

Bernette

Instruction Manual for
Bernette Overlocker Model MO-335

Bernette • Made for BERNINA

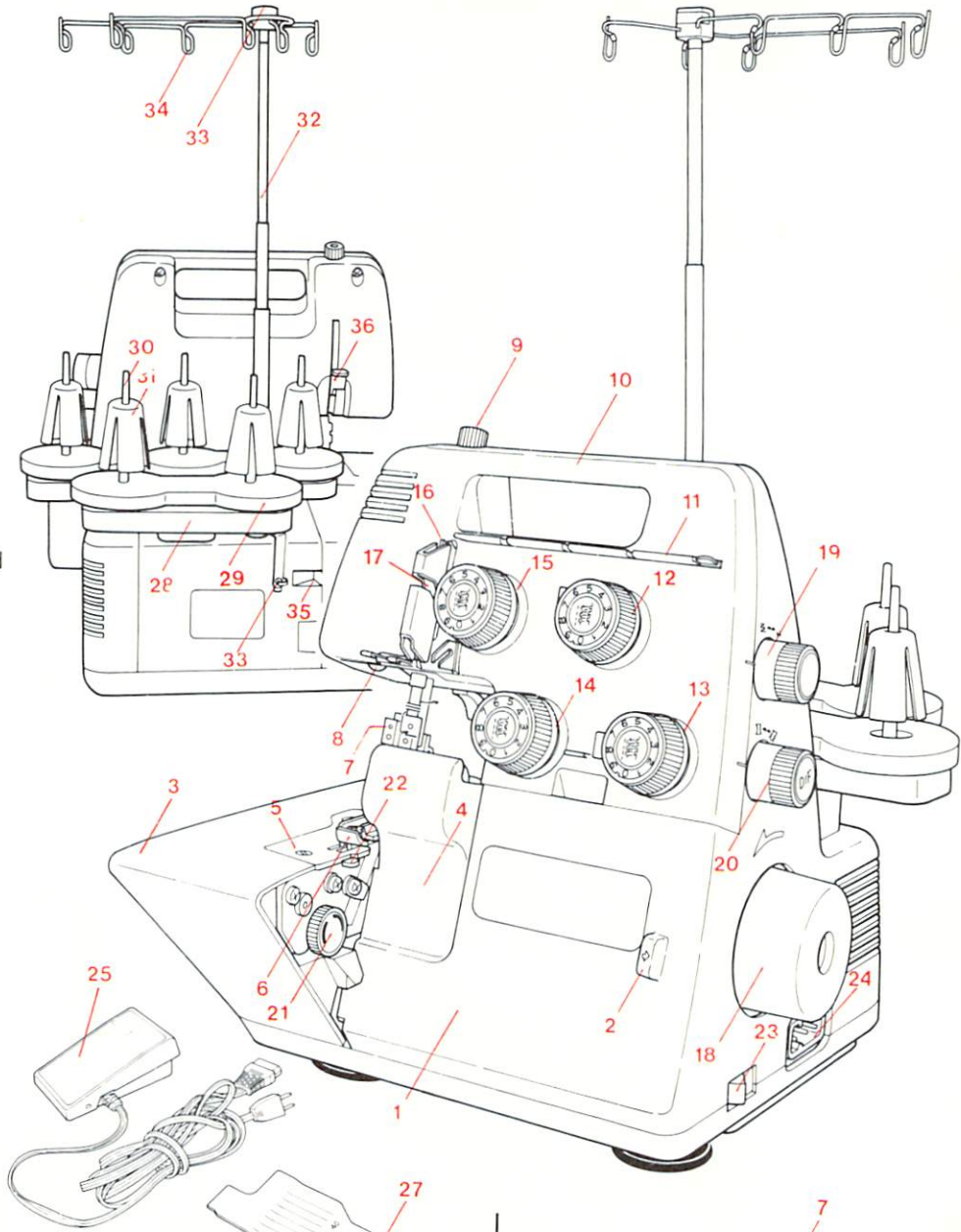
electronic

Bernette 335
MADE FOR BERNINA

Details of the machine

From the front

- 1 Looper cover
- 2 Looper cover opening knob
- 3 Cloth plate
- 4 Knife guard
- 5 Stitch plate
- 6 Presser foot
- 7 Needle clamp
- 8 Sewing light
- 9 Presser foot pressure regulator
- 10 Carrying handle
- 11 Thread guide bar
- 12 Upper looper thread tension dial (blue)
- 13 Lower looper thread tension dial (red)
- 14 Overlock needle thread tension dial (green)
- 15 Double chain needle thread tension dial (yellow)
- 16 Thread take-up lever
- 17 Thread guide
- 18 Handwheel
- 19 Stitch length adjustment knob
- 20 Differential feed adjustment knob
- 21 Cutting width adjustment knob
- 22 Selection lever for overlocking or roll hemming
- 23 Power/light switch
- 24 Machine socket
- 25 Foot control
- 26 Waste collector
- 27 Seam guide plate for double chain stitch



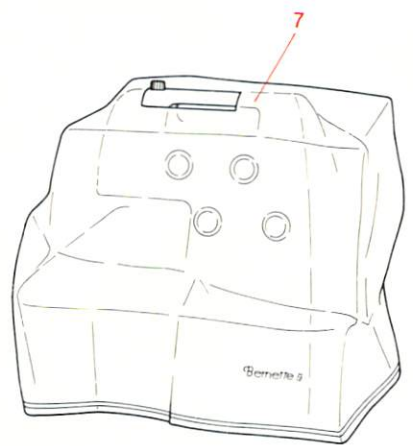
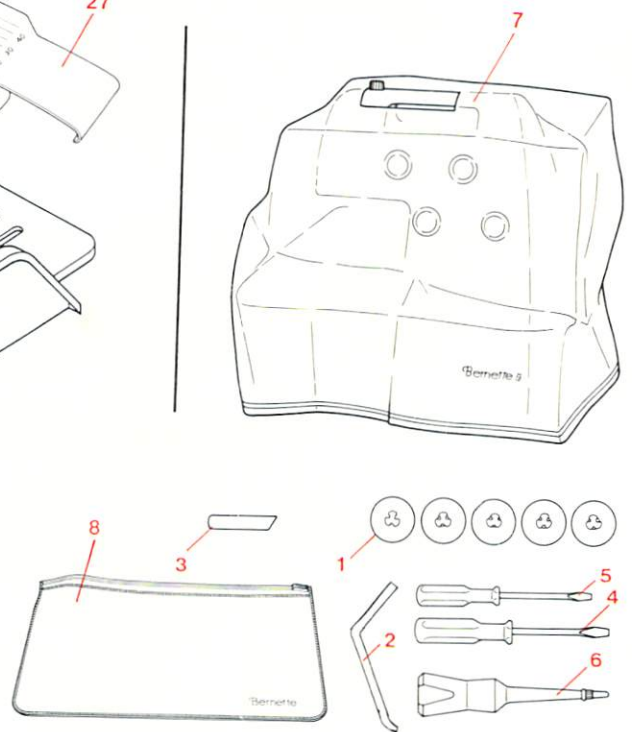
From the back

- 28 Spool holder (two parts)
- 29 Foam pad
- 30 Spool holder pin
- 31 Anti-vibration cone
- 32 Retractable support rod
- 33 Thread guide
- 34 Open thread guide
- 35 Opening for the double chain looper thread
- 36 Presser foot lifter

Accessories

All other accessories are stored in the specially provided accessory bag.

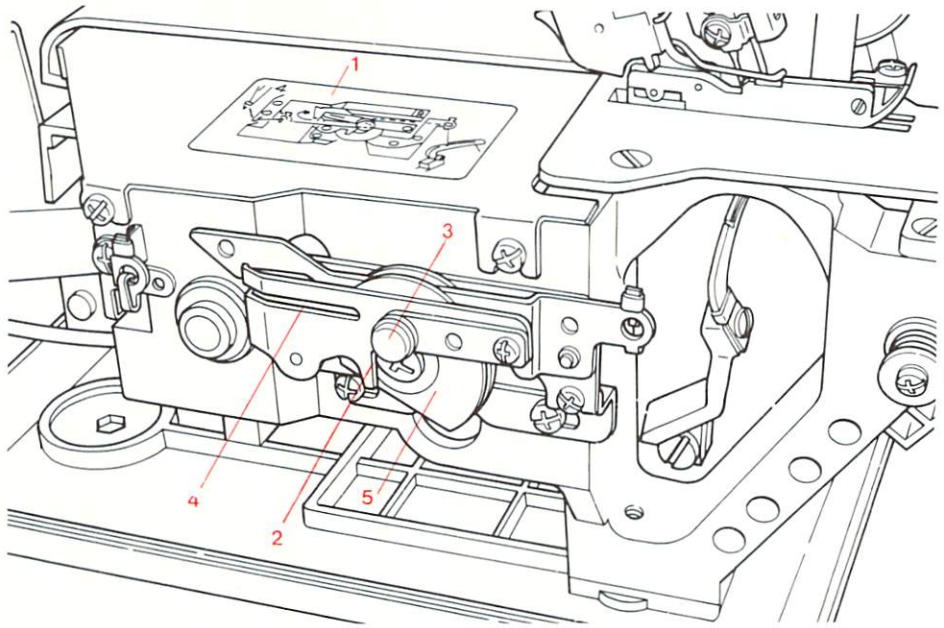
- 1 Spool caps
- 2 Seam guide
- 3 Spare knife
- 4 Large screwdriver
- 5 Small screwdriver
- 6 Oiler
- 7 Dust cover
- 8 Accessory bag



Details of the machine

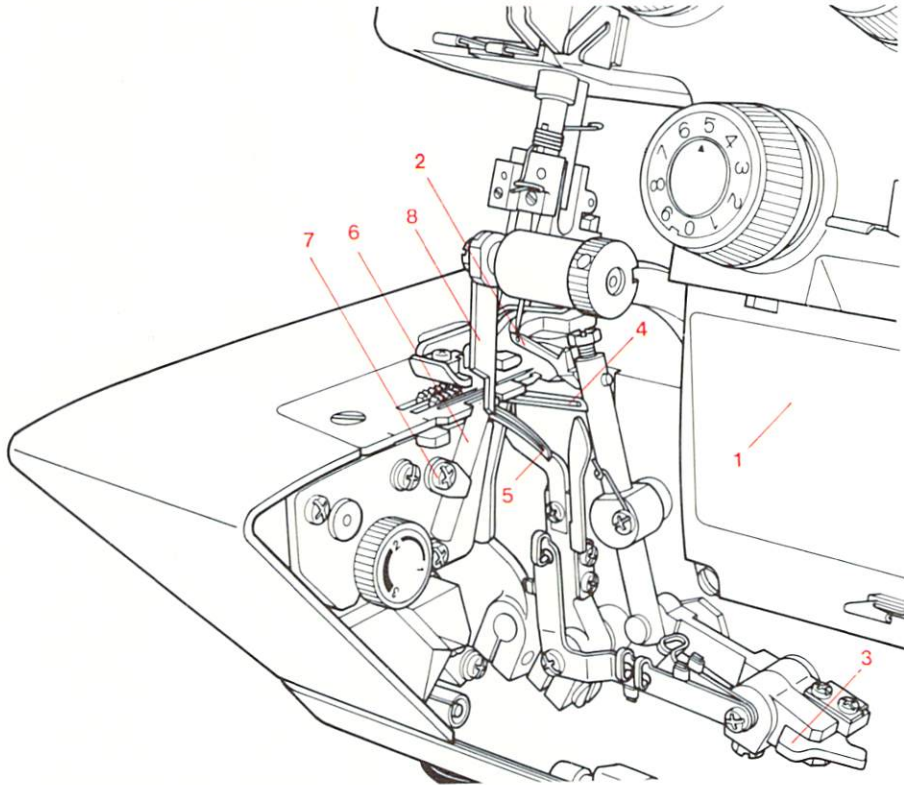
View with cloth plate open

- 1 Threading illustration for double chain looper thread
- 2 Cutting device
- 3 Thread tension button for double chain looper thread
- 4 Thread guide
- 5 Rotating thread take-up



View with looper cover open

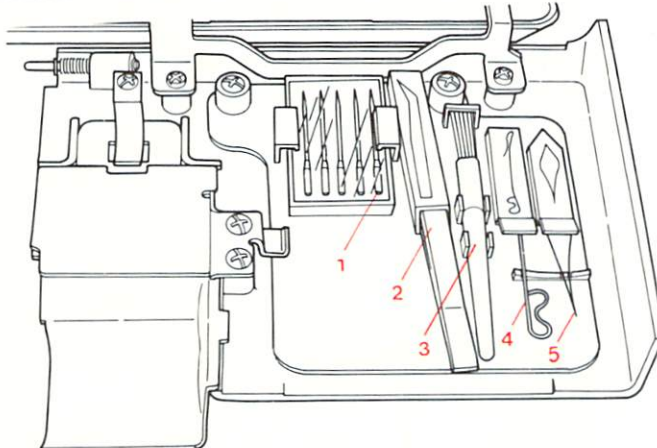
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- 3 Upper looper one-touch release
- 4 Lower looper
- 5 Double chain looper
- 6 Lower knife
- 7 Lower knife setscrew
- 8 Upper knife



Accessories in looper cover

The most important accessories are neatly stored in the looper cover and therefore always to hand.

- 1 Household needles 130/705 H:
1 x 70, 2 x 80, 2 x 90
- 2 Tweezers
- 3 Cleaning brush
- 4 Looper threader
- 5 Needle threader





Bernette

We congratulate you on your purchase.

You are now the proud owner of a Bernette MO-335 overlocker.

Your machine cuts, sews and neatens in one smooth operation. Give your creativity free reign.

The Bernette MO-335 with five threads sews not only knits or stretch fabrics but also all types of woven fabrics - it is a true allrounder. Our Instruction Manual explains clearly how to use your overlocker and we have also provided some useful sewing tips.

It will surprise you to learn just how versatile your Bernette is. This high quality machine will give you years of pleasure.

Important!

Safety regulations

The following safety regulations must be observed without fail:

It is important to pay attention to the needle and knife while sewing as these are potential sources of injury to fingers.

When replacing needles or the knife, the machine should be disconnected from the electricity supply.

When cleaning or lubricating the machine, replacing the bulb or when sewing is finished, machine should be disconnected from the electricity supply.

Electrical repairs may only be carried out by one of our service agencies.

Safe sewing with Bernette

Your safety is important to us which is why the Bernette overlocker is equipped with effective safety devices.

The finger guard on the presser foot as well as the guard on the looper cover protect your fingers.

Both needles are protected back and front with a double needle guard which reduces needle breakage and protects fingers and machine.

