change without prior notice.

Do's and Don'ts

1. Always be aware of the up-and-down movement of the needle and do not turn your attention from the machine while it is running.
2. When leaving the sewing machine unattended, the main switch of the machine must be switched off or the plug must be removed from the socket-outlet.
3. When servicing the sewing machine, or when removing covers or changing lamps, the machine must be disconnected from the supply by removing the plug from the socket-outlet.
4. Do not place anything on the foot control, otherwise the machine will start inadvertently, or the control or motor may burn out.
5. The maximum permissible power for the sewing lamp bulb is 5 watts.
6. When using your sewing machine for the first time, place a piece of waste fabric under the presser foot and run the machine without thread for a few minutes. Wipe away any oil which may have appeared.

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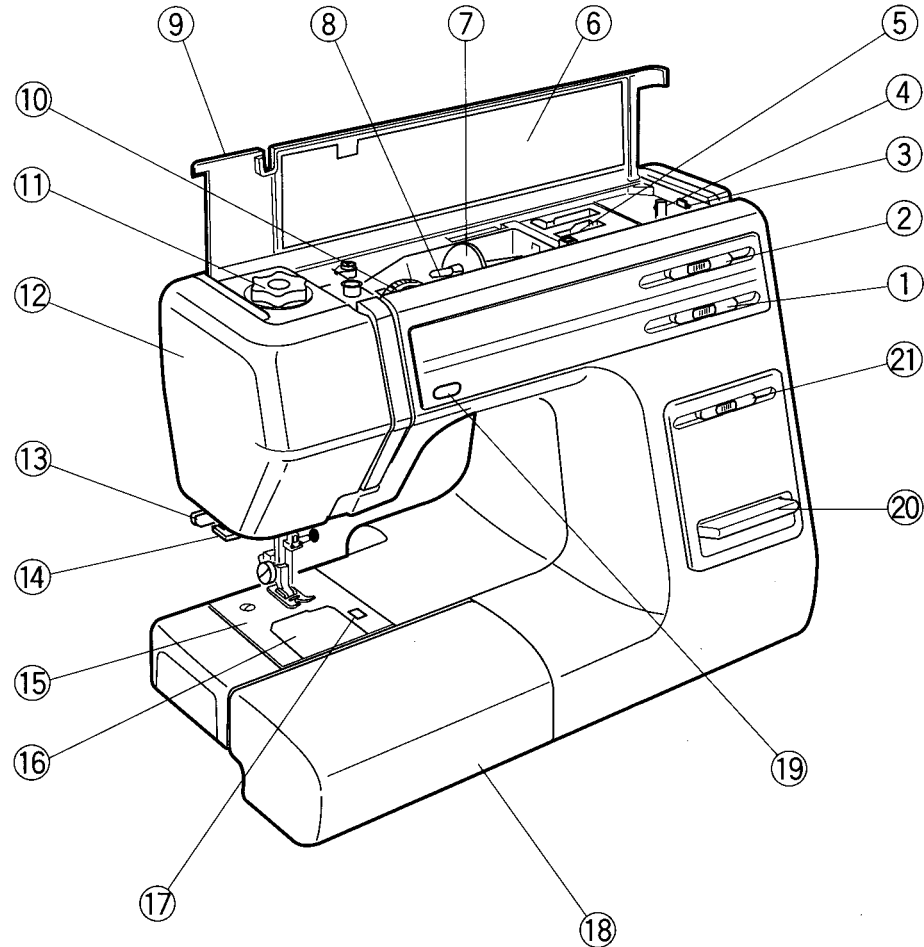
SECTION VI CARE OF YOUR MACHINE

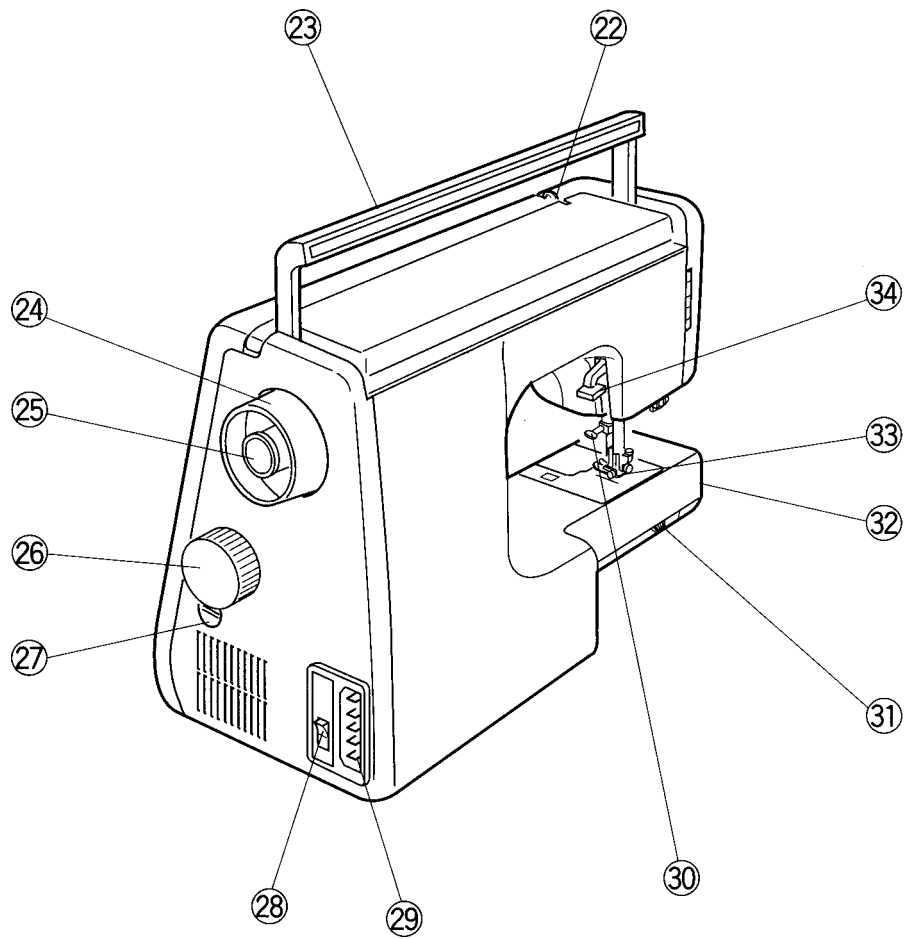
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SECTION I ESSENTIAL PARTS

Names of Parts

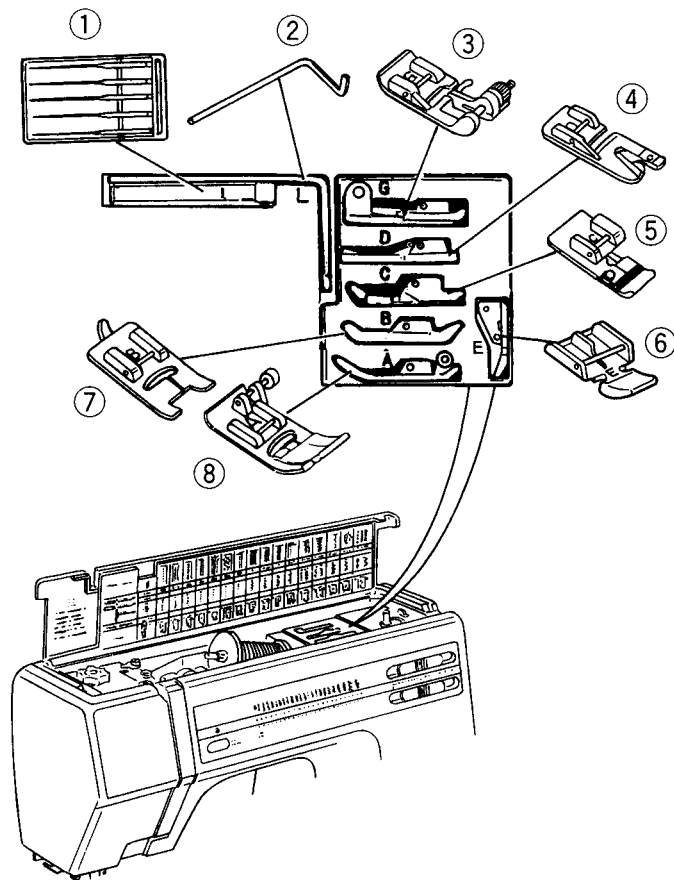
- ① Stitch length control
- ② Zigzag width control
- ③ Bobbin winder stopper
- ④ Bobbin winder spindle
- ⑤ Foot storage compartment
- ⑥ Flip-top sewing instruction panel
- ⑦ Spool holder (large)
- ⑧ Spool pin
- ⑨ Top cover
- ⑩ Thread tension dial
- ⑪ Pressure dial
- ⑫ Face plate
- ⑬ Buttonhole lever
- ⑭ Thread cutter
- ⑮ Needle plate
- ⑯ Hook cover plate
- ⑰ Hook cover plate release button
- ⑱ Extension table
(Accessory storage box)
- ⑲ Up/Down needle position button
- ⑳ Reverse stitch button
- ㉑ Speed setting lever





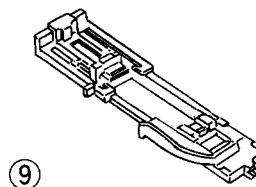
- ② Thread take-up lever
- ③ Carrying handle
- ④ Handwheel
- ⑤ Clutch knob
- ⑥ Pattern selector dial
- ⑦ Feed balance dial
- ⑧ Power switch
- ⑨ Machine socket
- ⑩ Needle clamp screw
- ⑪ Drop feed lever
- ⑫ Free arm
- ⑬ Presser foot
- ⑭ Presser foot lifter

Foot Storage Compartment



Each presser foot and pocket is lettered for easy identification and storage. To achieve optimum sewing results, use the foot recommended for each sewing technique.

- ① Needle case
- ② L. Quilter
- ③ G. Blind stitch hem foot
- ④ D. Hemmer foot
- ⑤ C. Overedge foot
- ⑥ E. Zipper foot
- ⑦ B. Transparent buttonhole foot
- ⑧ A. Zigzag foot
- ⑨ R. Automatic buttonhole foot

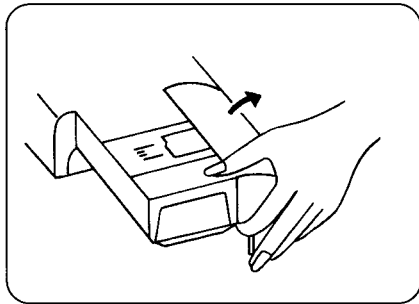


* The automatic buttonhole foot can be stored in the extension table.

Extension Table (Accessory Storage Box)

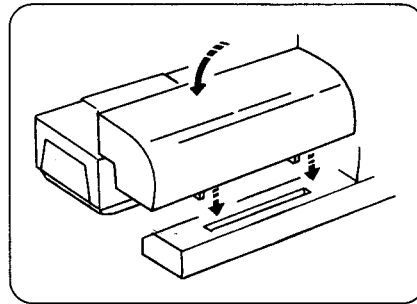
Extension Table

The extension table provides added sewing surface and can be easily removed for free arm sewing.



For free arm sewing

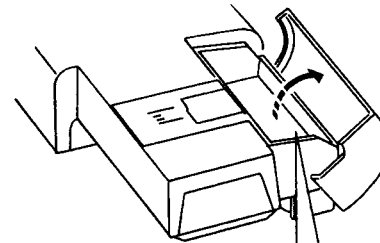
Lift out the extension table, as illustrated .



For attaching the table

Position the two pins of the storage box on the base slit and push down gently.

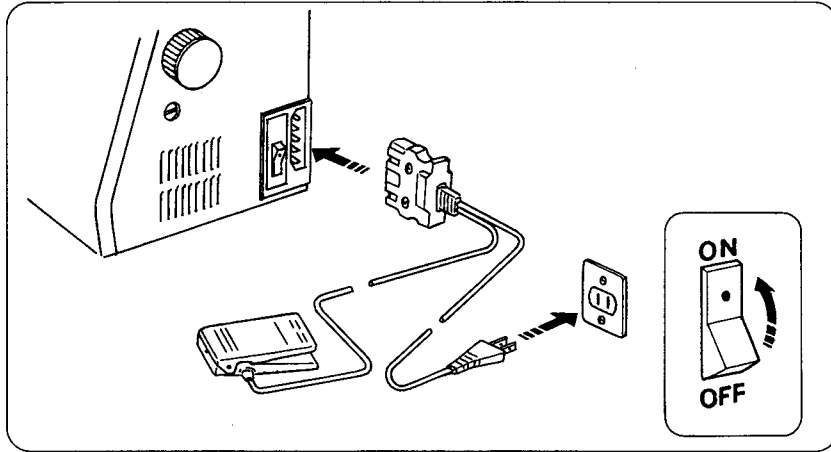
Accessory storage box



- Sewing accessoires are conveniently located under the extension table.

SECTION II GETTING READY TO SEW

Connecting the Machine to the Power Supply

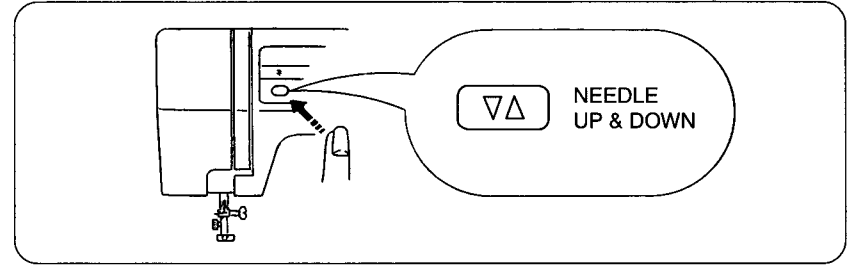


Before connecting the power, make sure the voltage and frequency of your electrical power conform to the machine.

Switch off the power, fit the nonreversible plug into the machine socket and plug the machine into the power supply.

Switch on the power.

Up/Down Needle Position Button



When you press this button, the needle will go up or down.

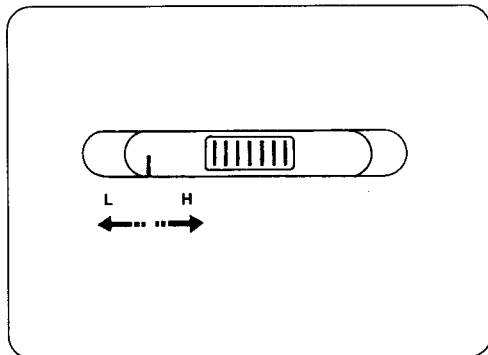
If the needle is up and you press this button, the needle will go down to its lowest position.

