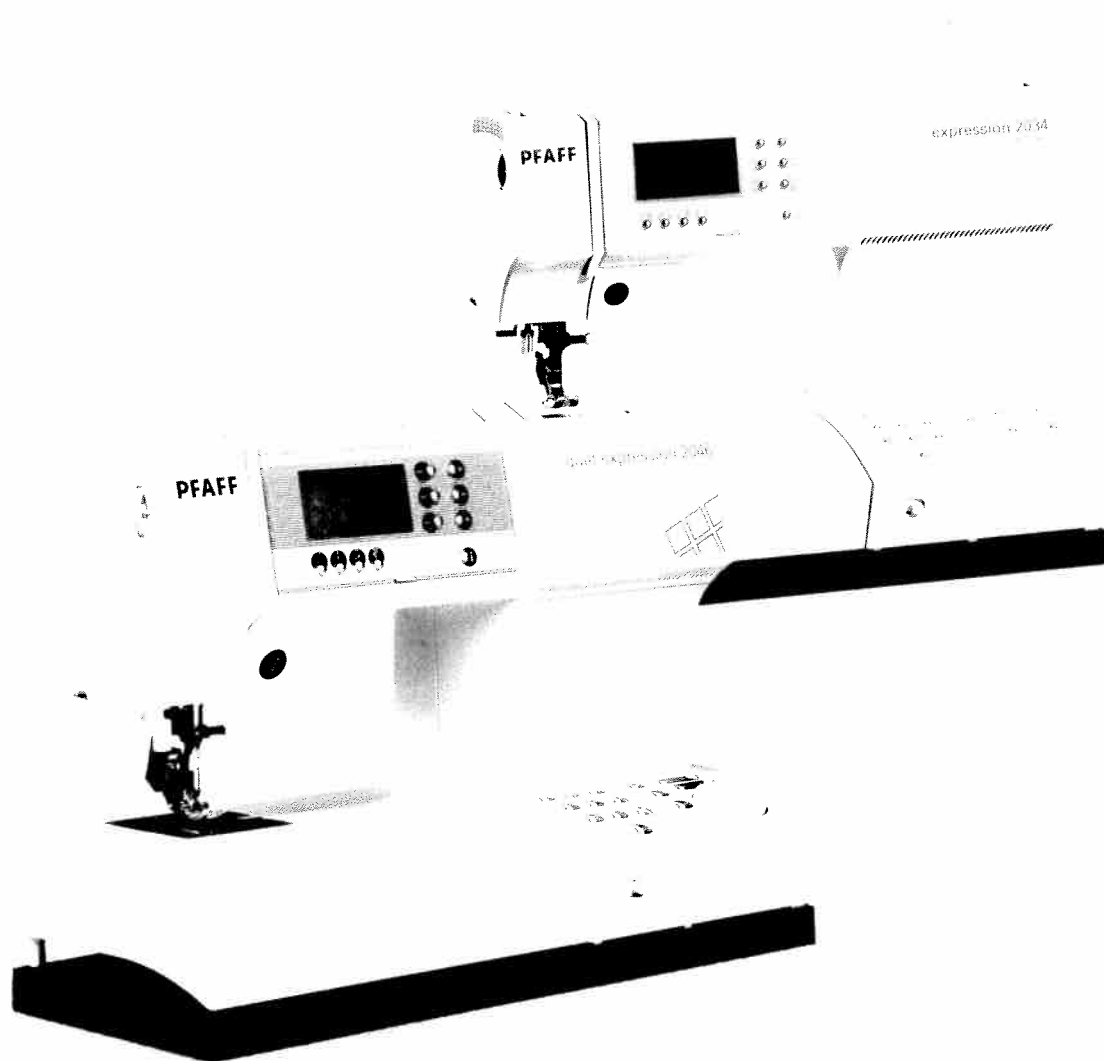


PFAFF

expression²⁰³⁴⁻²⁰⁴⁶

Instruction manual



IMPORTANT SAFETY INSTRUCTIONS

When using an electrical appliance, basic safety precautions should always be followed, including the following:

Read all instructions before using this household sewing machine.

DANGER – To reduce the risk of electric shock:

- A sewing machine should never be left unattended when plugged in. Always unplug this sewing machine from the electric outlet immediately after using and before cleaning.
- Always unplug before relamping. Replace bulb with same type rated max 5 Watt.

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

- Do not allow to be used as a toy. Close attention is necessary when this sewing machine is used by or near children and infirm persons.
- Use this sewing machine only for its intended use as described in this manual. Use only attachments recommended by the manufacturer as contained in this manual.
- 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 sewing machine to the nearest authorized dealer or service center for examination, repair, electrical or mechanical adjustment.
- Never operate the sewing machine with any air openings blocked. Keep ventilation openings of the sewing machine and foot controller free from the accumulation of lint, dust, and loose cloth.
- Keep fingers away from all moving parts. Special care is required around the sewing machine needle.
- Always use the proper needle plate. The wrong plate can cause the needle to break.
- Do not use bent needles.
- Do not pull or push fabric while stitching. It may deflect the needle causing it to break.
- Switch the sewing machine off ("0") when making any adjustment in the needle area, such as threading needle, changing needle, threading bobbin, or changing presser foot, etc.
- Always unplug the sewing machine from the electrical outlet when removing covers, lubricating, or when making any other user servicing adjustments mentioned in the instruction manual.
- Never drop or insert any object into any opening.
- Do not use outdoors.
- Do not operate where aerosol (spray) products are being used or where oxygen is being administered.
- To disconnect, turn all controls to the off ("0") position, then remove plug from outlet.
- Do not unplug by pulling on cord. To unplug, grasp the plug, not the cord.

SAVE THESE INSTRUCTIONS

For the USA and Canada

This sewing machine has a polarized plug (one blade wider than the other). To reduce the risk of electric shock, this plug is intended to fit in a polarized outlet only one way. If the plug does not fit fully in the outlet, reverse the plug. If it still does not fit, contact a qualified electrician to install the proper outlet. Do not modify the plug in any way.

Modern, uncomplicated

Sewing by push-button control

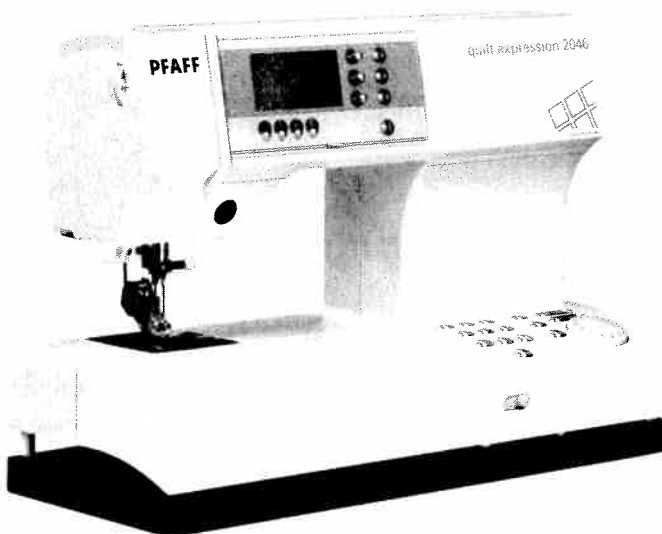
Congratulations! You have purchased a high-quality product that offers unique advantages. Your new sewing machine can take any material in its stride and will sew through thick and thin for you.

It features the very latest in design and technology, and this instruction book is just as uncomplicated as your PFAFF sewing machine. It applies both to the 2046 model and to the 2034. Should there be any difference in operation we have pointed that out separately.

If you now take time enough to study the instruction book, nothing can go wrong. After all, this is the only way to learn all the things the machine can do, and to make full use of them.

If you have any further questions, that is no problem! Your PFAFF dealer will be at your service with any help or advice you need.

So now you can get started! We wish you many enjoyable hours of creating your fashion ideas.



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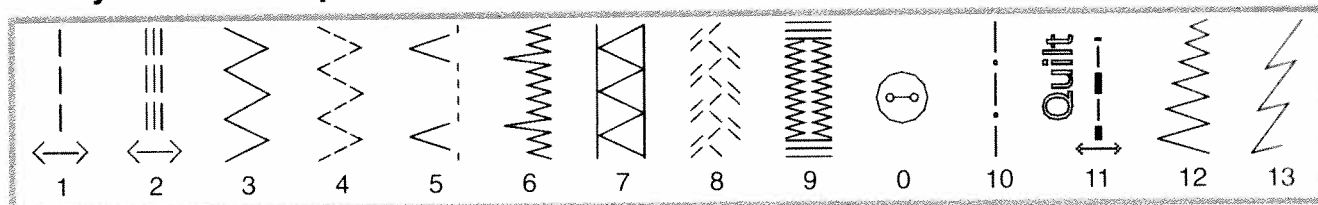
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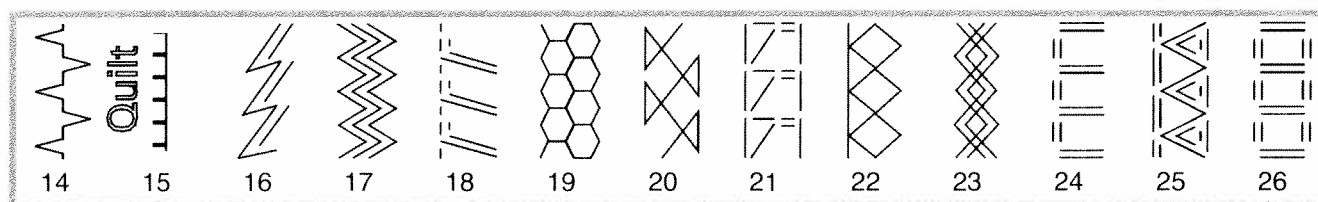
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Utility stitches Expression 2034



Stitch No.	Description	Application	Width up to mm
1	Straight stitch	For seaming and topstitching up to 6 mm. 13 needle positions available for edgestitching or sewing in zippers.	—
2	Stretch triple straight stitch	For reinforced seams such as trousers, under arm seams or decorative topstitching. With 13 needle positions.	—
3	Zigzag stitch, Center needle position	For finishing seams on fabrics, applique, and inserting lace.	6
4	Elastic stitch	Strong stitch for seam finishes, sewing elastic, darning tears, and patches.	6
5	Blind hem stitch	For securing hems invisibly on woven fabrics	6
6	Elastic blind hem stitch	For securing hems invisibly and finishing the edge on stretch fabrics.	6
7	Closed overlock stitch	For joining and overcasting stretch fabrics in one operation.	6
8	Bridging stitch	For bridging, decorative hemstitching and crazy quilting.	6
9	Linen buttonhole	Buttonhole for blouses, shirts and linen.	6
0	Button attaching program	For two-hole or four-hole buttons.	
10	Basting stitch	For basting project pieces together.	
11	Quilt stitch	For topstitching quilt projects with a handlook stitch.	
12	Zigzag stitch Right/Left needle position	For applique, couching over cords and creating eyelets.	6
13	Stem stitch, narrow	For decorative sewing such as flower stems and underlining letters.	3

Utility stitches Expression 2034



Stitch No.	Description	Application	Width up to mm
14	Decorative elastic stitch	For joining overlapped seams on bulky fabrics such as leathers and terry cloth.	6
15	Quilting, appliqué or pinstitching	For handlook quilt applique or pinstitching.	6
16	Stem stitch, wide	For decorative sewing such as flower stems and underlining letters.	3
17	Stretch triple zigzag stitch	Elastic stitch for decorative hems and topstitching.	6
18	Open overlock stitch	For joining and overcasting stretch fabrics in one operation.	6
19	Honeycomb stitch	Elastic, decorative stitch for ornamental hem finishing on stretch fabric, for decorative elastic application and sewing with elastic thread in the bobbin.	6
20	Cross hem stitch	Provides a highly elastic decorative seam for hems on sportswear and casual wear.	6
21	Closed overlock stitch with selvage thread	For joining and overcasting stretch and easily fraying fabrics in one operation. The selvage thread prevents the fabric edges from fraying.	6
22	Pullover stitch	Join and overcast open knit fabrics and jersey.	6
23	Cross stitch	Classic decorative stitch for garments, linen and kitchen towels.	6
24	Hem stitching	For ornamental hem stitching. Can be used with wing needle.	6
25	Hem stitching		
26	Hem stitching		