The machine can be easily disconnected from the electricity supply with the conveniently placed power/light switch.

An additional safety device in the form of a micro-switch has been integrated in the closing systems for the looper cover and cloth plate. The electricity supply to the machine is automatically cut off if either of the covers are open. However, the lamp remains on which helps, for example, when threading.

The motor is built in and sound-proofed. Threads or fabric scraps can not get caught in the motor which means uninterrupted work and, thanks to the sound proofing, quiet running.

Four very effective suction feet guarantee perfect stability on any table (without a cloth) and no vibration, even when sewing at the highest speed.

MEL'S SEWING & VACUUM SERVICE

Anaheim, Calif.
1023 N. Euclid
(714) 774-3460

Tustin, Calif.
13850 Red Hill Ave.
(714) 639-0583

Huntington Beach
16085 Golden West
(714) 848-9745

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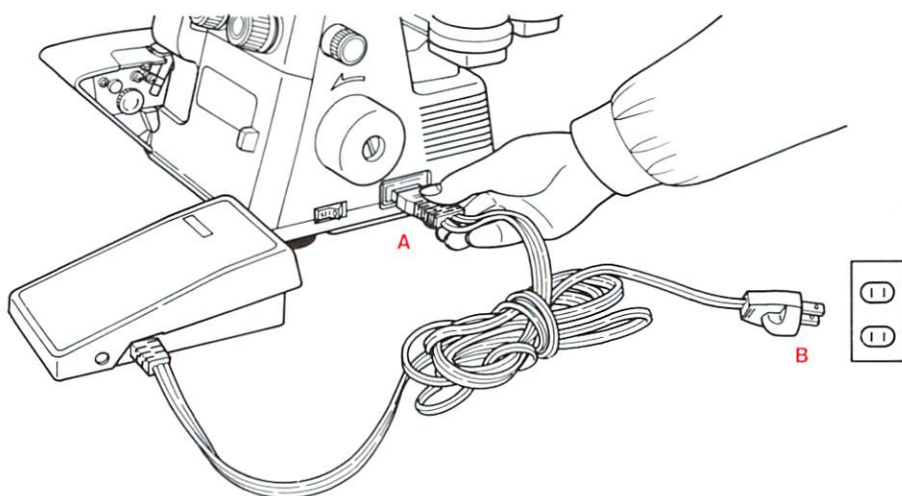
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Preparing the machine

Attaching the foot control

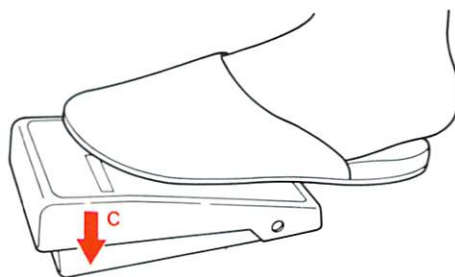
Plug foot control into machine socket (A) and then into mains socket (B).

The foot control regulates the sewing speed. The sewing speed can be adjusted by increasing or decreasing the pressure on the foot control (C).



Electronic foot control

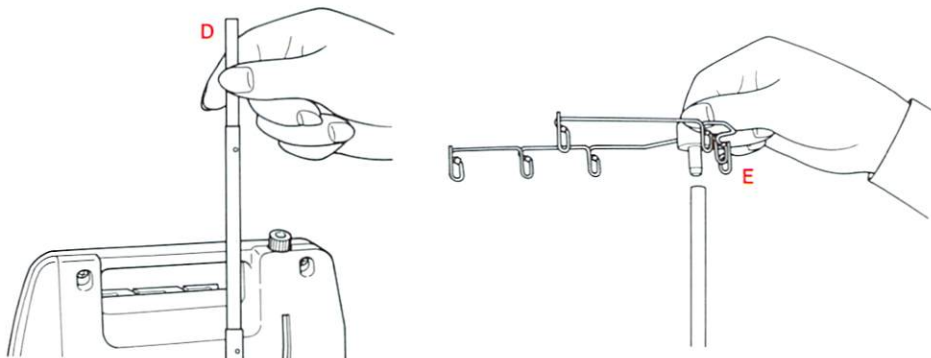
If your Bernette overlocker MO-335 is equipped with an electronic foot control, the sewing speed can be adjusted from minimum to maximum speed depending on the pressure put on the foot control.



Assembling the thread stand

Raise the support rod fully, turning slightly until the positioning catches engage (D).

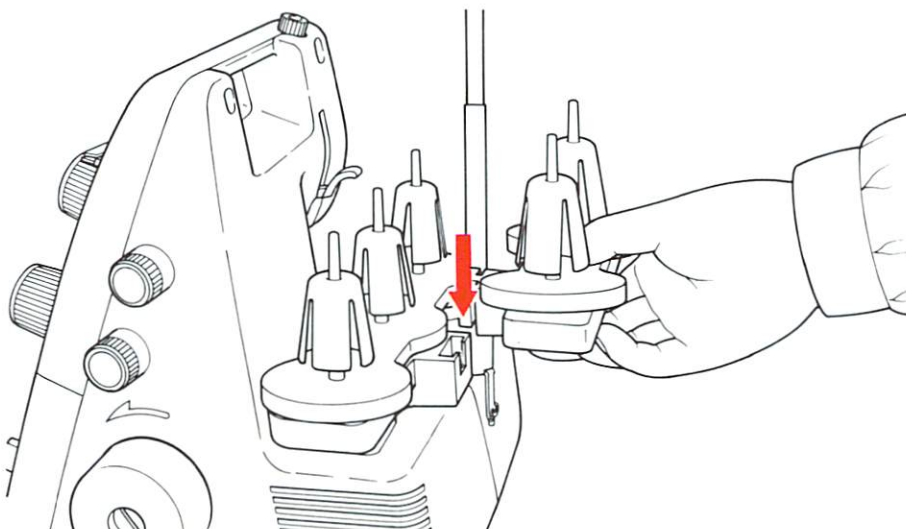
Put the thread guide on the support rod with the orange marking to the front (E).



Attaching the spool holder

Attach the separately packed spool holder to the fixed spool holder.

Once the thread stand and spool holders have been assembled, it is not necessary to remove them as the Bernette MO-335 can be easily stored with these in position.



Preparing the machine

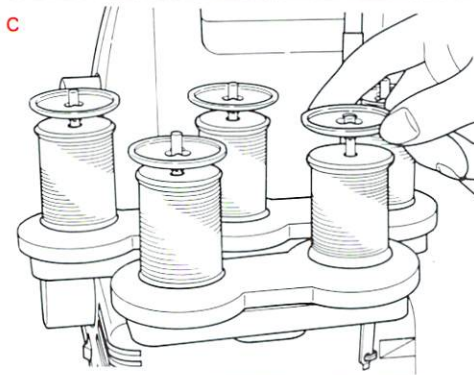
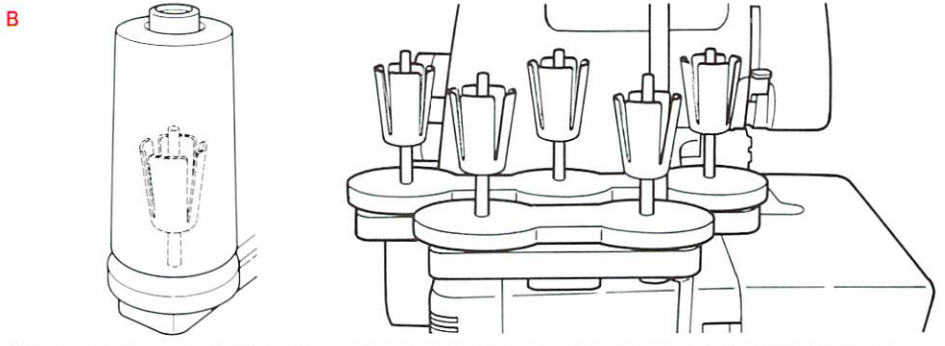
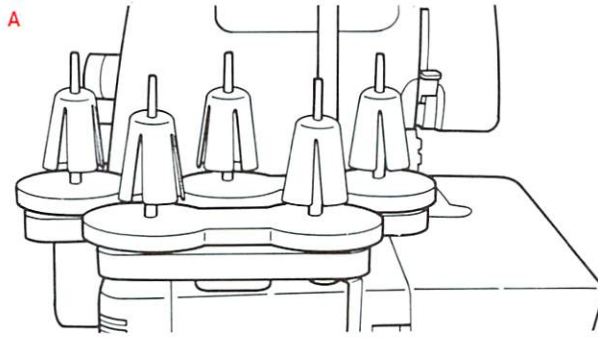
Thread

Cones or domestic spools in all sizes can be used on the Bernette overlocker.

The anti-vibration cone should be used with the wider edge at the bottom on the spool holder pin when sewing with cones (A).

If large industrial spools are used, position the anti-vibration cone upside down on the spool holder pin, i.e. with the wider edge at the top (B).

When using household spools, remove the anti-vibration cones. Place spools on spool holder pins and push the spool caps on with the rounded outside edge at the bottom (C).

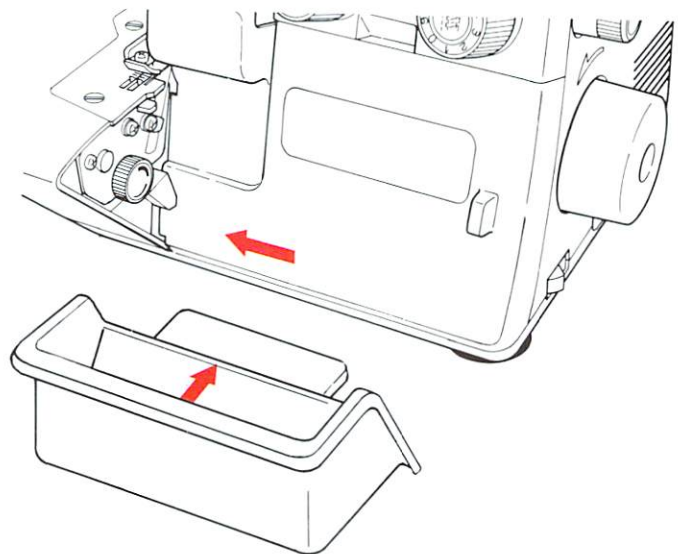


Waste collector

It catches the cut-off fabric as you sew, keeping your working area neat and tidy.

Place the waste collector between the machine and table and push to the left against the cloth plate.

Your machine is now ready for use.

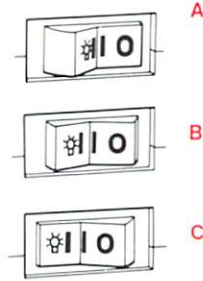


Using the machine

Power/light switch

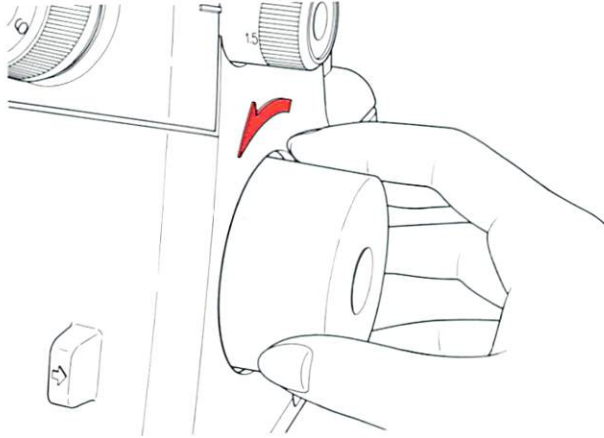
The power/light switch is conveniently placed on the handwheel side of the machine in front of the socket.

- A The machine is switched off.
B The machine is switched on. The sewing light remains off.
C Both machine and sewing light are switched on.



Handwheel

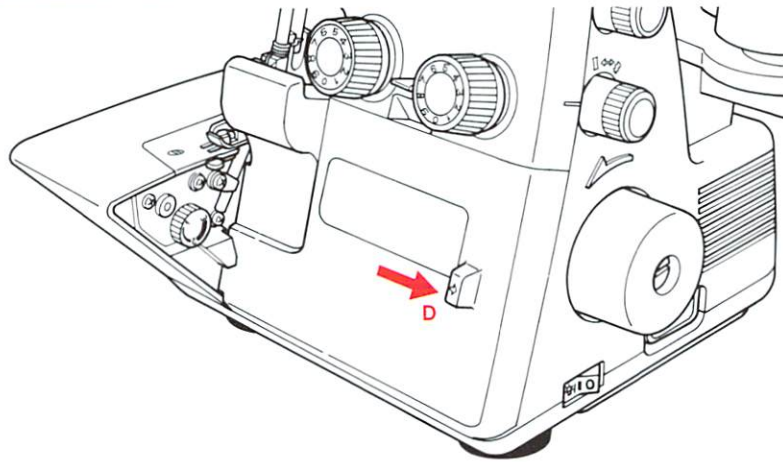
The handwheel turns forwards, i.e. the same direction as on a household sewing machine.



Looper cover

To open the looper cover, press the knob to the right (D) and tilt the cover towards you.

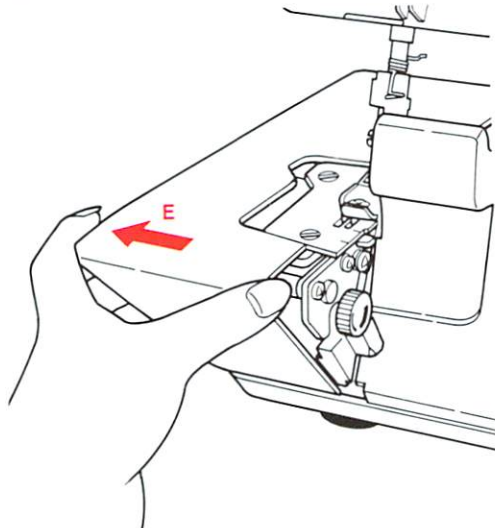
To close the cover, push it up and press lightly to the right. The looper cover engages automatically (D).



Cloth plate

The cloth plate opens by pushing it gently to the left (E).

To close the cloth plate, push it towards the machine and press gently until the cover engages.



Important: The machine is equipped with a micro safety switch. For safety reasons, the machine is automatically cut off from the electricity supply if either the cloth plate or looper cover is open. The sewing light remains on.