If the needle is down and you press this button, the needle will go to its highest position.

CAUTION: Do not press the foot control while you press the up/down needle position button.

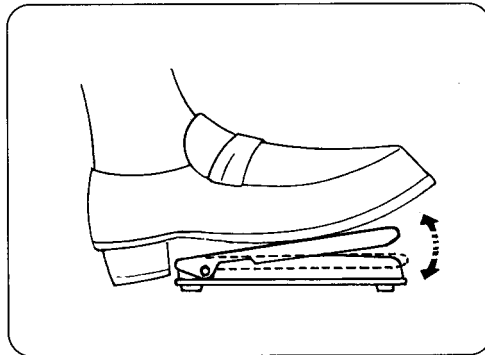
Controlling Sewing Speed

• Speed Setting Lever



The maximum sewing speed can be controlled by the speed setting lever. To increase the speed, slide the lever to the right. To decrease the speed, slide the lever to the left.

• Foot Control

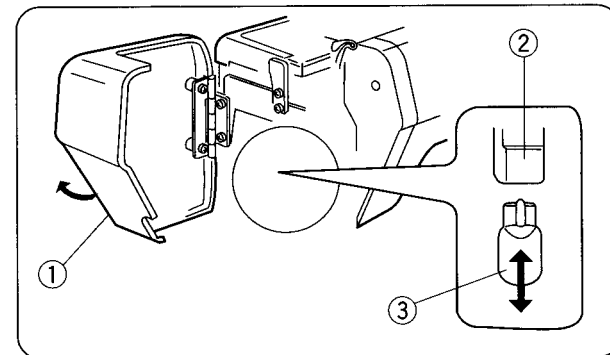


Sewing speed can be varied by the foot control. The harder you press on the control, the faster the machine runs.

Operating Instructions:

Foot controller Model 21245 is for use with sewing machine Model 4623LE. The symbol "O" of a switch indicates the "off" position of a switch. For appliances with 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 it 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.

Sewing Light



To remove

1. Open the face plate.
2. Pull down the light bulb.

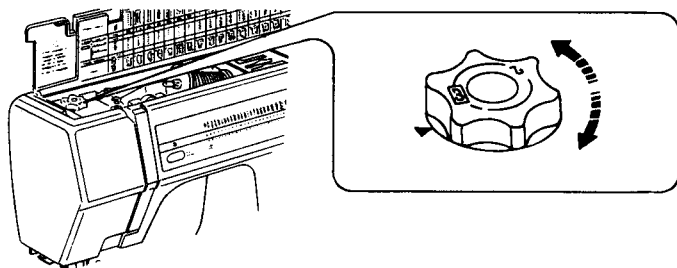
To attach

Insert the light bulb into the lamp socket.

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

- * When replacing the light bulb, unplug the machine.
- * Be careful not to touch the light bulb while it is hot. Wait until the bulb has cooled down before touching it.

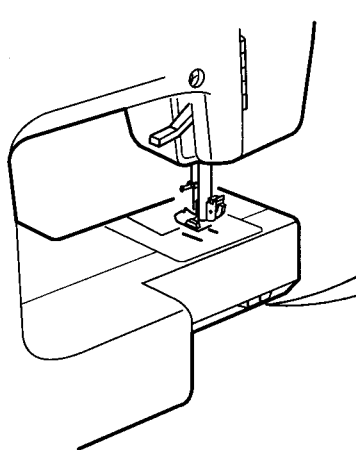
Pressure Dial



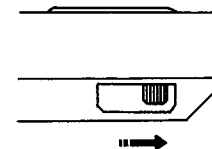
The pressure dial should be set at “3” for regular sewing. Reduce the pressure to “2” for appliques.

Set the pressure to “1” when sewing chiffon, lace, organdy and other fine fabrics. Velours and knits with a lot of stretch may also require a “1” setting.

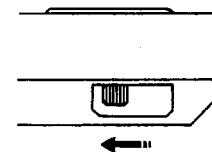
Dropping the Feed Dogs



Drop feed lever is located underneath of free arm bed.



To raise the feed dogs, push the lever to the direction of arrow as illustrated.

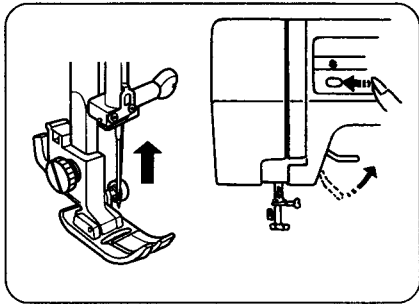


For dropping the feed dogs, push the lever to the direction of arrow as illustrated.

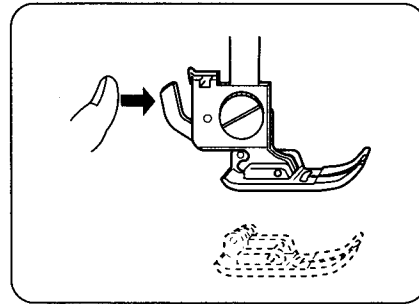
* Feed dogs must always be up for normal sewing.

To Snap On and Snap Off the Presser Foot

To snap off

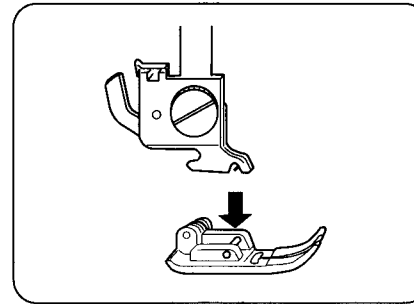


Press the Up/Down needle position button to raise the needle to its highest position. Raise the presser foot.



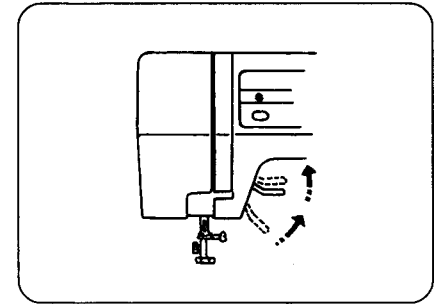
Press the lever on the back of the foot holder. The presser foot will drop off.

To snap on



When attaching the presser foot, the pressure dial should always be at position "3". Place the presser foot so the pin on the foot lies just under the groove of the foot holder. Lower the foot holder to lock the foot in place.

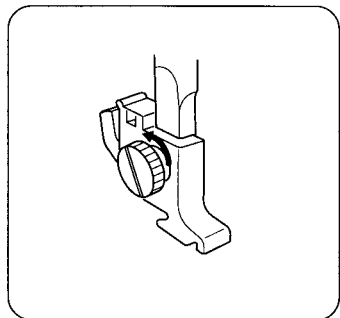
Additional Clearance



The presser foot can be raised higher for additional clearance.

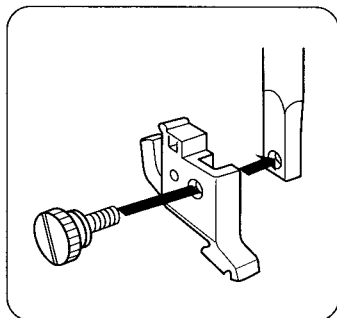
To Detach and Attach the Foot Holder

To Detach



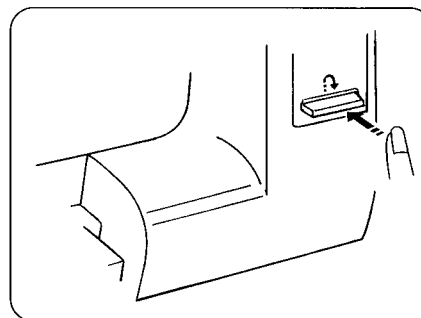
Remove the thumb screw by turning the screw counter-clockwise with the screwdriver.

To Attach



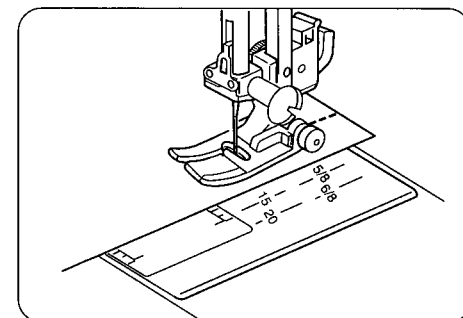
Align the hole in the foot holder with the threaded hole in the presser bar and fit the foot holder screw into the hole. Tighten the screw by turning it clockwise.

Reverse Stitch Button



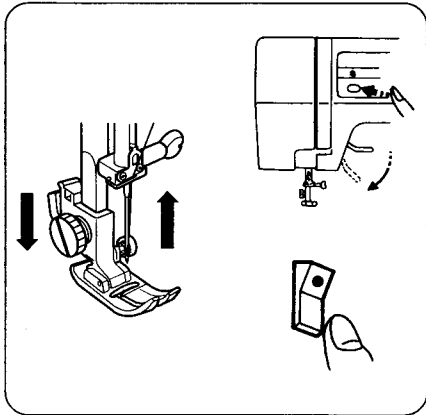
As long as you keep the reverse stitch button depressed, the machine sews backwards.

Seam Guide Line

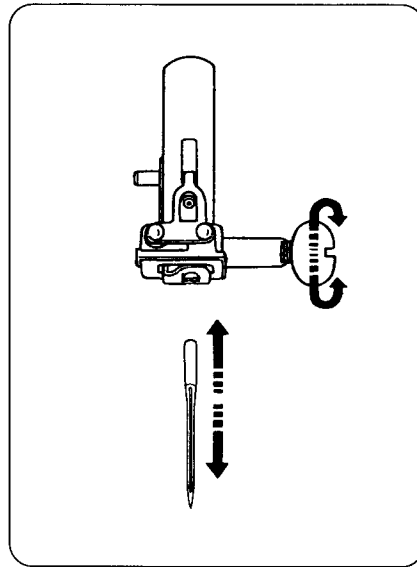


The numbers on the needle plate indicate the distance between the left needle position and the line. The numbers in the front indicate in millimeters. The numbers in the back indicate in inches.

Changing Needle



Raise the needle bar by pressing Up/Down needle position button and lower the presser foot. Turn off the power switch.



Loosen the needle clamp screw by turning it counter-clockwise.

Remove the needle from the clamp.

Insert the new needle into the needle clamp with the flat side away from you.

When inserting the needle into the clamp, push it up as far as it will go and tighten the clamp screw firmly with the screwdriver.

* Check your needles frequently for barbed or blunted points. Snags and runs in knits, fine silks and silk-like fabrics are permanent and are almost always caused by a damaged needle.

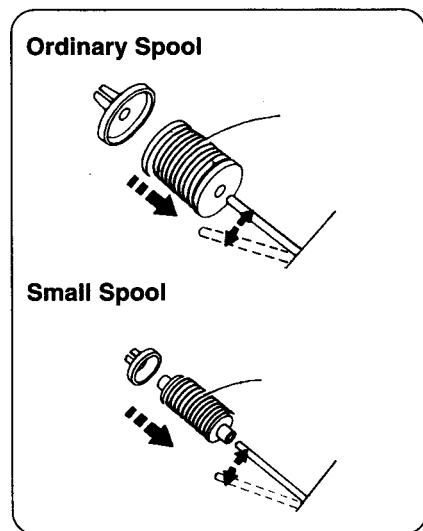
Thread and Needle Chart

	Fabrics	Threads	Needle Size
Light weight	Crepe de Chine, Voile Lawn, Organdy, Georgette, Tricot	Fine Silk Fine Cotton Fine Synthetic Fine Cotton Covered Polyester	9 or 11
Medium weight	Lines, Cotton, Pique, Serge Double Knits, Percale	50 silk 50 to 80 Cotton 50 to 60 Synthetic Cotton Covered Polyester	11 or 14
Heavy weight	Denim, Tweed, Gabardine, Coating, Drapery and Upholstery Fabric	50 silk 40 to 50 Cotton 40 to 50 Synthetic Cotton Covered Polyester	14 or 16

- In general, fine threads and needles are used for sewing thin fabrics, and thicker threads and needles are used for sewing heavy fabrics. Always test thread and needle size on a small piece of fabric which will be used for actual sewing.
- Use the same thread for needle and bobbin.
- When sewing stretch, very fine fabrics and synthetics, use a BLUE TIPPED needle. The blue tipped needle effectively prevents skipped stitches.
- When sewing very fine fabrics, sew over a piece of paper to prevent yarn distortion.

Winding the Bobbin

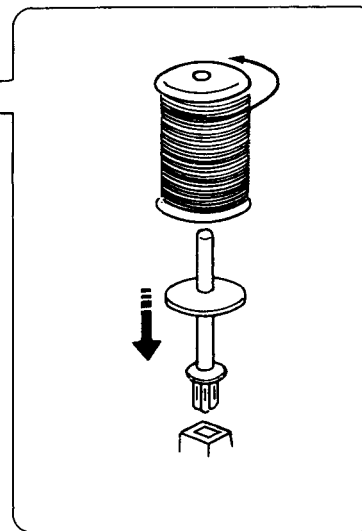
Horizontal Spool Pin



Lift up the spool pin. Place the spool of thread on the spool with the thread coming off the spool as shown. Attach the large spool holder pressing it firmly against the thread spool.

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

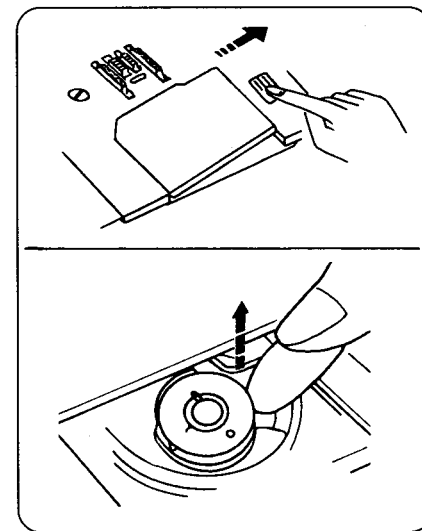
Additional Spool Pin



The additional spool pin is used to wind extra bobbins without unthreading the machine.

