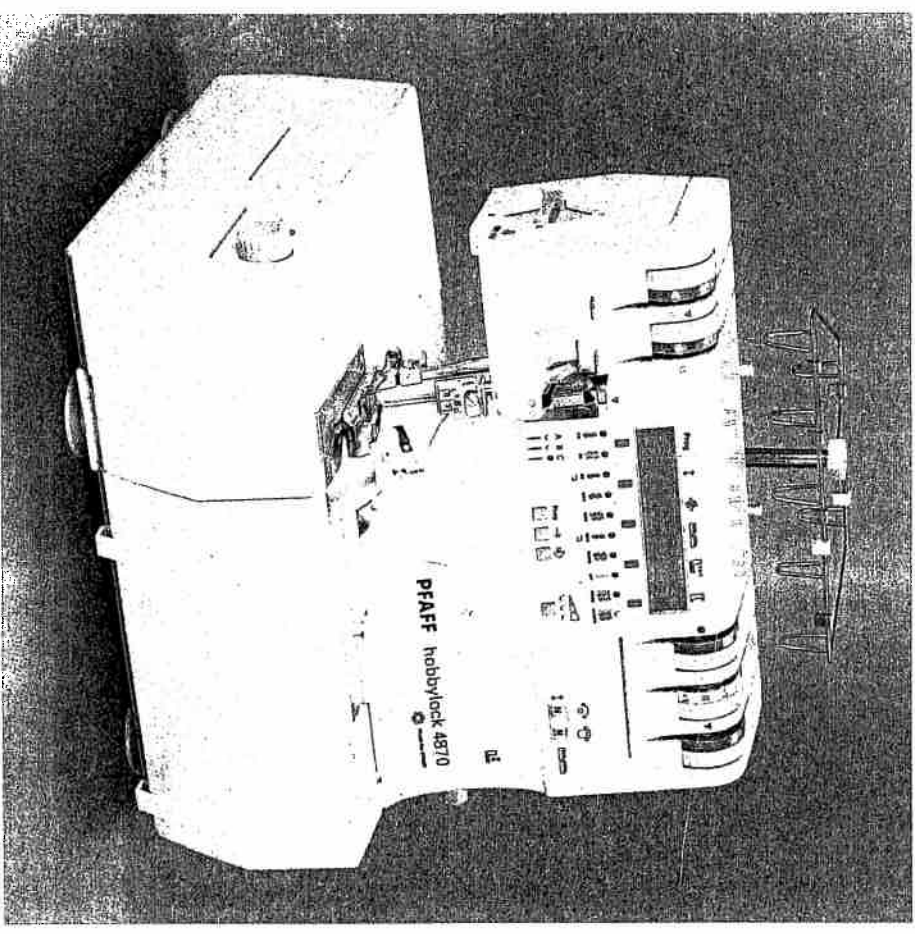


PFAFF

**hobbylock
4870**



Instruction manual

For easier understanding of this instruction manual
please fold this or the last page out when reading.

Safety rules

For the United Kingdom only

The leads must under no circumstances be connected to the safety-lead terminal I nor to a plug with three pins.

The wires in the mains lead are coloured according to the following code:

Blue: Neutral

Brown: Live

As the colours of the wires in the mains lead of this appliance may not correspond to the colour coding of the terminals in your plug, proceed as follows:

The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.

The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

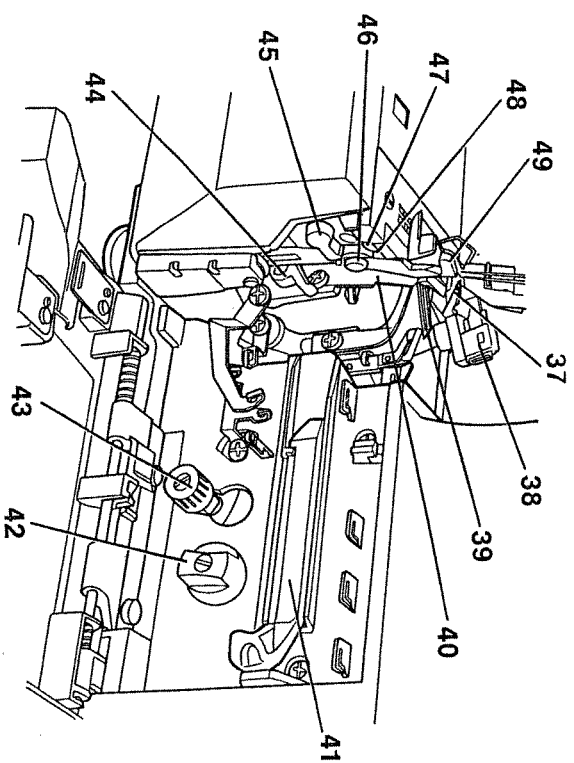
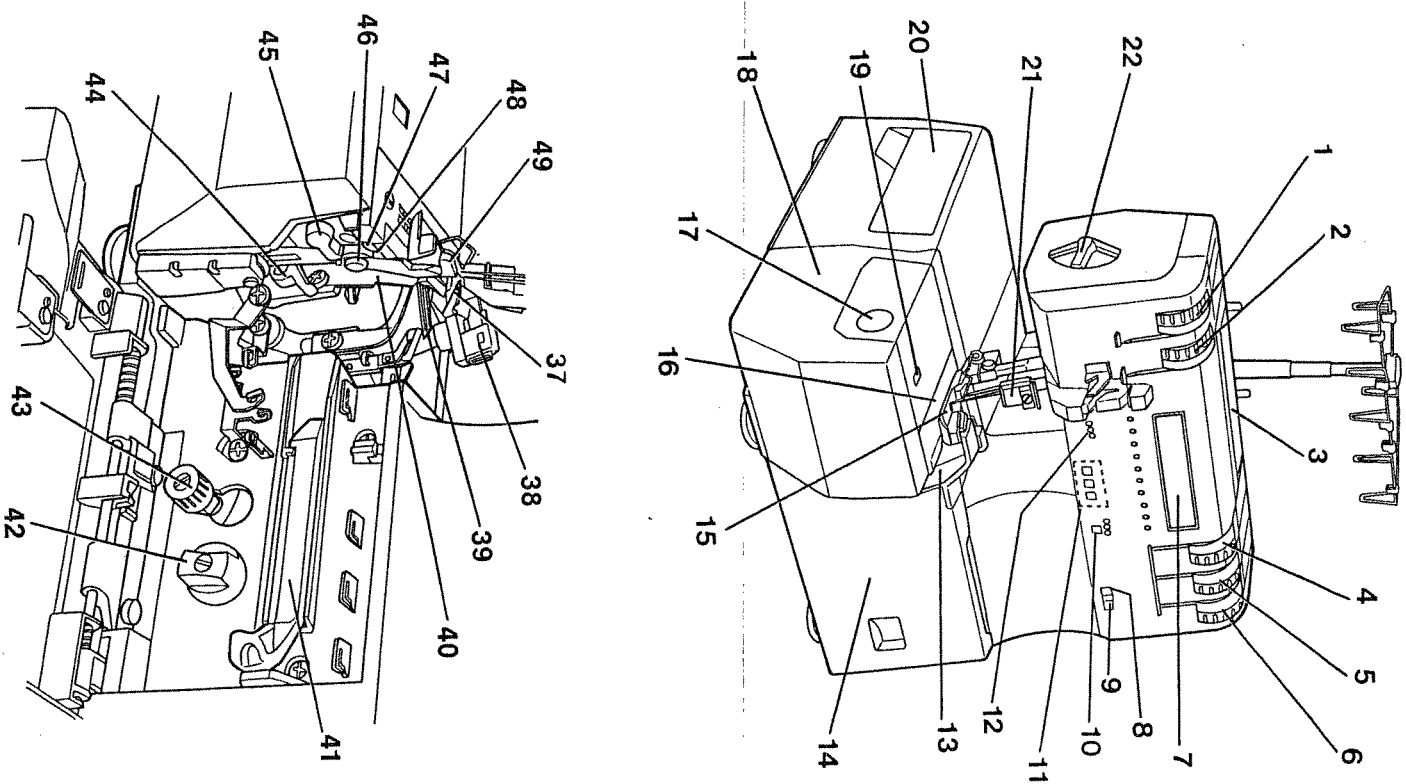
Under no circumstances should cut-off mains plugs be used. They should be disposed of immediately. Defective mains leads must be completely replaced.

Only 3 A spare fuses must be used as approved by ASTA according to BS 1362 and the fuse cover must be marked 3 A or with the corresponding colour code.

The plug must never be used without fuse covers. Spare fuse covers are available from electrical suppliers or the PFAFF agencies.

Please also observe the general safety notes on page 2.

You will find the contents on page 4 and 5



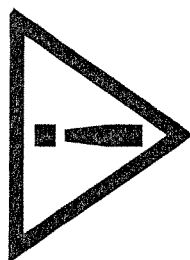
Parts of the hobbylock 4870

- (1) Upper thread tension – left
- (2) Upper thread tension – right
- (3) Handle to carry
- (4) Looper thread tension – right
- (5) Looper thread tension – left
- (6) Looper thread tension for chainstitch
- (7) Display
- (8) Window for the stitch length
- (9) Window for the differential feed
- (10) Key for speed selection
- (11) Program key – left
 - Cursor key – middle
 - Mod key (right)
- (12) LED needle display A,B,C
- (13) Knife guard
- (14) Looper cover
- (15) Sewing foot (combination foot)
- (16) Needle plate
- (17) Adjusting knob for seam width
- (18) Detachable work support
- (19) Window for the seam width
- (20) Accessories box
- (21) Needle holder
- (22) Lever for the sewing foot pressure
- (37) Right overedge looper
- (38) Converter
- (39) Left overedge looper
- (40) Chainstitch looper
- (41) Automatic looper threader for the left looper
- (42) Knob to disengage upper knife
- (43) Knob to disengage the right overedge looper
- (44) Positioning lever for the chainstitch looper
- (45) Lever to disengage needle plate
- (46) Screw to secure upper knife
- (47) Screw to secure lower knife
- (48) Lower knife
- (49) Upper knife

Important safety instructions

For the United States only

This sewing machine is designed and manufactured for HOUSEHOLD use only. When you use an electric appliance, the following basic safety precautions should always be adhered to: Read all instructions before using this sewing machine.



DANGER To reduce the risk of electric shock:

1. The sewing machine should never be left unattended when plugged in. Always unplug this appliance from the electric outlet immediately after using and before cleaning.
2. Always unplug before relamping. Replace bulb with same type rated 15 Watts.
3. Do not reach for a sewing machine that has fallen into water. Unplug immediately.
4. Do not place or store a sewing machine where it can fall or be pulled into a tub or sink. Do not place in or drop into water or other liquid.

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

1. Do not allow to be used as a toy. Great care is necessary when this sewing machine is used by or near children.
2. Only use this sewing machine for its intended purpose as described in this manual. Only use attachments recommended by the manufacturer as contained in this manual.
3. Never operate this sewing machine if it has a damaged cord or plug, if it is not working properly, if it has been dropped or damaged, or dropped into water. Return the appliance to the nearest authorized dealer or service center for examination, repair, electrical or mechanical adjustment.
4. Never operate the sewing machine with any air openings blocked. Keep ventilation openings of the sewing machine and foot control free from the accumulation of lint, dust, and loose cloth.
5. Never drop or insert anything into any opening.
6. Do not use out of doors.
7. Do not operate where aerosol (spray) products are being used or where oxygen is being administered.
8. To disconnect, turn all controls to off („O“) position, then remove plug from socket.
9. Never operate on a soft surface such as a bed or couch where the air openings may be blocked.
10. Do not unplug by pulling on cord. To unplug, hold the plug, not the cord.
11. Keep fingers away from all moving parts. Special care is required around the sewing machine needle.
12. Always use the proper needle plate. The wrong plate can cause the needle to break.
13. Do not use bent or blunt needles. Only use needles recommended by the manufacturer.
14. Do not pull or push fabric while stitching. It may deflect the needle, causing it to break.
15. Switch the sewing machine off („O“) when making any adjustments in the needle area, such as threading needle, changing needle, threading bobbin, or changing presser foot, etc.
16. Always unplug sewing machine from the electric outlet when removing covers, lubricating, or when making any other user servicing adjustments mentioned in the instruction manual.
17. Hold plug when rewinding into cord reel. Do not allow plug to whip when rewinding.

Please also observe the general safety notes on page 2.

KEEP THESE INSTRUCTIONS IN A SAFE PLACE

Notes on safety

Notes on safety for domestic sewing machines according to DIN 57 700, Section 28 or IEC 335, Section 28.

1. The user must exercise adequate caution with regard to the up and down movement of the needle and keep the sewing area under constant observation while working.
2. When leaving the machine, during maintenance work or when changing mechanical parts or accessories, always disconnect the machine from the mains by pulling out the mains plug.
3. The maximum permissible wattage for the sewing lamp is 5 Watts.
4. The tension of the drive belt should only be adjusted by a Pfaff mechanic.
5. The machine should be put into operation as indicated on the specification plate.
6. Do not place any objects in openings on the machine.
7. Do not use the sewing machine if:
 - there is visible damage,
 - its function is defective,
 - it is wet, e.g. with condensation.
8. Do not pull the mains plug out of the socket by its cord.
9. If this appliance is used for another purpose than that intended or if it is wrongly operated, we cannot accept any liability for any damage caused.
10. To avoid the risk of electric shock, do not open the machine. There are no parts inside the machine which the user can repair. This is the exclusive responsibility of our qualified service staff.
11. Be sure to use only original Pfaff parts.

Environment

The recommended environment is:
Ambient temperature 100° C to 40° C
Humidity 20% to 80%

This sewing machine is a high-quality electro-mechanical appliance; it is a machine for supervised use in the home. It should be operated in such a way that it is not exposed to: dust, severe dampness, direct sunlight, static electricity, heat-producing objects, corrosive chemicals or liquids.
To permit adequate ventilation the machine must be kept unblocked and used on a firm and even surface.

Treatment

Always make sure not to damage your machine by knocking or dropping it.

Cleaning

Housing and display:

To clean the housing, use a dry, clean and soft cloth which is free of fluff. To remove any stubborn dirt, use a soft cloth with alcohol or paraffin.

Please Note!

Never use insecticides or chemical products such as petrol (gas) or thin chemicals to clean the housing.

Simple, up-to-date sewing

Congratulations! You have bought a high-quality product that provides unique advantages. Your new **hobbylock 4870** can take any material in its stride and will **sew, trim** and **neaten** up for you in one operation.

Your PFAFF hobbylock features the very latest in design and technology, and it is just as easy to use as this instruction manual is to follow.

If you now take a bit of time to study the instruction manual nothing can go amiss.

It is certainly time well spent, since it is the only way to find out just what your machine can do and put it to full use.

If you have any further questions just ask your PFAFF dealer. He is happy to be of service with any help or advice.

So now let's get started! We wish you many enjoyable hours creating your very own fashion ideas.

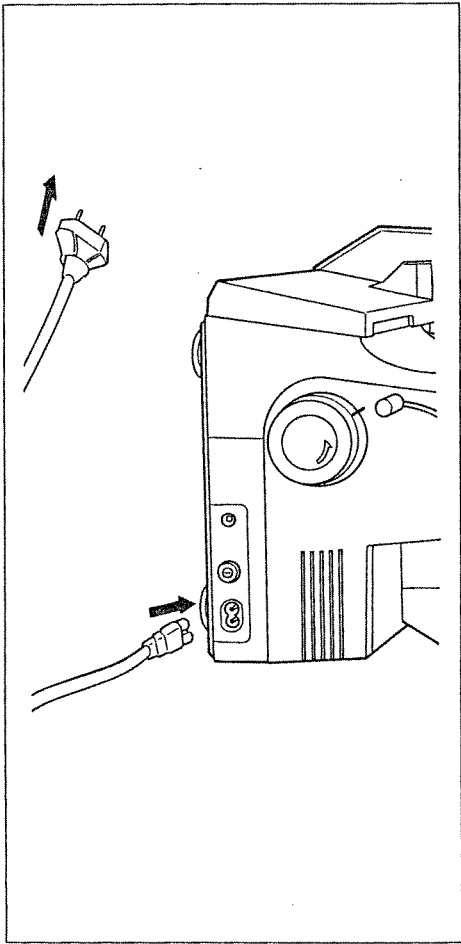
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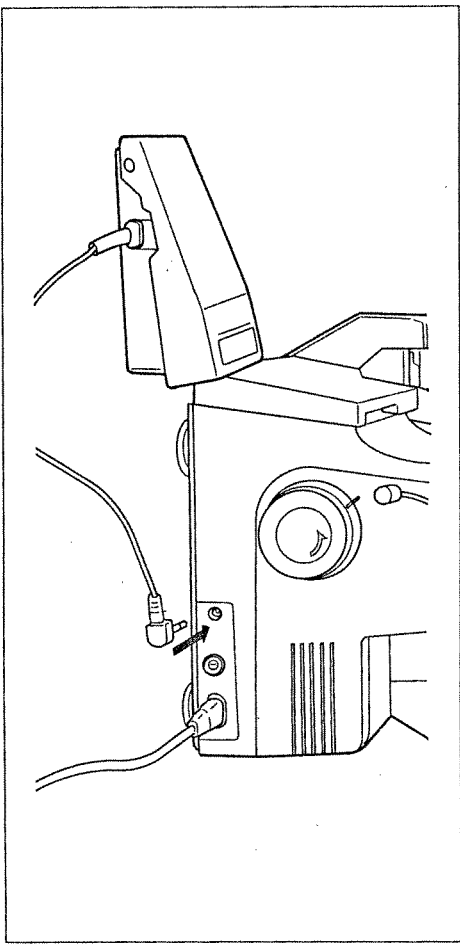
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Electrical connection

Connect the mains cord between socket (29) of the sewing machine and the wall socket.

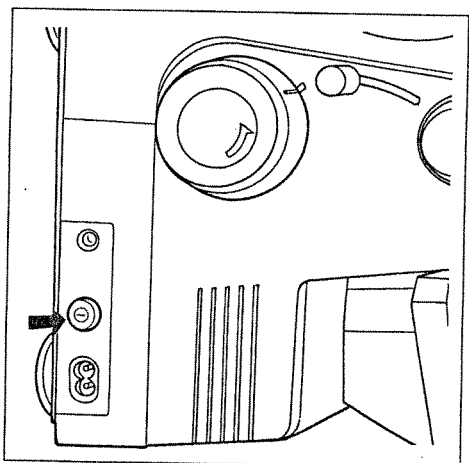


Connecting the foot control

Connect the plug of the foot control with the connection socket (31) of the sewing machine. The preset area of the sewing speed (see page 37) is regulated by pressing the pedal.

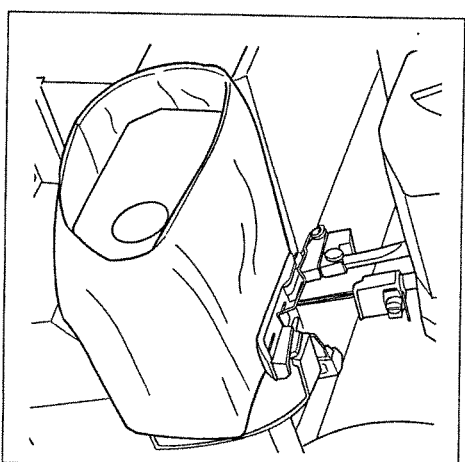
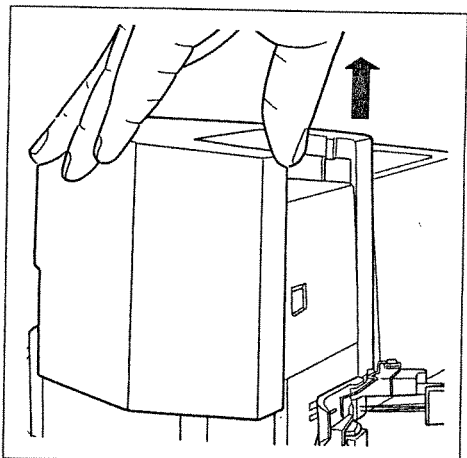
Caution:

Do not put anything under the pedal.



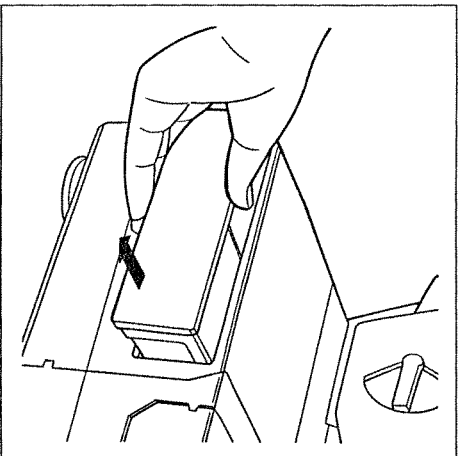
Main switch

When the main switch (30) is turned on the sewing light is turned up. The machine is now operational.



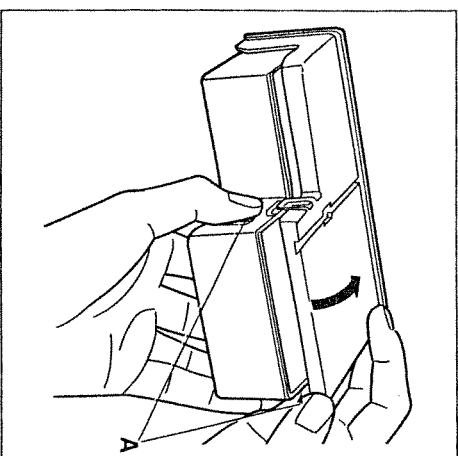
To remove detachable work support / free arm

The free arm is particularly suited to sew tubular goods without any difficulty. To do so pull the detachable work support (18) to the left. Insert the workpiece in the opposite direction.

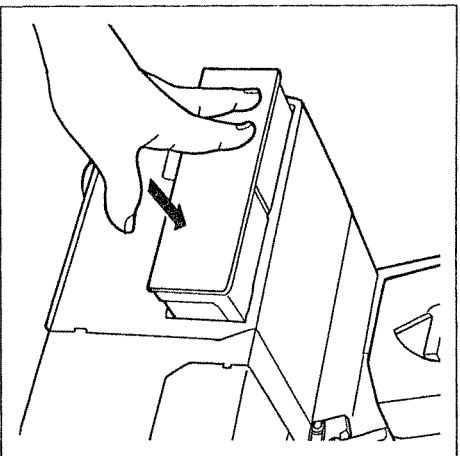


Accessory box

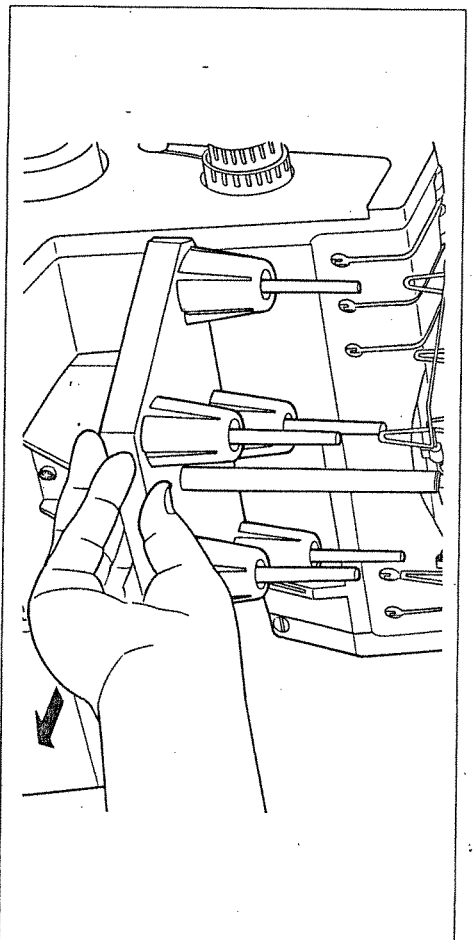
To remove:
Grip in the recess beneath the accessory box (20) and pull out in the direction of the arrow.



