

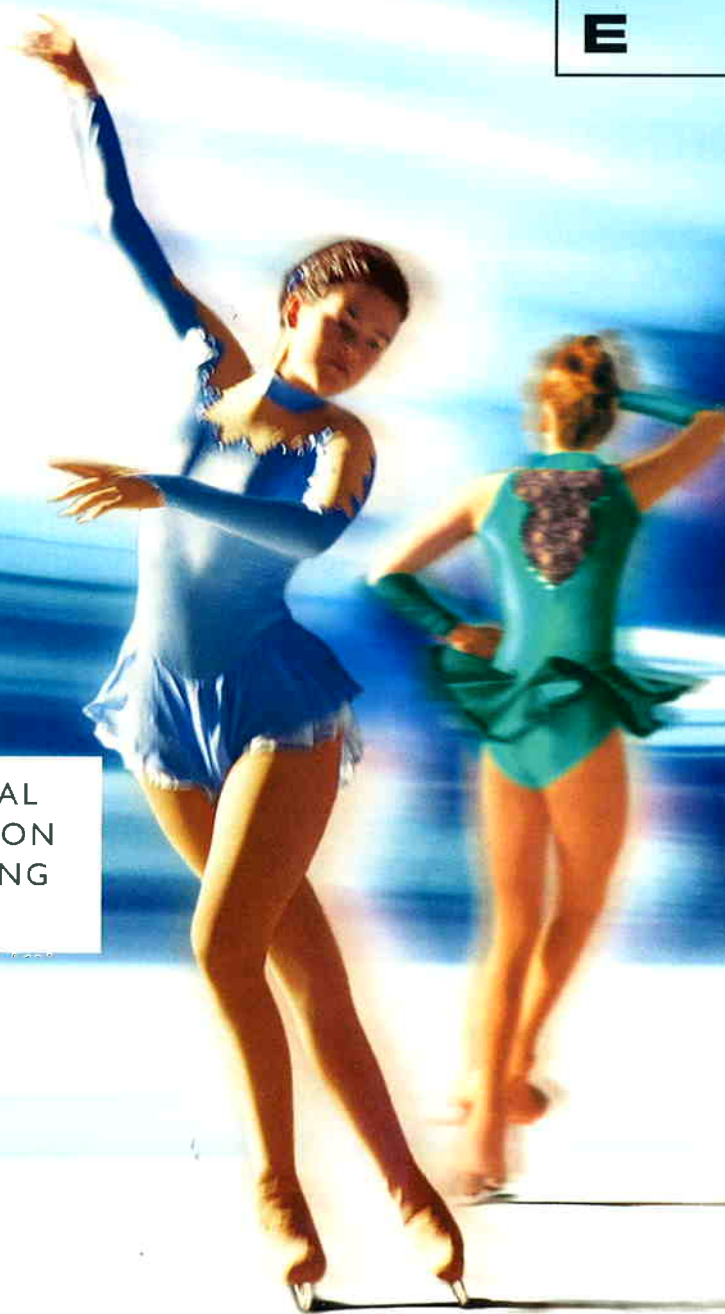
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INSTRUCTION MANUAL
MANUEL D'INSTRUCTION
GEBRAUCHSANWEISUNG
MODO D'USO



elna
SWISS DESIGN

IMPORTANT SAFETY INSTRUCTIONS

Your 744 overlock machine is designed and constructed for HOUSEHOLD use only. Read all instructions before using this overlock machine.

DANGER - To reduce the risk of electrical shock:

1. Your overlock machine should never be left unattended when plugged in.
2. Always unplug the machine from the electrical outlet immediately after using and before cleaning.
3. Always unplug before replacing light bulb. Replace bulb with same type rated 15 Volts/5 watts.
4. Do not reach for the machine if it has fallen into water. Unplug immediately.
5. Do not place or store machine where it can fall or be pulled into a tub or sink. Do not place it in or drop it into water or other liquid.
4. Never operate the machine with any air opening blocked. Keep ventilation openings of the machine and foot control free from accumulation of lint, dust and fibers.
5. Keep fingers away from all moving parts. Special care should be used around the needle and cutting blades.
6. Do not use bent needles.
7. Do not pull or push fabric while stitching. This may deflect the needle causing it to break.
8. Switch off the machine when making any adjustment in the needle area, such as threading needle, changing needle position, threading looper, changing presser foot, etc.
9. Always unplug the machine from the electrical outlet when removing covers, lubricating or when making any other servicing adjustments mentioned in this instruction manual.

WARNING - To reduce the risk of burns, fire, electrical shock or injury:

1. Do not allow the machine to be used as a toy. Supervision is necessary when this machine is used by or near children.
2. Use this machine only for its intended use as described in this manual. Use only attachments recommended by the manufacturer as described in this manual.
3. Never operate this machine if it has a damaged cord or plug, is not working properly, has been dropped or damaged, or dropped into water. Return the machine to the nearest authorized dealer or service center for examination, repair, electrical or mechanical adjustment.
10. Never drop or insert any object into any opening.
11. Do not use outdoors. Always store your machine indoors.
12. Do not operate where aerosol (spray) products are being used or where oxygen is being administered.
13. To disconnect, switch machine off, then remove plug from outlet.
14. Do not unplug by pulling on cord. To unplug, grasp the plug, not the cord.
15. This machine is equipped with a special connection cord which, if damaged, must be replaced by an identical cord. This can be obtained from an authorized dealer or service center.

SAVE THESE INSTRUCTIONS

FOR USA - 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.

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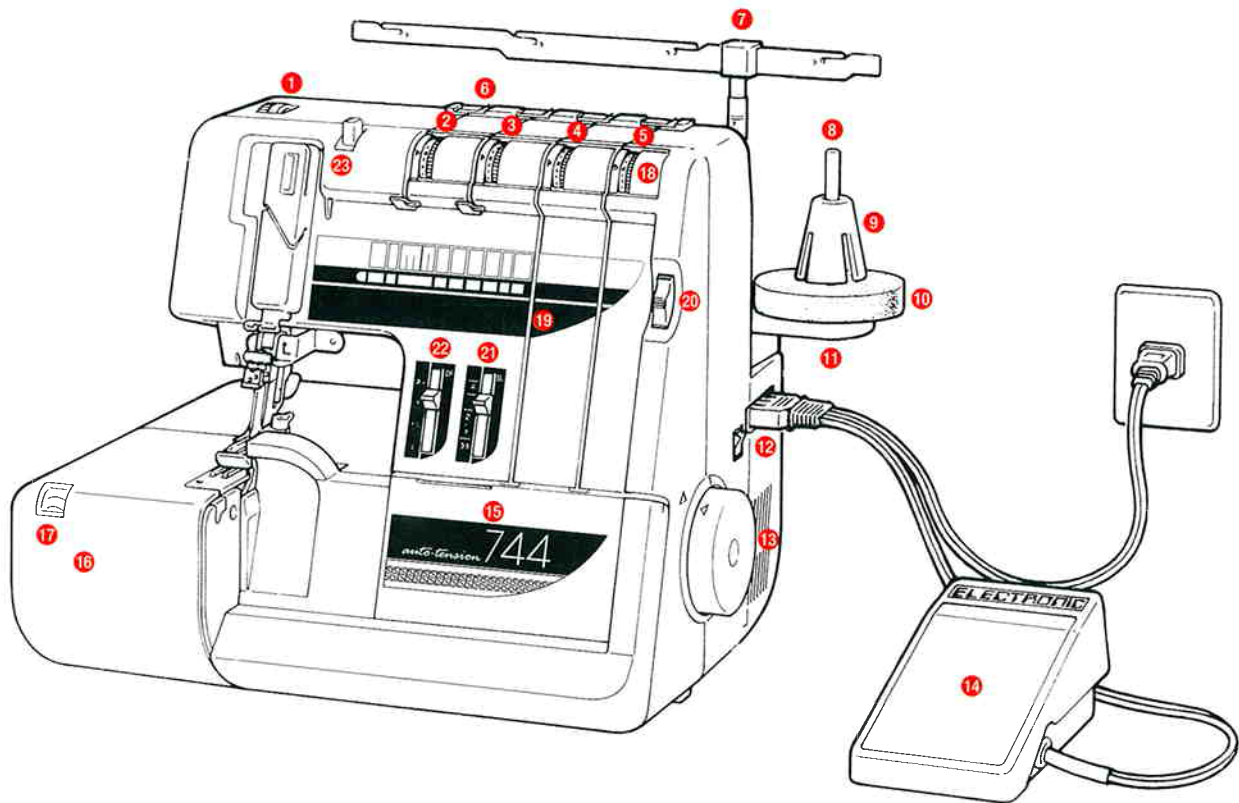
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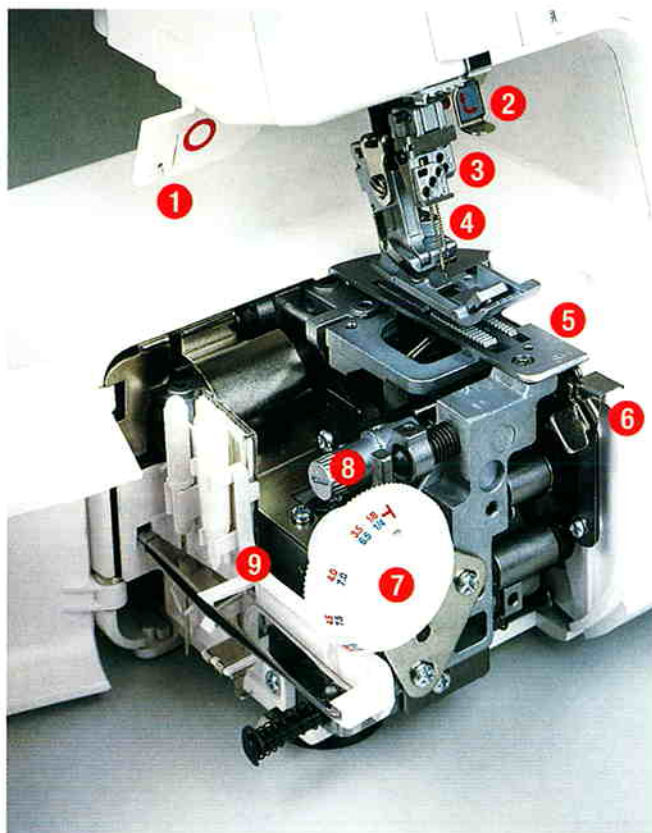
SECTION I

Machine Parts

Front View



- | | |
|---|-----------------------------|
| 1. Pressure adjustment dial | 13. Flywheel |
| 2. Left needle thread tension (blue) | 14. Foot control |
| 3. Right needle thread tension (red) | 15. Front cover |
| 4. Upper looper thread tension (yellow) | 16. Side cover |
| 5. Lower looper thread tension (green) | 17. Cutting width window |
| 6. Carrying grip | 18. Tension adjustment dial |
| 7. Thread guide antenna | 19. Program display panel |
| 8. Spool pin | 20. Program selection dial |
| 9. Spool holder | 21. Stitch length lever |
| 10. Foam pad | 22. Differential feed lever |
| 11. Spool pin base | 23. Tension release lever |
| 12. Power switch | |



Side Cover

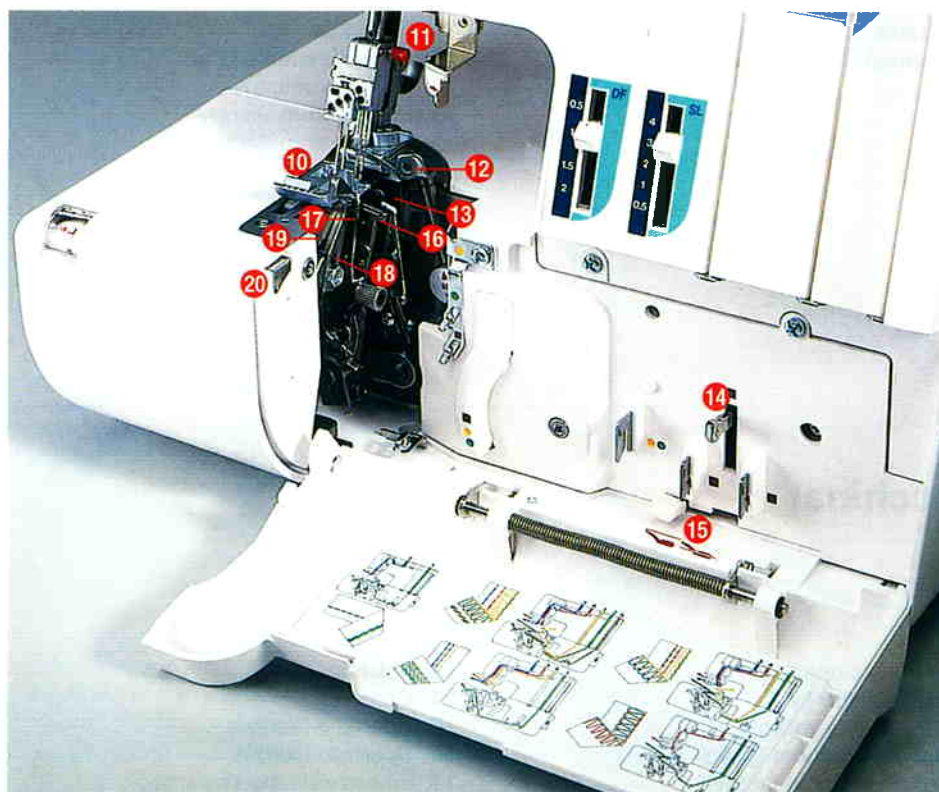
Grasp the cover and open it to the left.

1. Presser foot lever and thread cutter
2. Needle clamp safety lever
3. Needle clamp
4. Needle
5. Needle plate
6. Needle plate release lever
7. Cutting width dial
8. Movable cutting blade release knob
9. Accessory holder area

Front Cover

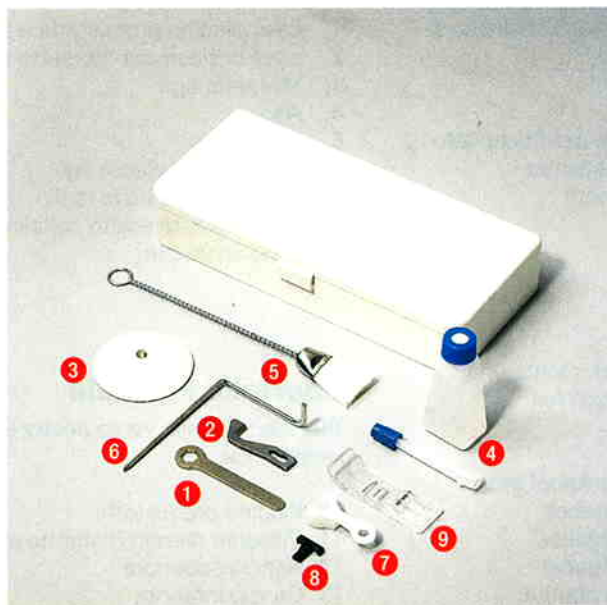
Pull the cover to the right and open it towards you.

10. Presser foot
11. Needle clamp release button (red)
12. Upper looper
13. Lower looper
14. Chainstitch take-up lever
15. Upper looper release lever
16. Chain looper
17. Instant rolled hem device (stitch width finger)
18. Movable cutting blade
19. Fixed blade
20. Back-tack device



Standard Accessories

Accessory Box



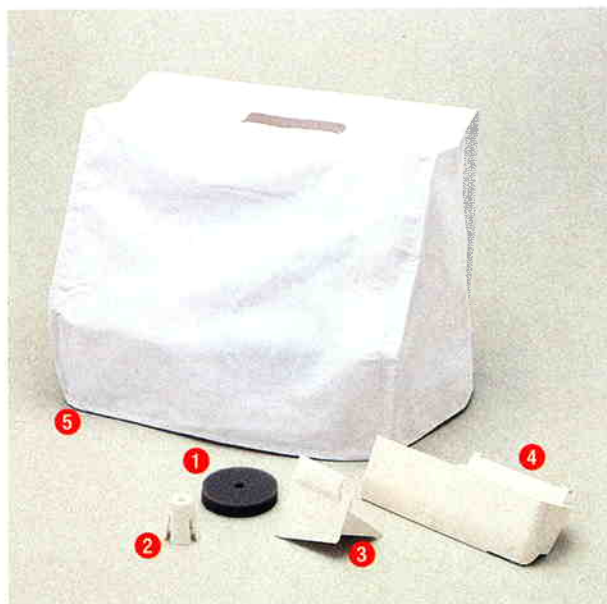
1. Wrench for replacing movable cutting blade
2. Spare movable cutting blade
3. Spool caps
4. Oil tube
5. Cleaning brush
6. Quilting guide
7. Snap-on thread guide
8. Tension release clip
9. Clear foot F

Side Cover



1. Allen screwdriver 1.5 mm
2. Tweezers
3. Assortment of needles EL x 705
4. 2 thread converter
5. Needle threader

Machine Box



1. Foam pads
2. Spool holders
3. Sewing table
4. Waste tray
5. Dust cover

SECTION II

Machine Set-up



Attaching the Antenna

- ① Insert the antenna pole into the spool pin base located at the back of the machine. Make sure the socket is correctly inserted into the slot.
- ② Pull the antenna pole to its highest position. Align the thread guide portion with the spool pins (clicks).



Placing the Foam Pads

Remove the spool holders and place the foam pads. The foam pads help stabilize the thread spools.

Both domestic and industrial type thread spools can be used.



① Industrial type spools

For industrial type spools, use the spool holders. Make sure that the spools touch the bottom.

② Domestic type spools

For domestic type spools, use the spool caps only.

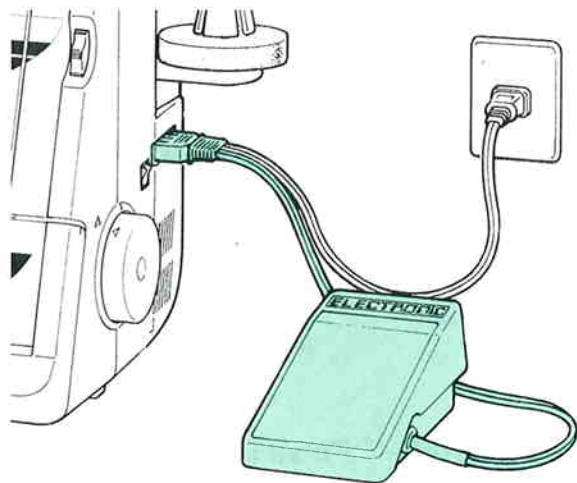
③ Decorative type spools (Specialty threads)

Place the spool directly on the foam pad to prevent the thread from slipping underneath the spool.



Connecting Machine to Power Supply

The power switch should be off. Before connecting the power cord/foot control, make sure the voltage and frequency shown on the machine are identical to your electrical power. Insert the machine/foot control plug into the machine and the power supply plug into the wall.

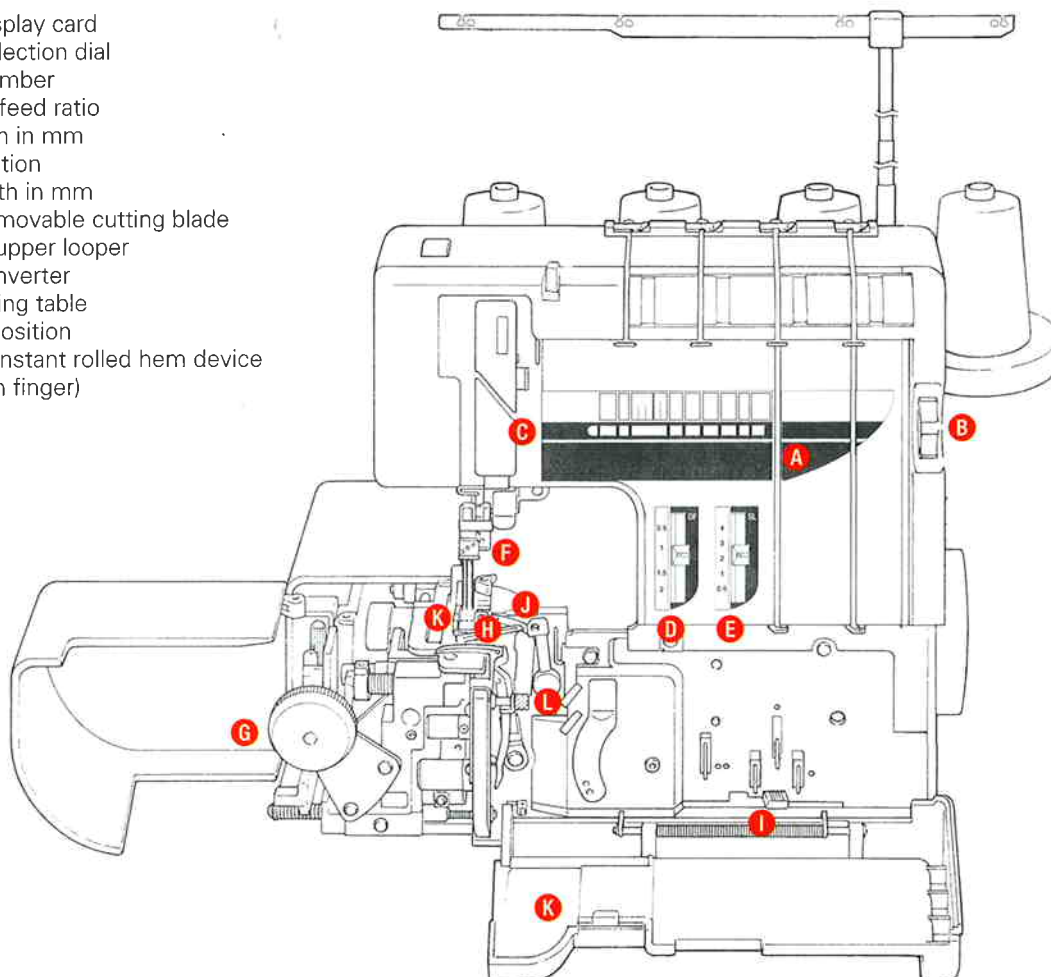


For Your Safety

1. While the machine is in operation, always keep your eye on the sewing area and do not touch any moving parts – needle(s), flywheel, movable cutting blade, loopers, etc.
2. Always switch off the power switch and unplug from the power supply:
 - when leaving the machine unattended
 - when attaching or removing parts
 - when cleaning the machine.
3. Do not place anything on the foot control.

Using the Program Display Panel

- A. Program display card
- B. Program selection dial
- C. Program number
- D. Differential feed ratio
- E. Stitch length in mm
- F. Needle position
- G. Cutting width in mm
- H. Position of movable cutting blade
- I. Position of upper looper
- J. 2 thread converter
- K. Use of sewing table
Foot lever position
- L. Position of instant rolled hem device
(stitch width finger)



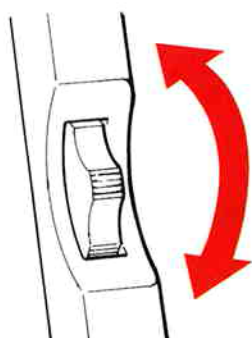
1 SAFETY 4 THREAD STRETCH KNIT	4 FLATLOCK 2	8 ROLLED HEM 2
2 OVERLOCK 3	5 OVERCAST 2	9 STRETCH WRAPPED
3 3 THREAD WIDE	6 NARROW HEM 3	TRIPLE COVER HEM
3 FLATLOCK 3	7 ROLLED HEM 3	10 COVER HEM WIDE NARROW CHAINSTITCH

- A. Look at the program display card (available in many different languages) and locate the name of the stitch you wish to sew. To the left of the stitch name is a corresponding program number.