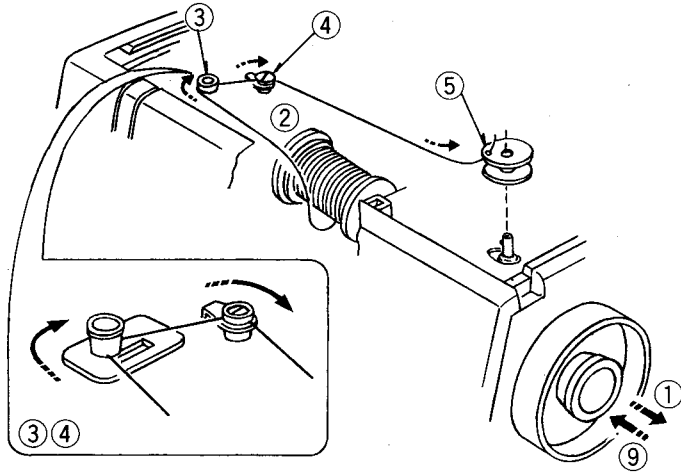
To use, insert the additional spool pin in the hole. Place the felt and the spool on the pin.

Removing the Bobbin

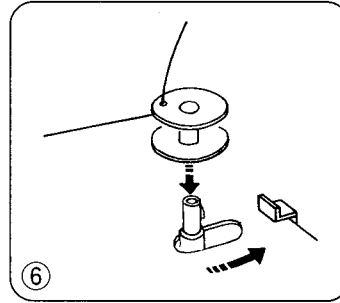


Gently slide the hook cover plate release button to the right, and remove the cover plate. Lift out the bobbin.

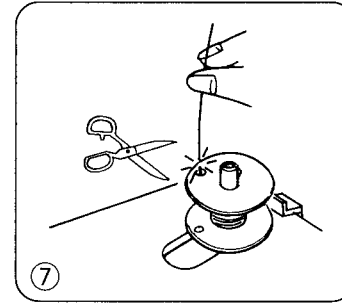
Threading the Bobbin Winder



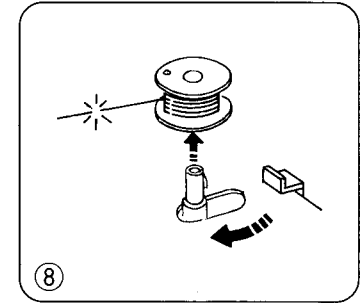
- ① Pull the clutch knob away from the machine to disengage the clutch.
- ② Draw the thread from the spool.
- ③ Guide the thread around the thread guide.
- ④ Guide the thread around the bobbin winder thread guide.
- ⑤ Insert the thread through the hole the bobbin, threading from the inside to the outside.



- ⑥ Put the bobbin on the bobbin winder spindle, and push it to the right.



- ⑦ With the free end of the thread held in your hand, depress the foot control. Stop the machine when it has made a few turns, and cut the thread close to the hole in the bobbin. Depress the foot control again. When the bobbin is fully wound, it will stop automatically.

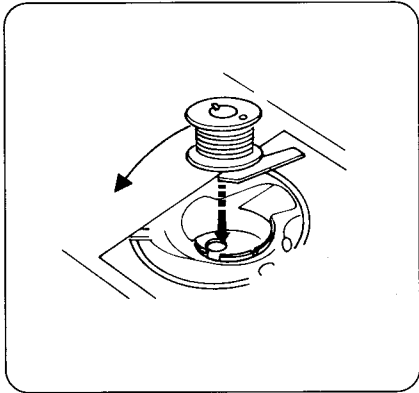


- ⑧ Return the bobbin winder to its original position by moving the spindle to the left, and cut the thread as shown.

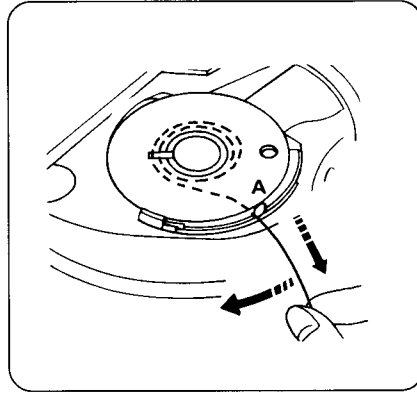
- ⑨ Push in the clutch knob to engage clutch.

* The machine will not sew until the clutch knob is pushed in.

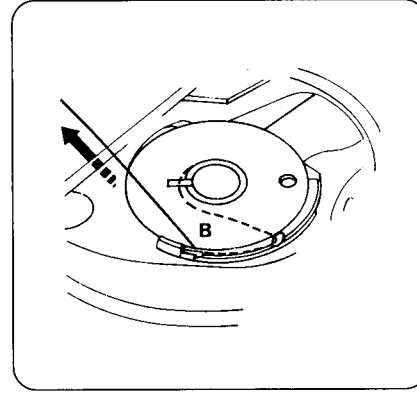
Inserting the Bobbin



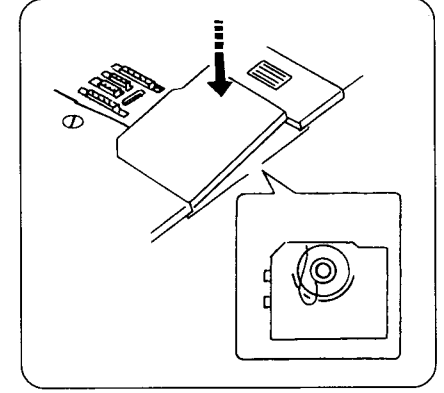
Place the bobbin in the bobbin holder with the thread running counter-clockwise.



Guide the thread into the notch **A** on the front side of the bobbin holder. Draw the thread to the left sliding it between the tension spring blades.

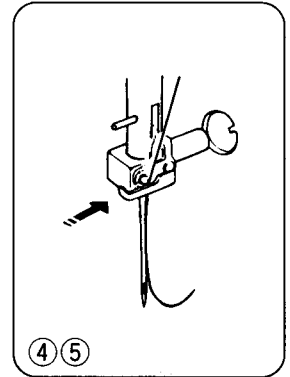
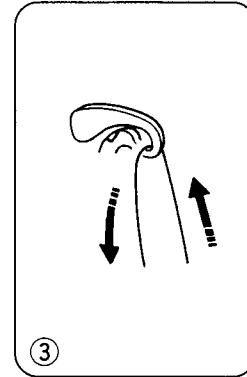
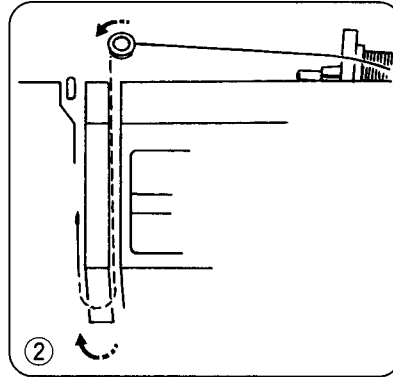
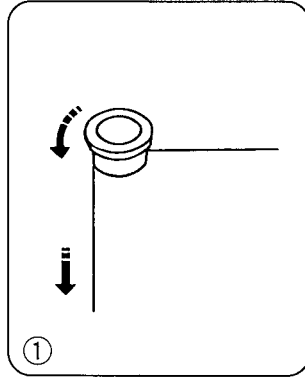
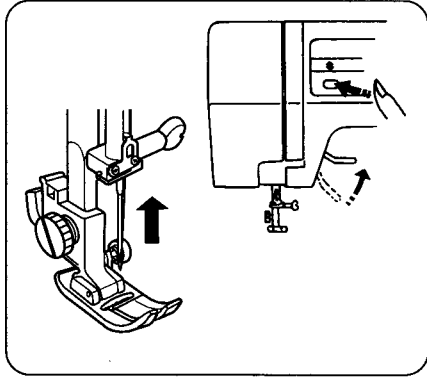


Continue to draw the thread lightly until the thread slips into notch **B**.



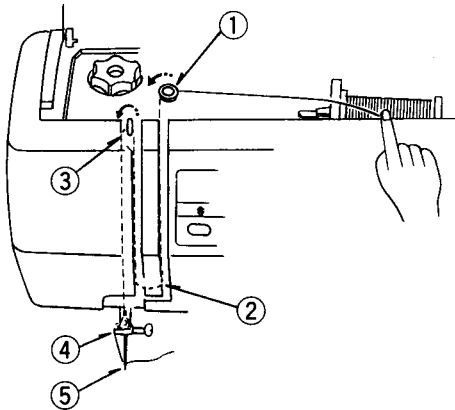
Pull out about 15 cm (6") of thread and attach the hook cover plate.

Threading the Machine

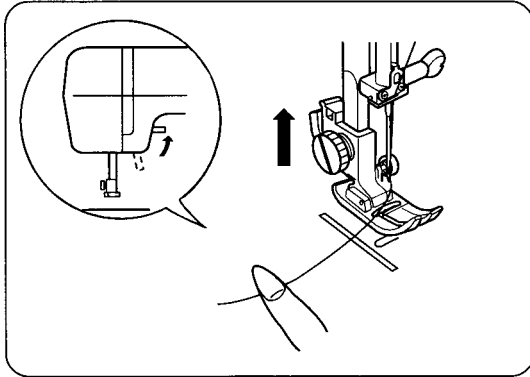


Press the Up/Down needle position button to raise the needle to its highest position.
Raise the presser foot with the presser foot lifter and thread in the order from ① to ⑤.

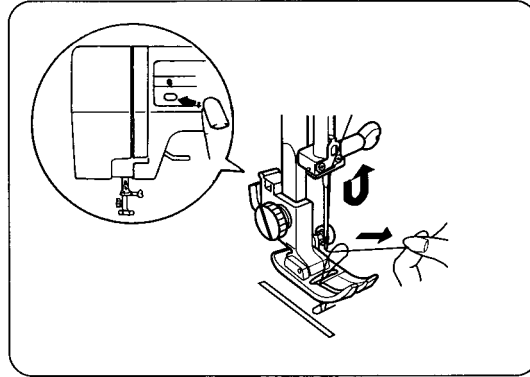
- ① Lead the thread from the spool and pass it through the thread guide. Then draw it down along the right slot.
- ② Guide the thread around the bottom of the thread guide plate from right to left, then draw it upward.
- ③ Firmly draw the thread from right to left over the take-up lever and down into the take-up lever eye. Then guide it down along the left slot.
- ④ Slide the thread from the left behind the needle bar thread guide.
- ⑤ Thread the needle.



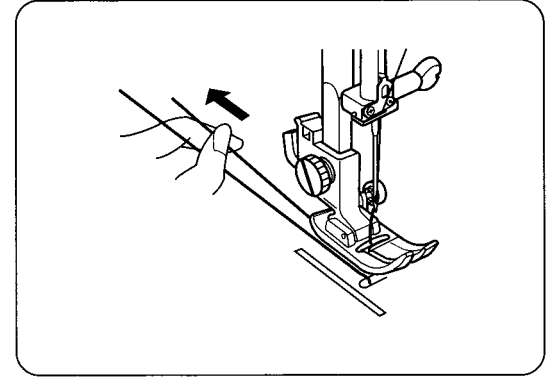
Drawing Up Bobbin Thread



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

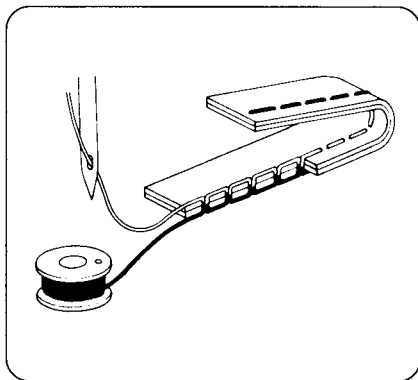


- ② Press the Up/Down needle position button twice to pick up the bobbin thread. Draw up the needle thread forming a loop of bobbin thread.

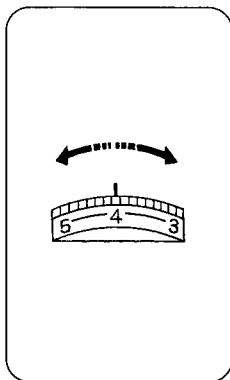


- ③ Pull 15 cm (6") of both threads back and under the presser foot.

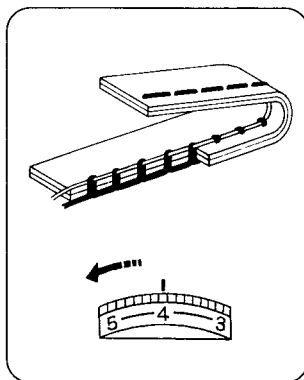
Balancing Needle Thread Tension



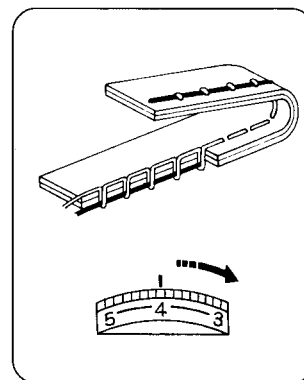
The needle thread and the bobbin thread should interlock in the center of two layers of fabric in straight seams.



Set the desired number of the thread tension dial at setting mark.

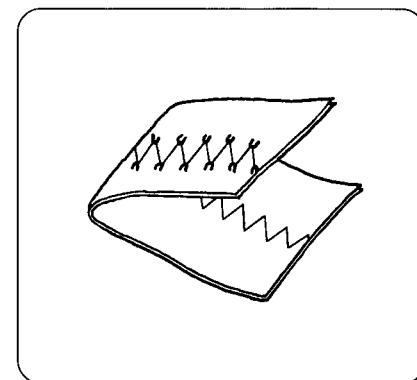


Loosen the needle thread tension by moving the dial to a lower number.



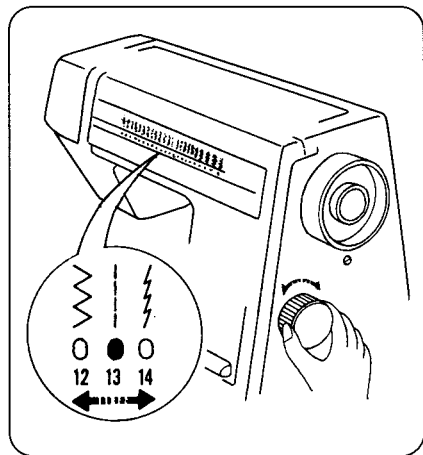
Tighten the needle thread tension by moving the dial to a higher number.

Thread Tension for Zigzag Sewing



To obtain better zigzag stitches, the needle thread tension should be slightly weaker than in the case of straight sewing. The needle thread should appear slightly on the reverse side of the fabric.