To open:
Open the accessory box (20) by pressing the two points "A".

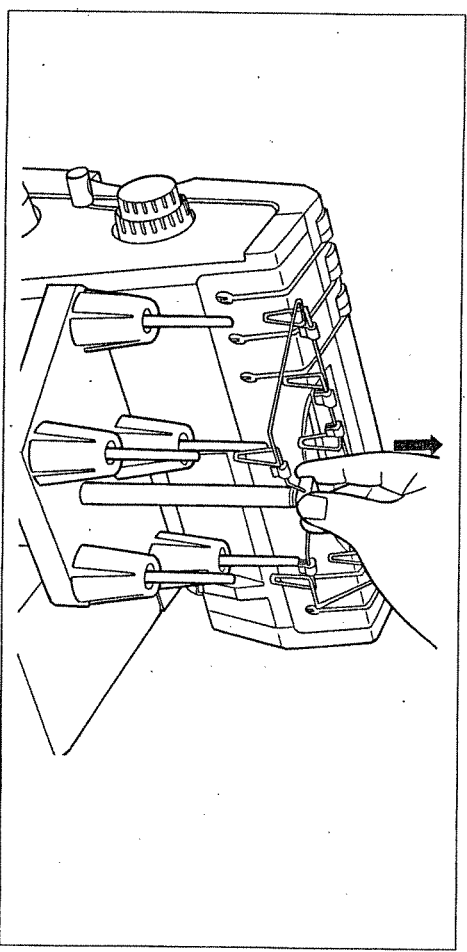


To insert:
Push the accessory box (20) into the appropriate opening until it catches. The words "PFAFF hobbylock" must be facing upwards.



Spool stands

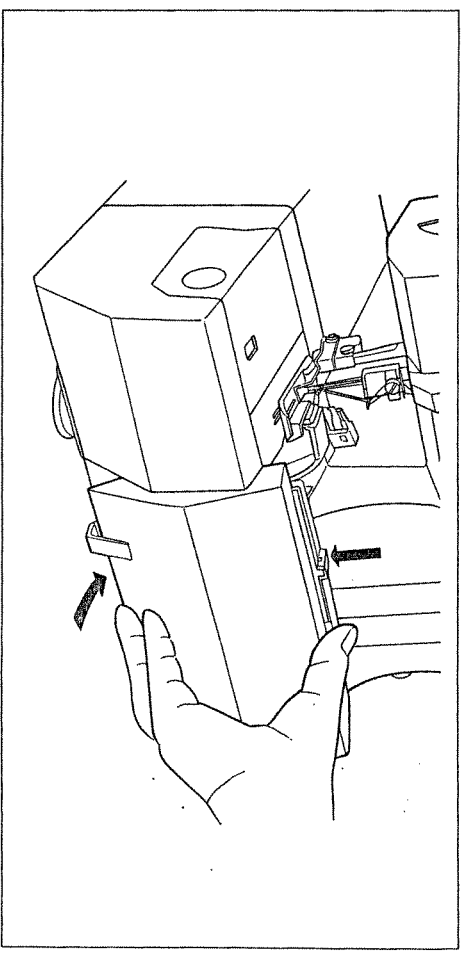
Before the spools are attached you must pull the spool stand (28) out fully in the direction of the arrow.



Extend the telescopic thread guide (24) fully.

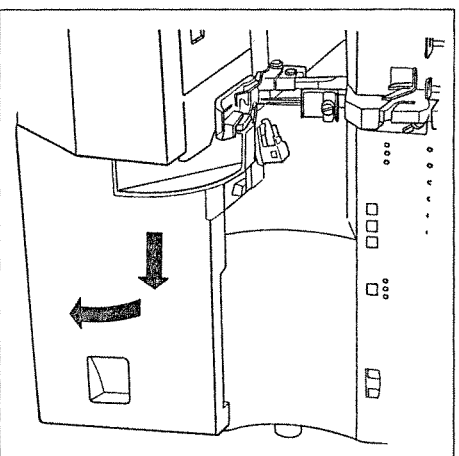
To assure optimal thread take-up the two upper telescopic extensions must be turned slowly until you hear the ball stops catch in place.

When you have finished sewing push in the telescopic thread guide (24) and push the spool stand (28) in towards the machine, with or without the spools, until it catches in place.



Waste box

Insert the tabs on the waste box (51) into the notches on the waste box cover (14) and press it down against the waste box cover until you can hear it catch in place. To take off reverse this process.



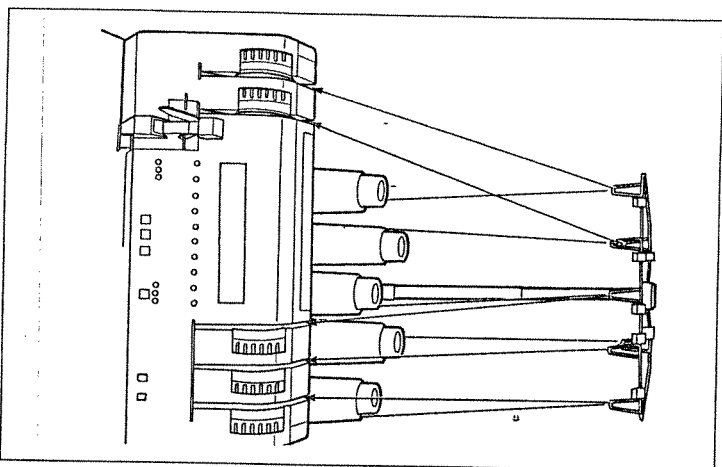
Looper cover

Push the looper cover (14) to the right until it catches in place and then swivel it down. The individual threading paths as well as the converter setting are illustrated in colour on the inside of the looper cover.

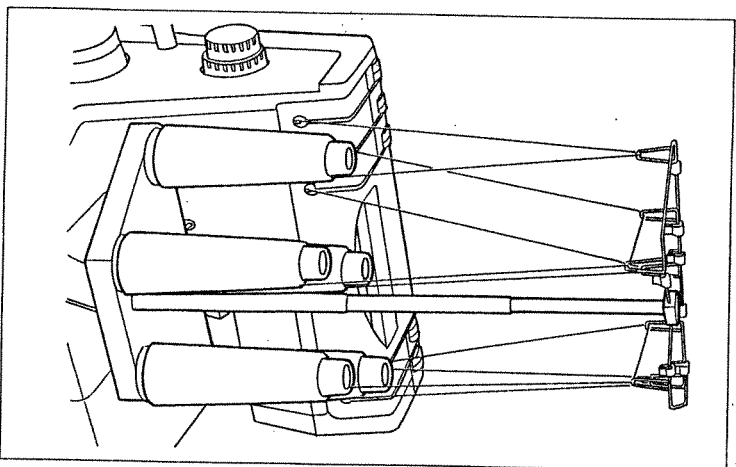
Note: The power supply is interrupted when the looper cover is opened i.e. it is now not possible to sew with the machine. „Close looper cover“ appears in the display. The LEDs also flash the preset speed.

Threading thread guides

Place thread spools on the spool pins (25). For smaller spools we recommend you attach a thread unwinding disc to the spool with the rounded end to the bottom (see the accessories page 66). Thread the thread guides (23) according to colour.



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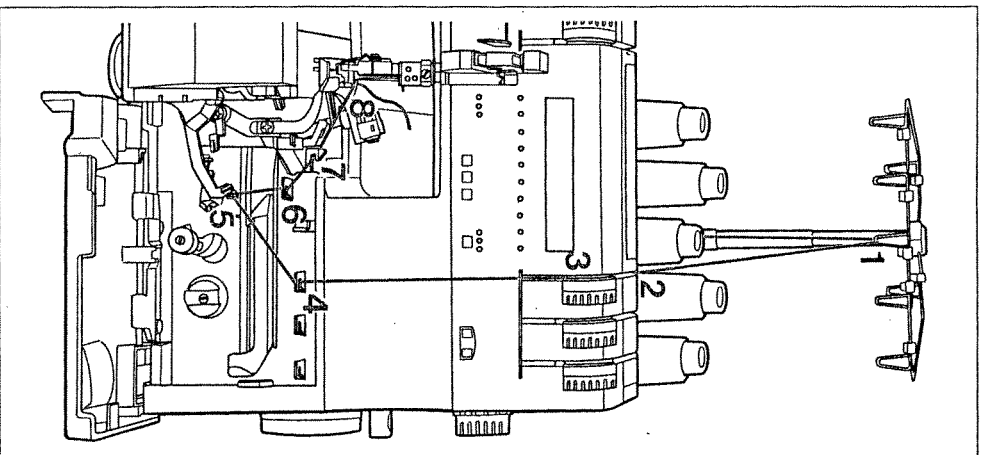


With both hands pull the thread through the thread guide (36) and the appropriate thread tension (1, 2, 4, 5 and 6). Make sure the thread stays in the slot on the back thread guide (36). Set the thread tension to „N“ and thread as indicated.

1. Right overedge looper (pink)
2. Left overedge looper (yellow)
3. Chainstitch looper (mauve)
4. Right needle (green)
5. Left needle (blue)

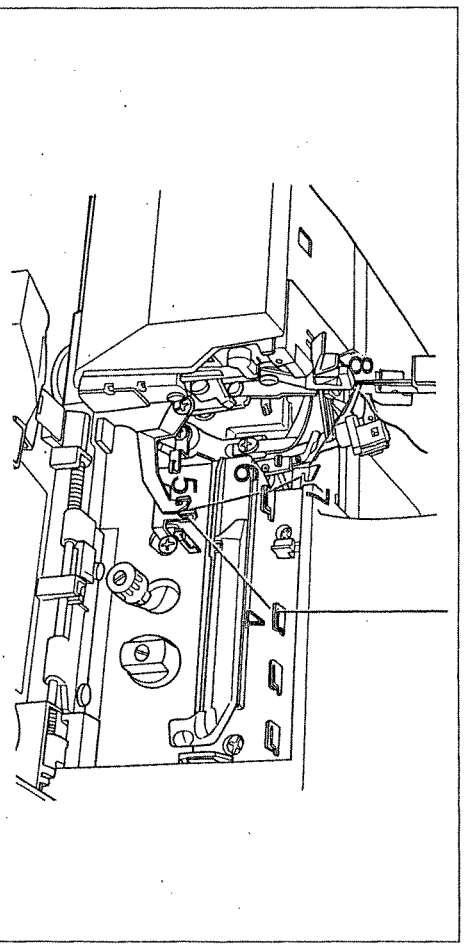
Note: To achieve top sewing results make sure that the thread is pulled between the tension discs when threading.

ed in
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or Upper **Threading the right overedge looper**

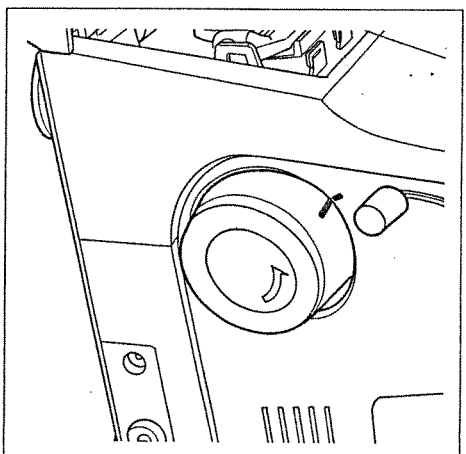
The slider on the converter must be in the right hand position **B** (see page 50). Thread the right overedge looper (37) in the order 1 to 8 and draw the thread to the left under the sewing foot. The thread path is marked in pink.



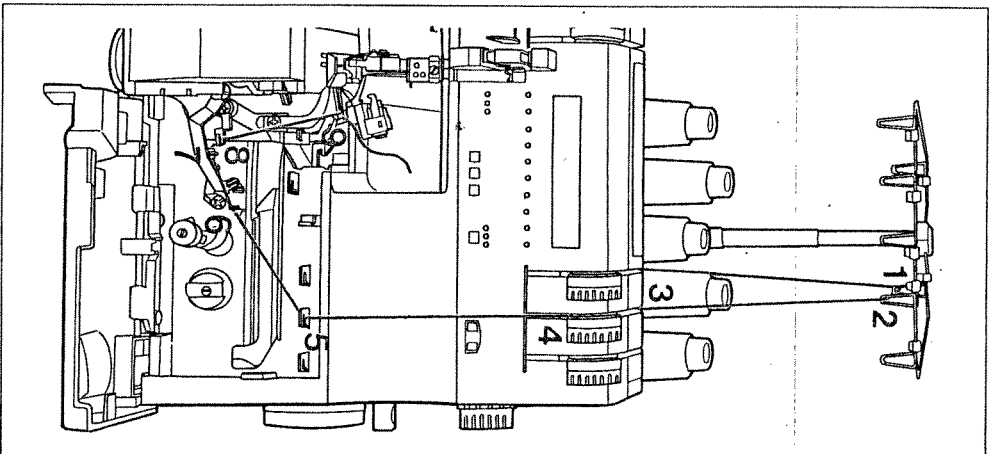
Hand

Threading the left overedge looper

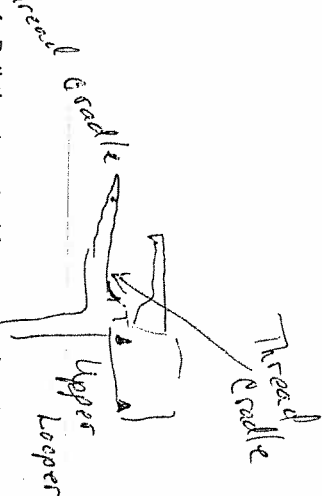
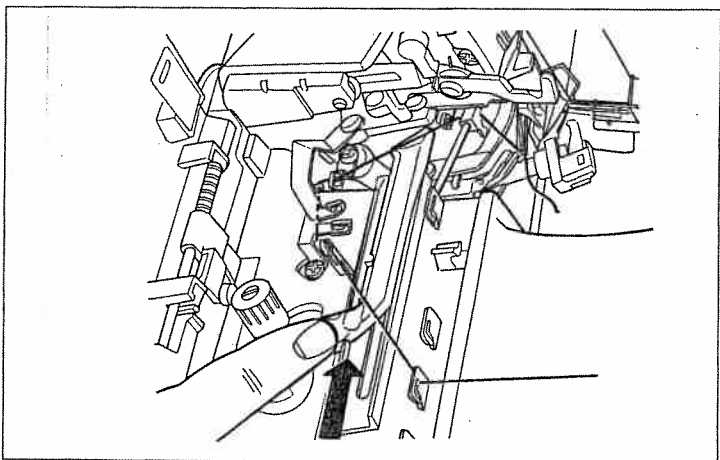
1. The marking on the hand wheel must be in line with the marking on the housing.



2. Thread the left overedge looper (39) in the order 1 to 8. Pull the thread from thread guide 8 through the loop eye 9 and pull it a bit with your left hand.



3. Pull the end of the thread slightly and push the slider on the looper threader (41) to the left until it rests in place.

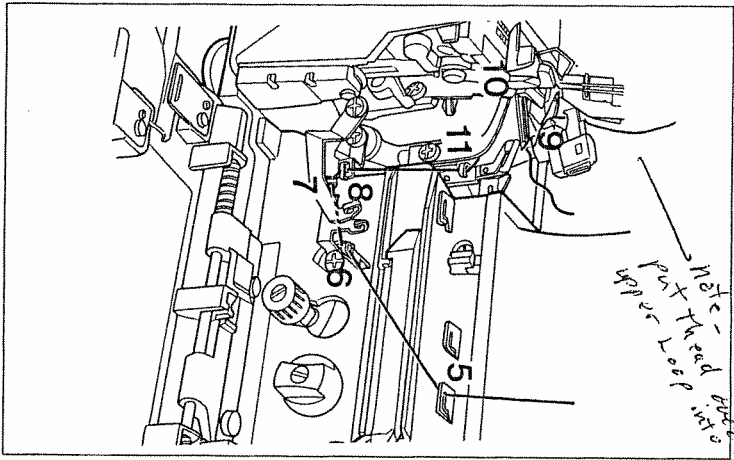


4. Pull the thread a bit more and at the same time let the slider slowly slide back. The thread is automatically inserted in guide 10.

5. With the tweezers thread the thread through thread guide (11) and draw the thread to the left under the sewing foot. The threading path is marked in yellow.

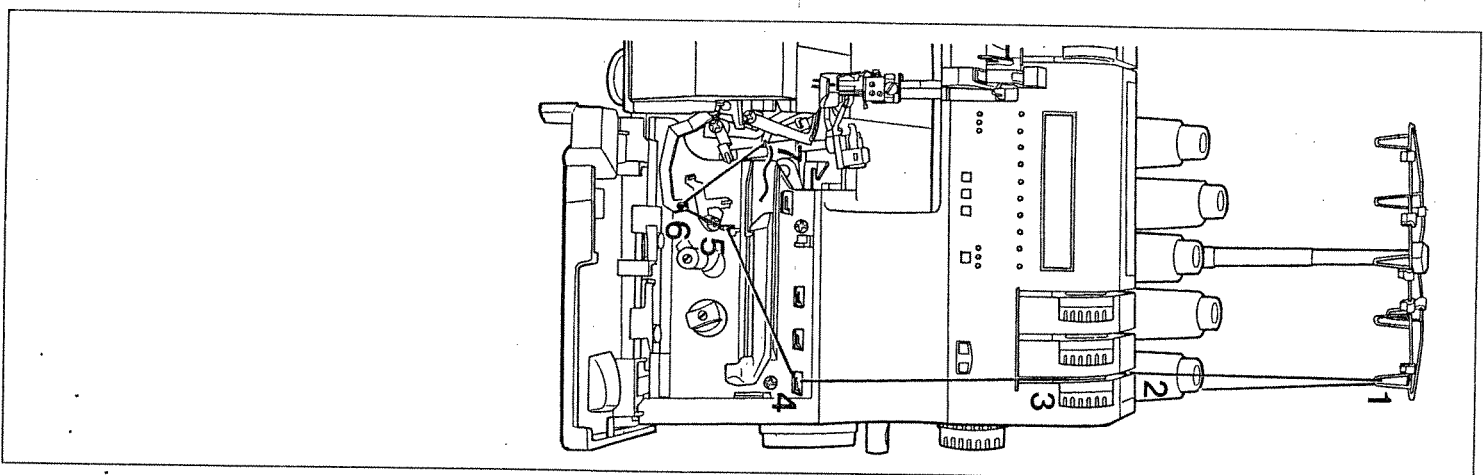
Note:

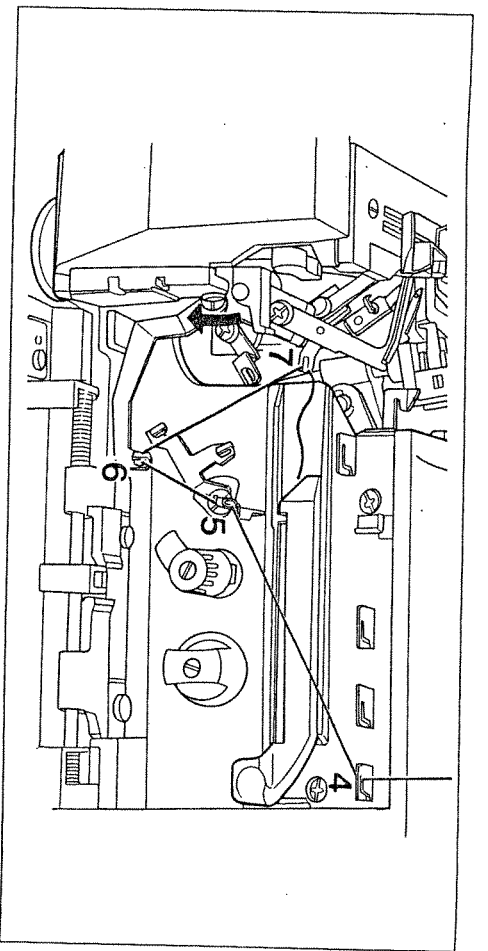
If the slider on the threader (41) cannot be moved, the marking on the hand wheel is not correctly set.



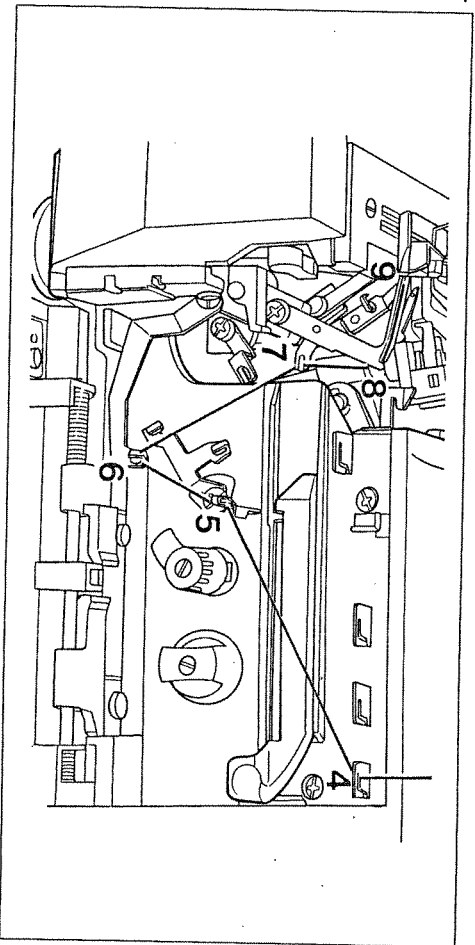
Threading the chainstitch looper

Thread the chainstitch looper (40) in the order 1 to 7. Turn the hand wheel (32) anticlockwise so that the chainstitch looper is in the **farthest** position to the **right**.





Push the positioning lever (44) of the chainstitch looper down. This moves the looper to the **next position to the right** and you can thread it easily.

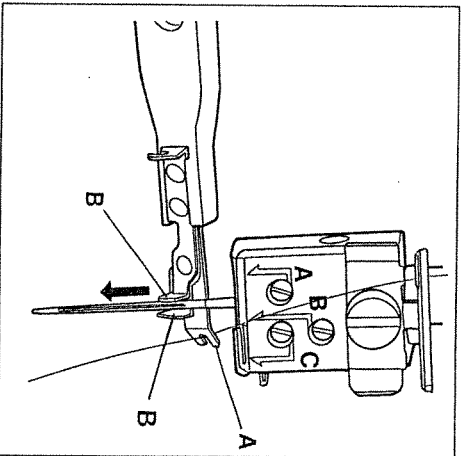


Draw the thread through thread guide 7 to thread guide 8. Now pull the thread through the looper eye 9 and place it to the left under the sewing foot. Return the positioning lever (44) of the chainstitch looper to its original position. The threading path is marked in mauve.

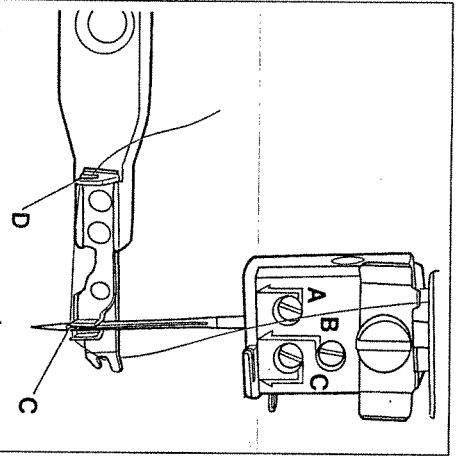
Note: If you forget to return the positioning lever (44) to its original position, the 4870 does not sew chainstitch.

Needle threader (accessory)

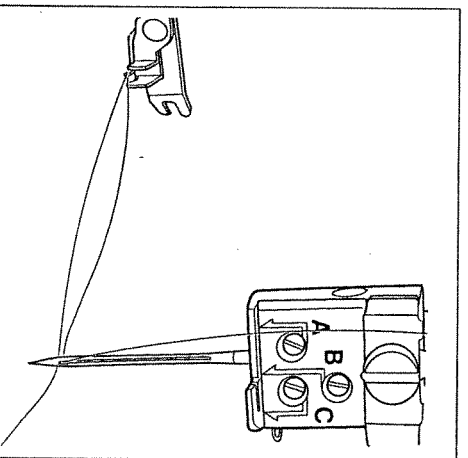
Lower the sewing foot with the sewing foot lever (33) and turn the hand wheel (32) until the needle is in its highest position. Place the threader from the accessories (see page 66) with the needle between the two guide lugs B. Draw the thread through slot A on the threader and hold it a bit taut.