NOTE: Some program numbers correspond to more than one stitch name.

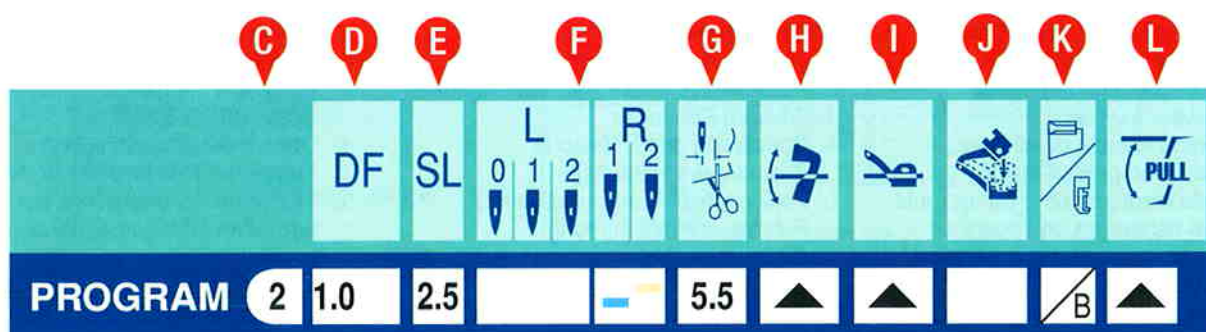
EXAMPLES: Program 1 corresponds to two stitches – Safety 4 Thread and Stretch Knit.

Program 10 corresponds to four stitches – Triple Cover Hem, Cover Hem Wide, Cover Hem Narrow and Chainstitch.



- B. Move the program selection dial until the desired stitch program number is shown in the program display.

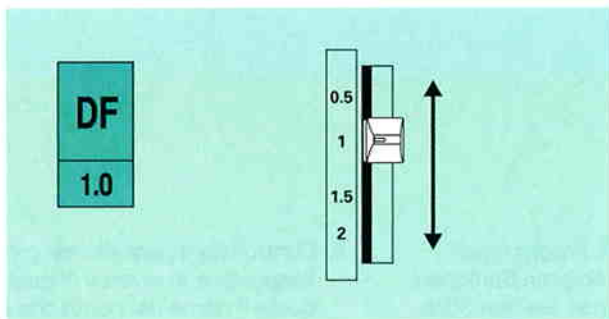
What the Symbols Represent



- C. The program display automatically sets the thread tensions for the stitch program number shown. In addition, instructions for machine set-up are displayed using easy to read symbols.

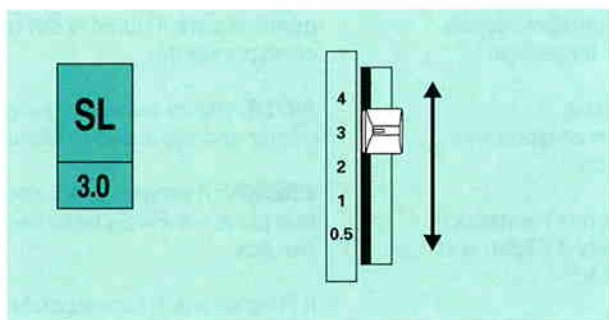


NOTE: It is very important to have the program on the display panel correspond to the desired stitch. We recommend physically setting-up the machine before attempting to thread. This ensures that all machine parts are correctly positioned and makes threading easier.



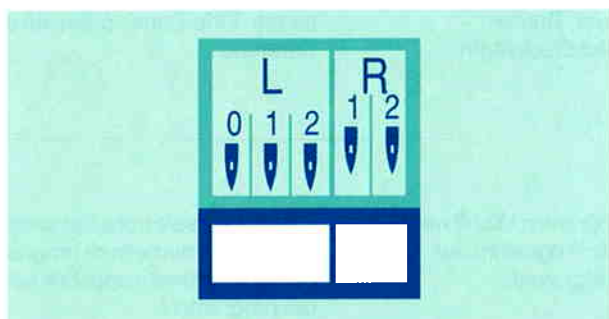
D. DF = Differential Feed

Move the DF lever to the setting indicated on the display panel. Differential feed may be set from 0.5 to 2.0.



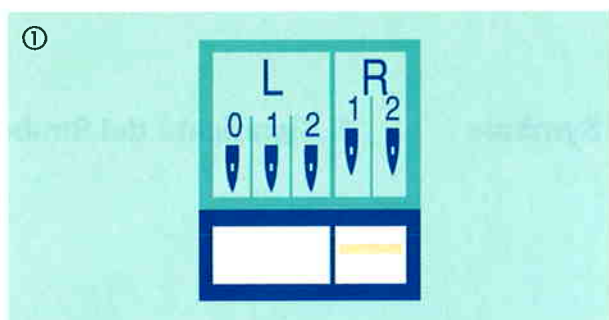
E. SL = Stitch Length

Move the SL lever to the setting indicated on the display panel. Stitch length may be set from 0.5 to 4.0.



F. Needle Position

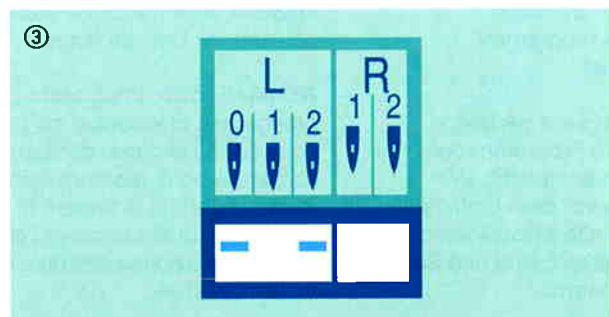
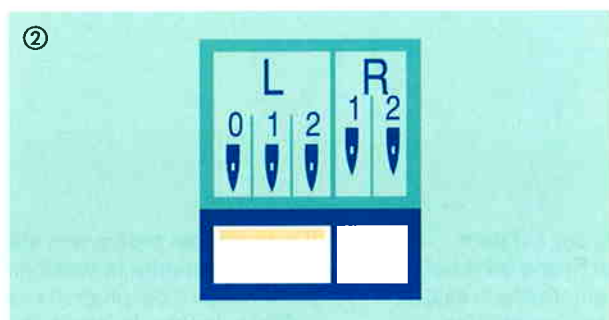
There are 5 needle positions available to sew the programs. A colored bar corresponding to the program is shown below LO, L1, L2, R1 or R2 to indicate which position will require needle(s). Insert needle(s) into the proper needle position. (See page 24 for operating tilting needle clamp.)



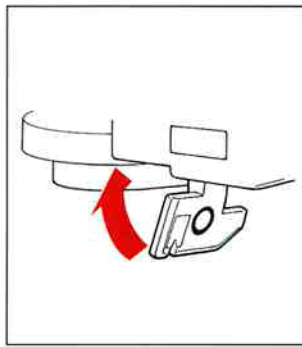
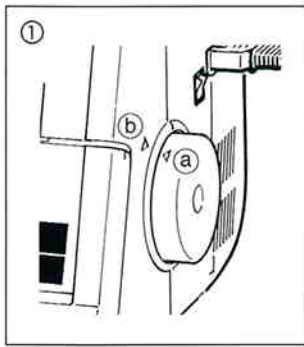
Example:

- ① Insert needles in positions R1 and R2
- ② Insert needles in positions LO, L1 and L2.
- ③ Insert needles in positions L0 and L2.

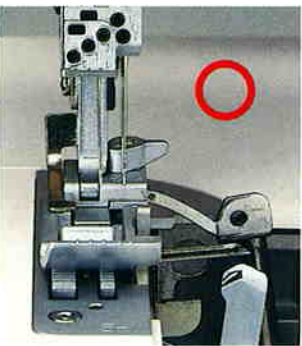
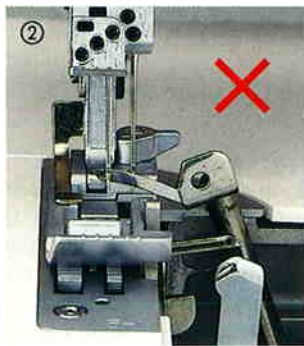
IMPORTANT: Switch off the machine when inserting needles.



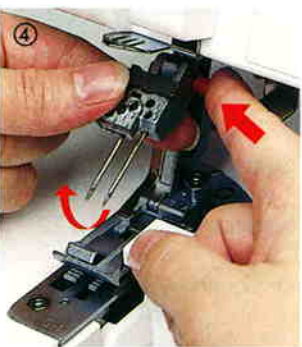
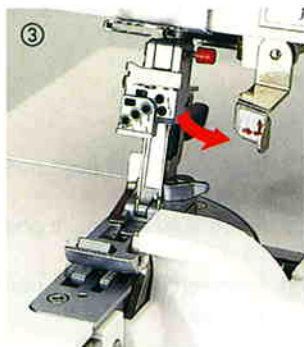
Tilting Needle Clamp



- ① The needle clamp can be tilted up to ensure easy needle placement. Hand turn the flywheel towards you to move needle clamp/upper looper. Align triangle mark «a» with «b». Lower the presser foot.



- ② Before attempting to tilt the needle clamp, make sure the needle clamp is up and the upper looper is not in front of any needle position.



- ③ Swing the needle clamp safety lever down to the right.
- ④ Press the needle clamp release button (red) while tilting the clamp towards you.



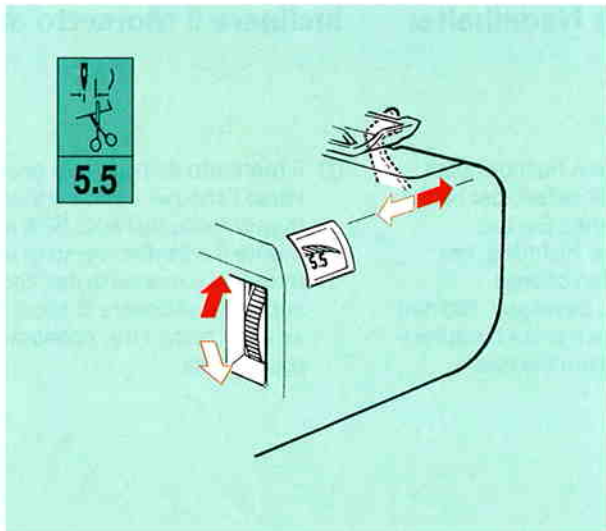
- ⑤ Each needle position has a set screw. Use the allen screwdriver to loosen the set screw. Insert needle(s) with flat side to the back into new position(s).
- ⑥ Tighten set screw.

NOTE: Needles will always sit unevenly. If needles are even, loosen set screws and reinsert needles.



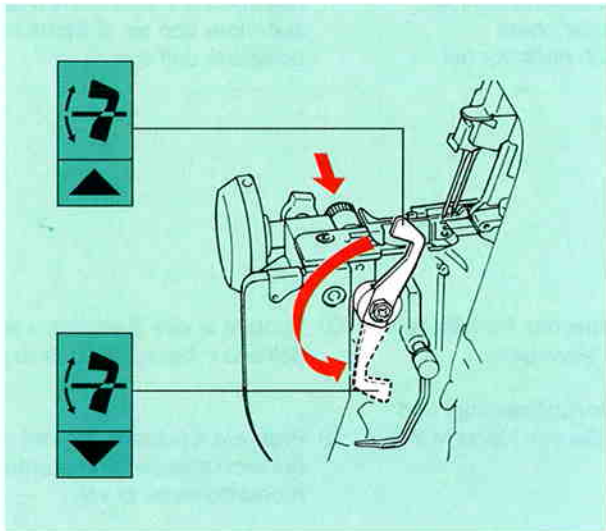
- ⑦ Tilt down the needle clamp and put the needle clamp safety lever back in position.

NOTE: After moving needles, always hand turn the flywheel to test that needles will pass through the needle plate.



G. Set Cutting Width Dial

The cutting width dial indicates the distance between the needle and where the blades cut. The dial displays the settings in millimeters and inches. Turn the dial until the readout on the display panel is visible in the cutting width window.



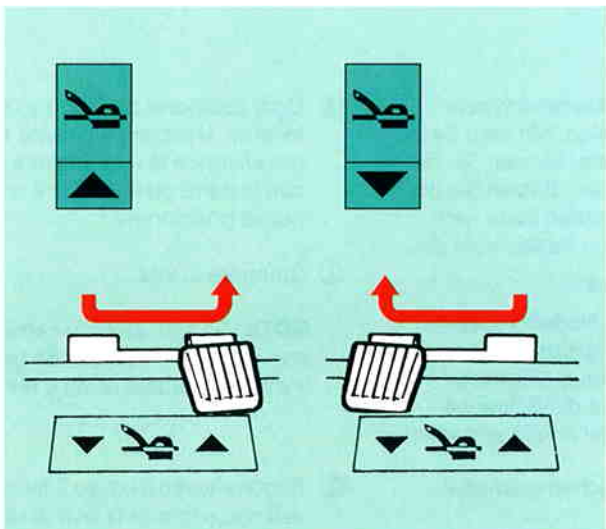
H. Movable Cutting Blade Position

▼ To Disengage Movable Cutting Blade (down)

Hand turn the flywheel to bring needle bar to its highest position. Open front and side covers. Push movable cutting blade release knob to the right and turn it towards you.

▲ To Engage Movable Cutting Blade (up)

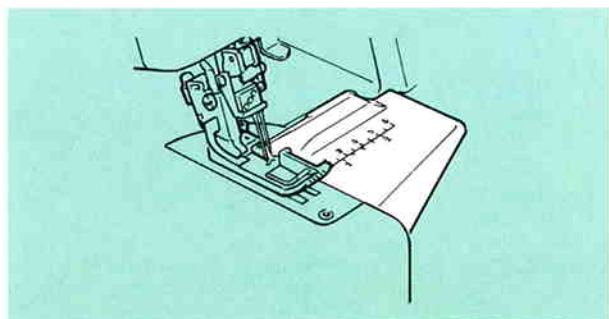
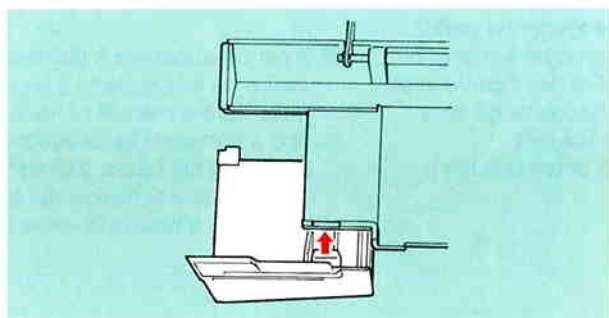
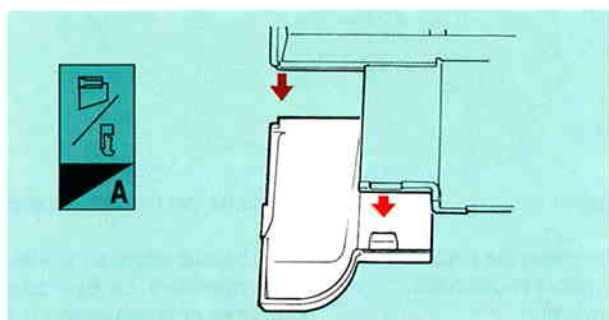
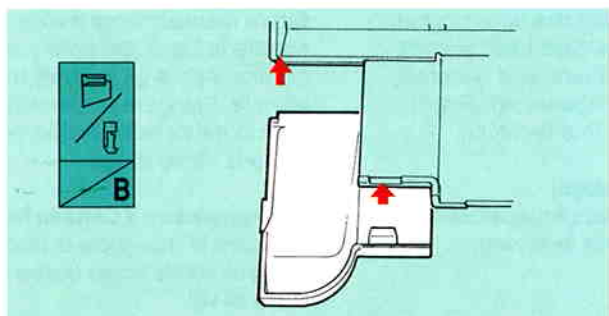
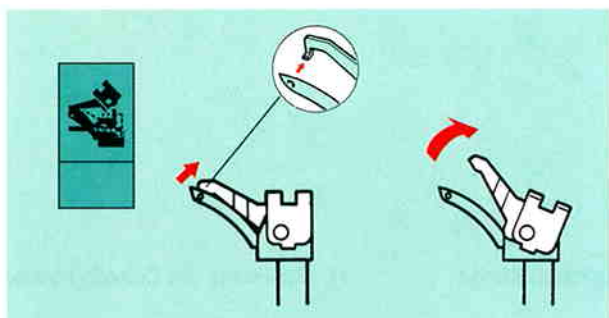
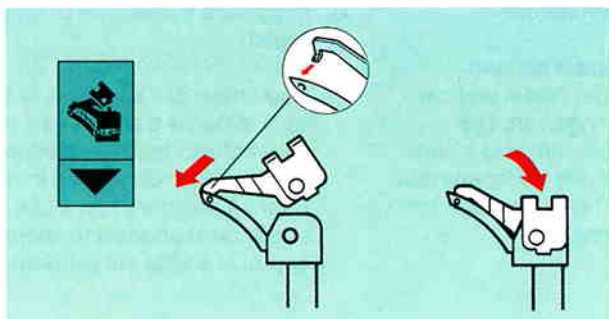
Push movable cutting blade release knob to the right and turn it away from you.



I. Upper Looper Position

▲ The upper looper is engaged in a working position. The upper looper release lever should be shifted to the right.

▼ The upper looper is disengaged to sew a cover hem or chainstitch. Hand turn the flywheel until the needle bar is at its lowest position. Push down the upper looper release lever and shift it left.



- J. 2 Thread Converter
The upper looper is engaged when the 2 thread converter is attached.

▼ **Attach 2 thread converter**

Hand turn the flywheel until the upper looper is in an up position.
(**HINT:** Align the arrows on the flywheel).

Insert hook into upper looper eye and push down to fit converter to looper base.

■ **Remove 2 thread converter**

Hand turn the flywheel until upper looper is in an up position.

Pull out hook from looper eye and lift converter off looper base.

- K. Use of Sewing Table/Footer Lever Position

Program numbers 1-9 will always have the overlock cover attached to the front cover and will use presser foot B position.

■ **Attach Overlock Cover**

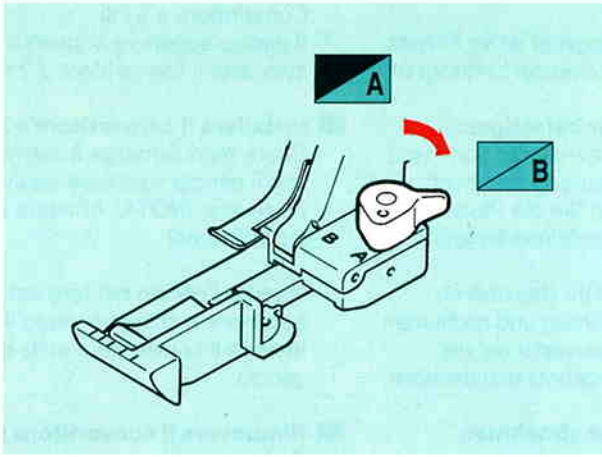
The overlock cover protects the loopers. To attach the overlock cover, slide base onto front cover and « snap » it into place.

Program number 10 will always have the sewing table attached to the front cover and will use the presser foot A position.

■ **Attach Sewing Table**

Detach the overlock cover by grasping the tab with your thumb and index finger. Pull the tab up slightly and towards you.

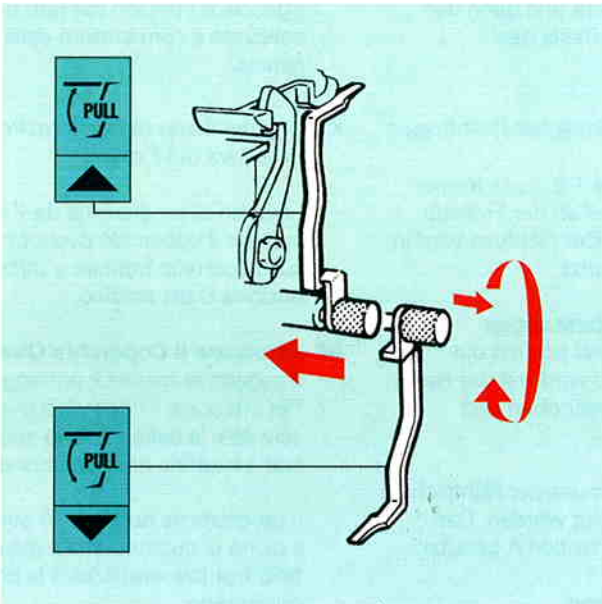
The movable cutting blade, stitch width finger and upper looper will always be disengaged when the sewing table is attached. To install the sewing table, slide table onto front cover with the tab and notch fitting snugly into place.



Presser Foot (A or B)

Switch the lever on the presser foot to A (program 10) or B (programs 1-9). The lever controls the spring action that occurs on the underside of the foot.

The tip of the foot has markings that line up with the insertion point of the needles - a great guide for accurate sewing.



L. Instant Rolled Hem Device (Stitch Width Finger)

Your machine comes equipped with the rolled hem plate. You can do all overlock stitches by engaging or disengaging the stitch width finger.



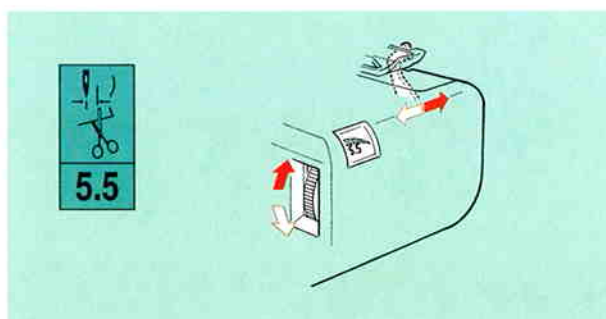
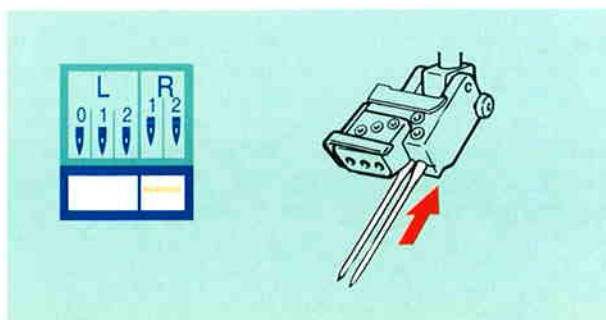
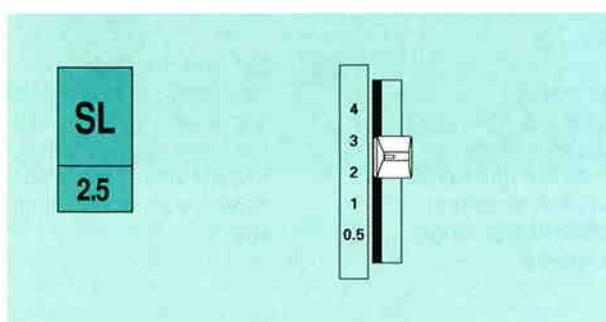
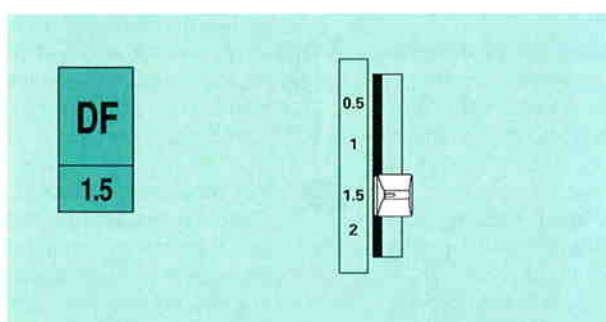
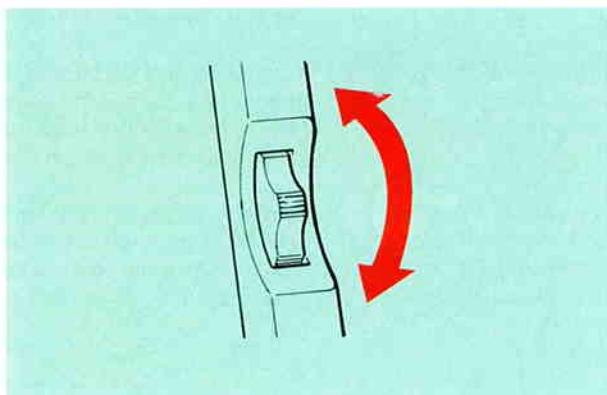
To Disengage (down)

Hand turn the flywheel to lower the needle(s) into the plate. (This brings the upper looper down.) Pull the knob to the right and swing down.