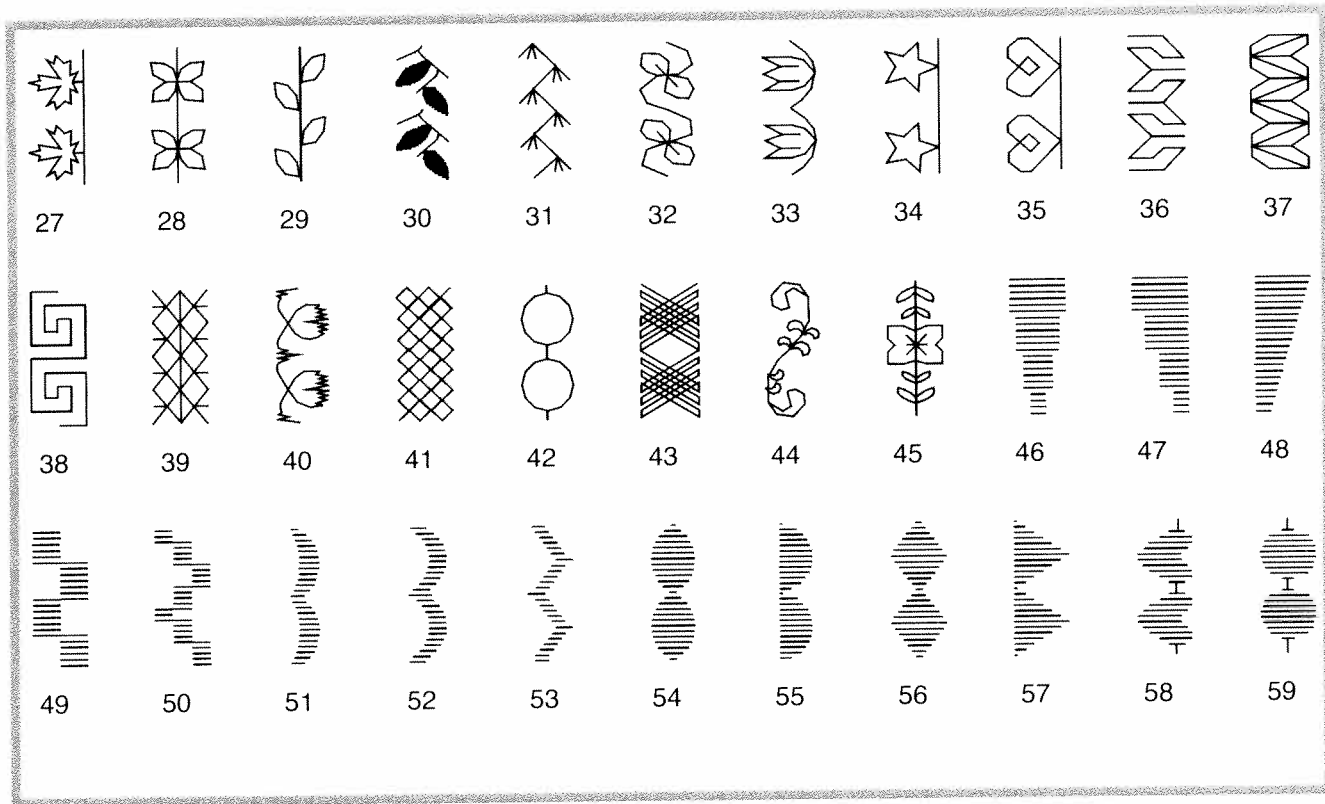
Darning stitch



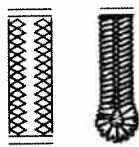
This block shows a comparison between cursive and printed handwriting. On the left, the letters 'A', 'Z', and '7' are written in a cursive style. On the right, the same letters are shown in a printed, sans-serif style.



Decorative stitches Expression 2034



Buttonholes



60

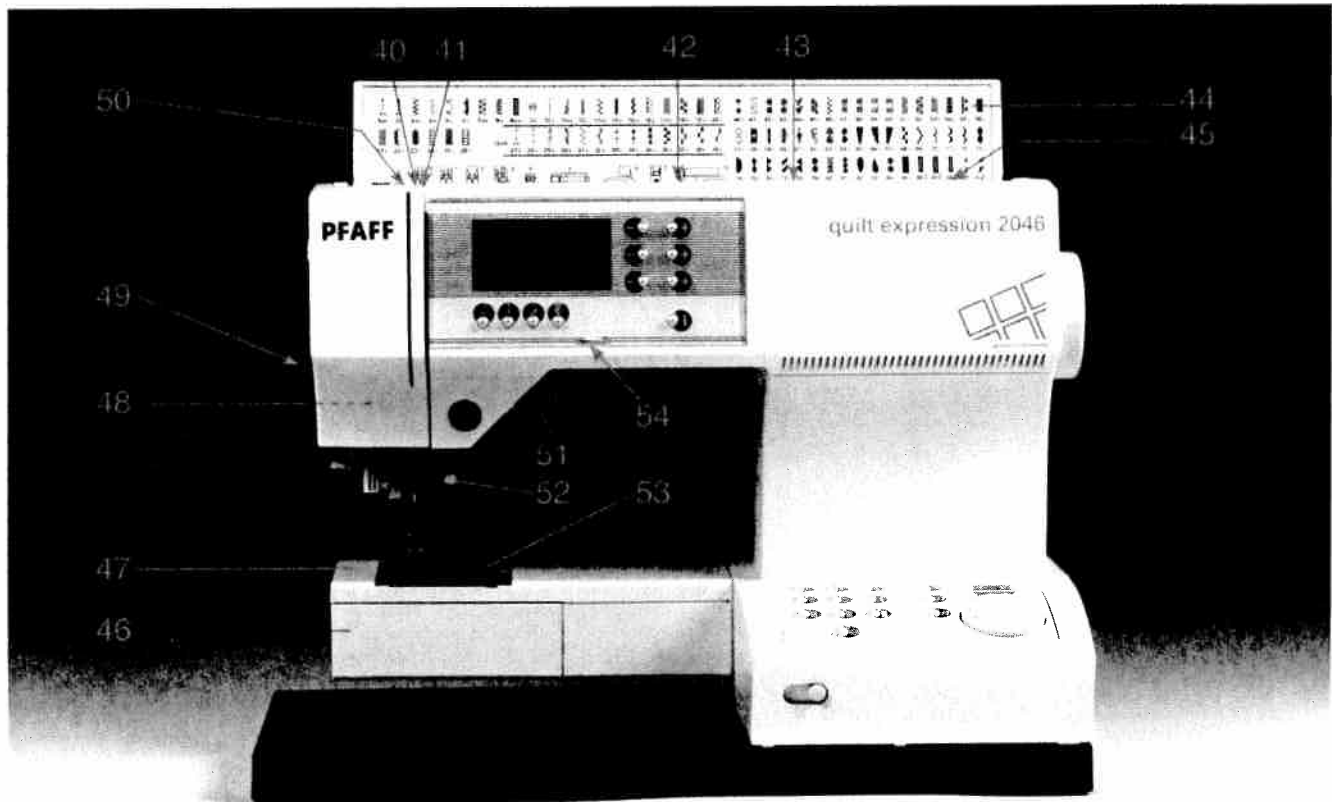
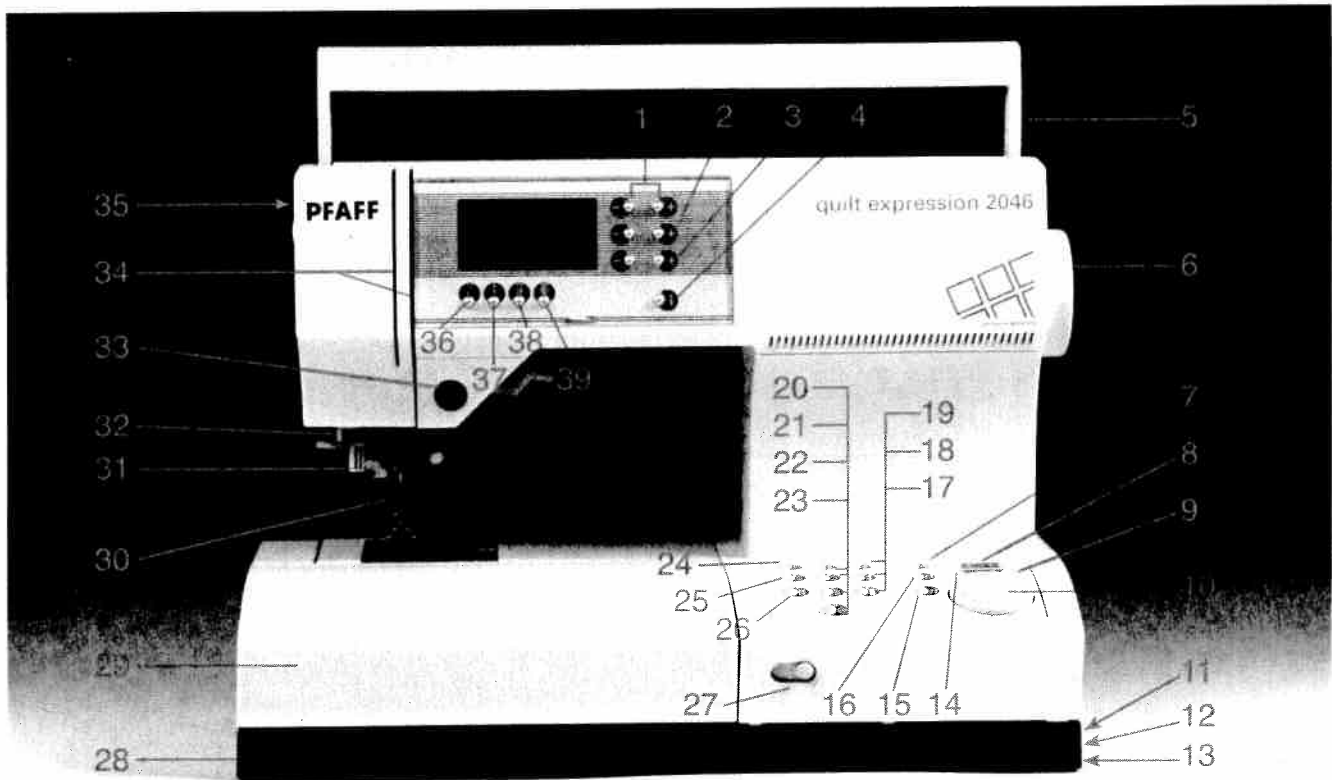
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Alphabet

A
Z

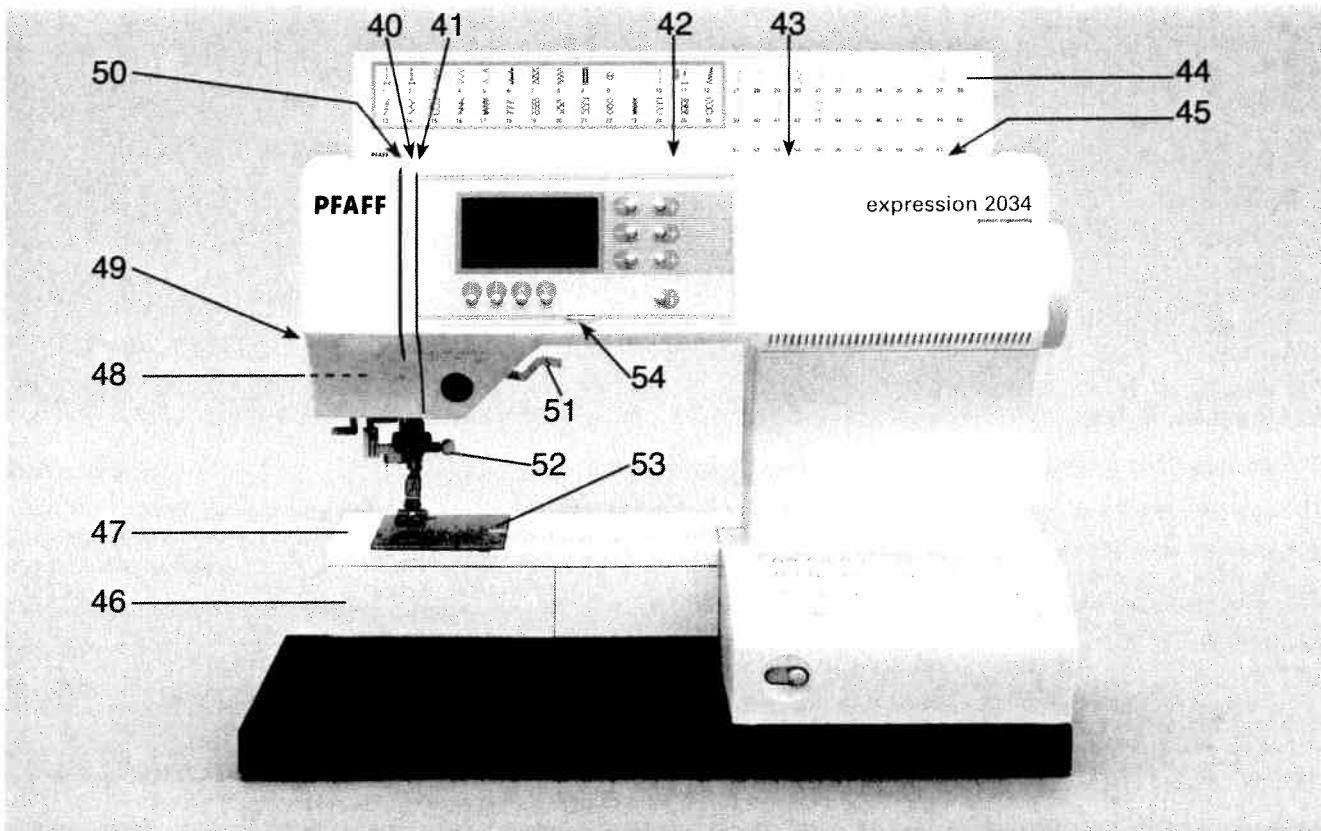
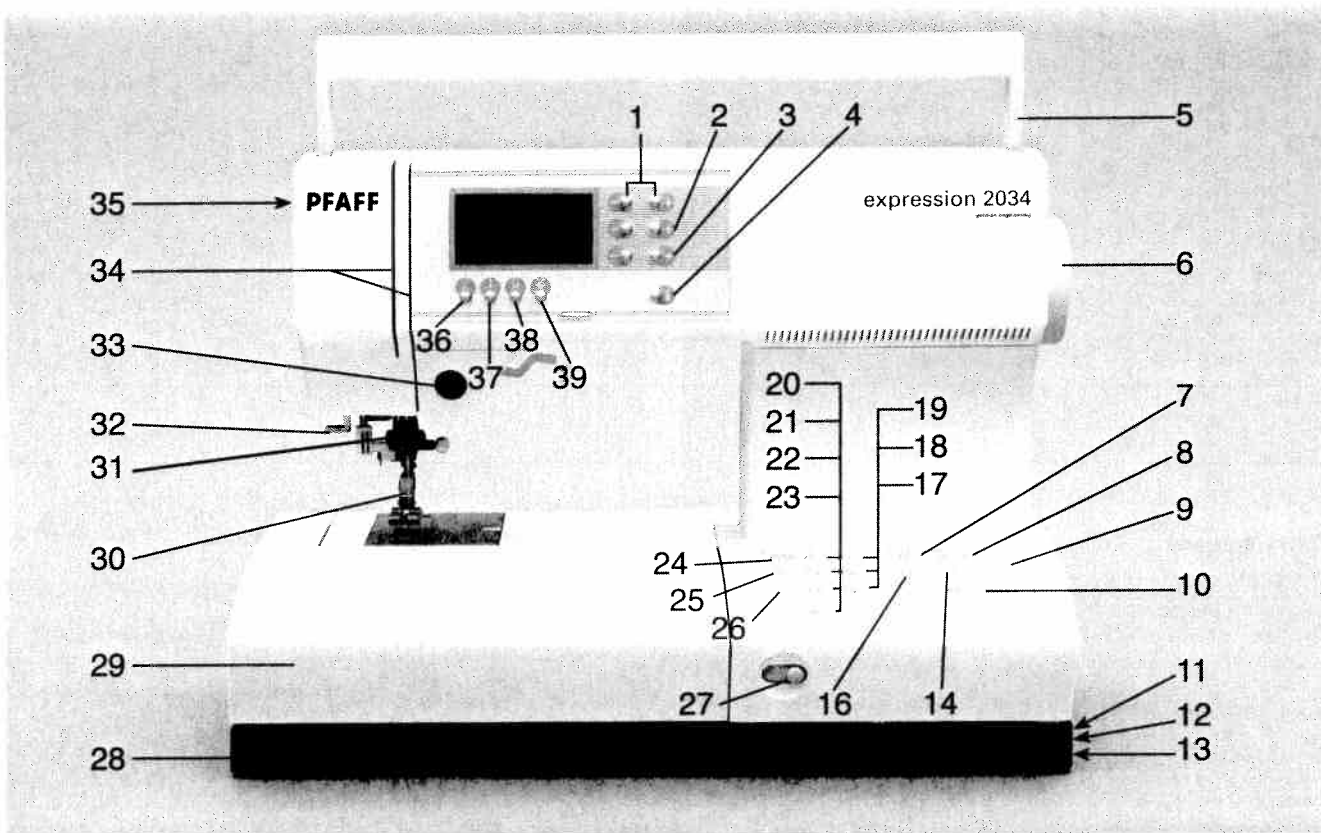
Parts of the sewing machine (model 3016)