Slowly lower the threader behind the needle until the small hook C passes through the needle's eye. Draw the thread from the bottom through hook D and the thread automatically passes behind hook C.

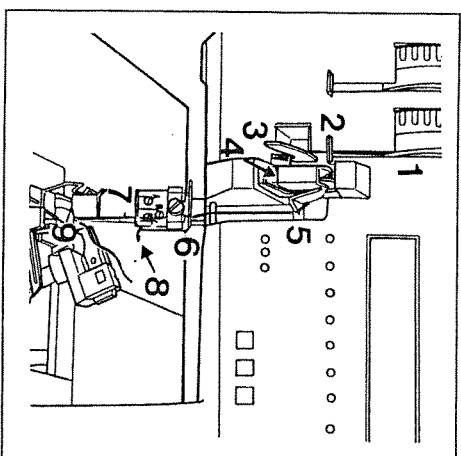


Draw the threader back away from the needle's eye. You can now pull the end of the thread through the eye to thread the needle.



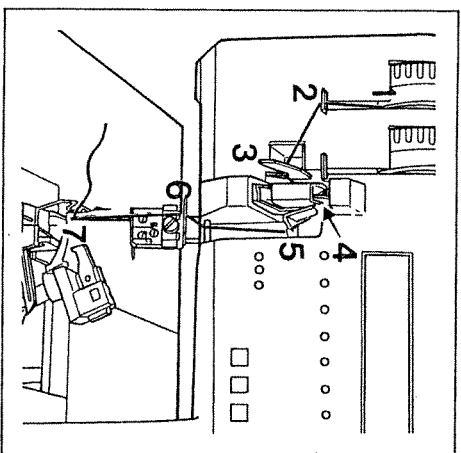
Threading the needles

Note: When threading the needles make sure that the sewing foot lever (33) is in its highest position. This automatically releases the needle thread tensions and makes it easier to thread the needles.



Threading the overedge needles B or C (with or without needle A)

Thread the overedge needle in the order 1 to 8 and draw the thread through the needle's eye 9 with the threader. Draw the thread to the left under the sewing foot. The threading path is marked in green (dots).

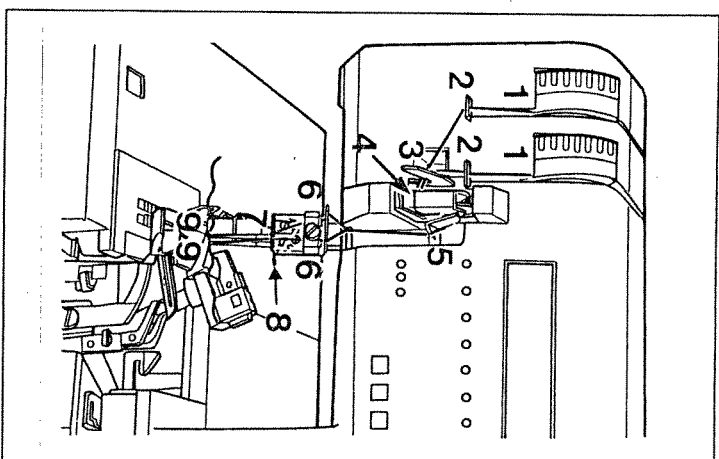


Threading the chainstitch needle A

Thread the chainstitch needle in the order 1 to 6 and draw the thread through the needle's eye 7 with the threader. Draw the thread to the left over the sewing foot. The threading path is marked in blue (triangles).

**Threading overedge needles B and C
(without needle A)**

Thread the overedge needles **B** and **C** in the order **1** to **8** and draw the thread through the needle's eye **9** with the threader. Draw the thread to the left under the sewing foot. The threading path for needle **B** is marked in **blue** (dots) for needle **C** in **green** (dots).



Caution:

You can only sew with one or two needles (depending on the type of stitch).

Never use three needles.

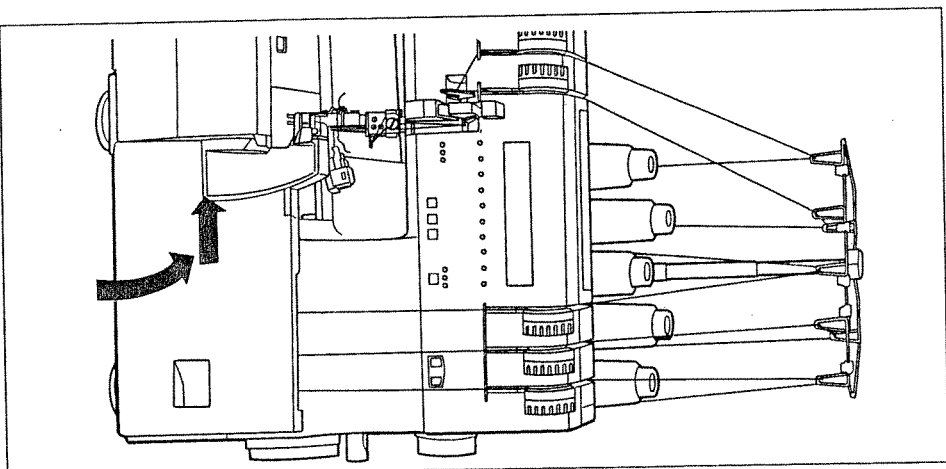
Changing a spool when the machine is threaded

Cut the threads off close to the thread spool and put on the new spools. Tie the ends of the old thread and the new thread together. Pull the needle threads out of the needles. Lower the sewing feet. Now pull the threads through until the knots are about six inches through the thread guide before the needles. Cut the knots off and thread the appropriate needles. You can also draw the looper threads straight through the looper eye and to the left under the sewing foot. It is a lot easier to pull the looper threads if you turn to looper tensions (4,5 and 6) to -5.

Closing the looper cover

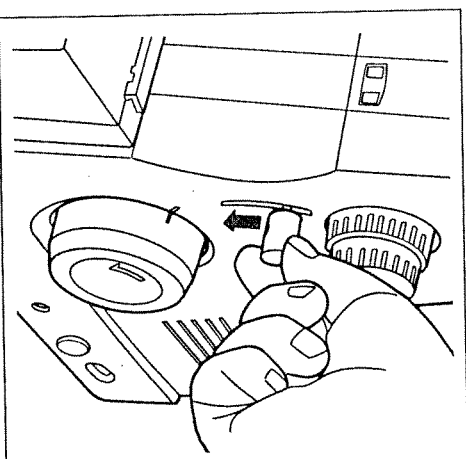
When the machine has been threaded you must close the looper cover (14).

Note: The power to the machine is cut off if the looper cover is open i.e. it is now impossible to sew. „Close looper cover“ appears in the display. The LEDs on the speed selection also flash.



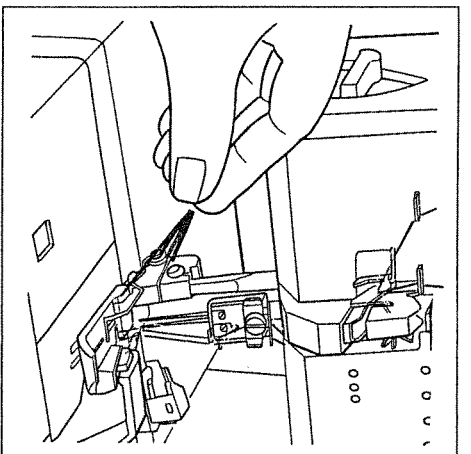
Sewing foot lever

The sewing foot is raised and lowered with the sewing foot lever (33).

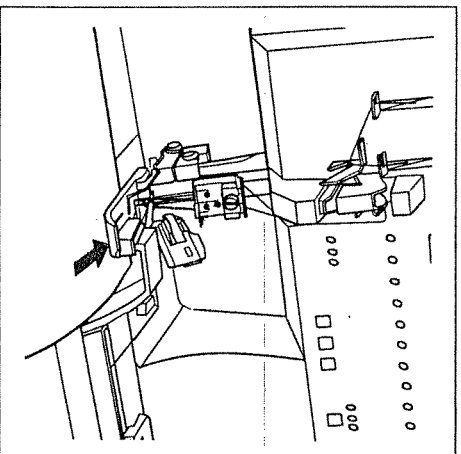


Sewing test

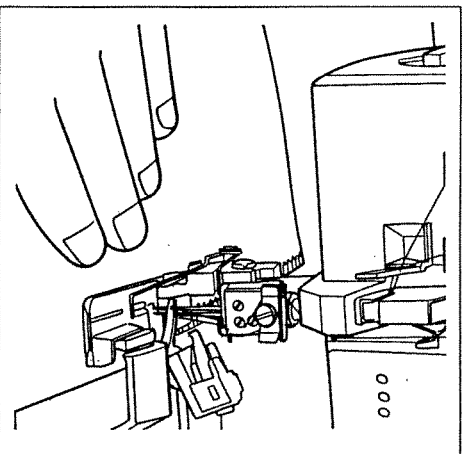
When the machine has been threaded, you should sew a test seam. First raise the sewing foot.

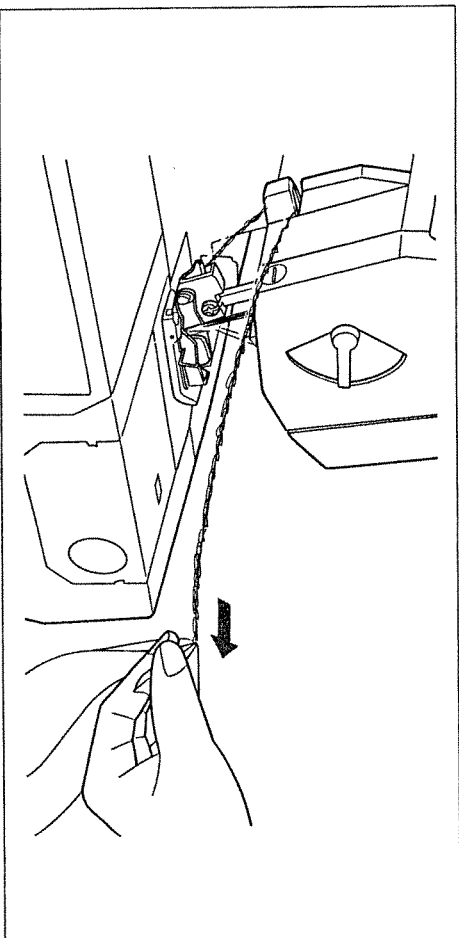


Place a fabric remnant under the sewing foot right in front of the needle and lower the foot. With the threads held slightly taut, slowly begin to sew. Since the fabric is automatically fed, you just need to guide the material with your hands (do not push or pull).



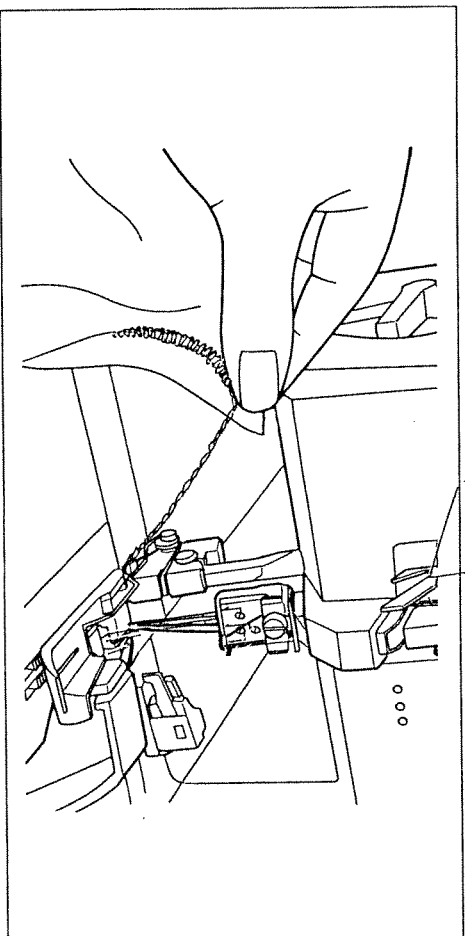
Note: Make sure that the threads inter-loop correctly when sewing (thread chain).





Thread cutter

To use the thread cutter (26) you must sew over the end of the seam. Draw the thread chain that results to the front over the thread cutter.



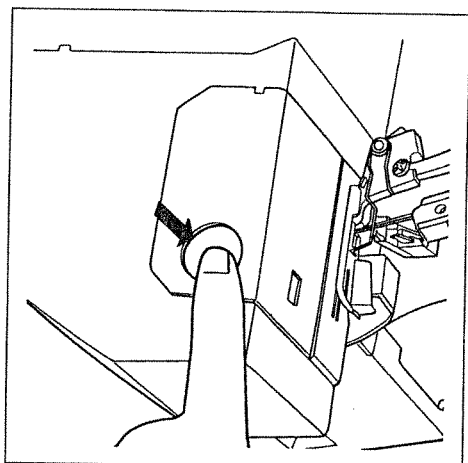
Securing the seam

There are various ways of securing the ends of seams:

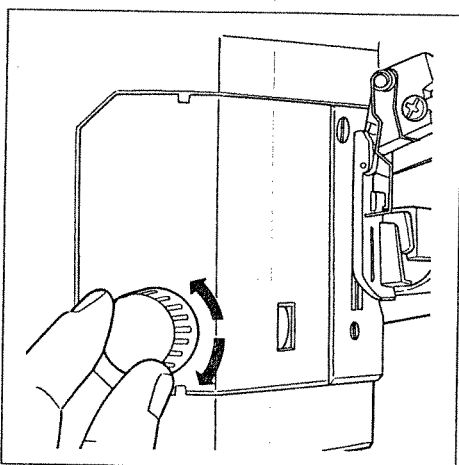
1. Knot the thread chain.
2. With knitwear you can pull the thread chain into the seam with a crochet needle.
3. Sew about 2 inches over the end of the seam. Turn the sewing round and sew back a few stitches in the opposite direction without cutting the thread chain.

Setting the seam width

The seam width adjusting knob (17) is released if it is pressed the right. You can now set the seam width you require as indicated in the window (19). The range is from 3 to 5 mm and is infinitely variable. The standard setting N is 3.5 mm.

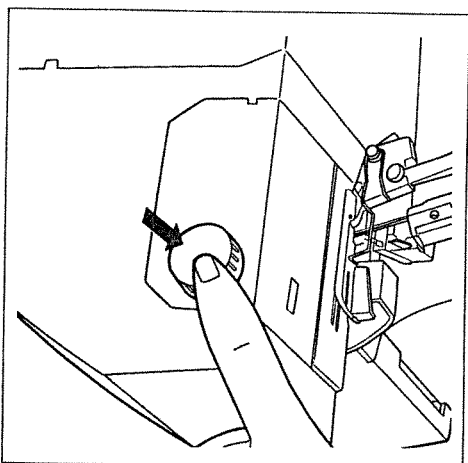


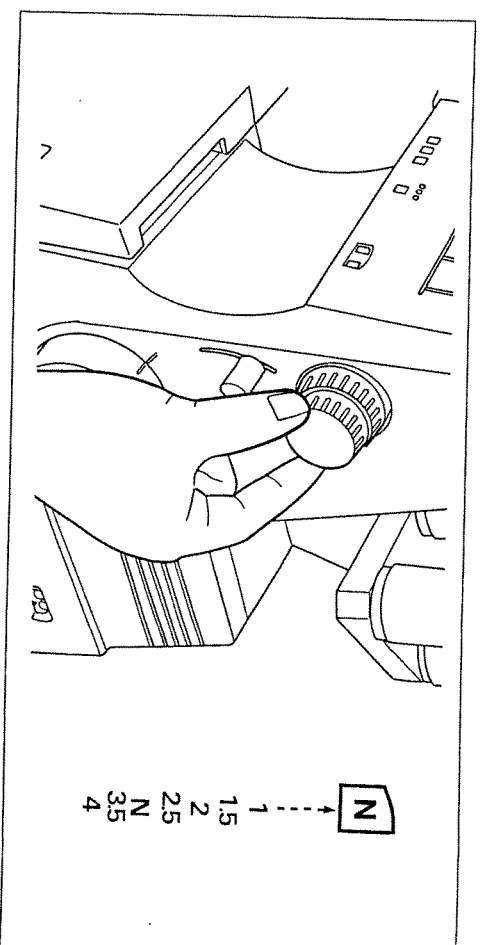
Note: The seam width settings 3 to 5 are just for needle C. If needle B is used the amount that is set is increased by 2.2 mm to 5.2 to 7.2 mm. For needle A the amount set is increased by 4 mm to 7 to 9 mm seam width.



When you have set the seam width you require, press the knob to the right until it catches in place, as indicated by the arrow. This prevents the seam width being inadvertently changed while sewing.

Note: The upper knife must be locked when sewing very thick fabrics or fabrics with different thicknesses (see page 34).



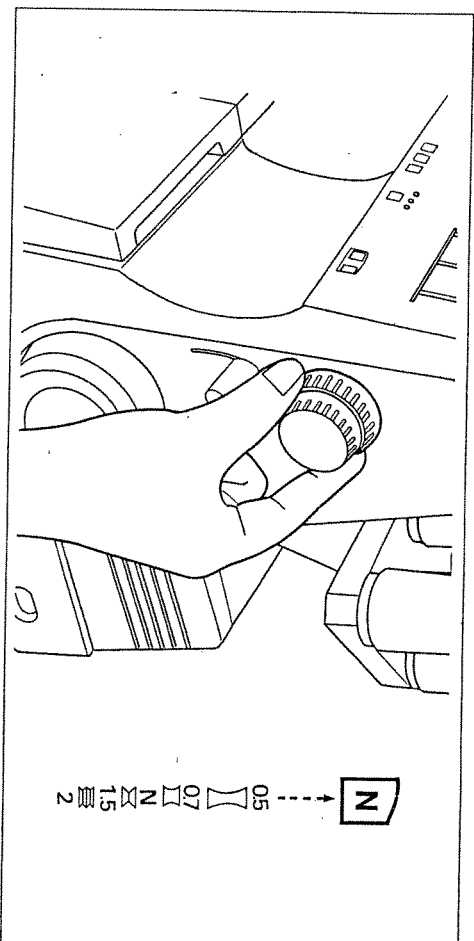


Setting the stitch length

You can set the required stitch length by turning the stitch length adjusting knob (34). The setting is displayed in the window (8). The range is from 1 to 4 mm and is infinitely variable. The standard setting N is 3 mm.

Differential feed

The differential feed consists of two feed dogs, one behind the other, that assure that the fabric is fed completely evenly. It prevents the displacement of the two fabric layers. The two feed dogs can be set separately i.e. so that the front dog feeds more than the rear dog or vice versa. This is particularly important when sewing rib knit. The differential feed is set differently depending on the type of fabric. You can see the settings on page 28.



Setting the differential feed

You can set the differential feed by turning the adjusting ring (35). The range from 0.5 to 2 is infinitely variable and is indicated in the window (9). The following settings can be set with the knob:

Position 0.5 = front feed dog shorter movement, rear feed dog longer movement

Position N = same movement of feed dogs

Position 1.5 – 2 = front feed dog longer movement, rear feed dog shorter movement

Note: You can also achieve fashionable effects with the differential feed dog:

1. A gathering effect can be achieved when sewing light fabrics with setting 2.
2. A wavelike effect can be achieved for use with rib knit with the setting 0.5.

This table shows possible settings for the differential feed. Sew a test seam to determine the correct setting for your fabric. The differential feed can also be set while sewing.

Differential-Feed setting	Fig.	Correct seam	Fabric
0,5 – N	1	a	nylon, tricot, lining fabrics, satin, poplin and silk
N	2	c	light cotton and denim, (normal fabrics)
1,5	3	d	jersey, medium cotton, cut-pile fabrics and light knits
1,5 – 2	4	f	heavy knitwear, very elastic fabrics and rib-knit

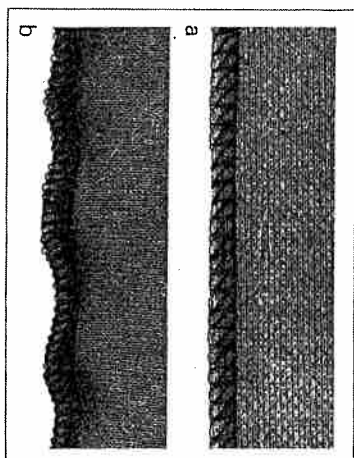


Fig. 1

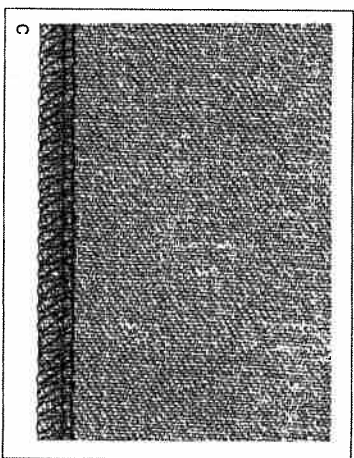


Fig. 2

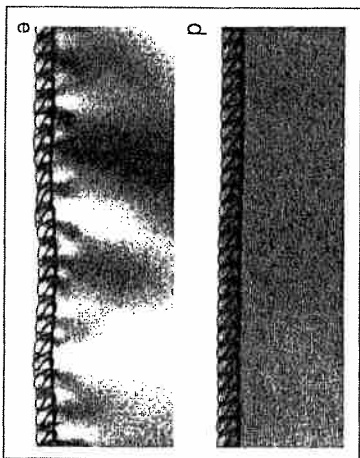


Fig. 3

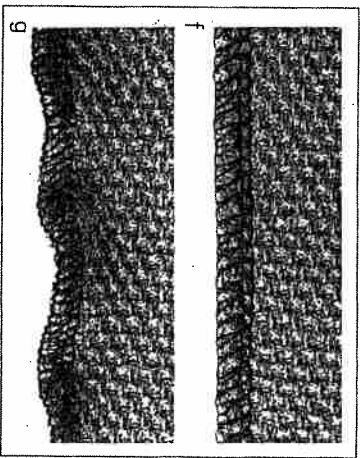
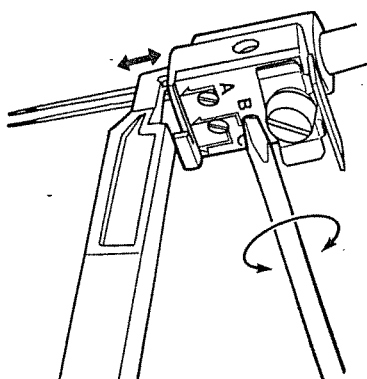


Fig. 4

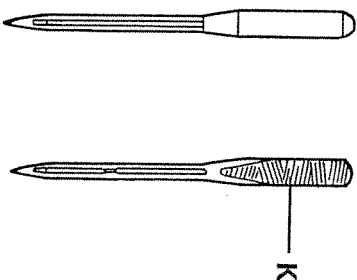
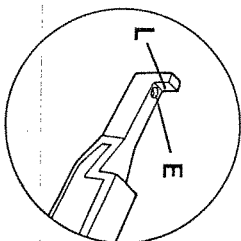
Changing the needle

Switch off the main switch.

To remove: Lower the sewing foot and put the needle in its highest position. Now push the needle changing aid from the accessories (see page 66) from below right up until it catches over the needle. Loosen set screws (**A**, **B** or **C**) with the red screwdriver and pull the needle down to remove.