To Engage (up)

Hand turn the flywheel to lower the needle(s) into the plate. Pull the knob to the right, swing up and position finger to the left against the needle plate.



Example of a Program Set-up

Stretch Knit

1. Move program selection dial until program number 1 is shown.

NOTE: Machine *should not be threaded before program set-up occurs. Cut and remove all threads.*

HINT: Cut thread at looper and needle eyes and hand pull thread away.

IMPORTANT: Never press on foot control to sew out thread.

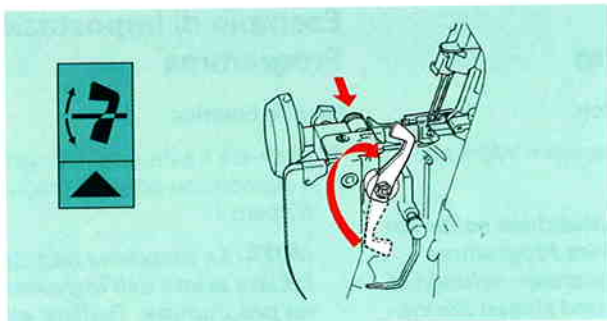
We recommend reading symbols from left to right.

2. Adjust differential feed lever to 1.5. The background color of «Stretch Knit» is indicated in blue and the 1.5 indication is also blue.

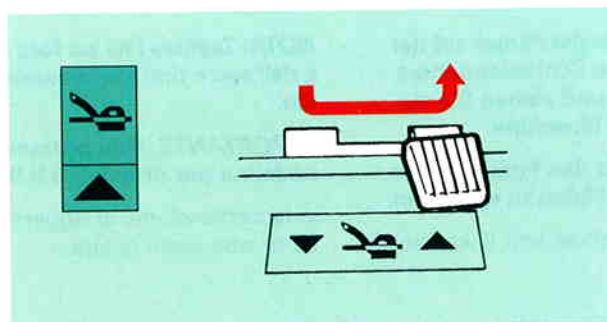
3. Adjust stitch length lever to 2.5.

4. Insert needles in R1 and R2 positions. (See page 22.)

5. Set cutting width dial at 5.5 mm.

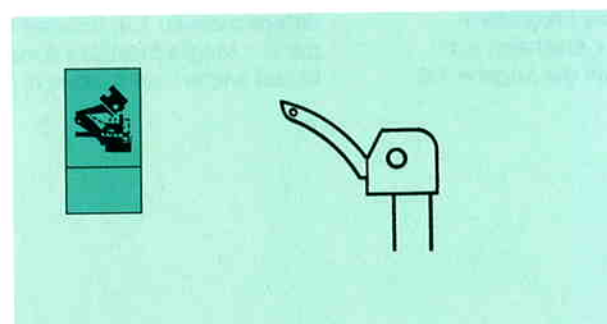


6. Movable cutting blade is engaged (up). (See page 26.)

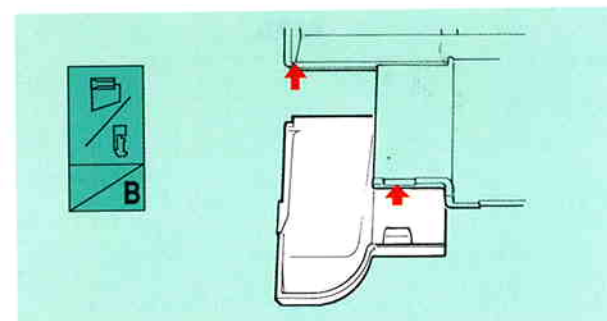


7. Upper looper is up in working position.

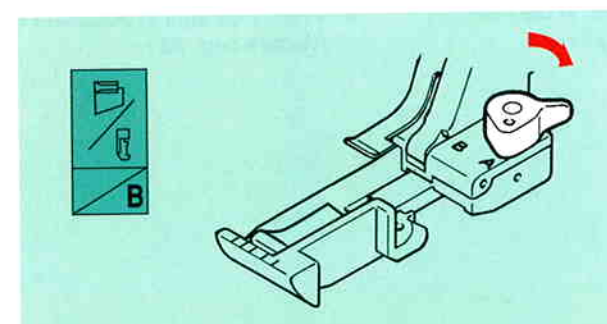
Make sure needle bar is at lowest position before moving lever.
(See page 26.)



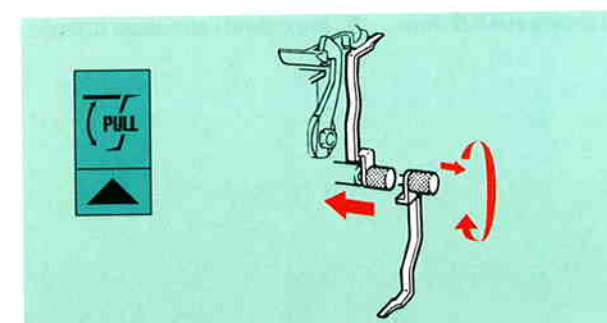
8. Upper looper does not have 2 thread converter attached.



9. Attach overlock cover to front cover.
(See page 28.)



10. Switch presser foot lever to « B » position.



11. Engage (pull up) instant rolled hem device (stitch width finger).

Make sure needle bar is at lowest position before moving device.
(See page 30.)

SECTION III

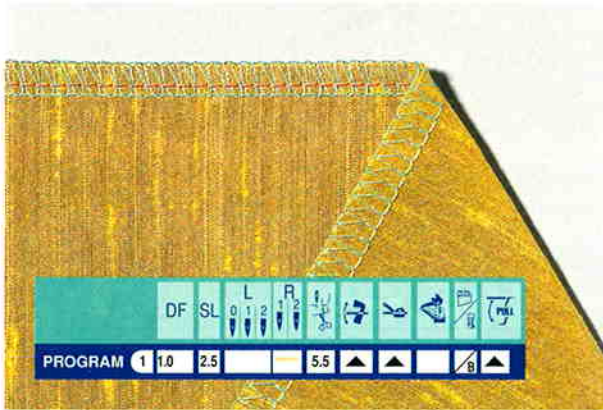
Stitch Definition

Safety 4 Thread

A 3-thread overlock stitch that adds a second needle thread. The stitch stretches without breaking. The second needle thread reinforces the durability and strength of the stitch, but the stitch retains its elasticity.

Common Uses

1. Excellent for sewing knit garments.
2. Appropriate for loose fitting woven garments.

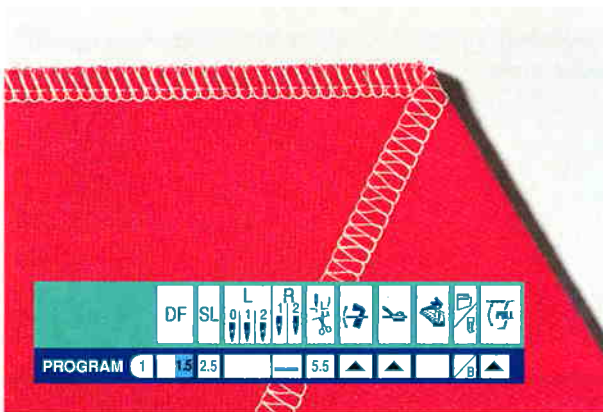


Stretch Knit

The same characteristics as the Safety 4 Thread. The Stretch Knit program uses the differential feed and stitch length settings to prevent knitwear from stretching while sewing.

Common Uses

1. Apply ribbing to knit necklines, cuffs or waistbands.
2. Construction method for sweater knits.



Overlock 3

The same characteristics as the 3 Thread Wide. This narrower version is suitable for light to medium weight fabrics.

Common Uses

1. Construction method for lingerie.
2. Edge finish on single layer of fabric.

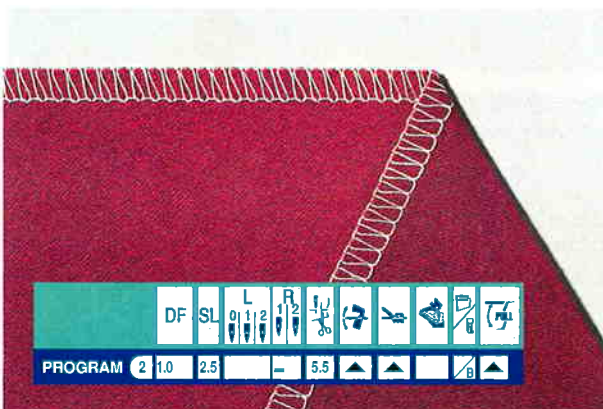


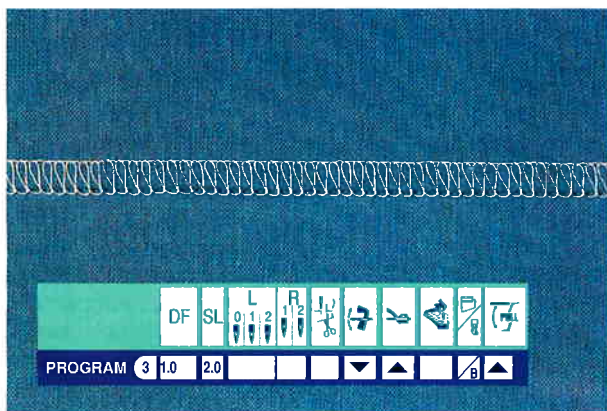
3 Thread Wide

Three threads lock together on the fabric edge forming a balanced stitch. The overlock stitch is suitable for medium to heavyweight fabrics.

Common Uses

1. Construction method for knitwear.
2. Edge finish on single layer of fabric.



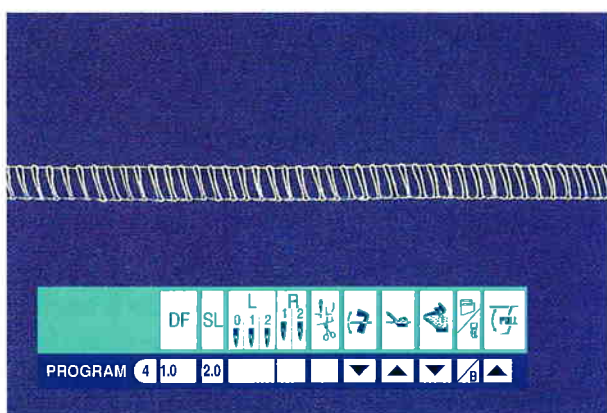


Flatlock 3

Three threads form an unbalanced stitch that can be pulled open into a flat seam. The seam resembles the exposed stitch seen on ready-to-wear sweatshirts and knit sportswear.

Common Uses

1. Construction method for bulky knitwear.
2. Decorative accent.

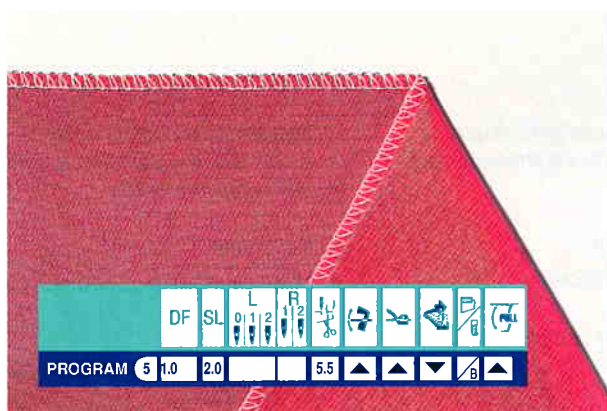


Flatlock 2

The needle and lower looper threads form a stitch that can be pulled flat.

Common Uses

1. Construction method for undergarments.
2. Hemming technique.

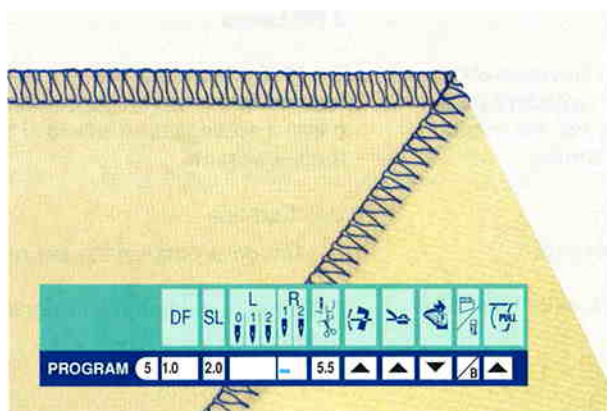


Overcast 2

The needle and lower looper threads form an edge finish that is lightweight and flat.

Common Uses

1. Finish an open seam edge on lightweight fabrics.

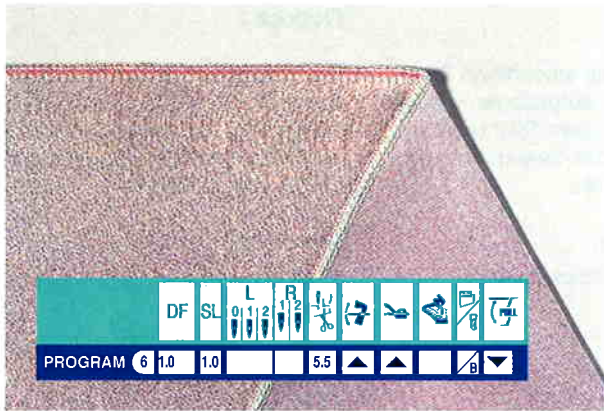


Overcast 2 Wide

The needle and lower looper threads form an edge finish that is lightweight, flat and wide.

Common Uses

1. Finish an open seam edge on medium weight fabrics.

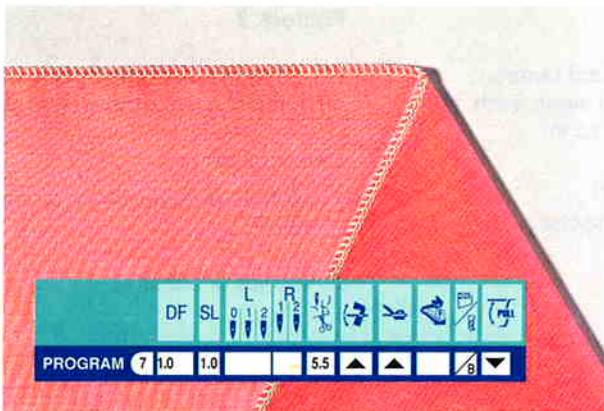


Narrow Hem 3

Three threads form a balanced stitch that is a great narrow edge finish.

Common Uses

1. Hemming method for scarves, napkins and ruffles.
2. Construction method for undergarments made of lightweight knit fabrics.



Rolled Hem 3

Three threads form an unbalanced stitch. When the stitch is formed, the fabric is rolled inside the stitch.

Common Uses

1. Hemming method for light to medium weight fabrics.
2. Pintucks for decoration.

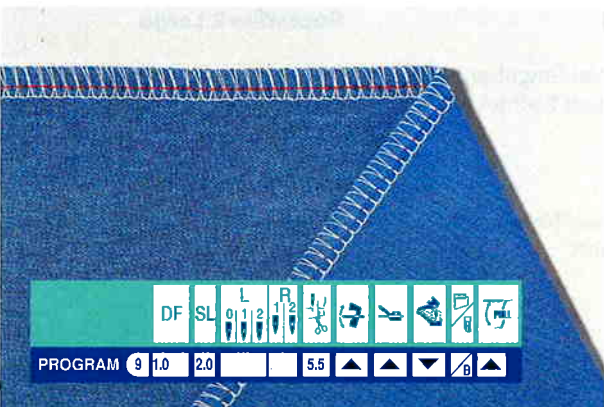


Rolled Hem 2

The needle and lower looper threads form a stitch that rolls the fabric before encasing the edge.

Common Uses

1. Since there are only 2 threads, the result is lighter and finer than Rolled Hem 3. This is an advantage for lightweight fabrics like chiffon and bridal veiling edging.



Stretch Wrapped

A stretch stitch that uses two needles and the lower looper. This is the stitch that has the maximum stretch; the second needle thread increases the stitch's durability.

Common Uses

1. Construction method for exercise and swimwear.

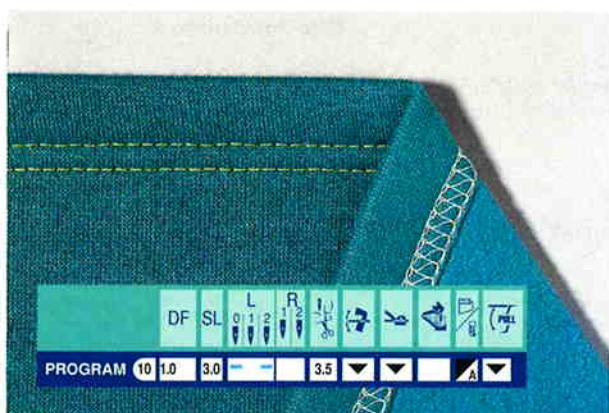


Triple Cover Hem

The Triple Cover Hem measures 5.0 mm in width. It uses three needles and the chain looper to form 3 lines of what looks like parallel straight stitches.

Common Uses

1. Hem finish.
2. Topstitching.
3. Belt loops.

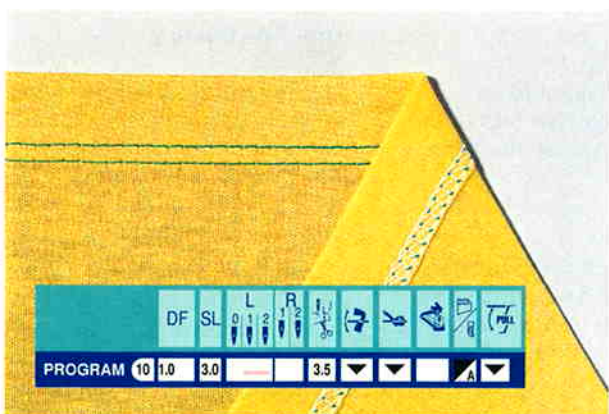


Cover Hem Wide

A version of the Cover Hem that measures 5.0 mm in width. The garment industry commonly uses this wider width on knitwear.

Common Uses

1. Hem finish.
2. Topstitching.
3. Belt loops.

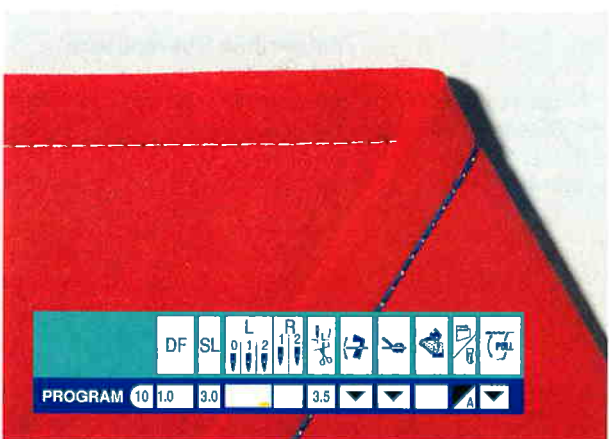


Cover Hem Narrow

The cover hem measures 2.5 mm in width. It uses two needles and the chain looper to form what look like parallel straight stitches.

Common Uses

1. Hem finish on knit fabrics.
2. Topstitching.
3. Pintucks.



Chainstitch

A 2 thread chainstitch or double chainstitch uses one needle and the chain looper to form a straight stitch. The chainstitch is a stable stitch that has a slight amount of stretch not present in the straight stitch sewn by a conventional sewing machine.

Common Uses

1. Construction method on woven fabrics to create an open seam allowance.
2. Sew knitwear together where the seam needs to be stable.
3. Sew on bias tape.



Needles

The machine is supplied with Schmetz brand EL x 705 needles. This is an industrial type needle that ensures proper stitch formation at high speeds. The scarf (cut out groove on needle back) is important because it allows the looper to come near the needle to catch the thread and form a stitch. EL x 705 needles are available in two sizes – 80/12 and 90/14. We recommend using this system of needles especially when sewing the various Cover Hem stitches.

It is possible to use conventional sewing machine needles – 130/705H – for special threads and fabrics. Thread tensions may need to be adjusted.

Common stitch problems can often be traced directly to the needle.

1. Needle inserted incorrectly. (Flat side should be to the back.)
2. Needle not pushed up high enough into position. (See page 24.)
3. Needle is dull or has burrs. (Change needles frequently; even new needles can have imperfections.)

SECTION IV

Threading

The threading routes will change according to the selected program.

As you learn to thread your machine, We recommend using the thread colors that are shown on the tension dials. This will help you understand the function of each thread.

Programs are based on sewer using polyester or a polyester/cotton blend of thread for all threading positions. Choose a brand of thread that is even and consistent with no thick and thin areas.

NOTE: The speed of the machine and the stitch formation stretches the thread as it passes through the tension discs and thread guides. Therefore, it is important that the thread is polyester or a polyester/cotton blend. A 100% cotton thread is too weak and will result in threads breaking.

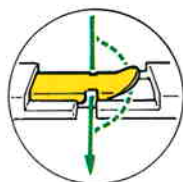
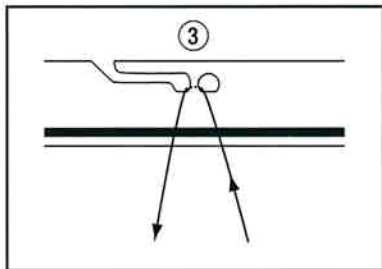
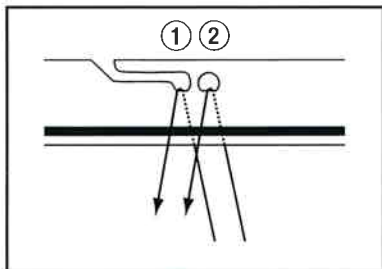
IMPORTANT: Locate the threading diagram for the stitch, study the threading guides carefully and use each guide indicated. The machine must be threaded in the correct sequence. Follow the sequence shown on the Quick Reference Threading Charts. (See pages 48, 50.)