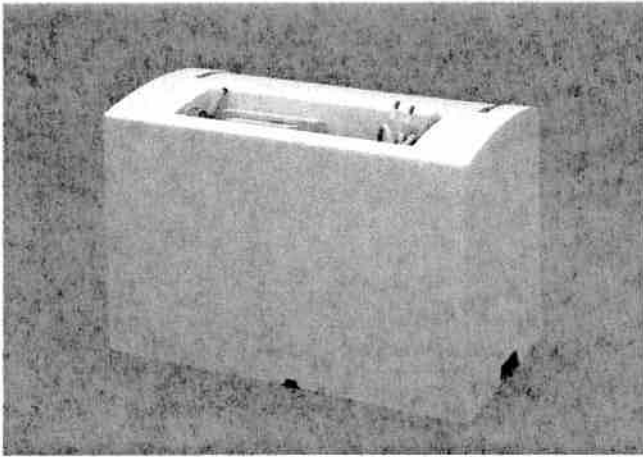
- | | | | |
|----|--|----|--|
| 1 | 1/4 button A (stitch width/pattern width controls) | 27 | Slide for lowering the feed dog |
| 2 | 1/4 button B (stitch length/pattern length controls) | 28 | Base plate |
| 3 | 1/4 button C (stitch density/balance controls) | 29 | Removable accessory tray |
| 4 | Info button | 30 | Presser foot holder with presser foot |
| 5 | Carrying handle | 31 | Integrated dual feed/IDT |
| 6 | Handwheel | 32 | Integrated needle threader |
| 7 | "M" button | 33 | "Reverse sewing" button |
| 8 | Cursor buttons | 34 | Threading slots |
| 9 | Clear/pattern start button | 35 | Needle thread tension |
| 10 | Stitch selection wheel | 36 | "Tie-off" button |
| 11 | Connection socket "lead cord" | 37 | "Needle up/down" button |
| 12 | Connection socket "foot control" | 38 | "Slow sewing" button |
| 13 | Master switch | 39 | "Pattern mirror" button/ "Lock" button |
| 14 | m+ button | 40 | Take-up lever |
| 15 | Direct selection button "Alphabet" | 41 | Thread guide |
| 16 | Direct selection button "Alphabet" | 42 | Spool holder with spool cap |
| 17 | Direct selection button "Linen buttonhole" | 43 | Hole for second spool holder |
| 18 | Direct selection button "Elastic blind hem stitch" | 44 | Lid with stitch program chart |
| 19 | Direct selection button "Zigzag stitch" | 45 | Bobbin winder |
| 20 | Direct selection button "Stretch triple straight stitch" | 46 | Bobbin door |
| 21 | Direct selection button "Blind hem stitch" | 47 | Free arm |
| 22 | Direct selection button "Bridging stitch" | 48 | Sewing bulb (max. 5 W) |
| 23 | Direct selection button "Button attaching program" | 49 | Thread cutter |
| 24 | Direct selection button "Straight stitch" | 50 | Thread take-up |
| 25 | Direct selection button "Elastic stitch" | 51 | Presser foot lifter |
| 26 | Direct selection button "Closed overlock stitch" | 52 | Needle holder with retaining (set) screw |
| | | 53 | Needle plate |
| | | 54 | Contrast control |



Parts of the sewing machine (model 2034)

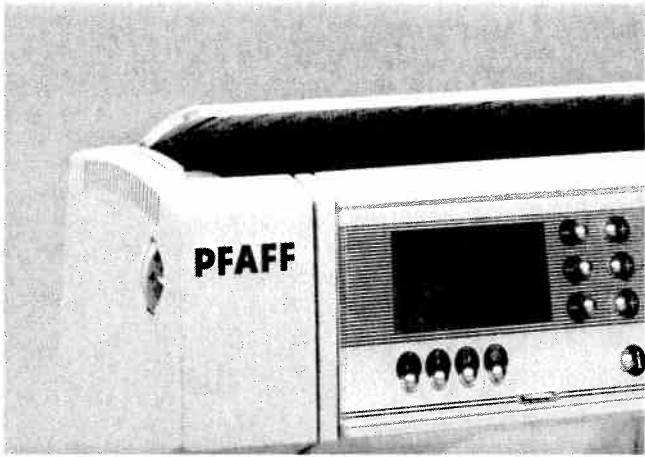
- | | | | |
|----|--|----|--|
| 1 | -/+ button A (stitch width/pattern width controls) | 27 | Slide for lowering the feed dog |
| 2 | -/+ button B (stitch length/pattern length controls) | 28 | Base plate |
| 3 | -/+ button C (stitch density/balance controls) | 29 | Removable accessory tray |
| 4 | Info button | 30 | Presser foot holder with presser foot |
| 5 | Carrying handle | 31 | Integrated dual feed/IDT |
| 6 | Handwheel | 32 | Integrated needle threader |
| 7 | "M" button | 33 | "Reverse sewing" button |
| 8 | Cursor buttons | 34 | Threading slots |
| 9 | Clear/pattern start button | 35 | Needle thread tension |
| 10 | Stitch selection button | 36 | "Tie-off" button |
| 11 | Connection socket "lead cord" | 37 | "Needle up/down" button |
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| 13 | Master switch | 39 | "Pattern mirror" button/ "Lock" button |
| 14 | m+ button | 40 | Take-up lever |
| 16 | Direct selection button "Alphabet" | 41 | Thread guide |
| 17 | Direct selection button "Linen buttonhole" | 42 | Spool holder with spool cap |
| 18 | Direct selection button "Elastic blind hem stitch" | 43 | Hole for second spool holder |
| 19 | Direct selection button "Zigzag stitch" | 44 | Lid with stitch program chart |
| 20 | Direct selection button "Stretch triple straight stitch" | 45 | Bobbin winder |
| 21 | Direct selection button "Blindhem stitch" | 46 | Bobbin door |
| 22 | Direct selection button "Bridging stitch" | 47 | Free arm |
| 23 | Direct selection button "Button attaching program" | 48 | Sewing bulb (max. 5 W) |
| 24 | Direct selection button "Straight stitch" | 49 | Thread cutter |
| 25 | Direct selection button "Elastic stitch" | 50 | Thread take-up |
| 26 | Direct selection button "Closed overlock stitch" | 51 | Presser foot lifter |
| | | 52 | Needle holder with retaining (set) screw |
| | | 53 | Needle plate |
| | | 54 | Contrast control |





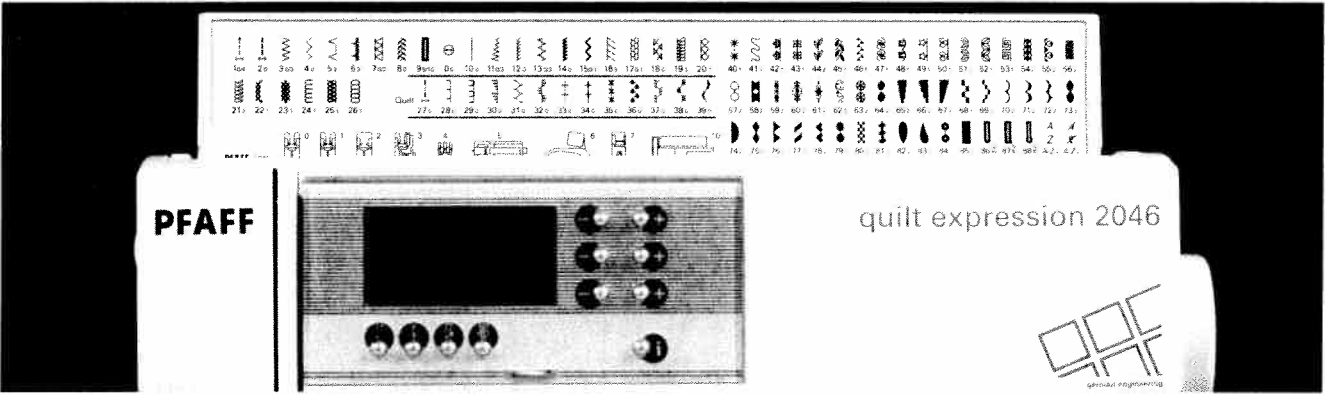
Carrying case

Place the enclosed lead cord, the foot control and instruction book into the compartment of the carrying case.

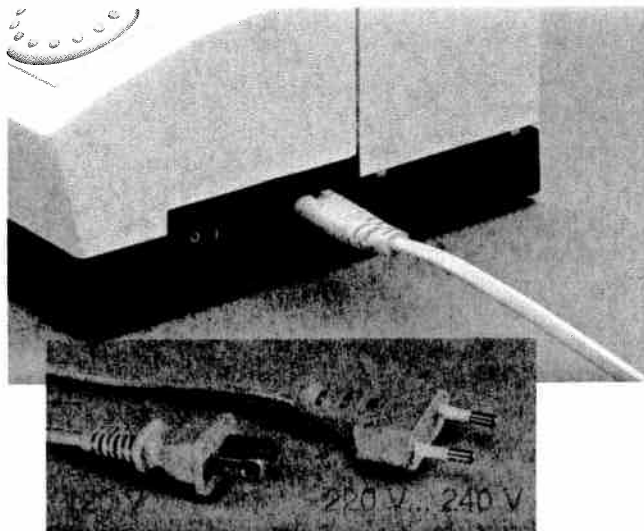


Lid

Open the folding lid (44) upwards.



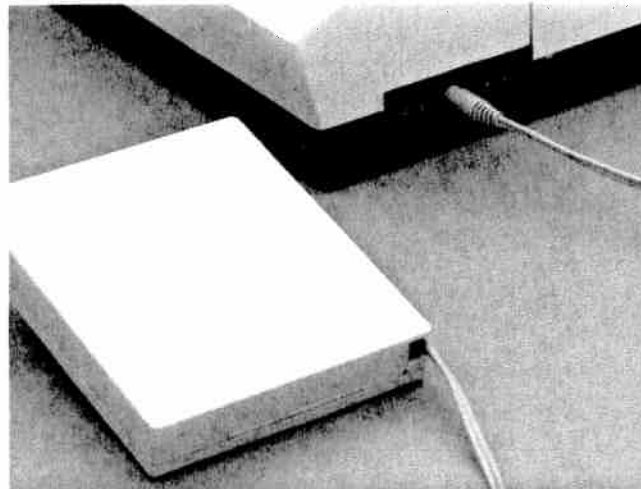
The stitches of the sewing machine are illustrated on the inside of the lid.
The appropriate presser foot to use for each stitch is also illustrated, e.g. Stitch No. 2, use presser foot No. 0.



Operating Instructions

Electrical connection

Connect the lead cord between the socket (11) of the sewing machine and the wall outlet.

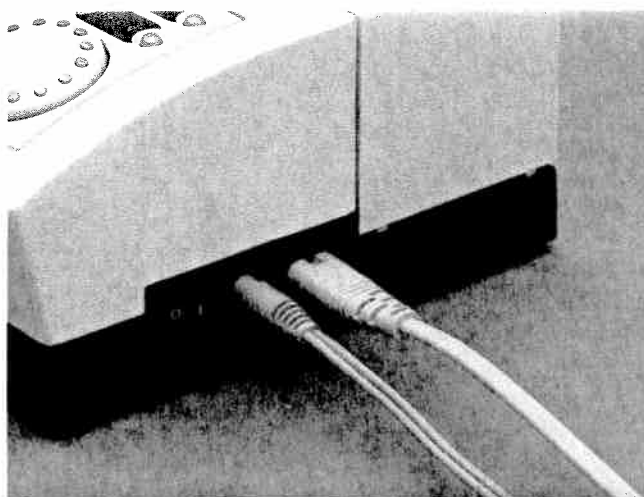


Connecting the foot control

Connect the plug of the foot control to the connection socket (12) of the sewing machine.