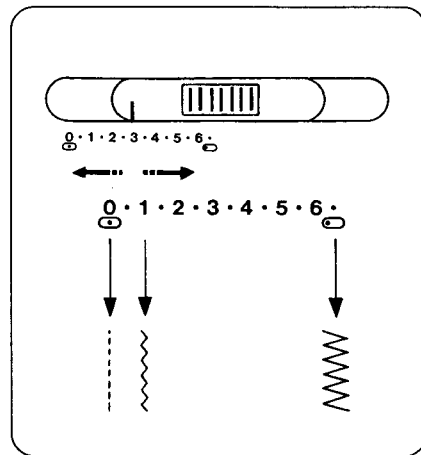
Pattern Selector Dial



Select the pattern by turning the pattern selector dial and the red signal (LED) shows the selected pattern.

* Raise the needle above the fabrics and presser foot when you turn the pattern selector dial.

Zigzag Width Control

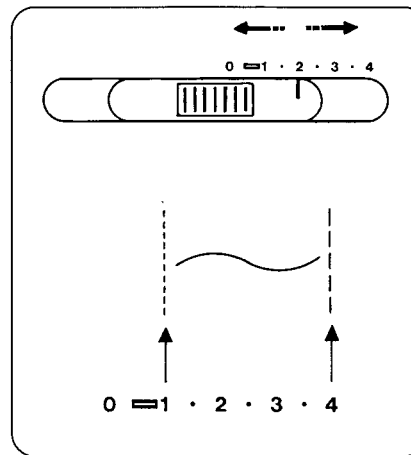


Higher the number, wider the stitch width.

This machine will sew the maximum 6.5 mm (0.25") wide zigzag.

* Raise the needle above the fabrics when you set the stitch width.

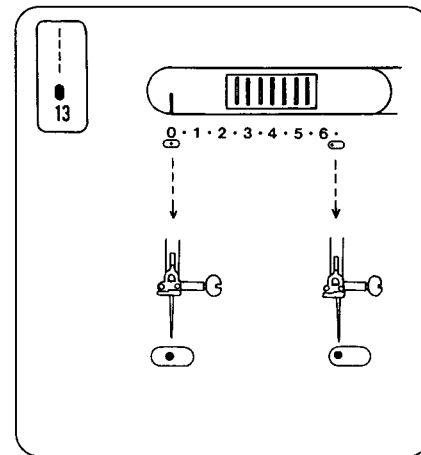
Stitch Length Control



The higher the number, the longer the stitch length. You can select the suitable stitch length for fabrics that you plan to sew.

Note: Stitch length is automatically set for stretch stitch pattern on pattern number 14 to 23.

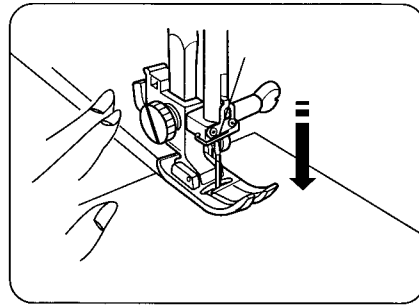
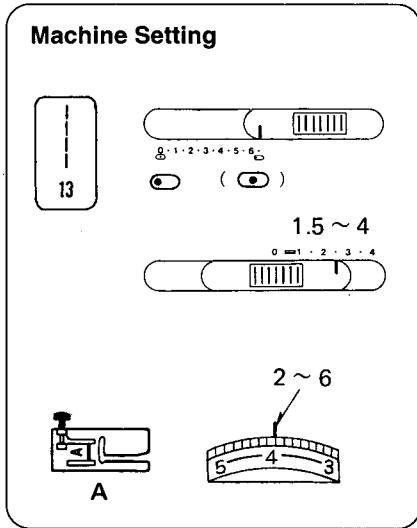
Variable Needle Position



When pattern number 13 is selected, you can move the needle between center and left needle positions.

SECTION III BASIC SEWING

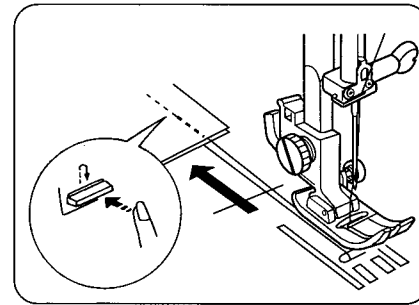
Straight Stitch Sewing



Raise the presser foot and position the fabric next to a stitching guide line on the needle plate.

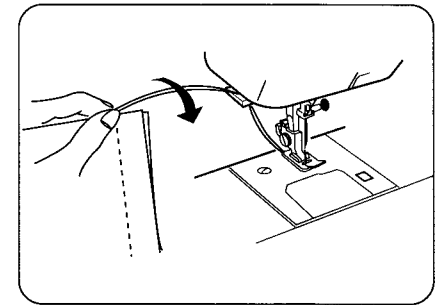
Lower the presser foot and smooth the threads toward the back. Depress the foot control.

Gently guide the fabric along the guide line letting the fabric feed naturally.



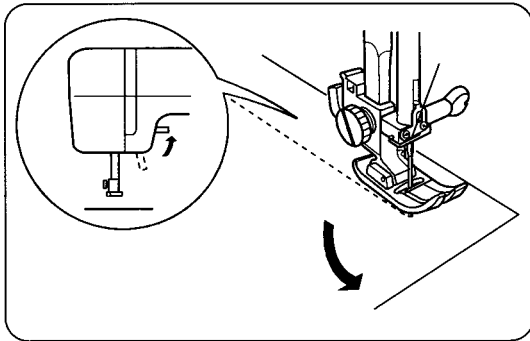
For fastening the ends of seams, press the reverse stitch button and sew several reverse stitches.

Raise the presser foot and remove the fabric, drawing the threads to the back.



The threads are cut the proper length for starting the next seam.

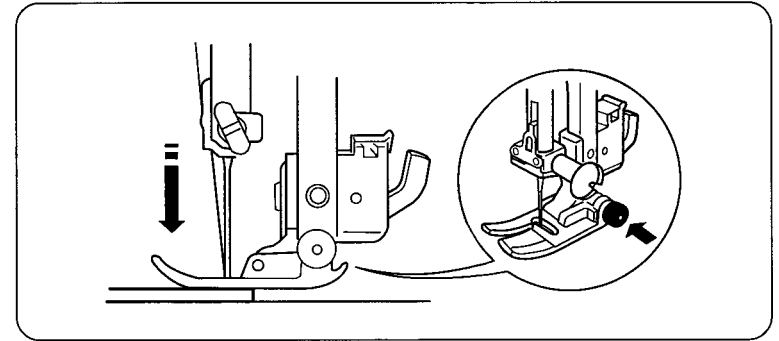
Changing the Sewing Directions



Stop the machine and bring the needle down into the fabrics by pressing Up/Down needle position button.
Raise the presser foot.

Pivot the fabric around the needle to change sewing direction as desired.
Lower the presser foot.

Straight Stitshing on Heavy Fabrics



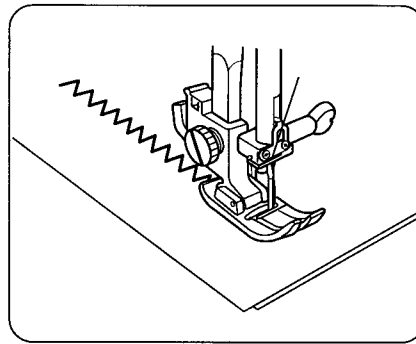
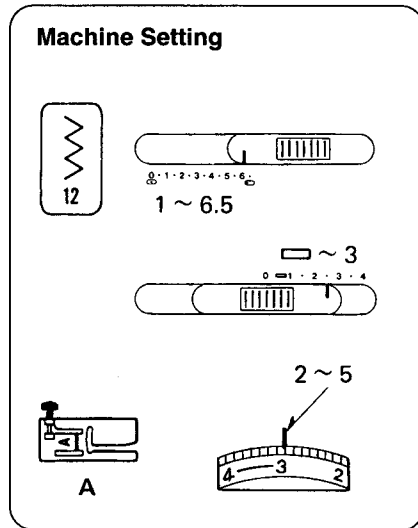
Lower the needle into the fabric at the point where you wish to start sewing. Press the small black button on the zigzag foot with your left hand to “lock” the presser foot to the fabric.

Lower the presser foot with your right hand, keeping pressure on the black button with your left hand.

Release the black button and start sewing.

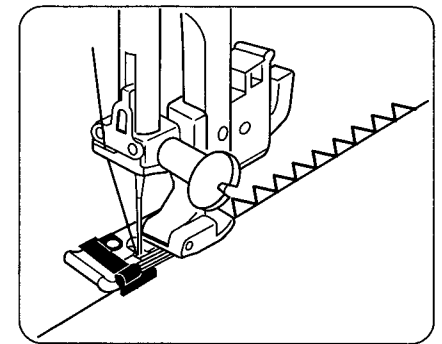
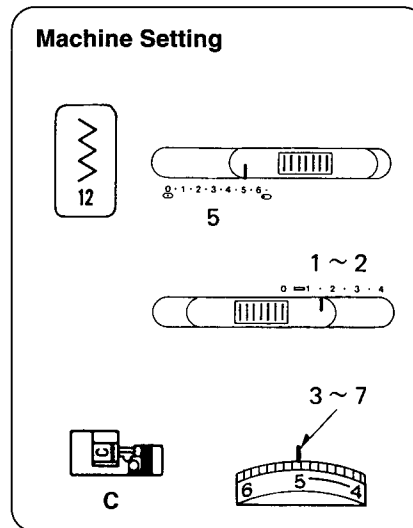
SECTION IV UTILITY STITCHING

Zigzag Stitching



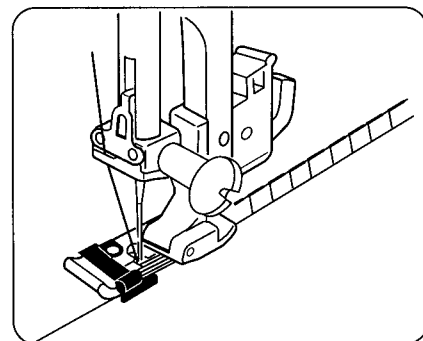
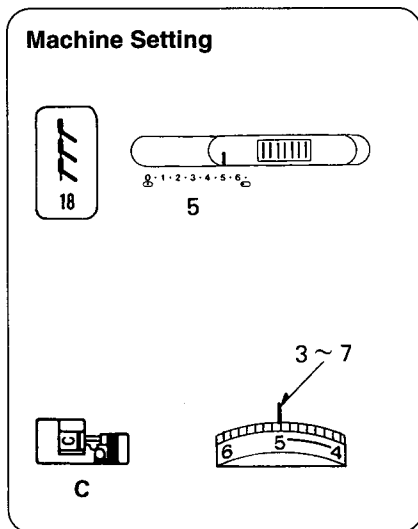
Simple zigzag stitching is widely used for overcasting, applique, sewing on buttons etc.

Overcasting



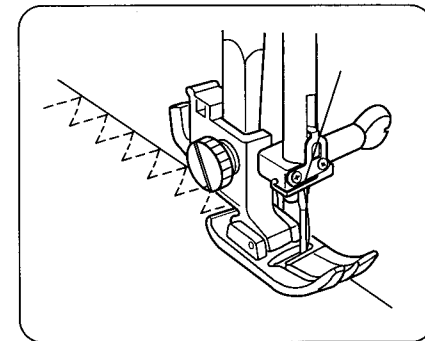
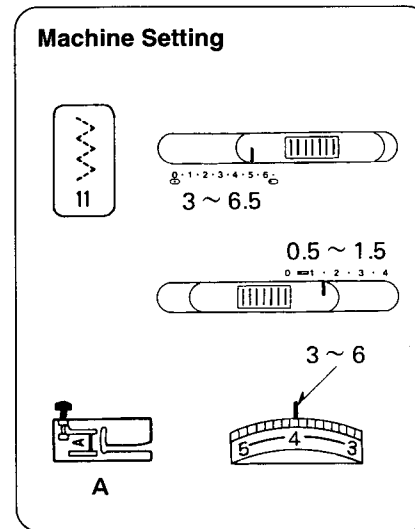
This type of stitch is used on the seam allowance to prevent fabrics from fraying at raw edges. It can be used to finish a hem edge. Place the edge of the fabric next to the black prong of foot C .

Overedge Stitch



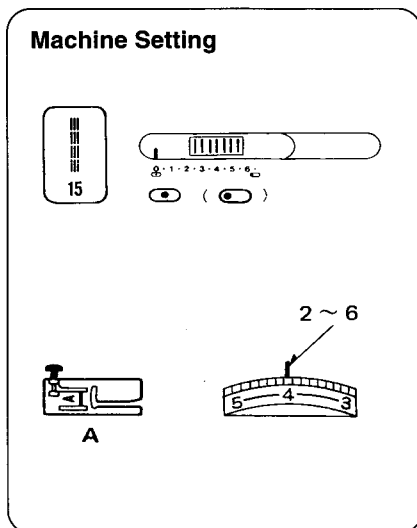
Place the edge of the fabric next to the black prong of foot. The wires on this foot prevent light weight fabric from rolling and creating a ridge. The black prong guides your sewing so the needle falls off the fabric wrapping the threads around the edge to stop raveling.

Tricot Stitch



Place the fabric under the presser foot so that the edge will be slightly inside the right hand side of the presser foot. Guide the work so the right hand stitches fall at the edge of the fabric.

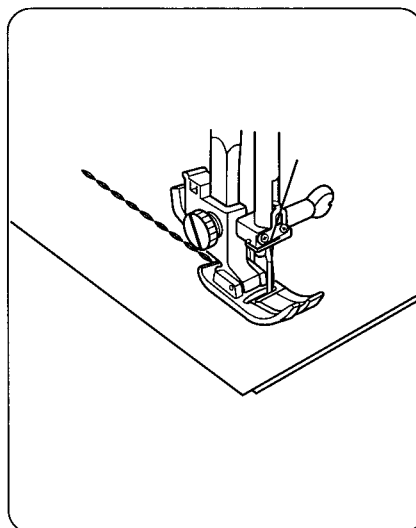
Triple Strength Stitch



This strong, durable stitch is recommended where both elasticity and strength are needed to insure comfort and durability.