Extend the antenna pole to its highest position. (See page 16.)

When threading the antenna thread guide, it is proper to use either the slot (1) or the hole (2). The hole is the recommended method.

Some tightly twisted threads need special threading (3).

After threading the antenna, slip the thread into the first guide on the machine as shown.

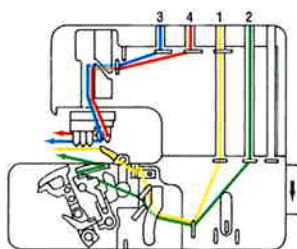


QUICK REFERENCE THREADING CHARTS

Should you need a closer view of the individual threading pathways, refer to the detailed thread route charts indicated by letter (A), (B3), etc. (See pages 52-55.)

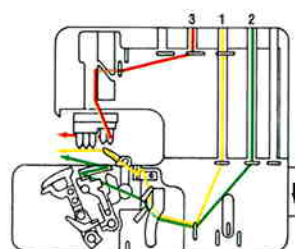
① Safety 4 Thread Stretch Knit

- 1 yellow thread for upper looper (E)
- 2 green thread for lower looper (F)
- 3 blue thread for R1 needle (B4)
- 4 red thread for R2 needle (C4)



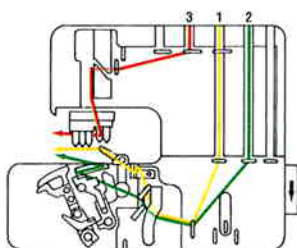
⑤ Overlock 3 Narrow Hem 3 Rolled Hem 3

- 1 yellow thread for upper looper (E)
- 2 green thread for lower looper (F)
- 3 red thread for R2 needle (C4)



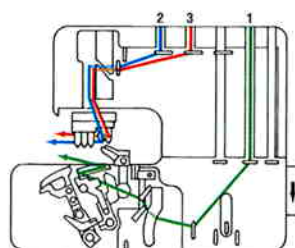
② 3 Thread Wide Flatlock 3

- 1 yellow thread for upper looper (E)
- 2 green thread for lower looper (F)
- 3 red thread for R1 needle (C3)



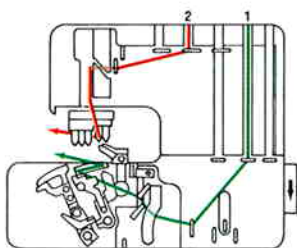
⑥ Stretch Wrapped

- 1 green thread for lower looper (F)
- 2 blue thread for R1 needle (B4)
- 3 red thread for R2 needle (C4)



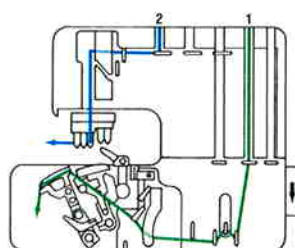
③ Flatlock 2 Overcast 2 Wide

- 1 green thread for lower looper (F)
- 2 red thread for R1 needle (C3)



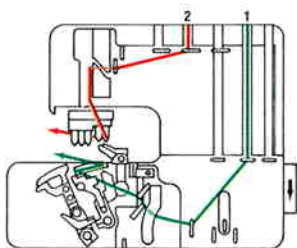
⑦ Chainstitch

- 1 green thread for chain looper (G)
- 2 blue thread for L2 needle (A)



④ Overcast 2 Rolled Hem 2

- 1 green thread for lower looper (F)
- 2 red thread for R2 needle (C4)



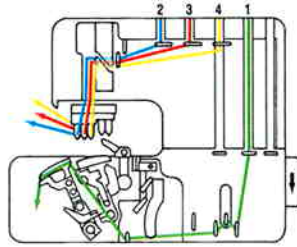
If the upper looper thread breaks while sewing, hand turn the flywheel to clear the lower looper thread off the upper looper. Rethread upper looper and hand turn the flywheel to form a stitch.

If the lower looper thread breaks while sewing, cut and remove needle threads from needle eyes. Rethread lower looper. Rethread needle eyes. Needles must be threaded after the lower looper.

⑧

Triple Cover Hem

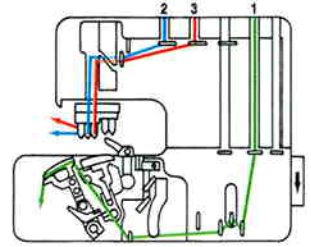
- 1 green thread for chain looper (H)
- 2 blue thread for L0 needle (B1)
- 3 red thread for L1 needle (C1)
- 4 yellow thread for L2 needle (D)



⑩

Cover Hem Narrow

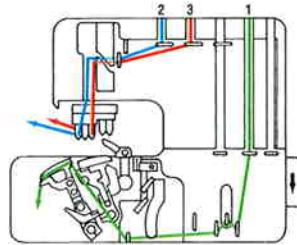
- 1 green thread for chain looper (H)
- 2 blue thread for L1 needle (B2)
- 3 red thread for L2 needle (C2)



⑨

Cover Hem Wide

- 1 green thread for chain looper (H)
- 2 blue thread for L0 needle (B1)
- 3 red thread for L2 needle (C2)



NOTE: To thread the Cover Hem stitches, the chain looper is threaded first and then the needles. Needle threading begins by using the blue tension, red tension and for the Triple Cover Hem yellow is last. The needle threads should be separated in the last two guides with the blue to the far left, then red and finally yellow.

How to Use Automatic Needle Threader

The small triangle indicates the top side of the threader.

Pass a length of thread horizontally into the threader groove. Gently press the threader to the needle and slide it down the needle front.

The narrow tongue in the threader pushes the thread through the eye and a loop is formed.

Use your fingers to grasp the loop and pull the thread through the needle eye and under the presser foot.

There are many decorative threads available for overlock use. Make sure you choose threads and yarns that smoothly move through the looper or needle. Never use a thread that breaks easily if you pull on it. Do not use fuzzy (ex. mohair yarn) or uneven threads that can catch on thread guides.

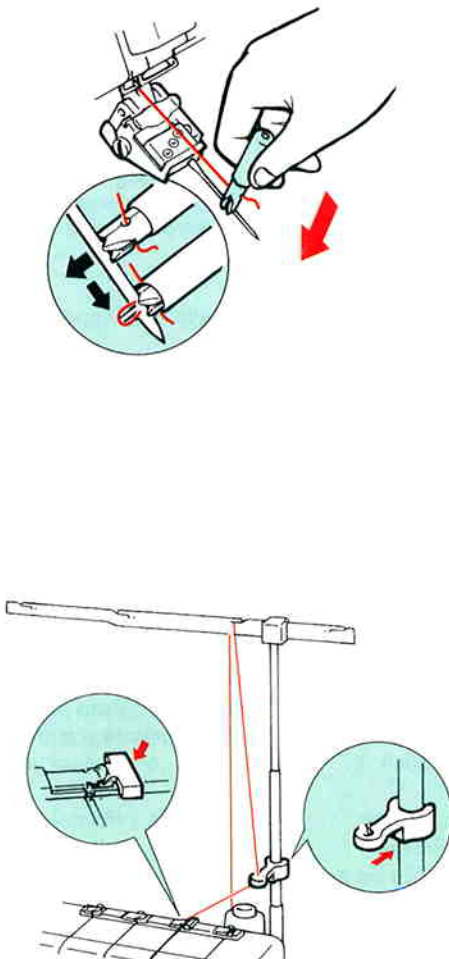
Snap-on Thread Guide

Decorative threads may tangle. Snap the thread guide onto the antenna and place upper looper thread as shown.

Tension Release Clips

Place the tension release clip into any thread guide that is using a decorative thread.

IMPORTANT: When using decorative threads, sew at a slower, consistent speed to prevent uneven stitches.



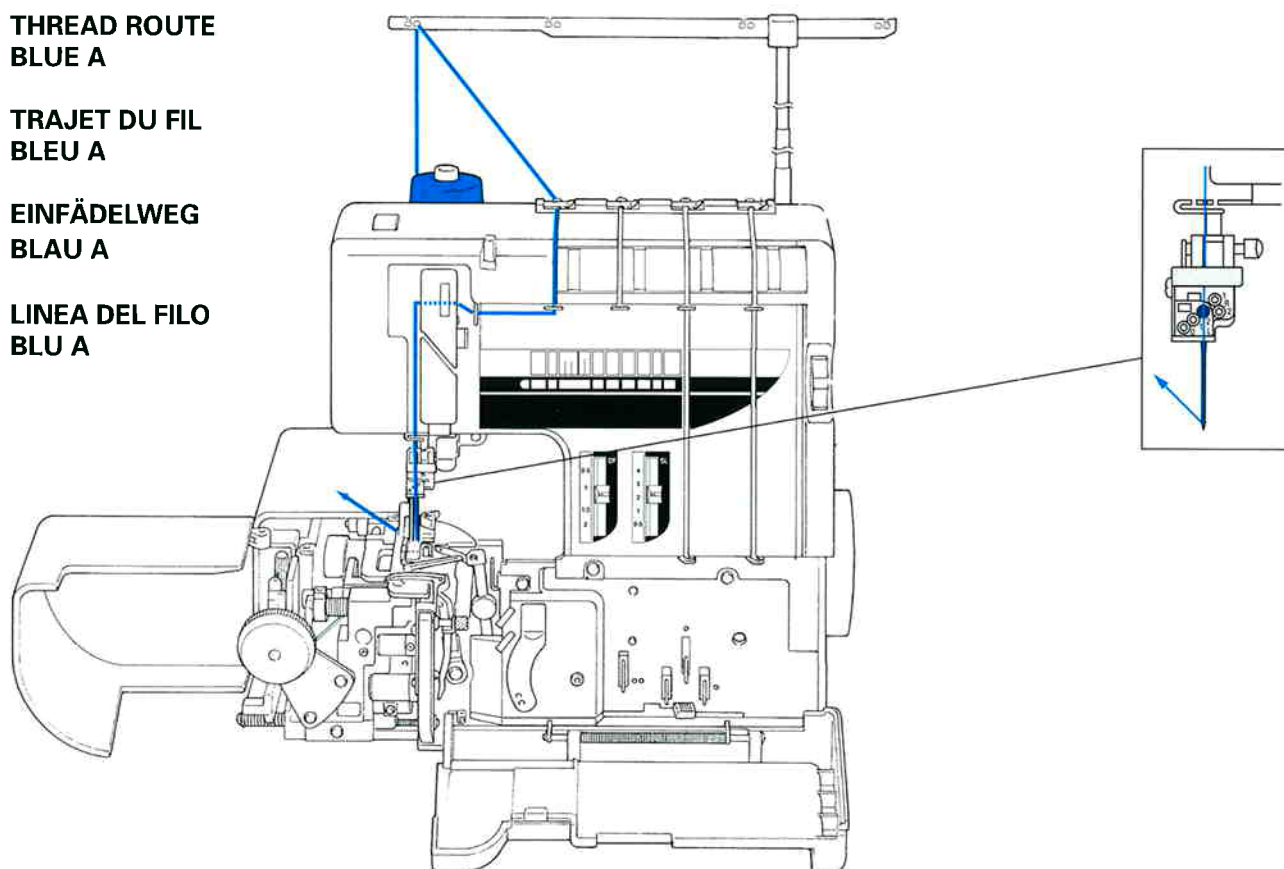
DETAILED THREAD ROUTE CHARTS/TABLEAUX D'ENFILAGE DÉTAILLÉS **DETAILLIERTE SCHAUBILDER DER EINFÄDELWEGE/DETTAGLIATE DELLE LINEE DEI FILI**

**THREAD ROUTE
BLUE A**

**TRAJET DU FIL
BLEU A**

**EINFÄDELWEG
BLAU A**

**LINEA DEL FILO
BLU A**

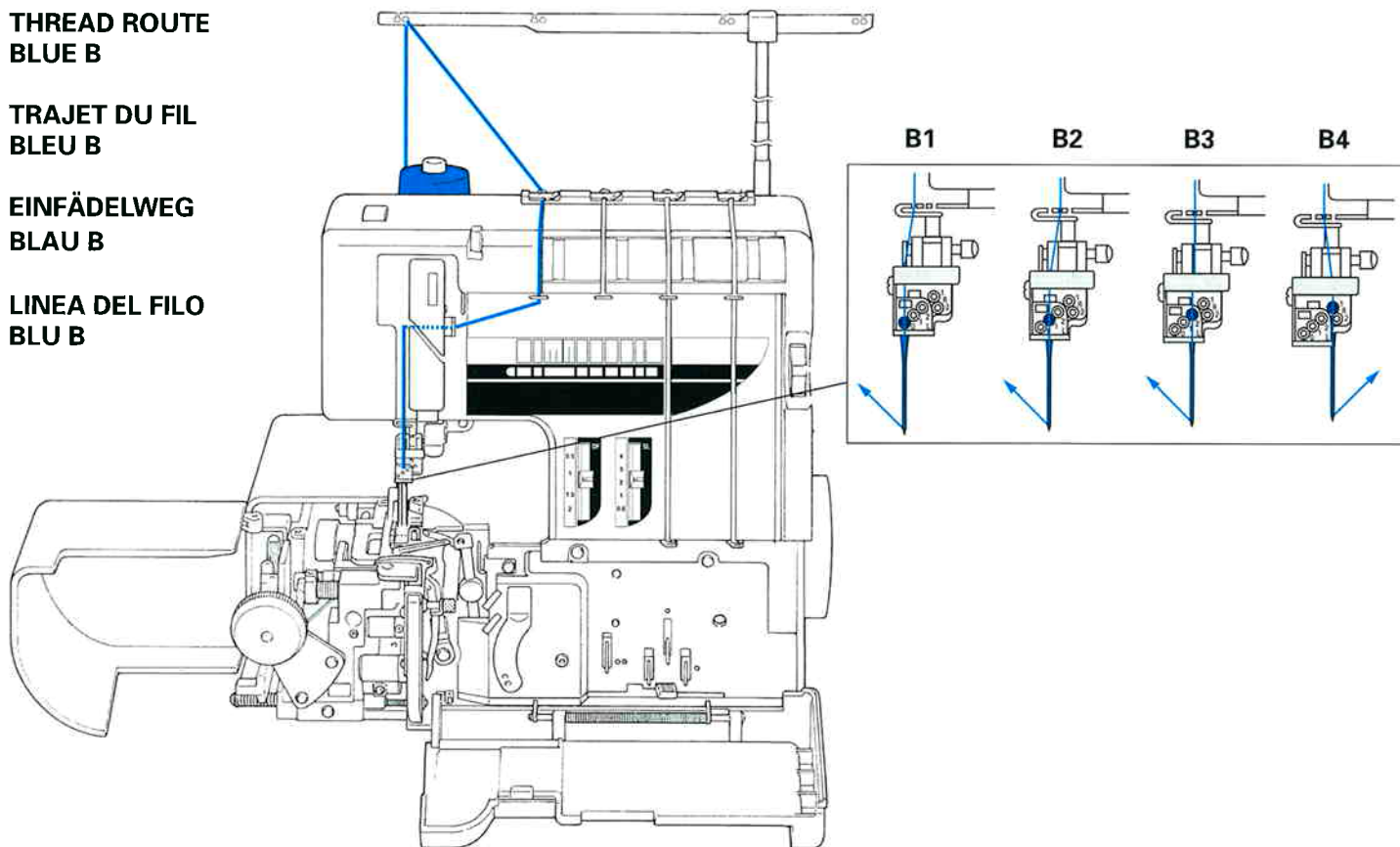


**THREAD ROUTE
BLUE B**

**TRAJET DU FIL
BLEU B**

**EINFÄDELWEG
BLAU B**

**LINEA DEL FILO
BLU B**

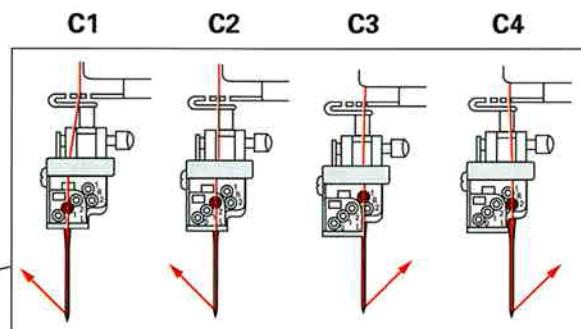
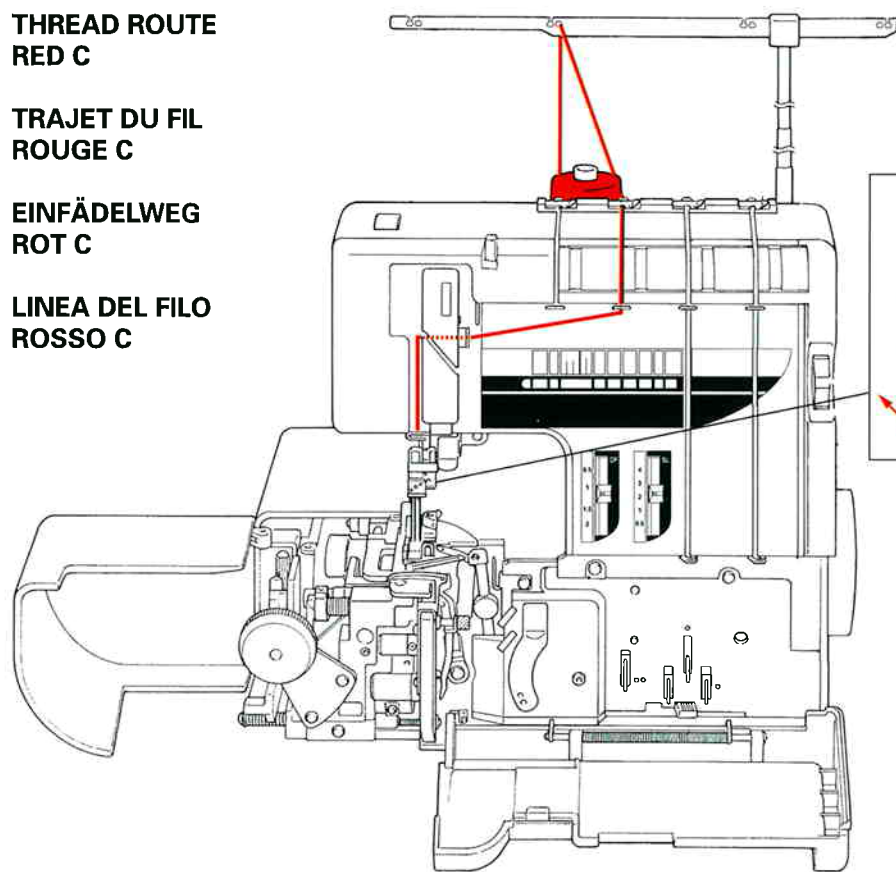


**THREAD ROUTE
RED C**

**TRAJET DU FIL
ROUGE C**

**EINFÄDELWEG
ROT C**

**LINEA DEL FILO
ROSSO C**

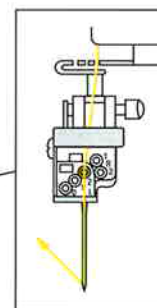
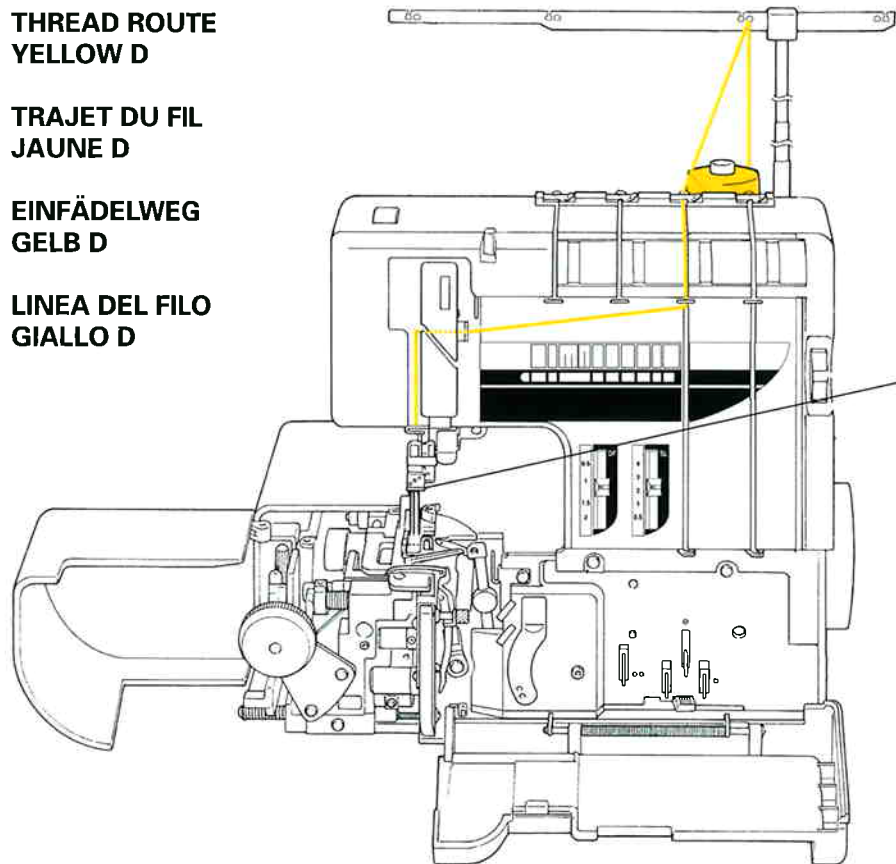


**THREAD ROUTE
YELLOW D**

**TRAJET DU FIL
JAUNE D**

**EINFÄDELWEG
GELB D**

**LINEA DEL FILO
GIALLO D**

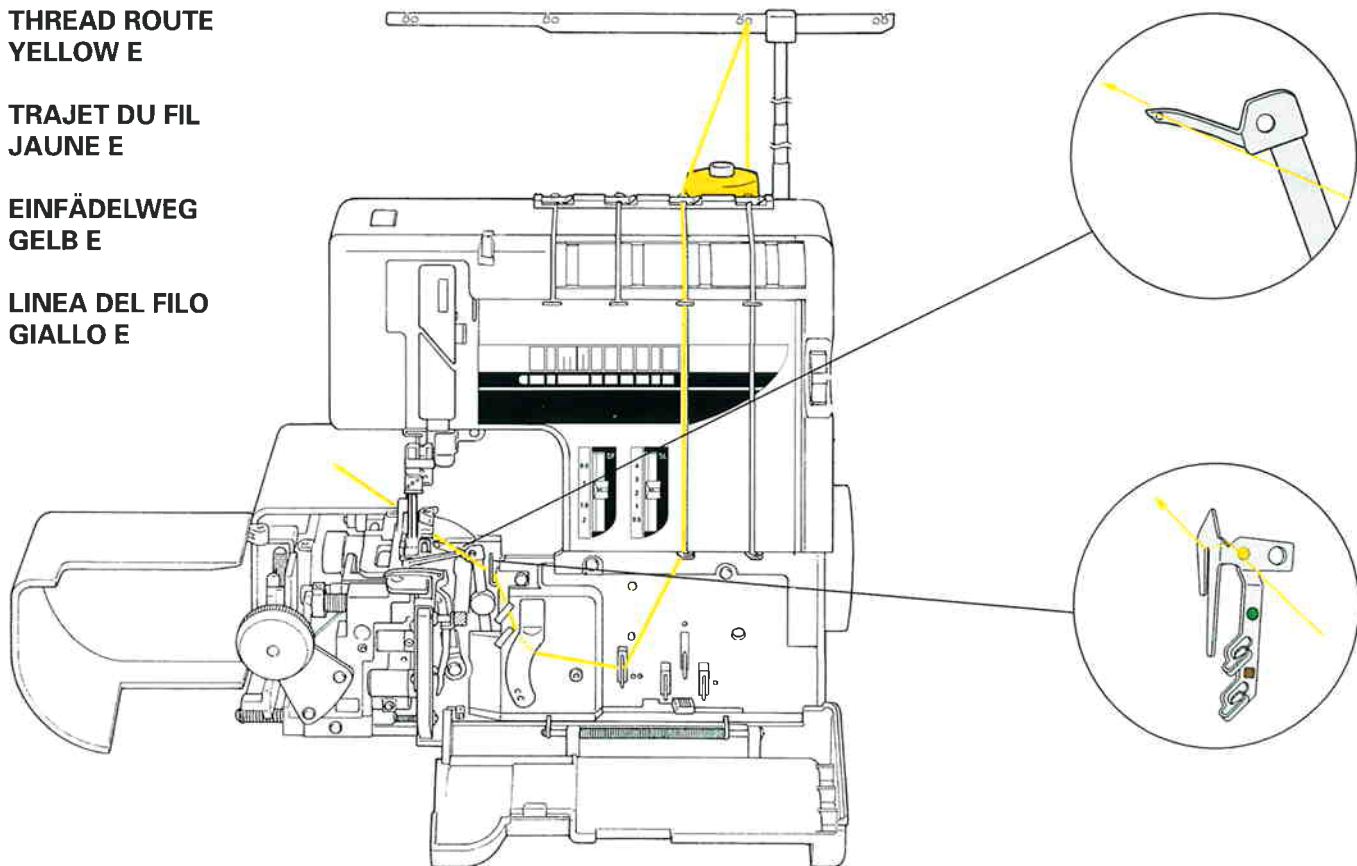


**THREAD ROUTE
YELLOW E**

**TRAJET DU FIL
JAUNE E**

**EINFÄDELWEG
GELB E**

**LINEA DEL FILO
GIALLO E**



Lower Looper Thread Guide

Push lever (a) down and hook thread on guide (b). Pass thread from front to back through hole (c) on far right end of looper. Draw thread back to the left under presser foot, leaving 10 cm (4") tail.