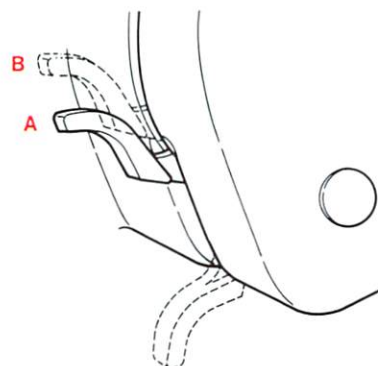
Using the machine, changing the presser foot and the needles

Two-step presser foot lifter

It is positioned on the rear of the machine above the presser foot.

To raise the presser foot, lift the presser foot lever up until it engages (A).

It can be lifted once again to maximum height and held in this position to provide more space between presser foot and stitch plate (B).

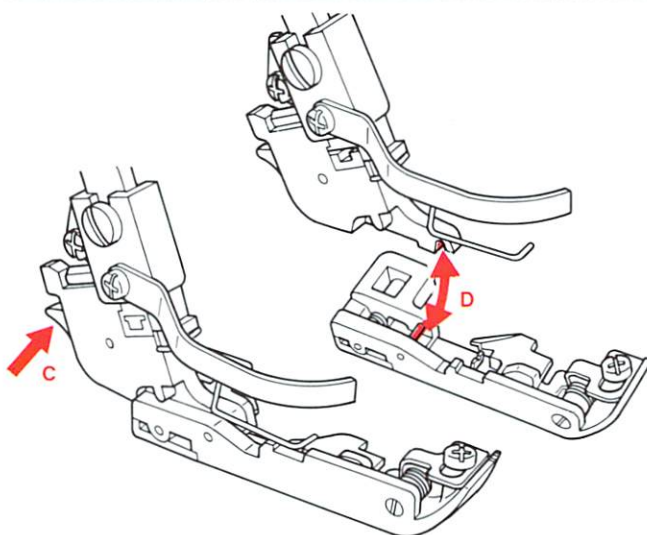


Changing the presser foot

- Turn the power switch to OFF.
- Raise the presser foot.
- Turn the handwheel towards you until needles are fully raised.

Press the catch to release the presser foot from the clamp (C). Remove the presser foot to the left.

To attach the presser foot, place it under the shaft. The groove in the shaft should line up exactly with the presser foot pin (D). Lower the shank and the presser foot will engage automatically.



Inserting the needles

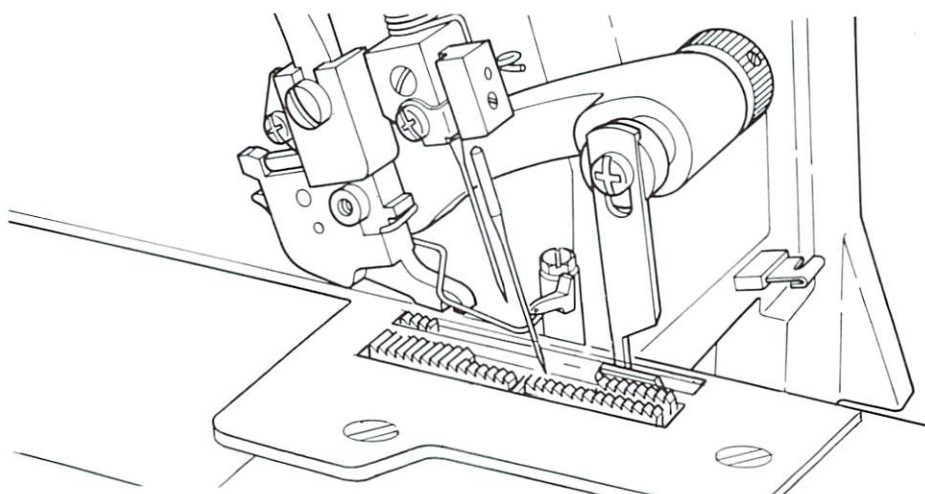
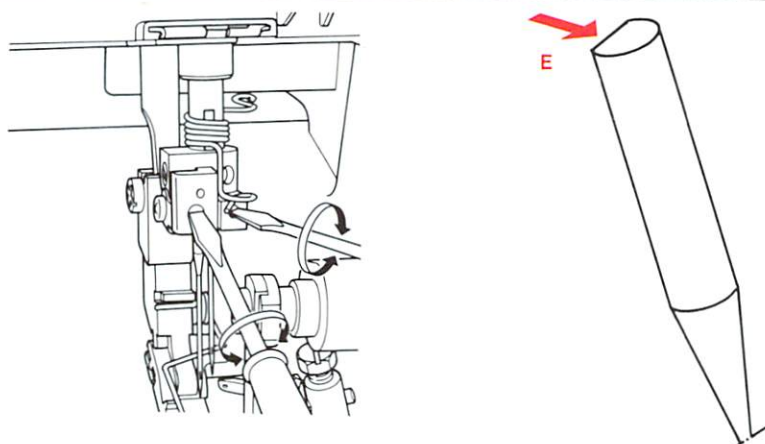
- Turn the power switch to OFF.
- Turn the handwheel towards you until the needles are fully raised.
- Lower the presser foot or remove the presser foot sole.

Using the small screwdriver from the accessory bag, loosen the needle setscrews and remove the needles.

First insert the overlock needle (right) with the flat side away from you into the needle clamp (E), making sure it is inserted as far up as possible. If it is not correctly inserted, i.e. too low, skipped stitches will result.

Tighten the needle clamp setscrews firmly.

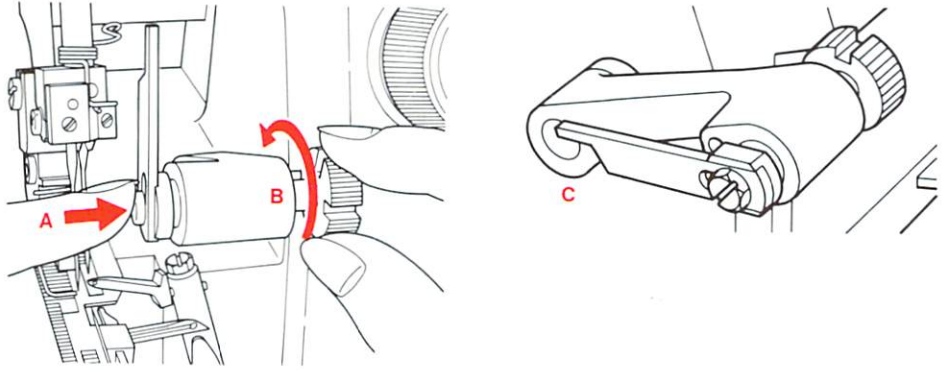
Insert the double chain needle (left) in the same way.



Using the machine

Raising the upper knife

- Turn the power switch to OFF.
- Turn handwheel towards you until needles are fully raised.
- Open looper cover.



Press the upper knife holder to the right (A) which releases the knob (B). Turn the knob clockwise until the knife is in the position illustrated (C).

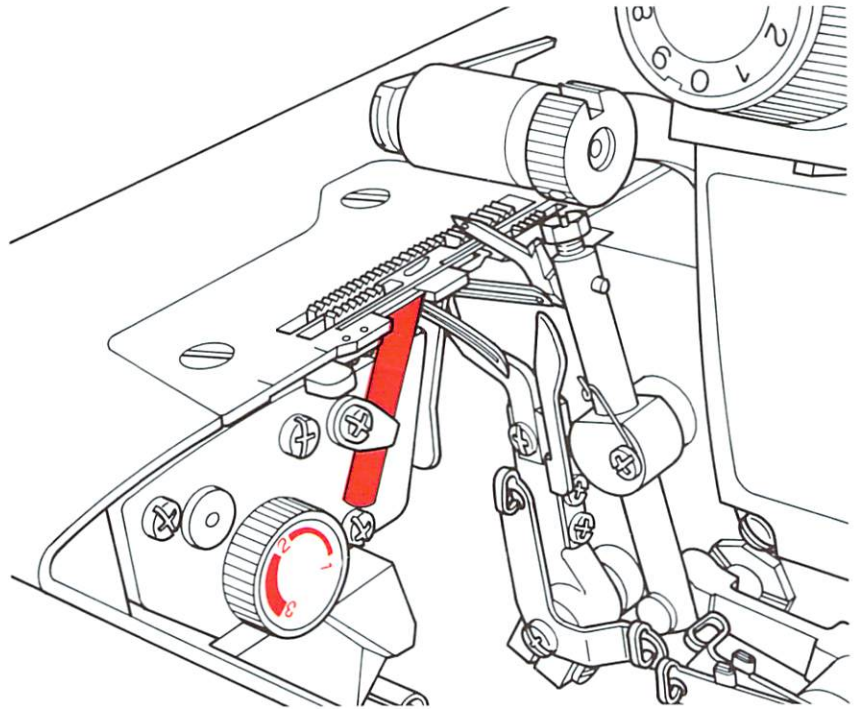
Cutting width adjustment knob

- Turn the power switch to OFF.
- Raise the upper knife.

Position the knife as required by turning the lower knife adjustment knob.

- 1 = 3 mm cutting width
- 2 = 4 mm cutting width
- 3 = 5 mm cutting width

Lower the upper knife again. It adjusts itself automatically to the position of the lower knife.

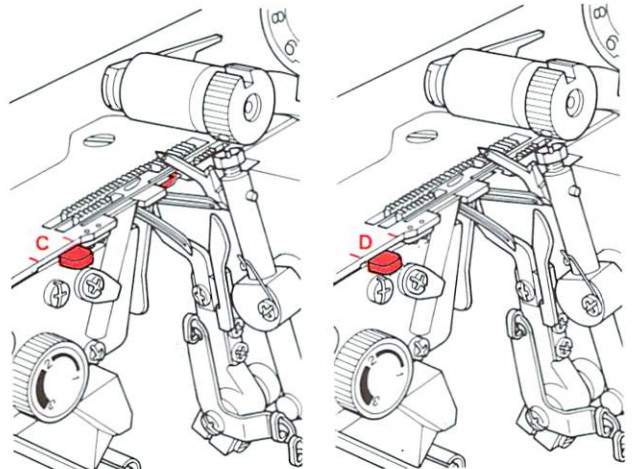


Stitch selection lever for overlocking or roll hemming

- Turn the power switch to OFF.
- Turn the handwheel towards you until needles are fully raised.

For overlocking, push the selection lever back. The rear edge of the lever should be in line with the rear red marking on the stitch plate (C).

For roll hemming, pull the selection lever forwards. The front edge of the lever should be in line with the front red marking on the stitch plate (D).



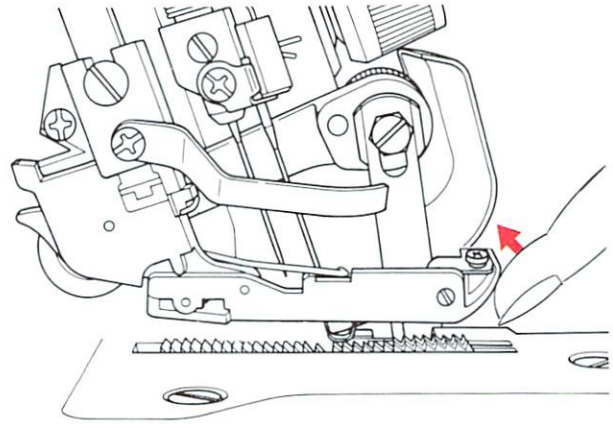
Feed dog and fabric feed, Differential feed

Feed dog and stitch length

Each stitch equals one complete movement of the feed dog. The length of this movement depends on the stitch length selected. The average feed dog movement or stitch length is between 2 and 3 mm. This is the setting used for most normal sewing work.

Feed dog and fabric feed

The feed dog is longer than the presser foot which means the fabric can be gripped in front of the foot without having to raise it. When sewing thick fabrics, especially knits, raise the front end of the presser foot slightly with your thumb and position the fabric under the foot. Let go of the foot and the fabric will be taken up by the feed dog.



Feed dog and differential feed

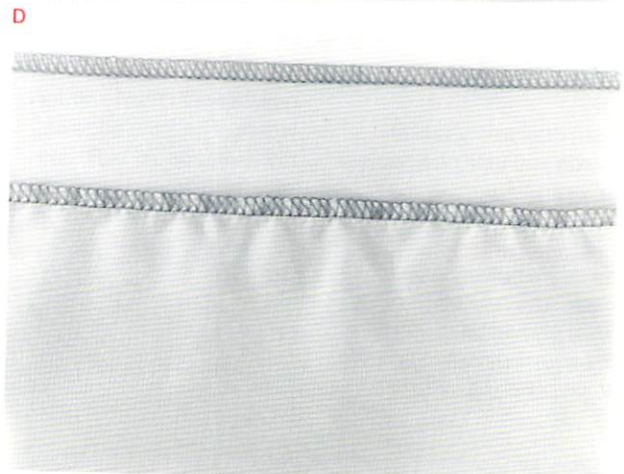
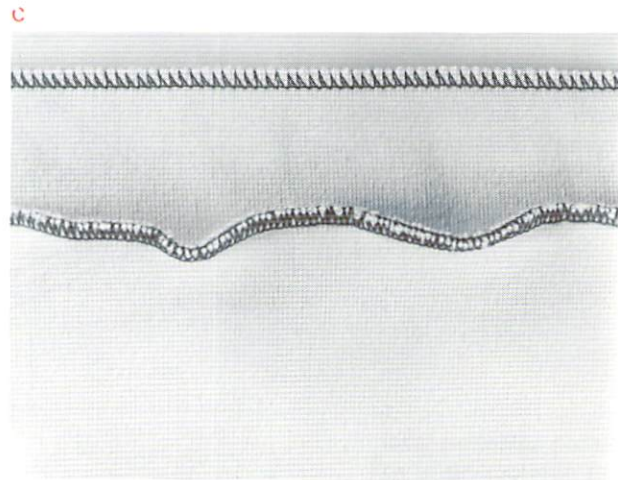
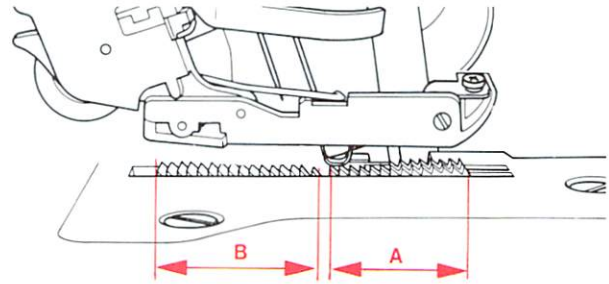
There are two feed dogs - one front (A) and one rear (B). The two feed dogs move independently and the distance each feed dog travels during one complete movement can be different.

The differential feed prevents fluting or waving in seams in knitted fabrics and also movement between the layers of fabric. It also ensures pucker-free seams in smooth fabrics such as nylon.

Adjusting the differential feed - see Page 16.

