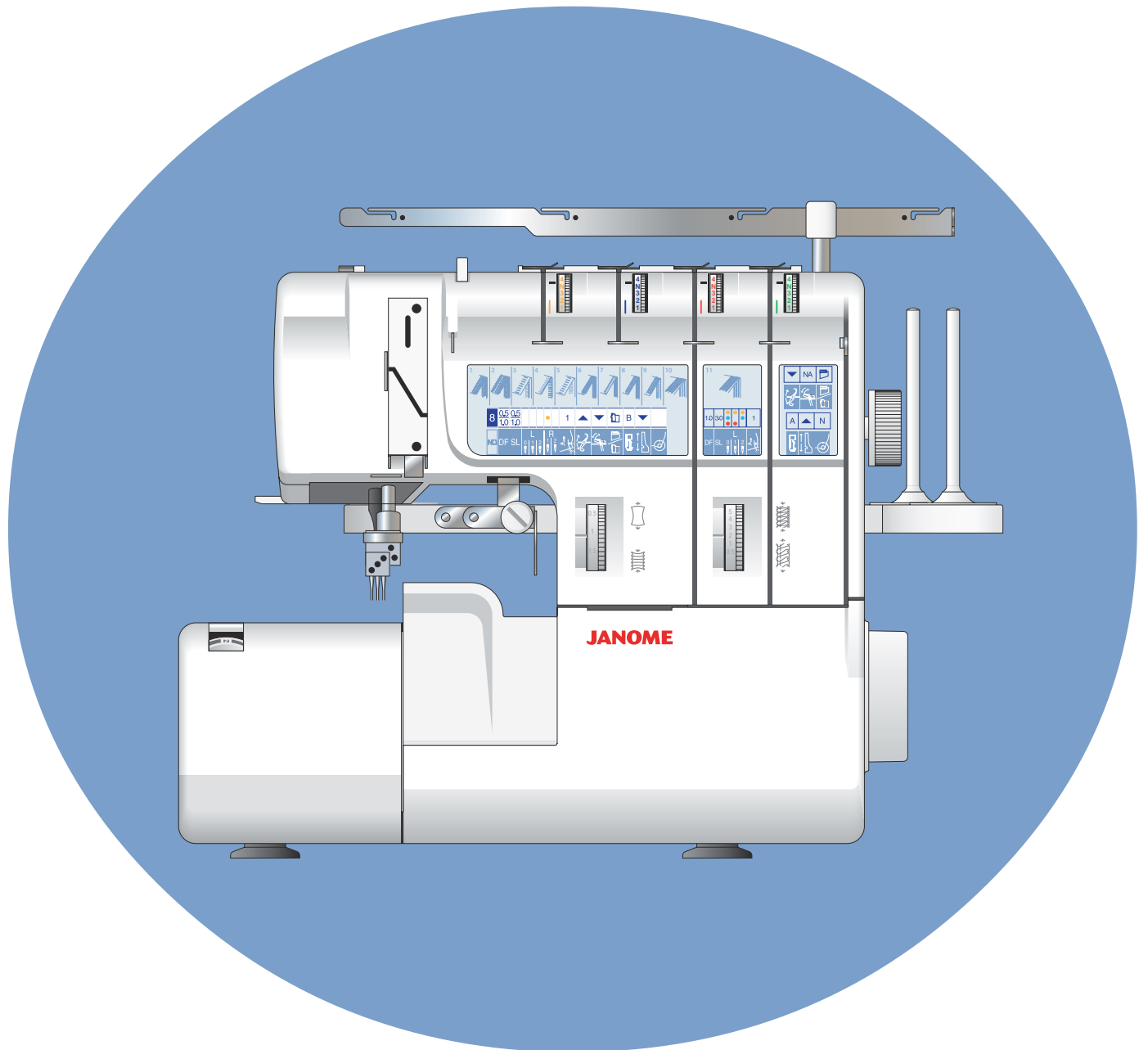


# Instruction Book

## Manual de Instrucciones

## Manuale d'Instructions



# JANOME

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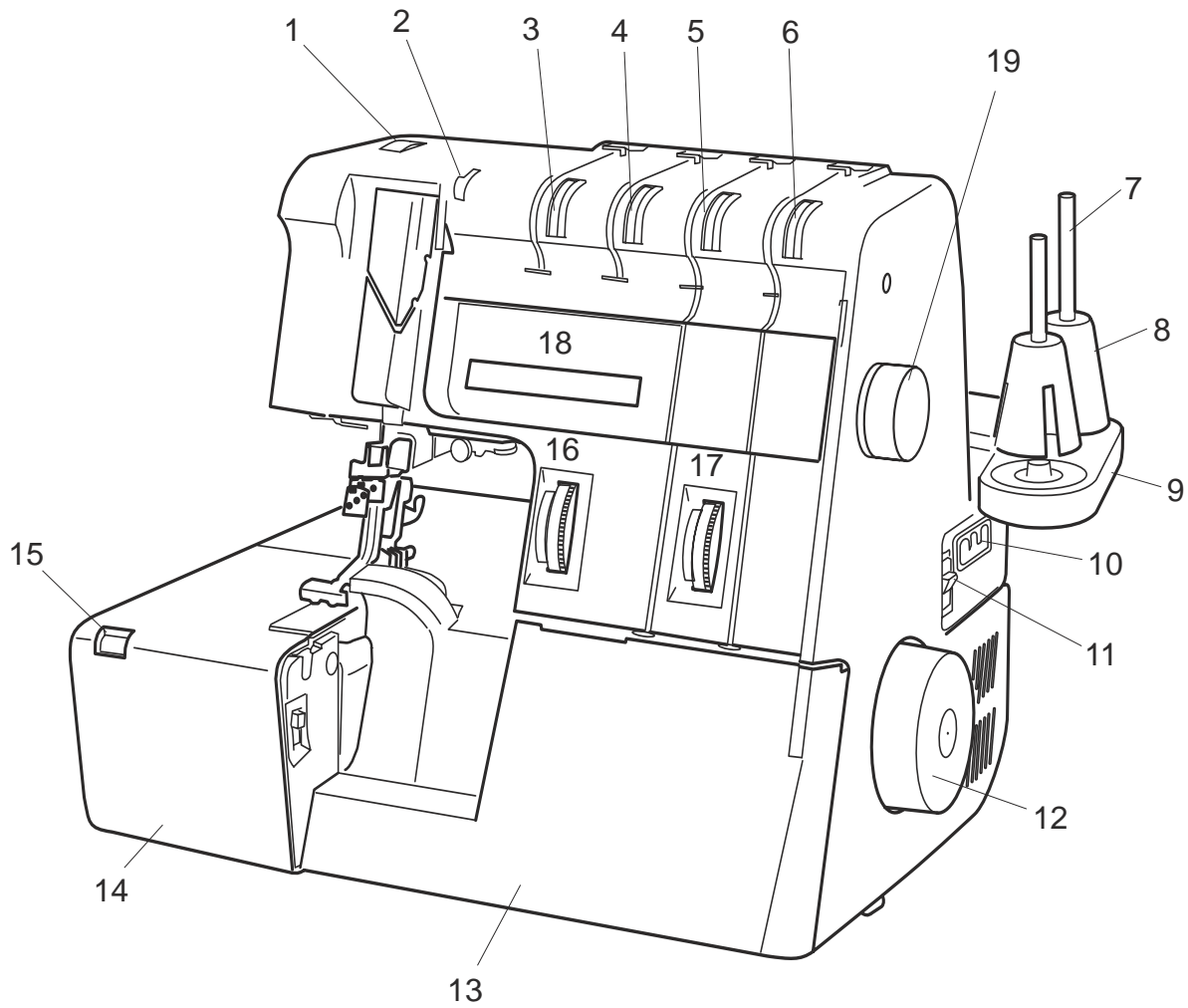
### NOTE:

Information found in this instruction manual is current at the time of printing. We reserve the right to change and update specifications and information as needed.

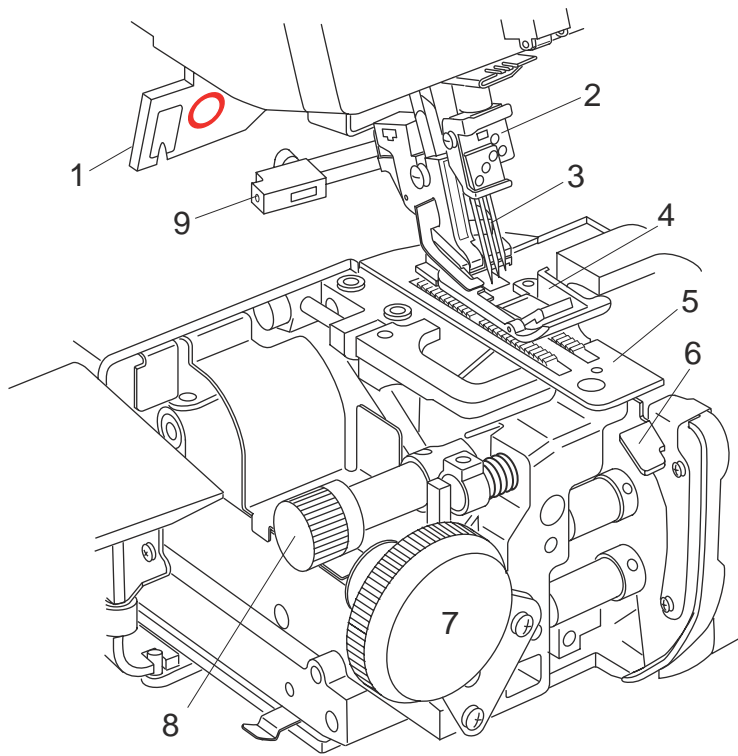
# SECTION I

## Machine Parts

### Front View



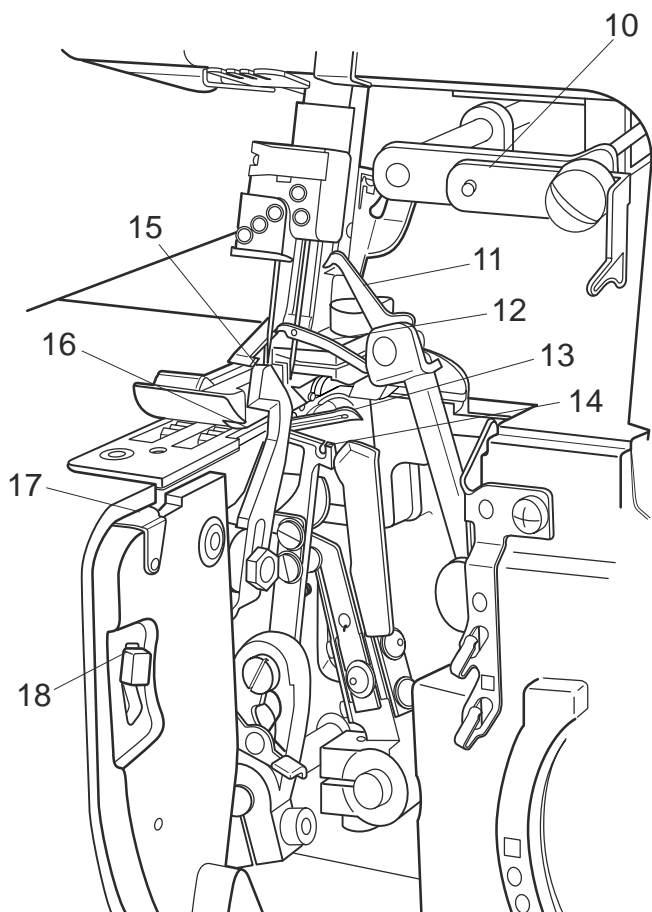
1. Pressure adjustment dial
2. Tension release lever
3. Left needle thread tension dial (yellow)
4. Right needle thread tension dial (blue)
5. Upper looper thread tension dial (red)
6. Lower looper thread tension dial (green)
7. Spool pin
8. Spool holder
9. Spool pin base
10. Machine socket
11. Power switch
12. Handwheel
13. Front cover
14. Side cover
15. Cutting width window
16. Differential feed dial (DF)
17. Stitch length dial (SL)
18. Program display panel
19. Program selection dial



## Side Cover

Grasp the cover and open it to the left.

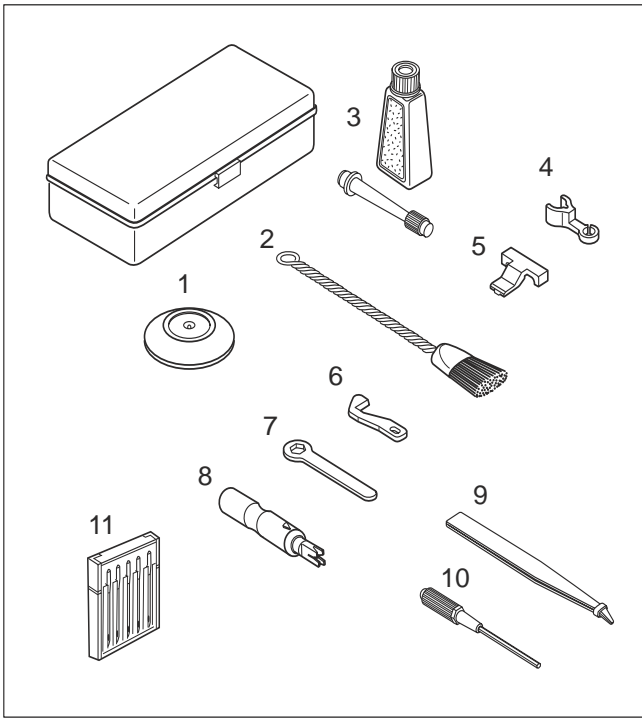
1. Presser foot lever and thread cutter
2. Needle clamp
3. Needle(s)
4. Presser foot
5. Needle plate
6. Needle plate release lever
7. Cutting width dial
8. Upper knife release knob
9. Spreader holder



## Front Cover

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

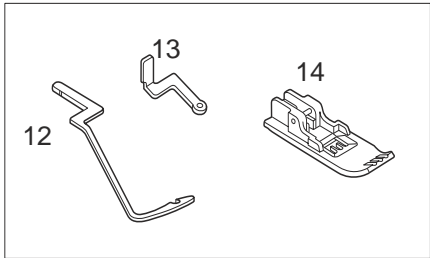
10. Top cover lever
11. 2-thread converter
12. Upper looper
13. Lower looper
14. Chain looper
15. Upper knife
16. Lower knife
17. Back-tack device
18. Needle plate setting knob



**Standard Accessories**

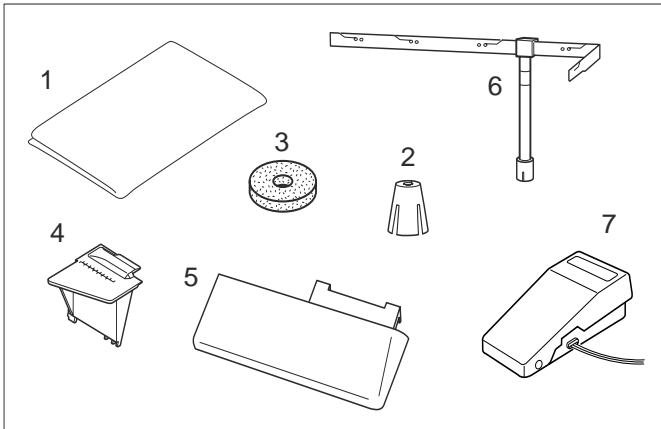
**In the Accessory Box**

1. Spool caps
2. Cleaning brush
3. Oil tube
4. Snap-on thread guide
5. Tension release clip
6. Spare upper knife
7. Wrench for replacing upper knife
8. Needle threader
9. Tweezers
10. Allen screwdriver 1.5 mm
11. Assortment of needles EL x 705



**Top Cover Accessories (In the accessory box)**

12. Spreader Device (top cover hook)
13. Round Top Cover Guide (insert into R2 needle position)
14. Top Cover Foot "R"

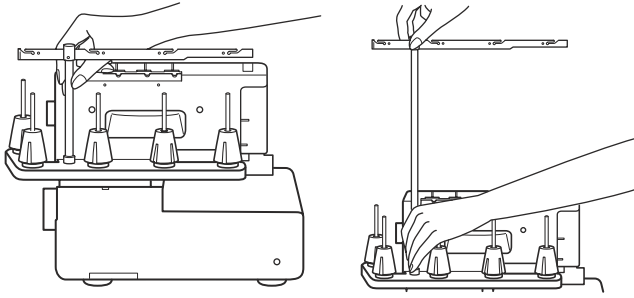


**In the Carton Box**

1. Dust cover
2. Spool holders
3. Foam pads
4. Sewing table
5. Waste tray
6. Thread guide pole
7. Foot control

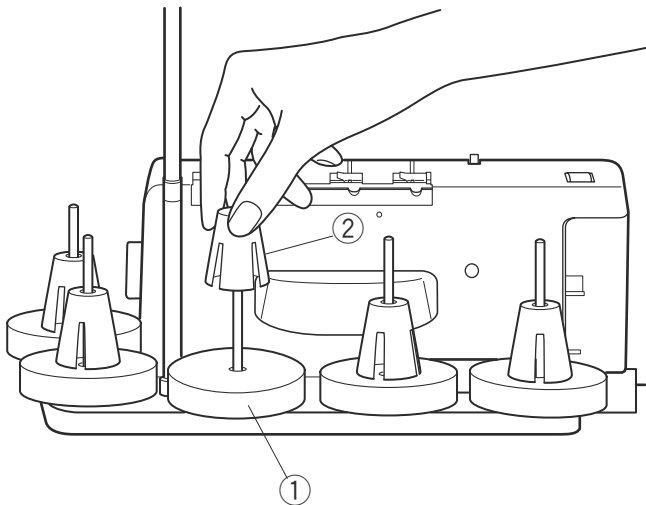
## SECTION II

### Machine Set-up



#### Attaching the Thread Guide Pole

1. Insert the thread guide pole into the spool pin base located at the back of the machine. Make sure the slot of the thread guide pole grips the rib in the base hole.
2. Pull the thread guide pole to its highest position. Align the thread guide portion with the spool pins.