The sewing speed is controlled by pressing the foot control.

The foot control type ATK 0070 has to be used for this sewing machine.



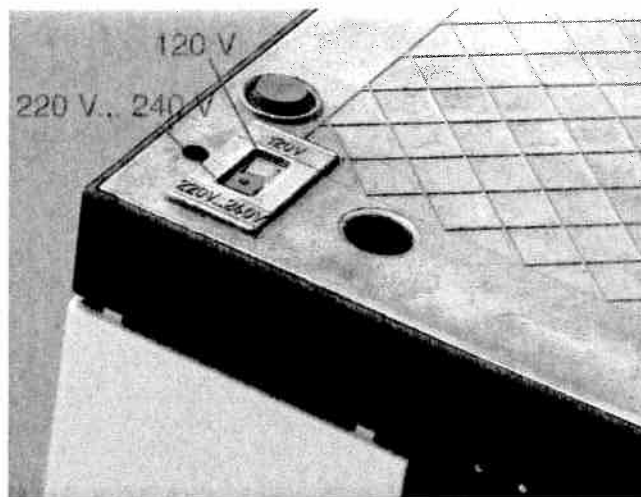
Master switch

When the master switch (13) is switched on (switch function I) the sewing lamp lights up and program No. 1 is indicated in the Expression window.

The sewing machine is now ready to function.

"0" = OFF

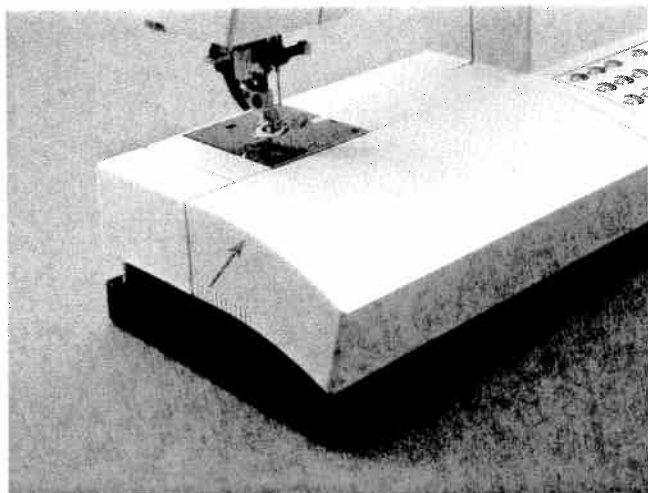
"I" = ON



Voltage switch

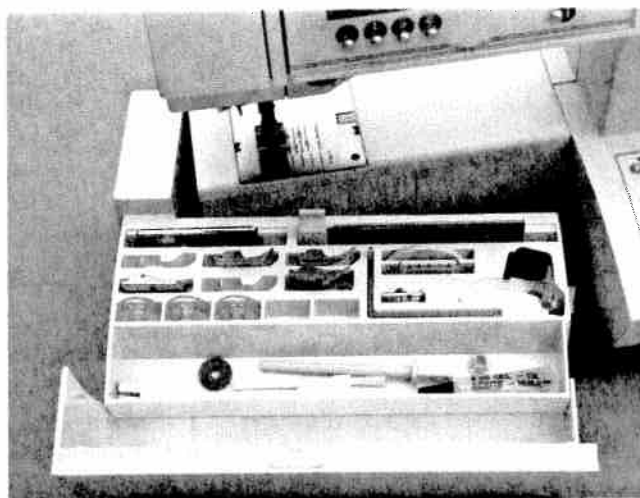
220V... 240V/ 120V

The sewing machine is set to the mains voltage for Europe 220 V... 240 V. If you require a mains voltage of 120 V, you must reset the voltage switch on the underside of the machine to 120 V.



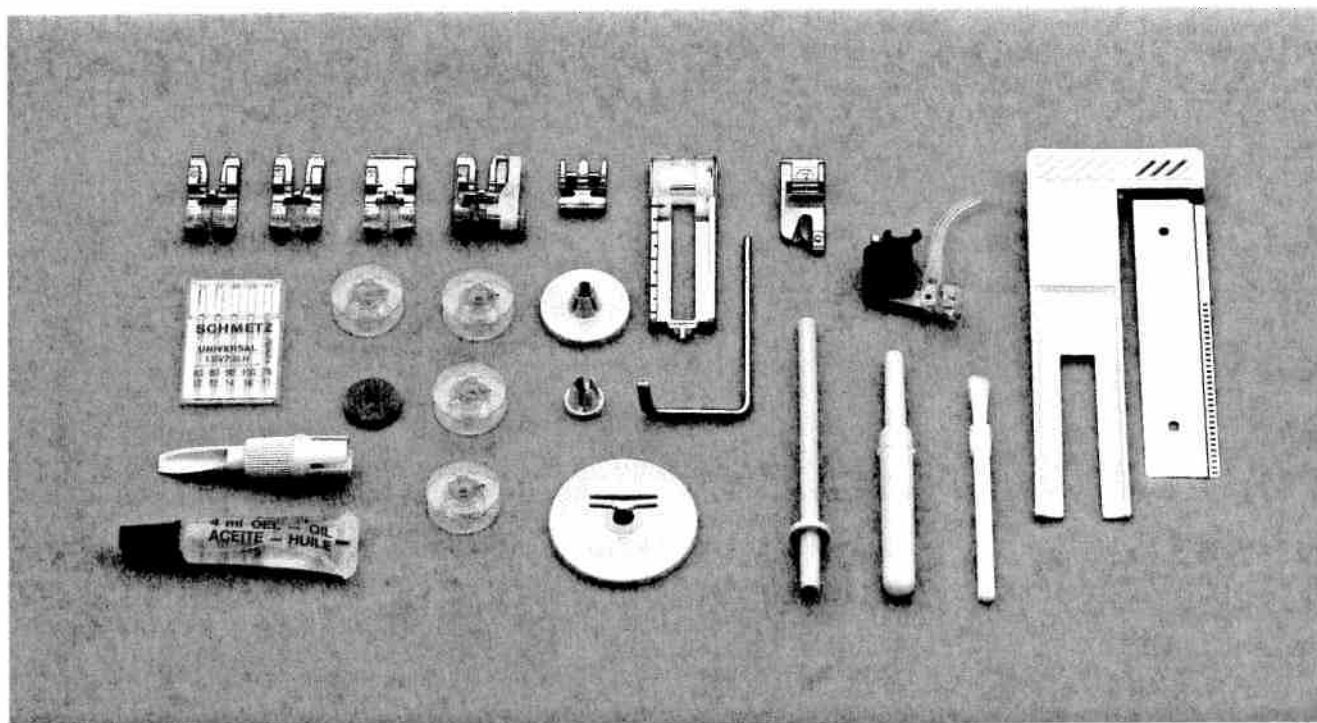
Accessory tray

Open the accessory tray by placing your left index finger on the ridged area on the left of the lid and open the lid upwards and towards you.



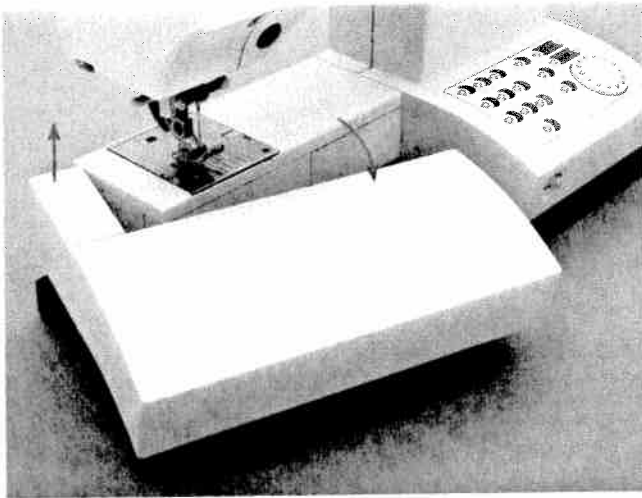
Arranging the accessories

The standard accessories are marked with numbers. Arrange the parts in the respective compartments of the accessory tray.



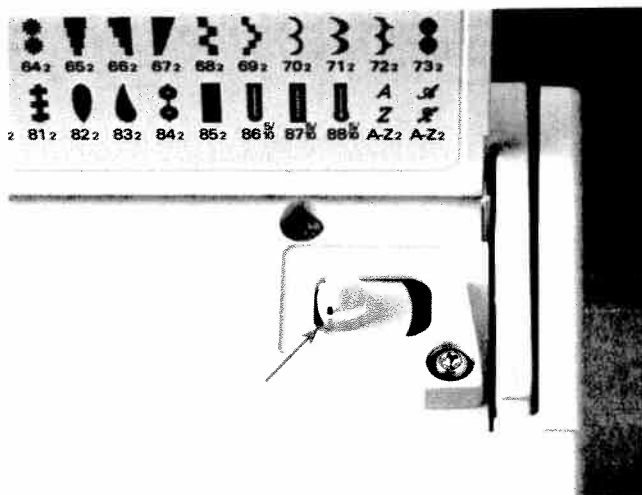
Accessories 2034/2046

(see also pages 96-97)



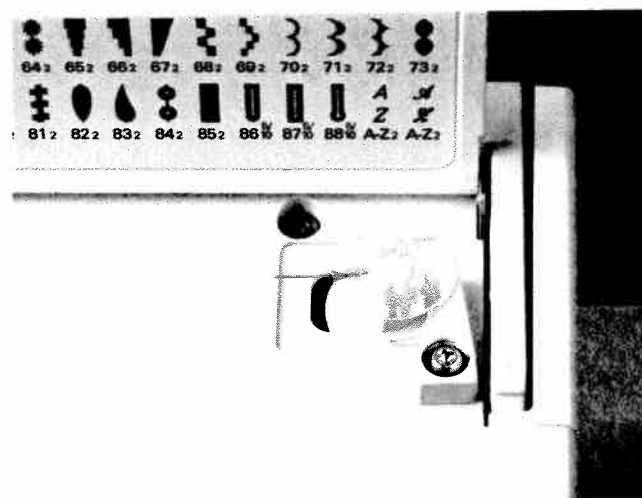
Removing the accessory tray (free arm)

In order to sew using the free arm, swing the accessory tray to the left and lift it upwards out of the hole. When replacing the tray, make sure it is flush with the free arm of the sewing machine.



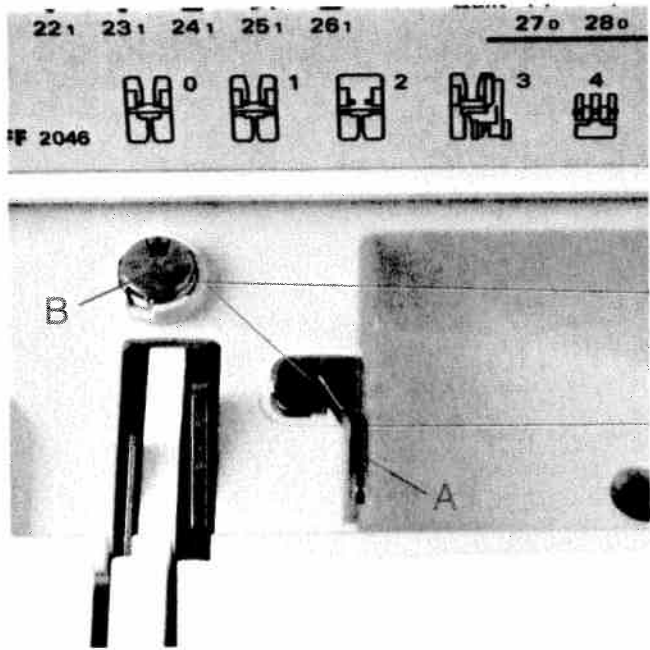
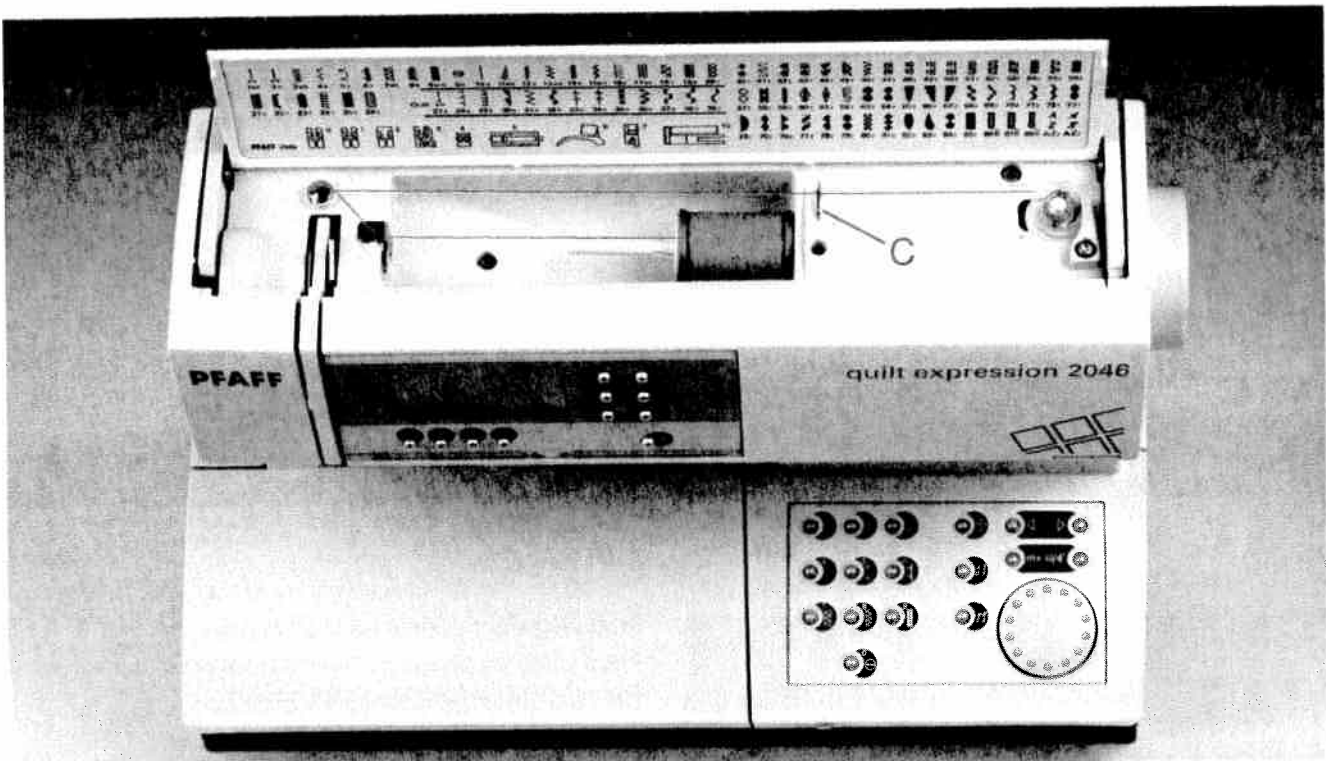
Preparing the machine for bobbin winding

Place an empty bobbin so that the black pin of the bobbin winder snaps into the slot of the bobbin.