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

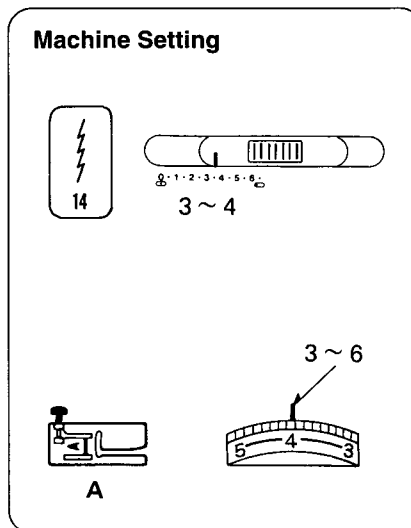
Also use when constructing items such as backpacks for extra strength.



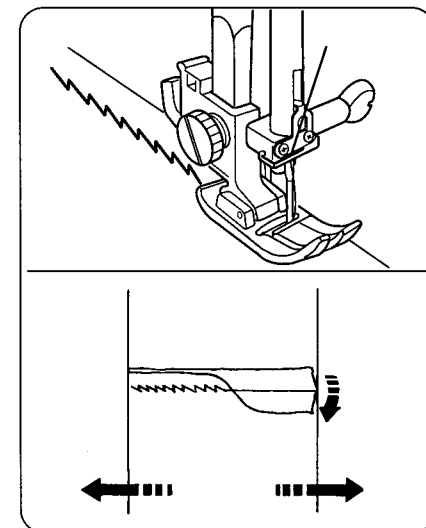
The stitch is sewn with two stitches forward and one stitch backward forming a seam that does not rip easily.

Garments should be basted for fitting before seaming.

Outline Stretch Stitch



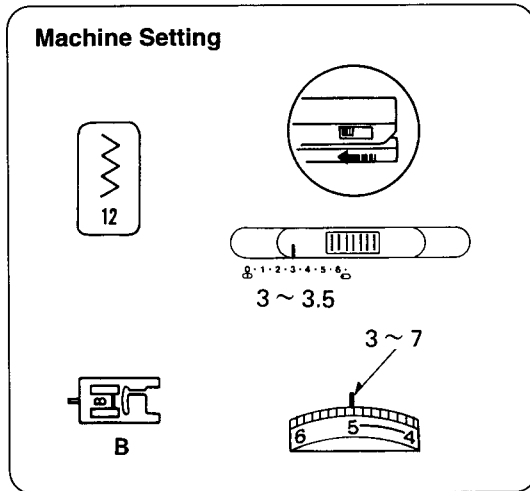
Pattern 14 is a narrow stretch stitch designed to eliminate puckering on knit fabrics and bias seams, while permitting the seam to be pressed completely flat.



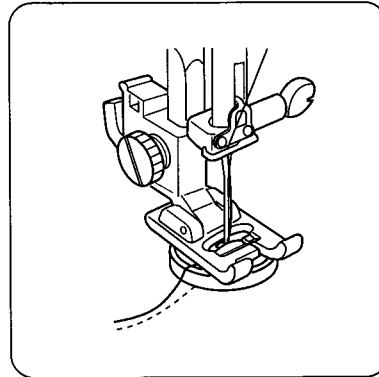
For a 1.5 cm (5/8") seams, use the 2 cm (6/8") marking on the needle plate.

When sewing light weight fabrics, set the pressure dial at "1" or "2".

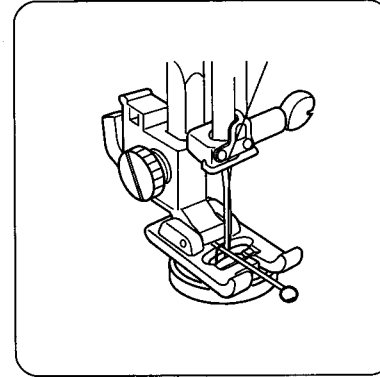
Sewing Buttons



Tape the button over the placement mark. A pin can be placed on top of the foot to from a shank. Before lowering the foot, test the needle swing making sure the needle drops in each hole. Adjust the stitch width if necessary. Lower the foot.

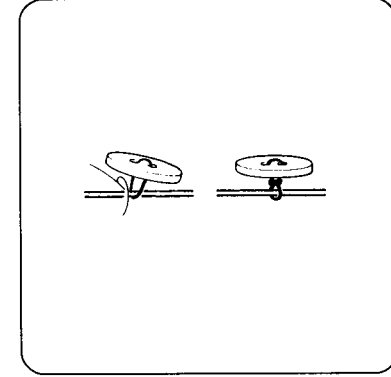


Align the both holes of button with the needle swing, lower the foot and depress the foot control.

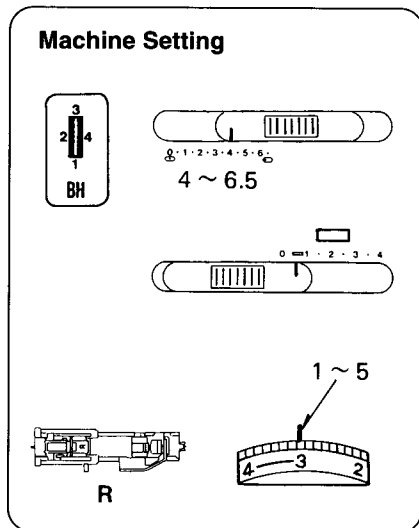


To strengthen the shank, cut the threads leaving a 20 cm (8") tail. Bring the needle thread down through the hole in the button and wind it around the shank. Draw the thread to the wrong side of fabric and knot.

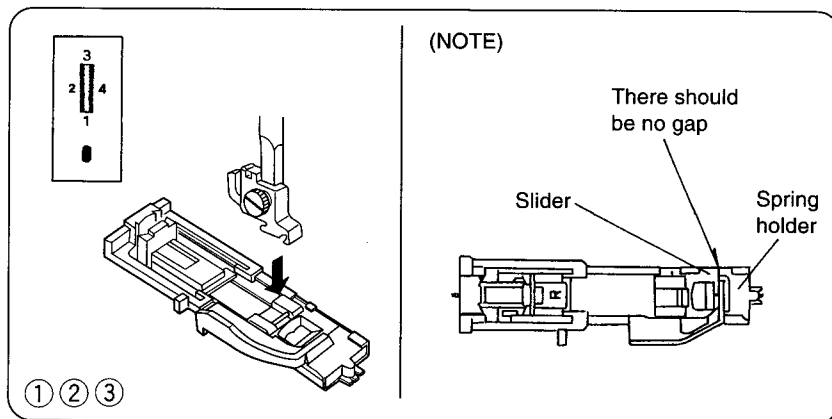
* When button sewing is finished, return the drop feed lever.



Automatic Buttonhole

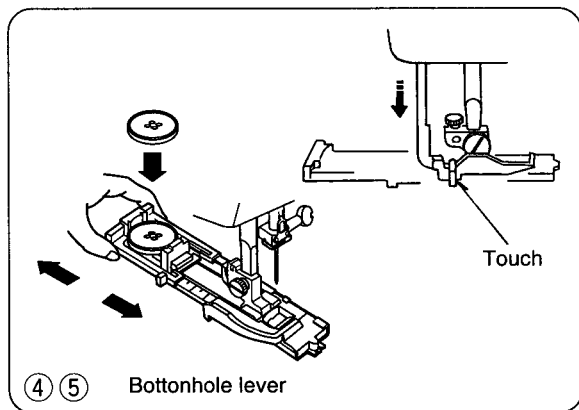


- * The size of buttonhole is automatically set by placing the button in the automatic buttonhole foot (R).
- * The button holder of the foot takes a button size up to 2.5 cm (1") in diameter.
- * Make a test buttonhole on a sample duplicating the fabric, interfacing and seams of the actual garment.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

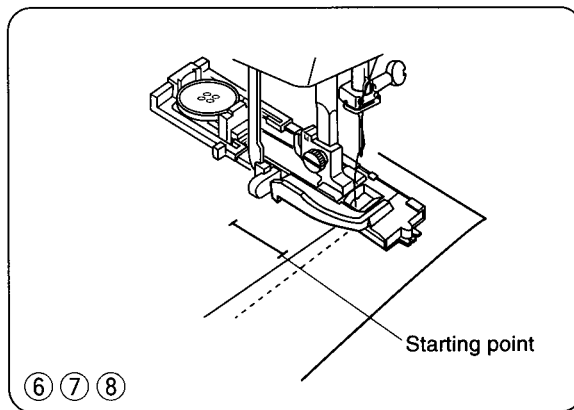


- ① Press the Up/Down needle position button to raise the needle. Raise the presser foot lifter.
- ② Set the pattern indicator at "BH" by turning the pattern selector dial.
 - * If the BH indicator light flashes when you turn the main switch on, reset the machine in accordance with the instructions on page 30.
- ③ Attach the automatic buttonhole foot (R).

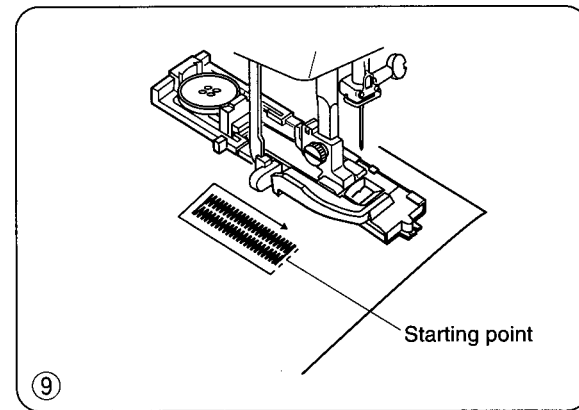
NOTE: There should be no gap between the slider and spring holder of the foot as shown above.



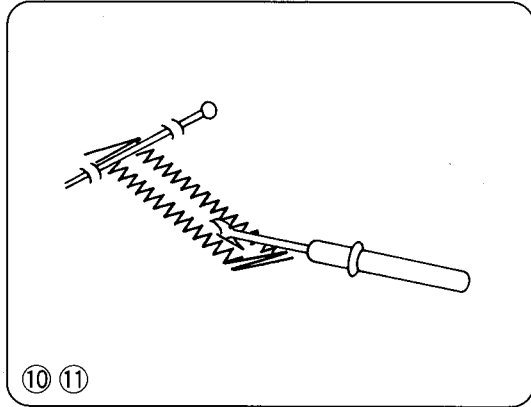
- ④ Pull the button holder to the back, and place the button in it. Push back the button holder toward you as far as it will go.
- ⑤ Pull the buttonhole lever downward as far as it will go.



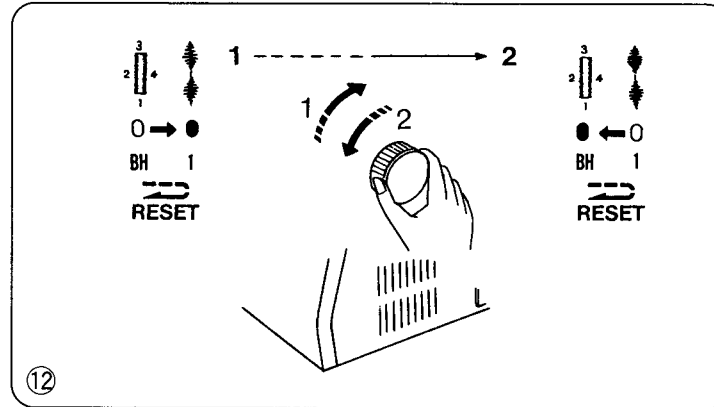
- ⑥ Insert the fabric under the foot. Press the needle position button twice.
- ⑦ Remove the fabric to the left to draw both threads to the left.
- ⑧ Insert the garment under the foot, and lower the needle at the starting point. Then lower the automatic buttonhole foot.




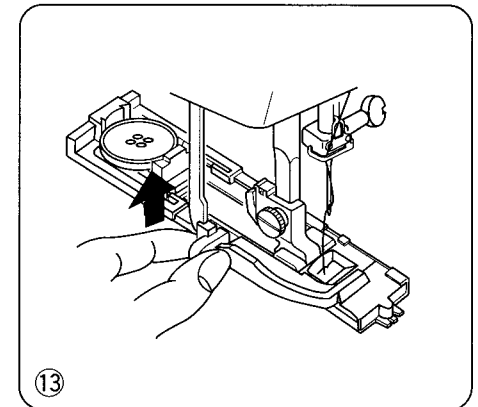
- ⑨ Depress the foot control until the machine stops by itself.
 - * When a buttonhole is completed, the BH indicator light will flash.
 - * The buttonhole will be automatically sewn. The front bartack and left row first, then the back bartack and right row. The machine will stop automatically.



- ⑩ Cut the 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.
- ⑪ Insert a pin inside the bartack. Then cut the opening with a seam ripper. Take care not to cut the stitches.

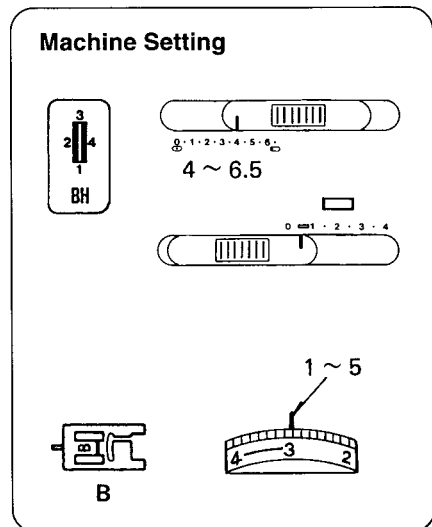


- ⑫ To repeat buttonhole sewing. After a buttonhole is sewn, move the indicator to pattern "1" () by turning the pattern selector dial in the direction of arrow 1, then return the indicator back to "BH" by turning the dial in the direction of arrow 2 to reset for sewing the next buttonhole. By doing so, the BH indicator light will stop flashing and will be ready to sew the next buttonhole.

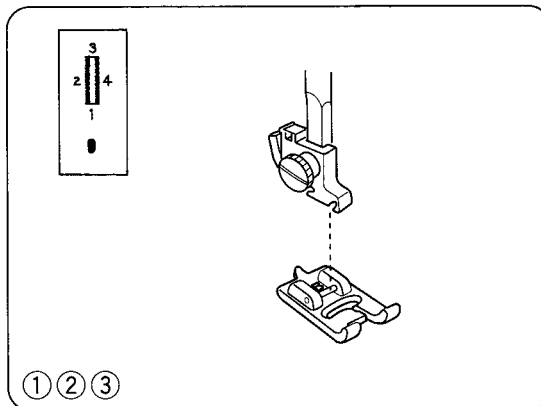


- ⑬ When buttonhole sewing is finished, push the buttonhole lever upward as far as it will go.