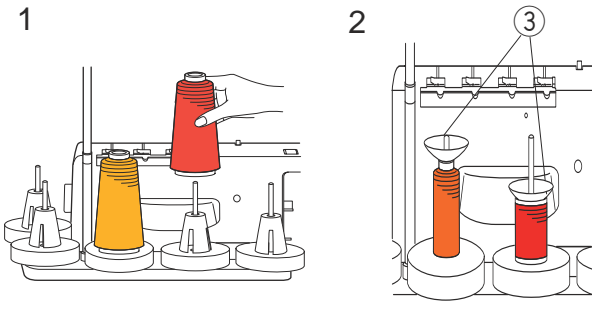


#### Placing the Foam Pads and Spool Holders

Remove the spool holders. Place the foam pads and the spool holders. The foam pads help stabilizing the spools of thread.

Both thread cones and spools of thread can be used.

- ① Foam pads
- ② Spool holder



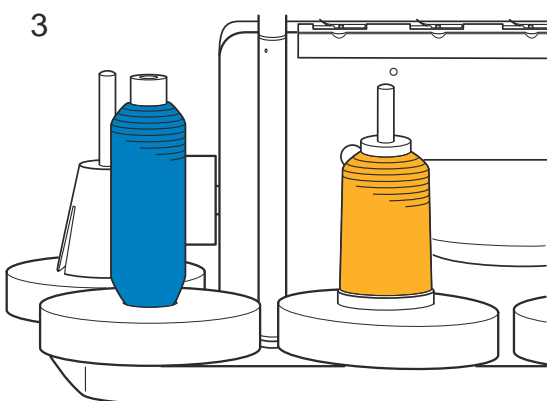
#### 1. Thread cones

For thread cones, use the spool holders. Place the thread cone on the spool holder and push the cone as far as it will go.

#### 2. Spools of thread

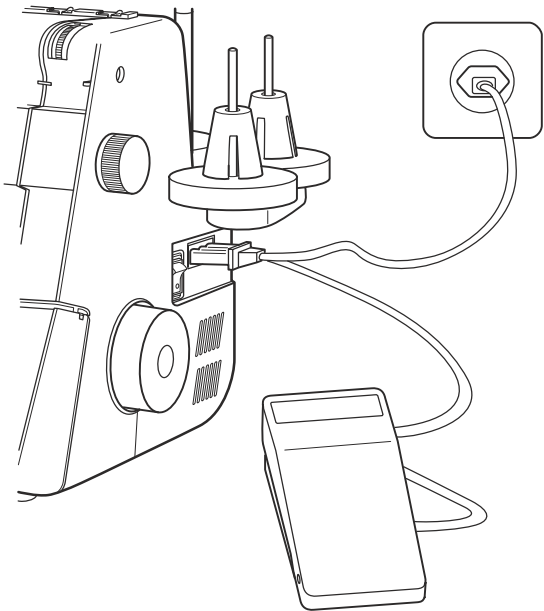
For spools of thread, remove the spool holder. Place the spool of thread on the spool pin and attach the spool cap.

- ③ Spool cap



#### 3. Spools of decorative thread (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 socket and the power supply plug into the wall outlet.

## 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), handwheel, upper knife, loopers, etc.
2. Always turn off the power switch and unplug the machine 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.

## Operating Instructions for USA/Canada

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.

Must use foot control YC-482M.

The symbol "O" of a switch indicates the "off" position of a switch.

## How To Set Up Machine Using the Program Display Panel

Turn the program selection dial and select the desired program number.

### NOTE:

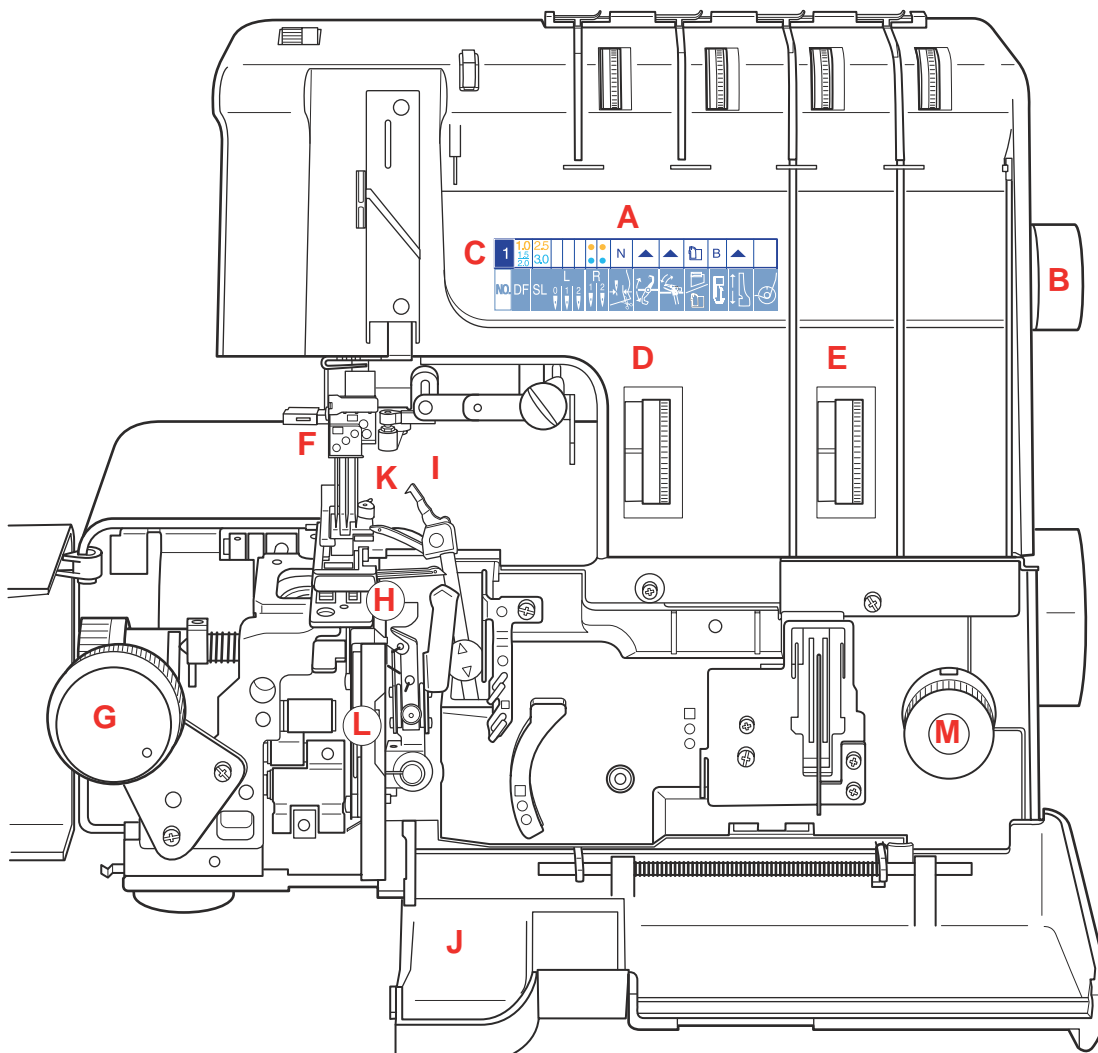
Machine should not be threaded before setting the machine up for the selected program. Cut and remove all threads.

### HINT:

Cut threads at looper and needle eyes and hand pull threads away.

### IMPORTANT:

Never press on foot control to sew out threads.



- A. Program display
- B. Program selection dial
- C. Program number
- D. Differential feed ratio
- E. Stitch length in mm
- F. Needle position
- G. Cutting width dial position
- H. Position of upper knife
- I. 2-thread converter - up/down
- J. Overlock cover or sewing table
- K. Foot lever position
- L. Position of needle plate setting knob
- M. Chain looper tension dial position (brown)





### C. Program Number

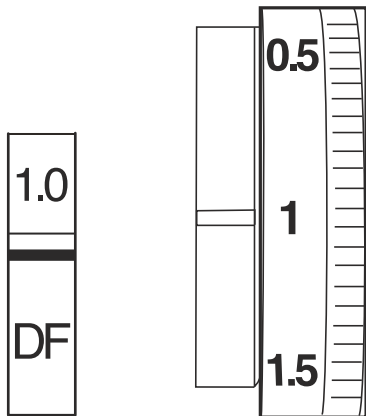
The thread tension dials will be automatically set to “N” when selecting the program. The tensions are automatically adjusted to the proper values for the selected program.

The instructions for machine set-up are also displayed using easy to read symbols.

#### NOTE:

It is very important to select the correct program number corresponding to the desired stitch. Make sure to set the machine up before attempting to thread. This ensures that all machine parts are correctly positioned and makes threading easier.

### DF



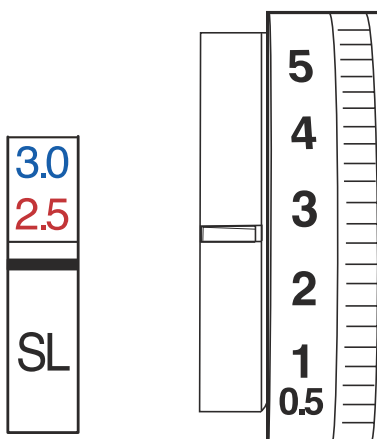
### D. Differential Feed (DF)

Turn the DF dial to select the differential ratio shown on the display panel by setting the number to the setting mark.

Differential feed may be set from 0.5 to 2.

Example: Set the DF dial to 1.

### SL

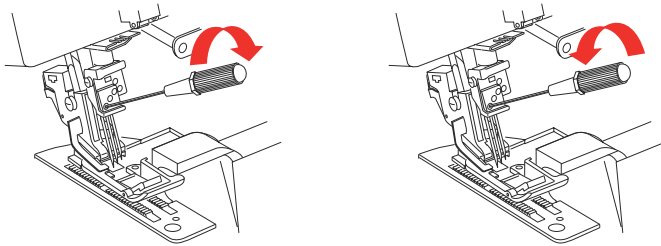
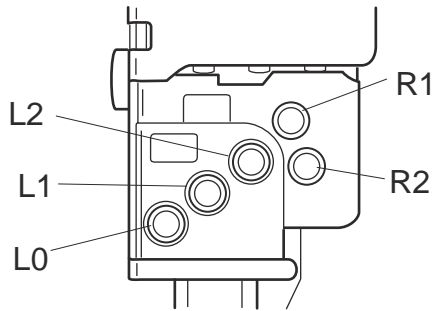
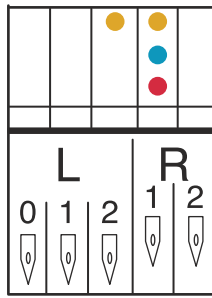


### E. Stitch Length (SL)

Turn the SL dial to select the stitch length shown on the display panel by setting the number to the setting mark. Stitch length may be set from 0.5 to 5.

Example:

- 5-Thread and 3-Thread Wide (Blue):  
Set the SL dial to 3.
- Overlock 3 (Red):  
Set the SL dial to 2.5 (between 2 and 3).



## F. Needle Position

There are 5 needle positions available to sew the 20 stitches. The needles to be used for the specific stitch are indicated by color dots above the needle position marks. The color of the dot corresponds to the color of stitch type.

Insert the needle into the proper needle position.

Example:

- Yellow dots = 5-Thread  
Insert the needles into positions L2 and R1.
- Blue dot = 3-Thread Wide  
Insert the needle into position R1.
- Red dot = Overlock 3  
Insert the needle into position R1.

### IMPORTANT:

Switch off the machine when removing and inserting the needles.

### To remove:

Loosen the setscrew with the Allen screwdriver.

Pull the needle down to remove.

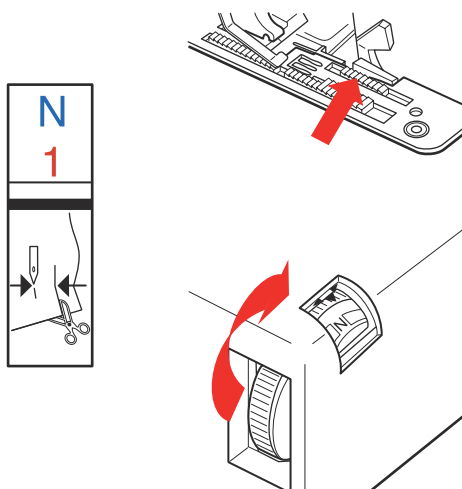
Lightly tighten the setscrew to prevent it from loosening during sewing.

### To insert:

Loosen the setscrew of the desired needle position. Insert the needle with the flat side to the back.

Push the needle straight up as far as it will go and tighten the setscrew securely.

Turn the handwheel slowly and check that the needle(s) does not hit or thrust the presser foot or needle plate.



## G. Cutting Width

The cutting width dial sets the distance between the needle and where the blades cut fabrics. Turn the dial until the readout on the display panel is visible in the side door window.

Example:

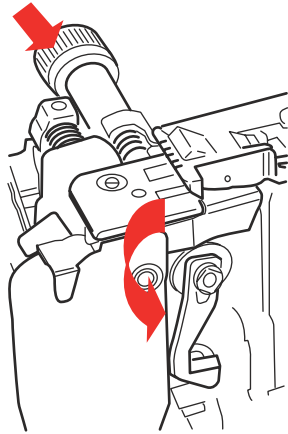
- 5 Thread and 3 Thread Wide (Blue):  
Set the cutting width dial to N
- Overlock 3 (Red):  
Set the cutting width dial to 1.

### HINT:

Open left side cover to fully expose the cutting width dial to more easily turn the dial for wider widths.

### IMPORTANT:

Never turn the cutting width dial if threads are forming a stitch around the chaining finger. Remove threads by raising presser foot and gently pulling them to the back.



## H. Upper Knife

### ▼ To disengage the upper knife (down)

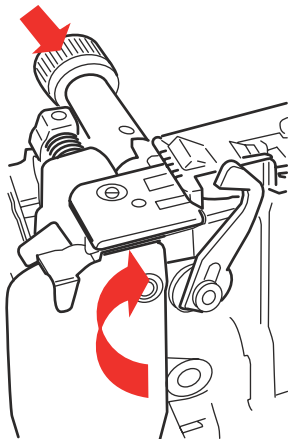
Hand turn the handwheel to bring the needle bar to its highest position. Open the front and side covers. Push the upper knife release knob to the right and turn it towards you.

#### NOTE:

Do not allow the fabric edge to extend beyond the right side of the needle plate when sewing with the upper knife disengaged. (Example: any stitch that uses either R1 or R2 needle position.)

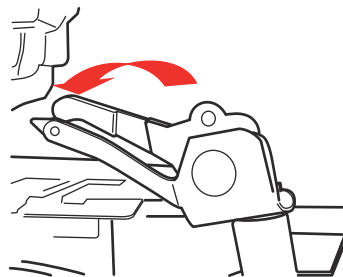
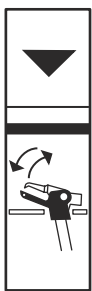
### ▲ To engage upper knife (up)

Push the upper knife release knob to the right and turn it away from you.



Example:

- ▲ 5 Thread, 3 Thread Wide and Overlock 3: engage upper knife (up).



## I. 2-Thread Converter

### ▼ To engage the 2-thread converter

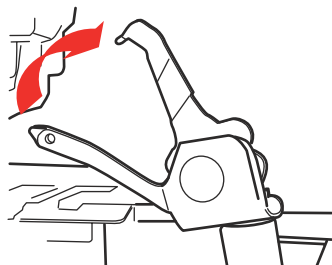
Hand turn the handwheel until the upper looper is in an up position.

Lower the converter and insert the hook into the upper looper.

### ▲ To disengage the 2-thread converter

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

Remove the hook from the looper eye and lift the converter up until it secures in the far right position.

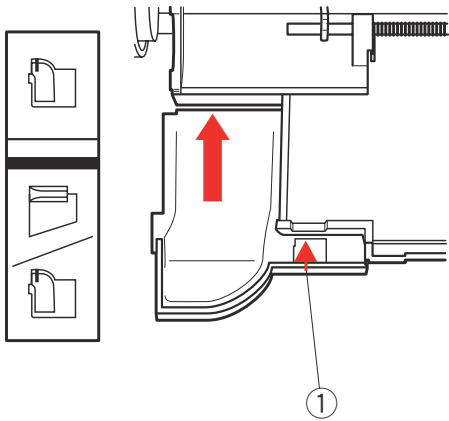


Example:

- ▲ 5-Thread, 3-Thread Wide and Overlock 3: disengage the 2-thread converter.

## J. Overlock Cover or Sewing Table

For program numbers 1-9, always attach the overlock cover to the front cover.

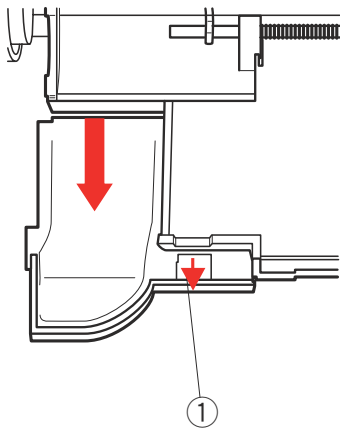


### To attach the overlock cover

The overlock cover protects the loopers.

To attach the overlock cover, open the front cover and place the overlock cover on the outside of the front cover. Insert the end of the overlock cover into the slot of the front cover. Push the overlock cover firmly until the tab snaps into place.

① Tab



For program number 10, always attach the sewing table to the front cover.

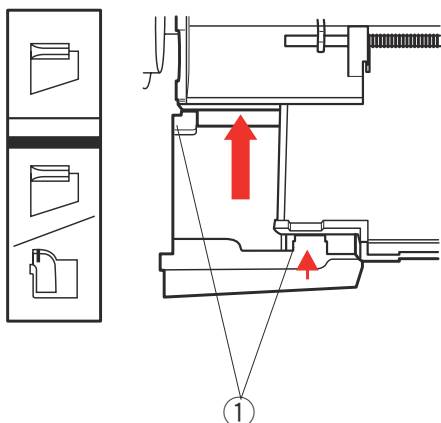
### To attach the sewing table

Detach the overlock cover by pulling the tab up and toward you with your thumb finger.