Push the bobbin to the right.

Note: The bobbin can only be wound if it is moved fully to the right.



Winding the bobbin from the spool pin

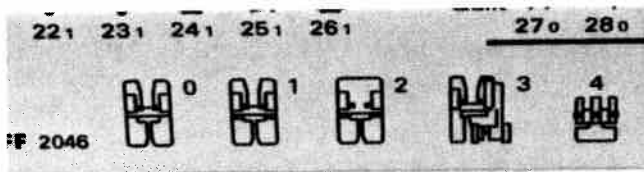
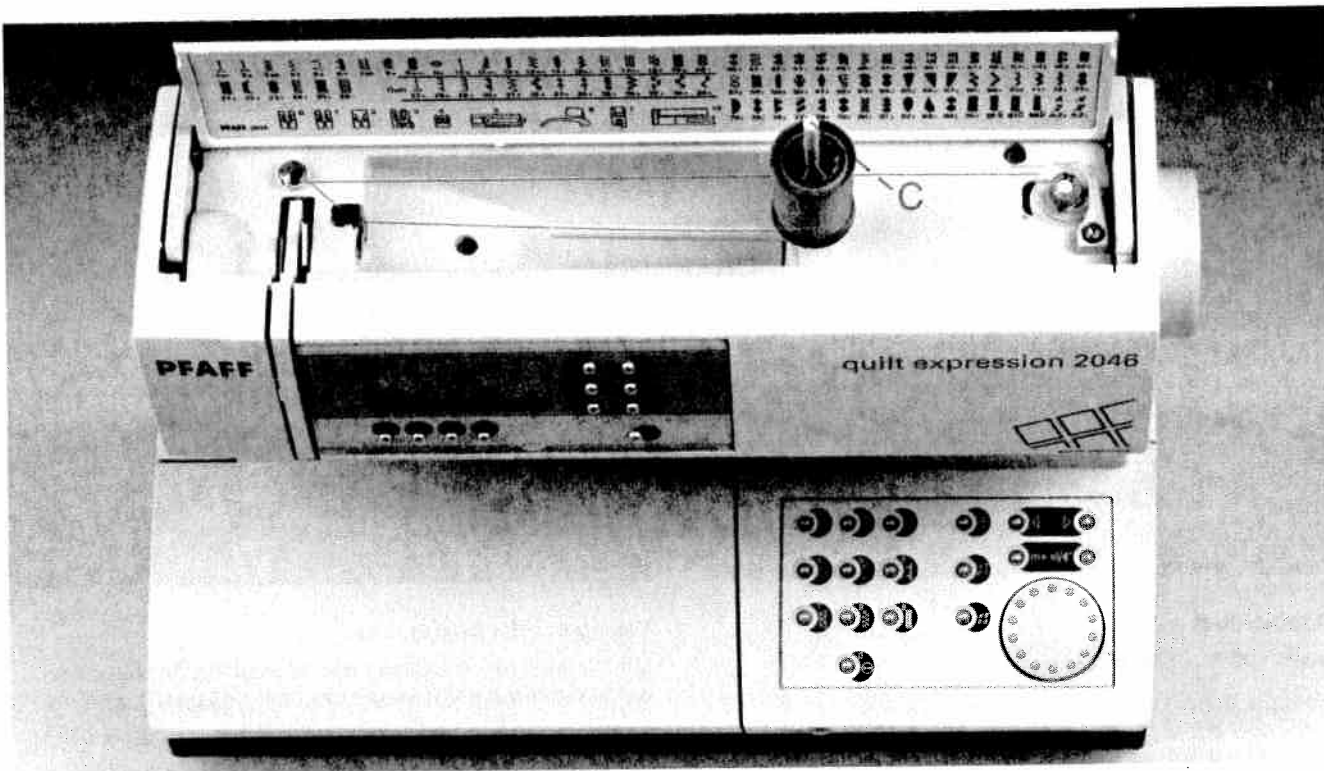
Place the sewing thread on the spool holder. To obtain free movement of the thread and hold the thread spool firmly, fit a spool cap of the right size for the thread spool.

Threading

Place the thread into guide A from the front and pull it counterclockwise through the pre-tension device B. Pull the thread under the thread guide C (from back to front). Wind the start of the thread around the bobbin several times in a clockwise direction.

Switch on the master switch

Hold the end of the thread firmly and press the foot control. As soon as the bobbin is full, the winding action will be stopped automatically. Push the bobbin to the left, cut the thread and remove bobbin from the winder.



Winding from the second spool holder

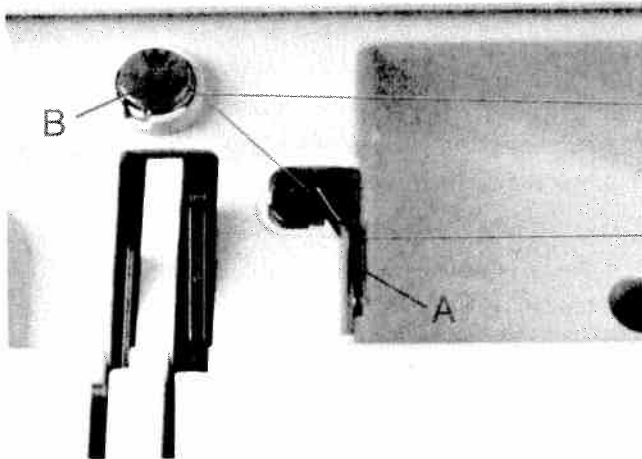
Insert the second spool holder in the hole provided.

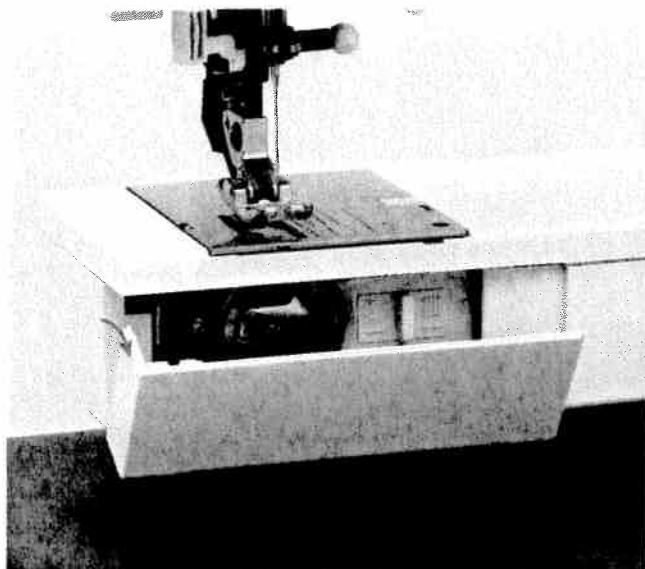
Threading

Thread as shown on page 22.

Switch on the master switch

Hold the end of the thread firmly and press the foot control. As soon as the bobbin is full, the winding action will be stopped automatically. Cut the thread, push the bobbin to the left and remove bobbin from the winder.

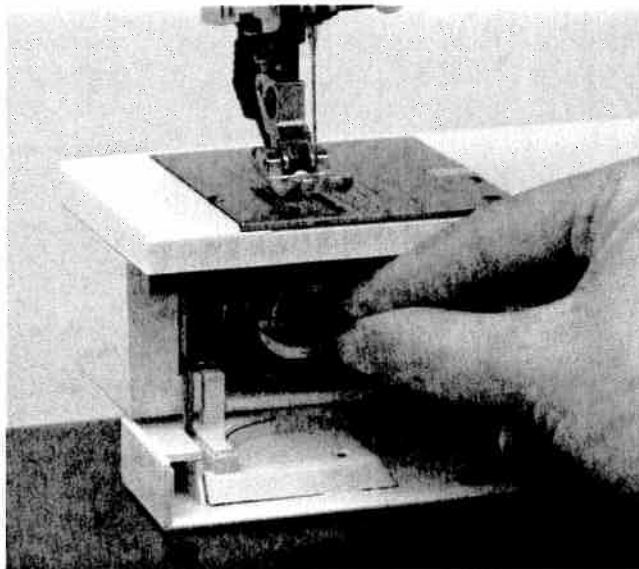




Bobbin door

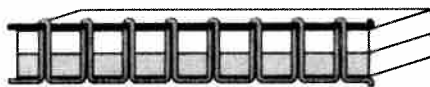
Switch off main switch

Hold the bobbin door (46) at the left side and open it towards the front



Taking out the bobbin case

Lift the latch of the bobbin case and pull the bobbin case out of the machine. Release the latch and take the empty bobbin out of the bobbin case.



Thread tension

For the best stitch appearance and durability make sure the needle and bobbin thread tensions are balanced with one another, i.e. the threads evenly meet between the two fabric layers.

The following is valid for general sewing work:

Bobbin thread is visible on the top side of the fabric:

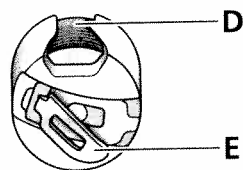
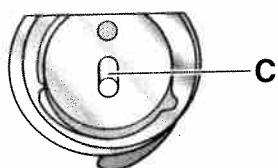
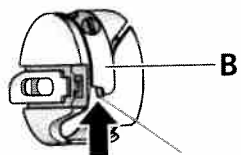
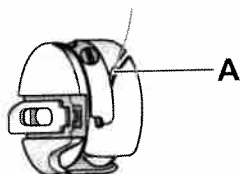
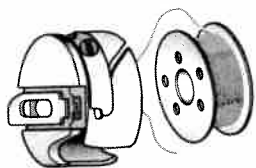
The needle thread tension is too tight .

The thread tension must be corrected.

Top thread is visible on the underside of the fabric:

The needle thread tension is too loose . The thread tension must be corrected.

For decorative stitches and buttonholes the top thread should be visible on the underside of the fabric.



Inserting the bobbin

Insert the full bobbin in the bobbin case. When doing so, pull the thread sideways through slot A, then under tension spring B until it rests in the opening (see arrow).

Check:

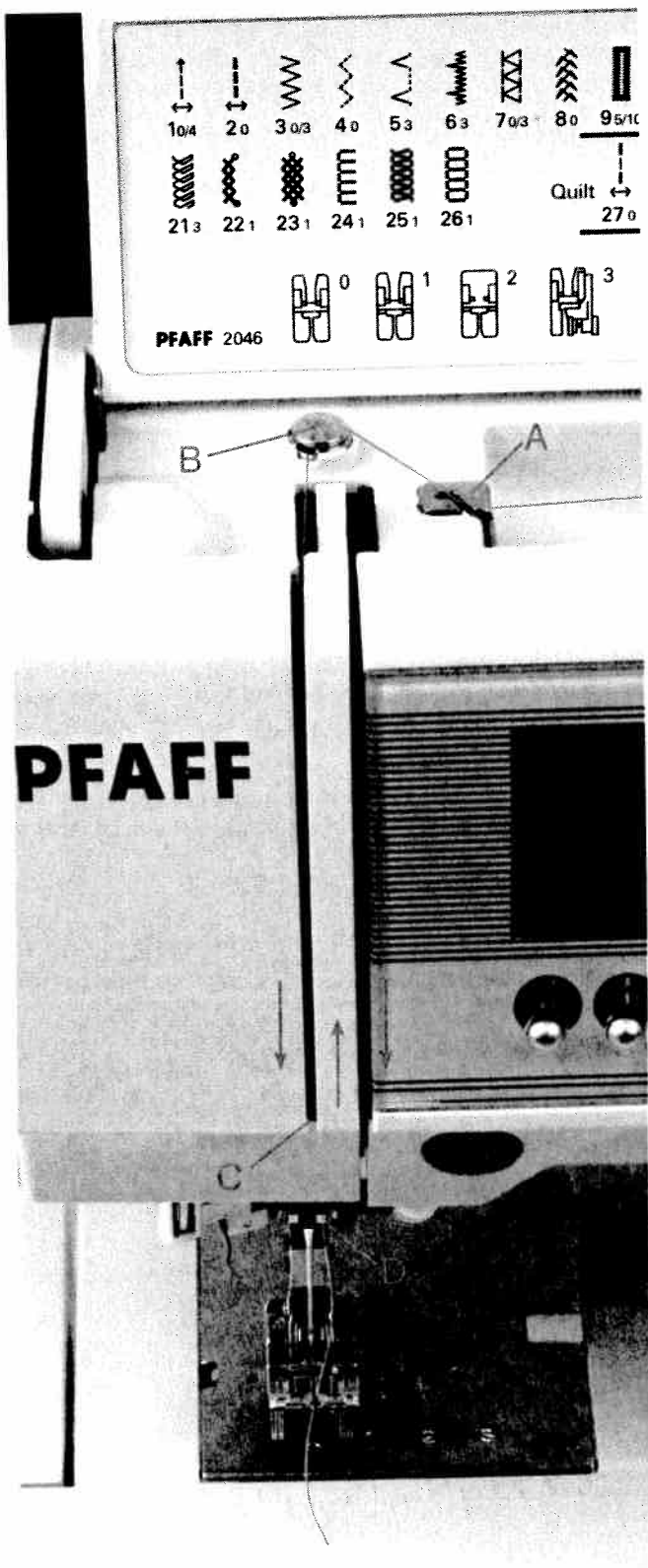
When you pull the thread, the bobbin must turn clockwise.