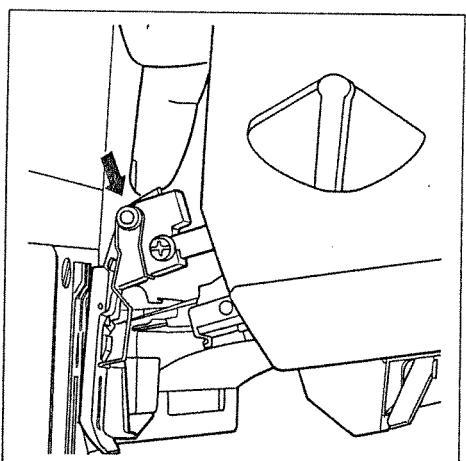
To insert: Insert the needle into the hole **E** of the needle changing aid, with the flat needle shank **K** facing towards the flat side **L** of the aid. Insert the needle until it catches in place in the holder and tighten the needle set screw. Remove the needle changing aid.



Note: The following needles are used for this machine:

System EL X 705 (80 or 90)

If using the usual sewing needles 130/705 H the thread tension must be increased.



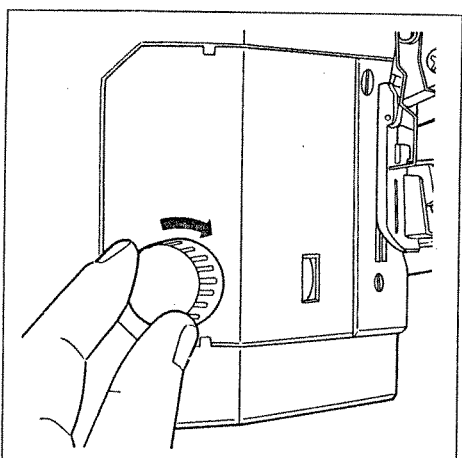
Changing the sewing foot

Switch off the main switch

To remove: Raise the sewing foot with the sewing foot lever (33) and set the needle in its highest position. Press the white lever on the back part of the sewing foot holder. The sewing foot is automatically released from its mount and you can remove it to the left, raising the spring slightly.

To insert: Raise the spring slightly and place the sewing foot beneath the sewing foot holder so that when the sewing foot lever (33) is lowered the pin in the foot catches in place in the sewing foot holder.

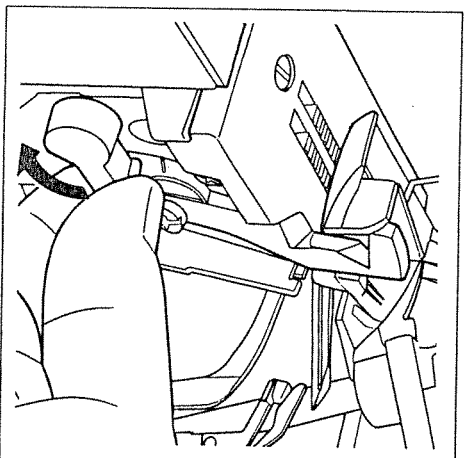
Check: Please raise the sewing foot lever to check that the foot is properly secured.



Changing the needle plate

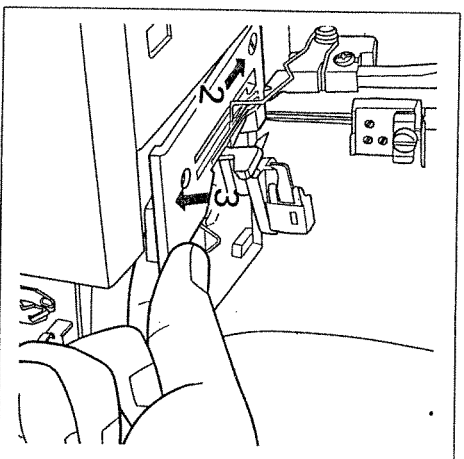
Switch off the main switch

Note: To change the needle plate you must set the needle width adjusting knob (17) to 3 mm.



To remove:

Raise the sewing foot with the **sewing foot lever (33)** and set the needle in its highest position. Remove the sewing foot and press down the **lever to disengage the needle plate (45)**. The needle plate **(16)** is raised out of its mount. Raise the needle plate a little more and remove to the left.



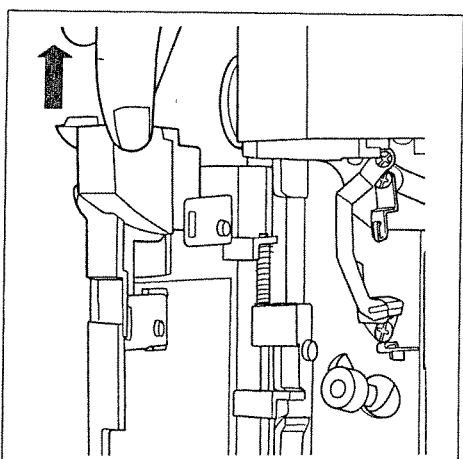
To attach:

Raise the spring on the sewing foot holder a little and place the needle plate **(16)** in the guide screw at the back. Press the needle plate **down at the front** so that you can hear it catch.

Converting the machine for chainstitch, program 8

This is only necessary if you do not wish to cut the fabric edge.

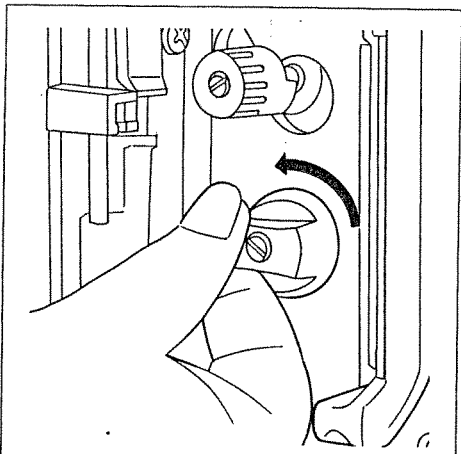
Insert needle **A** with the needle changing aid from the accessories (see page 66). First thread the chainstitch looper (**40**) and then needle **A**. Open the looper cover and pull the knife guard (**13**) off to the left.



Disengaging the upper knife

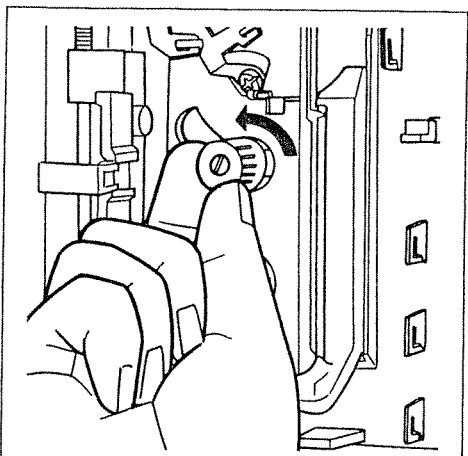
Note: To disengage the upper knife (**49**) you must set the seam width adjusting knob (**17**) to 3 mm.

Lower the knife to the lowest position with the hand wheel. Now turn the knob to disengage the upper knife (**42**) fully to the left (triangle on O). The knife is disengaged.



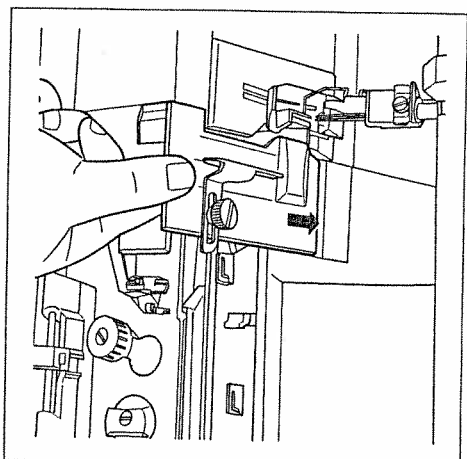
Disengaging the right overedge looper

To disengage this looper you must set the needle in its lowest position with the hand wheel. Turn the knob to disengage the looper (**43**) fully to the left (triangle to O). The overedge looper is now disengaged.



Inserting the material guide plate

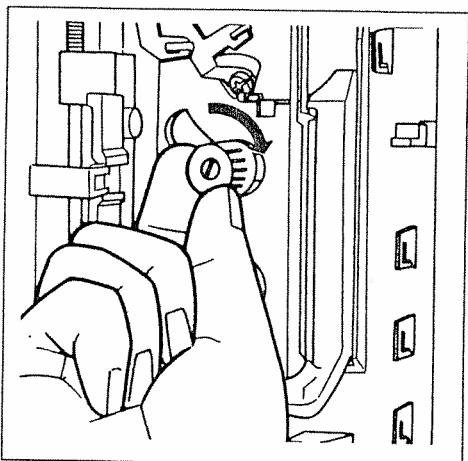
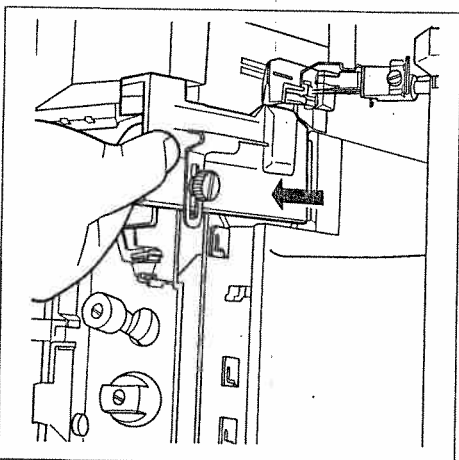
Insert the material guide plate from the accessories (see page 66) as illustrated and make sure that it is on the same level as the needle plate. Now close the looper cover and set the guide ruler to the width required. You can now sew in chainstitch.

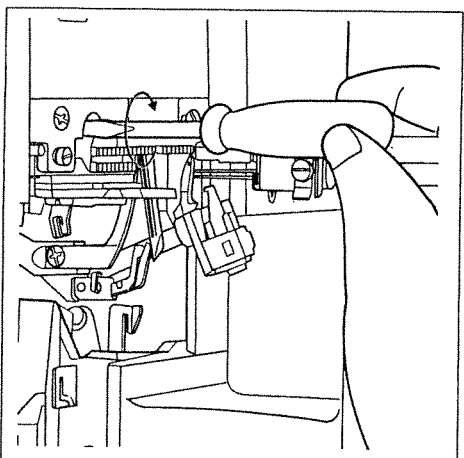


Caution: If the material guide plate has been inserted, it is imperative that the right overedge looper is disengaged.

After the chainstitch seam has been sewn, return the machine to the original condition as follows:

1. Open the looper cover and remove the material guide plate. Set the needle in the lowest position.
2. Now turn the knob to disengage the looper fully to the right (triangle to 1). The right overedge looper is now engaged again.
3. Set the knob to adjust the seam width to 3 mm.
4. Engage the upper knife by turning the knob to disengage the upper knife fully to the right (triangle to 1).
5. Push the knife guard in the looper cover and close it.
6. Finally attach the waste box again.



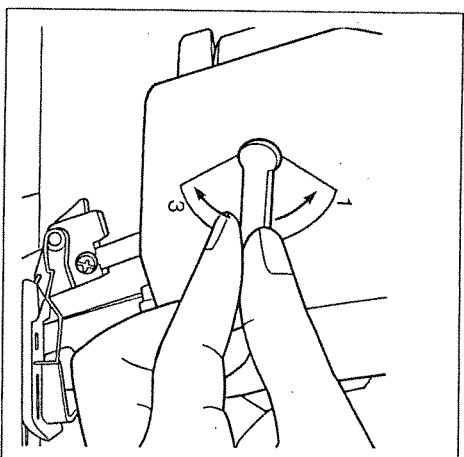


Upper knife lock

You can sew absolutely any type of fabric with this machine, regardless of its thickness. For extremely thick fabrics you must tighten the **axial lock screw** on the upper knife with the large screwdriver from the accessories (see page 66). This prevents the knife from being displaced by the material. Remove the sewing foot and needle plate (see page 30, 31). To sew light fabrics the screw must be loosened by about two turns, so that the knife can again move in an axial (side-ways) direction.

Note:

The screw for the upper knife must be loosened to change the cutting width.



Adjusting the sewing foot pressure

You can change the sewing foot pressure depending on the thickness of the material with the lever (22).

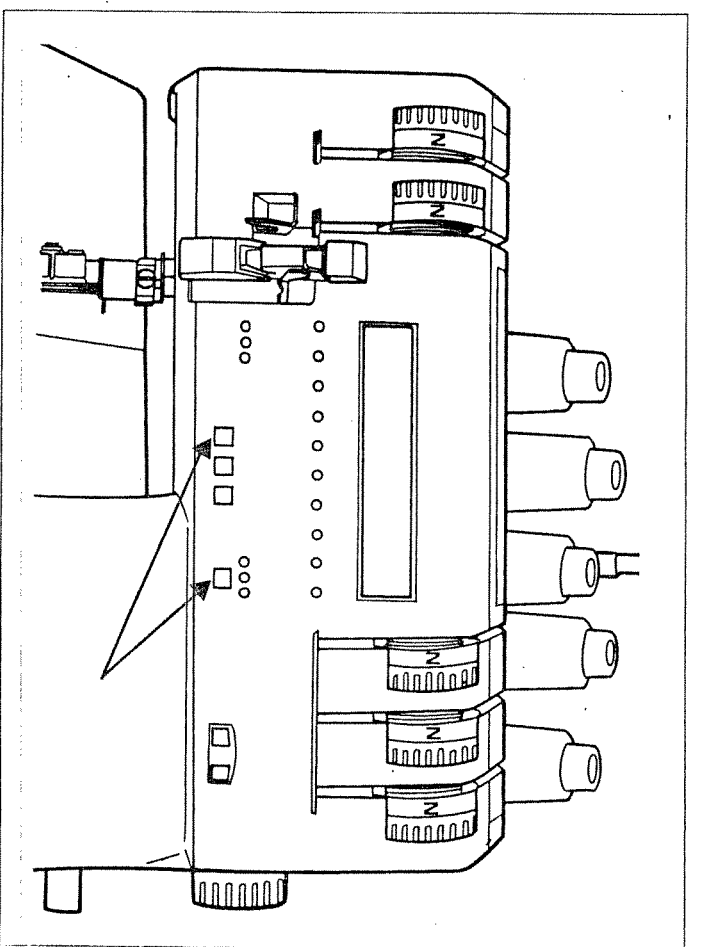
Position 1 = sewing foot pressure for very thin fabric

Position N = sewing foot pressure for with medium thickness

Position 3 = sewing foot pressure for very thick fabric

Electronics

To programme language	page 36
Speed pre-selection	page 37
LED needle display	page 38
To select program	page 39
To enter new data	page 40



You can choose between the following languages:

Czech, Danish, German, English, Spanish, French, Italian, Dutch, Norwegian, Polish, Finnish, Swedish and Japanese.

To programme language:

Keep both the **program key (11 left)** and the **key (10)** for the speed preselection pressed and at the same time switch the machine on.

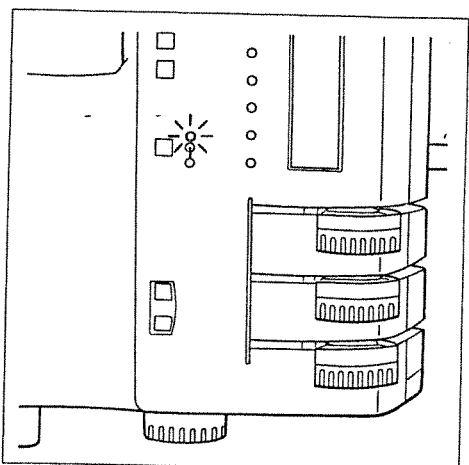
„cesky“ (Czech) now appears in the display. You can select the language you want by repeatedly pressing the program key (11 left).

By pressing the **cursor key (11 middle)** once you programme your language. Each description in the display will now appear in the language that you have selected.

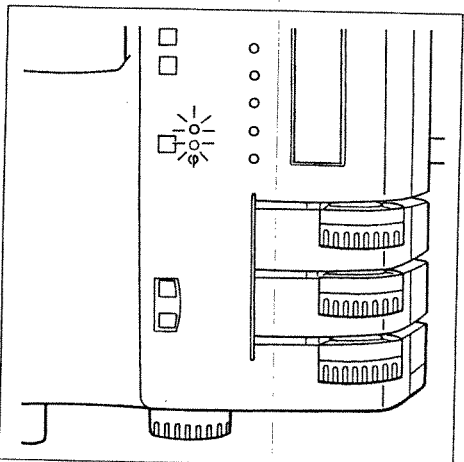
Speed pre-selection

On this machine you can set the maximum speed in **three** steps with the key (10). By pressing the key (10) you change the maximum speed and **one, two or three LEDs** light up.

One LED lights up = 0 to max. 500 rpm



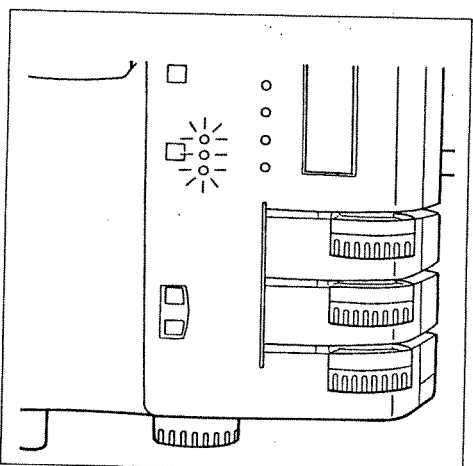
Two LEDs light up = 0 to max. 1000 rpm



Note:

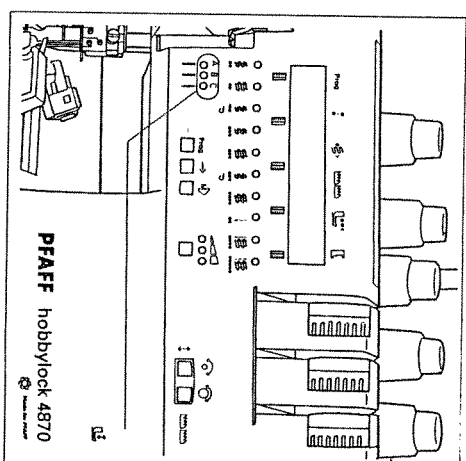
Each time the machine is switched on it automatically sets a speed of 1000 rpm.

Three LEDs light up = 0 to max.
1500 rpm



LED needle display (A, B, C)

The LEDs on the needle display (12) show which of the needles A, B or C have to be inserted for the program you have selected.



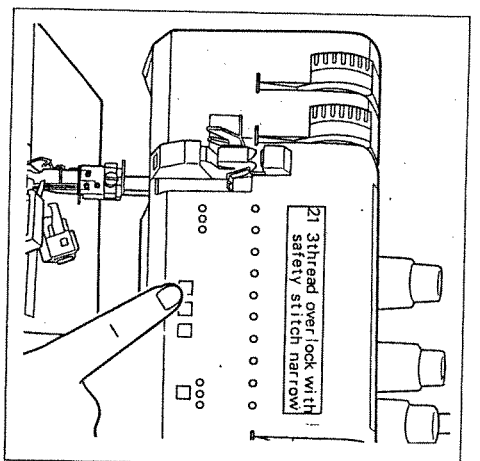
Display

This machine has the following 21 programs:

Progr. 1	2 thread flatlock narrow
Progr. 2	2 thread flatlock wide
Progr. 3	2 thread flat hem
Progr. 4	3 thread overlock narrow
Progr. 5	3 thread overlock wide
Progr. 6	3 thread flat hem
Progr. 7	4 thread overlock
Progr. 8	chainstitch
Progr. 9	2 thread overlock with safety-stitch wide
Progr. 10	3 thread overlock with safety-stitch wide
Progr. 11	Wrapped 2 thread overlock narrow
Progr. 12	Wrapped 2 thread overlock wide
Progr. 13	2 thread rolled hem
Progr. 14	Wrapped 3 thread overlock narrow
Progr. 15	Wrapped 3 thread overlock wide
Progr. 16	3 thread flatlock narrow
Progr. 17	3 thread flatlock wide
Progr. 18	3 thread rolled hem
Progr. 19	Reinforced 2 thread overlock
Progr. 20	2 thread overlock with safety-stitch narrow
Progr. 21	3 thread overlock with safety-stitch narrow

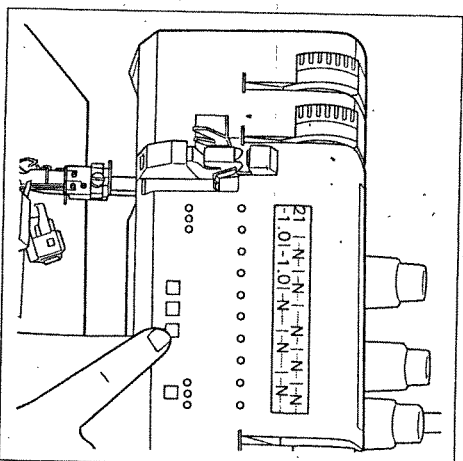
Note:

Beneath this display you will find the LED displays for the 10 most important types of stitch (program 1 to 10).



Select the desired **program** by pressing the left program key (11). The programs appear in the order **1 – 21**. Keep the key pressed and the programs automatically run on.

If the **mod key** (**11 right**) is pressed the standard characteristics of the stitch are displayed. Set the machine as indicated in the display.





Symbols above the display:

Prog. = program number

\longleftrightarrow
= stitch length

$\langle SS \rangle$ = seam width

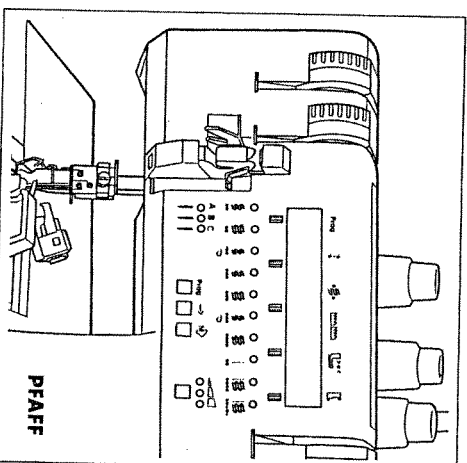
  = differential feed

 = sewing foot pressure

[= needle plate

Symbols below the display:

All the symbols under the display refer to the thread tensions. They are from the left to the right.



- left overedge needle or chainstitch needle (**blue**)
- left or right overedge needle (**green**)
- right overedge looper (**pink**)
- left overedge looper (**yellow**)
- chainstitch looper (**mauve**)

Entering new data

This machine has **21 programs**. The **optimal** values are entered as standard settings for each program. You can change all the data from the standard settings in any program and store them. There are **three memories (A, B and C)** available for each program which appear right behind the program number (e.g. 21 A). Proceed as follows:

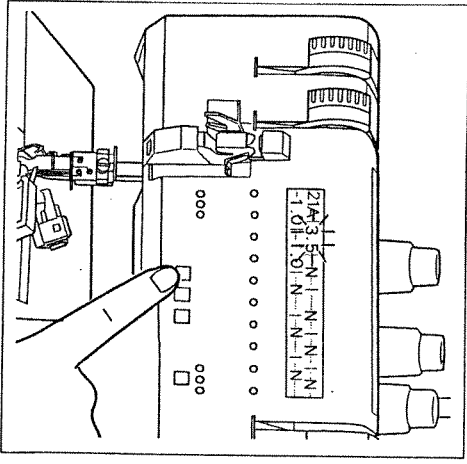
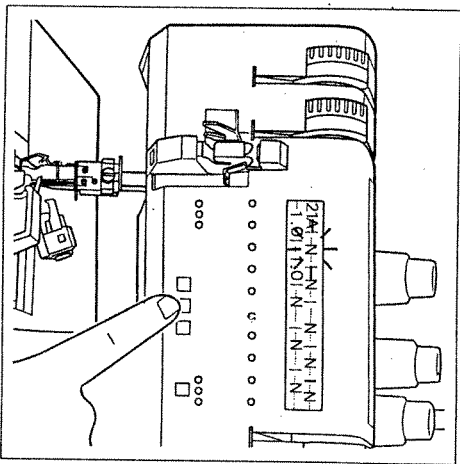
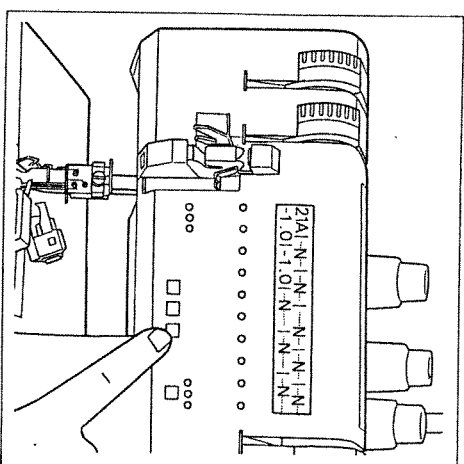
1. Select the desired program with the **program key (11 left)**.
2. The standard setting appears in the display when the **mod key (11 right)** is pressed.