#### **NOTE:**

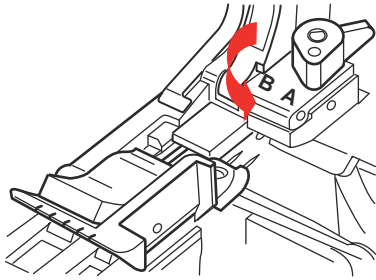
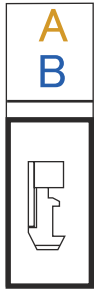
The upper knife and chaining finger shall always be disengaged when the sewing table is attached.

① Tab



To install the sewing table, place the sewing table on the outside of the front cover. Insert the tabs into the slot of the front cover. Push the sewing table firmly until the tab snaps into place.

① Tab



### K. Presser Foot (A or B)

Switch the lever on the presser foot to A or B. The lever controls the spring action that occurs on the underside of the foot.

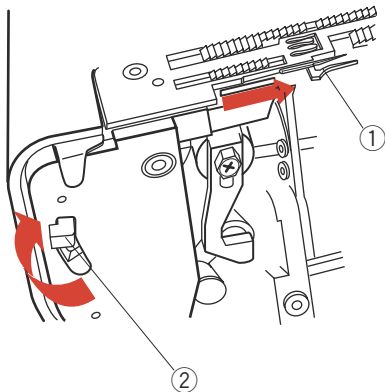
The tip of the foot has markings that line up with the insertion point of the needles - a great guide for accurate sewing.

Example:

- Yellow A - 5 Thread: position A
- Blue B - 3 Thread Wide and Overlock 3: position B.

#### NOTE:

Replace the presser foot with the Top Cover foot R (blue transparent) when sewing Top Cover Stitch (see page 56).



### L. Needle Plate Setting Knob (Chaining finger)

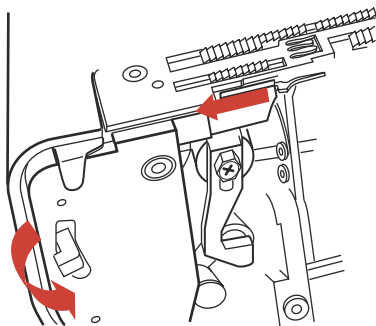
Your machine comes equipped with the rolled hem plate. You can do all overlock stitches by engaging or disengaging the chaining finger.

- ① Chaining finger

#### ▲ To Engage (up)

Pull the needle plate setting knob up.

- ② Needle plate setting knob

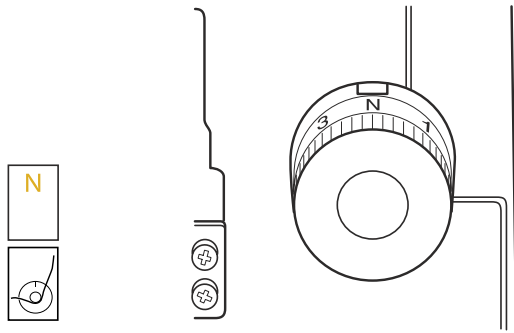


#### ▼ To Disengage (down)

Push the needle plate setting knob down.

## M. Chain Looper Tension (Brown)

Thread the chain looper tension for either 5-Thread stitch or after selecting any stitch in program 10.



Example:

- 5-Thread stitch (Yellow):  
Thread the chain looper tension and set it to N.
- 3-Thread Wide and Overlock 3 (Blank):  
Do not thread chain looper.

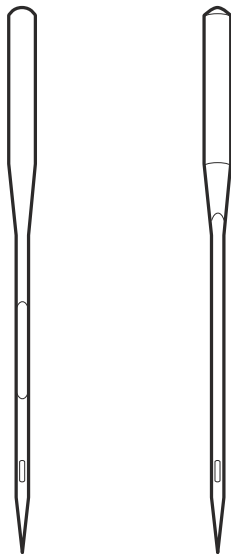
## Needles

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 (dent 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.

It is possible to use conventional sewing machine needles – 130/705H – for special threads and fabrics.

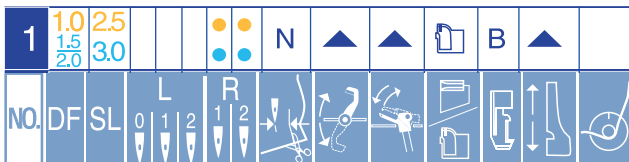
Common stitch problems can often be traced directly to the needle.

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



## SECTION III

### Threading



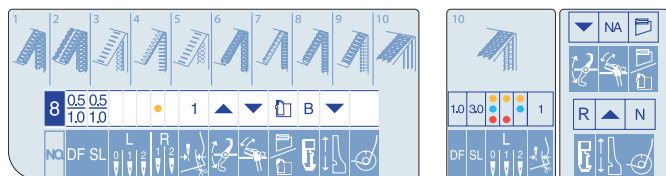
The threading routes will change according to the selected program.

As you learn to thread your machine, we recommend using the threads of the same colors as that of the tension dials. This will help you understand the function of each thread.

Tension settings of programs are based on sewer using polyester or a polyester/cotton blend threads for all threading positions. Choose good quality threads of even and consistent thickness.

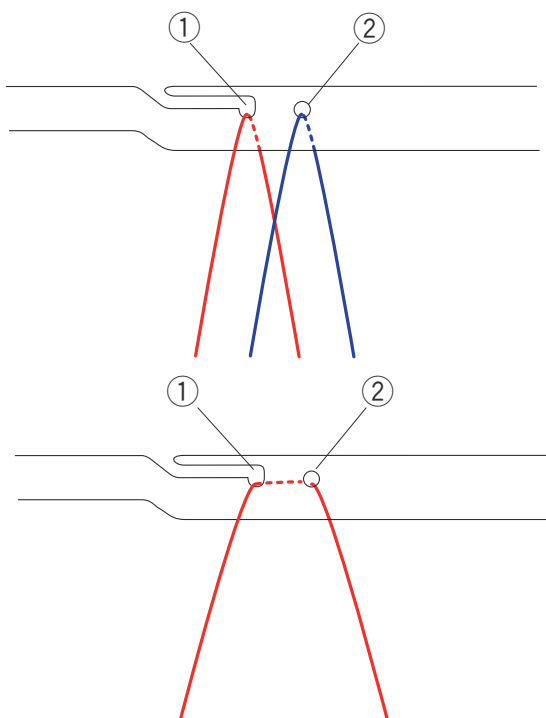
#### NOTE:

The threads are stretched as they pass through the tension discs while sewing. Therefore, it is important to use high tensile threads such as polyester or 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 38-58.)



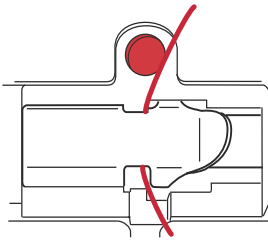
#### Thread Guide Bar

Extend the thread guide pole to its highest position. (See page 14.)

When threading the thread guide bar, use either the slot or the hole depending on type of the threads used. Threading the hole is the recommended method especially when sewing with decorative threads.

- ① Slot
- ② Hole

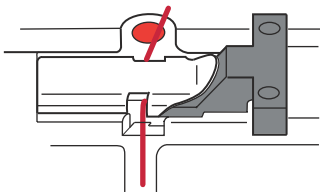
Some tightly twisted threads need special threading through both the hole and slot.



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

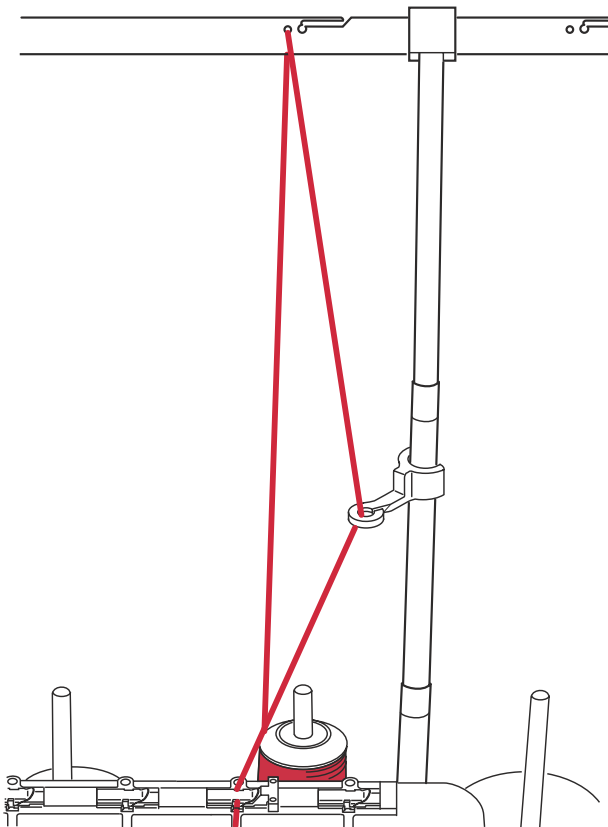
### Accessories For Decorative Threads

There are many decorative threads available for overlock use. Make sure you choose threads and yarns that smoothly pass 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.



### Tension Release Clips

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



### Snap-on Thread Guide

Decorative threads may tangle. Snap the thread guide onto the thread guide pole and pass the upper looper thread as shown.

### IMPORTANT:

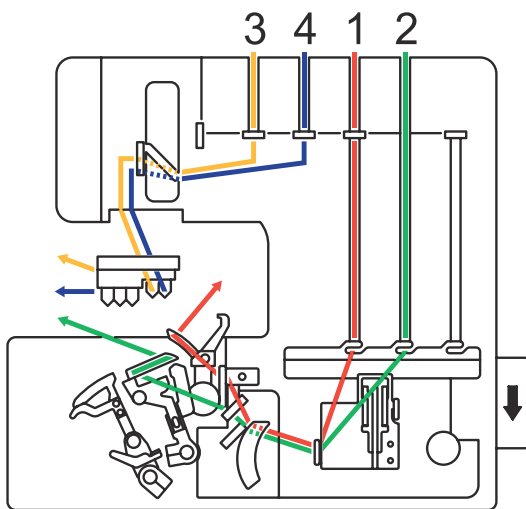
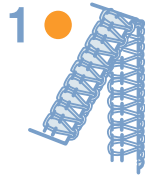
When using decorative threads, sew at a slower and consistent speed to prevent uneven stitches.

## Quick Reference Threading Charts

Refer to the detailed threading charts for each threading path corresponding to code letter; (A), (B3) etc. (page 62-72).

For the best results, sew on light to medium weight fabrics.

1	1.0 1.5 2.0	2.5 3.0				● ● N	▲ ▲	▲	B	▲
NO.	DF	SL	L 0 1 2	R 1 2						



### SAFETY 4-THREAD STITCH

Select 1 and set up the machine.

An overlock stitch that employs two needles. 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

- Excellent for sewing knit garments.
- Appropriate for loose fitting woven garments.

Thread in the following sequence:

- 1 Red (F) thread path for upper looper (page 67)
- 2 Green (G) thread path for lower looper (page 68)
- 3 Yellow (B2) thread path for R1 needle (page 63)
4. Blue (D3) thread path for R2 needle (page 65)

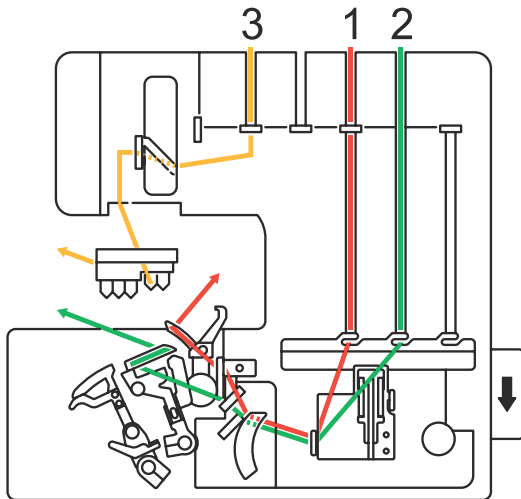








6	1.0	1.0								1	▲	▲	☰	B	▼
NO.	DF	SL	L	R											
			0	1	2	1	2								



### NARROW HEM 3

Select 6 and set up the machine.

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

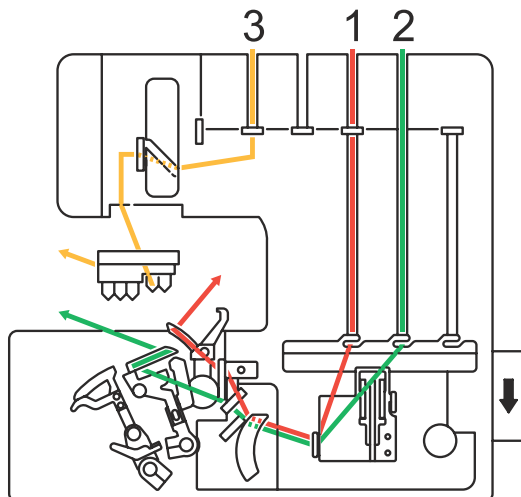
#### Common Uses

- Hemming on scarves, napkins and ruffles.
- Garment construction on undergarments made of lightweight knit fabrics.

Thread in the following sequence:

- 1 Red (F) thread path for upper looper (page 67)
- 2 Green (G) thread path for lower looper (page 68)
- 3 Yellow (B2) thread path for R1 needle (page 63)

7	0.5	0.5								1	▲	▲	☰	B	▼
	1.0	1.0													
NO.	DF	SL	L	R											
			0	1	2	1	2								



### ROLLED HEM 3

Select 7 and set up the machine.

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

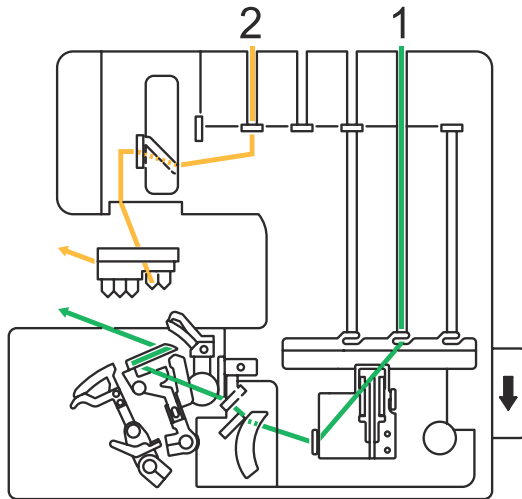
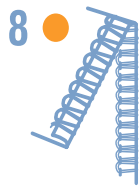
#### Common Uses

- Hemming on light to medium weight fabrics.
- Pintucks for decoration.

Thread in the following sequence:

- 1 Red (F) thread path for upper looper (page 67)
- 2 Green (G) thread path for lower looper (page 68)
- 3 Yellow (B2) thread path for R1 needle (page 63)

8	0.5 1.0	0.5 1.0						●	1	▲	▼	📄	B	▼
NO.	DF	SL	L	R										
			0	1	2	1	2							



## ROLLED HEM 2

Select 8 and set up the machine.

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

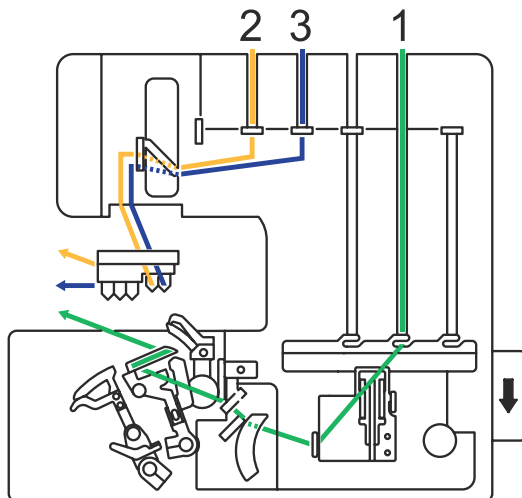
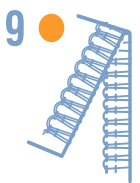
### Common Uses

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

Thread in the following sequence:

- 1 Green (G) thread path for lower looper (page 68)
- 2 Yellow (B2) thread path for R1 needle (page 63)

9	1.0	2.0						● ●	N	▲	▼	📄	B	▲
NO.	DF	SL	L	R										
			0	1	2	1	2							



## STRETCH WRAPPED

Select 9 and set up the machine.

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

### Common Uses

- Garment construction on exercise and swimwear.

Thread in the following sequence:

- 1 Green (G) thread path for lower looper (page 68)
- 2 Yellow (B2) thread path for R1 needle (page 63)
- 3 Blue (D3) thread path for R2 needle (page 65)

10	1.0	3.0		1	▼	NA		A	▲	N
NO.	DF	SL	L 0 1 2	R 1 2						

### TRIPLE COVER HEM

Select 10 and set up the machine.

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

- Hem finish.
- Topstitching .
- Belt loops.

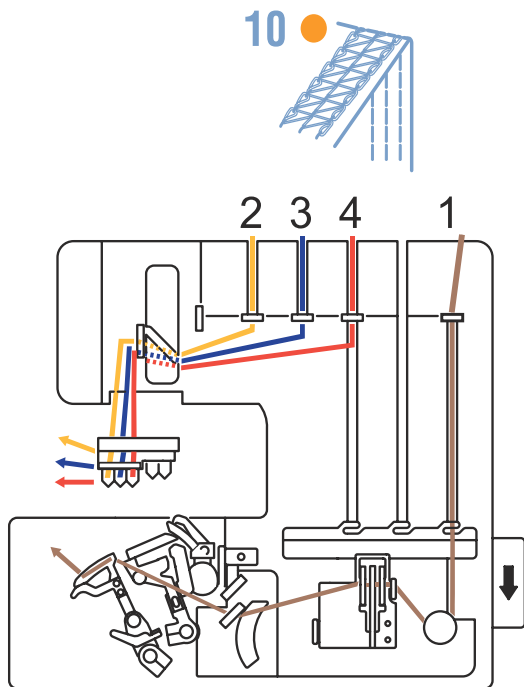
Thread in the following sequence:

- 1 Brown (I) thread path for chain looper (page 72)
- 2 Yellow (B1) thread path for L0 needle (page 63)
- 3 Blue (D1) thread path for L1 needle (page 65)
- 4 Red (E) thread path for L2 needle (page 66)

#### NOTE:

The needle threads should be separated in the last two guides with the yellow to the far left, then blue and finally red.

Make sure to check that the upper looper is locked in the down position by turning the handwheel towards you.