Guide-fil du boucleur inférieur

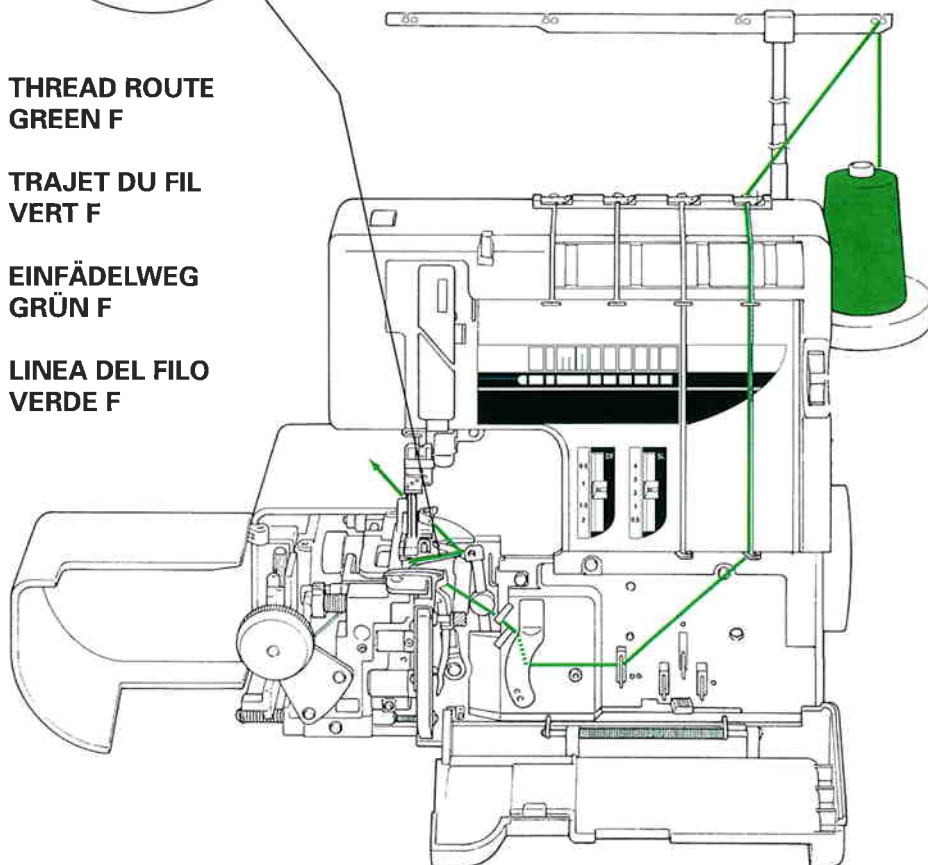
Pousser le levier (a) vers le bas et crocher le fil sur le guide (b). Passer le fil d'avant en arrière à travers le trou (c) à l'extrémité droite du boucleur. Tirer le fil en arrière vers la gauche sous le pied presse-étouffe, en laissant dépasser 10 cm (4") de fil.

**THREAD ROUTE
GREEN F**

**TRAJET DU FIL
VERT F**

**EINFÄDELWEG
GRÜN F**

**LINEA DEL FILO
VERDE F**



Fadenführer des unteren Schlaufengebers

Drücken Sie den Hebel (a) nach unten und haken Sie den Faden in die Führung (b). Ziehen Sie den Faden von vorne nach hinten durch das Loch (c) am rechten Ende des Schlaufengebers. Ziehen Sie dann den Faden unter dem Füßchen nach hinten links um 10 cm (4") heraus.

Guida-filo del Gancio Inferiore

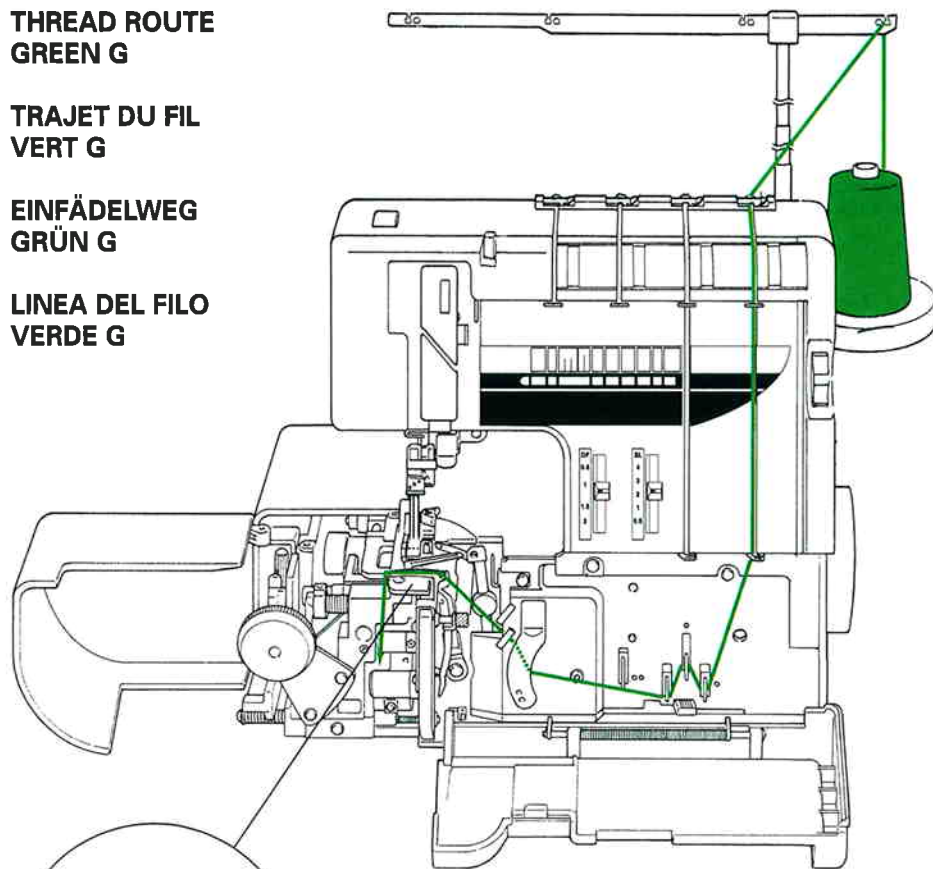
Spingere la leva (a) in basso e agganciare il filo nella guida (b). Passare il filo dalla parte anteriore a quella posteriore attraverso l'occhiello (c) sull'estremità destra del gancio. Tirare il filo indietro verso sinistra sotto il piedino, lasciando 10 cm (4").

**THREAD ROUTE
GREEN G**

**TRAJET DU FIL
VERT G**

**EINFÄDELWEG
GRÜN G**

**LINEA DEL FILO
VERDE G**



Chain Looper Thread Guide

Hand turn the flywheel to bring needle bar to its lowest position. Lift up lever (a) to disengage chain looper. Hook thread into slit (b) from back to front. Pull thread along looper and pass thread from front to back through hole (c) on far left end of looper. Leave about 5 cm (2") of thread hanging down. Hand turn the flywheel to bring needle bar to its highest position and chain looper is automatically engaged.

Guide-fil du boucleur de chaînette

Tourner le volant à la main pour amener l'aiguille dans sa position la plus basse. Lever le levier (a) pour dégager le boucleur chaînette. Crocher le fil dans la fente (b) d'arrière en avant. Tirer le fil le long du boucleur et le passer d'avant en arrière à travers le trou (c) à l'extrémité gauche. Laisser dépasser environ 5 cm de fil. Tourner le volant à la main pour amener la barre aiguille dans sa position la plus haute et enclencher automatiquement le boucleur de chaînette.

Fadenführer des Kettenstich-Schlaufengebers

Drehen Sie am Schwungrad, um die Nadelstange in die unterste Position zu bringen. Drücken Sie den Hebel (a) nach oben, um den Kettenstich-Schlaufengeber auszurasten. Haken Sie den Faden von hinten nach vorne in den Schlitz (b) ein. Ziehen Sie ihn dann am Schlaufengeber entlang und führen Sie ihn von vorne nach hinten durch das Loch (c) am linken Ende des Schlaufengebers. Lassen Sie ungefähr 5 cm (2") Faden herunterhängen. Drehen Sie die Nadelstange mit dem Schwungrad ganz nach oben; der Kettenstich-Schlaufengeber rastet automatisch ein.

Guida-filo del Gancio Catenella

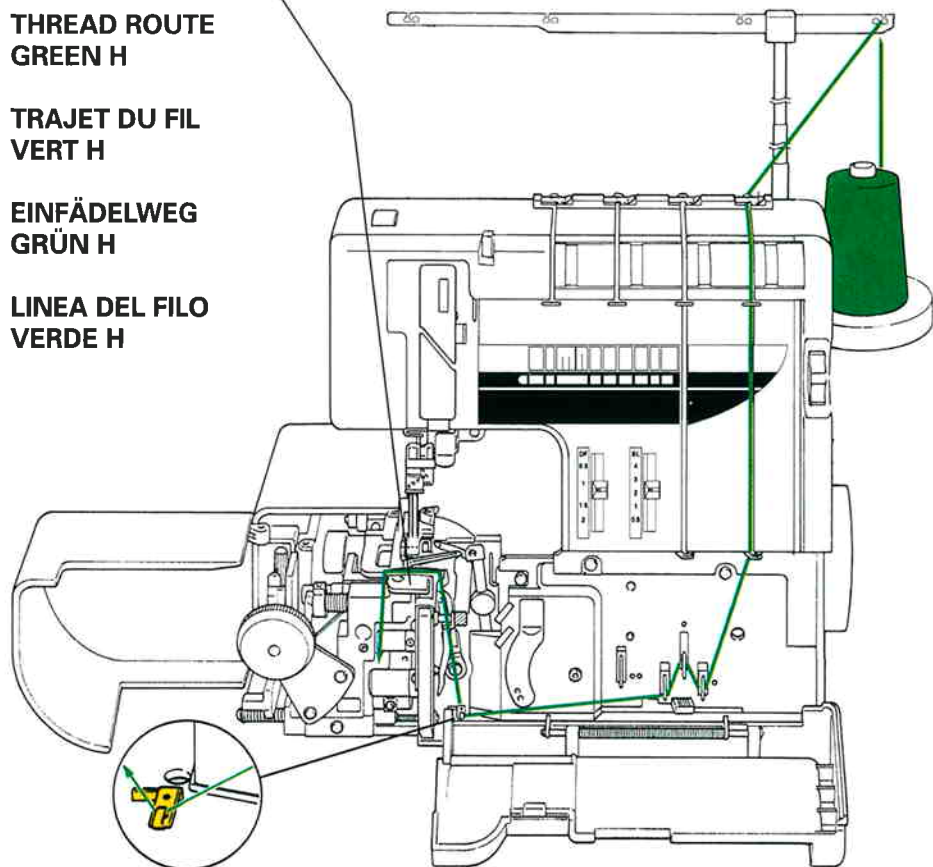
Girare manualmente il volantino per portare la barra ago nella sua posizione più bassa. Sollevare la leva (a) per sganciare il gancio catenella. Agganciare il filo nella scanalatura (b) dal retro verso il davanti. Lasciare circa 5 cm (2") di filo pendere libero. Girare manualmente il volantino per portare la barra ago nella sua posizione più alta ed il gancio catenella sarà automaticamente agganciato.

**THREAD ROUTE
GREEN H**

**TRAJET DU FIL
VERT H**

**EINFÄDELWEG
GRÜN H**

**LINEA DEL FILO
VERDE H**

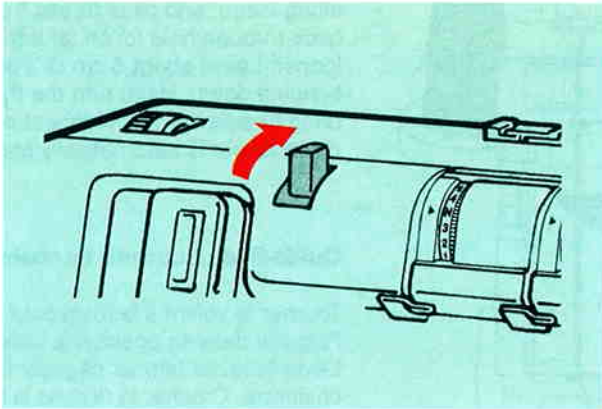


SECTION V

Test Sewing

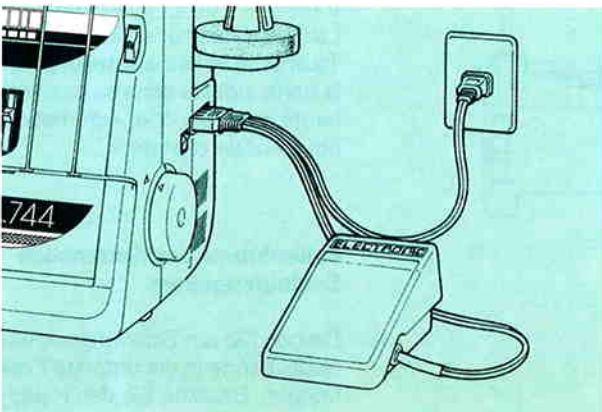
Tension Release Lever

Once threading is complete, press and hold the tension release lever while pulling the threads forward for about 10 cm (4"). This lever can also be used to remove stitches from the needle plate.



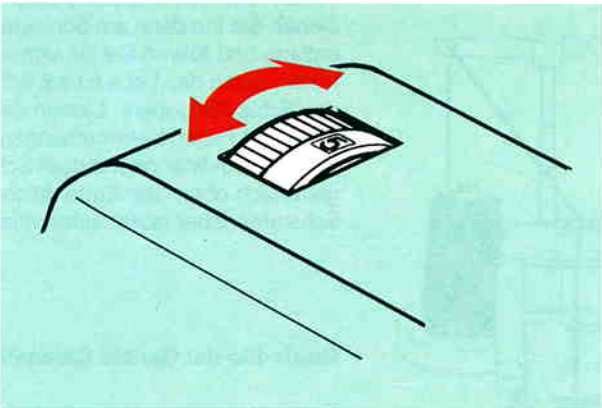
Controlling Sewing Speed

Sewing speed varies with the foot control. The harder you press on the foot control, the faster the machine runs.



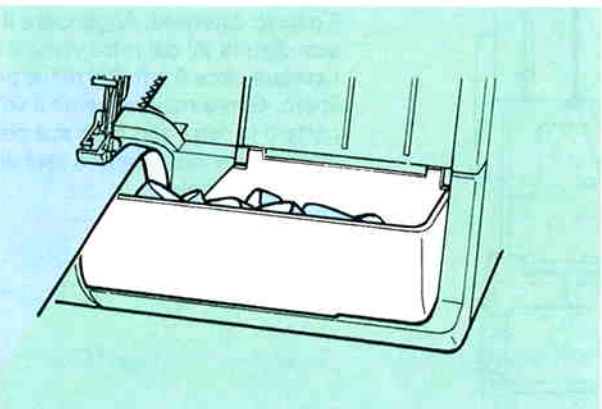
Setting Foot Pressure

The standard setting is position 5. The dial may be changed to increase or decrease the foot pressure depending on the type of fabric. There are six positions.



Waste Tray

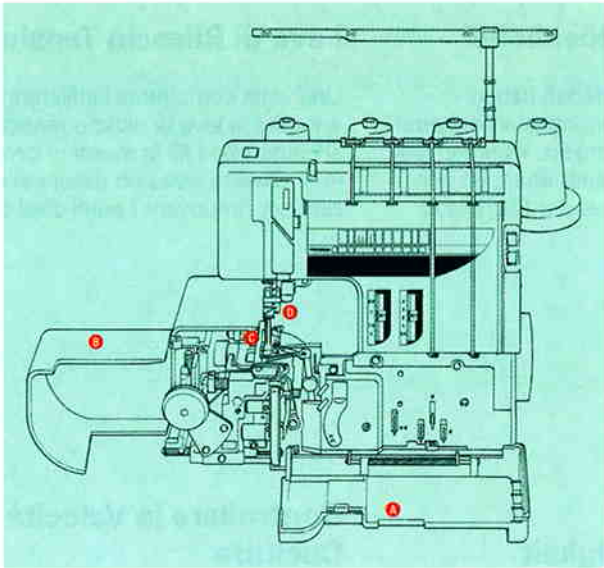
Attach the waste tray to the front cover. The tray will catch fabric scraps that are cut off.



Safety Systems

The machine will not operate when:

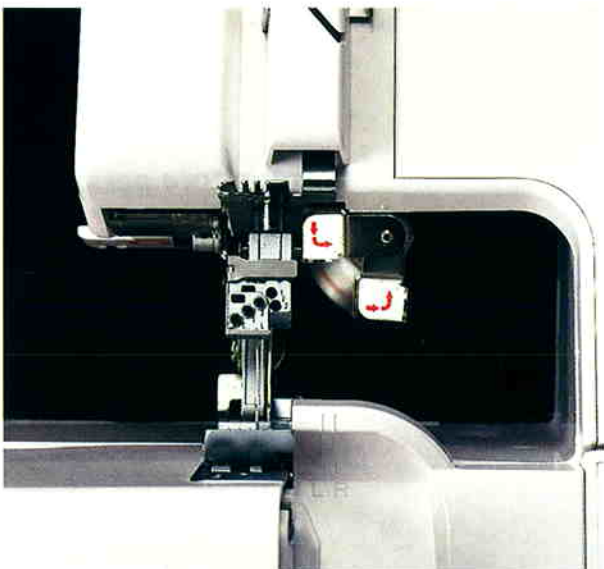
The front cover ① or side cover ② is open.

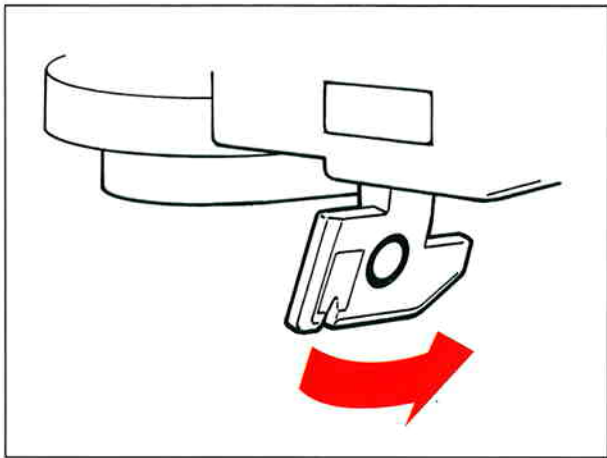


Presser foot is in up position ③.



The needle clamp safety lever ④ is in released position (down).

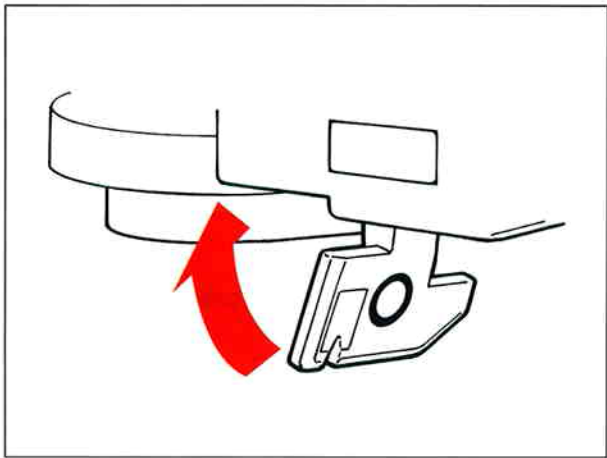




Starting to Sew

Always test sew on scraps of the same fabric that you will be using. Place the fabric scrap under the presser foot and needles.

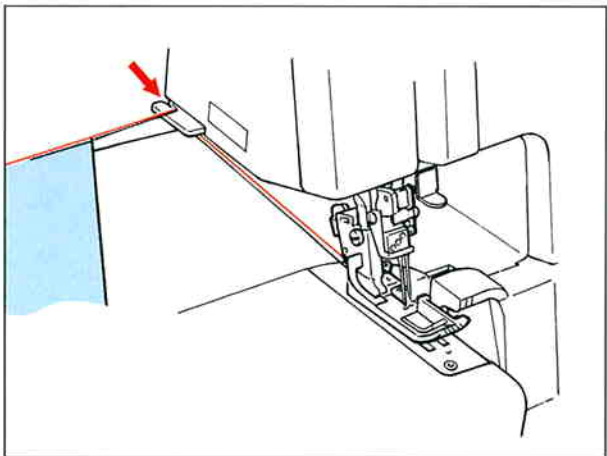
If the fabric is extra bulky, pull forward on the presser foot lever to have more clearance under the foot.