Manual Buttonhole



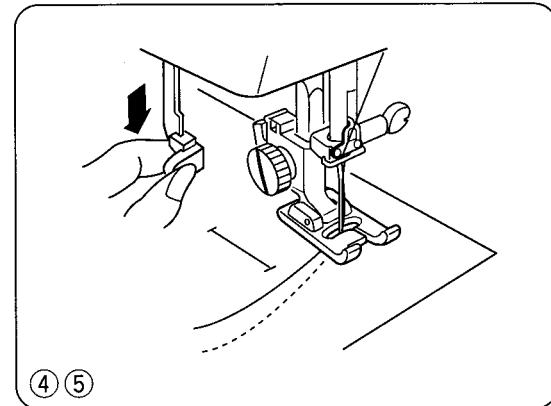
* If the diameter of the button is more than 2.5 cm (1"), a buttonhole must be made manually as follows:



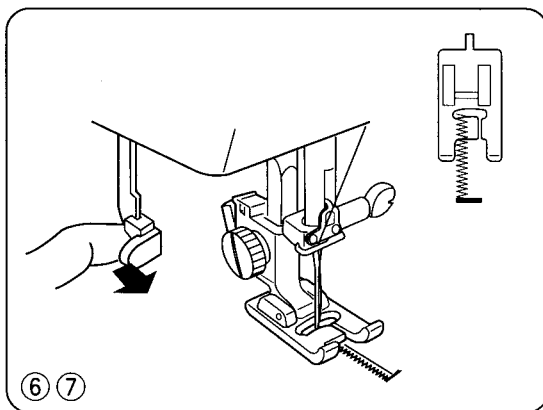
- ① Press the Up/Down needle position button to raise the needle. Raise the presser foot lifter.
- ② Set the pattern indicator at "BH" by turning the pattern selector dial.

* If the BH indicator light flashes when you turn the main switch on, reset the machine in accordance with the instructions on page 30.

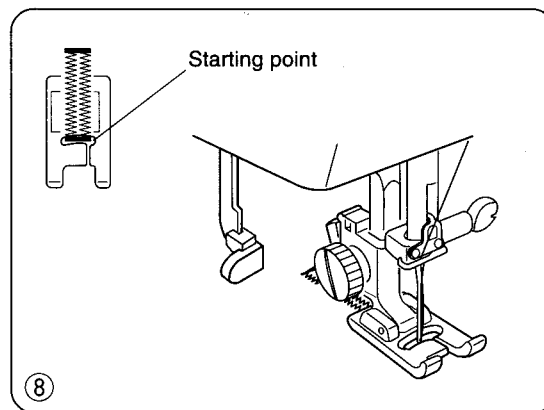
- ③ Attach the buttonhole foot (B).



- ④ Pull the buttonhole lever downward as far as it will go.
- ⑤ Lower the needle into the garment where the buttonhole is to start, and lower the foot.

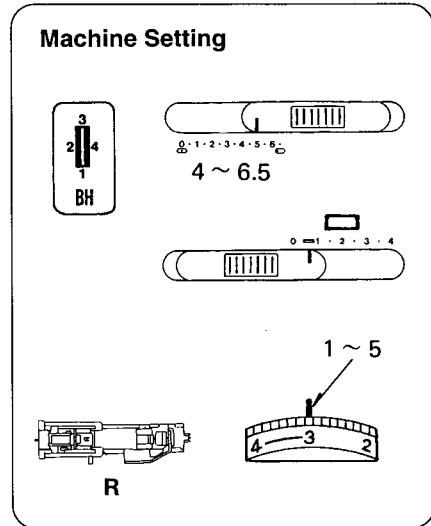


- ⑥ Sew the front bartack and left row, then stop the machine after sewing the desired total length of buttonhole.
- ⑦ Pull the buttonhole lever toward you.



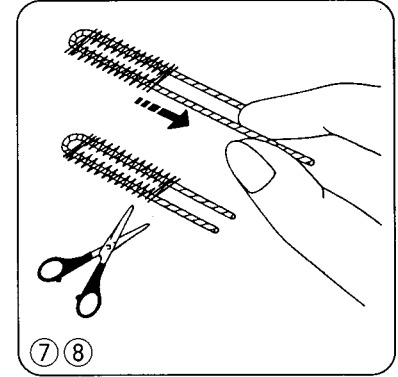
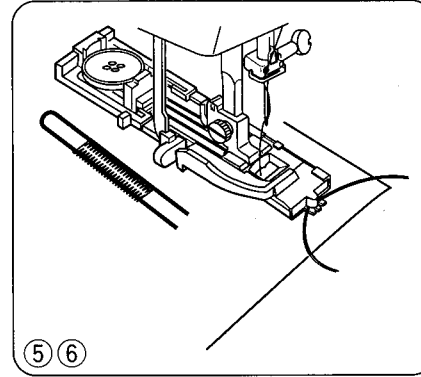
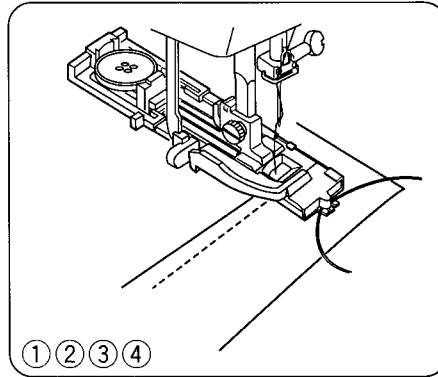
- ⑧ Sew the back bartack and right row, then stop the machine at the starting point.
- * To cut the opening and to reset for sewing the next buttonhole, refer to the instructions on page 30.

Corded Buttonholes



* Set the stitch width in accordance with the thickness of the cord used.

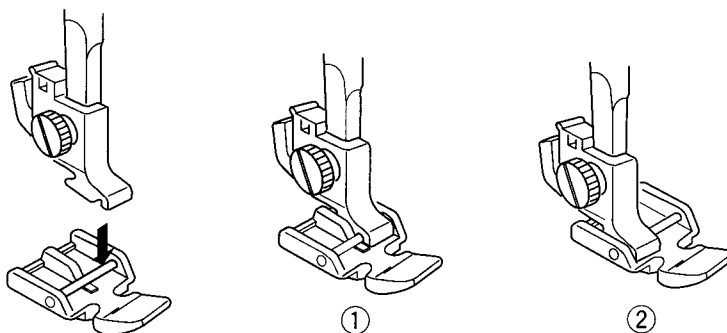
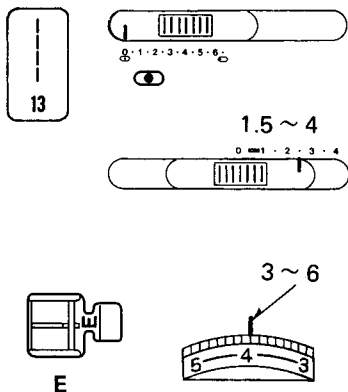
* To cut the opening and to reset for sewing the next buttonhole, refer to the instructions on page 30.



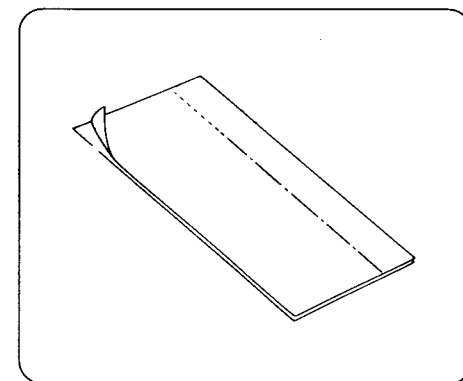
- ① With the buttonhole foot raised, hook the filler cord on the cord spur at the back of the buttonhole foot.
- ② Bring the ends toward you under the buttonhole foot until they clear the front end.
- ③ Hook the filler cord into the forks on the front of the **R** foot to hold them tight.
- ④ Lower the needle into the garment where the buttonhole will start and lower the foot.
- ⑤ Depress the foot control gently and sew the buttonhole.
Each side of the buttonhole and the bartacks will be sewn over the cord.
- ⑥ Remove the fabric from the machine and cut the sewing threads.
- ⑦ Pull the left end of the filler cord to tighten it.
- ⑧ Thread the end through a darning needle, draw to the bottom side of the fabric and cut.

Zipper Application

Machine Setting



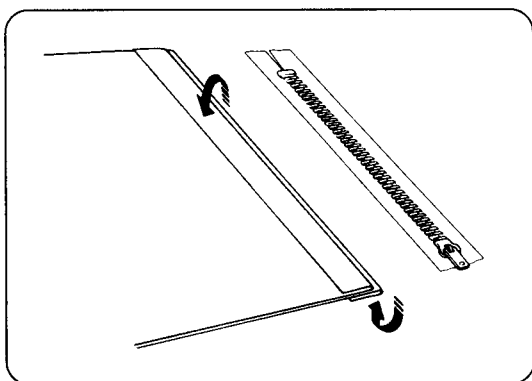
- ① To sew the left side of the zipper, attach the zipper foot to the pin on the right hand side.
- ② To sew the right side of the zipper, attach the zipper foot to the pin on the left hand side.



Fabric Preparation:

Place right sides of fabric together and sew to the end of the zipper opening.

Reverse stitch to knot the stitches. Sew the zipper opening with a basting stitch.

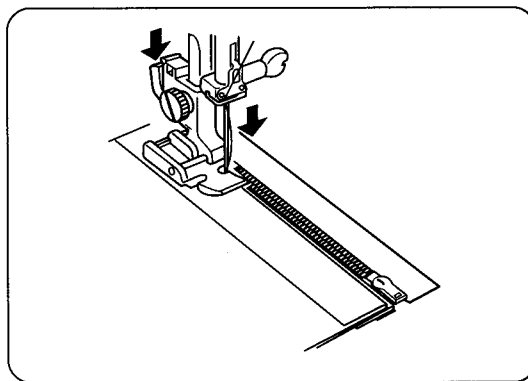


To Sew:

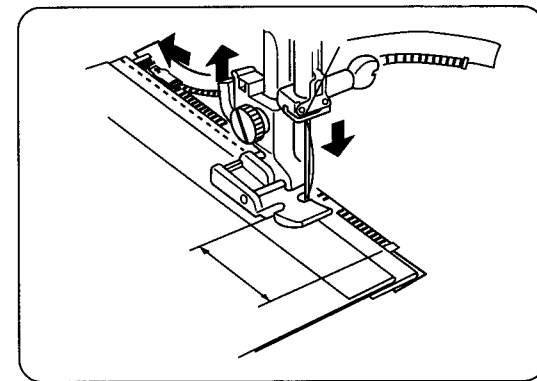
Fold back the left seam allowance.

Turn under the right seam allowance to form a 0.2 to 0.3 cm (1/8") fold.

Place the zipper teeth next to the fold and pin in place.

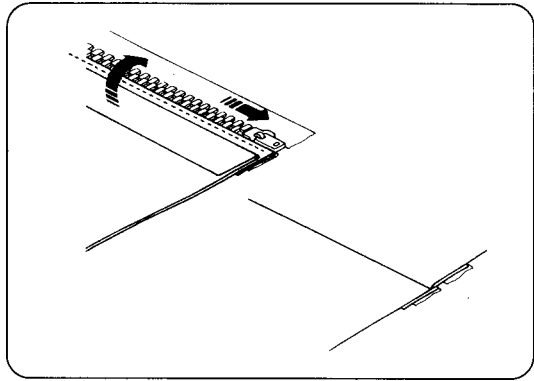


Attach the zipper foot with the pin on the right hand side. Lower the zipper foot.

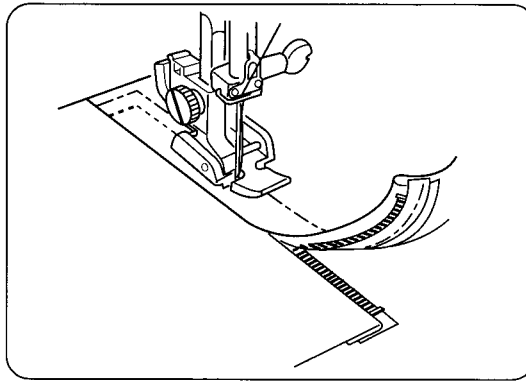


Sew through fold and zipper tape. Stop just before the zipper foot reaches the slider on the zipper tape.

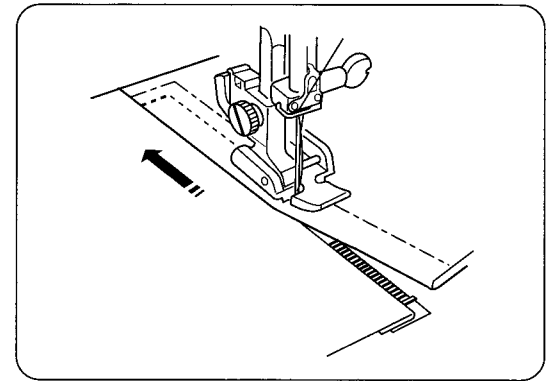
Turn the handwheel by hand and lower the needle into the fabric. Raise the zipper foot and open the zipper. Lower the foot and stitch the remainder of the seam.



Close the zipper and spread the fabric flat with the right side facing up.

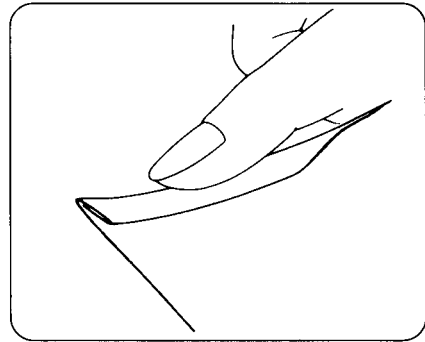
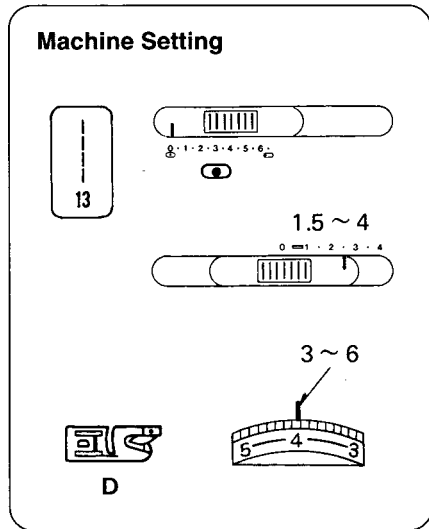


Move the zipper foot to the left pin. Guide the edge of the foot along the zipper teeth and stitch through garment and zipper tape. Stop about 5 cm (2") from the top of the zipper.