For perfectly flat seams in knits, the distance travelled by the front feed dog should be greater than that of the rear feed dog. The front feed dog, therefore, feeds an amount of fabric which the rear feed dog can take up behind the needle without stretching the fabric and without the slightest hint of movement between the two layers of fabric (C).

Conversely, to avoid any puckering in seams on closely woven fabrics or smooth nylon, the distance travelled by the rear feed dog must be greater than that of the front feed dog. The front feed dog, therefore, holds the fabric back so that the rear feed dog can take it up behind the needle without any puckering or movement between the two layers of fabric (D).



Threading

Preparation

- Support rod with thread guide must be fully raised.
- Turn machine and light on.
- Open the looper cover and cloth plate. The sewing light remains on but for safety reasons, the motor is now cut off from the electricity supply while you thread.
- Turn the handwheel towards you until needles are fully raised.
- Raise the upper knife.

Threading instructions

Thread the machine carefully and in the correct sequence. This is important for perfect results.

When threading for the first time, we suggest you use different coloured threads - blue, red, green, purple and yellow, then when you do a trial run, it is very easy to see exactly how the stitch is formed.

The Bernette overlocker is equipped with invaluable aids to simplify threading.

Coloured threading illustrations which clearly show the threading sequence can be found inside the looper cover and cloth plate. The machine should be threaded in the following sequence:

1. Upper looper thread (blue)
2. Lower looper thread (red)
3. Overlock needle thread, right-hand needle (green)
4. Double chain looper thread (purple)
5. Double chain needle thread, left-hand needle (yellow)

The threading path for each thread is marked clearly with coloured dots on the machine.

Threading aids such as tweezers, looper threader and needle threader are stored in the looper cover.

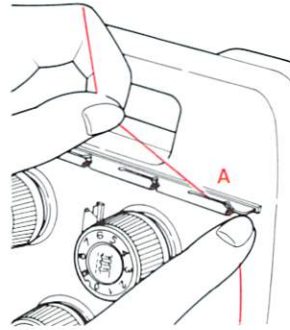
All the thread guides are open except for the needle and looper eyes.

Needle threader

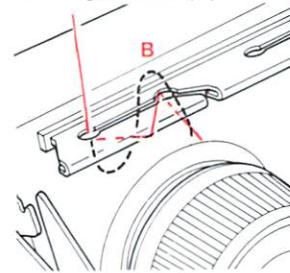
Using the threader, push the rigid end of the threader through the looper or needle eye and pull it completely through the hole.

Thread guide bar

Slip the thread into the appropriate thread guide (note coloured markings) and pull it to the left end of the slit (A).

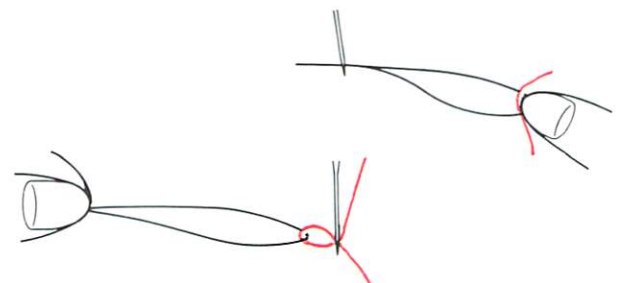
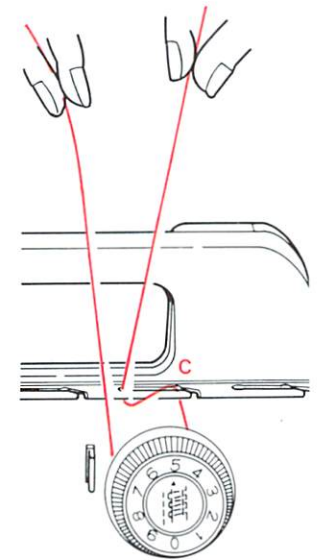


Take it up over the edge of the thread guide bar and form a loop. Thread it again into the same thread guide, keeping it to the right end of the slit, and pull it down. The thread now forms an S-loop around the thread guide bar (B).



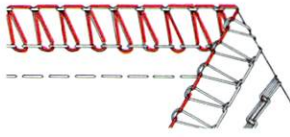
Tension dials

The thread must lie correctly between the tension discs for perfect stitch formation. Using one hand, guide the thread around the tension dials and then pull it lightly to and fro with both hands. When a slight resistance is felt, the thread is lying correctly between the tension discs (C).

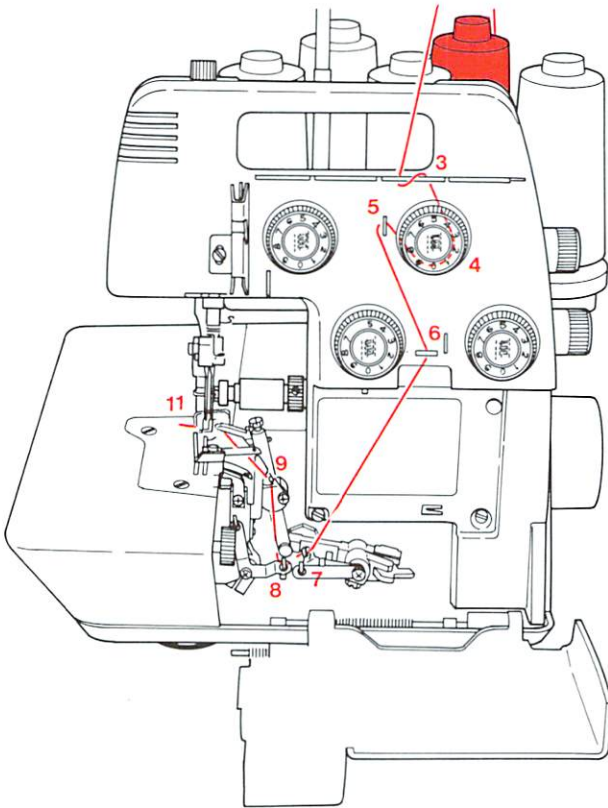
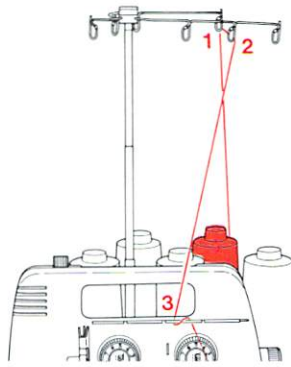


Threading sequence

1. Upper looper thread, blue

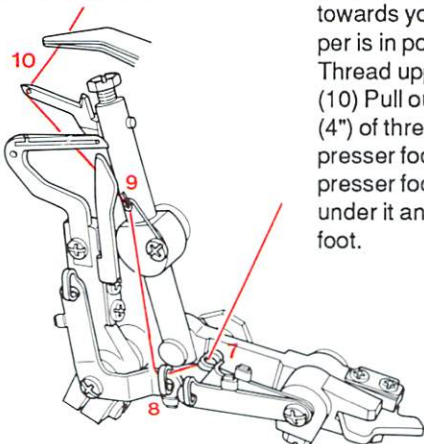


Place the spool on the spool holder pin underneath the rear blue marking on the support rod thread guide.



(1, 2) Bring thread up from the spool to the thread guide and take it through first the rear and then the front blue guide.

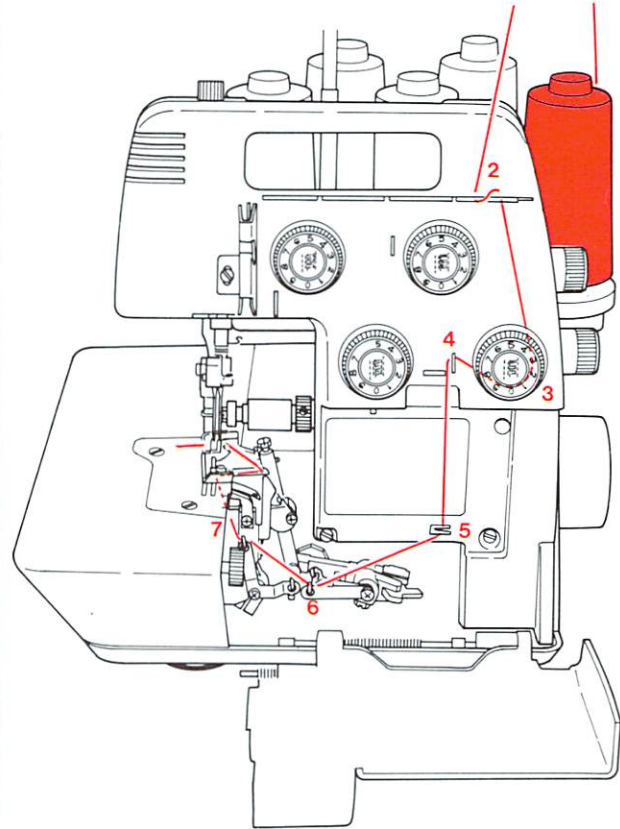
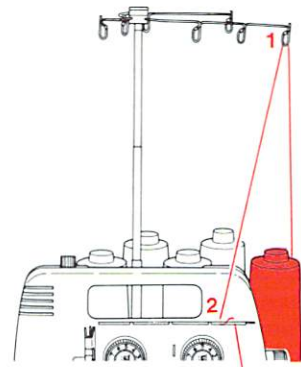
(3) Make S-loop around thread guide bar.
 (4) Thread tension dial.
 (5, 6, 7, 8, 9) Thread guides.
 (10) Turn the handwheel towards you until upper looper is in position illustrated. Thread upper looper eye.
 (11) Pull out about 10 cm (4") of thread behind the presser foot. Raise the presser foot, place thread under it and lower presser foot.



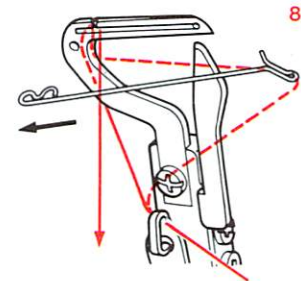
2. Lower looper thread, red



Place the spool on the spool holder pin underneath the red markings on the thread guide.

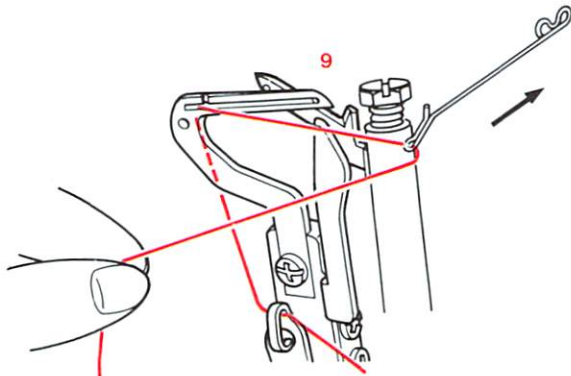


(1) Bring thread up from the spool to the thread guide and take it through the red guide.
 (2) Make S-loop around thread guide bar.
 (3) Thread tension dial.
 (4, 5, 6, 7) Thread guides.
 (8) Using the looper threader, pass the thread from the right through to the left side of the machine along the lower looper. Turn the handwheel towards you until the lower looper is as far to the left as possible. Take the thread from behind into the slit on the lower looper.

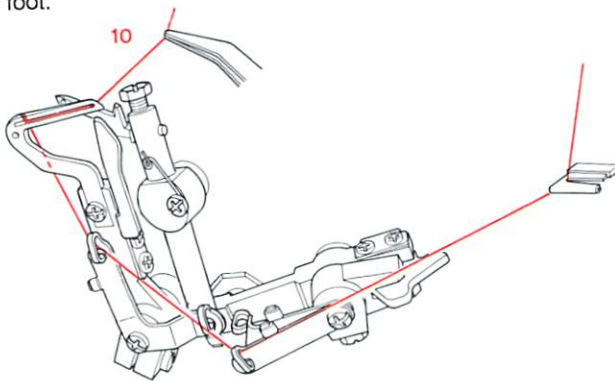


Threading sequence

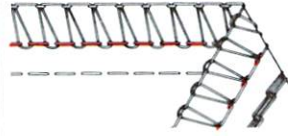
(9) Using the looper threader, pull the thread through to the right side again. Turn the handwheel towards you until the lower looper is in the position illustrated and thread the looper eye. Pull on the thread until it lies in the long groove on the lower looper.



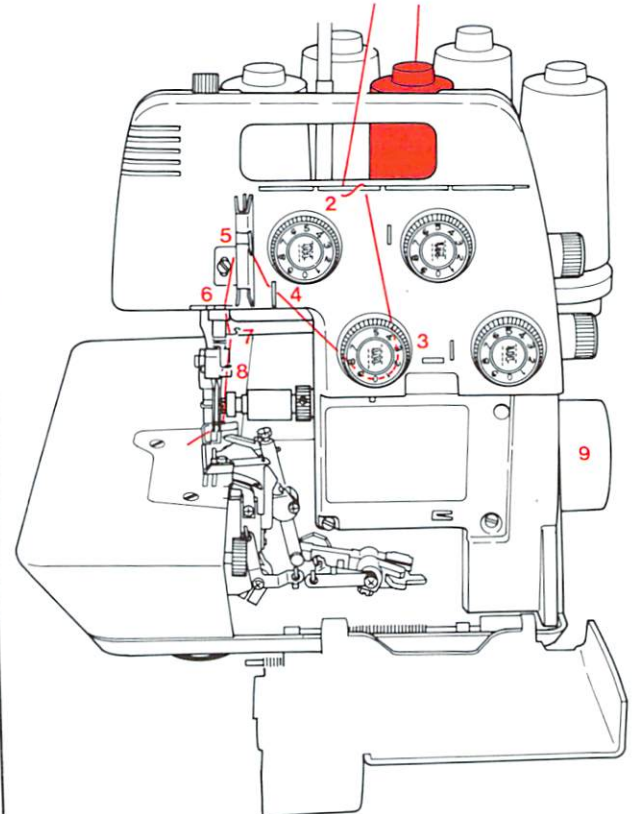
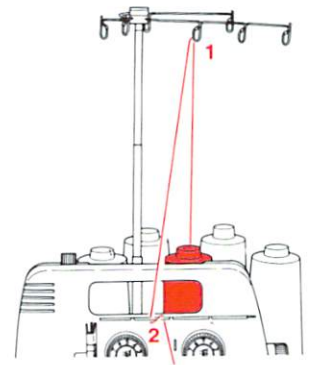
(10) Take the thread over the upper looper and pull out about 10 cm (4") of thread behind the needle, raise the presser foot, place the thread under it and then lower the presser foot.