3. If the **mod key (11 right)** is pressed again, the letter **A** appears beside the program number as an indication that you can now enter your own values in memory **A**. If the mod key (11 right) is pressed again memory **B** appears and if pressed once more memory **C**.

4. If the **cursor key (11 middle)** is pressed, the display for the **stitch length** appears. You can now alter the stitch length with the **program key (11 left)**.

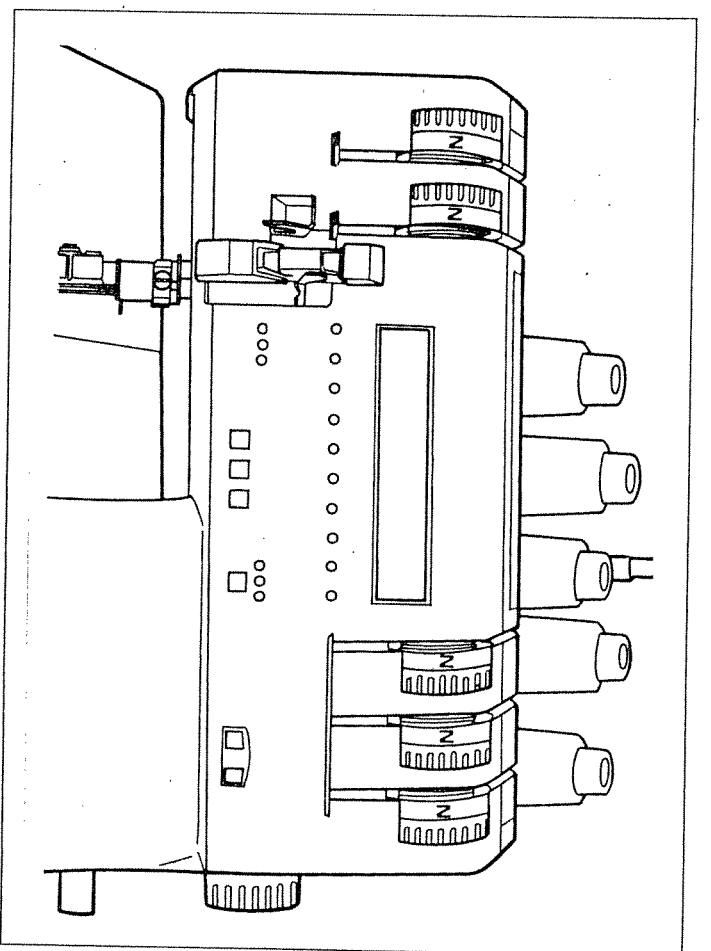
5. If you wish to alter other settings, press the **cursor key (11 middle)** until the setting that is to be changed flashes. You can now set them as required.

6. Press the **mod key (11 right)** to enter the data in memory. Press the mod key until you come back to the previously selected memory **A, B, or C**. All the new data has now been entered and is retained when the machine is switched off. If you select your memory again the values that have been entered now flash. They can of course be changed at any time as described.



Practical sewing

Setting the standard thread tension	page 42
Chainstitch	page 43
3 thread overlock with safety-stitch	page 43
3 thread overlock stitch	page 43
4 thread overlock stitch	page 44
2 thread overlock seam	page 44
2 thread overlock with safety-stitch	page 44
Correction of thread tensions	page 45 – 48
Converter (2 thread seam)	page 49 – 51
Rolled/flat hem (2 and 3 thread)	page 52, 53
Thread chart	page 54, 55
Program chart	page 56 – 63



Setting the standard thread tension

Uniform thread tension depends on the type of fabric and the thickness of the thread. The thread tension should be corrected after the thread interloop has been checked (see page 43 to 47).

Turn the values indicated on the thread tension thumbwheels to the corresponding colour symbol.

If you are using needle **A** (only for chainstitch) you must turn the value to the blue triangle. If you are using needles **B** and **C** turn to the dots. The mauve tension setting is only used for chainstitch.

The right thread tension

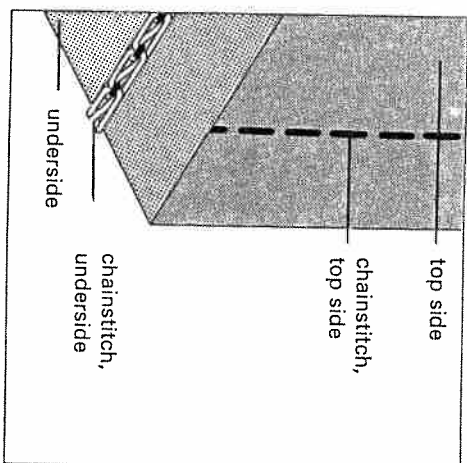
Prog. 8

Chainstitch

Thread tensions:
blue = triangle
mauve = triangle

Examples of use:

Joining linen or jeans parts without serging.



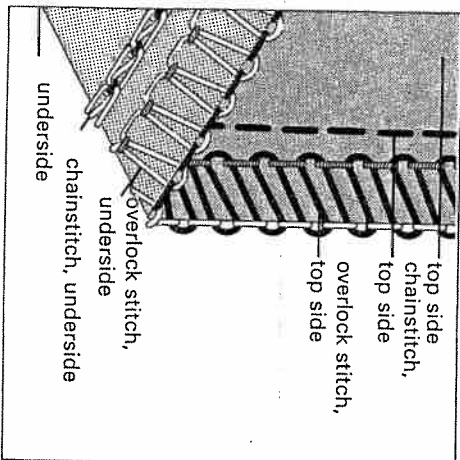
Prog. 21

3 thread overlock with safety-stitch (narrow)

Thread tensions:
blue = triangle
green = dot
pink = dot
yellow = dot
mauve = triangle

Examples of use:

Joining seams on blouses, shirts, jeans and bed linen with serging seam.



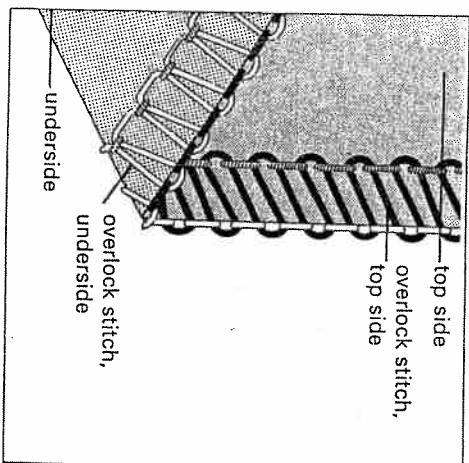
Prog. 4 or 5

3 thread overlock seam (narrow or wide)

Thread tensions:
green = dot
pink = dot
yellow = dot

Examples of use:

For serging all fabric types.



Prog. 7

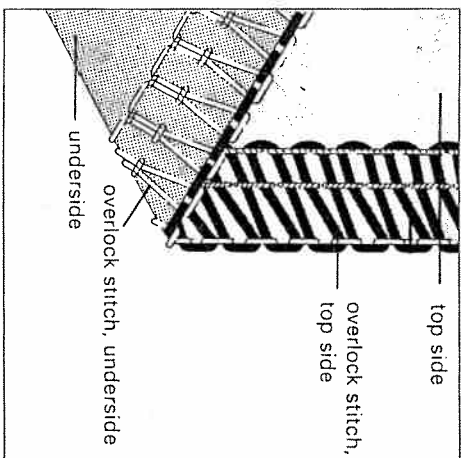
4 thread overlock seam

Thread tensions:

blue = dot
green = dot
pink = dot
yellow = dot

Examples of use:

For sewing and serging all types of fabric, especially suitable for stretch fabrics.



Prog. 1 or 2

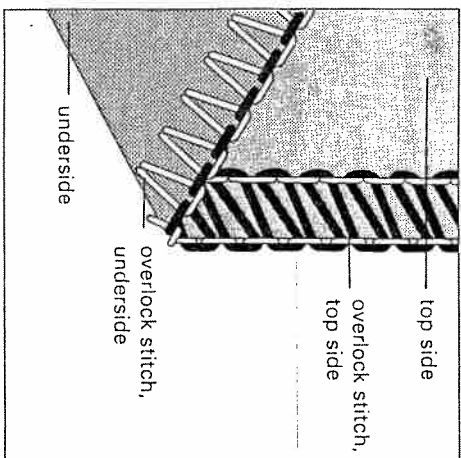
2 thread overlock seam (narrow or wide) FLATLOCK

Thread tensions:

green = dot
yellow = dot

Examples of use:

For sewing and serging all types of fabric, especially suited for stretch fabrics and for sewing **FLATLOCK** seams.



Prog. 9 or 20

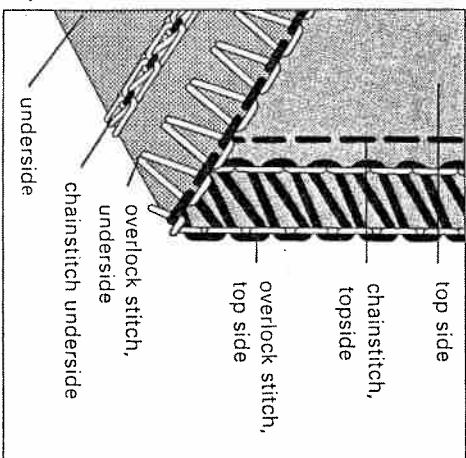
2 thread overlock with safety-stitch (wide or narrow)

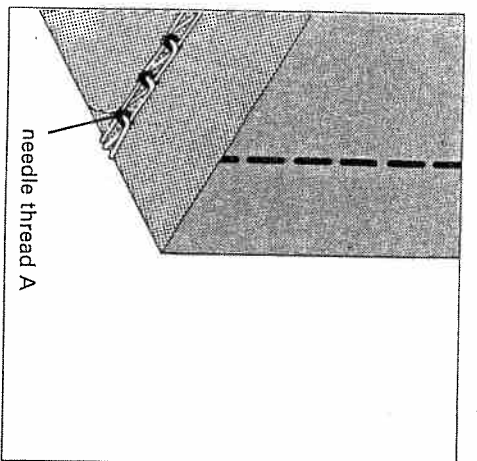
Thread tensions:

blue = triangle
green = dot
yellow = dot
mauve = triangle

Examples of use:

For sewing and serging all types of fabric.





Correcting the thread tension:

The tension can be set between -5 and +5. It must be turned either to the - or + range depending on the seam appearance.

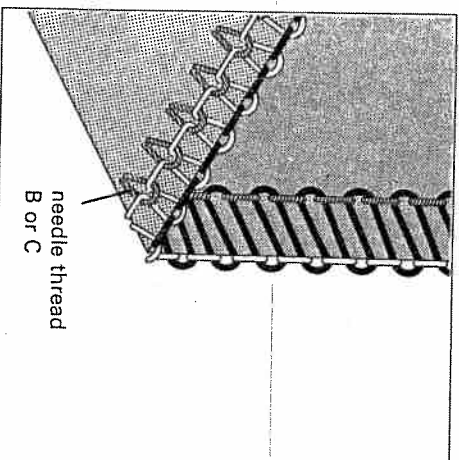
Towards + = tighter tension

Towards - = looser tension

Prog. 8

Chainstitch

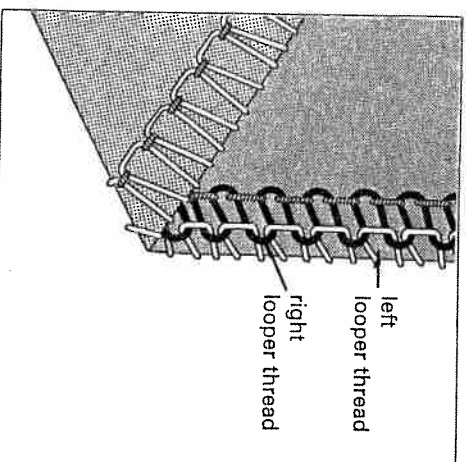
The thread tension of needle A is too loose. The blue thread tension must be turned towards +.



Prog. 4 or 5

3 thread overlock seam (narrow or wide)

The thread tension of needles B or C is too loose. The green thread tension must be turned towards +.



Prog. 4 or 5

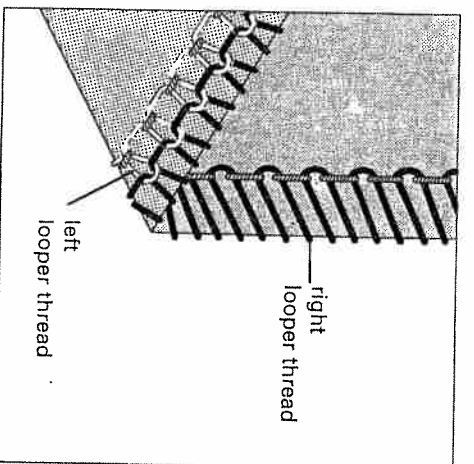
3 thread overlock seam (narrow or wide)

The right loop thread is too taut (pink thread tension) or the left loop thread is too loose (yellow thread tension). Both thread tensions must be adjusted accordingly by turning to - or +.

Prog. 4 or 5

3 thread overlock seam (narrow or wide)

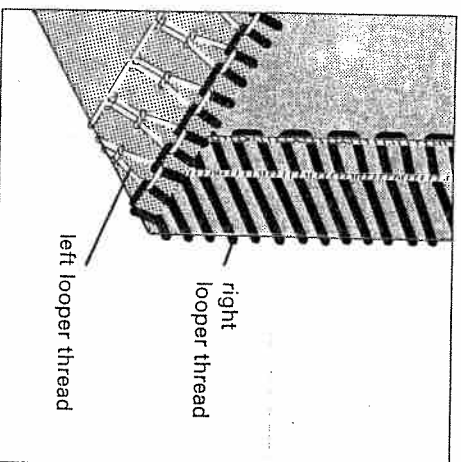
The right looper thread is set too loose (pink tension) or the left looper thread is set too tight (yellow tension). Both thread tensions must be adjusted accordingly by turning to + or -.



Prog. 7

4 thread overlock seam

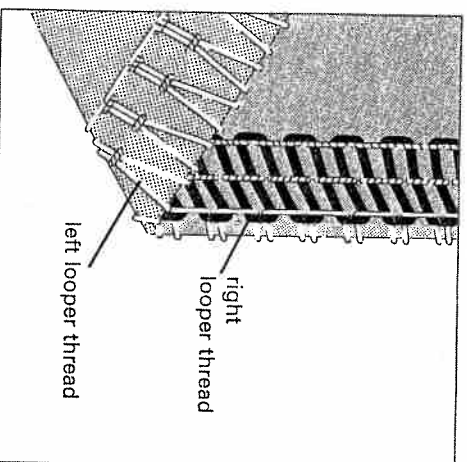
The left looper thread is set too tight (yellow tension) or the right looper thread is set too loose (pink tension). Both thread tensions must be adjusted accordingly by turning either to - or +.



Prog. 7

4 thread overlock seam

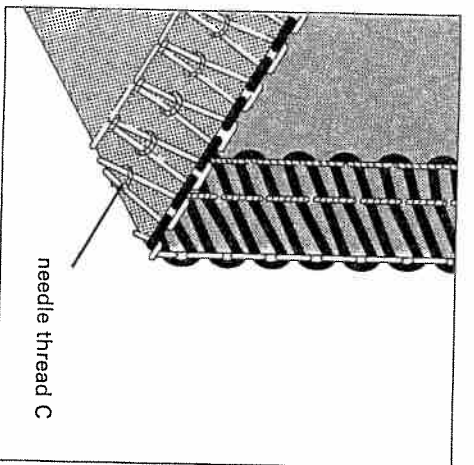
The left looper thread is set too loose (yellow tension) or the right looper thread is too tight (pink tension). Both thread tensions must be adjusted accordingly by turning either to + or -.



Prog. 7

4 thread overlock seam

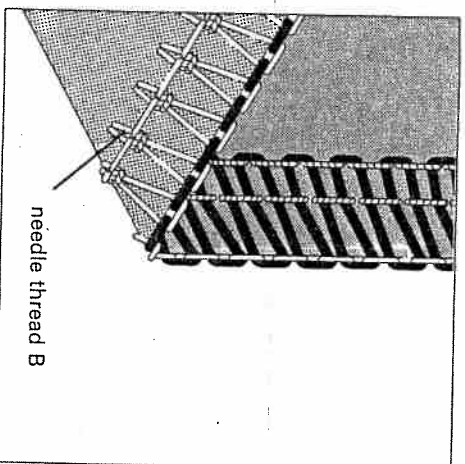
The thread tension on needle C is too loose. The green tension must be turned to +.



Prog. 7

4 thread overlock seam

The thread tension of needle B is too loose. The blue tension must be turned to +.



Prog. 10 or 21

3 thread overlock with safety-stitch (wide or narrow)

Since the 3 thread overlock with safety-stitch is a combination of chainstitch and a 3 thread overlock seam, you can find the way to adjust these seams on pages 45 and 46.

Prog. 9 or 20

2 thread overlock with safety-stitch (wide or narrow)

Since the 2 thread overlock with safety-stitch is a combination of chainstitch and a 2 thread overlock seam, you can find the way to adjust these seams on pages 45 and 51.

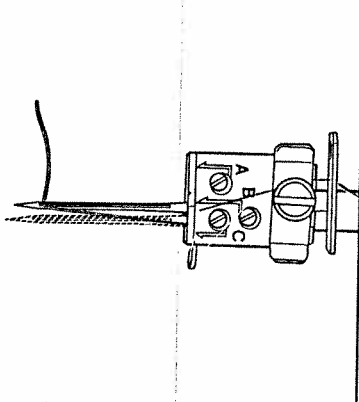
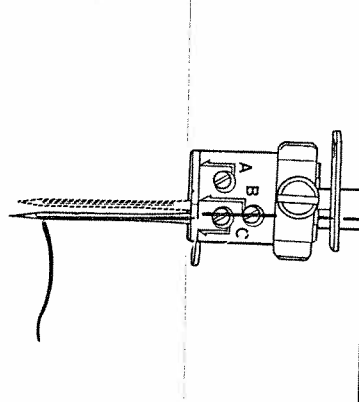
Prog. 4 or 5

3 thread overlock seam (narrow or wide)

The 3 thread overlock seam is sewn with **two looper threads and one needle thread** (needle change page 29).

The set seam widths 3 to 5 mm in the window (19) **only apply to needle C.**

If **needle B** is used, the setting is increased by 2,2 mm (seam width 5,2 to 7,2 mm).

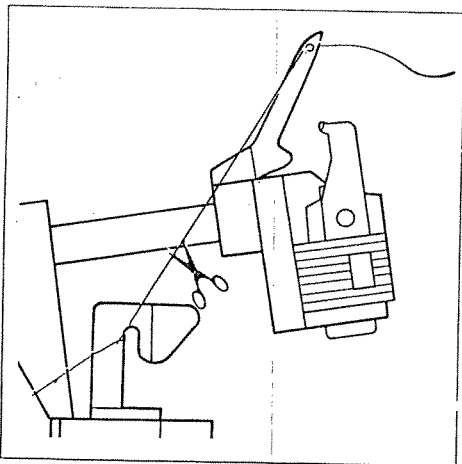
3 thread overlock seam	
Needle B	Needle C
	
Standard needle width N	Standard needle width N
Needle width	Needle width
min. 5,2 mm, max. 7,2 mm	min. 3 mm max. 5 mm

Converter

A serging seam is generally sewn with 3 threads. If you connect the **converter** you can dispense with one thread i.e. you just continue to sew with **2 threads** and thus save a lot of thread. Wherever a 2 thread seam is enough i.e. for elastic materials and materials that hardly fray, you can still make neat edges with less thread. You can also make **very effective fancy seams** with the converter using **mercerized cotton**.

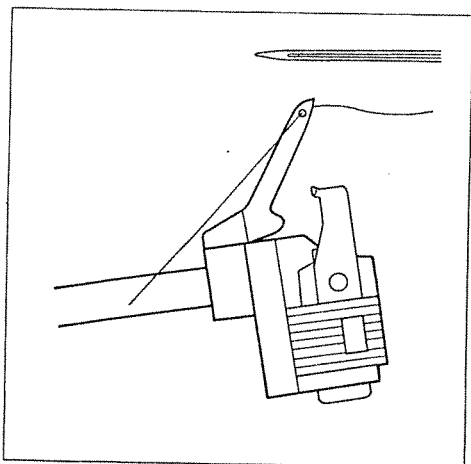
All seams that are sewn with the converter (38) are **only** sewn with the left looper thread (yellow thread path) and with **one** needle thread.

Exception: Prog. 19 is sewn with **two** needle threads and the **left** looper thread.

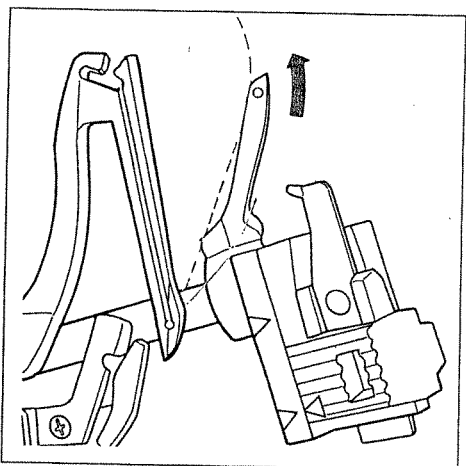


To switch on the converter

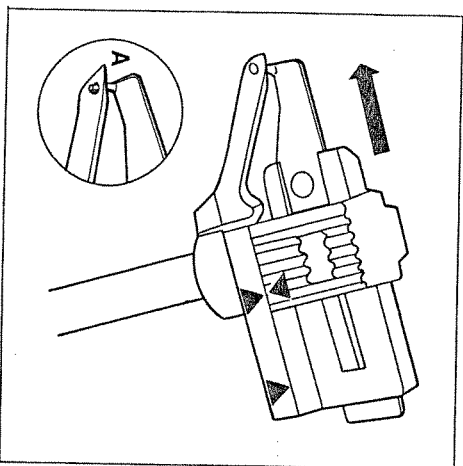
Turn the hand wheel until the **right** over-edge looper (37) is **situated to the right** of the needle.



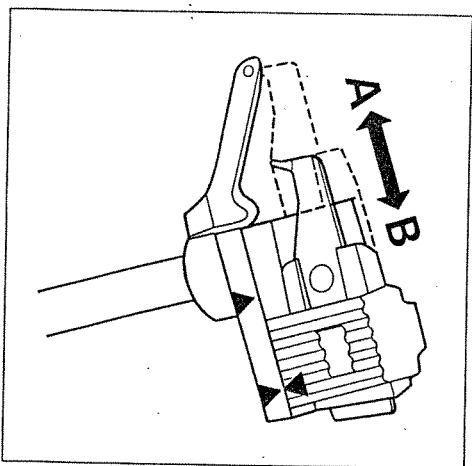
To use the converter (38) you must **cut off** the right looper thread and pull it out of the looper eye.



The left hand thread that runs over the right loop must be pulled over the point of the right loop in the direction of the arrow as in this illustration.



Push the slide of the converter to the left until the triangles are in line. The point of the slide catches into the eye of the loop (Fig A).



Converter switched on – position A
Converter switched off – position B

To switch the converter off

Turn the hand wheel slowly until the left hand loop thread jumps from the point of the right loop. Switch the converter (38) off in this position (position B).

Thread the right loop (see page 14).