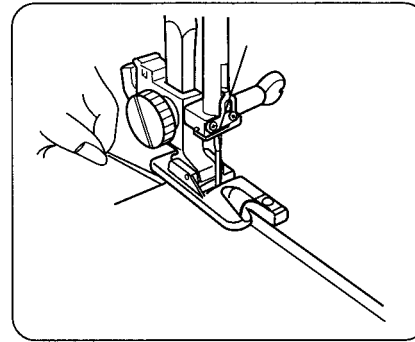


With the needle down in the fabric, raise the foot, remove the basting stitches and open the zipper. Then lower the foot and stitch the remainder of the seam making sure the fold is even.

Rolled Hem

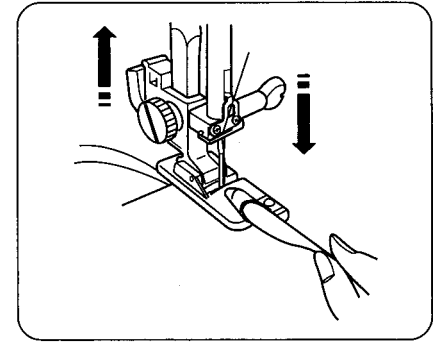


Make a double 0.25 cm (1/8") fold approximately 8 cm (3") in length.

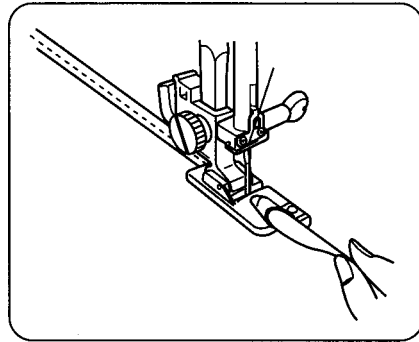


Lower the needle into the fabric at the point where sewing is to begin, then lower the hemmer foot.

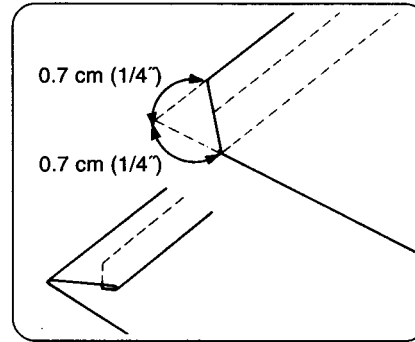
Sew 3 or 4 stitches while pulling the needle and bobbin threads.



Lower the needle into the fabric and lift the hemmer foot. Insert the folded portion of the fabric into the curl of the hemmer foot.

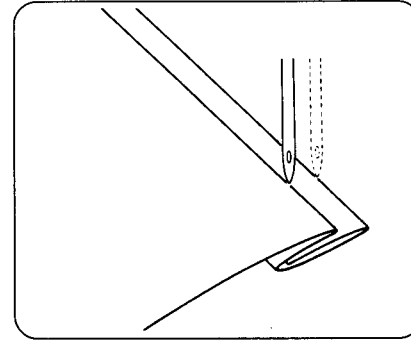
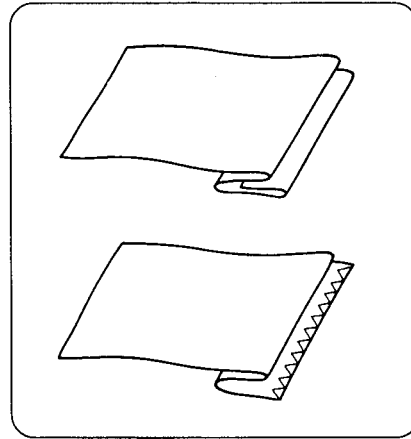
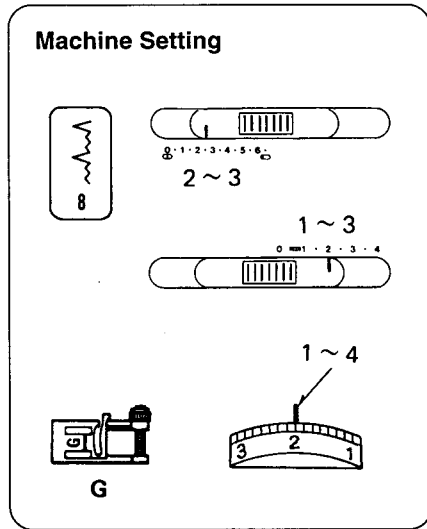


Lower the hemmer foot, then sew by lifting up the edge of the fabric to keep it feeding smoothly and evenly.



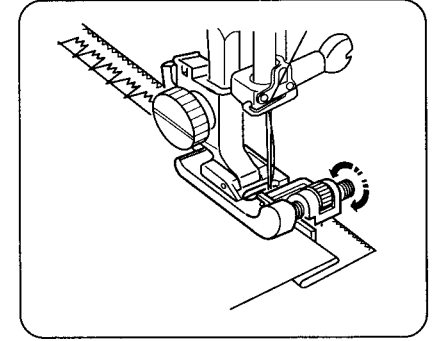
Trim about 0.7 cm (1/4") from corners as illustrated, to reduce bulk.

Blind Stitch Hemming



Position the fabric on the machine so that the needle just pierces the folded part of the fabric when the needle comes over to the extreme left side.

Lower the presser foot.



Turn the guide screw and move the sliding guide next to the folded edge. Sew guiding the folded edge along the sliding guide.

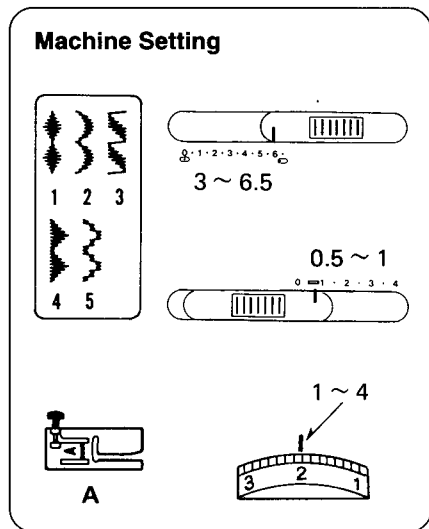
On lightweight fabrics the raw edge can be turned under and pressed.
On heavy weight fabrics that ravel, the raw edge should be overcast first.

Fold up the hem the desired amount and pin in place.

Then fold the hem under the fabric as illustrated.

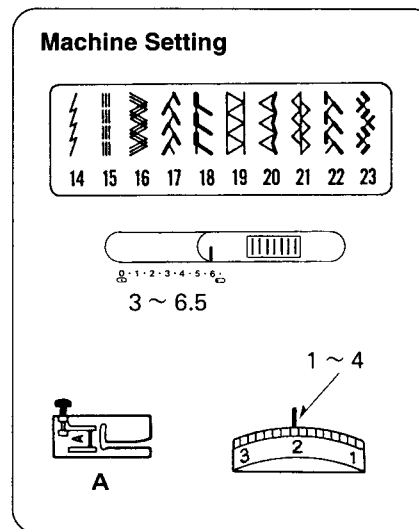
SECTION V DECORATIVE STITCHING

Decorative Satin Stitch Patterns



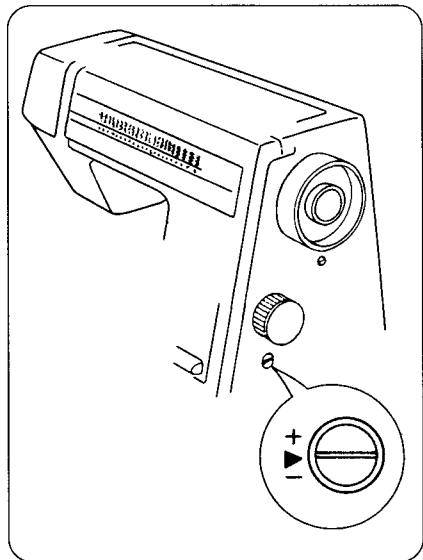
Sew a row of stitches and adjust the thread tension so the needle thread should appear on the reverse side of the fabric.
Test the stitch on the actual fabric for the best results.

Stretch Stitch Patterns



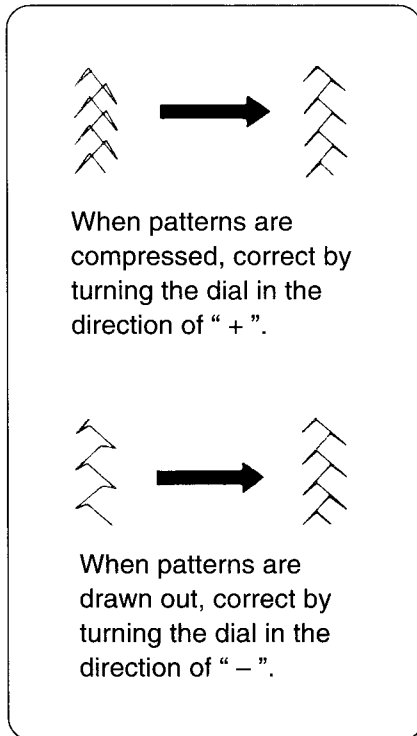
Stitch length of the automatic patterns (No.14 to 23) are preset, so you do not need to select the stitch length for these patterns.

Adjusting Stretch Stitch Balance

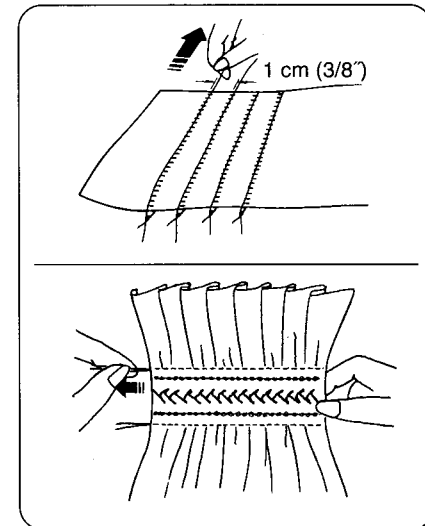
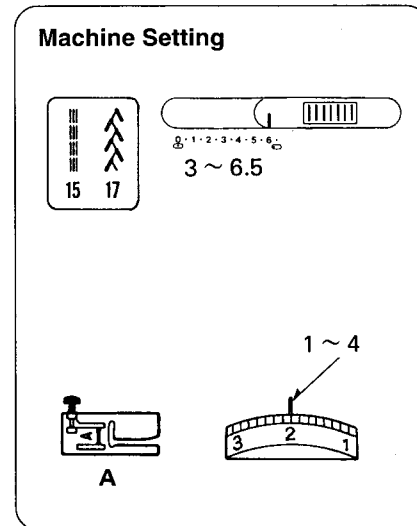


If patterns are uneven when sewing with a particular fabric, adjust them with the feed balance dial.

* After sewing with an altered dial setting, you must reset the dial to “▶”.

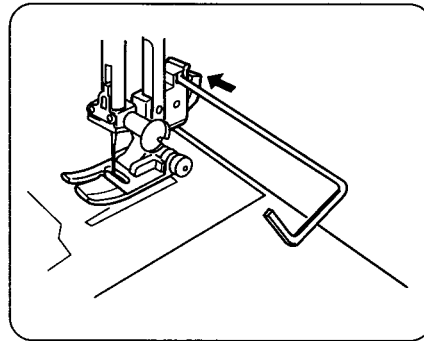
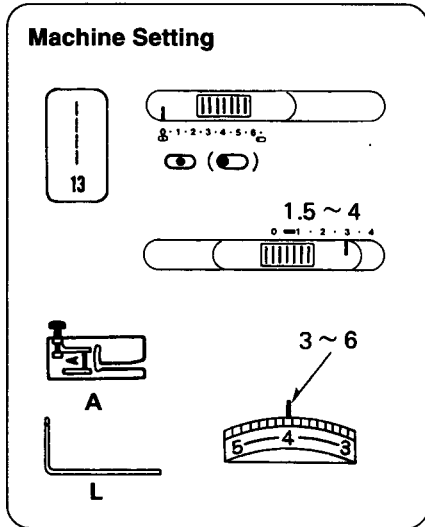


Smocking

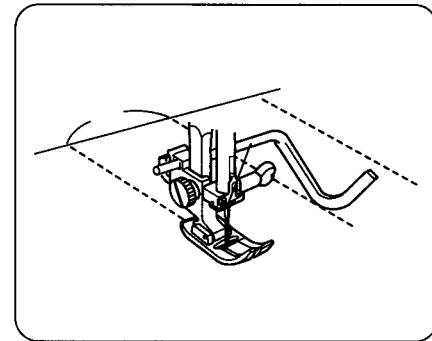


With the stitch length control at “4”, sew straight lines 1 cm (3/8”) apart across the area to be smocked. Knot the threads along the edge. Pull the bobbin threads and distribute gathers evenly. Sew pattern stitches between the straight seams. Pull out the gathering stitches.

Quilting

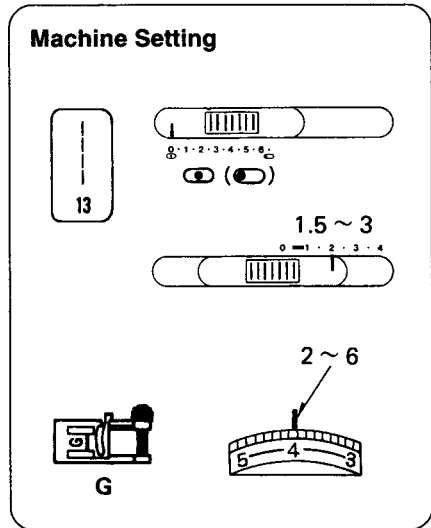


The quilting guide will help to keep the stitching lines straight. Insert the quilter in the opening, and slide it at the desired width.

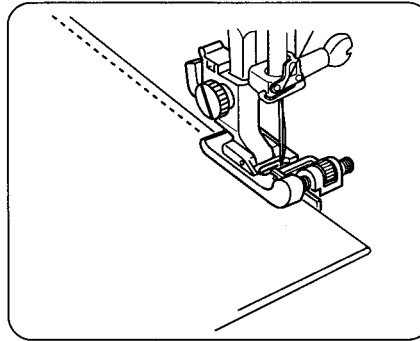


Sew guiding the quilter over the previous row of stitching.