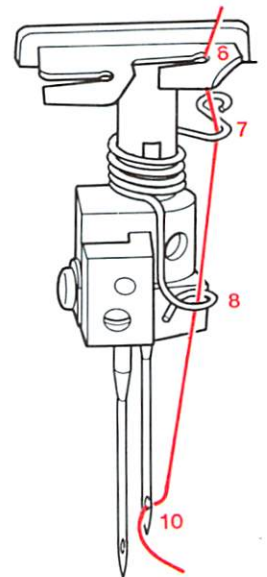
3. Overlock needle thread, green (right-hand needle)



Place the spool on the spool holder pin underneath the green markings on the thread guide.



- (1) Bring the thread up from the spool to the thread guide and take it through the green guide.
- (2) Make S-loop around the thread guide bar.
- (3) Thread tension dial.
- (4, 5, 6) Thread guides.
- (7, 8) Thread guides on needle bar.
- (9) Turn the handwheel towards you until the needles are fully raised. Thread the right-hand needle.
- (10) Pull about 10 cm (4") thread out behind the presser foot. Raise the presser foot, place thread under it and lower the presser foot.

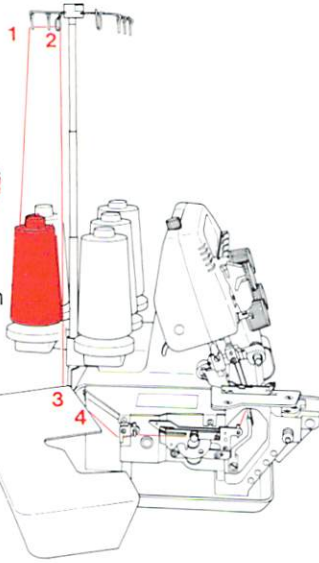


Threading sequence

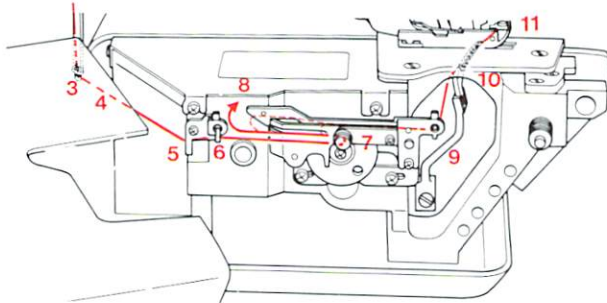
4. Double chain looper thread, purple



Place the spool on the spool holder pin underneath the purple marking on the thread guide.



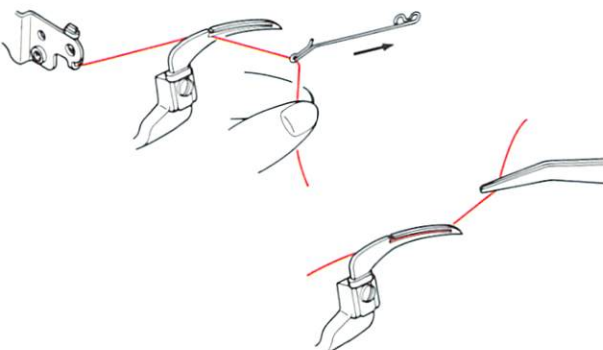
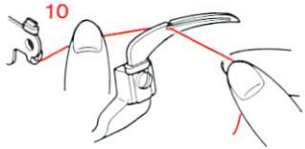
- (1, 2) Bring thread up from spool to thread guide and take it through both purple guides.
 (3) Thread guide.
 (4) Opening in housing.



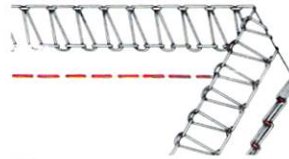
- (5, 6) Thread guides.
 (7) Guide thread around thread tension button and pull on both sides of the thread until a resistance is felt.
 (8) Lay the thread in the vertical slit underneath the thread guide.
 (9) Thread guide.

- (10) Turn the handwheel towards you until the double chain looper is in the left-most position. Thread the slit on the looper from back to front.
 (11) Using the looper threader, pull the thread through to the right side of the machine. Turn the handwheel towards you until the looper is in the right-most position. Thread the looper eye and cut surplus thread.

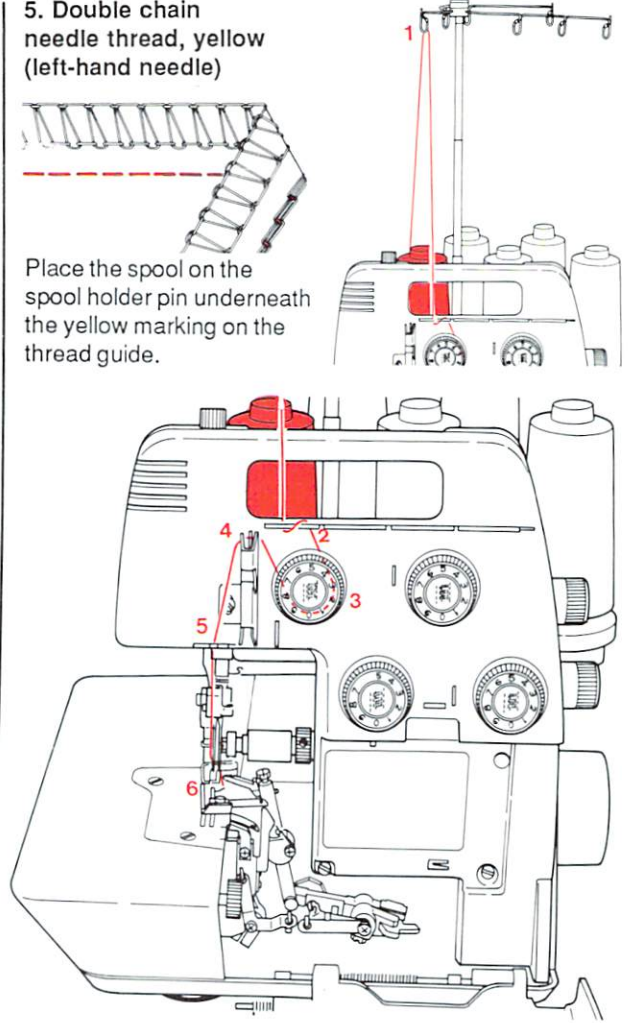
Important: Leaving about 10 cm (4") hanging.



5. Double chain needle thread, yellow (left-hand needle)

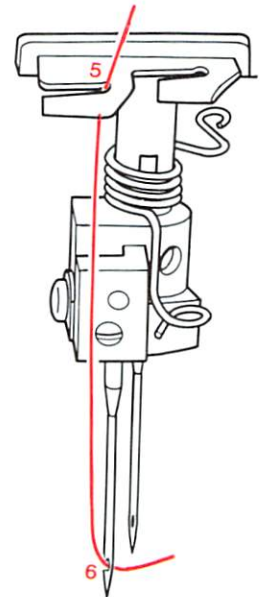


Place the spool on the spool holder pin underneath the yellow marking on the thread guide.



- (1) Bring the thread up from the spool to the thread guide and take it through the yellow guide.
 (2) Make S-loop around thread guide bar.
 (3) Thread tension dial.
 (4) Lay the thread in the notch on the take-up lever.
 (5) Thread guide.
 (6) Thread the left needle. Pull about 10 cm (4") thread out. Raise the presser foot, place the thread from front to back under it and then lower presser foot.

When threading is complete, lower the upper knife and close the looper cover and cloth plate.



Important: If the lower looper has to be rethreaded, first unthread the overlock (right-hand) needle and remove any remaining thread from below. Thread the lower looper and then rethread the overlock needle.

If the double chain looper has to be rethreaded, first unthread the double chain (left-hand) needle and remove any remaining thread from below. Thread the looper and then rethread the double chain needle.

3 thread overlocking, 2 thread chain stitch

Variation:

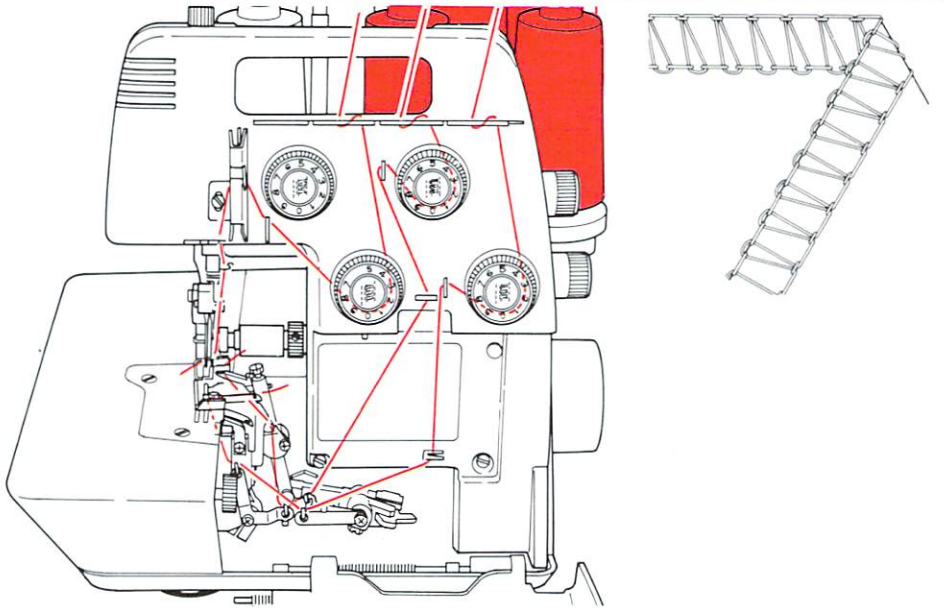
3 thread overlocking,
blue, red, green

- Remove the left-hand needle.

Thread the

1. upper looper
2. lower looper
3. overlock needle (right-hand needle)

If the machine is already threaded with five threads, cut off and unthread 4. double chain looper thread and 5. double chain needle thread and remove the left-hand needle.



Variation:

2 thread chain stitch
purple, yellow

- Raise the upper knife.
- Remove the right-hand needle.

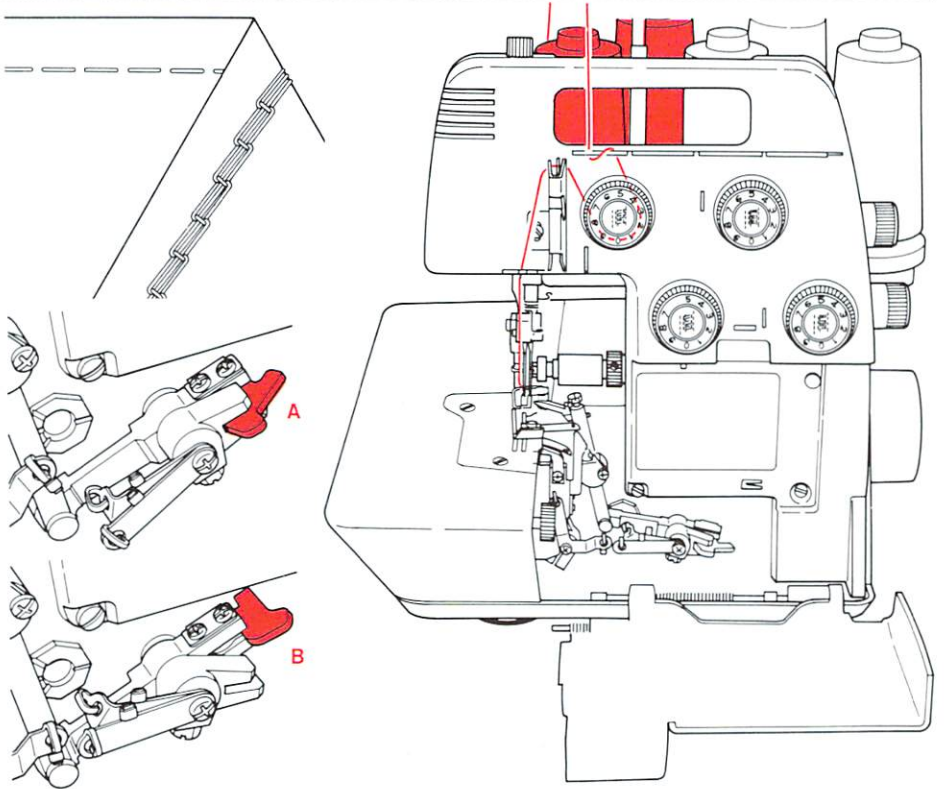
Thread the

4. double chain looper
5. double chain needle

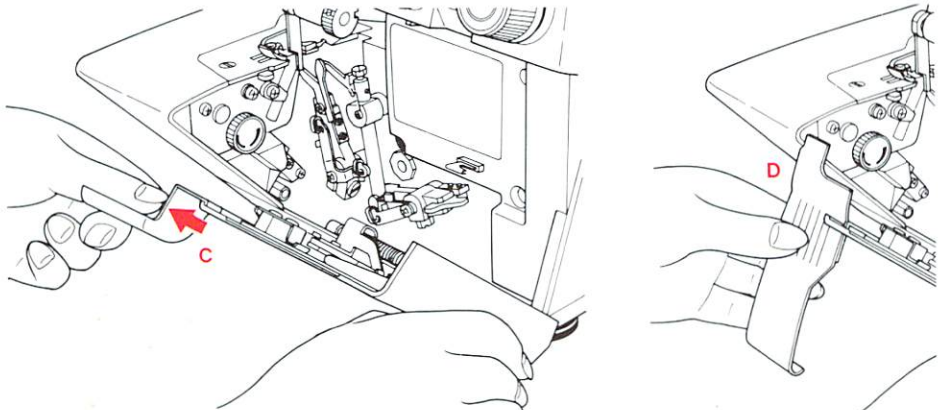
Open the looper cover and turn the handwheel towards you until the upper looper is in its lowest position (A). Push the upper looper one-touch release back to disengage the looper (B).

Remove the knife guard and attach the seam guide plate (C, D).

Leave the knife raised and close the looper cover.



Important: When you have finished sewing with the double chain stitch, remove the seam guide plate and replace the knife guard, lock the upper looper, lower the knife and close the looper cover.