2 thread overlock seam with converter

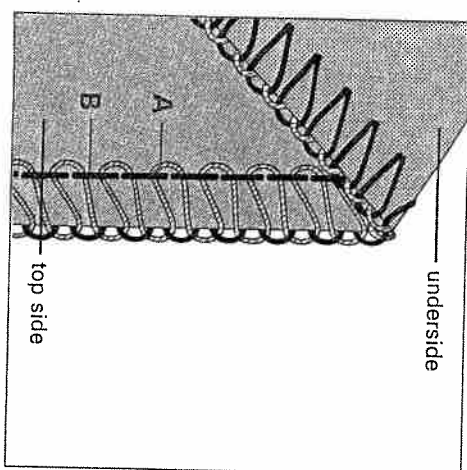
Standard seam width
with needle **B** = 5,7 mm
(range from 5,2 – 7,2 mm)

Standard seam width
with needle **C** = 3,5 mm
(range from 3 – 5 mm)

Progr. 1 or 2

2 thread overlock seam (narrow or wide) FLATLOCK

This illustration shows the 2 thread overlock seam with the thread tensions correctly set.

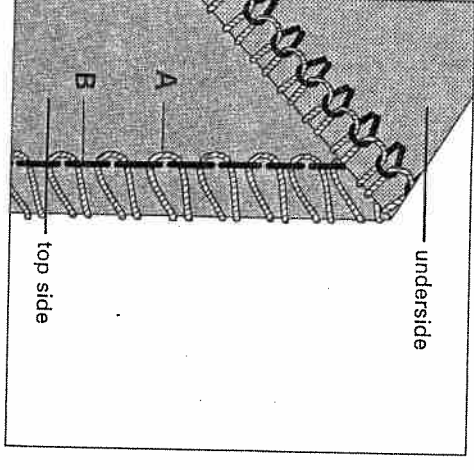
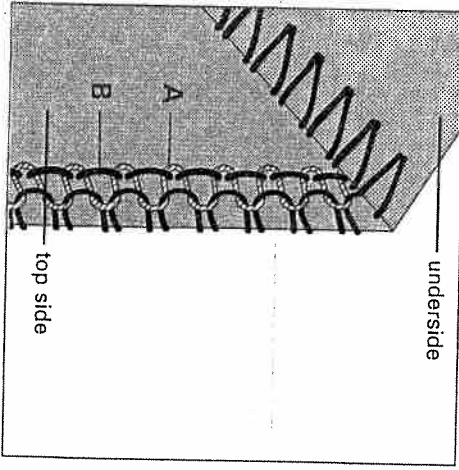


Ways of correcting the thread tensions

Progr. 1 or 2

2 thread overlock seam (narrow and wide) FLATLOCK

Looper thread **A** is set too tight (yellow tension) or needle thread **B** or **C** is too loose (green tension). The two thread tensions must be turned accordingly to + or –.



The looper thread **A** is set too loose (yellow tension) or the needle thread **B** or **C** is too tight (green tension). The two thread tensions must be turned accordingly either to + or –.

Prog. 3, 6, 13 or 18

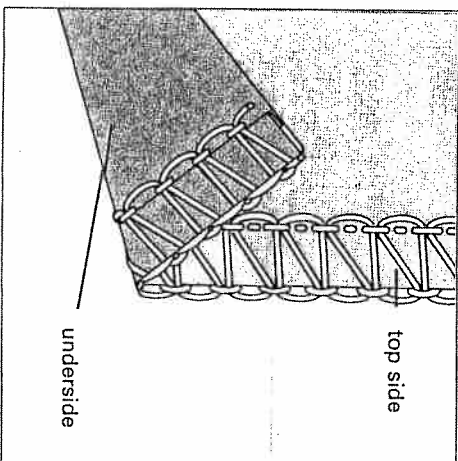
Rolled/flat hem

A rolled/flat hem is used for light, thin fabrics and also creates a decorative edge. It is a very simple way to add a professional touch to cloths, scarves and valance.

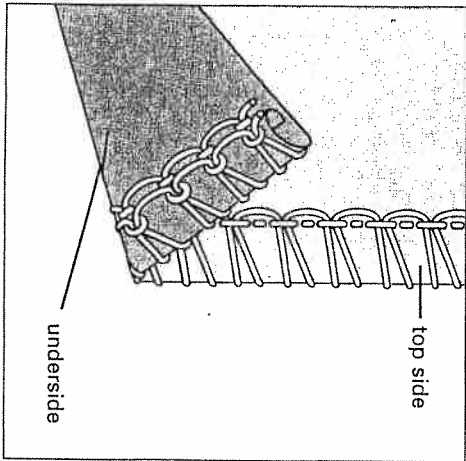
To do so just convert the machine as indicated in the display.

The rolled hem can only be sewn with the **needle C** and you must also replace the **needle plate N** with the **rolled hem plate R** (see page 30, 31).

The best suited threads are textured thread (bulk thread) as well as polyester thread. Only textured thread should be used for the looper.



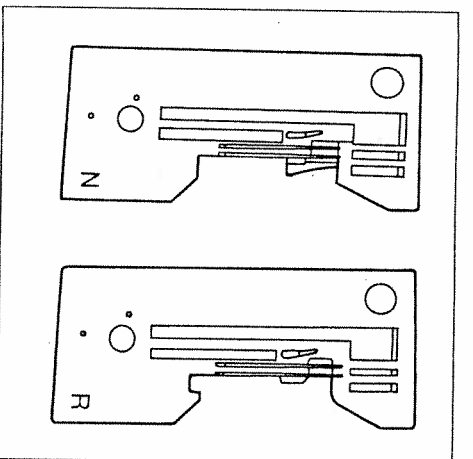
Prog. 6
3 thread flat hem



Prog. 18
3 thread rolled hem

Needle plates N and R

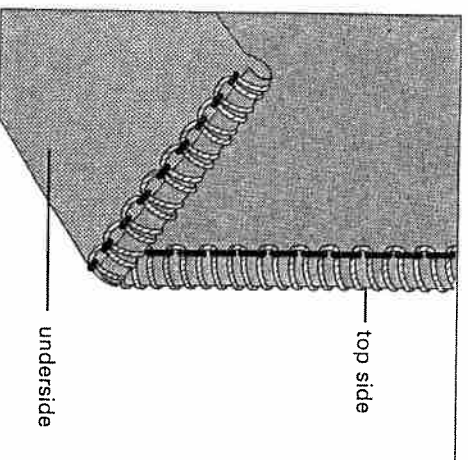
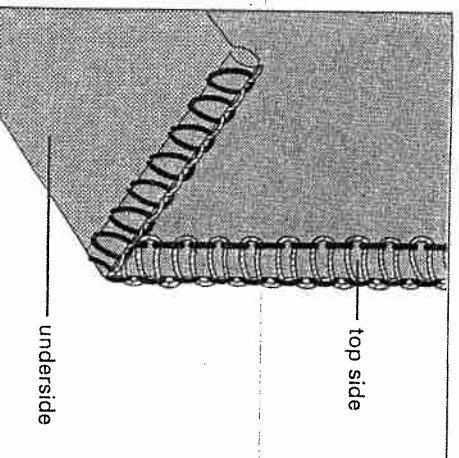
The needle plate R must be used for all rolled hems.



Prog. 3

2 thread flat hem

The amount of thread used for the 2 thread flat hem is smaller and the seam seems finer. The converter must be switched on for this flat hem (see pages 49, 50).



Prog. 13

2 thread rolled hem

The converter must be switched on for this rolled hem (see pages 49, 50).


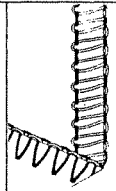
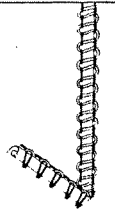
Thread chart for the 3 thread overlock seam with safety-stitch					
Fabric-weight	Fabric	Type of stitch	Thread	Stitch length	
Light fabrics	organdy, fine knit, taffeta, silk, lining fabric	chainstitch	cotton no. 80 – 100 synthetic thread no. 70 – 140	2 – 3 mm	
		overlock stitch	cotton no. 80 – 100 silk no. 80 – 100 synthetic thread no. 70 – 140	3 – 4 mm	
Medium-weight fabrics	cotton, tricot, linen, children's fabrics	chainstitch	cotton no. 60 – 100 silk no. 50 – 100 synthetic thread no. 70 – 140	2 – 3 mm	
		overlock stitch	cotton no. 60 – 100 silk no. 50 – 100 synthetic thread no. 70 – 140	3 – 4 mm	
Heavy fabrics	tweed, jacket-cloth, denim, heavy cloth	chainstitch	cotton no. 40 – 60 silk no. 40 – 60 synthetic thread no. 70 – 140	2 – 4 mm	
		overlockstitch	Baumwolle no. 40 – 60 synthetic thread no. 70 – 140		
		knits	cotton no. 40 – 50 silk no. 50 – 100 synthetic thread no. 70 – 140	2 – 3 mm	
		overlock stitch	synthetic thread no. 70 – 140		

Thread chart for the 2, 3 and 4 thread overlock seam		
Fabric weight	Thread	Stitch length
Light fabrics: organdy, fine tricot, taffeta, silk, lining fabric	cotton no. 80 – 100 silk no. 80 – 100 synthetic thread no. 70 – 140	2,0 – 4,0 mm
Medium-weight fabrics: cotton, tricot, linen, children's fabrics	cotton no. 60 – 100 silk no. 50 – 100 synthetic thread no. 70 – 140	2,0 – 4,0 mm
Heavy fabrics: tweed, jacket cloth, denim, heavy cloth	cotton no. 40 – 60 silk no. 40 – 60 synthetic thread no. 70 – 140	2,0 – 4,0 mm
Knits:	cotton no. 40 – 60 silk no. 40 – 60 synthetic thread no. 70 – 140	2,0 – 4,0 mm
2 or 3 thread rolled hem	polyester thread no. 120 – 140 textured thread (bulky thread)	1,0 – 2,0 mm

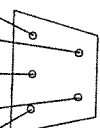
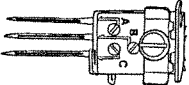
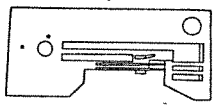
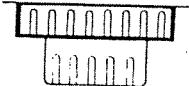
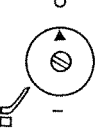
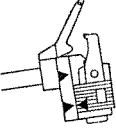



Program chart



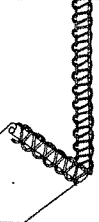
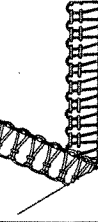

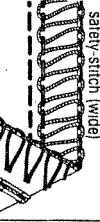

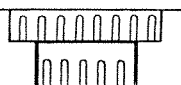
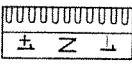
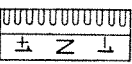
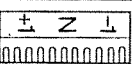
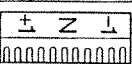
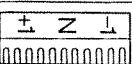

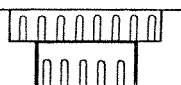
The values for thread tension, stitch length, needle thickness and the differential feed settings are basic settings and must be altered or corrected depending on the type of fabric, fabric thickness and thread.

The differential feed setting depends on the type of fabric (see page 28). All the possible types of stitch and the **settings that are necessary** are listed in this chart.

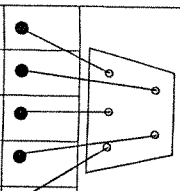
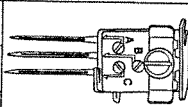
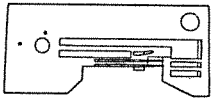
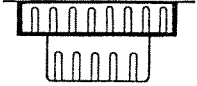
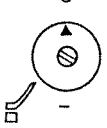
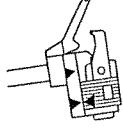

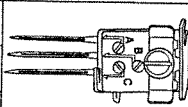
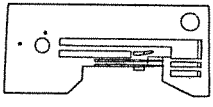
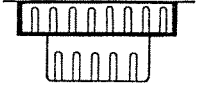
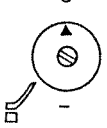
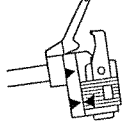

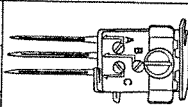
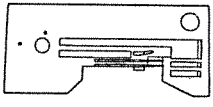
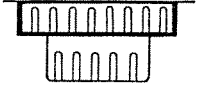
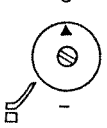
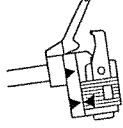

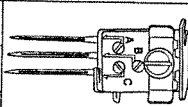
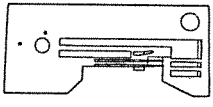
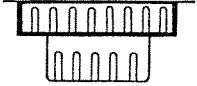
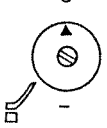
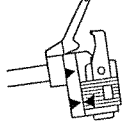

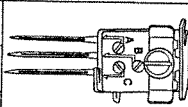
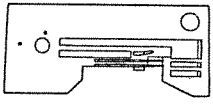
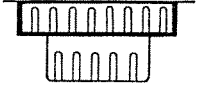
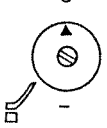
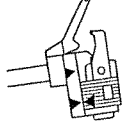

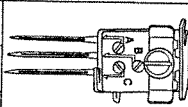
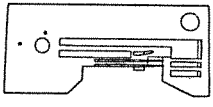
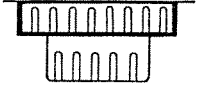
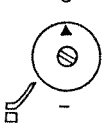
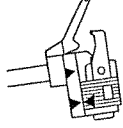

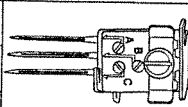
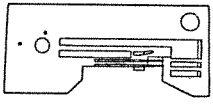
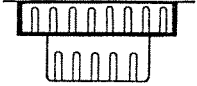
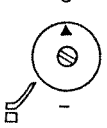
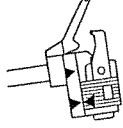

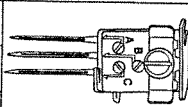
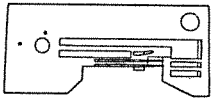
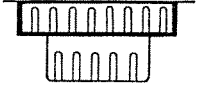
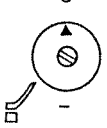
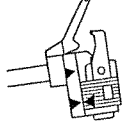

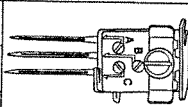
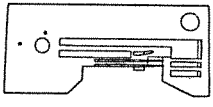
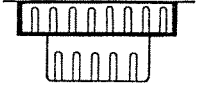
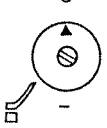
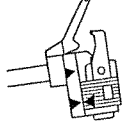

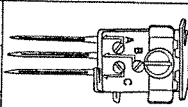
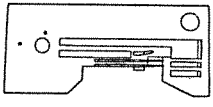
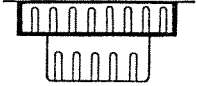
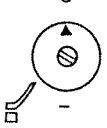
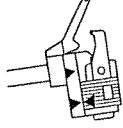

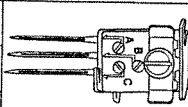
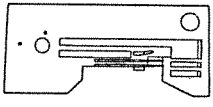
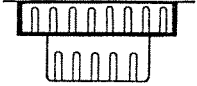
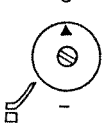
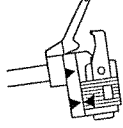

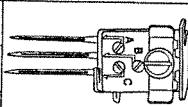
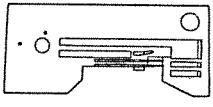
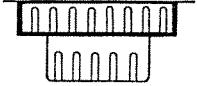
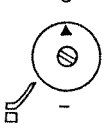
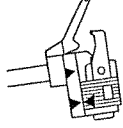

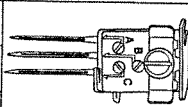
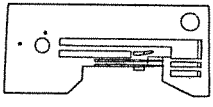
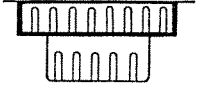
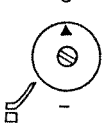
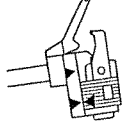

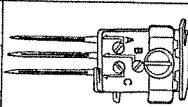
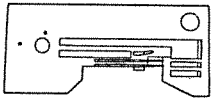
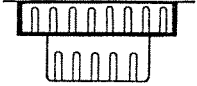
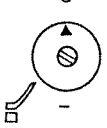
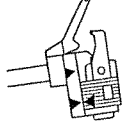

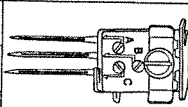
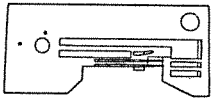
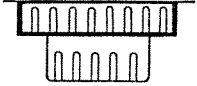
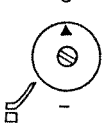
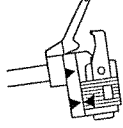

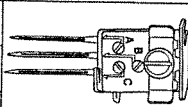
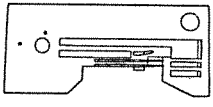
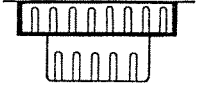
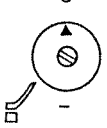
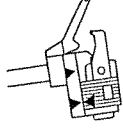

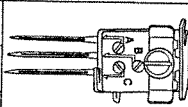
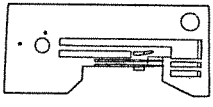
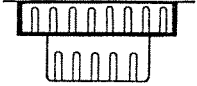
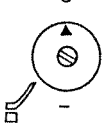
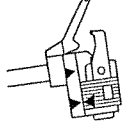

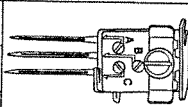
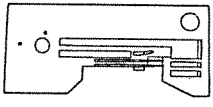
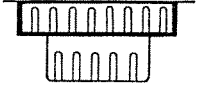
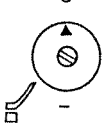
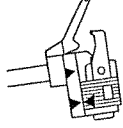

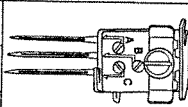
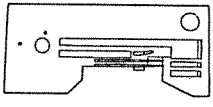
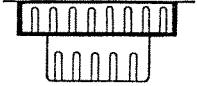
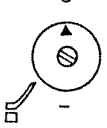
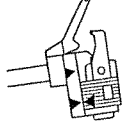

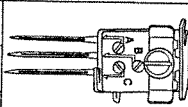
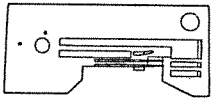
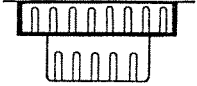
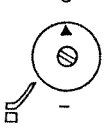
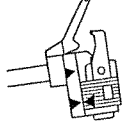

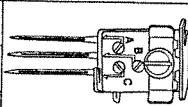
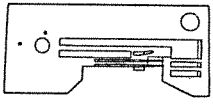
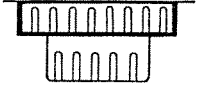
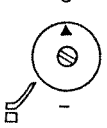
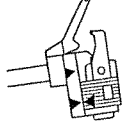

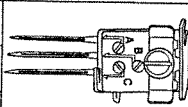
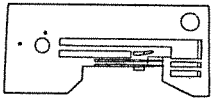
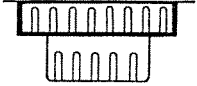
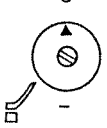
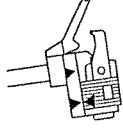

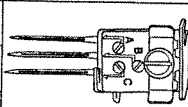
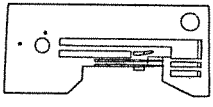
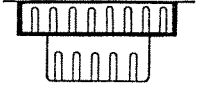
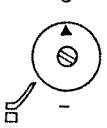
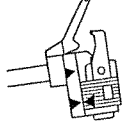

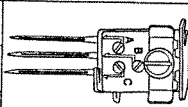
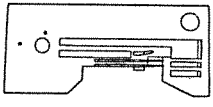
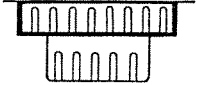
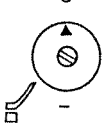
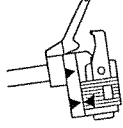

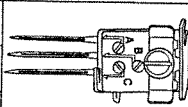
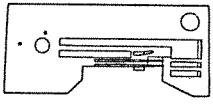
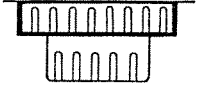
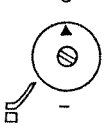
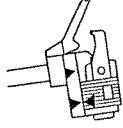

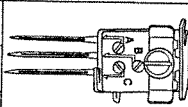
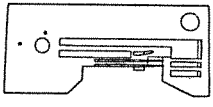
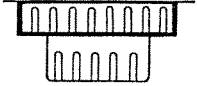
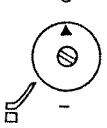
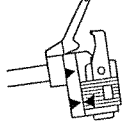

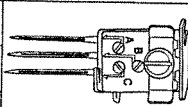
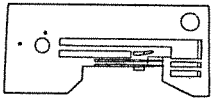
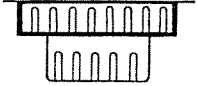
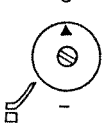
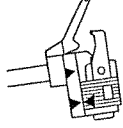

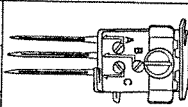
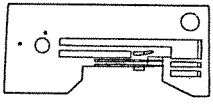
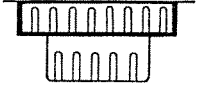
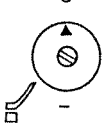
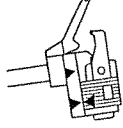

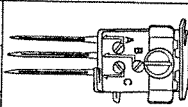
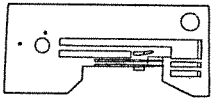
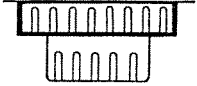
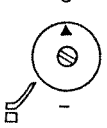
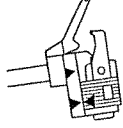

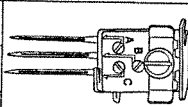
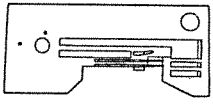
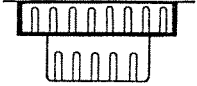
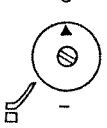
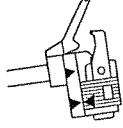

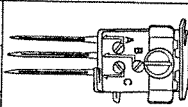
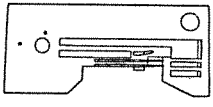
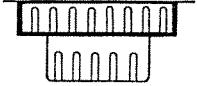
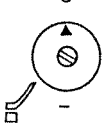
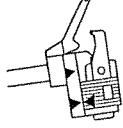

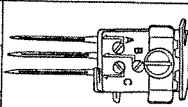
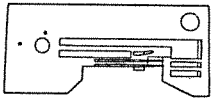
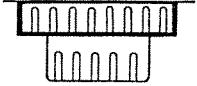
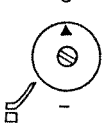
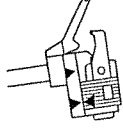

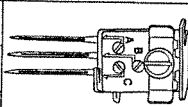
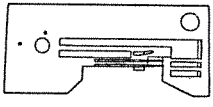
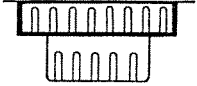
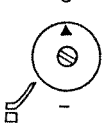
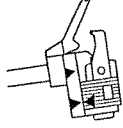

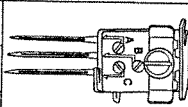
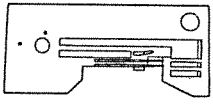
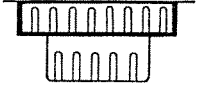
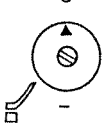
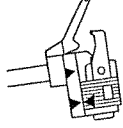

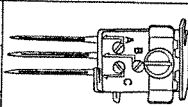
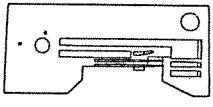
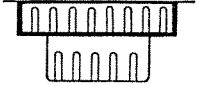
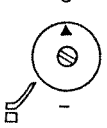
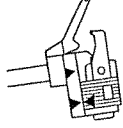

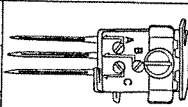
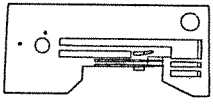
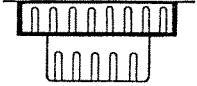
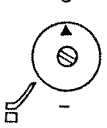
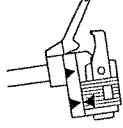