10	1.0	3.0		1	▼	NA		A	▲	N
NO.	DF	SL	L 0 1 2	R 1 2						

### COVER HEM WIDE

Select 10 and set up the machine.

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

- Hem finish.
- Topstitching.
- Belt loops.

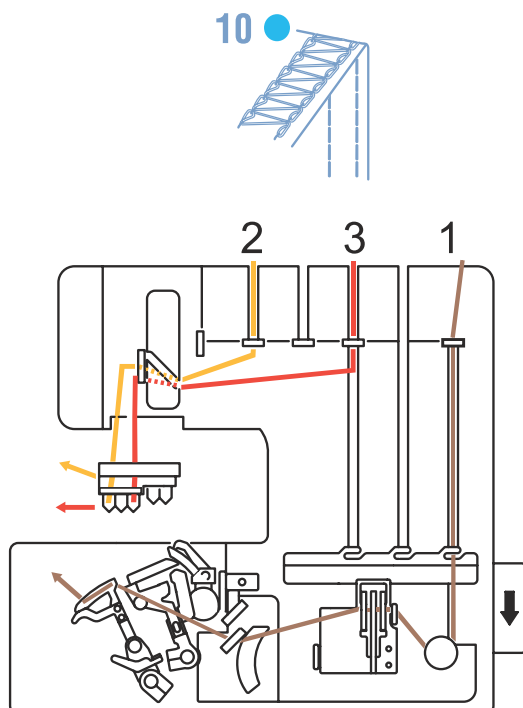
Thread in the following sequence:

- 1 Brown (I) thread path for chain looper (page 72)
- 2 Yellow (B1) thread path for L0 needle (page 63)
- 3 Red (E) thread path for L2 needle (page 66)

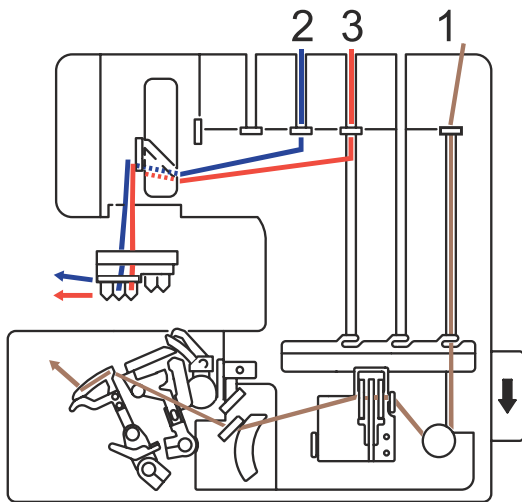
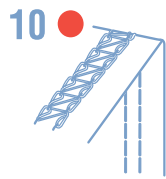
#### NOTE:

The needle threads should be separated in the last two guides with the yellow to the far left.

Make sure to check that the upper looper is locked in the down position by turning the handwheel towards you.



10	1.0	3.0		1		NA		A		N
NO.	DF	SL	L 0 1 2	R 1 2						



## COVER HEM NARROW

Select 10 and set up the machine.

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

- Hem finish on knit fabrics.
- Topstitching.
- Pintucks.

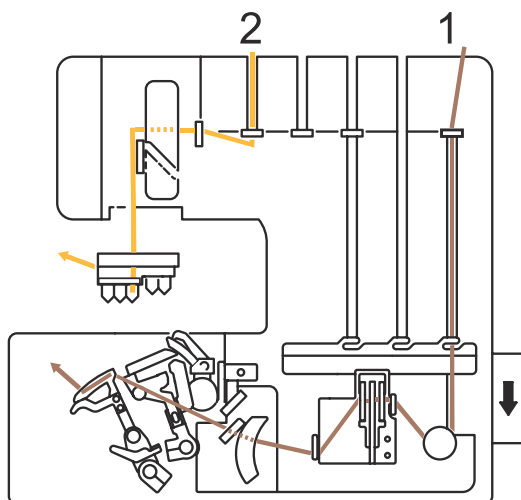
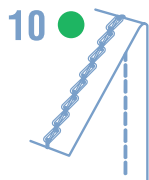
Thread in the following sequence:

- 1 Brown (I) thread path for chain looper (page 72)
- 2 Blue (D1) thread path for L1 needle (page 65)
- 3 Red (E) thread path for L2 needle (page 66)

### NOTE:

The needle threads should be separated in the last two guides with the blue to the left. Make sure to check that the upper looper is locked in the down position by turning the handwheel towards you.

10	1.0	3.0		1		NA		A		N
NO.	DF	SL	L 0 1 2	R 1 2						



## CHAINSTITCH

Select 10 and set up the machine.

### IMPORTANT:

Set the needle thread tension dial (yellow) to "1".

A 2-thread chainstitch or double chainstitch uses one needle and the chain looper to form a straight stitch. The chainstitch is stable for stretch fabrics.

### Common Uses

- Garment construction on woven fabrics to create an open seam allowance.
- Sew knitwear together where elasticity is required.
- Sew on bias tape.

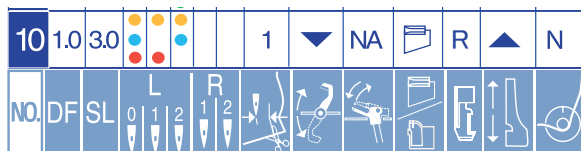
Thread in the following sequence:

- 1 Brown (H) thread path for chain looper (page 70)
- 2 Yellow (A) thread path for L2 needle (page 62)

### NOTE:

Make sure to check that the upper looper is locked in the down position by turning the handwheel towards you.

## TOP COVER STITCHES (Triple, Wide and Narrow)



A decorative industrial type topstitch, the Top Cover measures 5.0 mm or 2.5 mm in width. It uses two or three needles, top cover “hook” and the chain looper to form a cover hem with loops on both the top and bottom side of the fabric.

### Common Uses

- Hem finish on light to medium weight fabrics.
- Topstitching light to medium weight fabrics.

### Preparing Machine for Top Cover Stitch

1. Select 10.
2. Turn off machine.
3. Hand turn handwheel towards you to check that the upper looper is locked in the down position
4. Set machine up according to display. Raise the presser foot.

### NOTE:

DO NOT set the SL dial below 2.5. Heavier fabrics will require a longer stitch length.

5. Depending on Top Cover desired, insert needles.

- ① Triple
- ② Wide
- ③ Narrow

6. Press the lever on the back of the foot holder and remove the presser foot. Place the Top Cover foot “R” (4) under the foot holder. Lower presser foot lever to lock the Top Cover foot in place.

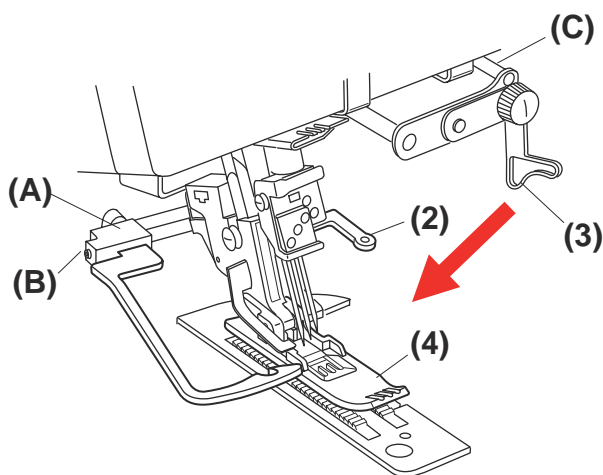
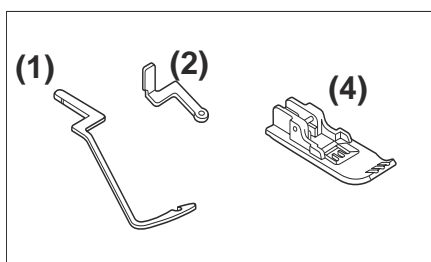
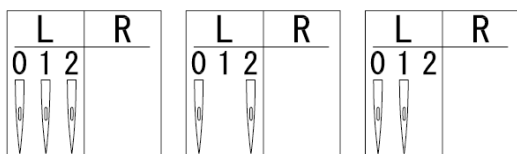
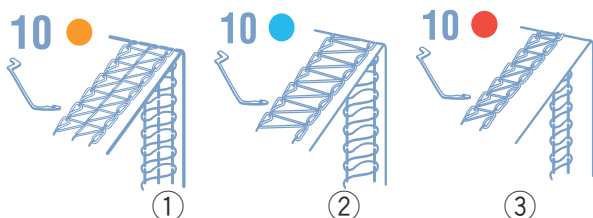
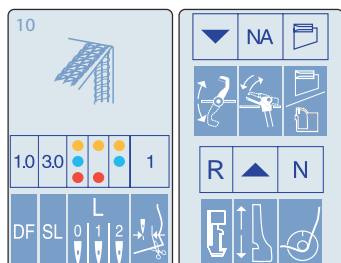
7. Insert spreader device (1) into slot (A) and tighten screw (B) with Allen screwdriver.

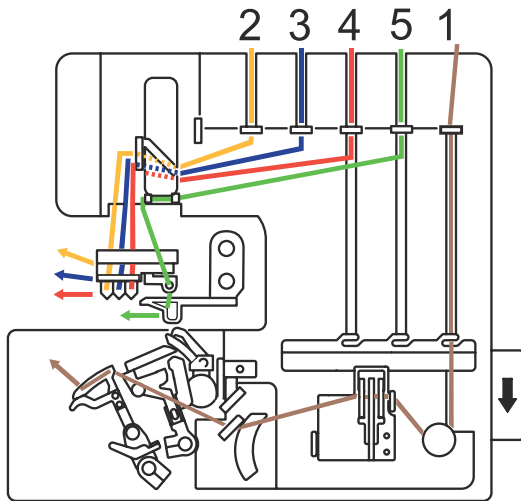
8. Slightly loosen R1 and R2 needle screws. Insert round top cover guide (2) into opening of R1 and R2 needle holes. Firmly tighten only the R2 needle screw.

9. Open the front cover. Swing down the top cover lever (C) with the triangle top cover guide and thumbscrew (3).

### NOTE:

DO NOT swing down the top cover lever with the A/B foot attached, the “R” presser foot up or front cover closed. Surface of cover table will be scratched if you move top cover lever with front cover closed.





10. Hand turn handwheel towards you to check movement of the spreader device.

Thread in the following sequence:

1. Brown (I) thread for chain looper (page 72)
2. Yellow (B1) thread for L0 needle (page 63)
3. Blue (D1) thread for L1 needle (page 65)
4. Red (E) thread for L2 needle (page 66)
5. Green thread for spreader device (see below)

**NOTE:**

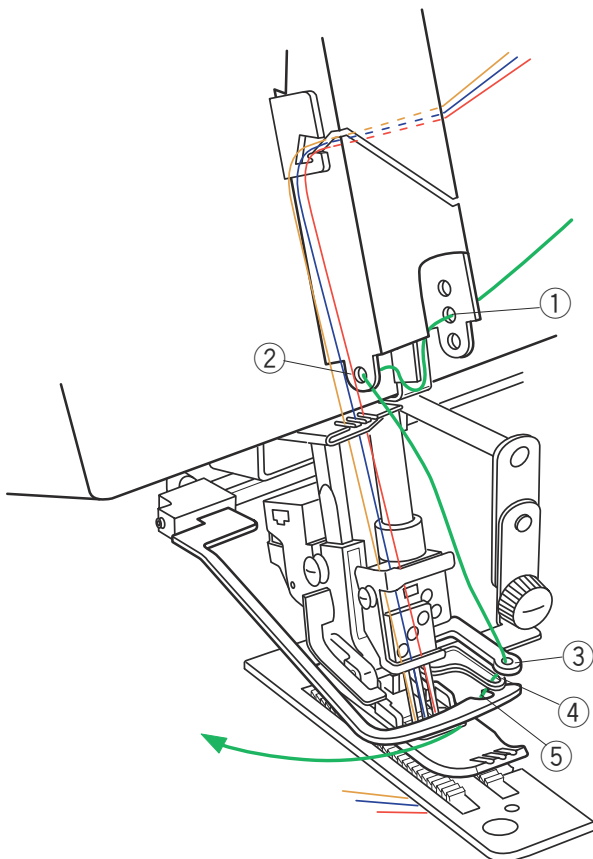
The needle threads should be separated in the last two guides with the yellow to the far left, then blue and finally red.

**Spreader Device Threading**

Use Green tension disc and thread through all five guides ① – ⑤ shown in illustration.

There are three holes on the lower right side of the take-up lever cover. Change the threading position according to the thread type.

- Upper hole: Stretch deco thread (Woolly Nylon®)
- Middle hole: Standard overlock thread.
- Lower hole: Deco non-stretchable thread



11. Close front cover. Hand turn handwheel towards you to check spreader device movement and raise needles.

12. Lift up the presser foot. Place fabric under foot and needles. Lower the presser foot.

13. Bring the top cover thread (green) in front of needles into the hook of the spreader device. Hold thread in hook while hand turning handwheel until first few stitches are formed.

14. Use foot control and gradually build up speed. Sew at low to medium speed.

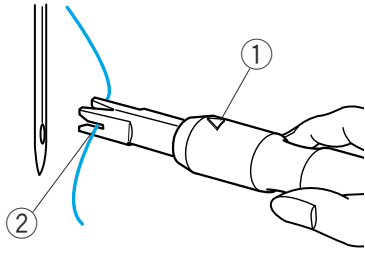
15. Adjustments:

- Turn green tension dial to a higher number to pull thread taut if the spreader device is not catching the top thread.
- Turn red tension dial to a higher number to pull stitching tighter when sewing the Triple or Wide Top Cover stitches.

**NOTE:**

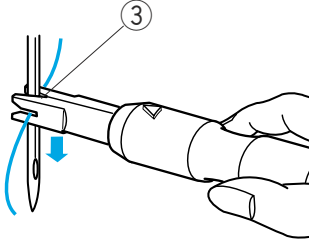
The triangle top cover stitch guide can be removed to provide more space when sewing other stitches than top cover stitches. To remove the top cover stitch guide, bring the needle bar to the highest position and swing up (disengage) the top cover lever. Loosen the thumbscrew to remove the triangle top cover stitch guide.

## Threading the Needle with the Needle Threader



Hold the needle threader with a triangle mark facing up. Insert the thread into the Y-notch of the threader from the right.

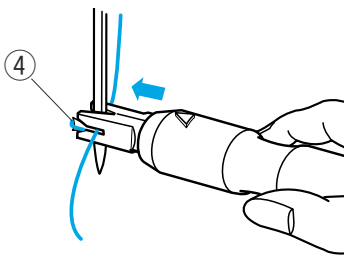
- ① Triangle mark
- ② Y-notch



Slide the threader down along the needle while pushing it gently until the threader pin goes into the needle eye.

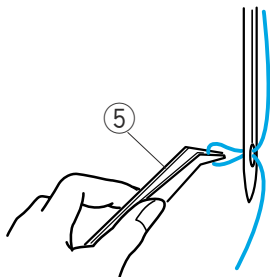
Place the V-notch over the needle just above the needle eye.

- ③ V-notch



Push the threader until the threader pin comes out through the needle eye with a loop of thread.

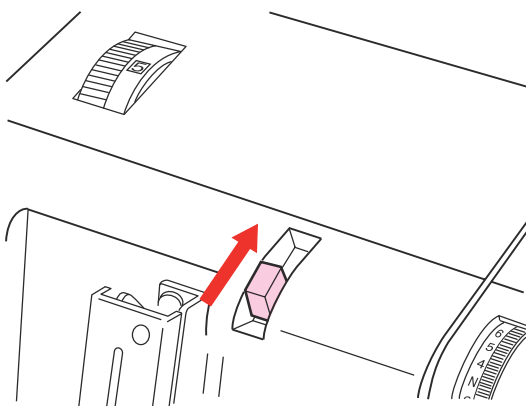
- ④ Threader pin



Remove the threader from the needle slowly, leaving the thread loop behind the needle eye.

Using the tweezers, pull the loop of the thread out to the back.

- ⑤ Tweezers



## Tension Release Lever

Once threading is complete, push and hold the tension release lever while pulling the threads forward for about 10 cm (4") so the threads are firmly inserted between the tension disks.

This lever can also be used to remove stitches from the chaining finger.