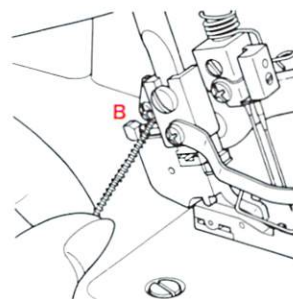
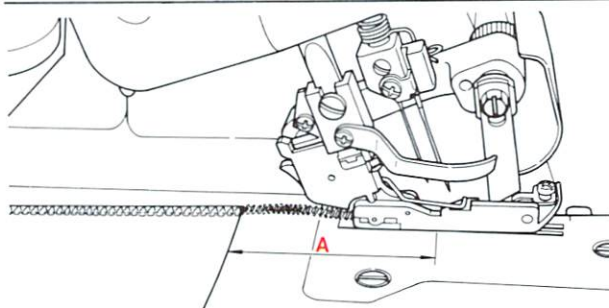
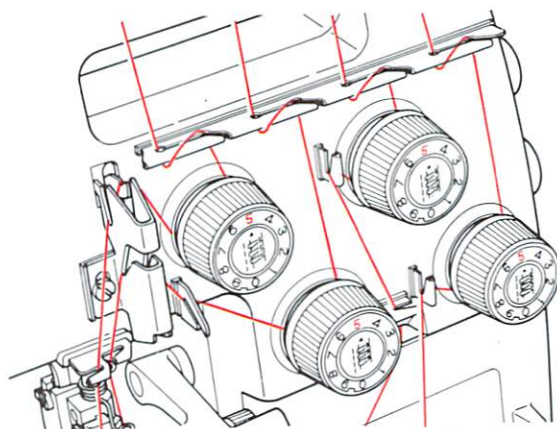
Trial sewing

After threading, make a trial run.

Always use a double layer of fabric in order to be able to check the stitch formation and thread tension properly.

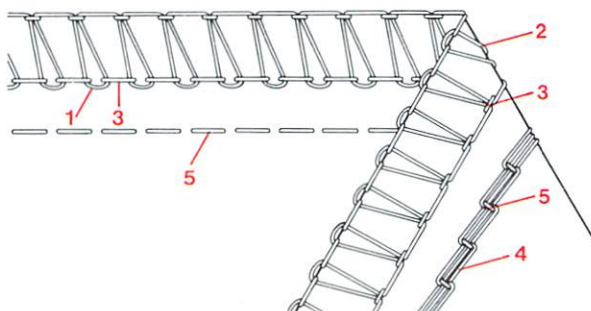
- Set all tension dials to 5.
- Check that the upper knife is lowered (i.e. in the cutting position).
- Raise the presser foot.
- Place fabric under the needles.
- Lower the presser foot and sew.
- At the end of the seam, continue sewing to form a 5–6 cm (2-2 1/2") long thread chain (A).

Holding the fabric in one hand, pull the thread chain over the thread cutter on the presser foot shank (B).



Check your trial run

1. Upper looper thread (blue)
2. Lower looper thread (red)
3. Overlock (right-hand) needle thread (green)
4. Double chain looper thread (purple)
5. Double chain (left-hand) needle thread (yellow)



The upper looper thread (1) lies on the upper side of the fabric and the lower looper thread (2) lies on the underside of the fabric. The loops formed by both threads meet exactly on the edge of the fabric.

The overlock needle thread (3) anchors both looper threads. It forms a straight stitch on the upper side of the fabric and appears as tiny green dots on the underside.

The double chain needle thread (5) forms a separate straight stitch on the upper side of the fabric and appears as tiny yellow dots on the underside.

The double chain looper thread (4) can only be seen on the underside of the fabric and joins the yellow dots together to form a double chain stitch.

Now do a trial run using only one colour thread and compare the two samples. Check the tension on the same basis as the coloured sample and in doing so, distinguish between the upper and underside of the stitch.

Tip:
It is not necessary to re-thread the machine for this. Cut off the threads above the cones or spools, replace them and knot this thread on to existing coloured thread.
Cut off both needle threads in front of the needle eye. Turn all tension dials to 0. Pull the threads through. Rethread the needles. Reset tension dials to 5. Do trial run.

Important:
If the stitch formation varies considerably from what it should be, check the following points:

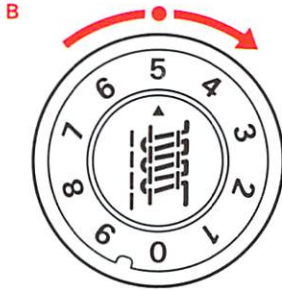
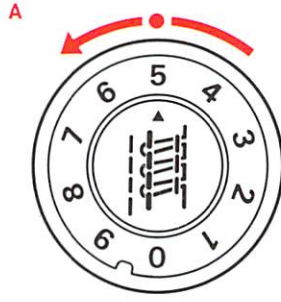
Is the machine threaded correctly?
Is the thread lying properly between the tension discs?
Are all the tension dials set at 5?
Has the thread got caught somewhere?

Thread tension

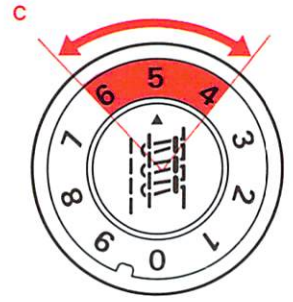
Imperfect stitch formation can be corrected by making simple adjustments to the thread tension.

Step-free adjustments can be made from 0–9 to suit the type of fabric or thread. The dials cannot be over-rotated.

- (A) Turning to the left means less tension.
- (B) Turning to the right means more tension.



The ideal tension setting for most fabrics is between 4 and 6, marked in yellow on the dials (C). However, it can vary quite considerably when special threads such as buttonhole twist (cordonet), perle yarn or decorative threads are used.

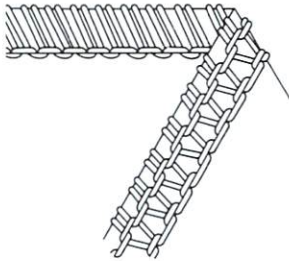


Each tension dial has a coloured stitch illustration showing which thread it belongs to. If you compare your trial sewing with these illustrations, it is easy to see which thread tension needs adjustment.

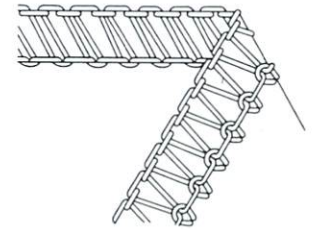
Adjusting the thread tension

Important:
Turn the tension dial by only half or one number then test sew again and check the results.

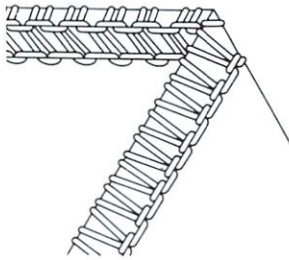
If the looper threads meet on the underside of the fabric, tighten the upper looper thread tension or loosen the lower looper thread tension.



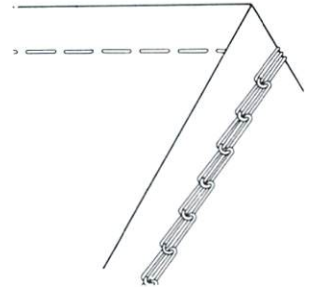
The overlock (right-hand) needle thread (green) forms loops on the underside. Tighten the overlock needle thread tension.



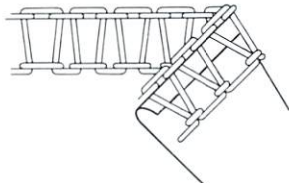
If the looper threads meet on the upper side of the fabric, tighten the lower looper thread tension or loosen the upper looper thread tension.



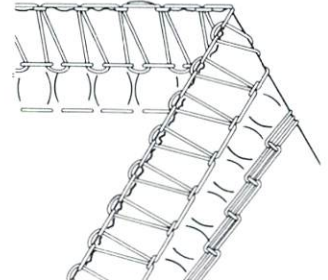
The double chain (left-hand) needle thread forms loops on the underside. Tighten the double chain needle thread tension.



The edge of the fabric curls. Tension of both looper threads (red and blue) is too tight. Loosen upper and lower looper thread tension.



The fabric puckers during sewing. Loosen the right or left-hand (green or yellow) needle thread tension.



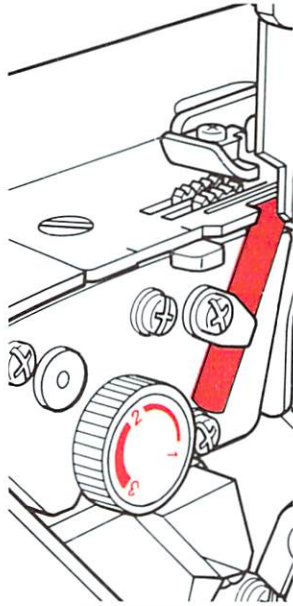
Adjustments and settings

Cutting width

The cutting width of the 3-thread overlock stitch can be adjusted from 3 up to 5 mm.

Adjust to a narrower cutting width if the fabric edges curl when sewing by turning the cutting width adjustment knob to a lower setting.

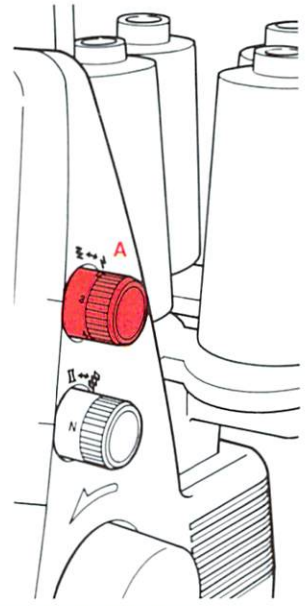
Adjust to a wider cutting width if the formation of the thread loops seems to be too loose. Set the cutting width adjustment knob to a higher setting.



Stitch length

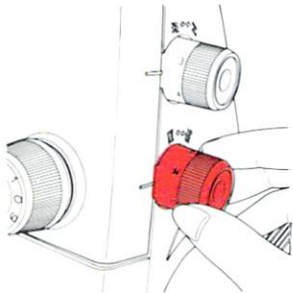
Step-free adjustments can be made from 0.8–4 mm while sewing. Simply turn the stitch length adjustment knob in the direction desired.

Most overlock work is done with a basic stitch length setting of 2–3 mm (A).



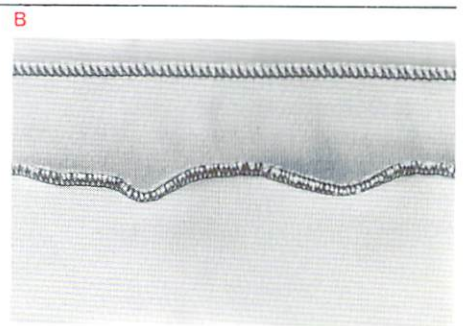
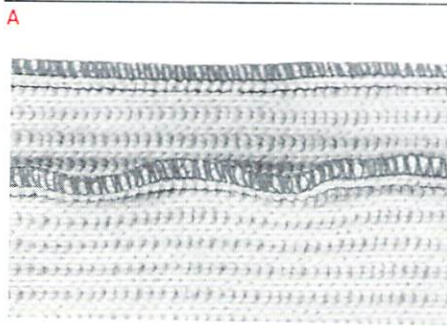
Differential feed

The differential feed can be adjusted by simply turning the differential feed adjustment knob in the direction desired.



Always do a trial run. Step-free adjustments to the differential feed can be made while sewing.

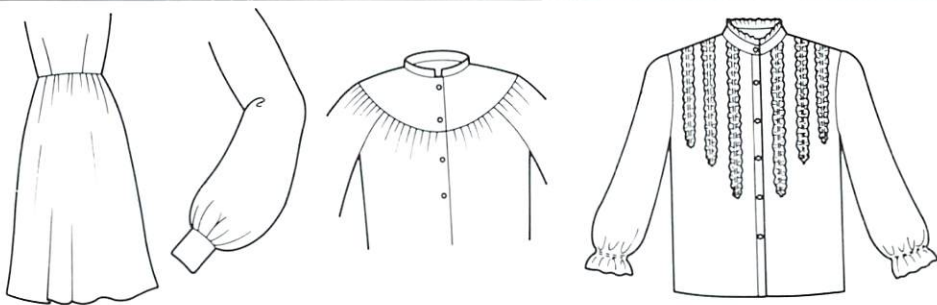
	Effect	Fabric
2	Wave-free seams (A)	Wool knits, thick, hand or machine knitted fabrics; very stretchy fabrics including velour
1.5	Wave-free seams (B)	Cotton, silk and synthetic jerseys, sweatshirt fabric and fine knits
N(1)	No differential feed (C)	Woven fabrics
0.7	No puckering (D)	Sheer nylon jersey closely woven fabrics, lining fabrics, satin, poplin



Adjustments and settings

Gathering

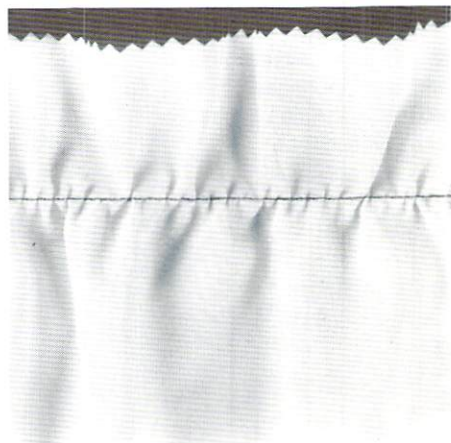
A single layer of light-weight fabric can be gathered, before sewing it to the garment, with the differential feed set at 1.5–2 and maximum stitch length. For example, sleeves heads and lower edges, for yokes, lace edging or frills.



Gathering with 5 thread stitch



Gathering with 2 thread stitch



Important: When sewing without differential feed, the adjustment knob for the differential feed should be set at N(1).

Presser foot pressure

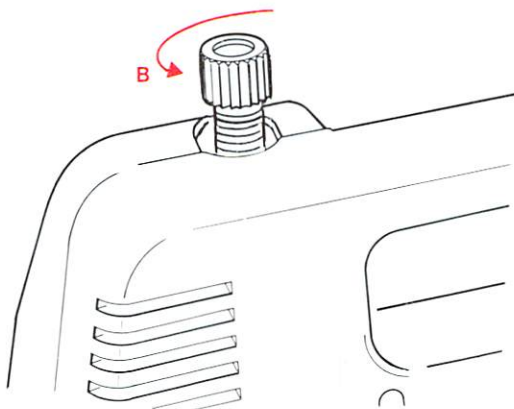
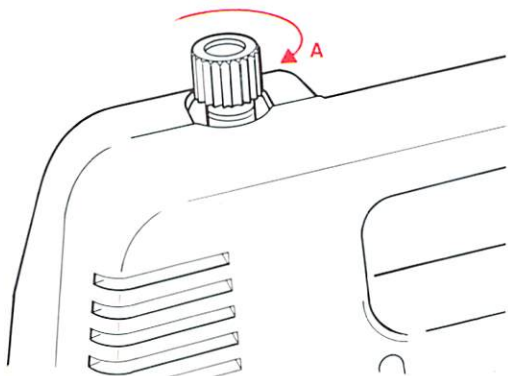
The presser foot pressure guarantees perfect feed. It is factory adjusted to a medium setting and very rarely needs to be readjusted for sewing different fabrics.