Inserting the bobbin case

Lift latch E and push the bobbin case fully onto pin C of the sewing hook. Opening D of the bobbin case must face upwards.

Check:

Pull the bobbin thread sharply. The bobbin case must not fall out of the hook.



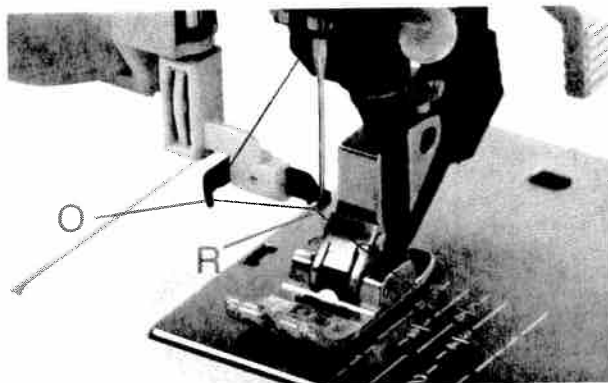
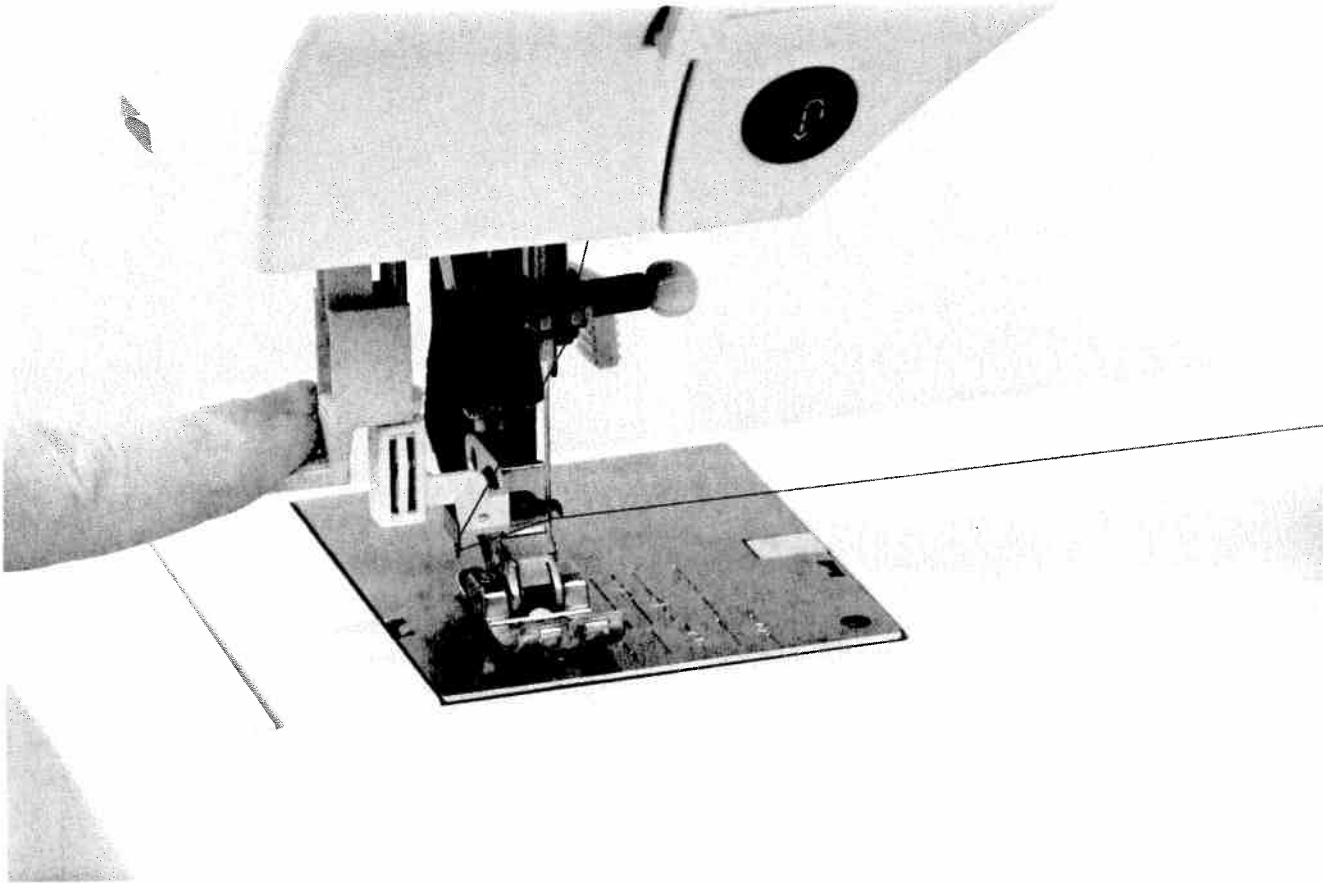
Threading the needle

Switch off the master switch.

Raise the presser foot lifter (51). Place the thread on the spool holder and fit a spool cap of the right size.

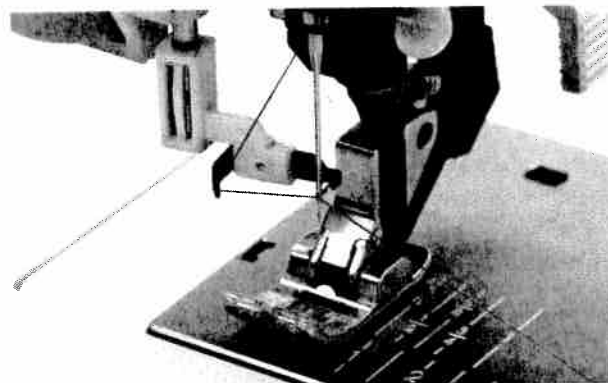
Using both hands, pull the thread into thread guide A from the front. Place the thread from right to left into the pre-tension device B. Now pass it through the left threading slot downwards. Pull the thread around the stop C in the right threading slot and upwards to the take-up lever (40). The thread must be pulled into the take-up lever from left to right. Pass the thread downwards in the right-hand threading slot. Pull the thread from the side behind one of the two thread guides D.

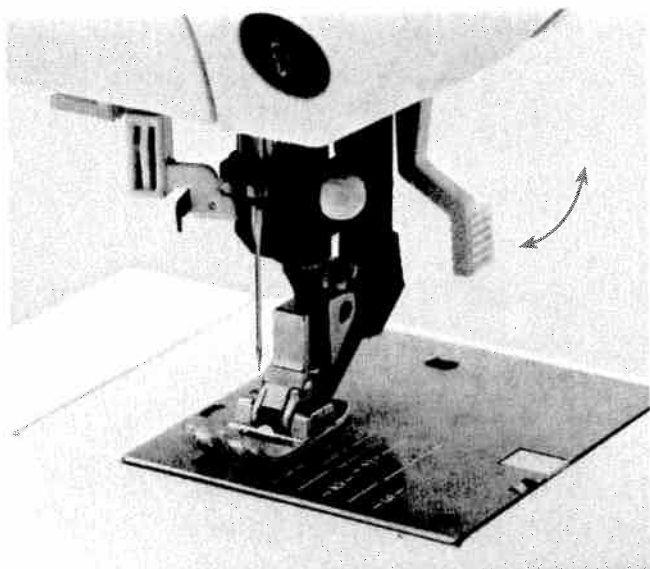
To thread the needle, please refer to the next page.



Integrated Needle threader

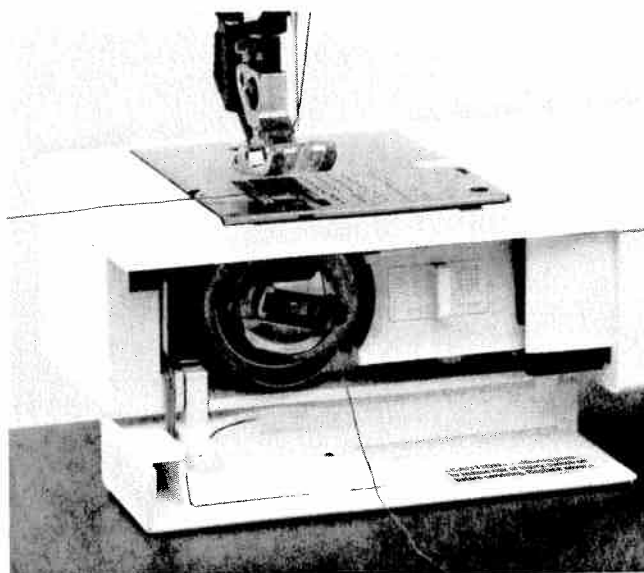
In order to make threading the needle easier and quicker, use the PFAFF Integrated Needle threader. Lower the presser foot. Press the threader down with the handle. Threader hook R swivels through the needle eye. Place the thread over hook O and under the thread hook R and hold the end of the thread taut. Reduce the pressure so that the needle threader slowly moves upwards. At the same time the threader hook swivels out of the needle eye and pulls the thread through the eye. Release the end of the thread so a thread loop forms behind the needle. Release the threader and pull the rest of the thread end through the needle eye.





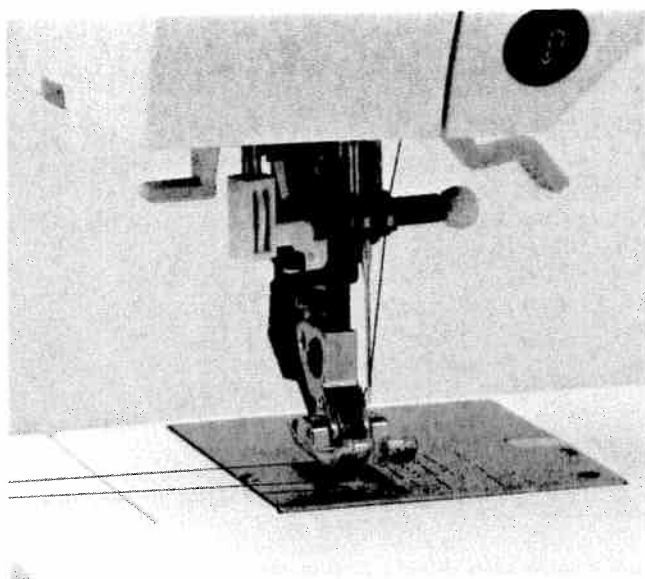
Presser foot lifter

The presser foot is raised or lowered with the presser foot lifter (51).



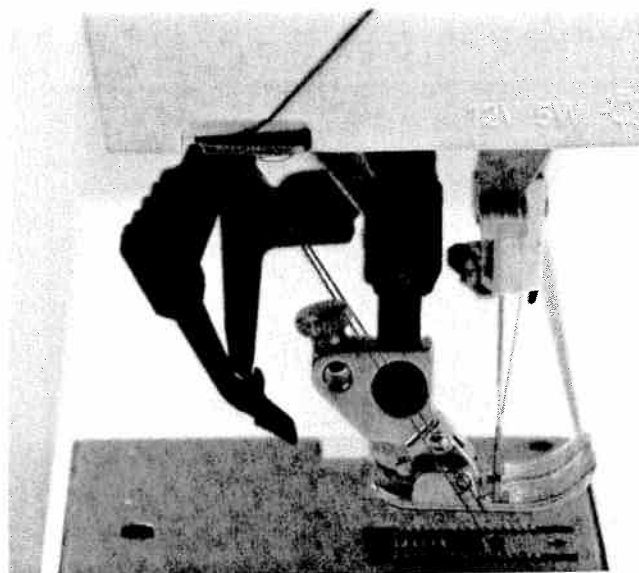
Drawing-up the bobbin thread

Raise the presser foot. While holding the end of the needle thread, press the foot control so the needle moves down and up. Pull the needle thread to draw up the bobbin thread.



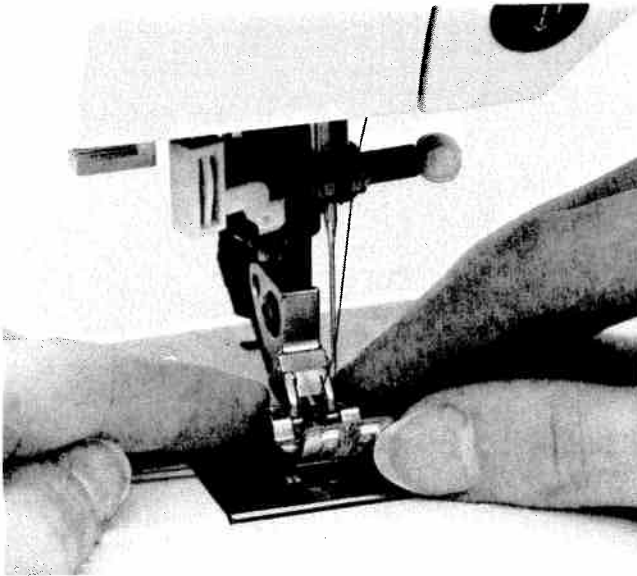
Bobbin thread

Close the bobbin door (46) and pull the thread under the presser foot to the left



Thread cutter

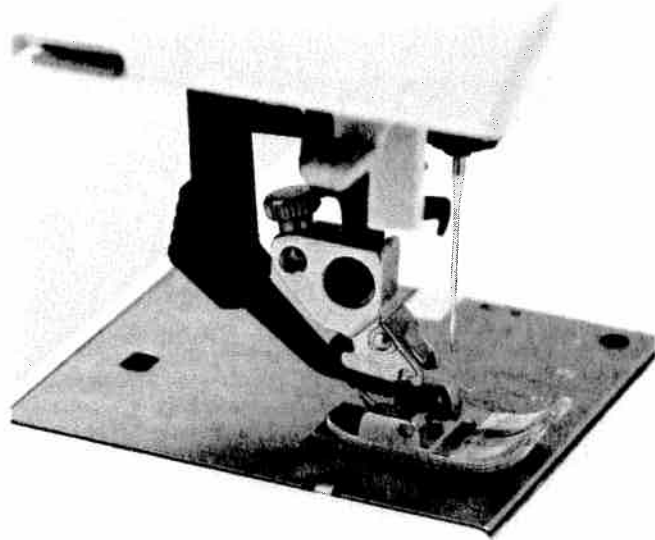
Pull the thread from the back to the front over the thread cutter (49).