## DETAILED THREAD ROUTE CHARTS

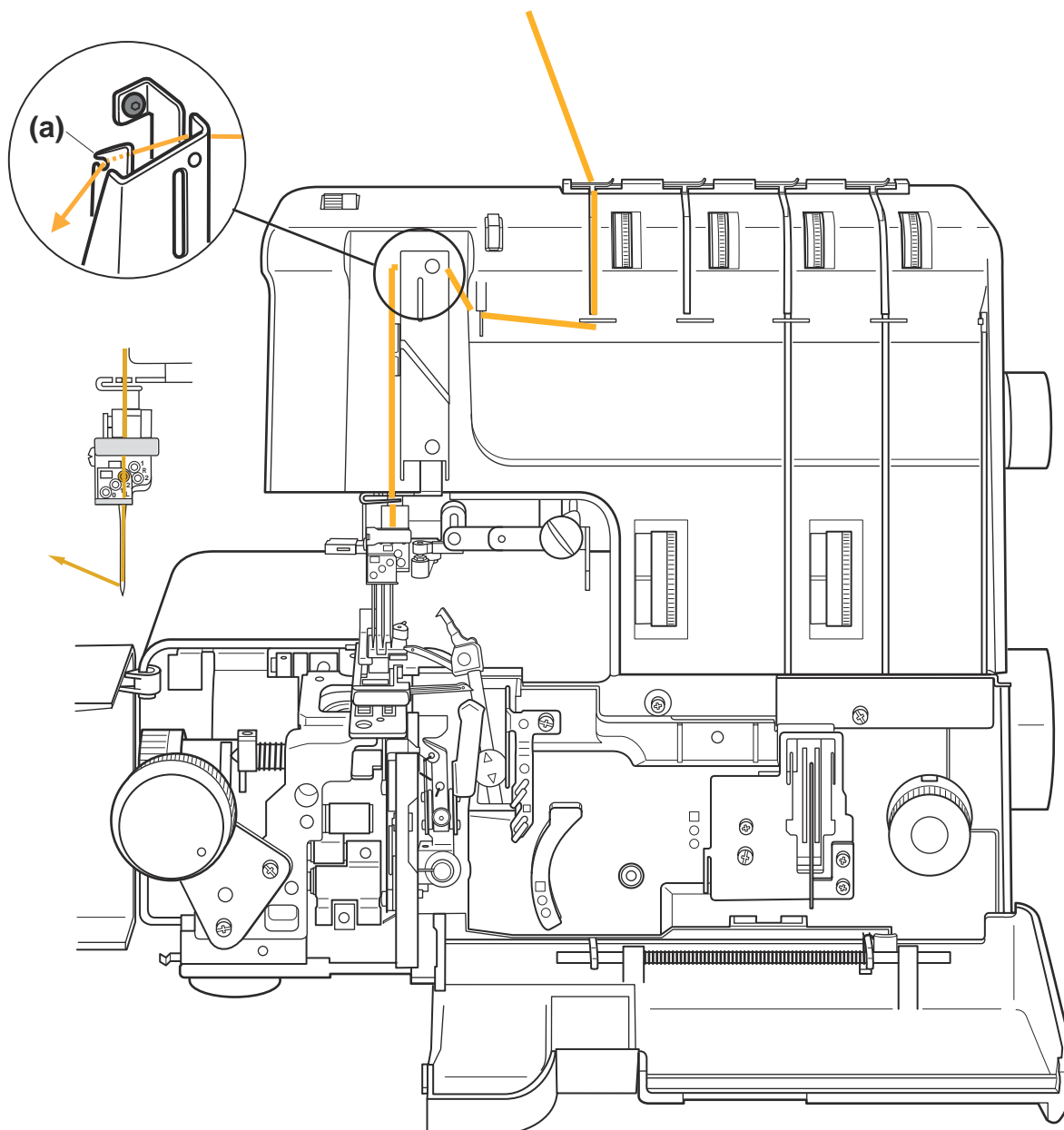
THREAD ROUTE  
YELLOW (A)

TABLAS DETALLADAS DE TRAYECTO DE  
ENHEBRADO

TABLEAUX D'ENFILAGE DÉTAILLÉS

TRAYECTO DE ENHEBRADO  
AMARILLO (A)

TRAJET DU FIL  
JAUNE (A)



**Important:**

Make sure to pass the thread into the opening (a) of the thread take-up lever.

**Importante:**

Asegúrese de pasar el hilo en la abertura (a) de la palanca tilahilos.

**Important:**

Veiller à passer le fil à ouverture (a) du levier releveur.

## DETAILED THREAD ROUTE CHARTS

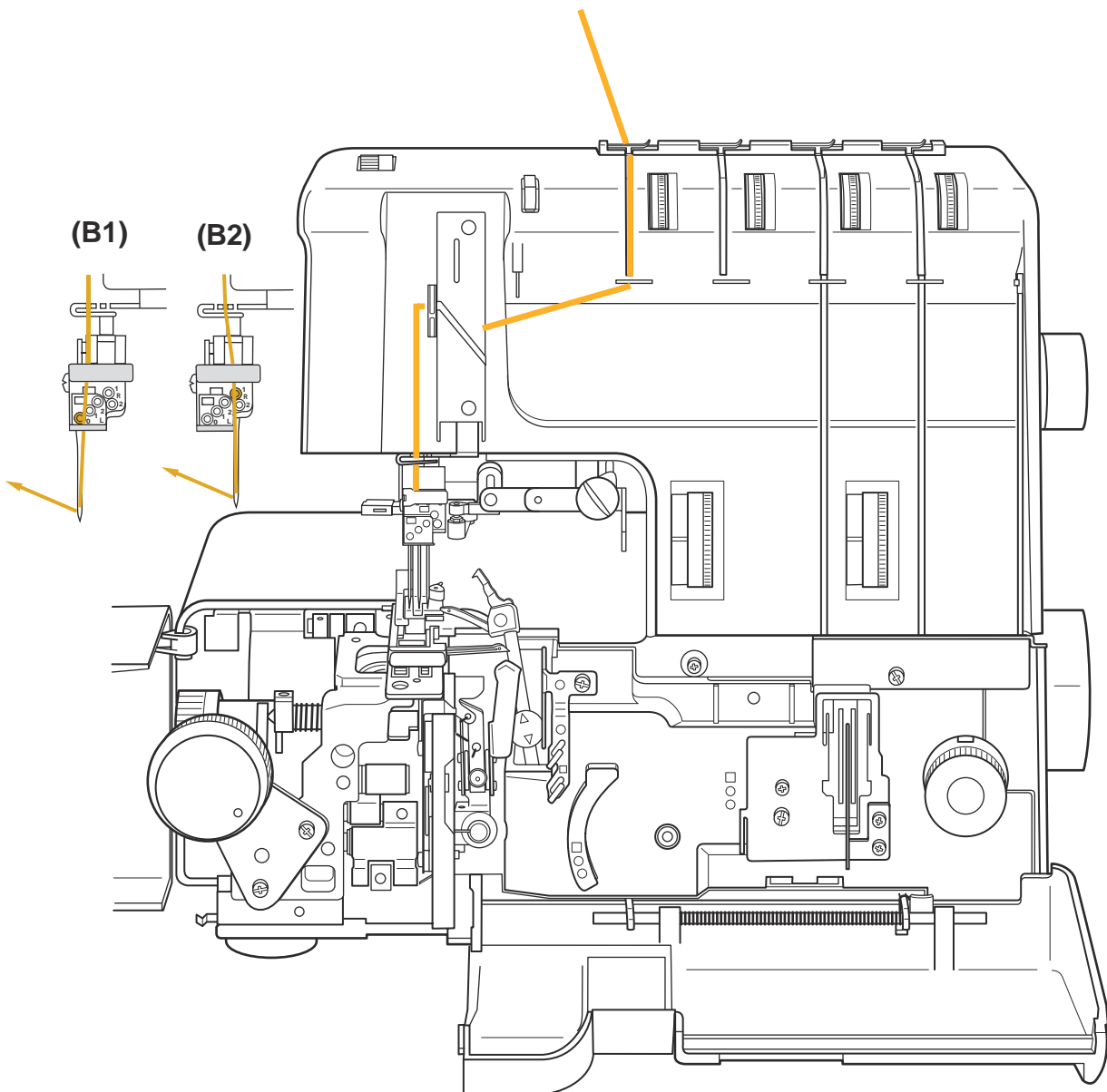
THREAD ROUTE  
YELLOW (B1), (B2)

TABLAS DETALLADAS DE TRAYECTO DE  
ENHEBRADO

TABLEAUX D'ENFILAGE DÉTAILLÉS

TRAYECTO DE ENHEBRADO  
AMARILLO (B1), (B2)

TRAJET DU FIL  
JAUNE (B1), (B2)



## DETAILED THREAD ROUTE CHARTS

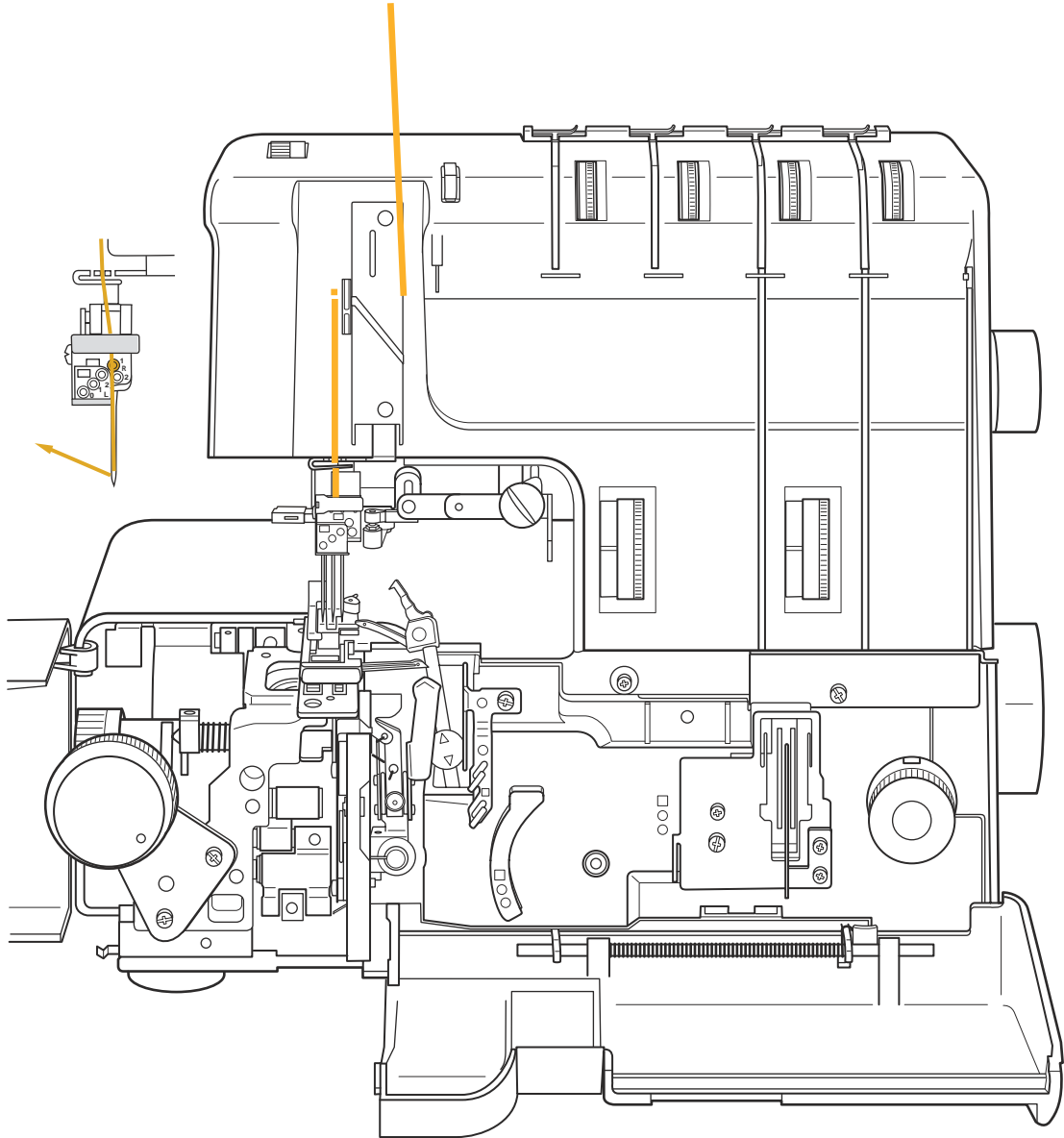
THREAD ROUTE  
YELLOW (C)

TABLAS DETALLADAS DE TRAYECTO DE  
ENHEBRADO

TABLEAUX D'ENFILAGE DÉTAILLÉS

TRAYECTO DE ENHEBRADO  
AMARILLO (C)

TRAJET DU FIL  
JAUNE (C)



## DETAILED THREAD ROUTE CHARTS

### THREAD ROUTE

BLUE (D1), (D2), (D3)

## TABLAS DETALLADAS DE TRAYECTO DE ENHEBRADO

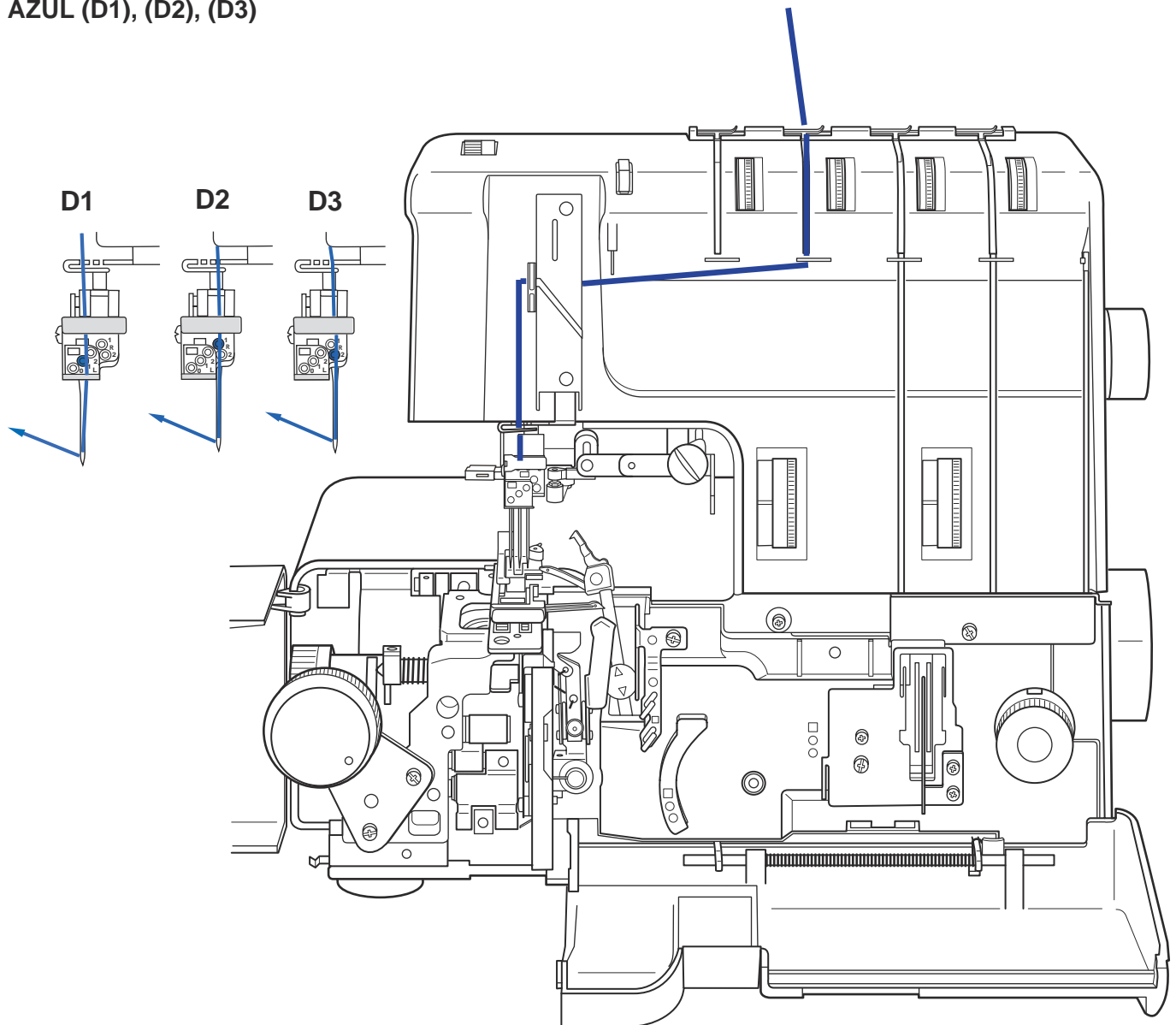
### TRAYECTO DE ENHEBRADO

AZUL (D1), (D2), (D3)

## TABLEAUX D'ENFILAGE DÉTAILLÉS

### TRAJET DU FIL

BLEU (D1), (D2), (D3)



## DETAILED THREAD ROUTE CHARTS

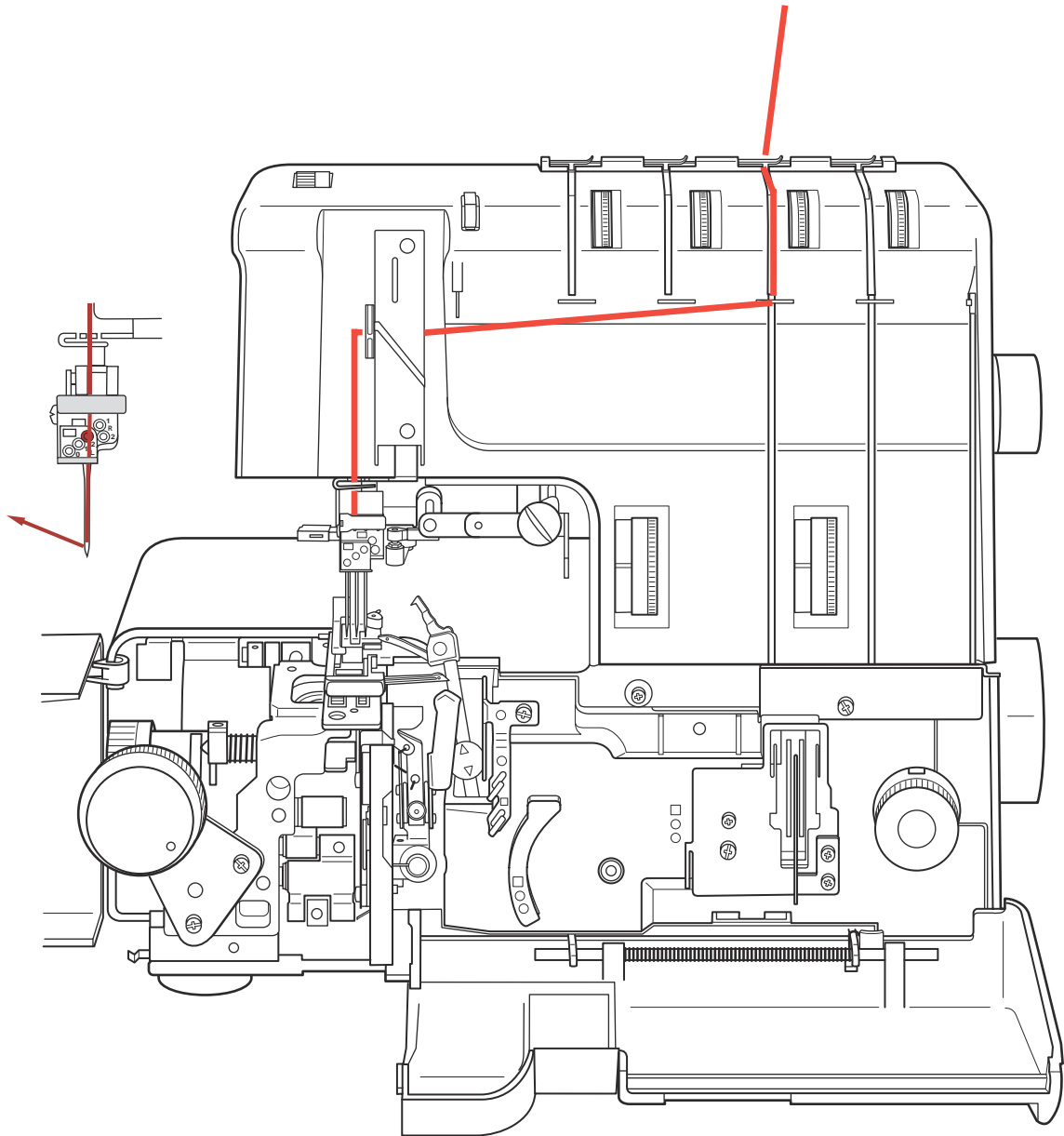
THREAD ROUTE  
RED (E)