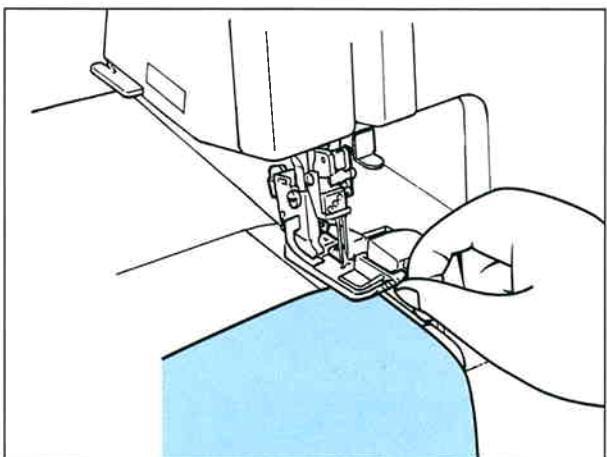
Swing up the presser foot lever to lower the presser foot.

Hand turn the flywheel to form the first few stitches. Begin using the foot control at a slower speed, gradually building up the speed.

Hand guide the fabric gently while sewing. Check the stitch formation. If the stitch has irregularities, check the threading.

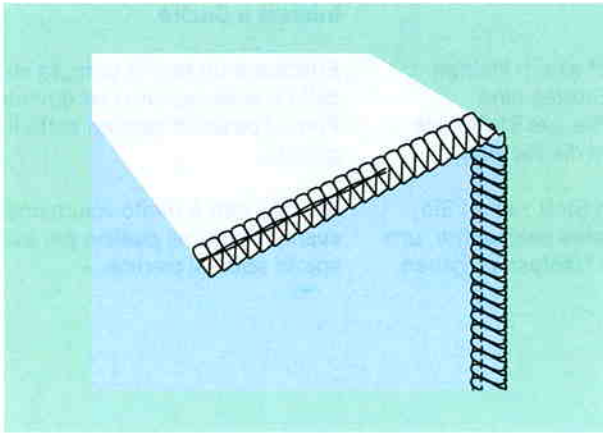


When you reach the end of the fabric, continue sewing to form stitches off the fabric (overlock chain-off threads). Keep pressing the foot control until you are able to cut the overlock chain-off threads with the thread cutter.



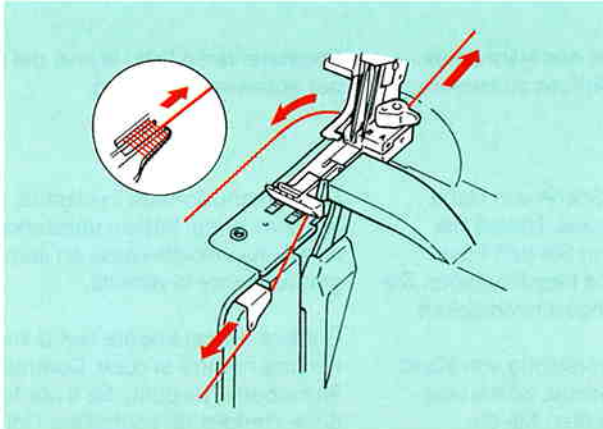
Continue sewing by simply placing the next fabric piece in front of the feed dogs. Tip up the front end of the foot and insert the fabric under the foot.

NOTE: It is not necessary to lift up the presser foot when placing the next fabric piece.

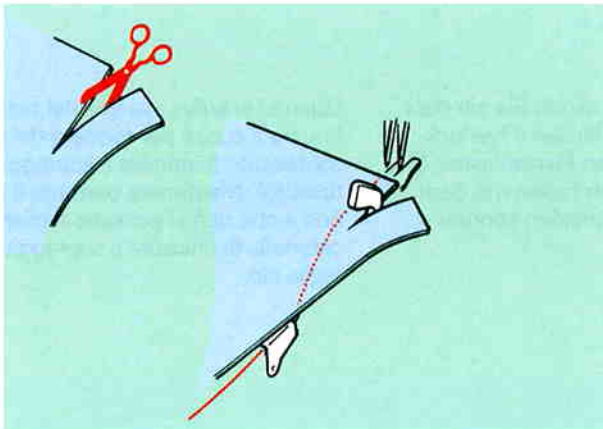


Back-Tack Device

The back-tack device allows you to easily insert the overlock chain-off threads into the seam at the beginning fabric edge. The device may be used when sewing these programs: Safety 4 Thread, Stretch Knit, Overlock 3, 3 Thread Wide, Overcast 2, Overcast 2 Wide and Stretch Wrapped.

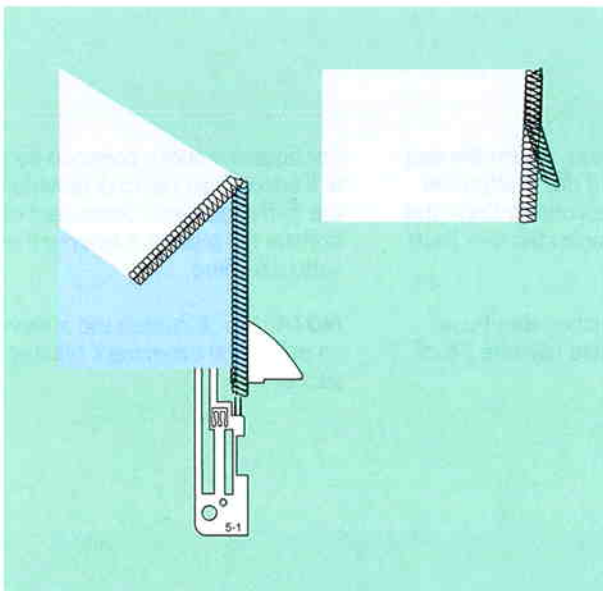


Raise the presser foot and gently remove the overlock chain-off threads from the instant rolled hem device (stitch width finger). Pull the stitches to the back and then around to the front. Secure the threads into the back-tack device.



Place the fabric directly in front of the needle(s). It may be necessary to hand trim the first 3 cm (1") along the seam line. Lower the presser foot and sew. The overlock chain-off threads are automatically inserted into the seam on the fabric underside.

NOTE: The back-tack device cannot be used for the Chainstitch, Cover Hems or Rolled/Narrow Hems.



Inserting Overlock Chain-Off Threads at the End of Seam

Sew to the edge of the fabric and stop. Raise the presser foot. Push the tension release lever while gently removing the stitches from the instant rolled hem device (stitch width finger).

Turn fabric upside down (top side of seam will be next to the feed dog). Gently pull the threads above the tension discs to remove any slack.

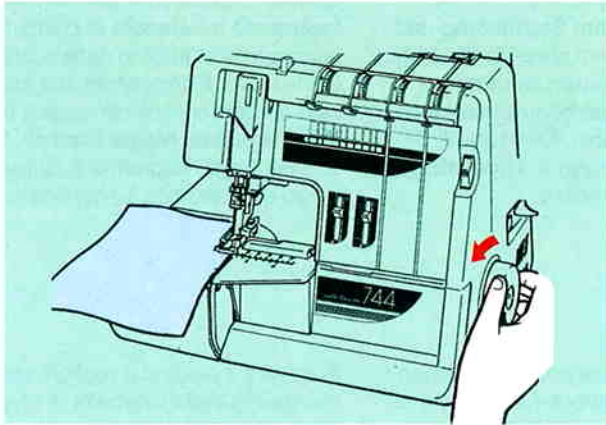
Align the edge of the fabric with the needle plate but do not cut the sewn seam. Sew about 5 cm (2") over seam and pivot fabric off to the left.

Chainstitch and Cover Hems

Chainstitch

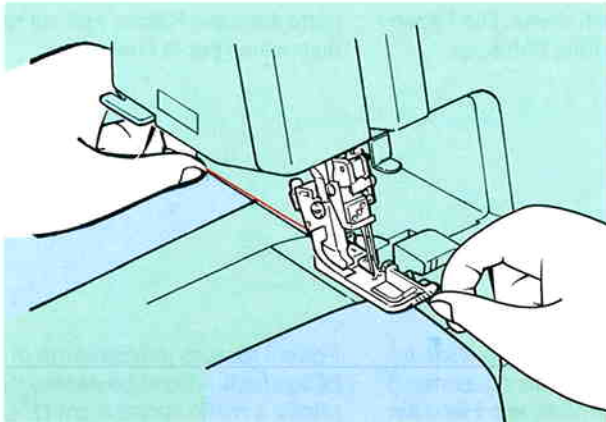
Any stitch that includes a chainstitch must begin by placing fabric underneath the needle(s) and presser foot.

Lower the presser foot and hand turn the flywheel to form the first few stitches.



When you reach the end of the fabric, continue sewing off the fabric until you can cut the threads with the thread cutter. DO NOT raise the presser foot.

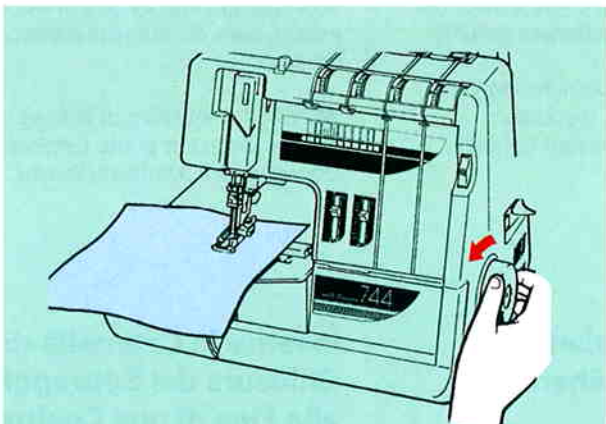
Begin sewing the next fabric piece by tipping up the front end of the foot. Insert fabric and sew.



Cover Hems

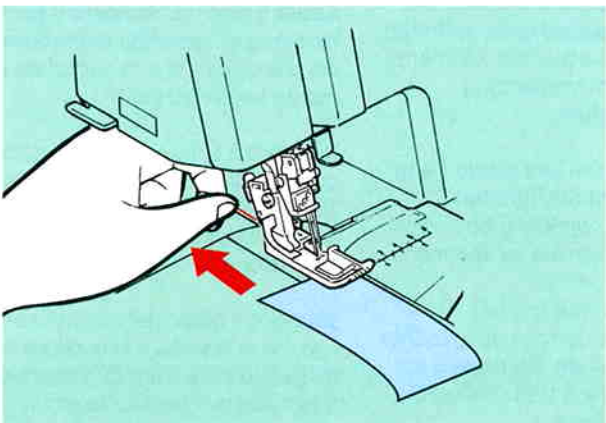
Any of the cover hems must begin by placing fabric underneath the needles and presser foot.

Lower the presser foot and hand turn the flywheel to form the first few stitches.



As the cover hems are different from the overlock stitches, it is not recommended to sew off the fabric for more than 2.5 cm (1"). To continue sewing, place a scrap fabric under the foot to sew on until you are ready to sew the next area of your project that requires a cover hem.

IMPORTANT: When re-threading either a chainstitch or a cover hem, you must start sewing with fabric underneath the needle(s) and presser foot.



SECTION VI

Adjustments

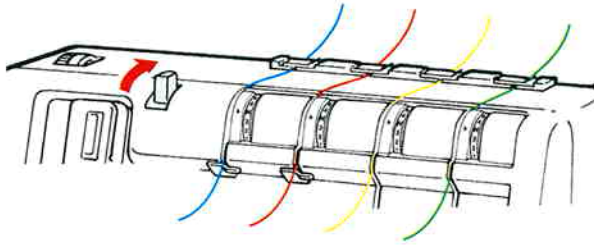
Thread Tension

The type of thread or fabric you use may require the tensions to be adjusted.

Before changing tensions, make sure the thread is properly engaged in the tension discs. (**HINT:** Press and hold the tension release lever while pulling up on the threads above the tension discs.)

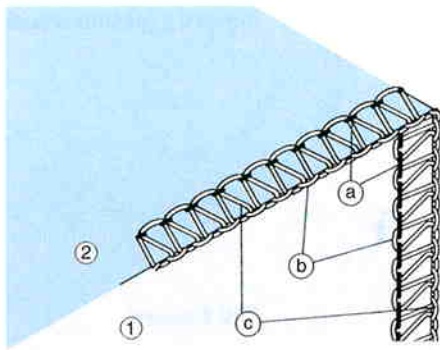
Thread tensions are controlled by the color coded dials - blue, red, yellow and green. Move the dial that corresponds to the thread that needs adjusting.

Adjust only one tension setting at a time and then view the result before adjusting again.



3 Thread Overlock Balanced Tension

- The needle thread should resemble straight stitches on the topside ① of the fabric and lie on the left hand side of the upper looper thread. The needle thread is visible in the lower looper thread on the underside ② of the fabric.
- The upper looper thread should lie flat on the topside of the fabric and lock with the lower looper thread on the edge of the fabric.
- The lower looper thread should lie flat on the underside of the fabric and lock with the upper looper thread on the edge of the fabric.



①

The upper looper thread is too loose.

If the upper looper thread (b) is loose and pulled down to the underside of the fabric, increase the upper looper thread tension (yellow) and/or decrease the lower looper thread tension (green).

②

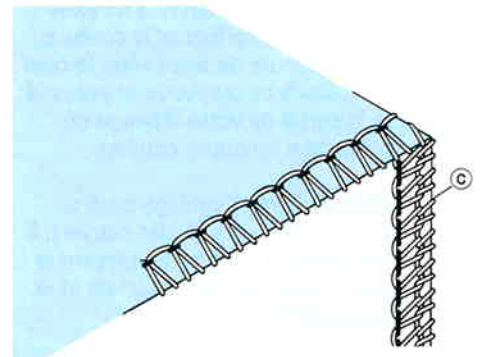
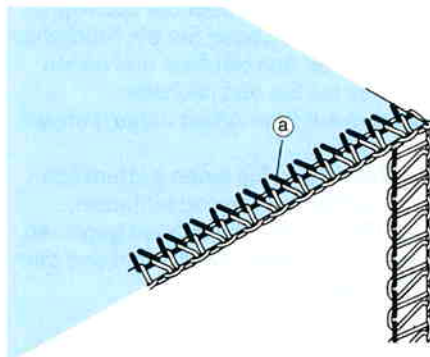
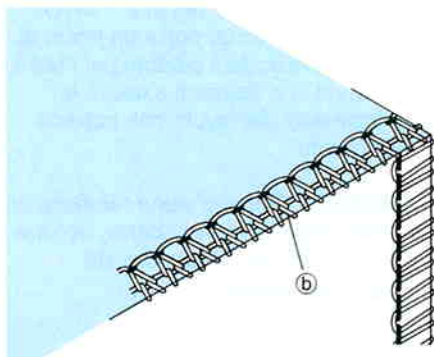
The needle thread is too loose.

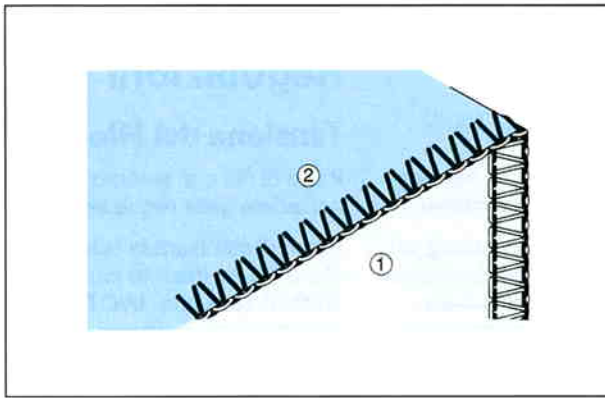
If the needle thread (a) is too loose and clearly visible on the underside of the fabric, increase the needle thread tension (red) and/or decrease either or both looper thread tensions.

③

The lower looper thread is too loose.

If the lower looper thread (c) is loose and pulled up onto the topside of the fabric, increase the lower looper thread tension (green) and/or decrease the upper looper thread tension (yellow).





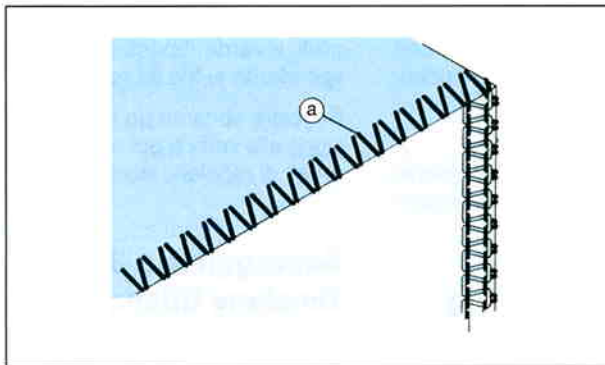
2 Thread Overcast Balanced Tension

The needle thread should resemble a straight stitch on the topside ① of the fabric. It will lock with the lower looper thread on the fabric edge. The needle thread should lie flat in a V-shape on the fabric underside ②.

The lower looper thread should lie flat on the topside of the fabric and lock with the needle thread on the fabric edge.

The needle thread is too loose.

If the needle thread (a) is pulled up over the fabric edge to the topside of the fabric, increase the needle thread tension and/or decrease the lower looper thread tension.

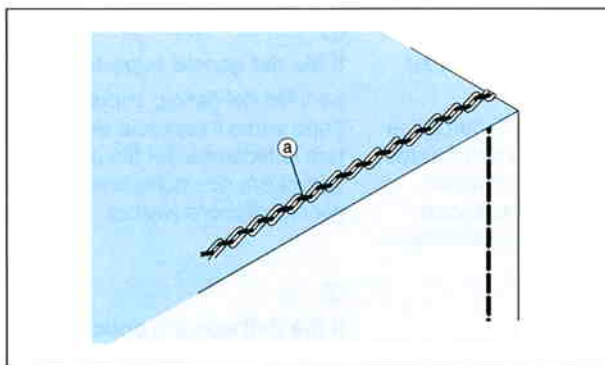


Chainstitch Balanced Tension

The chainstitch needle thread (a) resembles straight stitches on the topside ① of the fabric. It is just visible in the chainstitch looper thread (b) on the underside ② of the fabric.

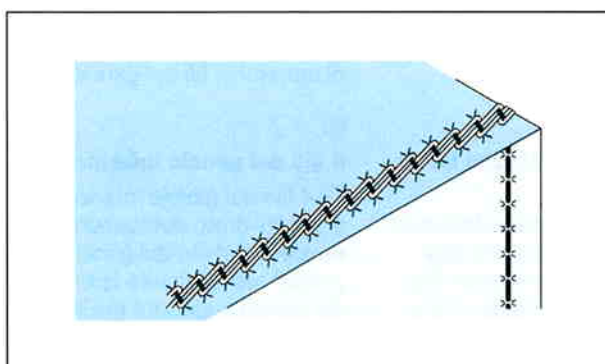
The needle thread is too loose.

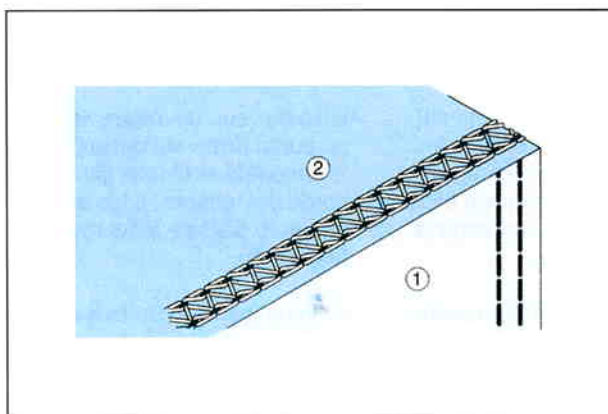
If the needle thread (a) is too loose and clearly visible on the underside of the fabric, increase the left needle thread tension (blue).



The needle thread is too tight.

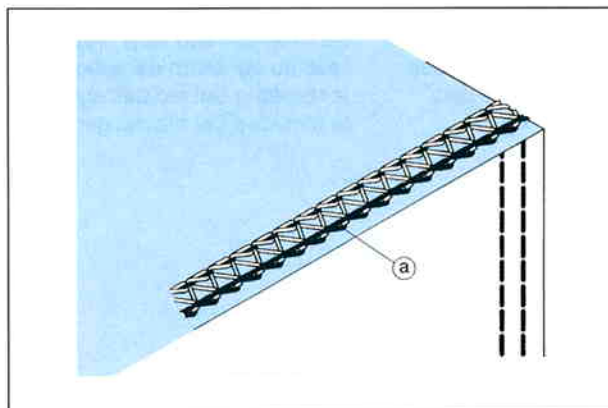
If the fabric puckers, decrease chainstitch needle thread tension (blue). Lightweight fabrics may require a shorter stitch length. Do not set the stitch length lever below 2.5.





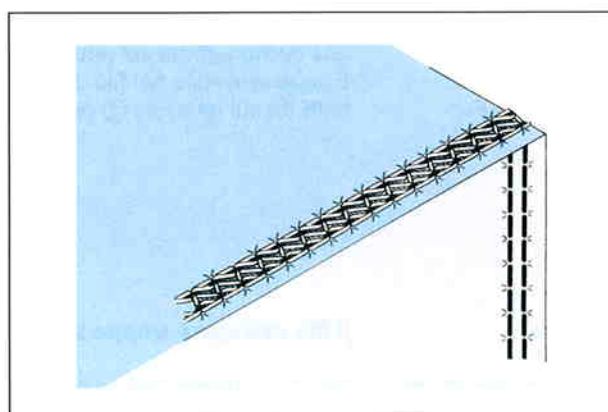
Cover Hem Balanced Tension

The needle threads resemble parallel rows of straight stitches on the topside ① of the fabric. The chain looper thread should be slightly slack on the underside ②. DO NOT set the stitch length lever below 2.5. Heavier weight fabrics will require a longer stitch length.



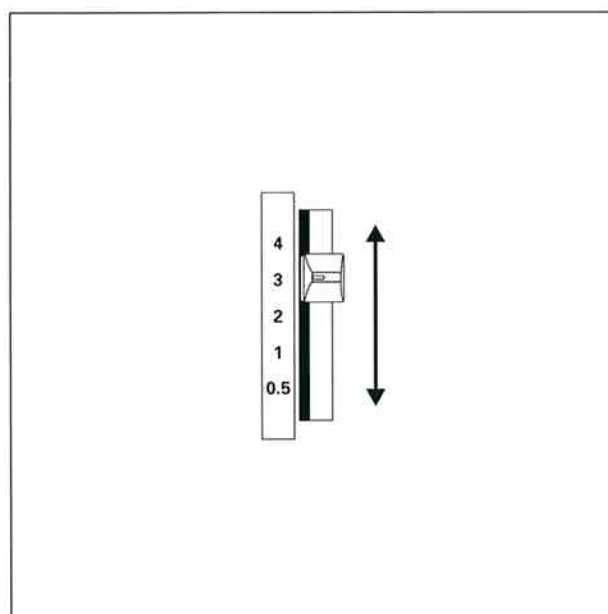
The needle thread is too loose.

If the needle thread (a) is too loose and loops appear on the underside of the fabric, increase the needle tension (red).



The needle threads are too tight.

If fabric puckers form, the needle threads are too tight. Decrease the needle tensions.