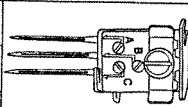
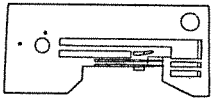
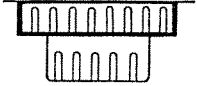
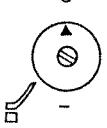
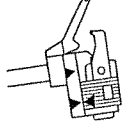

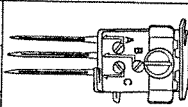
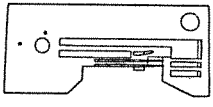
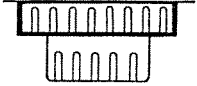
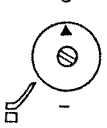
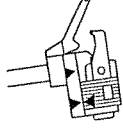

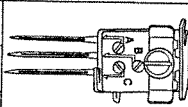
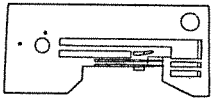
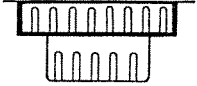
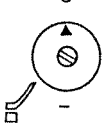
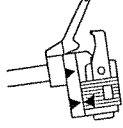

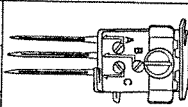
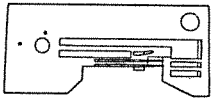
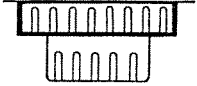
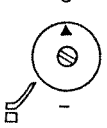
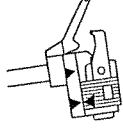

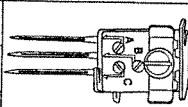
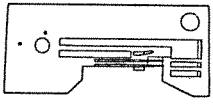
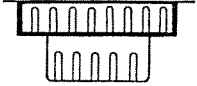
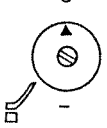
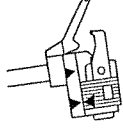

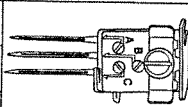
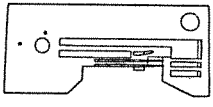
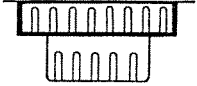
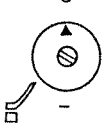
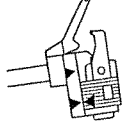

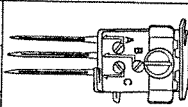
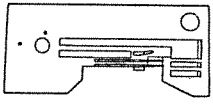
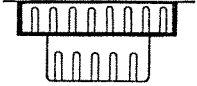
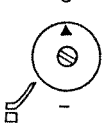
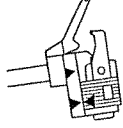

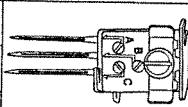
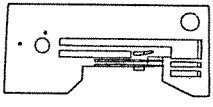
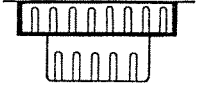
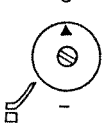
Program no.: Stitch type	Material (see page 54, 55)	Needle thread tension	Looper thread tension	Sewing foot pressure	Stitch length	
Prog. 1 2 thread flatlock seam (narrow) 	 Prog. 2 2 thread flatlock seam (wide)	light	-5	+2	1 - N	N
		medium	-5	+2	N	
		heavy	-5	+2	N - 3	
		light	-5	+2	1 - N	
		Prog. 2 2 thread flatlock seam (wide)	medium	-5	+2	N
heavy			-5	+2	N - 3	
light			-3	+1	1 - N	
medium			-3	+1	N	
Prog. 3 2 thread flat hem 		heavy				1 to 1,5

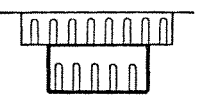
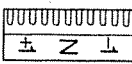

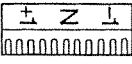

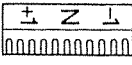
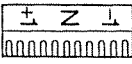
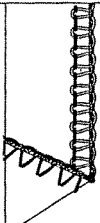
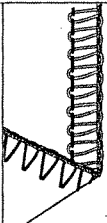


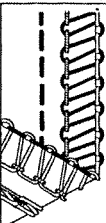
Note:
 This information about the thread spools, position of the looper disengaging lever and the converter position is only to be found in this chart (not in the display).

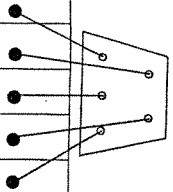
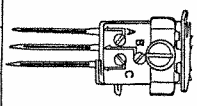
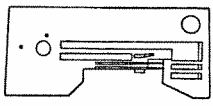
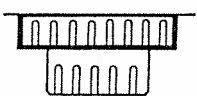
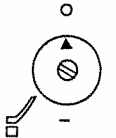
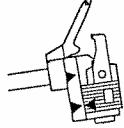













Thread spool	Needle	Needle plate	Differential feed setting	Looper disengaging lever	Slide position of converter
					
	90 14	N	N	•	•
	90 14	N	N	•	•
	80 12	R	N	•	•

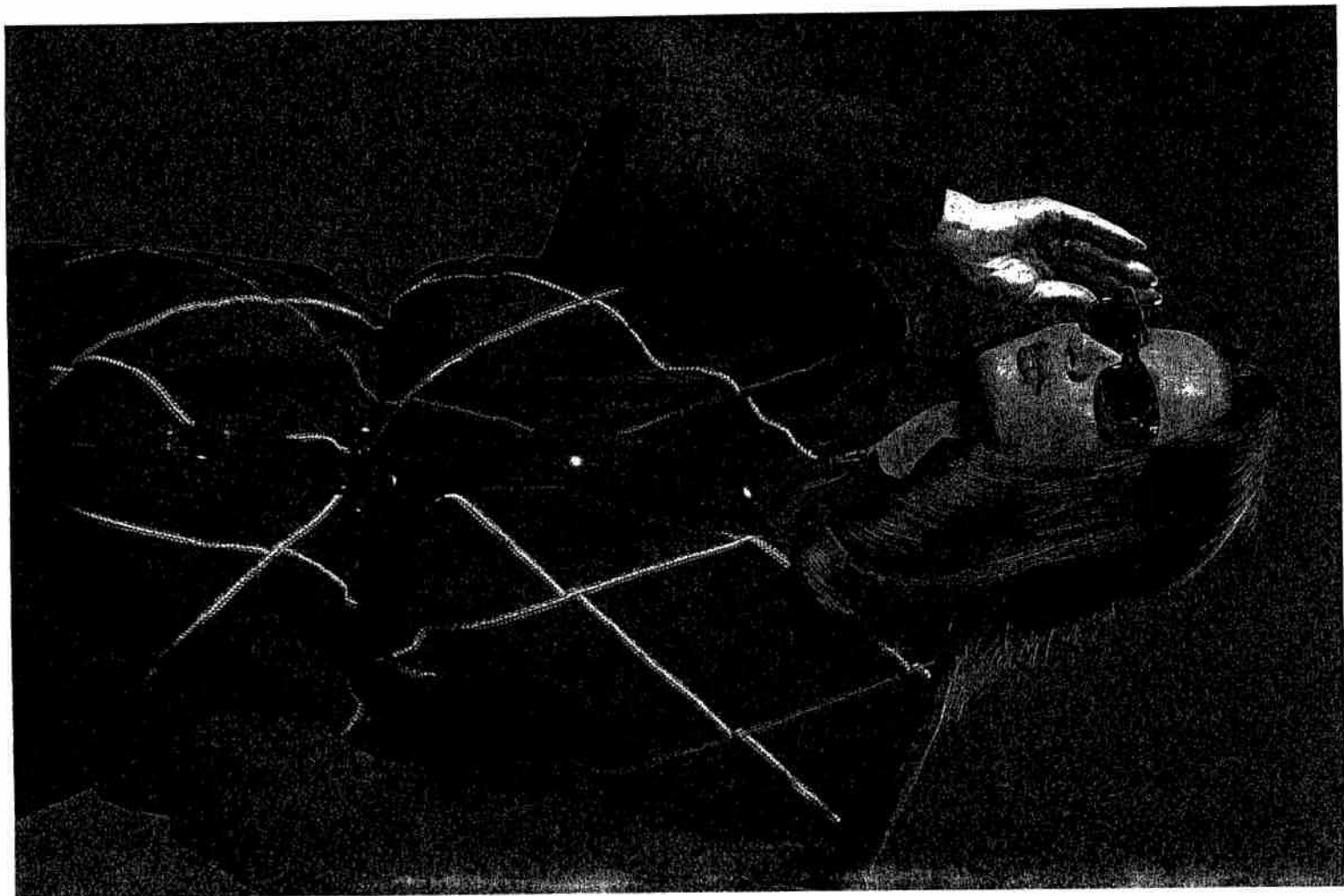
Program no.: Stitch type	Material (see page 54, 55)	Needle thread tension		Looper thread tension		Sewing foot pressure	Stitch length
 Prog. 4 3 thread overlock seam (narrow)	 Prog. 5 3 thread overlock seam (wide)	 Prog. 6 3 thread flat hem	 Prog. 7 4 thread overlock seam	 Prog. 8 Chainstitch	 Prog. 9 2 thread overlock seam with safety-stitch (wide)		
light	 blue	 green	 pink	 yellow	 mauve		
medium		N	+3	+1		1-N	N
heavy		N	N	N		N-3	N
light		N	N	N		1-N	N
medium		N	N	N		N	N
heavy		N	N	N		N-3	N
light		N	+1	N		1-N	1 to 1,5
medium		N	+1	N		N	1 to 1,5
heavy						N-3	1 to 1,5
light	-1	-2	N	N		1-N	N
medium	-1	-1	N	N		N	N
heavy	N	N	N	N		N-3	N
light	N					1-N	N
medium	N					N	N
heavy	+1					N-3	N
light	-4	-5	+2	N		1-N	N
medium	N	-5	+2	N		N	N
heavy	+1	-5	+2	N		N-3	N

Program No.: Stitch type:	Material (see page 54, 55)	Needle thread tension		Looper thread tension			Sewing foot pressure	Stitch length
 Prog. 10 3 thread overlock seam with safety-stitch (wide)	light	 blue	 green	 pink	 yellow	 mauve		
	medium	N	N	N	N	N		
	heavy	+1	+1	+3	+1	N		
	light	-1	-1		-1	1-N		
	medium	-1	-1		-1	N		
 Prog. 11 Wrapped 2 thread overlock seam (narrow)	heavy	-1	-1		-1	N-3		N
	light	N	N		-1	1-N		N
	medium	N	N		-1	N		
 Prog. 12 Wrapped 2 thread overlock seam (wide)	heavy	N	N		-1	N-3		N
	light	N	N		-1	1-N		
	medium	N	N		-1	N		
 Prog. 13 2 thread rolled hem	heavy					N		1 to 1,5
	medium	N			N			
	light	N	N		N	1-N		
 Prog. 14 Wrapped 3 thread overlock seam (narrow)	heavy					N-3		N
	medium	-1	-1	-5	+3	N		
	light	-1	-1	-5	+3	1-N		
 Prog. 15 Wrapped 3 thread overlock seam (wide)	heavy	N	N	-5	+4	N-3		N
	medium	-1	-1	-5	+3	N		
	light	-1	-1	-5	+3	1-N		

Thread spool	Needle	Needle plate	Differential feed setting	Looper disengaging lever	Slide position of converter
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					

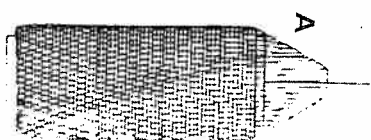
Program No.: Stitch type	Material (see page 54, 55)	Needle thread tension		Looper thread tension			Sewing foot pressure	Stitch length
 Prog. 16 3 thread decorative seam serging (wide) flatlock		blue		green		pink		
						yellow		
						mauve		
		light	-5	+1	+4		1-N	
		medium	-5	+1	+4		N	
 Prog. 17 3 thread decorative seam serging (narrow) flatlock		heavy	-5	+1	+4		N-3	N
		light	-5	+1	+4		1-N	
		medium	-5	+1	+4		N	
		heavy	-5	+1	+4		N-3	
		light	-5	+1	+4		1-N	
 Prog. 18 3 thread rolled hem		heavy					N-3	1 to 1,5
		medium	N	N	+3		N	
		light	N	N	+3		1-N	
		heavy					N-3	
		medium	-1	-1	-1		N	
 Prog. 19 reinforced 2 thread overlook seam		heavy	N	N	-1		N-3	N
		light	-1	-1	-1		1-N	
		medium	-1	-1	-1		N	
		heavy	+1	-5	+2		N-3	
		medium	N	-5	+2		N	
 Prog. 20 2 thread overlook seam with safety-stitch (narrow)		heavy	+1	-5	+2		N-3	N
		light	N	-5	+2		1-N	
		medium	N	-5	+2		N	
		heavy	N	N	+3		N	
		medium	N	N	+3		N	
 Prog. 21 3 thread overlook seam with safety-stitch (narrow)		heavy	+1	+1	+1		N-3	N
		light	N	N	+1		1-N	
		medium	N	N	+1		N	
		heavy	+1	+1	+1		N-3	
		medium	N	N	+1		N	

Thread spool	Needle	Needle plate	Differential feed setting	Looper disengaging lever	Slide position of converter
					
	A		N	O	A
	B		N	I	B
		90 14			
					
	90 14		N		
		80 12	N		
		R			
					
	90 14	90 14	N		
					
	90 14	90 14	N		
					
	90 14	90 14	N		



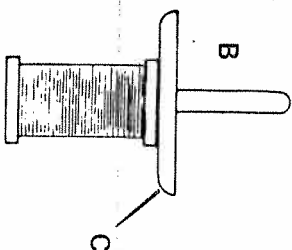
Thread spool net

The thread spool net from the accessories (see page 66) is particularly useful as it prevents synthetic threads from unravelling so easily and slipping off the spool (Fig A).



Thread unreeling disc

The thread unreeling disc from the accessories (see page 66) is used for **smaller thread spools**. Remove the thread spool centering pieces from the thread reel pin and put on the thread spools. Place the thread unreeling disc on the bottom of the reel pin with the rounded end **C** to the bottom as in fig. **B**.



Reel disc (special accessories)

The reel disc **D** is helpful when using large thread spools (5.000 – 10.000 m). Place the thread spool centering piece **(27)** upside-down on the reel pin **(25)** as illustrated.

The reel disc prevents the loops of synthetic threads from slipping down and ensures that the thread runs smoothly.

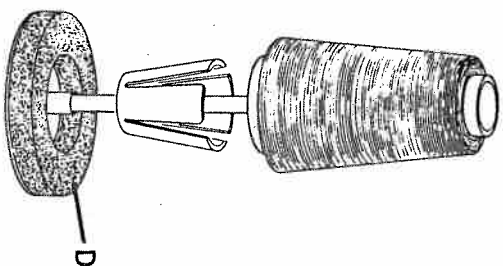


Chart for the combination of sewing feet and needle plates

Sewing foot	Needle plate	Accessory	Part no.
Combination foot	N	normal accessory	29-924 993-71/287
Combination foot	R	normal accessory	29-924 993-71/287
Taping foot	N	special accessory	29-924 993-71/295
Blindstitch foot	N	special accessory	29-924 993-71/291
Gimp thread sewing foot	R	special accessory	29-924 993-71/294
Elastic tape sewing foot	N	special accessory	29-924 993-71/292
Gathering foot	N	special accessory	29-924 993-71/293
Cording foot	N	special accessory	29-924 993-71/298
Bead sewing foot	R	special accessory	29-924 993-71/296
Lace sewing foot	N	special accessory	29-924 993-71/297

Taping foot

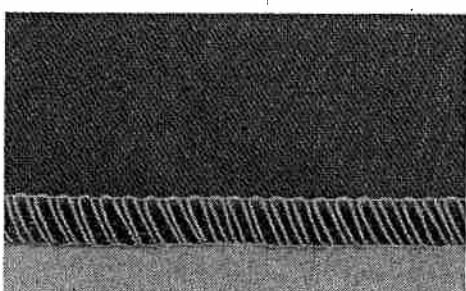
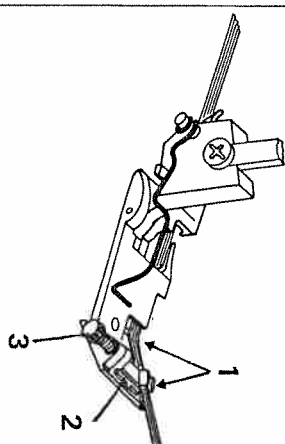
This special sewing foot is for sewing on tapes to prevent stretch materials (knitwear) from stretching.

Preparing the machine:

Program:	4 or 5 depending on width of tape
Stitch length:	N
Stitch width:	3 – 5 (adjustable for a tape width of 4 – 9 mm)
Differential setting:	N
Sewing foot pressure:	N
Needle plate:	normal needle plate N
Thread tension:	see display (press mod key)
Sewing foot:	taping foot
Upper knife:	switch off

Inserting the tape:

1. Set the needle at highest point.
2. Raise sewing foot and place tape in guides 1 from the right.
3. Push tape to **right stop** with the **slide 2**.
4. Depending on the width of the tape, adjust its position in relation to the needle with **adjusting screw 3**.
5. Insert fabric and sew a test seam.



Blindstitch sewing foot

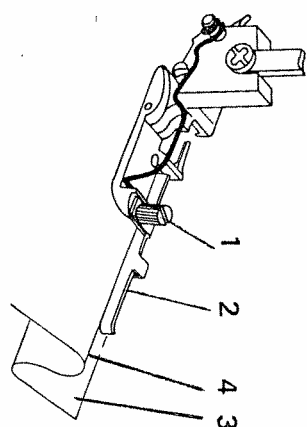
Blindstitch is ideal for skirt and trouser seams and wherever the seam should not be visible. The hem is trimmed, serged and sewn in one operation.

Preparation of the machine:

Program:	4
Stitch length:	4
Stitch width:	N
Differential setting:	N
Sewing foot pressure:	N
Needle plate:	normal needle plate N
Thread tension:	see display (press mod key)
Sewing foot:	blindstitch foot
Upper knife:	switch on

Sewing:

1. Before sewing cut 2 cm off hem part
3. This prevents displacement of the seam.
2. Place the prepared hem under the sewing foot so that the folded hem part 3 is under the edge guide 2. The crease line 4 of the outer fabric must run along the edge of guide 2.
3. The needle penetration in the outer fabric is regulated as follows:
Loosen the adjusting screw 1 and adjust the edge guide 2 so that only one thread of the outer fabric is caught by the needle.

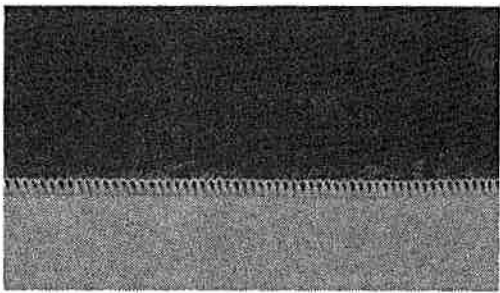
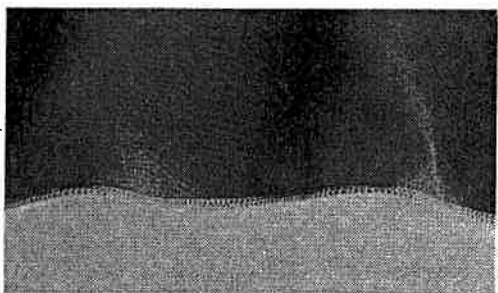
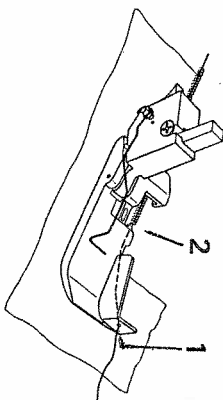


Gimp thread sewing foot

This special sewing foot is used to sew in gimp threads (cords, synthetic threads) up to a thickness of 1,0 mm. This produces an undulating or stiffer hem (e.g. on wedding dresses and valance).

Preparing the machine:

Program:	13 (switch converter on) or prog. 18
Stitch length:	1,0 to 1,5
Stitch width:	3 to 4
Differential setting:	N
Sewing foot pressure:	N
Needle plate:	rolled seam needle plate R
Thread tension:	see display (press mod key)
Sewing foot:	gimp thread sewing foot
Upper knife:	engaged



Inserting the gimp thread

1. Raise the sewing foot and set the needle in its highest position.
2. Place the fabric under the sewing foot.
3. Thread gimp thread (cord) through the hole 1 and then place it in guide 2 of the sewing foot shoe.
4. Sew a test seam.

Elastic tape sewing foot

This special sewing foot is for **sewing on elastic tape** in one operation at the same time as **trimming, serging** and – due to the contraction of the elastic tape – **gathering**.

Preparing the machine:

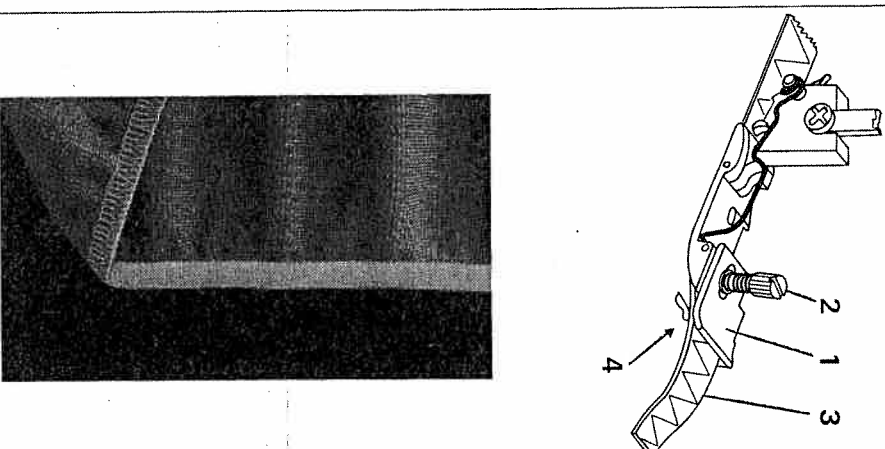
Program:	4, 5 or 7 depending on width of tape
Stitch length:	4
Stitch width:	4 to 4,5
Differential setting:	N
Sewing foot pressure:	N or 3
Needle plate:	normal needle plate N
Thread tension:	see display (press mod key)
Sewing foot:	elastic tape sewing foot
Upper knife:	engaged

Inserting elastic tape:

1. Loosen the screw (2) so that the brake (1) at the opening is opened about 1,5 to 2 mm.
2. Insert elastic tape (3) and draw it back under the foot.
3. Tighten the brake (1) again with screw (2). The lower the screw (2) is tightened up, the greater the pressure of the brake (1) on the elastic tape and the greater the gathering effect.

Note:

When the sewing foot is raised the elastic tape should be drawn through the brake (1) against a slight resistance.



Gathering foot

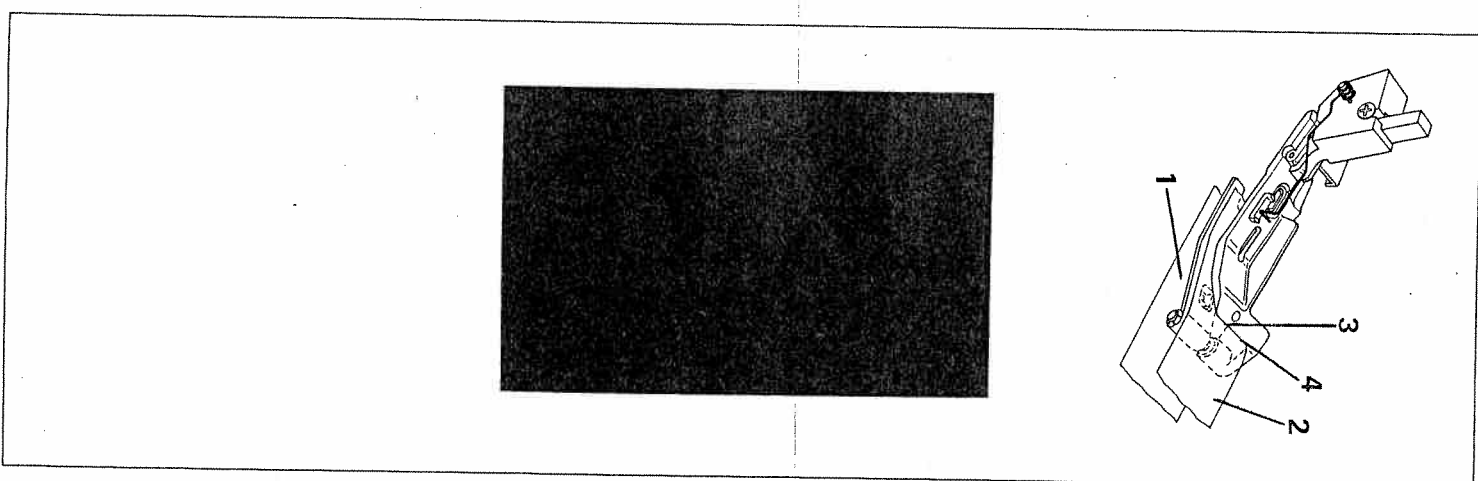
This special gathering foot is for sewing two fabrics together and gathering the bottom ply in one operation.