However, should you wish to adjust it, simply turn the presser foot pressure screw in the direction desired.

Important: Seams in knitted fabrics will wave if the presser foot pressure is too high so do not increase it when sewing knits.

More pressure: for heavy-weight or stiff fabrics such as denim, tweed, firm linens, etc. (A).

Less pressure: for light-weight or sheer fabrics such as chiffon, georgette and batiste, etc. (B).



Needle, thread and fabric / Sewing with integrated accessories

Needles and machine

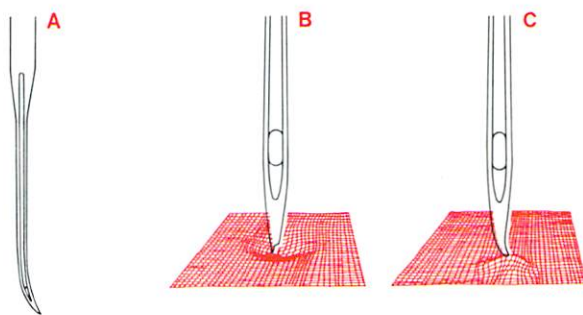
Important:

Your Bernette overlocker is equipped with needle system 130/705 H (household needles). These should be purchased when replacement needles are required.

Condition of the needle

The following table shows which needle should be used with which thread:

The needle must be perfect. Problems will occur with blunt (A) or bent needles (B) or needles with damaged points (C).



Needle, thread and fabric

Use needles Nr. 70 to 90 on your Bernette. Thick threads such as buttonhole twist, wool, perle yarn or decorative threads are best used in the looper.

Choose the thread and size of needle to suit the fabric.

Needles Nr. 70–80

Polyester continuous thread 150
Darning thread/
Embroidery thread

Application

Neatening edges
Roll hemming
Seams in fine fabrics

Needles Nr. 80–90

Mercerised cotton
Spun polyester thread 120
Synthetic thread

Application

Strong seams in all fabrics

Polyester continuous thread 120/2

Neatening edges

Wooly nylon thread 100

Stretchy seams in knitted fabrics
Roll hemming

Roll hemmer

The roll hemmer is built-in. The fabric edge is automatically rolled and oversewn. The result is a very fine and narrow stitch.

Rolled hem (D)

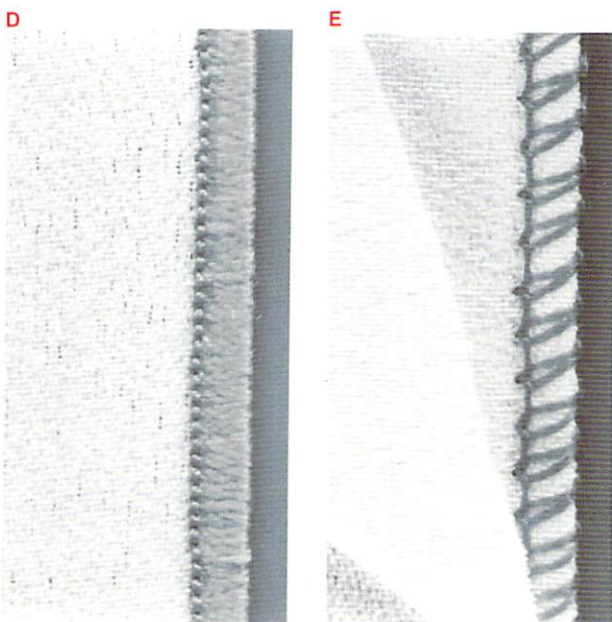
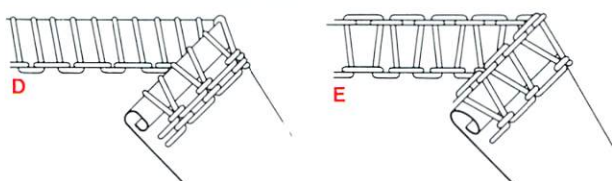
When roll hemming, the loops formed by the looper thread should be on the underside of the fabric. To obtain the ideal tension, first do a trial run with all tension dials set at 5. Afterwards, increase the lower looper thread tension (red) and reduce both the upper looper (blue) and overlock needle (green) thread tension.

How to use the roll hemmer:

- Thread the machine as for 3 thread overlocking and remove the left-hand needle.
- Turn the cutting width adjustment knob to 1.
- Turn the stitch selection lever to roll hemming.
- Reduce the stitch length to 0.8–2 mm.
- Adjust the thread tension according to the effect wanted.

Roll hemming seam (E)

If roll hemming is used to make a seam in sheer or light-weight fabrics, the same rules for tension apply as for the normal overlock stitch. (See Page 15), i.e. the loops formed by both loopers must be exactly on the edge of the fabric. Do a trial run with all tension dials set at 5. If necessary, adjust the tension accordingly.

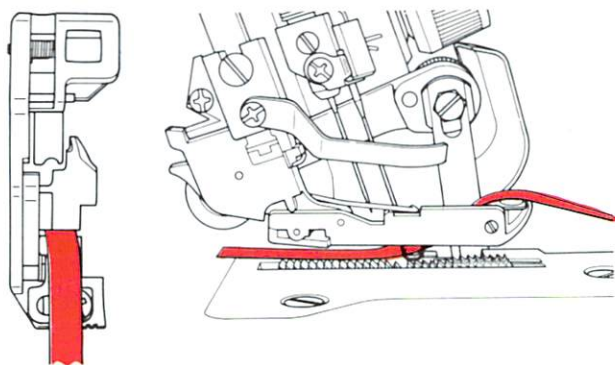


Sewing with integrated accessories

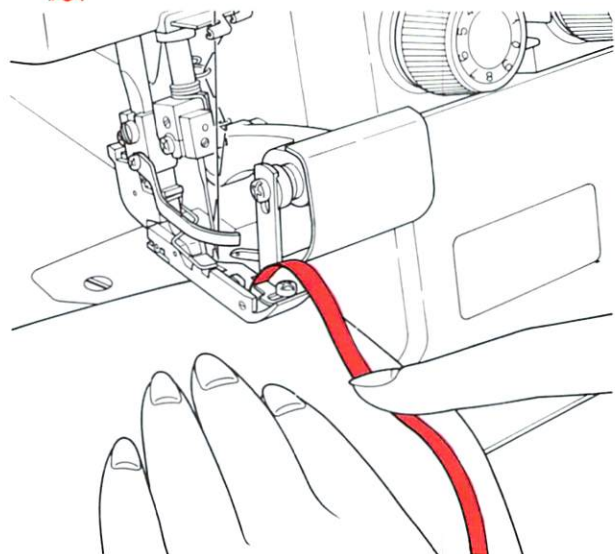
Sewing in tape

The normal presser foot is equipped with a tape guide. When sewing with 5 or 3 threads, a tape can be sewn in at the same time to strengthen shoulder or side seams in garments made from knits or stretch fabrics.

- Tighten the setscrew.
- Place the work in front of the presser foot.
- Sew, guiding the tape lightly.
- By pulling gently on the tape, the fabric can be eased in.



- Turn the handwheel towards you until needles are fully raised.
- Place the tape under the presser foot, lower the presser foot and sew a few stitches on the tape, making sure that the overlock needle (right-hand needle) catches the left edge of the tape.
- Raise the presser foot and pull the tape through the tape slot on the presser foot.
- Lower the presser foot.
- Loosen the setscrew and adjust the tape guide to the width of the tape.



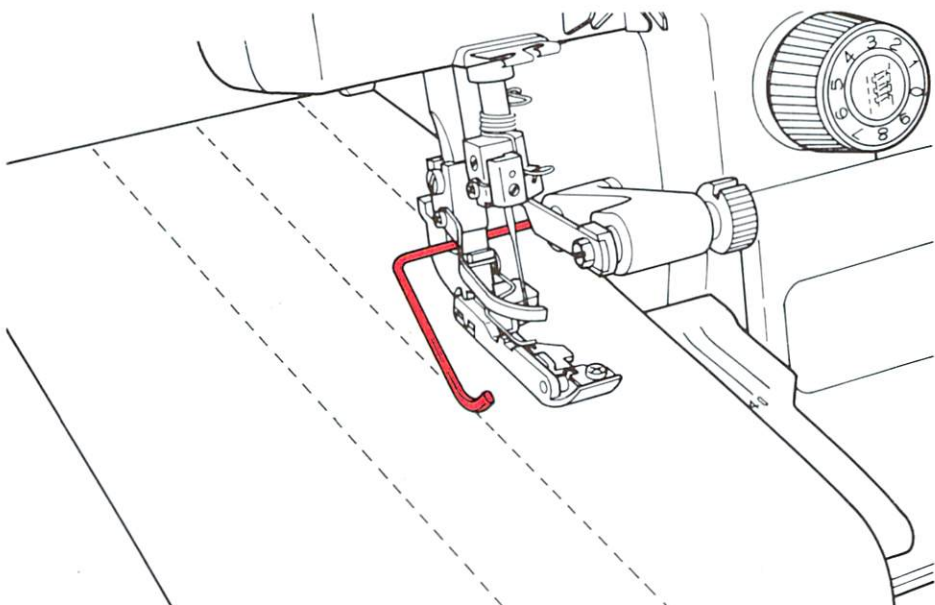
Seam guides

When neatening seam allowances with the 3 thread overlock stitch, guide the left edge of the presser foot along the seam line to produce an even seam allowance of exactly 1.5 cm (5/8").

If a wider seam allowance is required, insert the seam guide (supplied in the accessory bag) in the space provided on the presser foot shaft. The distance from the presser foot can be adjusted as required.

Other uses for the seam guide

The seam guide can also be used to sew parallel rows of double chain stitch for a decorative finish.

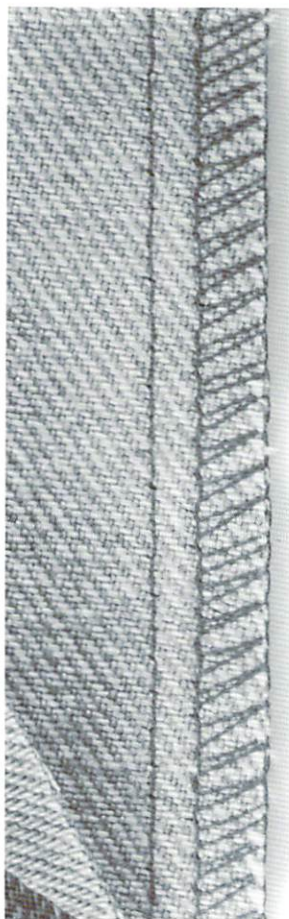


Application

5 thread overlock seam with double chain stitch

Hard wearing seam in closely-woven fabrics. Denim, corduroy, tweed, flannel, damask, towelling. Trousers, jackets, coats, dresses, bath robes, curtains.

- Thread: Overlock stitch (threads 1, 2 and 3)
Sewing or darning thread
Double chain stitch (threads 4 and 5)
Sewing thread
- Needle: 80/90
- Stitch length: 2–3
- Cutting width: 3
- Differential feed: N(1)
- Upper knife: cutting position
- Thread tension: 4–6

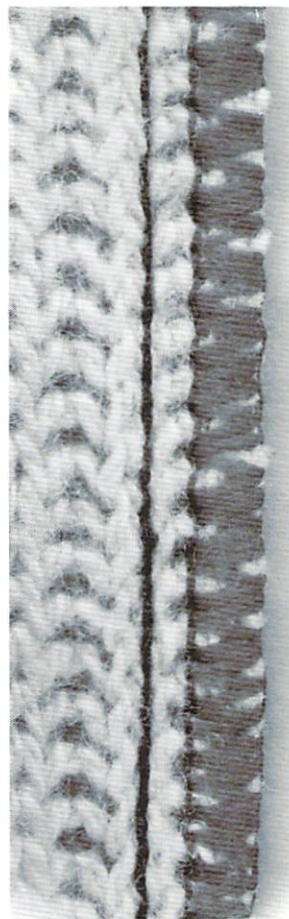


5 thread overlock seam with double chain stitch

Seam in thick or heavy knits. In hand or machine knitted items, in the direction of the knit. Pullovers, jackets, knitted dresses.

- Thread: Sewing thread/
woolly nylon thread (all 5 threads)
fine wool thread in upper looper (1) and lower looper (2)
- Needle: 80/90
- Stitch length: 3
- Cutting width: 2–3
- Differential feed: 1.5–2
- Upper knife: cutting position
- Thread tension: Upper looper thread tension (blue) 1–3
- Lower looper thread tension (red) 1–3
- Needle thread tension 4–6

Important: When sewing across the knit, sew in a tape.



5 thread overlock seam with double chain stitch

Seams in fine woven fabrics. Batiste, Crepe de chine, Mousseline, Poplin. Blouses, shirts, dresses, bed linen, pyjamas.

- Thread: Overlock stitch (threads 1, 2 and 3)
Sewing/darning thread
Double chain stitch (threads 4 and 5)
Sewing thread
- Needle: 70/80
- Stitch length: 2–3
- Cutting width: 1–2
- Differential feed: 0.7–N(1)
- Upper knife: cutting position
- Thread tension: 4–6



3 thread overlock stitch

Neatening cut edges on all fine woven fabrics. Seam allowances and hems on blouses, dresses, trousers, etc.

- Thread: Sewing or darning thread
- Needle: 70/80
- Stitch length: 2–3
- Cutting width: 1–2
- Differential feed: 0.7–N(1)
- Upper knife: cutting position
- Thread tension: 4–6

Important: Set needle thread tension slightly lower at about 4 for perfectly flat edges.

Neatening cut edges on loosely woven fabrics. Seam allowances on curtains, tablecloths, towels, etc.

- Cutting width: 3
- Differential feed: 1

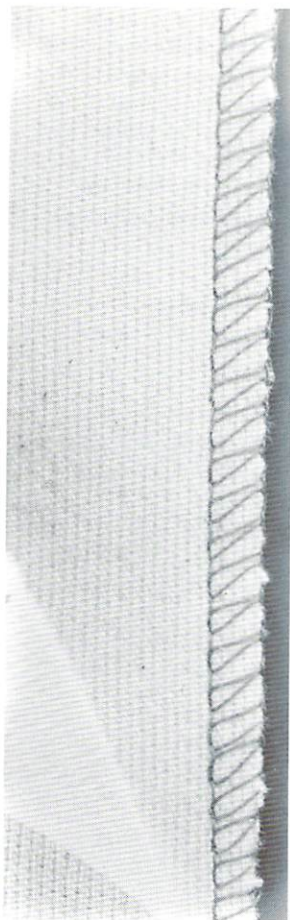


Application

3 thread overlock seam

Seam in fine knits.
Single jersey (cotton, silk, synthetic), interlock.
T-shirts, sportswear, lingerie, underwear, childrens pullovers, pyjamas.