Stitch Length

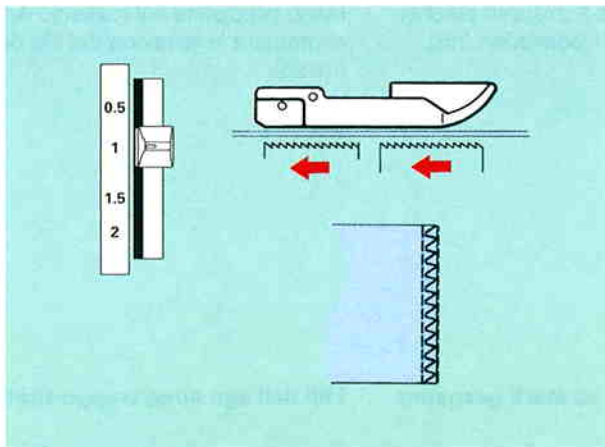
The fabric weight and fiber content may require the SL (stitch length) to be adjusted. Stitch length may be set between 0.5 and 4. Set a shorter stitch length for lightweight or sheer fabrics. Set a longer stitch length for heavyweight or bulky fabrics.

NOTE: Always set the SL lever at 2.5 or higher when sewing a chainstitch or cover hem.

NOTE: The stitch length readout for the Cover Hem stitches is 3.0 This is the correct setting for two-three layers of light to medium weight fabric. Stitch length should be increased to 3.5 or 4 on heavy fabrics or when sewing over bulky seams while hemming.

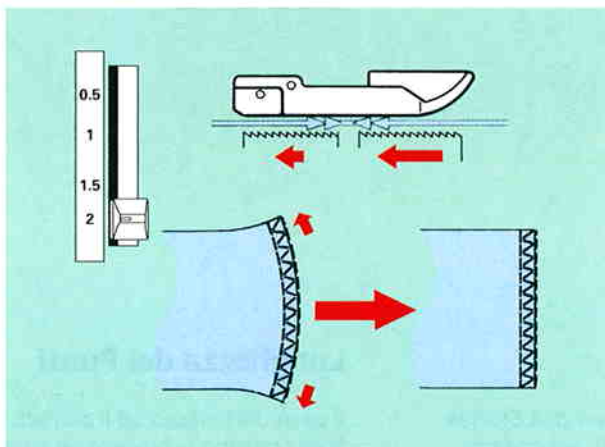
Differential Feed

Differential feed on an overlock is a two-part feed dog which feeds in the fabric at different ratios. The front part of the feed dog pushes more or less fabric under the foot than the rear part of the feed dog is feeding out. This feature is useful when sewing knits which have a tendency to stretch and create waves when sewn on an overlock machine. Differential feed is also good on sheer fabrics which tend to pucker when sewn. Use the 0.5 setting. There are two kinds of differential feed: negative and positive.



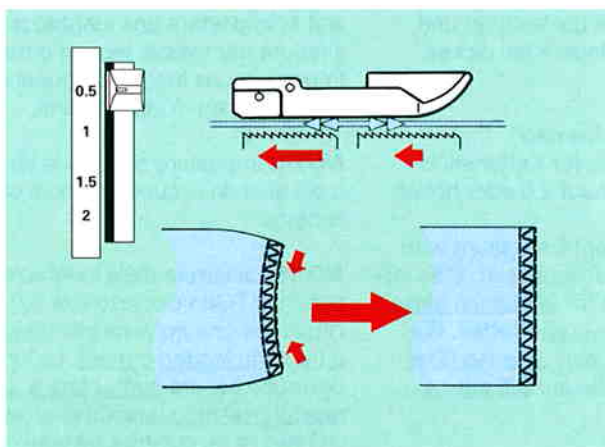
① Standard Feeding

The front and rear feed dogs work as a single unit. The fabric feeds in and out with the same ratio.



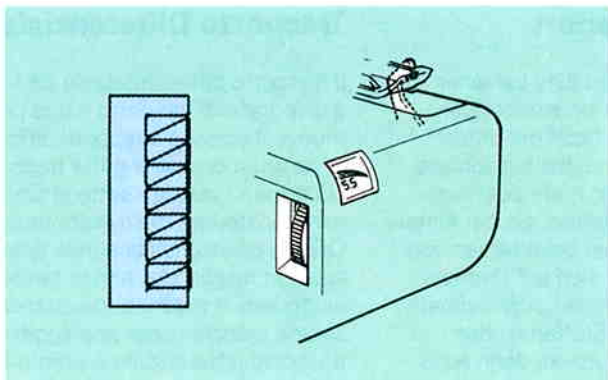
② Positive Feeding

The looser and stretchier the fabric, the more the front part of the feed dog must feed in and the less the rear part of the feed dog must feed out. Waves are eliminated.



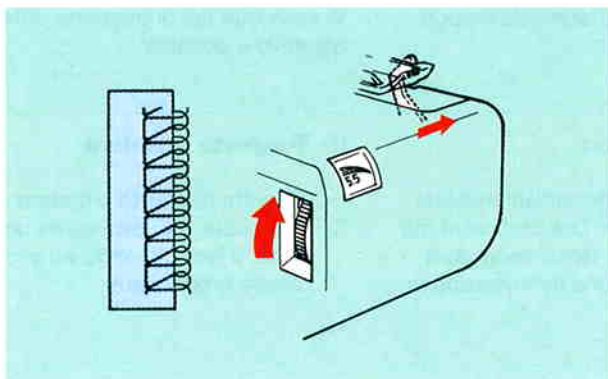
③ Negative Feeding

The front part of the feed dog feeds in less fabric than the rear part feeds out. The fabric is held taut by the feed dogs. Puckering is eliminated.



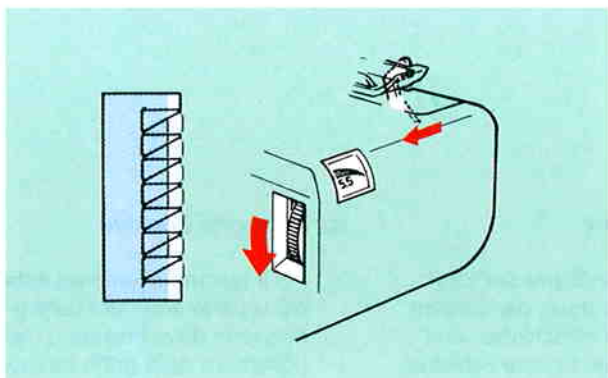
Cutting Width

The fabric weight and the number of fabric layers may require the cutting width dial to be adjusted. Fabric should lie flat inside the overlock stitch without loops or tunneling.



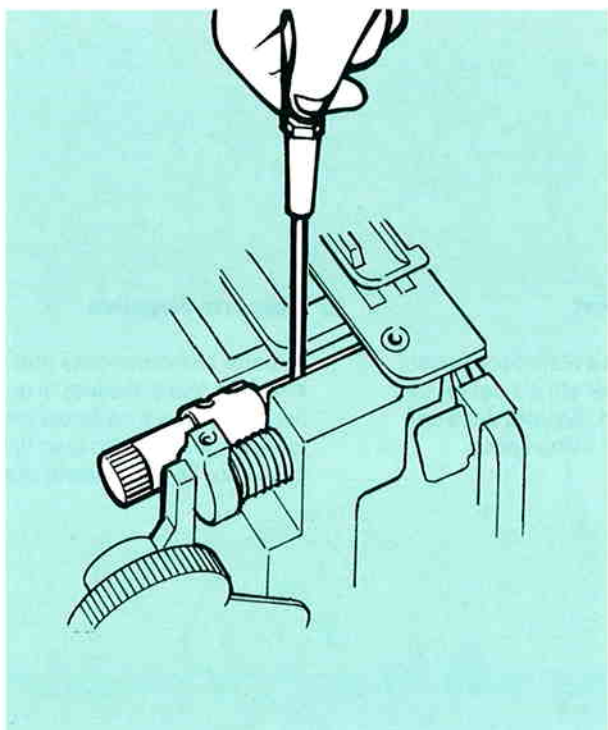
Loops

The cutting width is set narrower than the stitch width. Move the cutting blades to the right by turning the cutting width dial up (clockwise).



Tunneling

The cutting width is set wider than the stitch width. Move the cutting blades to the left by turning the cutting width dial down (counterclockwise).



Sewing Overlock Stitches on Extra Heavyweight Fabrics

Lock the movable cutting blade to provide maximum cutting strength.

- ① Hand turn the flywheel to lower the needle bar to its lowest position.
- ② Open the side cover.
- ③ Use the allen screwdriver to turn the screw clockwise until the movable cutting blade cannot be disengaged.
- ④ Sew.

NOTE: After sewing extra heavyweight fabric, always turn the screw counterclockwise to unlock movable cutting blade for normal operation.

NOTE: Cutting width cannot be adjusted when movable blade is locked.

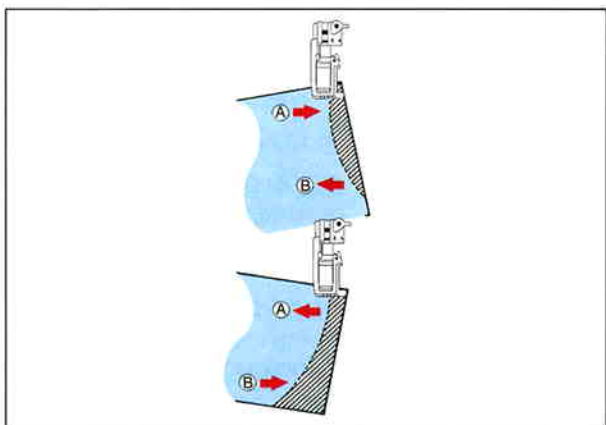
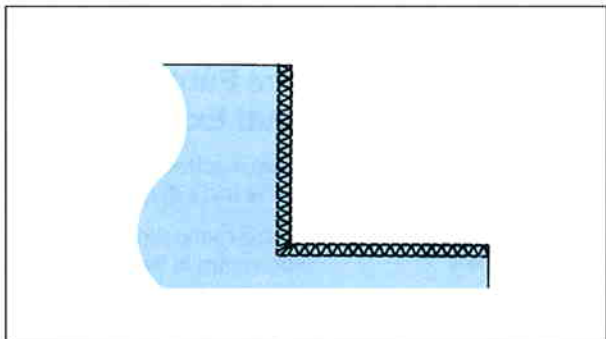
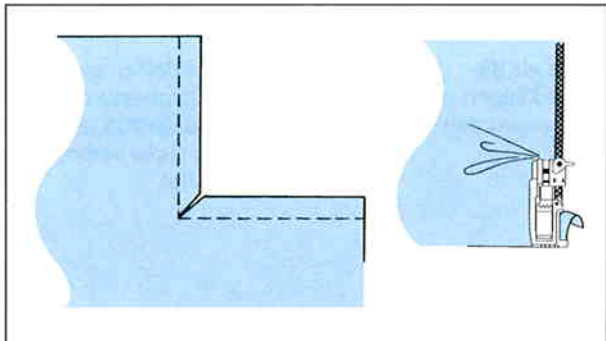
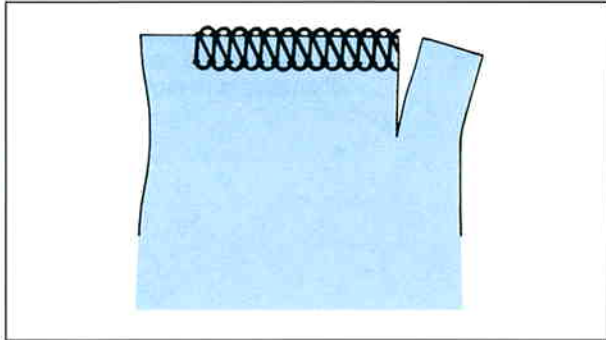
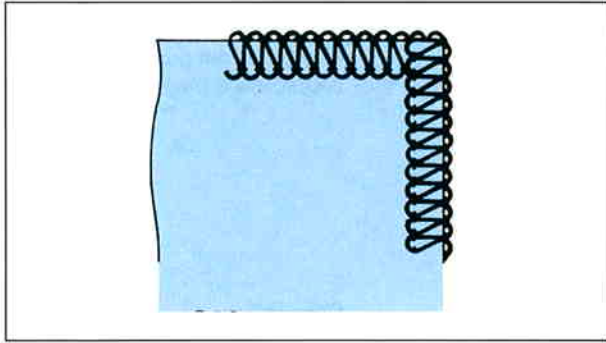
SECTION VII

Sewing Techniques

Overlocking Outside Corners

Stop sewing when you reach the end of the fabric, leaving the needle in its highest position. Raise the presser foot. Push the tension release lever while gently removing the stitches from the stitch finger. Turn fabric. Align the sewn stitches with the needle. Lower the presser foot and pull up on the needle thread to remove any slack. Sew.

If you are overlocking and trimming at the same time, you should cut the fabric by hand at each corner along the stitching line for about 3 cm (1 1/2") before turning the fabric. Make the cut to each corner before sewing begins.



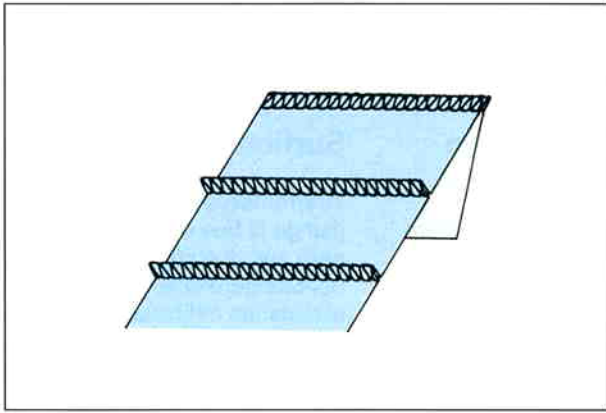
Overlocking Inside Corners

- ① Clip the inside corner approximately 4 mm (1/4").
- ② Fold the fabric into a straight edge and sew along the edge. The movable cutting blade should barely trim along the fabric edge.
- ③ Unfold fabric and press it.

Sewing Curved Edges

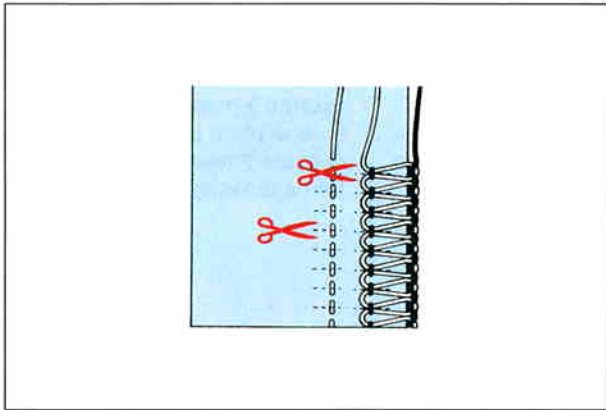
For inside curves, guide the fabric gently, applying pressure with your left hand at point «A» in the direction of the arrow, while at the same time applying a little pressure in the opposite direction with your right hand at point «B».

For outside curves, sew in a similar manner, but by applying the pressure in the opposite directions.



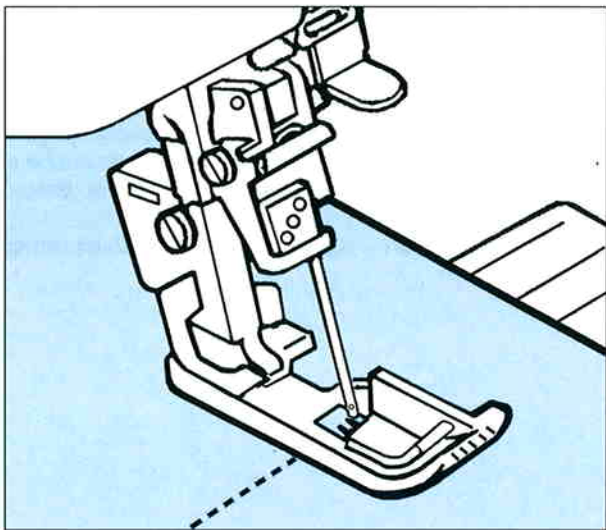
Overlock Pintucks

Disengage the movable cutting blade. Use a washable fabric marker to draw lines for pintucks. Fold fabric with wrong sides together on first line. Sew folded edge using the edge of the needle plate as a guide. (Do not allow the fabric to be sewn beyond right side of the needle plate.) Sew remaining pintucks using same method. Press tucks to one side.



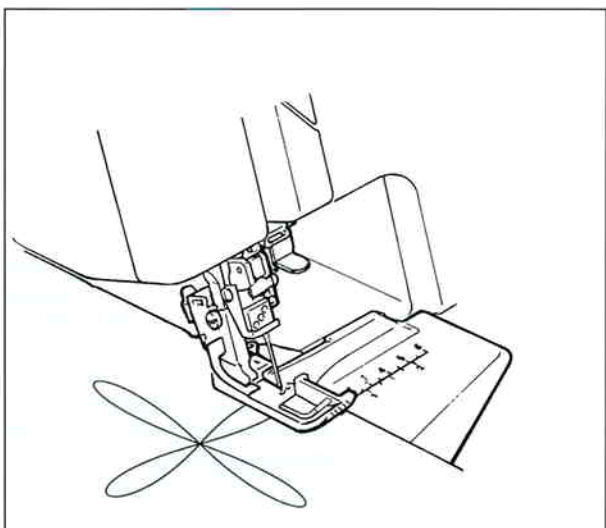
Removing Stitches from Fabric

Snip the needle thread(s) at intervals. Gently pull the looper thread(s) and the stitch will unravel.



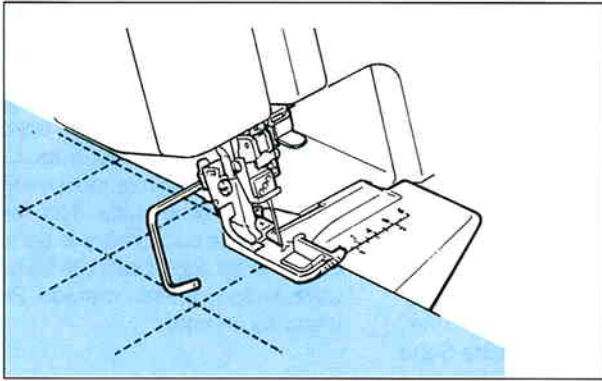
Chainstitch – Turning Corners

Sew last stitch before turning point by hand turning the flywheel. Complete the stitch. Raise the needle slightly out of the fabric. (The needle eye will be out while the needle tip remains in fabric.) Raise presser foot and gently turn fabric. Lower presser foot and continue sewing.



Chainstitch - Decoration

1. Draw design lines on the interfacing or stabilizer (wrong side of fabric). Finer weight fabrics will require the use of fusible interfacing or a tear-away stabilizer.
2. Sew with the right side of fabric FACE DOWN. The markings on the tip of the foot are for sewing accurately. *(Remember to start the chainstitch with fabric underneath the presser foot and needle.)*
3. Once the chainstitch is formed, the presser foot should not be lifted.
4. Carefully remove tear-away stabilizer.



Quilting Guide

The quilting guide is used for sewing parallel rows of stitching at an equal distance apart.

Insert the quilting guide into the needle bar. Use a washable fabric marker to draw the first stitching line. Sew over line. Sew all other rows guiding the quilting guide over the previous row of stitching.

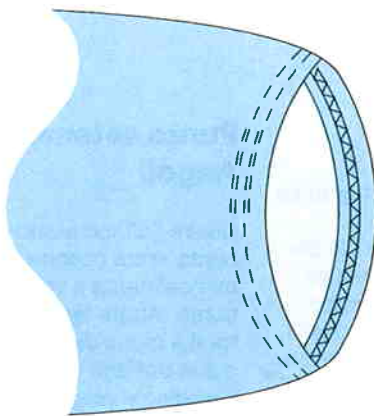
Cover Hem

A majority of ready-to-wear garments use a flat construction method for hems with the side seam sewn last. Many home sewers prefer sewing «in the round».

Sewing the Cover Hem «In the Round»

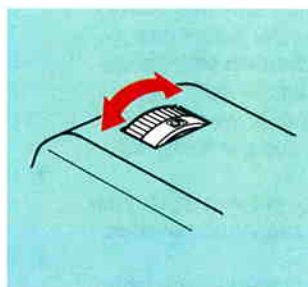
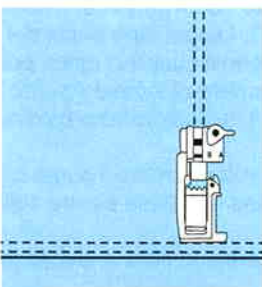
Method 1

Press up the hem allowance and place fabric under the presser foot. Use markings on the sewing table as a sewing guide. Stitch around the hem and, upon reaching the original start point, overlap the stitches approximately 13 mm (1/2") and stop. Cut the needle threads after giving them a little slack. Remove fabric from machine. Pull threads to underside and tie off. Apply a small amount of seam sealant to knotted threads.

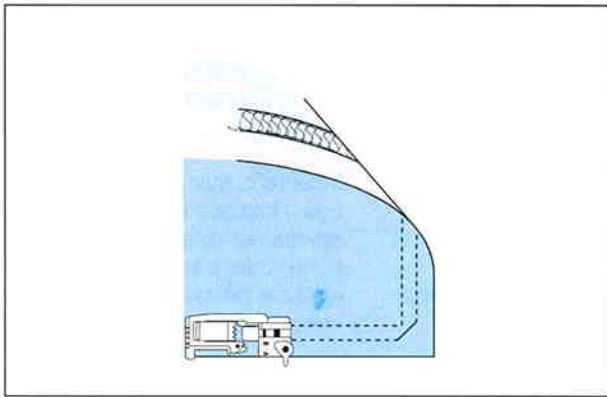


Method 2

Stitch around the hem; overlap the original starting point for about 13 mm (1/2"). Stop; needles will be up. Hand turn the flywheel towards you to bring needles to the lowest position into the fabric. Carefully reverse the flywheel, bringing needles to the highest position. **This technique prevents the needle threads from wrapping around the chain looper.** Lift the presser foot and press the tension release lever. Firmly pull fabric and threads to the left. Cut and pull threads to the underside to tie off. Apply a small amount of seam sealant to knotted threads.

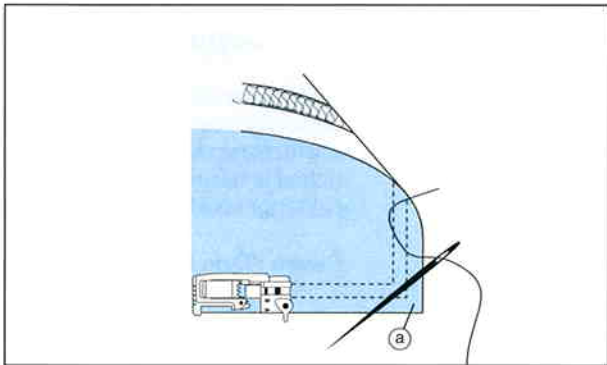


When sewing a cover hem over bulky seams (i.e. Safety 4 Thread) it will be necessary to adjust foot pressure to 1 when reaching seam to prevent skipped stitches. After the foot has «cleared» the seam, return to normal pressure of 5.