Preparing the machine:

Program:	7, 10 or 21
Stitch length:	N
Stitch width:	N
Differential setting:	2
Sewing foot pressure:	N or 3
Needle plate:	normal needle plate N
Thread tension:	see display (press mod key)
Sewing foot:	gathering foot
Upper knife:	engaged

Inserting the fabrics:

1. Raise the sewing foot and set the needle in its highest position.
2. Insert the bottom ply of fabric **1** between the needle plate and the gathering foot up to the upper knife.
3. Place the upper ply of fabric **2** flush with the lower ply (right side to right side) right up to the edge **4** of opening **3**.
4. Always sew a test seam to decide the desired gathering effect with the differential feed.



Cording foot

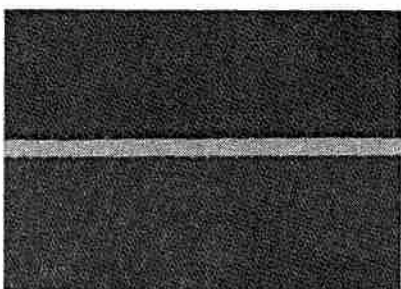
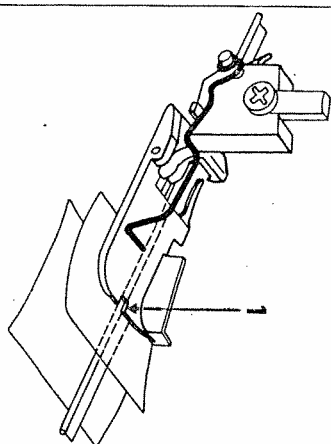
This special sewing foot is for sewing a cording tape between two fabric plies in one operation.

Preparing the machine:

Program: 7, 10 or 21
Stitch length: N
Stitch width: 3 – 5
Differential setting: N
Sewing foot pressure: N or 3
Needle plate: normal needle plate N
Thread tension: see display (press mod key)
Sewing foot: cording foot
Upper knife: engaged

Inserting the fabric plies:

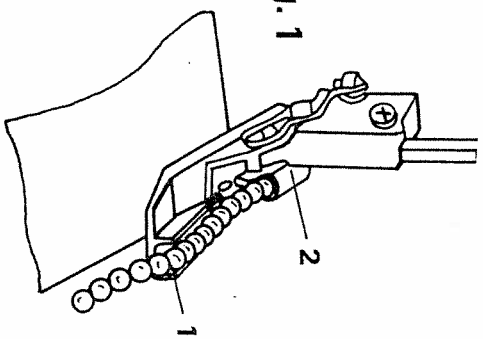
1. Raise the sewing foot and set the needle in its highest position.
2. Insert the bottom ply, cording tape and top ply together flush (right side to right side) under the cording foot up to the upper knife. The cording (piping) must be placed in guide 1.
3. Lower the sewing foot and sew a test seam.



Bead sewing foot

This special sewing foot is for sewing on beads, sequins, strass bands, lead and ordinary cords. These operations are carried out with one needle only.

Fig. 1



Preparing the machine:

Program:

4 (for small beads)
5 (for larger beads)

Stitch length:

3 to 4

Stitch width:

N to 5

Differential setting:

N

Sewing foot pressure:

1 or N

Needle plate:

rolled hem needle plate R

Thread tension:

see display (press mod key)

Sewing foot:

bead sewing foot

Upper knife: optionally disengaged or not

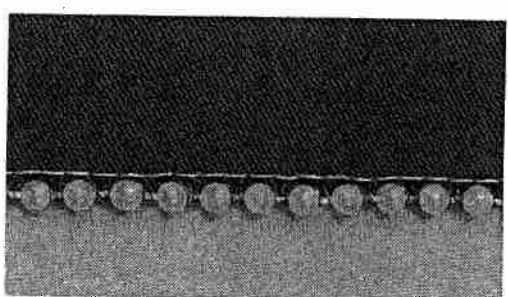
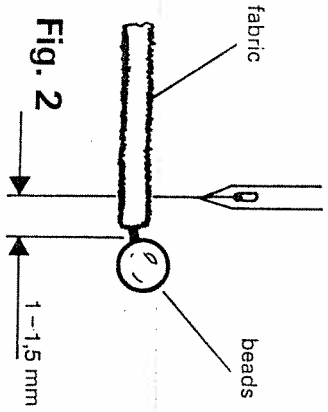
Sewing:

1. Slide the bead tape through guide 1 and 2 to the back of the foot (fig. 1).

2. You can sew with or without the upper knife in all the seam width settings. Guide the fabric along the right hand sewing edge.

3. The needle should penetrate 1 to 1,5 mm along the edge of the fabric (fig. 2).

Fig. 2



Note:

If the bead is sewn onto the fabric edge, the left needle must be used (disengage upper knife).

Lace sewing foot

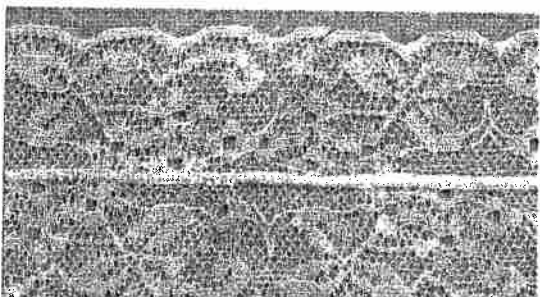
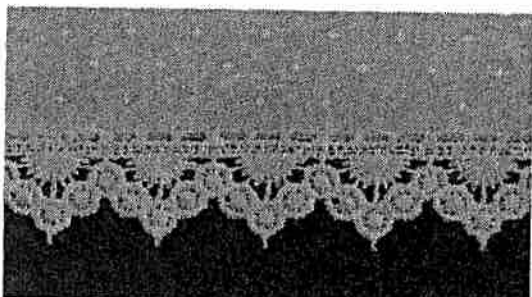
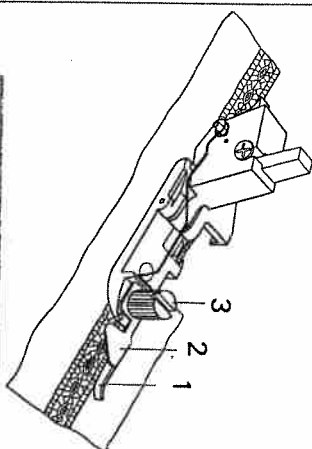
This special sewing foot is used for sewing lace or borders together or onto the workpiece.

Preparing the machine:

Program:	4
Stitch length:	1,5 to 2,0
Stitch width:	N
Differential setting:	N
Sewing foot pressure:	1 or N
Needle plate:	normal needle plate N
Thread tension:	see display (press mod key)
Sewing foot:	lace sewing foot
Upper knife:	optionally disengaged or not

Sewing on lace:

1. Raise the sewing foot and set needle in highest position.
2. Loosen screw 3 and adjust guide 2 so that when sewing the needle penetrates right at the edge of the lace (and the fabric underneath). Tighten screw 3.
3. When sewing the lace onto the fabric it must simply be run through guide 2 along edge guide 1 (engage upper knife).
4. If the fabric underneath is not to be trimmed when the lace is sewn on, both the lace and the fabric must be guided flush along edge guide 1 (upper knife disengaged).
5. Always sew a test seam.



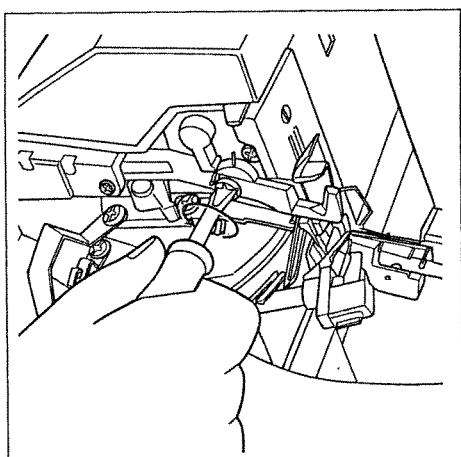
Maintenance and malfunction

Changing the knives	page 78, 79
Changing the light bulb	page 80
Cleaning the needle plate	page 80
Cleaning the knives	page 81
Oiling the machine	page 81
Sewing problems	page 82, 83
Specifications	page 84

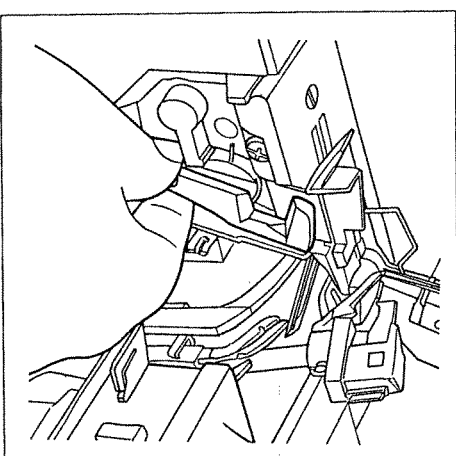
Changing the upper knife

Switch main switch off

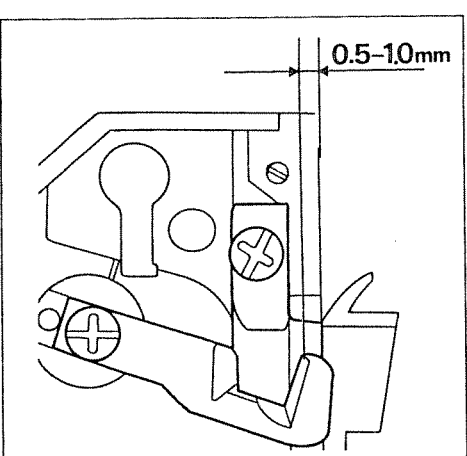
To remove: Take out the upper knife retaining screw (46) with the large screwdriver from the accessories (see page 66) and remove the upper knife (49).



To insert: Insert the new upper knife (49) and tighten its retaining screw loosely. Turn the hand wheel until the upper knife is in its lowest position.



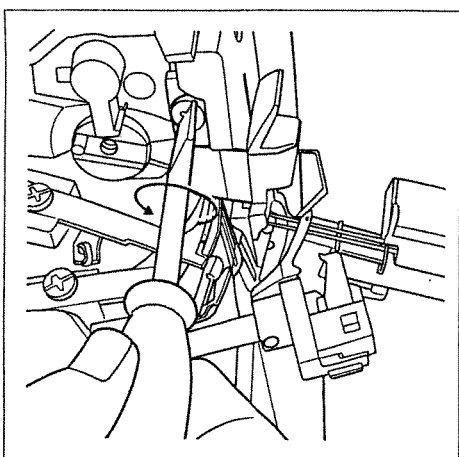
In this position the front edge of the upper knife must be **0,5 to 1,0 mm** lower than the cutting edge of the lower knife. When the upper knife has been fully adjusted, you can tighten up its retaining screw.



Changing the lower knife

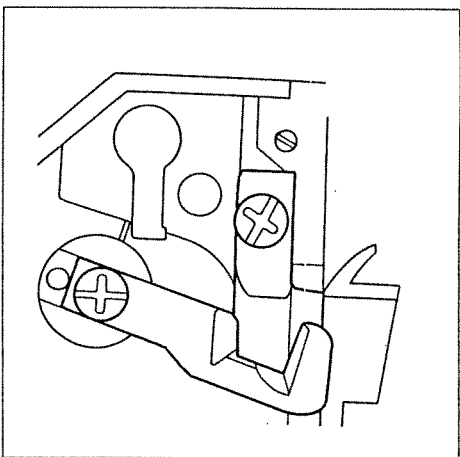
Switch main switch off

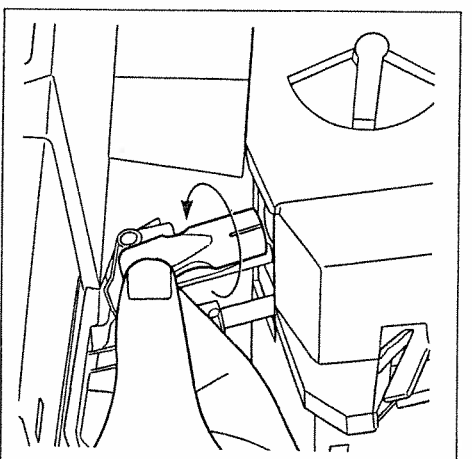
To remove: Set the seam width adjusting knob (17) to 3. Remove the sewing foot as well as the needle plate (see page 30, 31). Raise the needles to their highest position and disengage the upper knife (see page 32). Undo the lower knife retaining screw (47) with the large screwdriver from the accessories (see page 66) and remove the screw, pressure plate and lower knife.



To insert: Slide the new lower knife (48) between the lower knife holder and the upper knife. Place the pressure plate on the hole in the lower knife so that the longer part with the slanted corner is pointing backwards to the machine.

Secure the lower knife and the pressure plate with the retaining screw. Insert the needle plate. Bring the cutting edge of the lower knife to the same level as the needle plate. Now **tighten up** the retaining screw.





Changing the light bulb

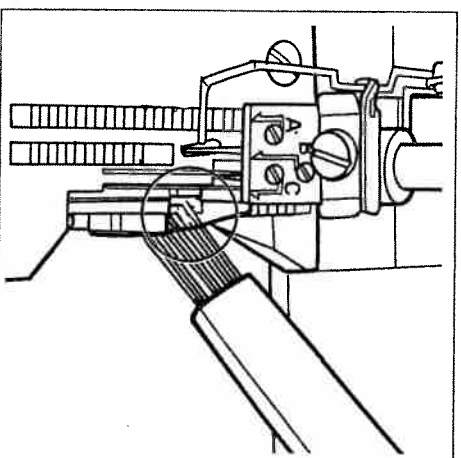
Switch main switch off

To remove: With the tool from the accessories (see page 66) press the light bulb right into its holder. At the same time twist the bulb with half a turn, anti-clockwise and remove it.

To insert: Insert the light bulb in the holder with the special tool and twist it until the pins on the **bulb** catch in place.

Now press the bulb right into the holder, twisting it clockwise until it is securely fixed.

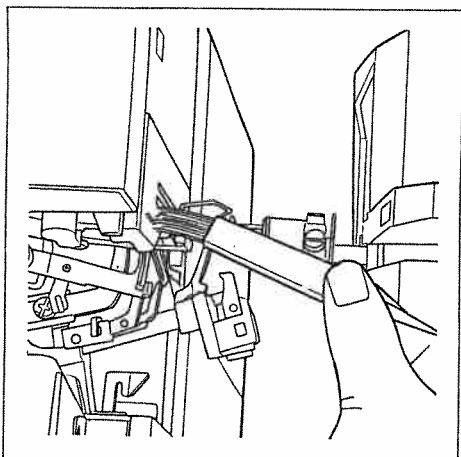
Note: The maximum power of the bulb is 5 watt.



Cleaning the needle plate

Switch the mainswitch off

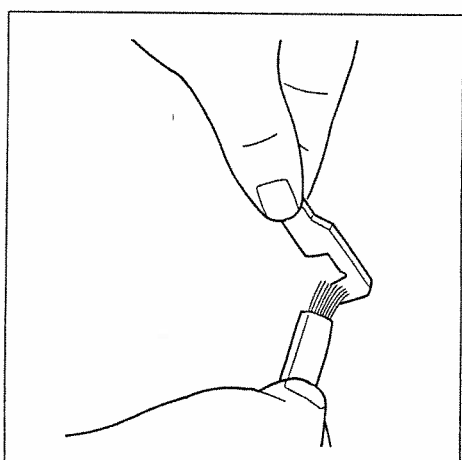
Disengage the upper knife (see page 32). Set largest stitch width. Clean the marked area carefully using the brush from the accessories.



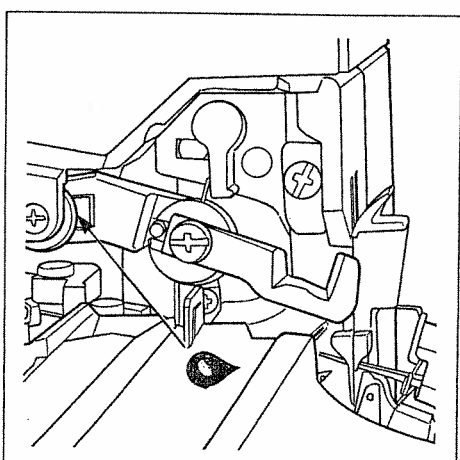
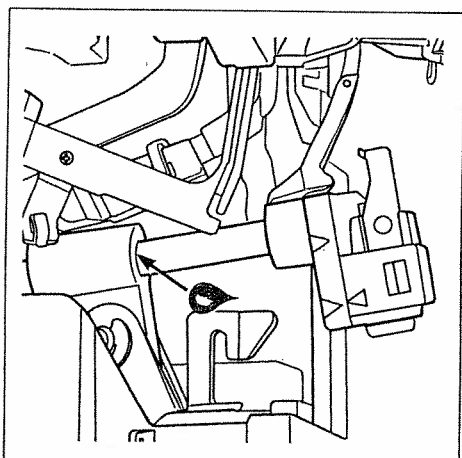
Cleaning the knife

Switch the main switch off

Take out the upper knife retaining screw (46) with the screwdriver supplied.



You can now remove the upper knife (49) and clean the lint off the upper and lower knife with the brush from the accessories (see page 66).



Oiling the machine

Before using your machine you should make a habit of lightly oiling the marked points with the oil from the accessories (see page 66). One or two drops of **PFAFF sewing machine oil** are enough. All the other parts are made of a special material and do not need to be oiled.

Sewing problems and their solutions

The machine was developed for the simplest operation possible. There are no complicated settings. It is however possible that the following problems arise as a result of small errors in the settings and operation. These problems can be easily solved if you follow these instructions.

Problem	Cause	Solution
Needle breakage	The needle was bent or the point damaged. The needle was not properly inserted. The fabric was pulled too forcefully.	Insert new needle (see page 29). Insert needle properly (see page 29). Do not pull the fabric when sewing.
Thread breaks	Incorrect threading. The thread got caught. Thread tension is too tight. The needle was not properly inserted. The wrong needle was used.	Thread properly (see page 13 – 21). Check if you have caught the thread on the spool stands etc. Correct the tension. (see page 45 – 47 and 51). Insert needle correctly. (see page 29). Use needle system EL X 705
Skipping stitches	The needle is bent or the point damaged. The needle was not properly inserted. The wrong needle was used. Incorrectly threaded.	Insert new needle (see page 29) Insert the needle correctly (see page 29). Use needle system EL X 705 Thread correctly (see page 13 – 21).
Stitch formation faulty	Thread tensions wrongly set.	Re-set thread tensions (see page 45 – 47 and 51).
3 or 4 thread overlock seam is irregular. The right looper thread is not sewn.	The converter is in its left position A (see page 50)	The converter must be set in its right position B (see page 50).

Problem	Cause	Solution
The machine does not operate although the main switch is switched on.	The electric power has been cut.	Close the looper cover (see page 12).
The fabric is not trimmed neatly.	Lint between the upper and lower knife. The lower knife is blunt.	Clean the knife (see page 81). Change lower knife (see page 79).
Gathering of the seam.	The thread tension is too tight. The differential feed is incorrectly set. The thread is incorrectly thread and has got caught	Reduce thread tension (particularly for light fabrics see page 42 – 47). Correct differential feed (see page 27, 28). Thread correctly (see page 13 – 21).

Contents of the cardboard box

Machine
Foot control
Mains cable
Machine cover
Waste box
Workpiece guide plate
Instruction manual

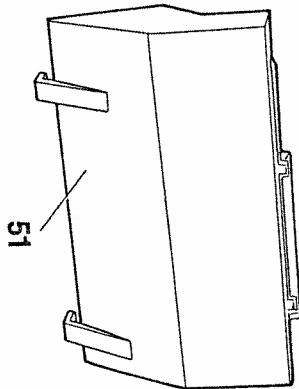
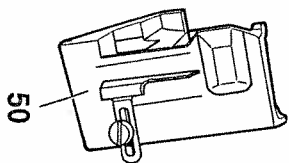
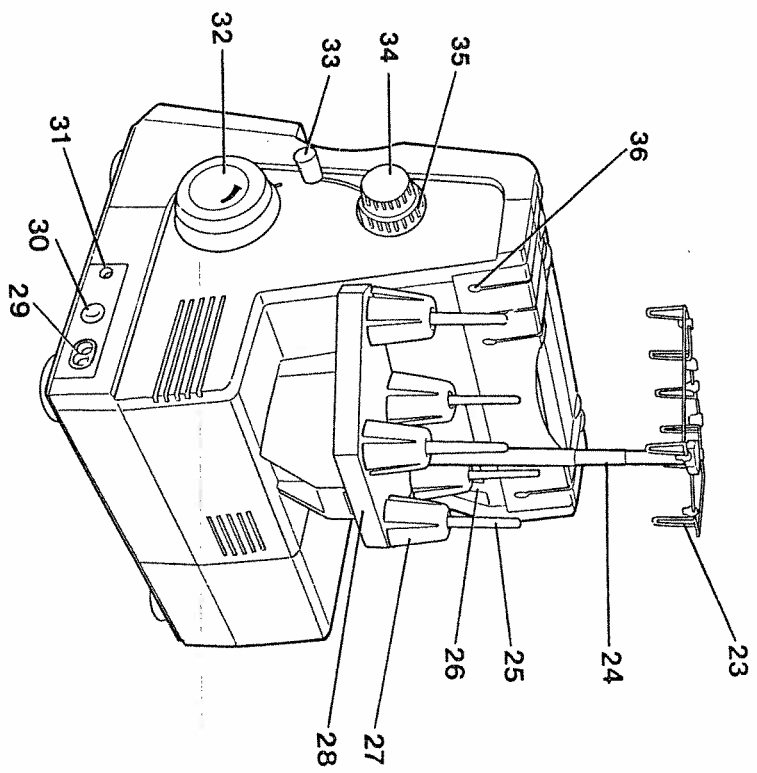
Specifications

Maximum sewing speed	1500 stitches/min
Seam width	3 to 7,2 mm overlock stitch
Stitch length	7 to 9 mm chainstitch
Differential feed	1 to 4 mm
Needle plate	1 : 0,5 / 1 : 2
Lubrication	exchangeable N or R manual
Max. sewing foot height	5 + 1,5 mm
Needle system	EL x 705
Needle size	80 or 90
Number of threads	2, 3, 4, 5
Dimensions	310 x 330 x 320
Weight	10,5 kg

Parts of the hobbylock 4870

- (23) Thread guide with coloured markings
- (24) Telescopic thread guide
- (25) Spool pins
- (26) Thread cutter
- (27) Spool centering
- (28) Spool stands
- (29) Power socket
- (30) Main switch
- (31) Foot control socket
- (32) Hand wheel
- (33) Sewing foot lever
- (34) Stitch length adjusting knob
- (35) Adjusting ring for the differential feed
- (36) Reverse thread guide

- (50) Material guide plate
- (51) Waste box



PFaff

G. M. Pfaff
Aktiengesellschaft
Werk Karlsruhe-Durlach
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