TABLAS DETALLADAS DE TRAYECTO DE  
ENHEBRADO

TABLEAUX D'ENFILAGE DÉTAILLÉS

TRAYECTO DE ENHEBRADO  
ROJO (E)

TRAJET DU FIL  
ROUGE (E)



## DETAILED THREAD ROUTE CHARTS

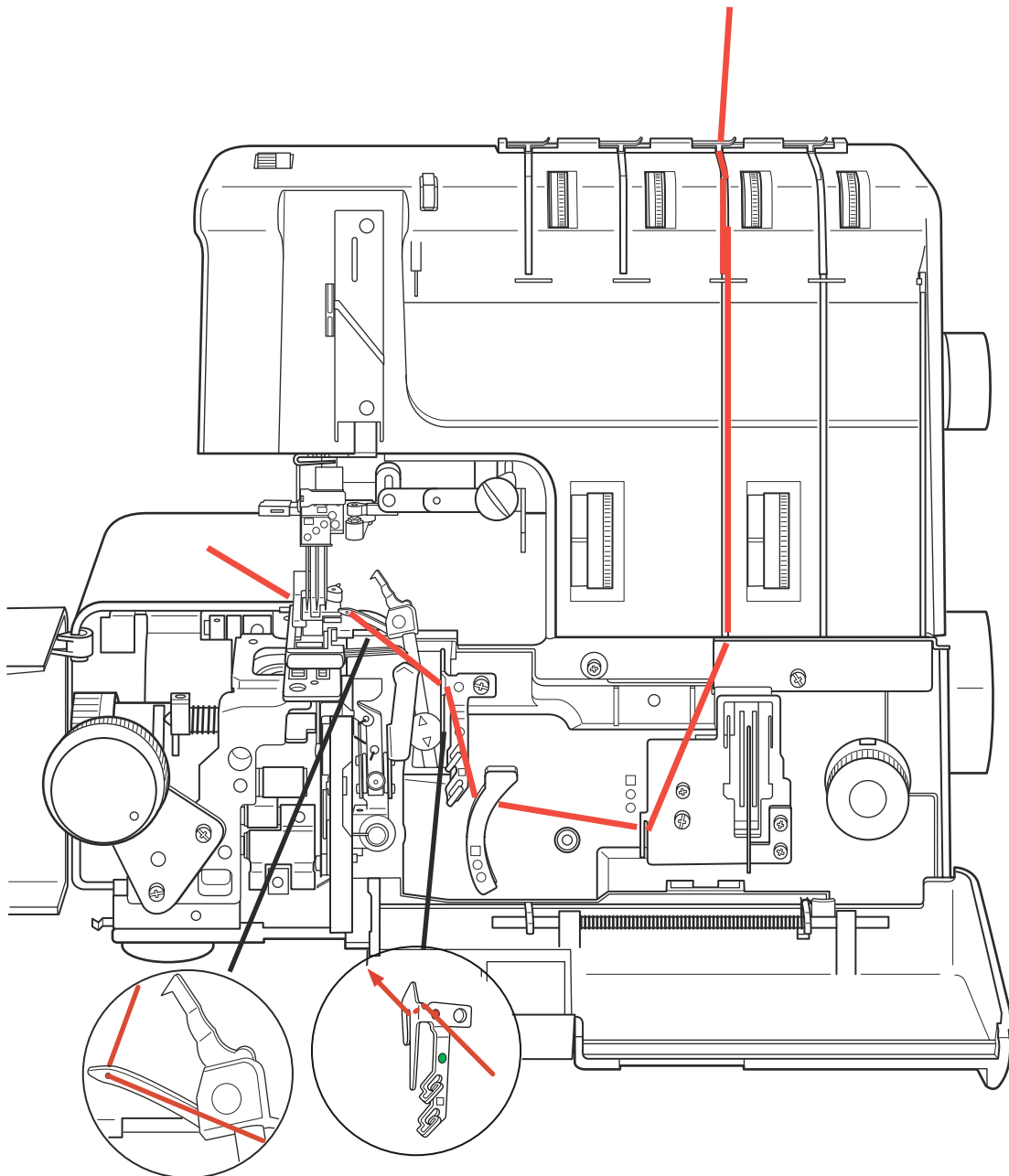
THREAD ROUTE  
RED (F)

TABLAS DETALLADAS DE TRAYECTO DE  
ENHEBRADO

TABLEAUX D'ENFILAGE DÉTAILLÉS

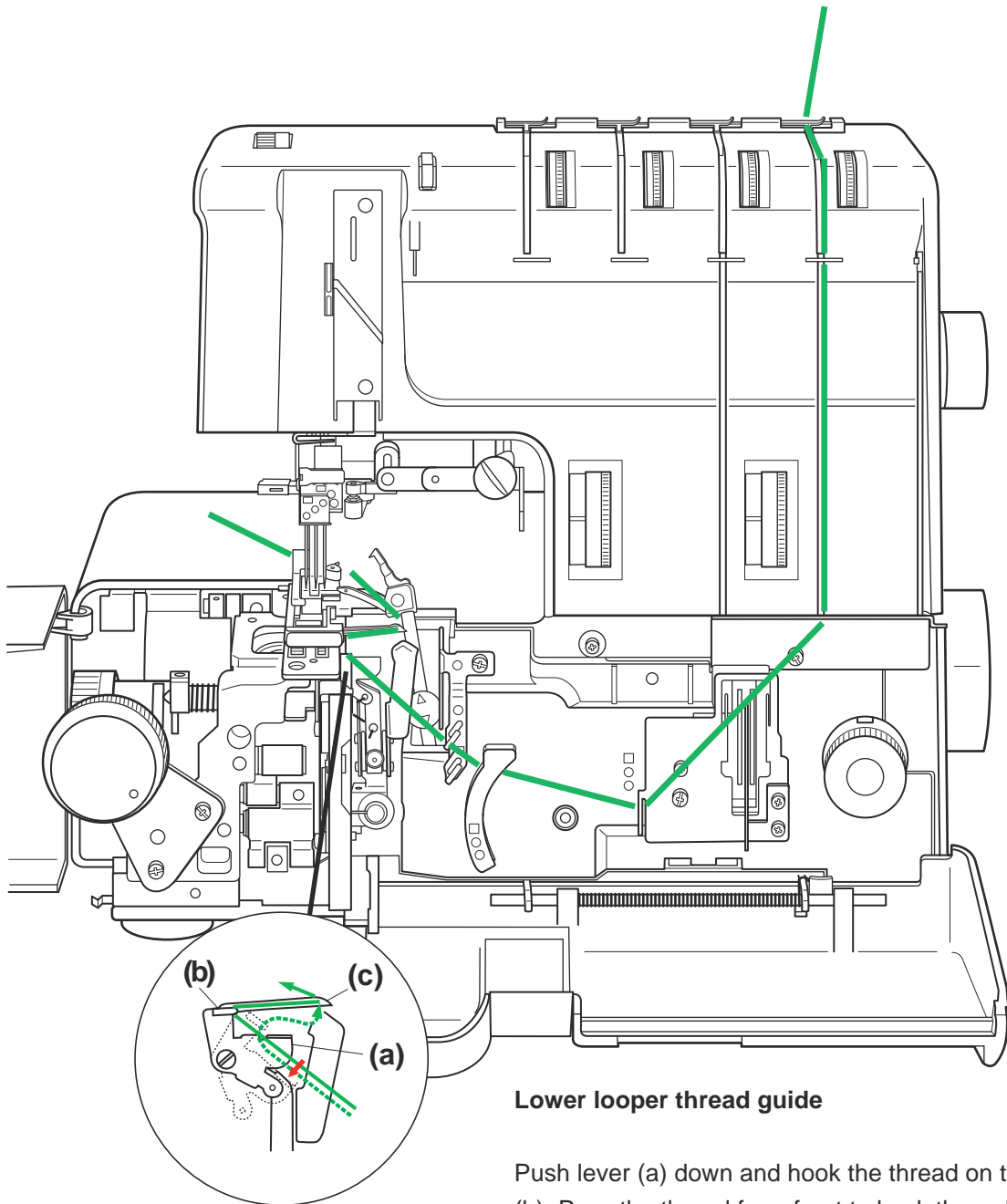
TRAYECTO DE ENHEBRADO  
ROJO (F)

TRAJET DU FIL  
ROUGE (F)



## DETAILED THREAD ROUTE CHARTS

### THREAD ROUTE GREEN (G)

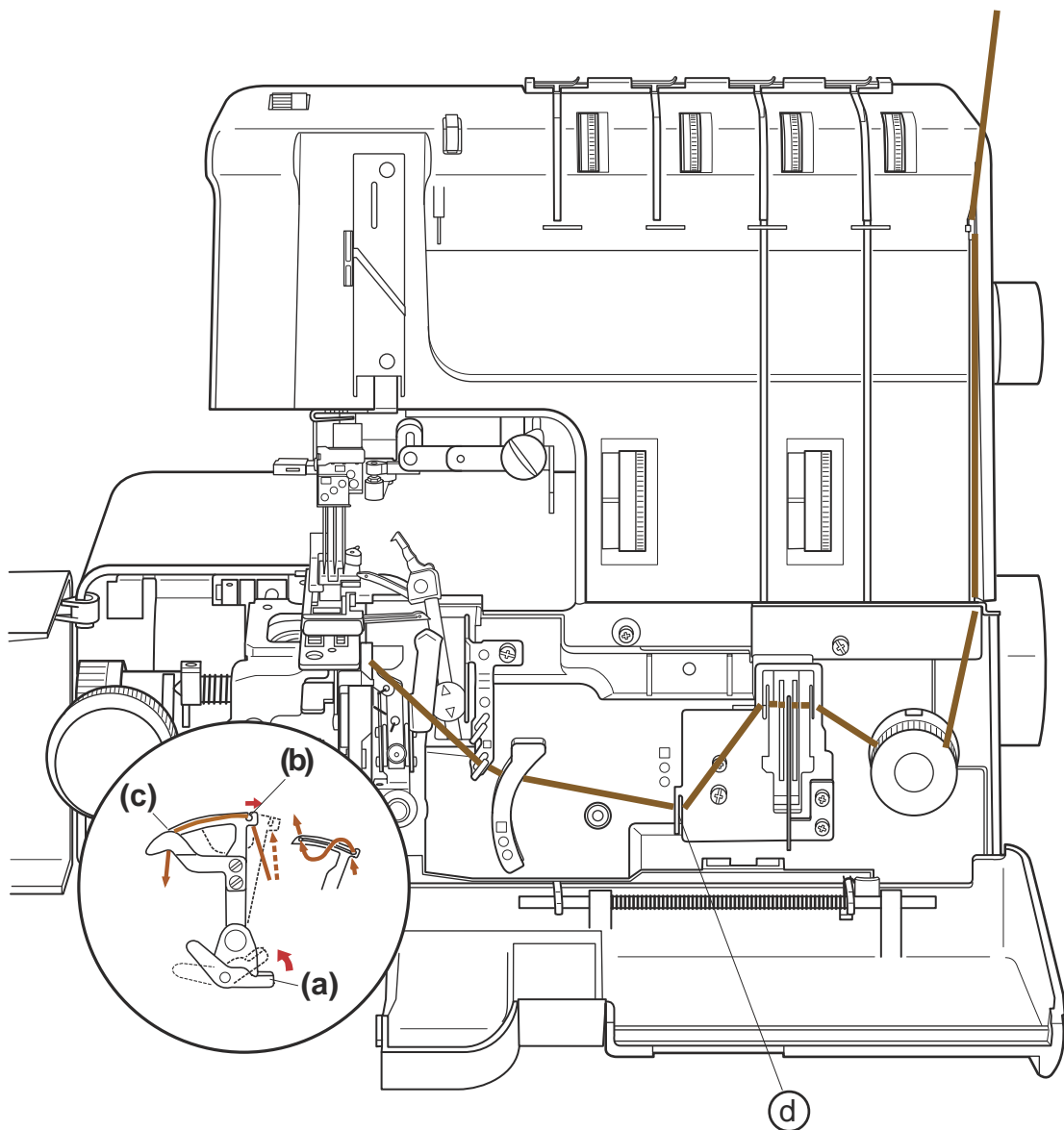


#### Lower looper thread guide

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

## THREAD ROUTE

**BROWN (H) (for 5-thread and chain stitch)**



### To thread the Chain Looper

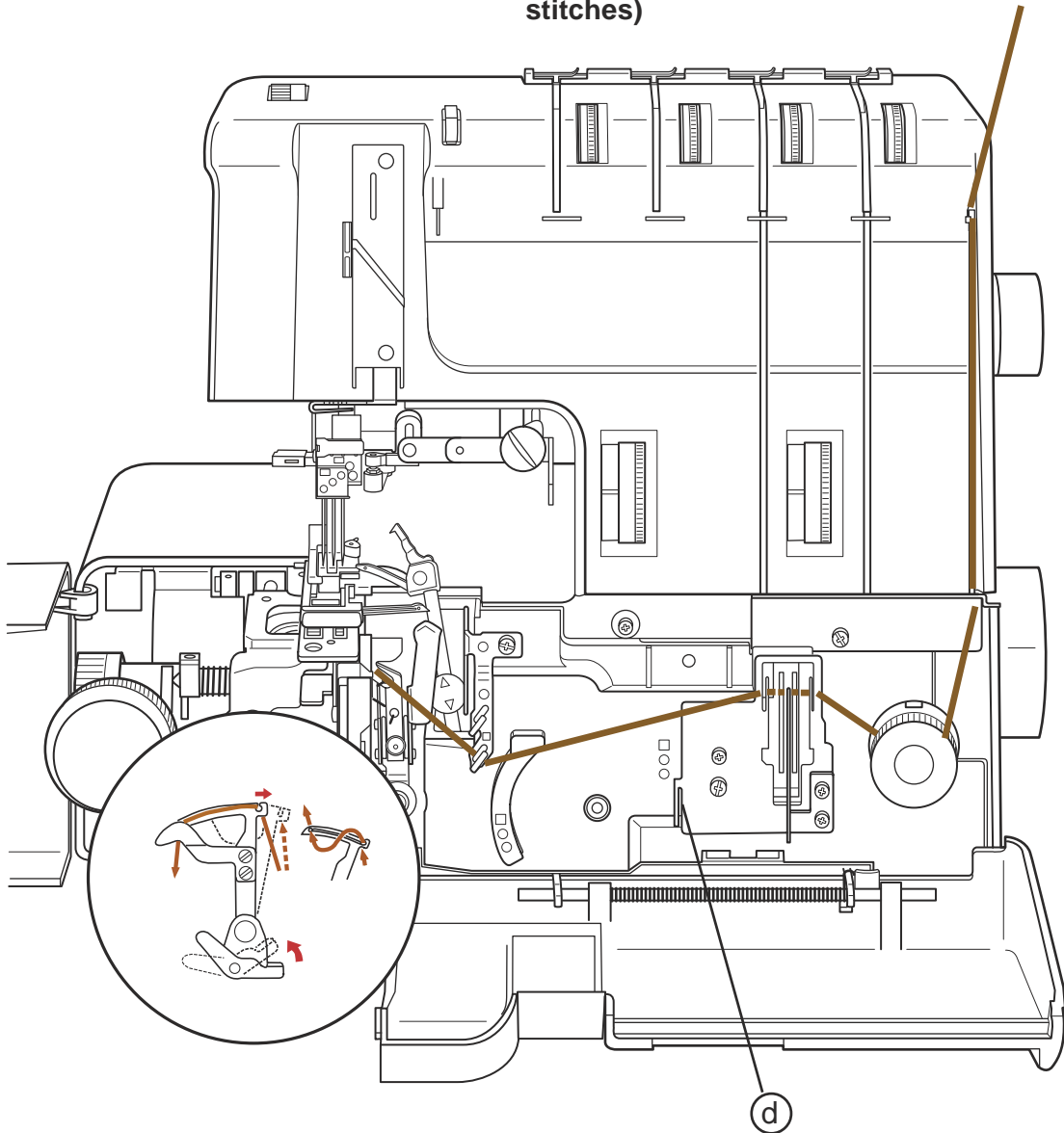
Hand turn the handwheel to bring the needle bar to its lowest position. Lift up the lever (a) to disengage the chain looper. Hook the thread into the slit (b) from back to front. Pull the thread along the looper and pass the thread from front to back through the hole (c) on far left end of looper. Leave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

### Important:

Be sure to pass the thread under the thread guide (d) next to the take-up lever.

## THREAD ROUTE

**BROWN (I) (for cover hems and top cover stitches)**



### To thread the Chain Looper

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

### Important:

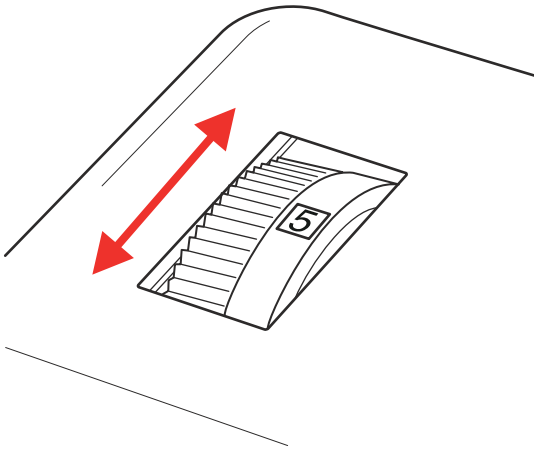
Do not use the thread guide (d) next to the take-up lever.