Removing the presser foot

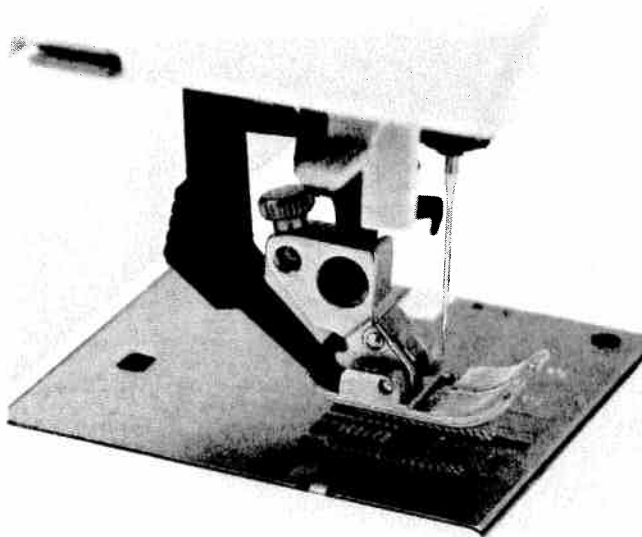
Switch off the master switch

Press the front part of the presser foot upwards and at the same time the rear part downwards until it disengages from the presser foot holder (30).



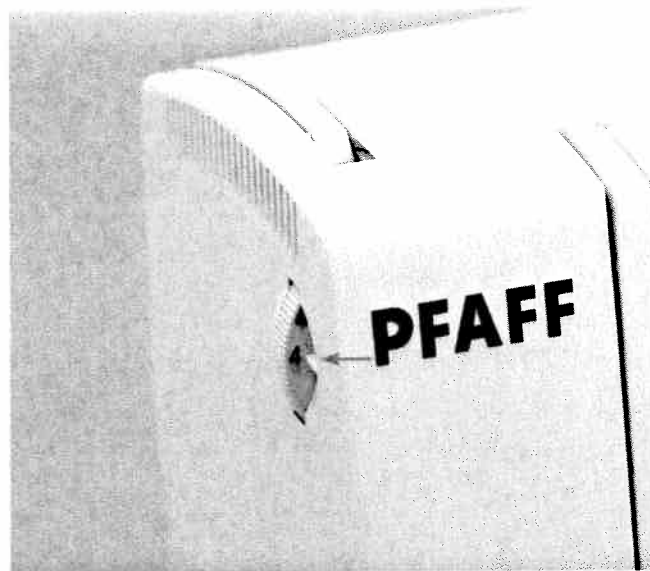
Attaching the presser foot

Place the presser foot under the presser foot holder (30), so that when the presser foot lifter (51) is lowered, the pins of the foot engage in the presser foot holder.



Check:

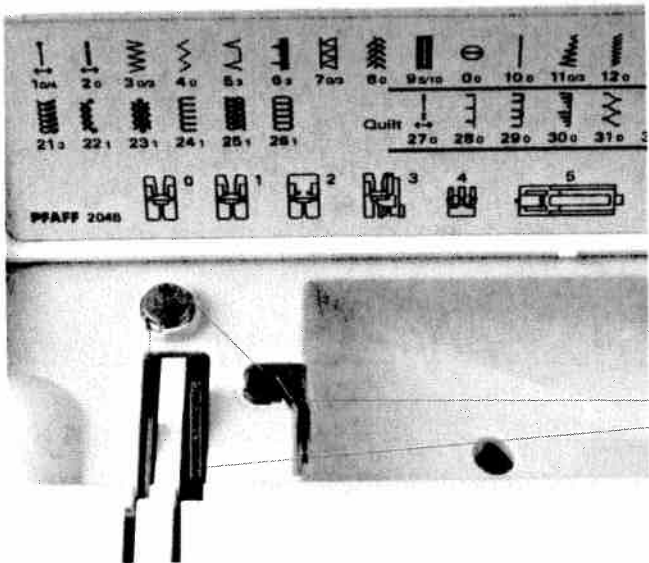
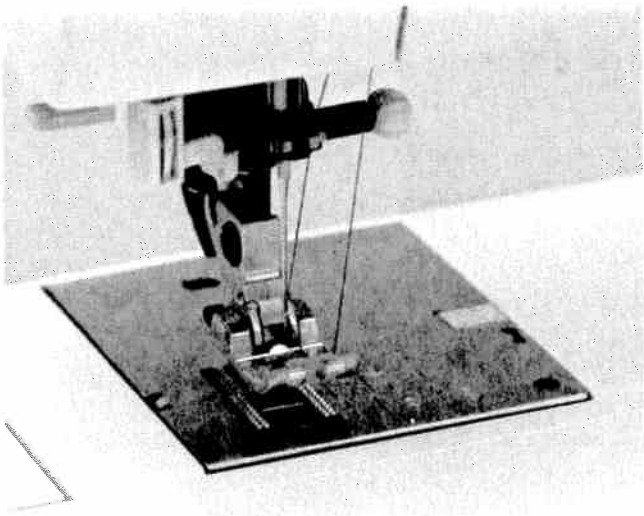
Please check that the presser foot is properly attached by raising the presser foot lifter.



Setting the needle thread tension

Set the required amount of the needle thread tension (35) using the markings on the tension dial.

The normal setting for sewing is 4 - 5. For decorative sewing, darning and buttonhole sewing 3.

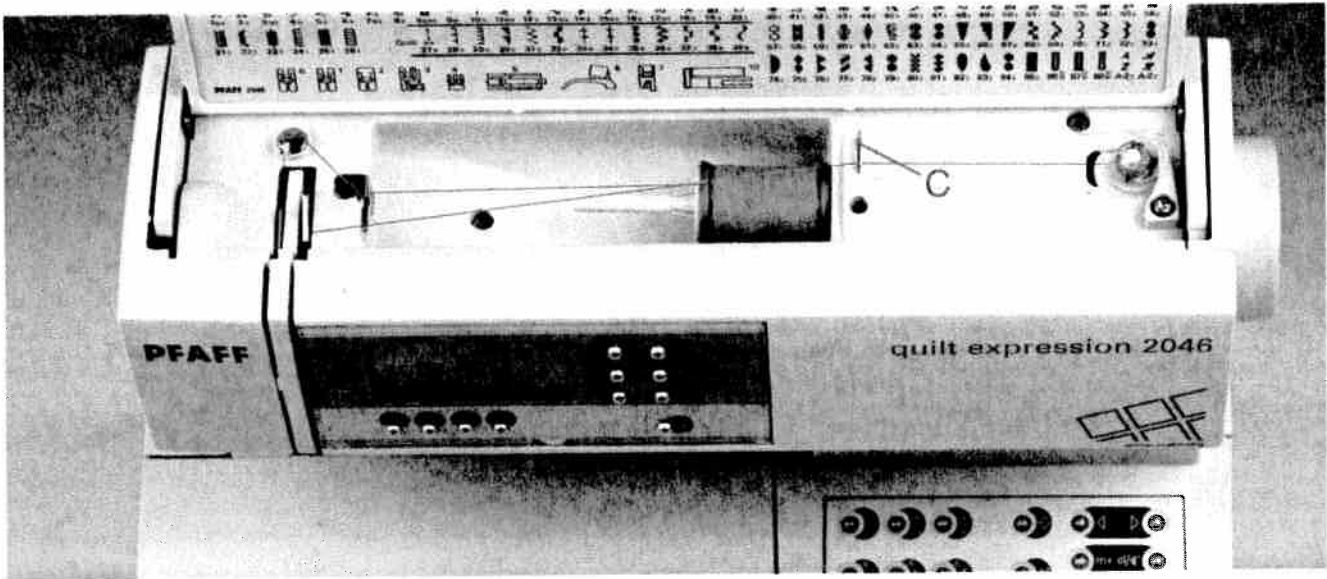


Winding a bobbin through the needle

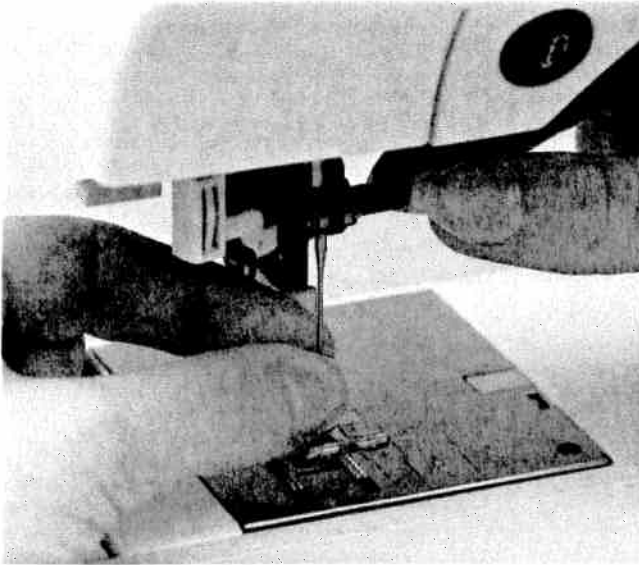
It is possible to wind bobbins even when the machine is fully threaded. Raise the presser foot lifter (51) to the top position. Pull the needle thread underneath the presser foot and upward through the right-hand threader slot (34).

Place the thread from left to right through the take-up lever (40).

Important: The take-up lever must be at its highest position.



Guide the thread to the right under thread guide C. Wind the beginning of the thread several times around the bobbin in a clockwise direction. Push the bobbin to the right. Hold the end of the thread firmly and press the foot control.

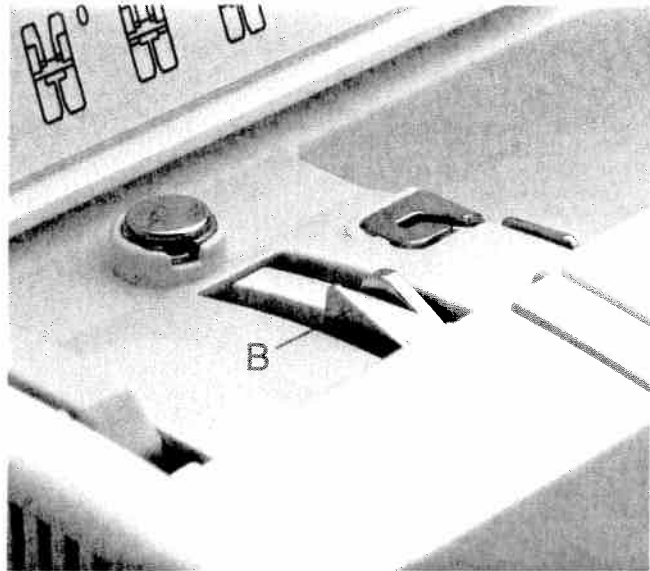
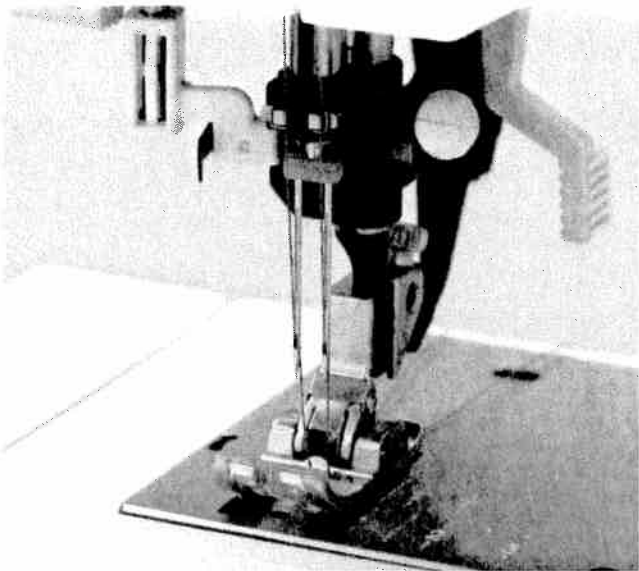
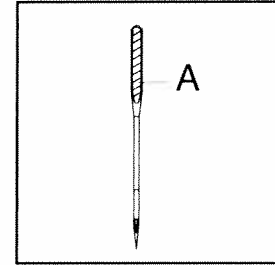


Changing the needle

Switch off the master switch

To remove: Lower the presser foot and set the needle to its highest position. Loosen the needle screw (52) and pull the needle out downwards.