- Thread: Sewing/woolly nylon thread
- Needle: 70/80
- Stitch length: 2–3
- Cutting width: about 2
- Differential feed: N(1)–1.5
- Upper knife: cutting position
- Thread tension: 4–6



3 thread flat seam

Decorative seam on both woven and knitted fabrics.
Sweatshirts, pullovers, tracksuits, patchwork, sewing lace on to lingerie or tablecloths.

- Thread: Sewing thread, woolly nylon thread
- Needle: 80
- Stitch length: 2–3
- Cutting width: 3
- Differential feed: N(1)–1.5
- Upper knife: either in cutting position or raised
- Thread tension: upper looper thread tension (blue) about 1
lower looper thread tension (red) 4–6
overlock needle thread tension (green) 0–1
After sewing, open out seam and press.

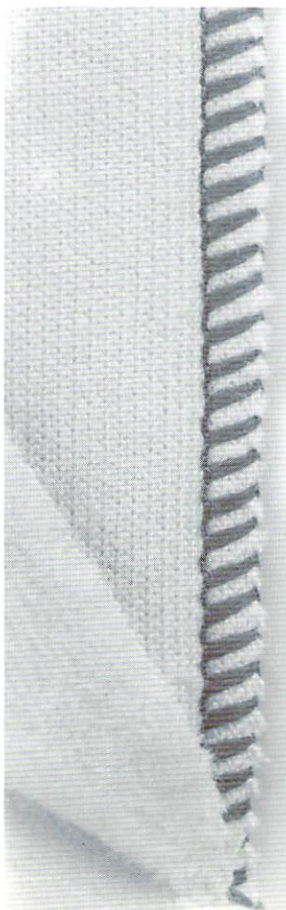
Important: When the knife is raised guide edge of the fabric along red marking on presser foot.



3 thread overlock seam

Seams in knits, sewing on bands/ribbing.
Double jersey, velour, sweatshirt fabric, knitted fabric.

- Thread: Sewing/woolly nylon thread
- Needle: 80
- Stitch length: 2–3
- Cutting width: 3
- Differential feed: 1.5–2
- Upper knife: cutting position
- Thread tension: 4–6



2 thread chain stitch seam

All straight stitching on woven fabrics.

- Thread: Sewing thread
- Needle: 80
- Stitch length: 2–3
- Differential feed: N(1)
- Upper knife: raised
- Thread tension: 4–6

Important: When sewing with the double chain stitch, release the upper looper, remove the knife guard and replace it with the seam guide plate.



Securing seams / Unpicking seams

Securing seams

Sewing in the thread chain at the beginning of seams: Sew a 3–4 cm (approx. 1 1/2") thread chain.

Sew 2–3 stitches on the fabric.
With the needle lowered, raise the presser foot. Stretch the thread chain and lay it from the left under the presser foot on the fabric. Lower the presser foot and sew over the thread chain.

If you do not want to sew over the thread chain, make sure you leave enough chain at the beginning and end of a seam so that it can be knotted or pulled through the first/last few stitches with a darning needle.

If seams cross over one another, the thread chain will be automatically secured.

Thread breakage during sewing

Sew off immediately at an angle and remove the work. Retread.

If the lower looper thread has broken, cut off the overlock (right-hand) needle thread at the needle. Remove the thread. First thread the looper and then the needle.

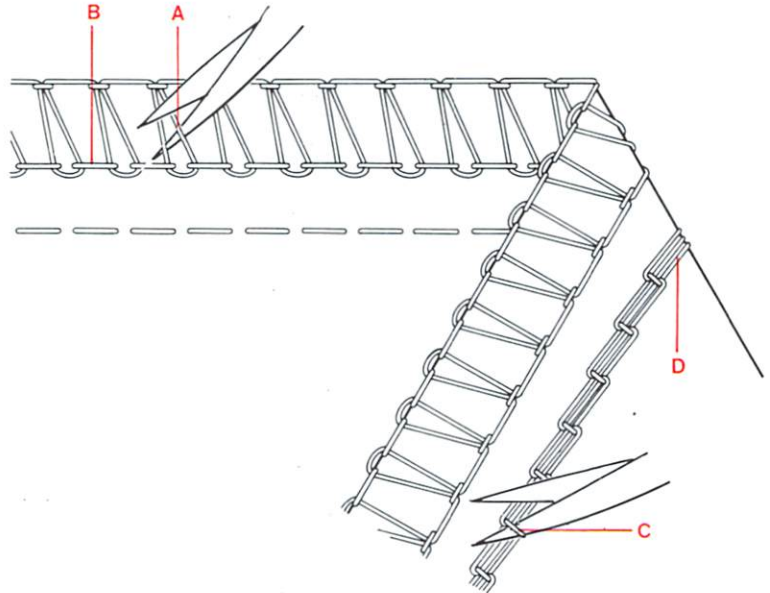
If the double chain looper thread is broken, cut off the double chain (left-hand) needle thread at the needle. Remove the thread. First thread the looper and then the needle.

Raise the presser foot and place the work under it. Sew about 2–3 cm (approx. 1 1/2") over the already sewn seam.

Unpicking seams

3 thread overlock. Using sharp scissors, cut the loops (A). Pull the needle thread and the stitches will come undone (B).

2 thread double chain stitch. Cut the needle thread at the end of the seam (C). Pull the looper thread and the stitches will come undone (D).



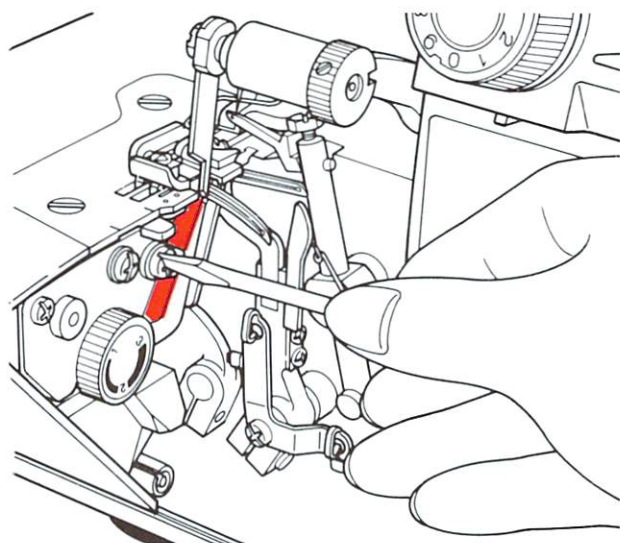
Changing the upper knife, Replacing the bulb, Cleaning and lubricating

Changing the upper knife

The upper knife is made from special material and does not need replacing. Should it get damaged, it can be replaced by your local Bernette dealer.

Changing the lower knife

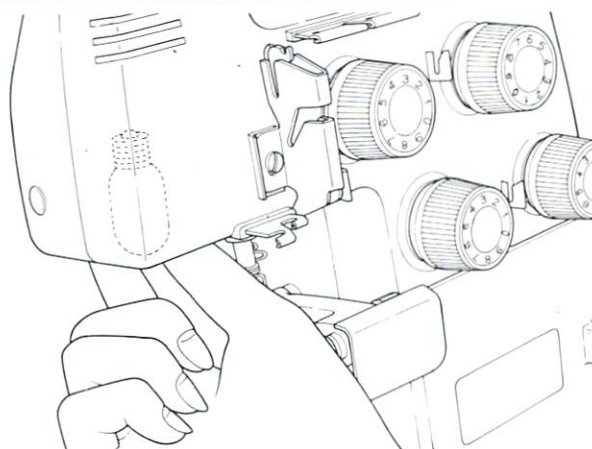
- Turn the power switch to OFF. Turn the handwheel towards you until the needles are fully raised. Raise the upper knife. Using the large screwdriver, loosen the setscrew on the lower knife retaining plate. Remove the lower knife. Fit the replacement knife (spare knife in accessory bag) in the groove so that the sharp edge is in line with the stitch plate. Finally, tighten the setscrew on the lower knife retaining plate.



Replacing the bulb

- Turn the power switch to OFF.

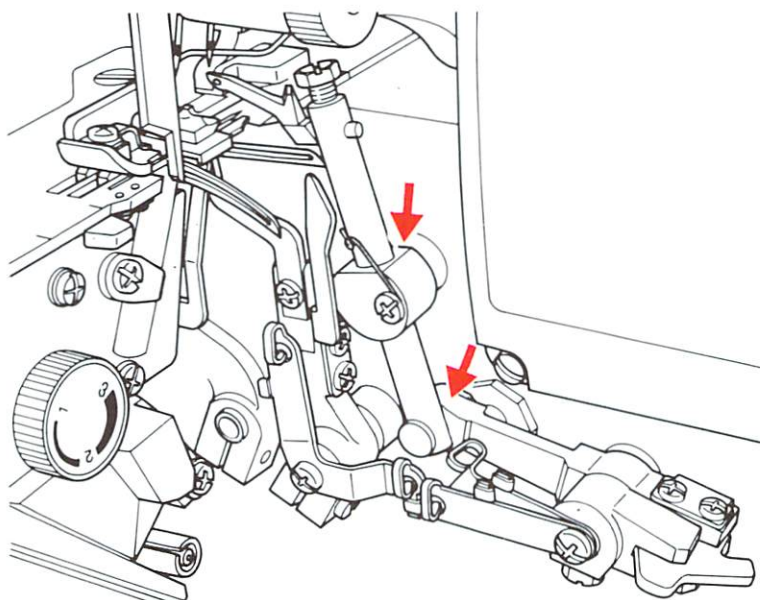
Unscrew the bulb and replace it with a new one. The bulbs are 15 watt and are available from your local dealer.



Cleaning and lubricating

During sewing, quite a lot of dust and fluff collects in and on the machine. This should be removed regularly.

Your Bernette overlocker requires very little lubrication as the main components are made of special materials. Now and then, lubricate only the points illustrated.



Trouble shooting guide

Problem	Cause	Solution
Fabric does not feed evenly	Presser foot pressure is too low.	Adjust the presser foot pressure.
	Lower knife is blunt or wrongly positioned.	Replace or adjust the knife.
Thread breaks	Thread tension is too high for thread being used.	Reduce thread tension.
	Needle not inserted correctly.	Insert the needle fully into needle holder with flat side to the back. Use system 130/705 H needles. Check size.
Needles break	Needles are bent, blunt or points are damaged.	Replace the needles.
	Needles not inserted correctly.	Insert the needles fully into needle holder with flat side to the back.
	Fabric was pulled while sewing.	Guide fabric gently with both hands.
Skipped stitches	Needles are bent or blunt.	Replace the needles.
	Wrong needles used.	Use system 130/705 H needles. Check size.
	Presser foot pressure too low.	Increase presser foot pressure.
Poor stitch formation	Thread is not wound correctly round tension dials.	Check if thread is lying between tension discs.
	Thread has got caught.	Check threading path of each thread.
Seams flute or wave especially when sewing knits	Differential feed is set incorrectly.	Adjust differential feed to N(1)–2.
	Presser foot pressure is too high.	Reduce presser foot pressure.
	Fabric was pulled while sewing.	Guide fabric gently.
Seams pucker	Thread tension is too high.	Reduce the thread tension.
	Differential feed is set incorrectly.	Adjust differential feed to 0.7–N(1).
Fabric edges curl	Too much fabric is within the stitch.	Reduce seam width.
	Thread tension is too tight.	Reduce thread tension.

Technical Data

Applications	Can be used to sew knits/ stretch fabrics or woven fabrics
Stitch choice	2 needles, 5 threads 3 thread overlock stitch with separate double chain stitch 1 needle, 3 threads 3 thread overlocking 1 needle, 2 threads double chain stitch
Stitch width	Max. 7.7 mm (5 thread overlock with safety stitch) 3-5 mm (3 thread overlock)
Stitch length	0.8–4 mm
Differential feed	Flat seams in knits N(1)–2 Pucker-free seams 0.7–N(1)
Presser foot	Snap-on foot sole
Presser foot lifter	2-step, max. height 7 mm
Handwheel	Rotation direction forwards, as on household sewing machine
Needle system	130/705 H for both needles
Sewing speed	Up to 1500 s.p.m.
Weight	8.4 kg / approx. 18 lbs.
Dimensions	295 W x 285 D x 290 H mm (11 3/4" W x 11 1/4" D x 11 1/2" H)

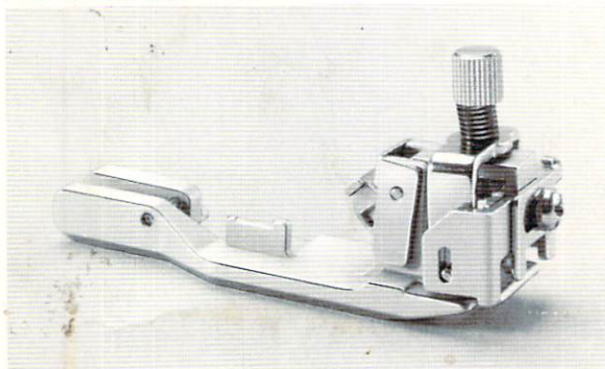
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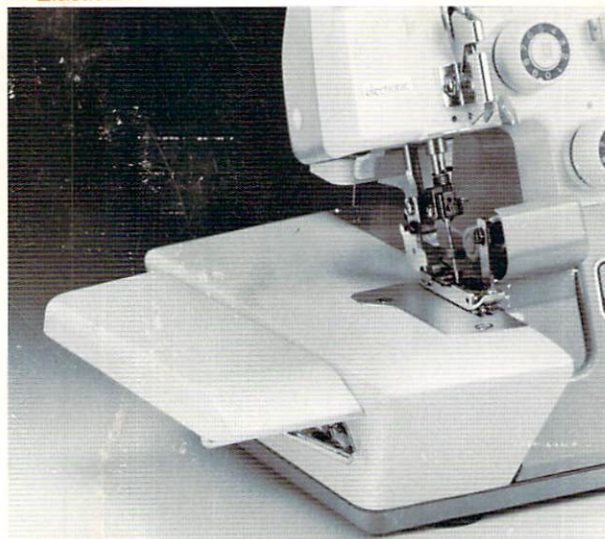
Special accessory:



▲ Blind stitch foot



▲ Elasticator



▲ Flap table