## SECTION IV

### Test Sewing

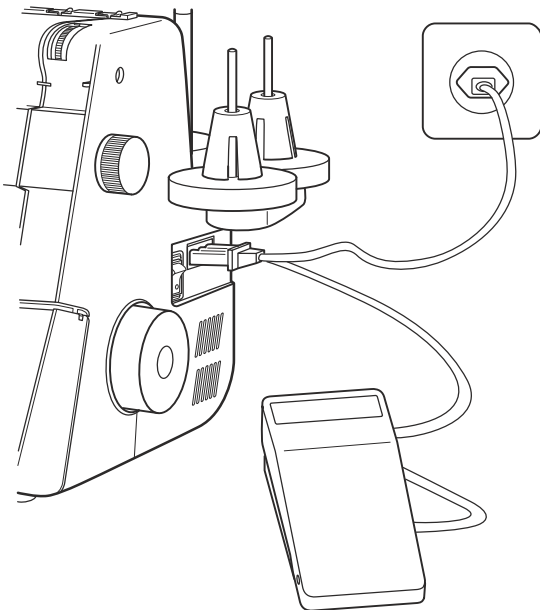
#### Setting Foot Pressure

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.



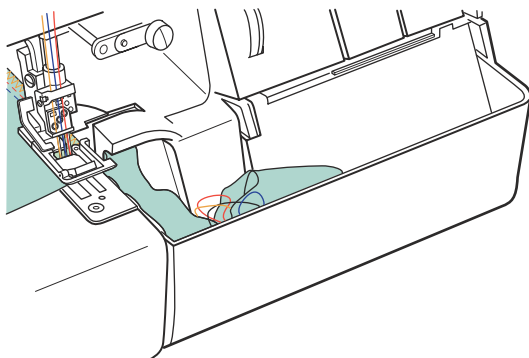
#### Controlling Sewing Speed

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



#### Waste Tray

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



## 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.

For the best results, sew on light to medium weight fabrics.

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

### NOTE:

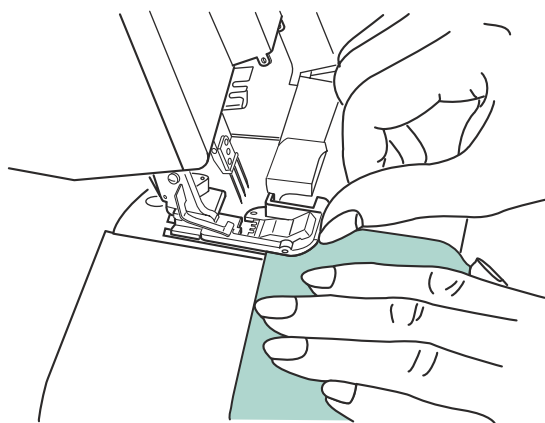
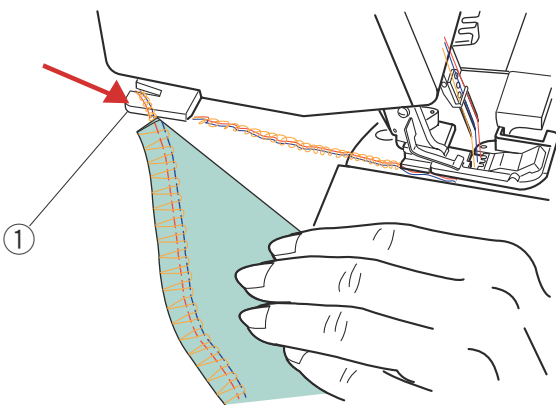
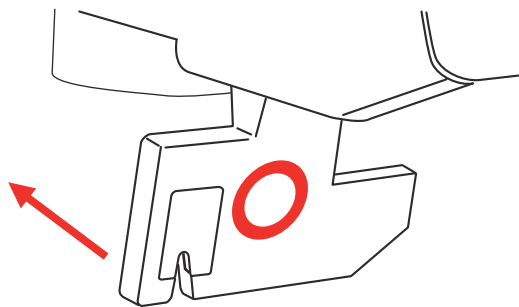
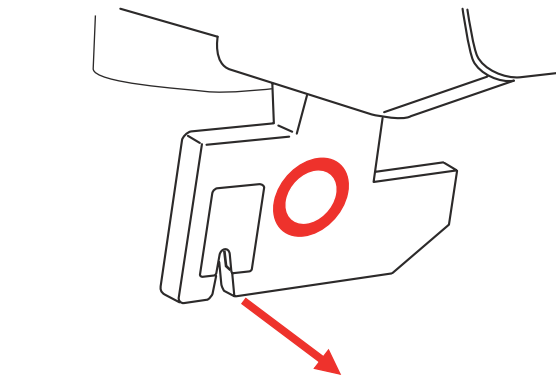
The machine does not run if the presser foot is raised.

Hand turn the handwheel to form the first few stitches. Start sewing slowly and gradually increase sewing 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 running the machine slowly to produce a thread chain for about 10 cm (4") while pulling the threads gently to the back. Cut the threads with the thread cutter.

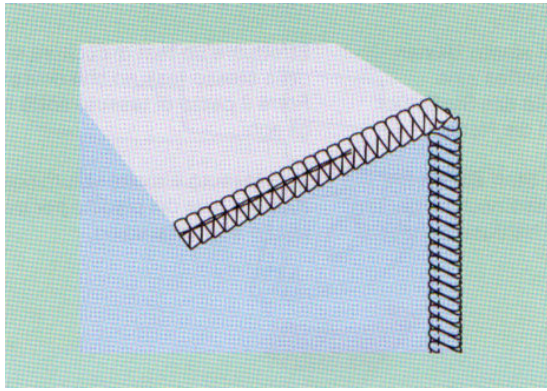
① Thread cutter



To sew the next fabric, simply place a piece of fabric in front of the feed dogs. Tip up the front end of the foot and insert the fabric under the foot.

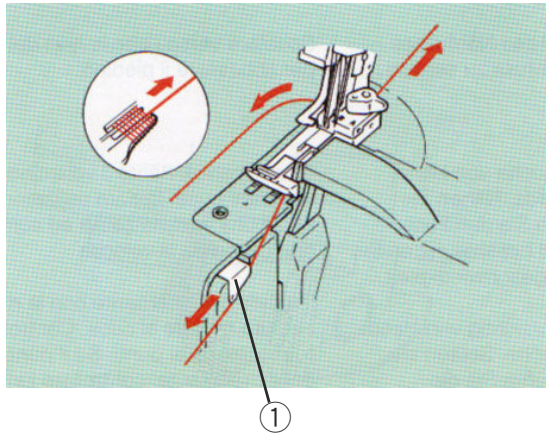
### NOTE:

It is not necessary to raise the presser foot when placing the next fabric piece.



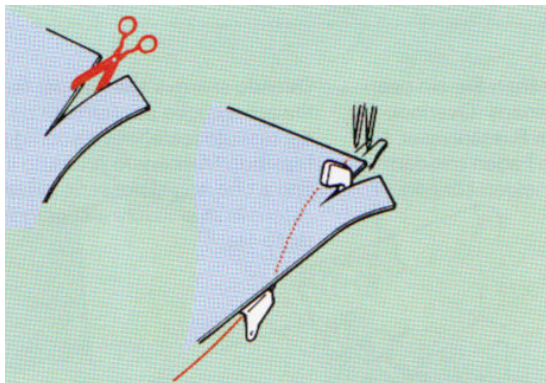
## Back-Tack Device

The back-tack device allows you to secure a seam at the beginning by encasing a thread chain into the seam. The device may be used when sewing these stitches: 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 thread chain from the chaining finger. Pull the thread chain to the back and then around to the front. Secure the threads into the back-tack device.

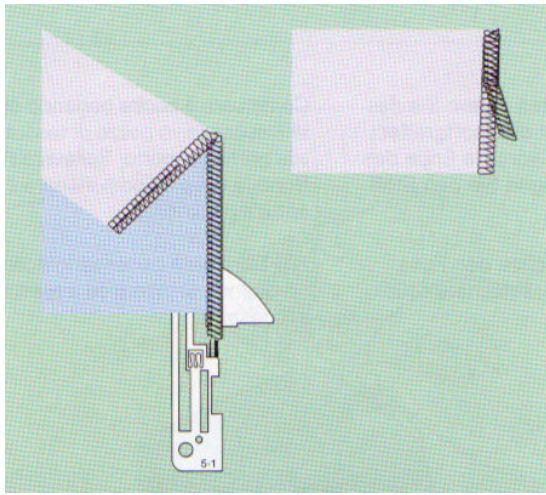
- ① Back-tack device



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 thread chain is automatically encased into the seam on the underside of the fabric.

### NOTE:

The back-tack device cannot be used for the 5-Thread, Blanket stitch, Chainstitch, Cover Hems or Rolled/Narrow Hems.



## Securing the End of Seam

Sew to the edge of the fabric and stop.  
Raise the needles and presser foot.

While pushing the tension release lever up, gently pull the fabric to the back to remove the thread chain from the chancing 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 and lower the presser foot.

Sew about 5 cm (2") over the seam and angle off the fabric.

### **IMPORTANT:**

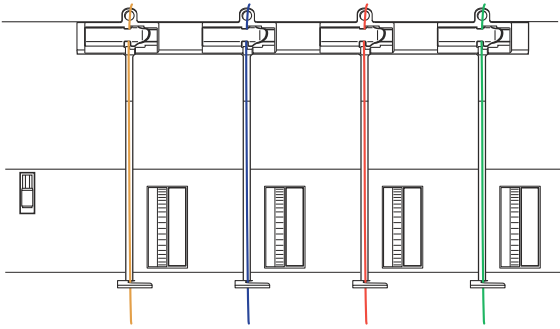
#### Re-threading Machine After Thread Breaks

If the upper looper thread breaks while sewing, hand turn the handwheel to clear the lower looper thread off the upper looper. Rethread upper looper and hand turn the handwheel 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.

## SECTION V

### Adjustments



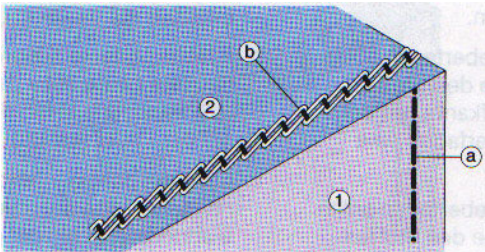
#### Thread Tension

The thread tension may need to be adjusted depending on the type of threads or fabrics you use.

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

Thread tensions can be adjusted by turning the color coded dials - yellow, blue, red, green and brown. Turn the dial that corresponds to the thread that needs adjusting.

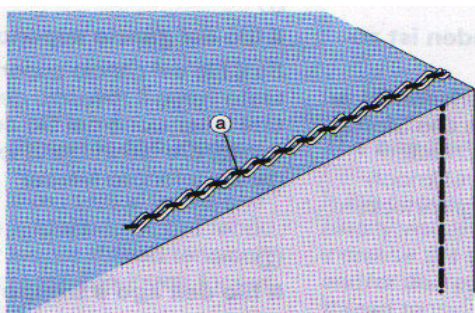
Adjust only one tension setting at a time and then view the result before adjusting again.



#### Chainstitch

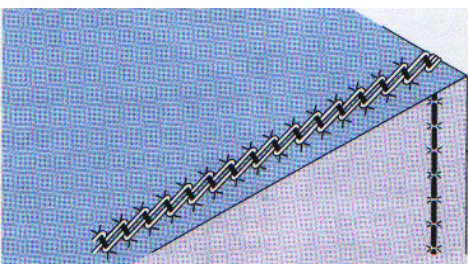
##### Balanced Tension

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



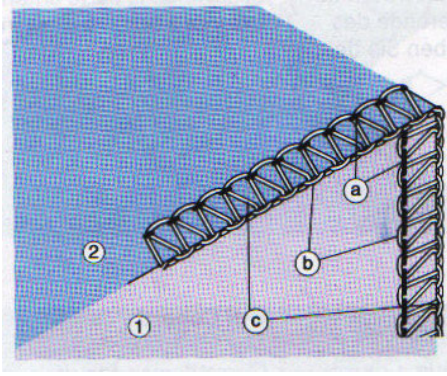
##### The needle thread is too loose.

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



##### The needle thread is too tight.

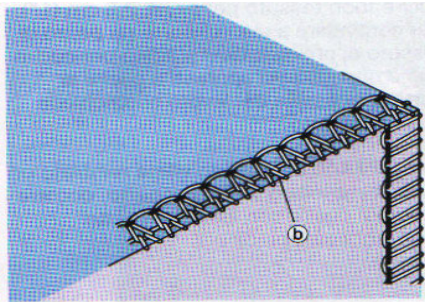
If the fabric puckers, decrease chainstitch needle thread tension (yellow). Lightweight fabrics may require a shorter stitch length. Do not set the stitch length dial below 2.5.



### 3-Thread Overlock

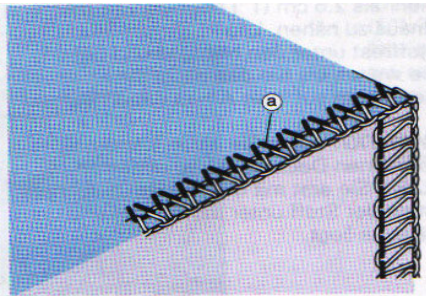
#### Balanced tension

- a. The needle thread should resemble straight stitches to the left of the fabric edge on the topside (1) of the fabric. The needle thread is barely visible in the lower looper thread on the underside (2) of the fabric.
- b. 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.
- c. 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.



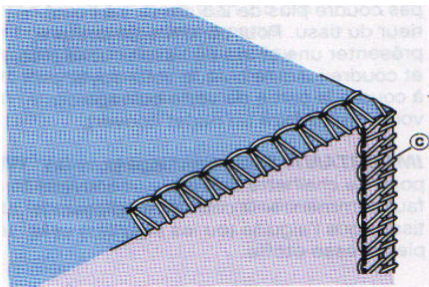
#### The upper looper thread is too loose.

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



#### The needle thread is too loose.

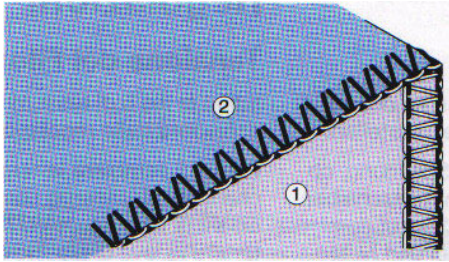
If the needle thread (a) is too loose and clearly visible on the underside of the fabric, increase the needle thread tension (blue) and/or decrease either or both looper thread tensions.



#### 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 (red).

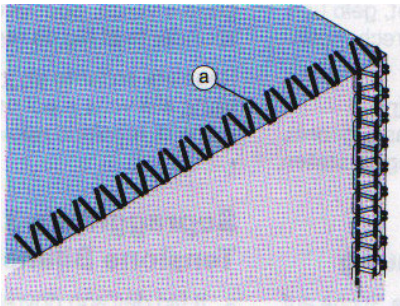
## 2-Thread Overcast Balanced Tension



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).

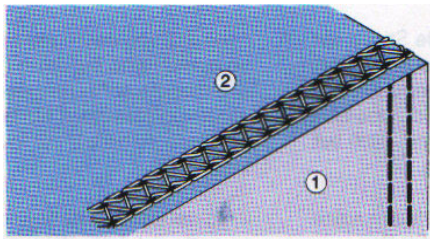
The lower looper thread should lie flat on the topside of the fabric and lock with the needle thread on the fabric edge.

### The needle thread is too loose.



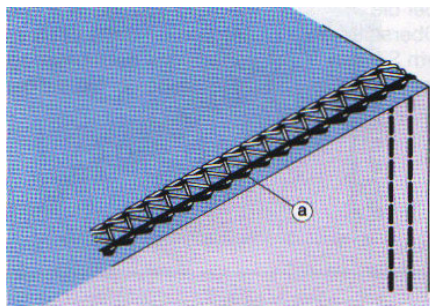
If the needle thread (a) is pulled up over the fabric edge to the topside of the fabric, increase the needle thread tension and/or decrease the lower looper thread tension.

## Cover Hem Balanced Tension



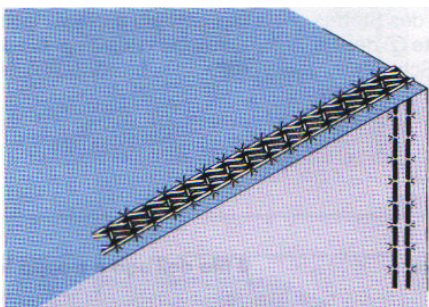
The needle threads resemble parallel rows of straight stitches on the topside (1) of the fabric. The chain looper thread should be slightly slack on the underside (2). DO NOT set the stitch length dial below 2.5. Heavier weight fabrics will require a longer stitch setting.

### 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).

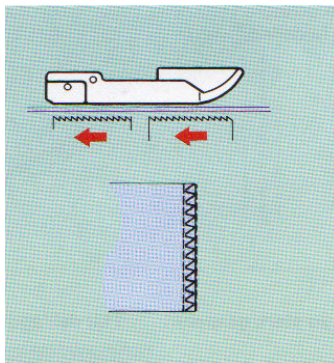
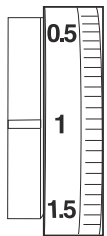
### The needle threads are too tight.



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

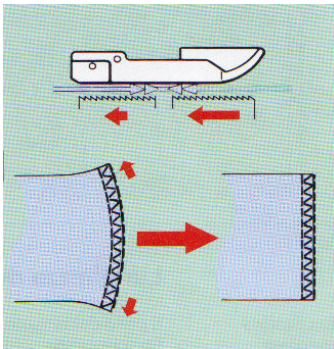
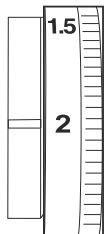
## Differential Feed

Differential feed on an overlock is a two-part feed dog which feeds the fabric at different ratios. The front part of the feed dog feeds more or less fabric under the foot than the rear part of the feed dog does. This feature is useful when sewing knits which have a tendency to stretch and result in 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 for eliminating puckers. There are two kinds of differential feed: negative and positive.