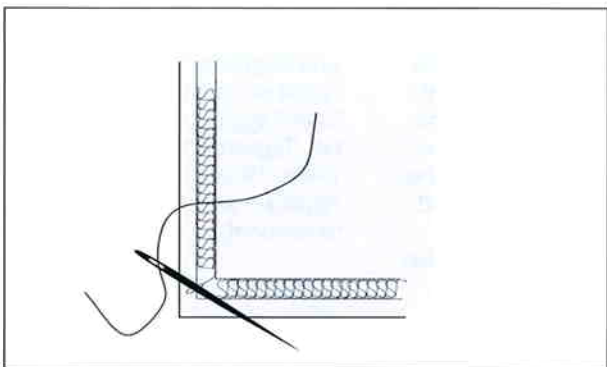


Turning Corners

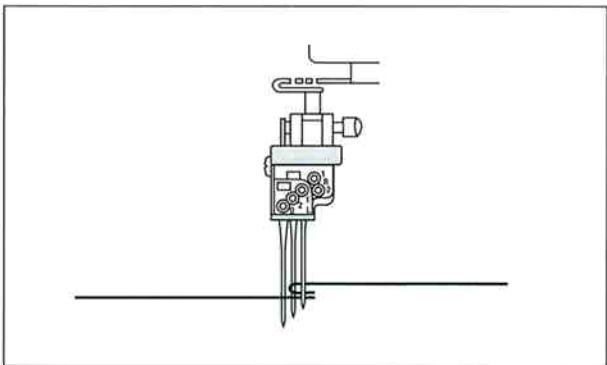
Sew to the turning point and stop with needles up. Hand turn the flywheel towards you to bring needles to the lowest position into the fabric. Carefully reverse the flywheel bringing needles to the highest position. (This releases the needle threads off the looper.) Raise the presser foot, turn the fabric, lower the needles into the fabric, lower the presser foot and continue sewing.



The looper thread will drop at the corner. Use a hand needle and thread to prevent the loop from unraveling. Pull the diagonal thread to corner (a).



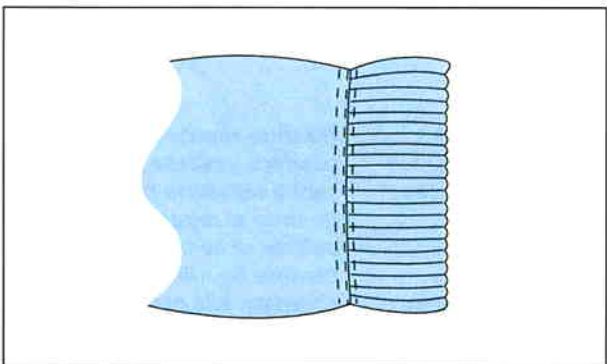
Turn fabric over and secure loop to corner on the underside.



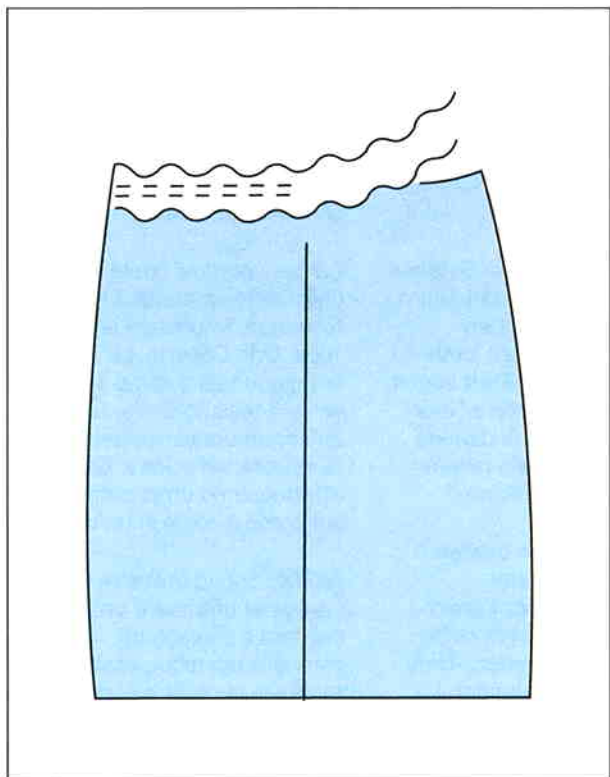
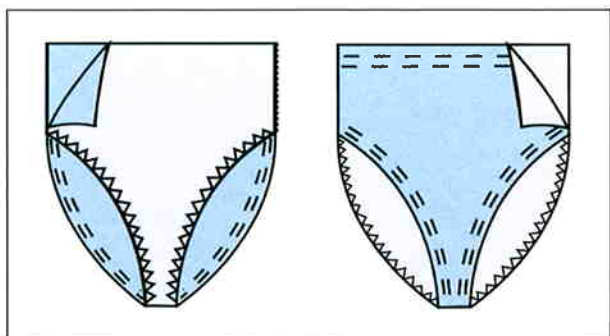
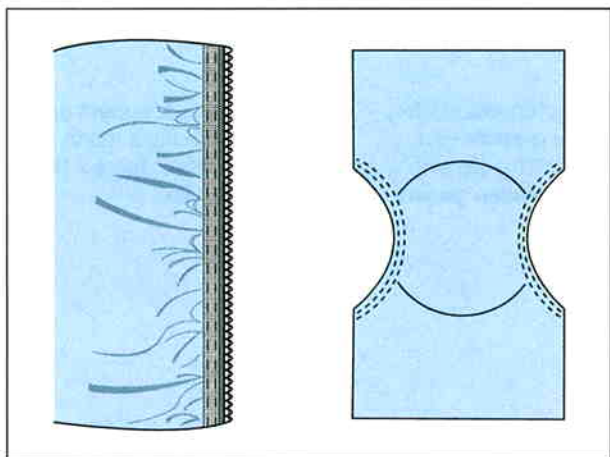
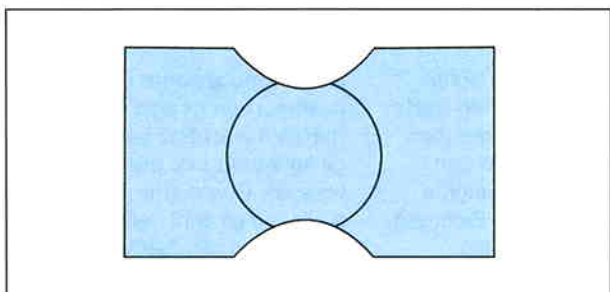
Triple Cover Hem–Topstitching an Overlock Seam

The Triple Cover Hem flattens the overlock seam eliminating excess bulk and allows maximum stretch and comfort. The topstitching is quick and attractive.

Sew ribbing to the fabric using a 3 Thread Wide or Safety 4 Thread stitch. Set up the machine for the Triple Cover Hem. The seam may be positioned either towards the ribbing or towards the garment fabric. Topstitch by allowing the center needle to «stitch in the ditch». The outer needles will topstitch on the fabric and on the ribbing in one step.



NOTE: It is acceptable to use the Cover Hem Wide for topstitching an overlock seam. The chain looper thread should be tightened to keep the overlock seam as flat as possible. When the looper thread is tightened, the fabric may pucker and the capacity of stretch is decreased.



Flat Assembly Methods

Panties

1. Machine setup: Narrow Hem 3 with texturized nylon (ex. Woolly Nylon™) in upper looper. Sew crotch to front and back.
2. Machine setup: Cover Hem with texturized nylon in chain looper. Cut 2 lengths of elastic for leg openings. Apply elastic by using the C foot (optional accessory) and an elastic gatherer:

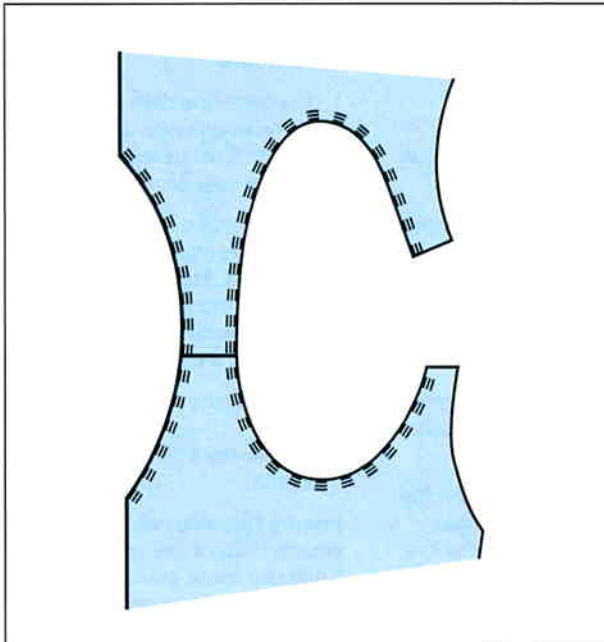
13 mm (1/2") gatherer – Cover Hem Wide
10 mm (3/8") gatherer – Cover Hem Narrow

Insert elastic into gatherer (picot edge facing the right); adjust screw. (Use less stretch on front leg and more stretch on back leg.) Attach foot to machine. Place leg opening (fabric RIGHT side up) under presser foot and elastic, aligning elastic edge and raw edge. Sew. This technique neatly topstitches elastic on top of fabric.

3. Machine setup: Narrow Hem 3 with texturized nylon. Sew one side seam.
4. Machine setup: Cover Hem Wide with texturized nylon in chain looper. Cut elastic for waist. Use same method as Step 2.
5. Machine setup: Narrow Hem 3 with texturized nylon. Sew remaining side seam.

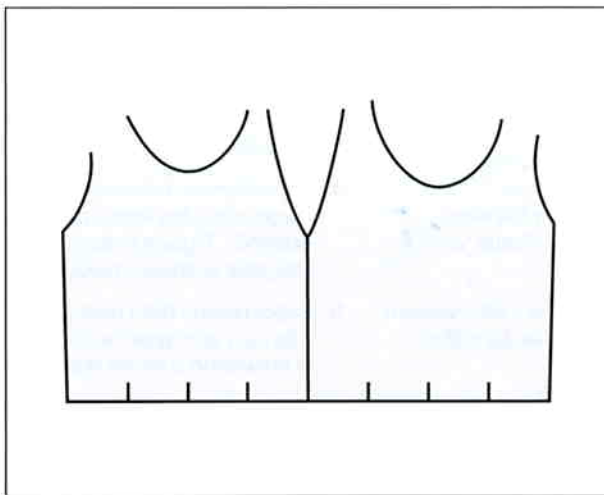
Half Slip

1. Machine setup: Narrow Hem 3 with texturized nylon in upper looper. Sew one side seam.
2. Machine setup: Cover Hem Wide with texturized nylon in chain looper. Cut stretch lace for waist. Measure and mark lace and waist area into 1/8's. Match the markings and overlap lace edge with raw edge of fabric about 10 mm (3/8") for an even lace distribution. Stitch 3 mm (1/8") from lace edge. Hand trim away excess fabric.
3. Machine setup: Cover Hem with texturized nylon in chain looper. Pin lace (right sides up) at hemline area with outside lace edge even to raw edge of fabric. Stitch close to inner edge of lace. Hand trim away excess fabric.
4. Machine setup: Narrow Hem 3 with texturized nylon in chain looper. Sew side seam.

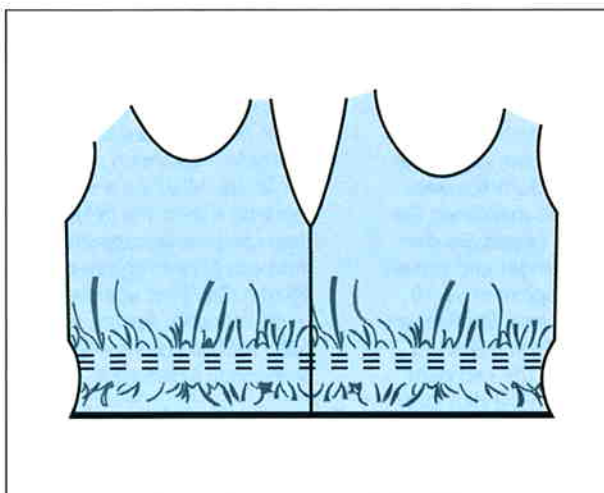


Sports Top

1. Machine setup: 3 Thread Wide or Safety 4 Thread. Sew one shoulder seam together.
2. Machine setup: Triple Cover Hem. Finish armhole and neckline areas by folding under 13 mm (1/2") and topstitching with Triple Cover Hem.
3. Machine setup: 3 Thread Wide or Safety 4 Thread. Sew other shoulder seam together and side seam where the armhole area was already topstitched.



4. Machine setup: Triple Cover Hem. Fold under 13 mm (1/2") around armhole area. Topstitch.
5. Machine setup: 3 Thread Wide or Safety 4 Thread with the cutting blade down. Cut elastic length for midriff. Mark elastic and midriff opening into 1/8's. Pin elastic to WRONG side of fabric aligning raw edge and markings. Sew to attach elastic to fabric.



6. Machine setup: Triple Cover Hem. Fold elastic under to form a casing effect. Secure by using the Triple Cover Hem to topstitch about 2.5 cm-3 cm (1" - 1 1/4") from bottom edge (depending on elastic width).
7. Machine setup: 3 Thread Wide or Safety 4 Thread. Sew remaining side seam.

SECTION VIII

Maintenance

Proper machine cleaning and oiling are essential to ensure maximum machine performance.

Cleaning and Oiling

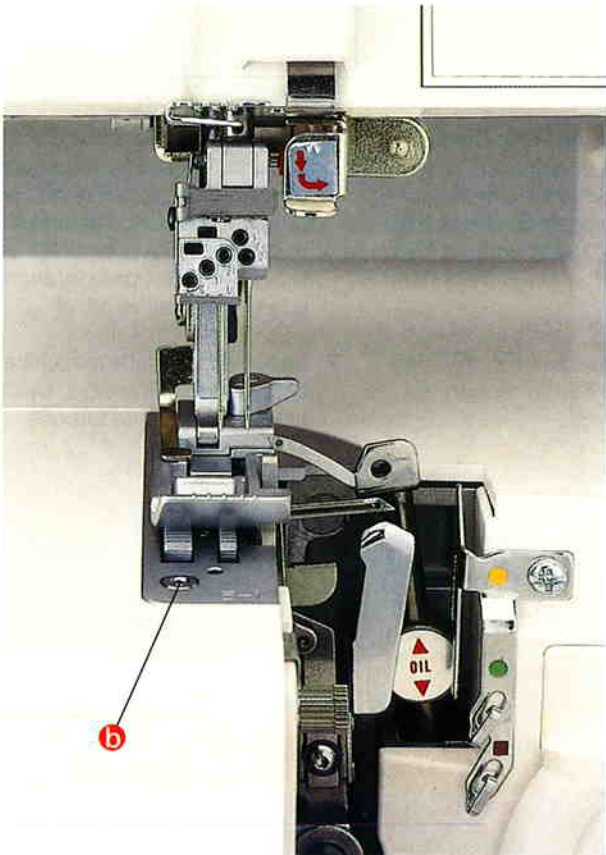
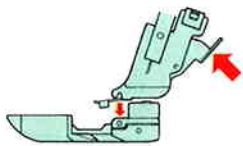
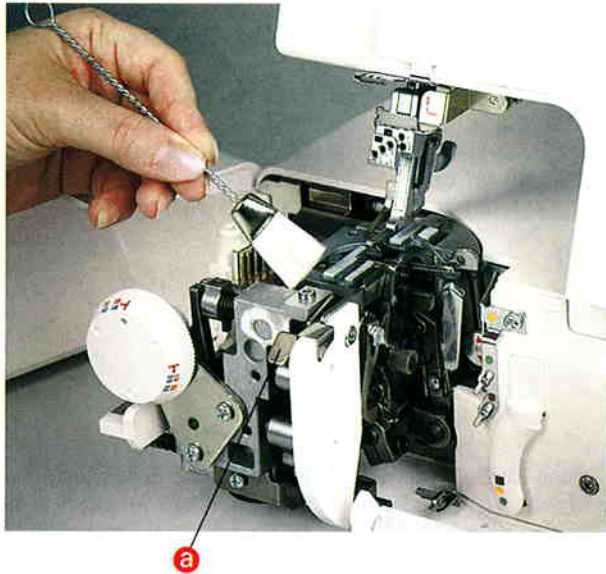
Unplug the machine from the electrical outlet. Open the front and side covers.

Remove the presser foot by pushing the lever behind the needle bar.

Remove the needle plate by pushing down its release lever (a).

Disengage the movable cutting blade.

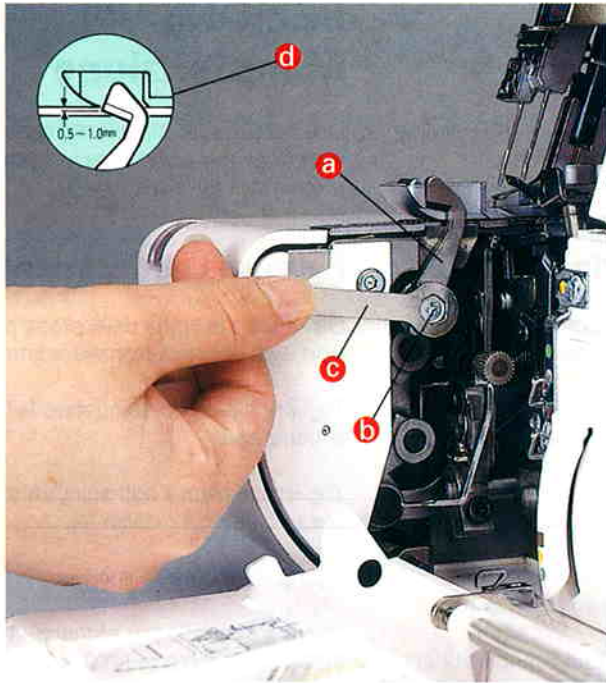
Use the brush to remove all lint and fiber accumulation.



Place a drop of oil above and below the oiling arrows. Oiling should be performed for every 8 hours of actual sewing operation.

Reattach the needle plate by pressing down on its front section until it snaps onto the needle plate screw (b).

To reattach the presser foot, place the foot underneath the presser foot area and lower the needle bar. The foot will snap back into place.



Replacing the Movable Cutting Blade

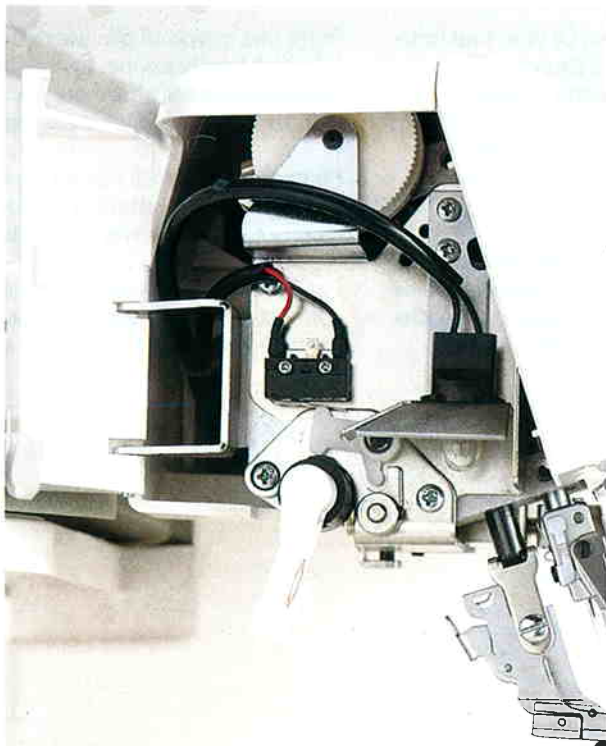
A spare movable cutting blade is located in the accessory box. Replace the blade when it becomes dull or nicked.

- ① Unplug the machine.
- ② Open both front and side covers.
- ③ Set the movable cutting blade (a) in its engaged position and lock the movable cutting blade. (See page 74.) Remove the movable cutting blade by loosening the bolt (b) with the wrench (c) found in the accessory box.

Brush the fixed cutting blade and the surrounding area to clean out any accumulation of lint, etc.

- ④ Lower the movable cutting blade to its lowest position by turning the flywheel towards you. At this position, put a new blade in place, making sure that the edge of the blade is approximately 0.5 to 1.0 mm below the surface of the fixed cutting blade (d). Tighten the bolt (b) firmly. Unlock the movable cutting blade.

NOTE: The fixed cutting blade is made of a special hard alloy and will not normally have to be replaced.



Replacing the Light Bulb

- ① Unplug the machine.
- ② Raise the presser foot and swing open the lamp cover.
- ③ Pull the bulb downwards and out.
- ④ Push the new 15 volt 5 watt bulb fully into the socket. Close the lamp cover.

TROUBLESHOOTING

SKIPPING OR IRREGULAR STITCHES

Incorrect threading	48-50
Incorrect thread tensions	66-70
Needle problems – poor quality, bent or dull	44
Needles not inserted correctly	24
Do not pull on fabric, guide it gently	60
Incorrect presser foot.....	30
Needle plate or foot not attached correctly	88
Cutting width dial not set correctly	26
Antenna not extended/positioned correctly	16
Do not lift presser foot at end of seam	60, 64
Upper looper not engaged	26
Incorrect pressure used for heavier fabrics	56, 80

BREAKING THREADS

Incorrect threading	48-50
Incorrect thread tensions	66-70
Thread tangled or knotted	46, 50
When re-threading lower looper, needle eye must be unthreaded before re-threading looper	48
Needle plate or foot not attached correctly	88
Antenna not extended/positioned correctly	16
Foam pads needed on spool pin bases	16

CHAINSTITCH OR COVER HEM THREAD BREAKS

Thread tension(s) too high.....	68-70
Stitch length set too short, SL must be higher than 2.5	68-70
Needle problems – poor quality, bent or dull	44
Needle not inserted correctly	24
After re-threading chain looper or needle, fabric must be placed under presser foot	64
Lower looper threaded – Re-thread into chain looper.....	48-50

FABRIC PUCKERS

Needle tension(s) too high	66-70
Stitch length too long	70
Thread too heavy	46, 50
Foot pressure not set correctly for fabric	56
Needle plate or foot not attached correctly	88
Differential feed not set correctly for fabric	72

NEEDLE BREAKS

Needle strikes foot or needle plate while pulling on fabric; do not pull fabric, gently guide it	60
Needle problems – poor quality, bent or dull	44
Needle(s) not inserted correctly	24
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MACHINE JAMS

Incorrect threading	48-50
Needle plate not attached correctly	88
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Chain needle thread not engaged properly in tension discs; use tension release lever	56, 66
Thread tangled or knotted	46, 50
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Foam pads needed on spool pin bases	16
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Cleaning and oiling	88

NOISY MACHINE

Cleaning and oiling	88
Brush both cutting blades	88
Replace bent or dull needle(s)	44
Replace movable cutting blade	90

FABRIC IS NOT CUT

Movable cutting blade not engaged correctly	26
Movable cutting blade not attached correctly	90
Check if movable cutting blade is locked correctly	74

FABRIC NOT CUT CORRECTLY

Cutting width dial not set correctly	26
Movable cutting blade not attached correctly	90
Brush both cutting blades	88
Check if movable cutting blade is locked correctly	74
Lock movable cutting blade when sewing heavyweight fabric	74
Unlock movable cutting blade when not sewing heavyweight fabric	74
Replace movable cutting blade	90
Check instant rolled hem device position	30

STITCHES ARE NOT FORMED CORRECTLY ALONG FABRIC EDGE

Program display panel set for wrong stitch	20
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Check instant rolled hem device position	30

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