Pin Tucking

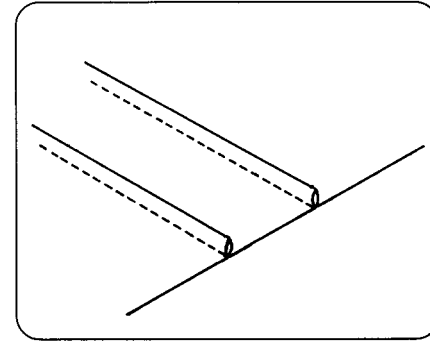


Fold the fabric with wrong sides together on the foldline.



Position the fabric so that the needle pierces 0.1 to 0.2 cm (1/16") inside of folded part and lower the presser foot.

Turn the guide screw and move the sliding guide next to the folded edge.

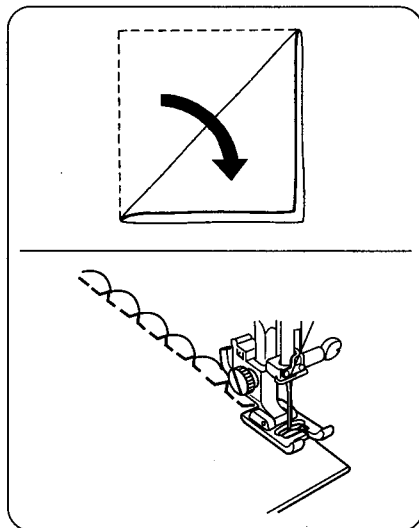
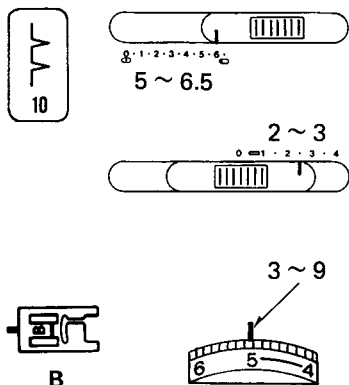


Sew guiding the folded edge along the sliding guide.

Press the pin tucks to one side.

Shell Tuck

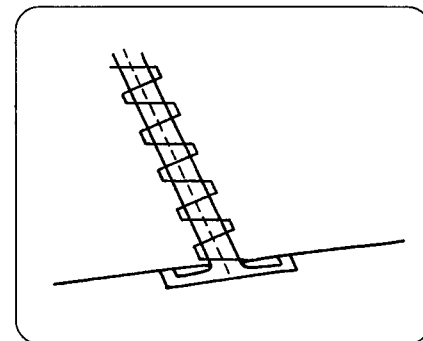
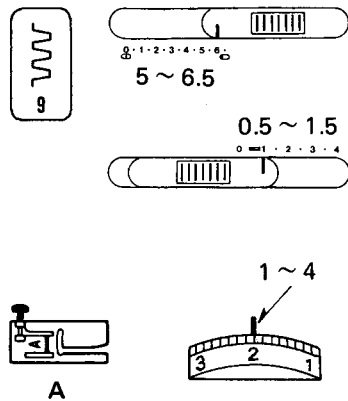
Machine Setting



Place the folded edge along the slot of foot. The needle should fall off the edge of the fabric on the right forming a tuck.

Fagoting

Machine Setting

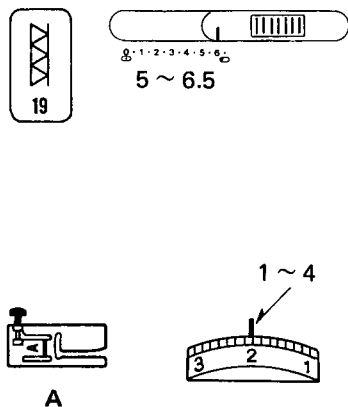


Fold under 1.5cm (1/12") on each fabric edge and press. Pin the two edges to paper 0.3cm (1/8") apart.

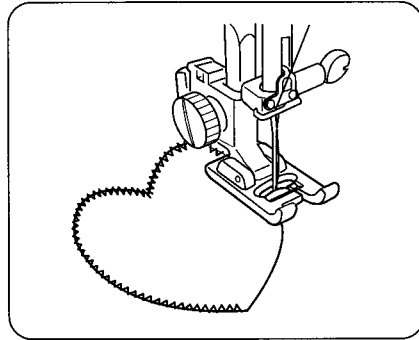
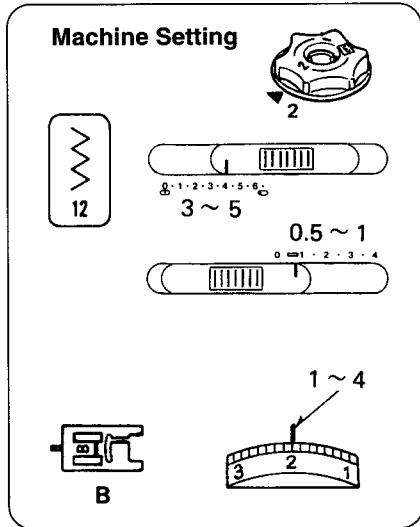
Sew slowly guiding the fabric so the needle catches the folded edge on each side.

Peel off the paper from the wrong side of the fabric.

Machine Setting



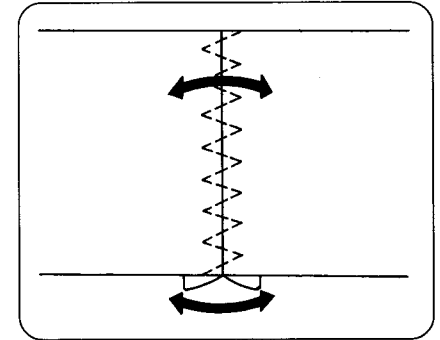
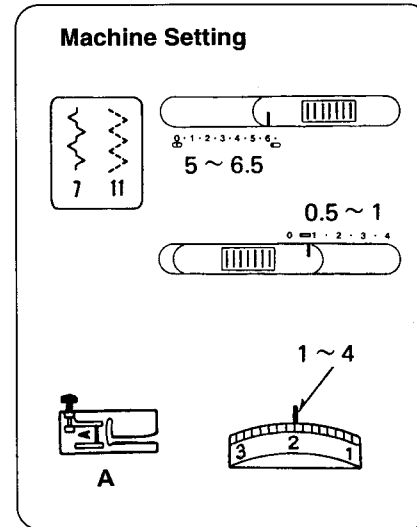
Applique



Baste (or fuse with iron-on fabric joiner) applique pieces on the fabric. Stitch around the applique making sure the needle falls along the outer edge of the applique. When sewing corners, lower the needle down into the fabric. Raise the presser foot and pivot the fabric to the right or left.

- * When applique sewing is finished, return the pressure dial to 3.

Patch Work

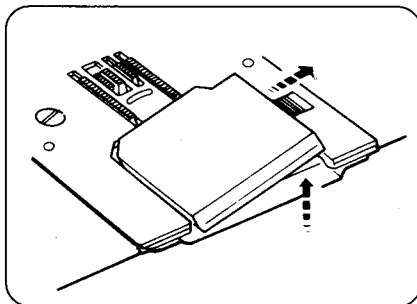


Sew seam and press seam allowance open. Sew pattern stitch on the right side of garment centering stitches over the seam line.

SECTION VI CARE OF YOUR MACHINE

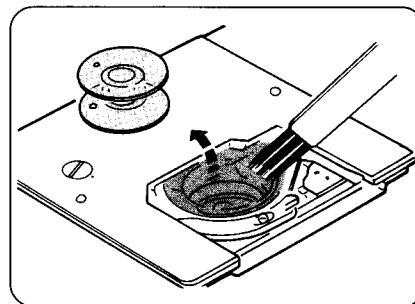
Cleaning the Bobbin Holder

This machine never needs oiling but the bobbin area and hook race should be cleaned after completion of every garment. Do not store the machine in an area of high humidity, near a radiator or in direct sunlight. Clean the outside of the machine with a soft cloth and neutral soap. Raise the needle and unplug the machine before cleaning.

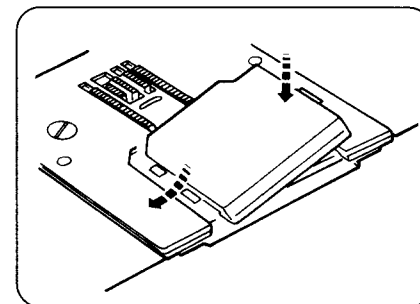


Turn off the power switch or unplug the machine.

Remove the cover plate by sliding the hook cover plate release button to the right.

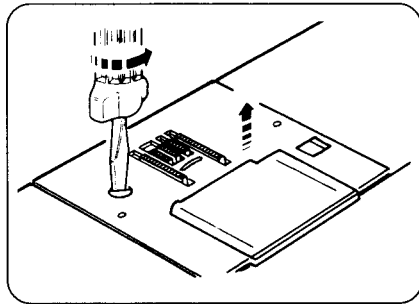


Take out the bobbin. Brush out dust and lint or you may use a vacuum cleaner.

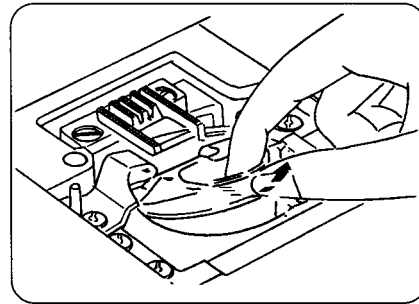


Insert the bobbin. Attach the hook cover plate.

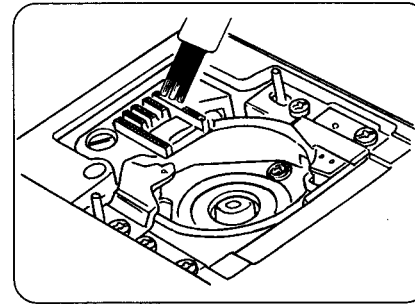
Cleaning the Hook Race



Unplug the machine and remove the presser foot and needle. Remove the screw on the left hand side of the needle plate with the screwdriver. Remove the needle plate.

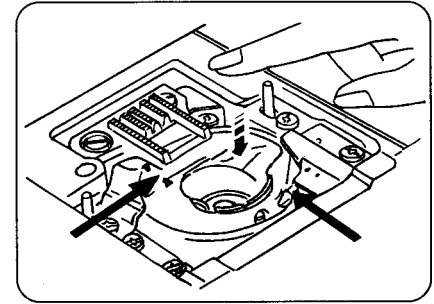


Take out the bobbin. Lift up the bobbin holder and remove it.



Clean the feed dogs, hook race and bobbin holder with the lint brush and a soft dry cloth.

Inserting the Bobbin Holder



Line up the triangle marks and position the bobbin holder so the notch fits next to the stopper in the hook race.

Trouble Shooting

Condition	Cause	Reference
The machine does not run smoothly and is noisy.	<ol style="list-style-type: none"> 1. Threads have been caught in hook mechanism. 2. The feed dog is packed with lint. 	<p>See Pages 46 and 47 See Page 47</p>
The needle thread breaks.	<ol style="list-style-type: none"> 1. The needle thread is not threaded properly. 2. The needle thread tension is too tight. 3. The needle is bent or blunt. 4. The needle is incorrectly inserted. 5. The fabric is not being drawn to the rear when sewing is finished. 6. The thread is either too heavy or too fine for the needle. 	<p>See Page 18 See Page 20 See Page 13 See Page 13 See Page 22 See Page 14</p>
The bobbin thread breaks.	<ol style="list-style-type: none"> 1. The bobbin thread is not threaded properly in the bobbin holder. 2. Lint has collected in the bobbin holder. 3. The bobbin is damaged and does not turn smoothly. 	<p>See Page 17 See Page 46 Exchange bobbin.</p>
The needle breaks.	<ol style="list-style-type: none"> 1. The needle is incorrectly inserted. 2. The needle is bent or blunt. 3. The needle clamp screw is loose. 4. The tension of the needle thread is too tight. 5. The fabric is not drawn to the rear when sewing is finished. 6. The needle is too fine for the fabric being sewn. 7. The pattern selector dial has been turned while the needle was in the material. 	<p>See Page 13 See Page 13 See Page 13 See Page 20 See Page 22 See Page 14 See Page 21</p>
Skipped stitches.	<ol style="list-style-type: none"> 1. The needle is incorrectly inserted. 2. The needle is bent or blunt. 3. The needle and/or threads are not suitable for the work being sewn. 4. A BLUE TIPPED needle is not being used for sewing stretch, very fine fabrics and synthetics. 5. The needle thread is not threaded properly. 6. The presser foot pressure is not strong enough. 	<p>See Page 13 See Page 13 See Page 14 See Page 14 See Page 18 See Page 10</p>

Condition	Cause	Reference
Seam Puckering.	<ol style="list-style-type: none"> 1. The needle thread tension is too tight. 2. The needle thread is not threaded correctly. 3. The needle is too heavy for the cloth being sewn. 4. The stitches are too coarse for the fabric being sewn. 5. The presser foot pressure is not correctly adjusted. <p>* When sewing extremely light weight materials, place a sheet of paper underneath the fabric.</p>	<p>See Page 20 See Page 18 See Page 14 Make the stitches denser. See Page 10</p>
Stitches form loops below the work.	<ol style="list-style-type: none"> 1. The needle thread tension is too loose. 2. The needle is either too heavy or too fine for the thread. 	<p>See Page 20 See Page 14</p>
The cloth is not feeding smoothly.	<ol style="list-style-type: none"> 1. The feed dog is packed with lint. 2. The presser foot pressure is too weak. 3. The stitches are too fine. 4. The feed dog is not raised after "Drop feed" has been used 	<p>See Page 47 See Page 10 Make the stitches coarser. See Page 10</p>
The machine does not work.	<ol style="list-style-type: none"> 1. The machine is not plugged in. 2. A thread is caught in the hook race. 3. Clutch knob is pulled away for the bobbin winding. 4. Bobbin winder spindle is in the winding position. 	<p>See Page 8 See Page 47 See Page 16 See Page 16</p>
The buttonhole stitches are not balanced.	<ol style="list-style-type: none"> 1. The stitch length is not suitable for the fabric being sewn. 2. The work is being pulled or held back. 3. Interfacing is not used with stretch fine fabrics. 	<p>See Page 28,31 and 33 Do not force the fabric for guiding. See Page 28</p>

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