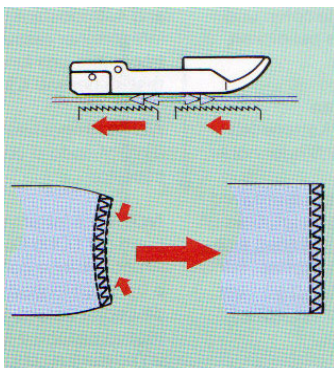
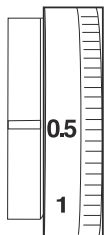
### Standard Feeding

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



### Positive Feeding

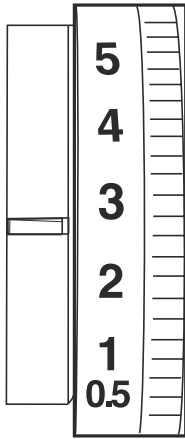
The looser and stretchier the fabric, the more the front part of the feed dog must feed in and the less the rear part of the feed dog must feed out. Waves are eliminated.



### 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.

# SL



## Stitch Length

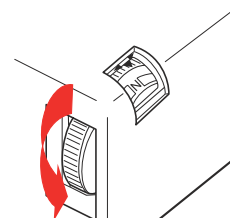
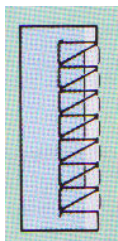
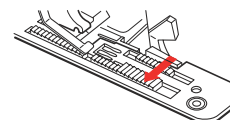
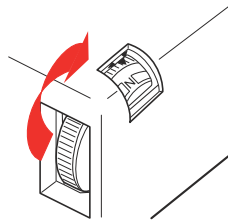
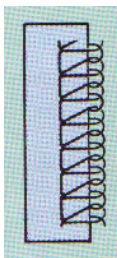
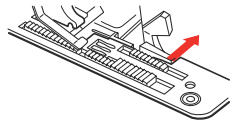
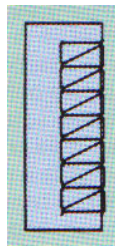
The stitch length (SL) may be adjusted depending on the fabric weight and fiber content. Stitch length may be set between 0.5 and 5. Set a shorter stitch length for lightweight or sheer fabrics. Set a longer stitch length for heavyweight or bulky fabrics.

### NOTE:

Always set the SL dial 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.



## Cutting Width

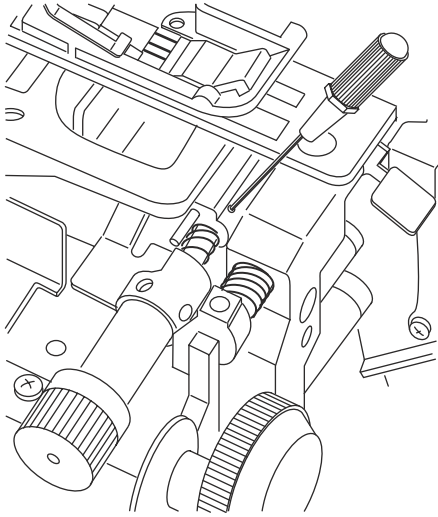
The cutting width may be adjusted depending on the fabric weight and the number of fabric layers. Fabric should lie flat inside the overlock stitch without looping threads or tunneling.

## Looping

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

## Tunneling

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



## Sewing Overlock Stitches on Extra Heavyweight Fabrics

Lock the upper knife to provide maximum cutting capability.

1. Hand turn the handwheel 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 upper knife cannot be disengaged.
4. Close the side cover. Sew.

### **NOTE:**

After sewing extra heavyweight fabric, always turn the screw counterclockwise to unlock upper knife for normal operation.

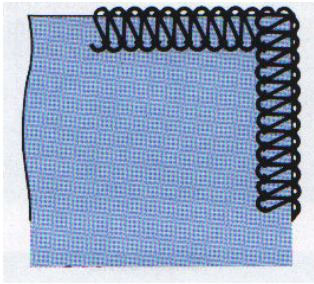
### **NOTE:**

Cutting width cannot be adjusted when the upper knife is locked.

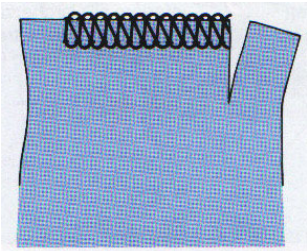
## SECTION VI

### Sewing Techniques

#### Overlocking Outside Corners

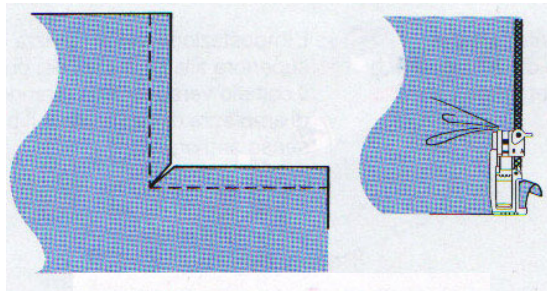


Stop sewing when you reach the end of the fabric, and raise the needle to its highest position. Raise the presser foot. Push the tension release lever while gently removing the thread chain from the chaining finger. Turn fabric. Align the sewn stitches with the needle. Lower the presser foot and pull 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

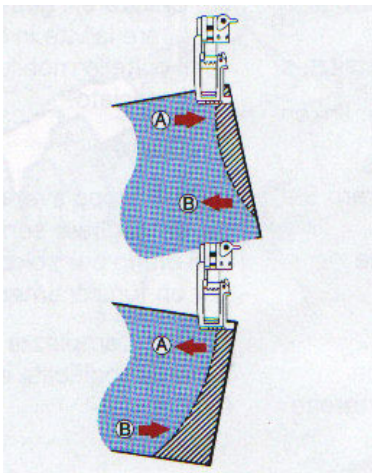


1. Clip the inside corner approximately 4 mm (1/4").
2. Pull the fabric so that the cutting line becomes straight. The upper knife should barely trim along the fabric edge.



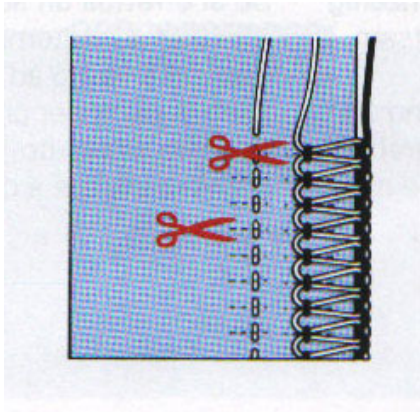
3. Release the fabric and return to the original shape.

#### Sewing Curved Edges



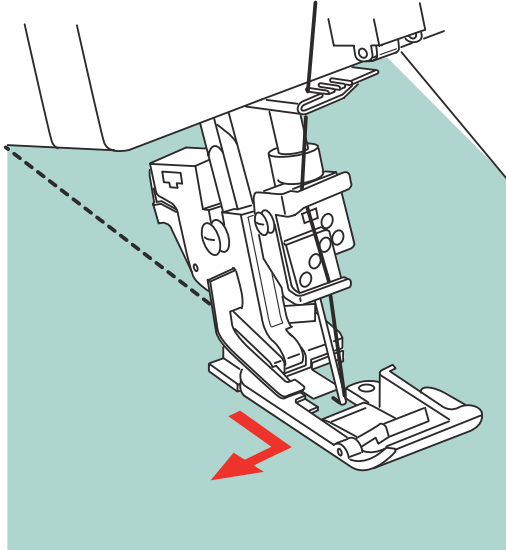
For inside curves, guide the fabric gently, applying pressure with your left hand at point (A) in the direction of the arrow, while at the same time applying a little pressure in the opposite direction with your right hand at point (B).

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



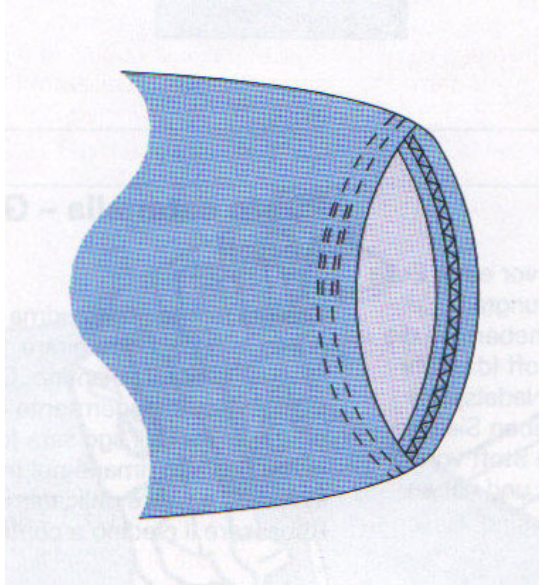
## Removing Stitches from Fabric

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 handwheel. 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.



## Cover Hem

A majority of ready-to-wear garments are made by a flat construction method for hems with the side seam sewn last. Many home sewers prefer sewing “in the round” (tubular sewing).

### Sewing the Cover Hem “In the Round”

#### Method 1

Fold and press 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.

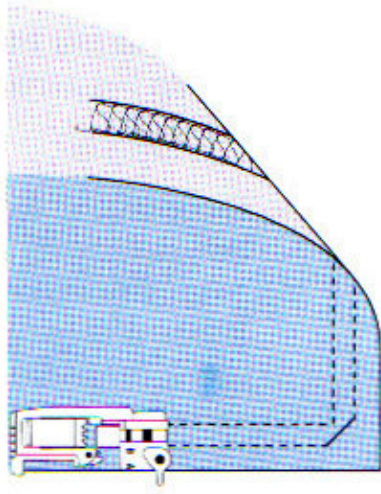
#### Method 2

Stitch around the hem; overlap the original starting point for about 13 mm (1/2”). Stop the machine and turn the handwheel towards you to bring needles to the lowest position into the fabric. Carefully turn the handwheel in reverse, bringing needles to the highest position. **This technique prevents the needle threads from wrapping around the chain looper.** Set the Brown tension dial to “0”. Raise 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. Reset the Brown tension dial to “N”.

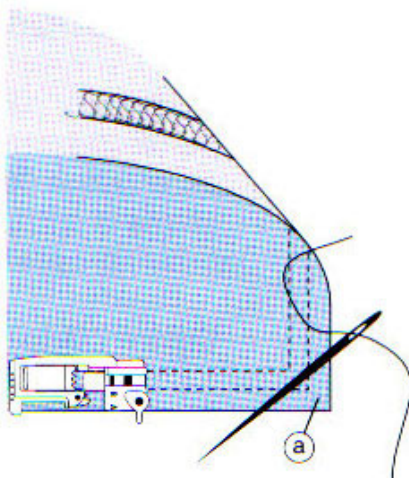
When sewing a cover hem over bulky seams it will be necessary to adjust foot pressure to 1 when reaching seam to prevent skipped stitches. After the foot has “cleared” the seam, return to normal pressure of 5.

## Turning Corners

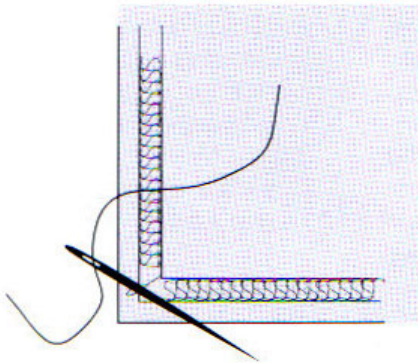
Sew to the turning point and stop with needles up. Hand turn the handwheel towards you to bring needles to the lowest position into the fabric. Carefully turn the handwheel in reverse bringing needles to the highest position. (This releases the needle threads off the looper.) Raise the presser foot,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

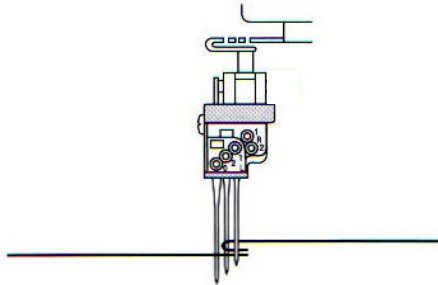


Turn fabric over and secure loop to corner on the underside.



## Triple Cover Hem – Topstitching an Overlock Seam

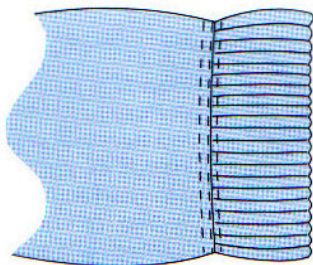
The Triple Cover Hem flattens the overlock seam eliminating excess bulk and allows maximum stretch and comfort. The topstitching is quick and attractive.



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.



## SECTION VII

### 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 on the back of the foot holder.

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

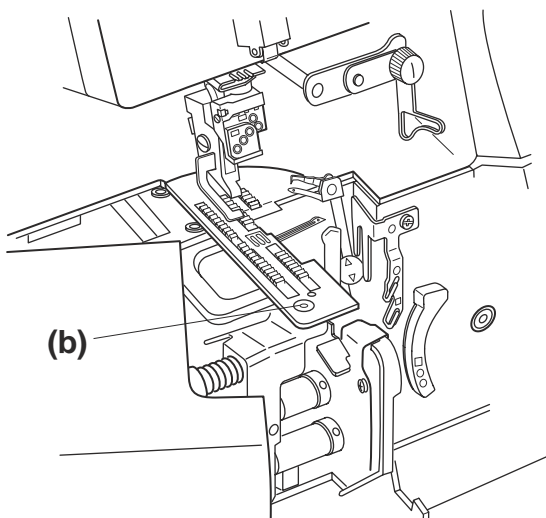
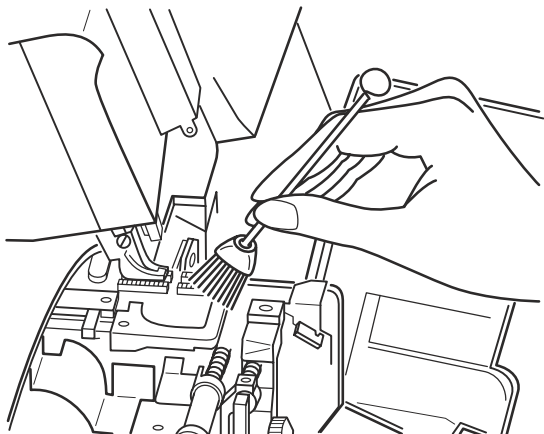
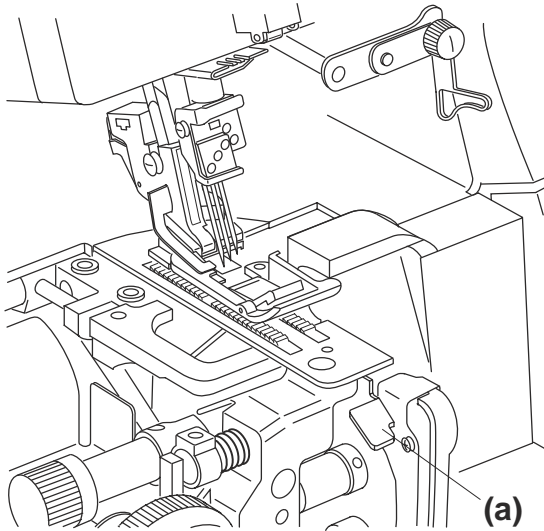
Disengage the upper knife.

Use the brush to remove all lint and fiber accumulation.

Apply 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 foot holder and lower the presser bar. The foot will snap back into place.



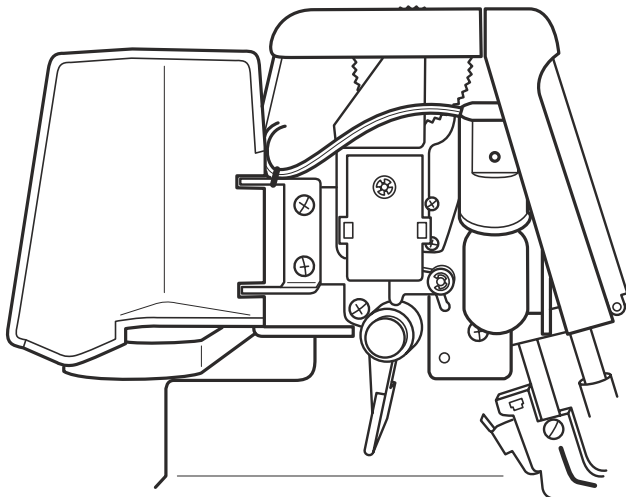
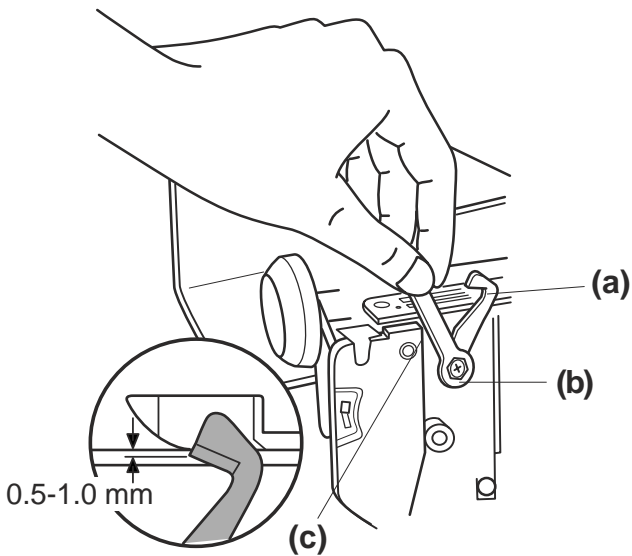
## Replacing the Upper Knife

A spare upper knife is located in the accessory box. Replace the upper knife when it becomes dull or nicked.

1. Unplug the machine.
2. Open both front and side covers.
3. Set the upper knife (a) in its engaged position and lock the upper knife. (See page 92.) Remove the upper knife by loosening the bolt (b) with the wrench (c) found in the accessory box.
4. Brush the lower knife and the surrounding area to clean out any accumulation of lint, etc. Lower the upper knife to its lowest position by turning the handwheel towards you. At this position, put a new upper knife in place, making sure that the edge of the blade is approximately 0.5 to 1.0 mm below the surface of the lower knife (d). Tighten the bolt (b) firmly. Unlock the upper knife.

### NOTE:

The lower knife 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. Turn the bulb counterclockwise to remove.
4. Insert the new 15 watt bulb into the socket and turn the bulb clockwise. Close the lamp cover.

## TROUBLESHOOTING

### SKIPPING OR IRREGULAR STITCHES

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Incorrect thread tensions .....	82-86
Needle problems —poor quality, bent or dull .....	32
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