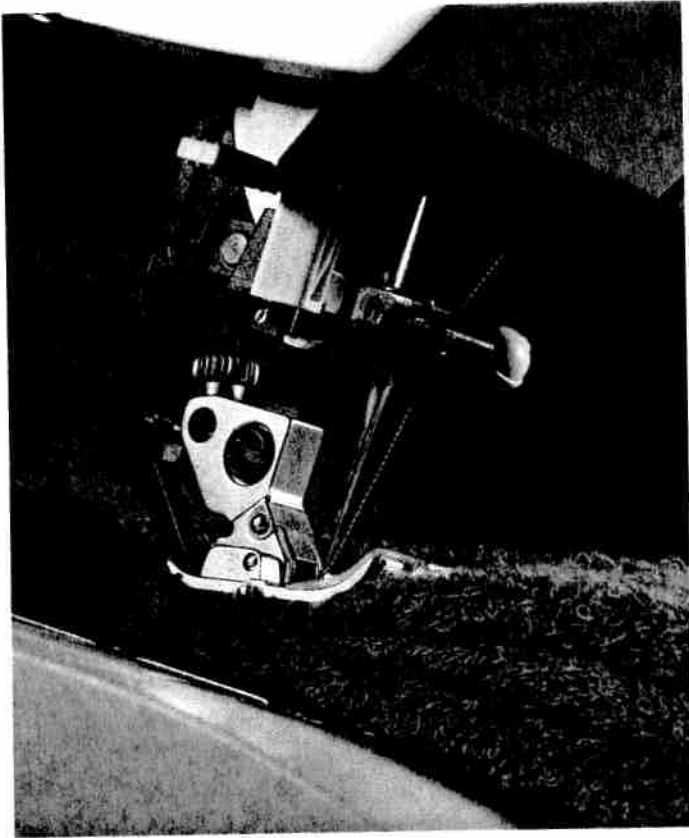
To insert: The flat side A of the needle must face to the rear. Lower the presser foot and insert the needle, pushing it up as far as it will go. Hold the needle and tighten the needle screw (52) firmly.



Threading the twin needle:

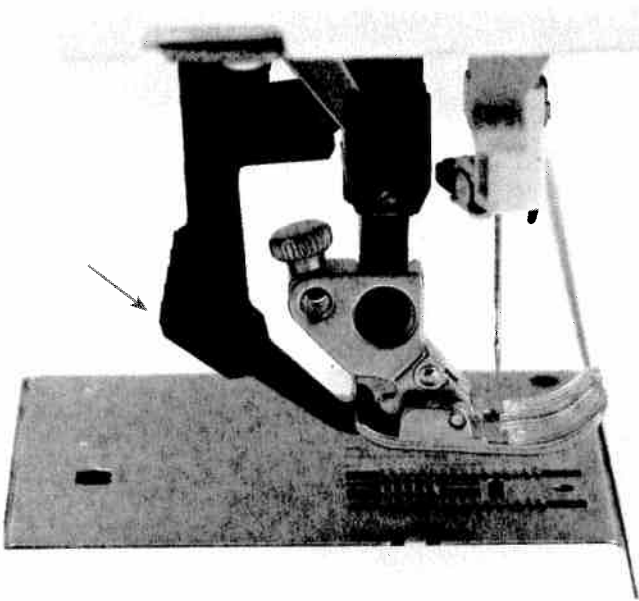
Replace the sewing needle with a twin needle. Insert the second spool holder and place one spool of thread on each of the spool holders. During threading in the left threading slot (34), make sure that you pass one thread each to the left and right sides of tension disk B. Continue threading in the usual manner, making sure the threads do not become twisted together. Pull the threads right and left into the thread guide and thread the needles (for additional details, see "Decorative stitches with the twin needle" p. 85).

Note: It is not possible to use the integrated needle threader with a twin needle.



The IDT (Integrated Dual Feed)

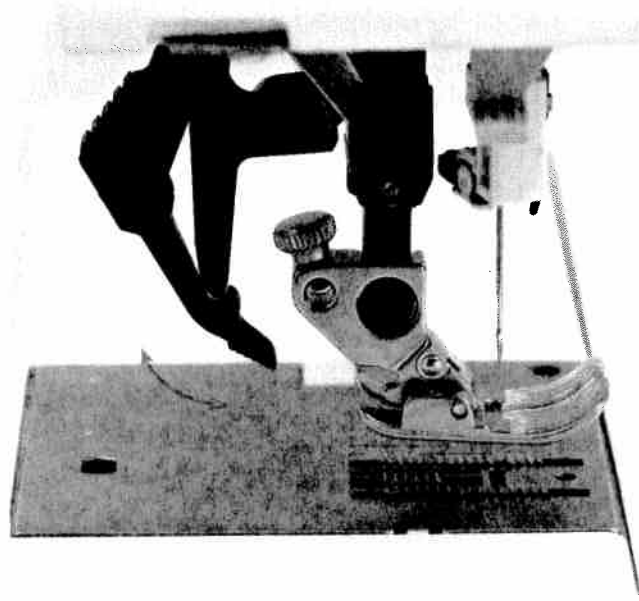
For sewing any fabric precisely PFAFF provides the ideal solution: the Integrated Dual Feed, IDT system. As on industrial machines, the IDT feeds the fabric from the top and bottom at the same time. The material is fed precisely. On light fabrics such as silk or rayon the dual feed prevents puckering of the seam. The even feeding action also ensures perfect matching of checked and striped fabrics. The IDT keeps all layers of quilt projects aligned to prevent stretching of the top layers.



Engaging the IDT

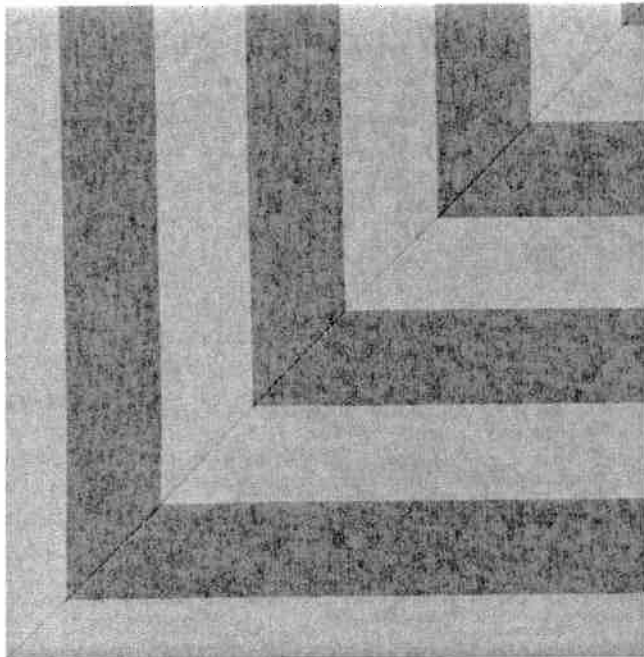
Important: For all work with the Dual Feed IDT, use presser feet with the center back cut-out.

Raise the presser foot. Press the IDT (31) down until it engages.

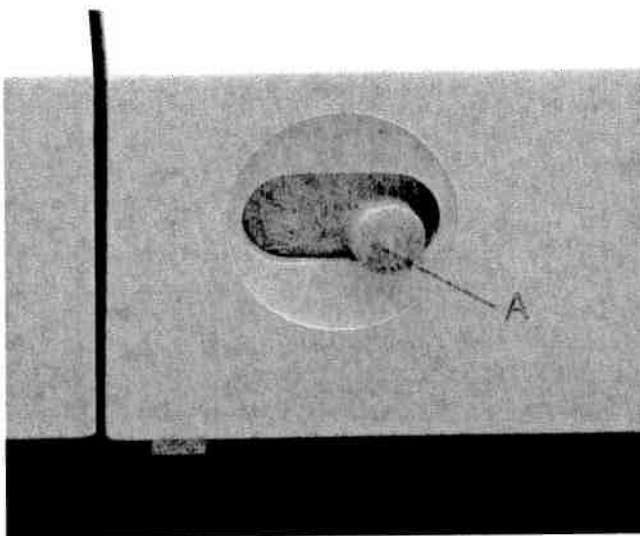


Disengaging the IDT

Hold the Dual Feed with two fingers at the ribbed ankle. Press the IDT (31) down, then pull it away from you and release the IDT slowly upward.



Stripes and plaids match perfectly due to the even feed of the material to be sewn.



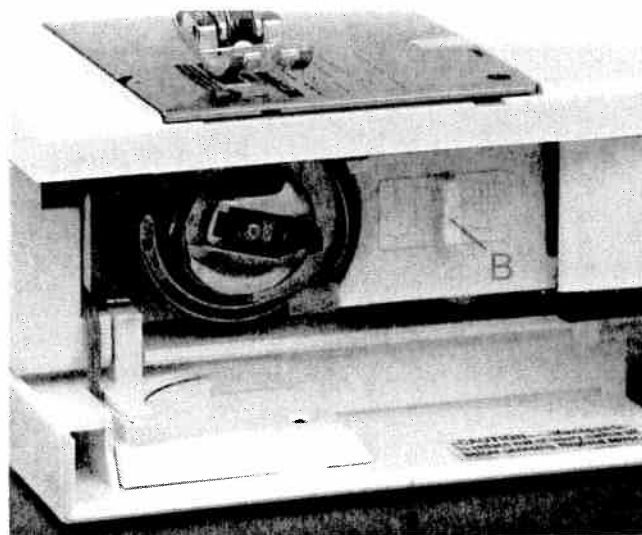
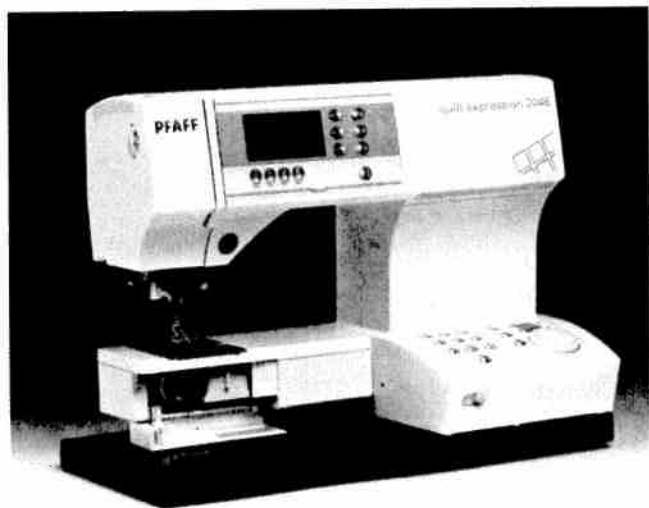
Lowering the feed dog

For certain sewing work such as free-motion quilting or darning and when the machine must be cleaned, the feed dog has to be lowered.

Raise the presser foot before lowering the feed dog. Push slide A to the left.

To engage the feed dog move the slide to the right.

Raise the presser foot before engaging the feed dog.



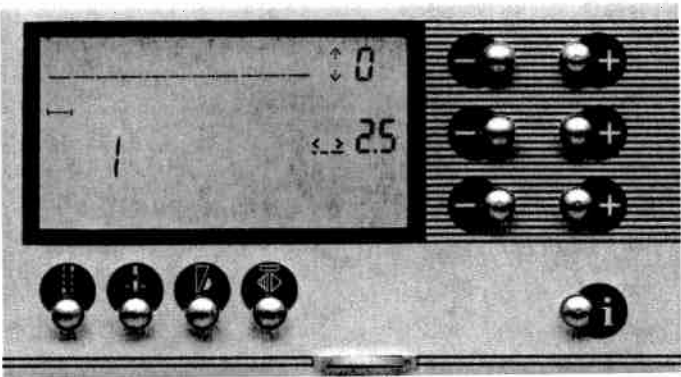
You can also lower the feed dog by opening the bobbin door and moving slide B to the right. To engage the feed dog move the slide to the left.

Raise the presser foot before lowering or raising the feed dog.



Sewing functions

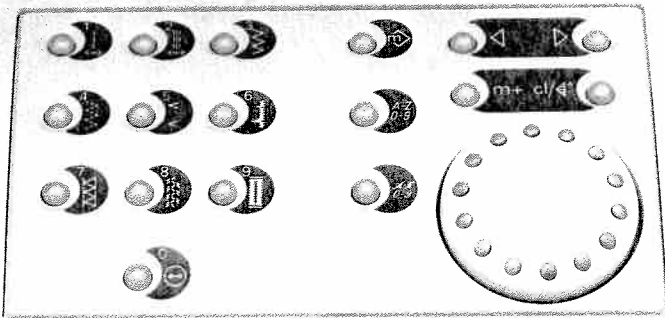
Adjusting the contrast in the Expression window	36
Stitch selection	36
Bobbin thread monitor (model 2046)	37
Altering pattern sizes	37
Altering the stitch width/needle position	38
Altering the pattern width/stitch length	38, 39
Altering the pattern length/stitch density	39
Balance	40
Info button/reverse sewing button	41
Sewing function buttons	42
"Lock" button	43
Twin needle	44
Formation of the stitches	45



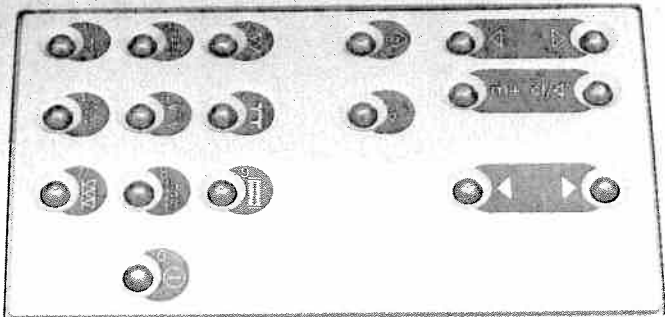
Adjusting the contrast on the Expression window

The contrast setting in the window may be changed for different lighting situations.

This setting can be readjusted with the contrast control (54).



Stitch selection on model 2046



Stitch selection on model 2034

Stitch selection

There are three ways of selecting your desired stitch:

1. With the selection wheel (selection buttons, model 2034): for scrolling backward and forward in the stitches.

Clockwise = in ascending order

Counterclockwise = in descending order

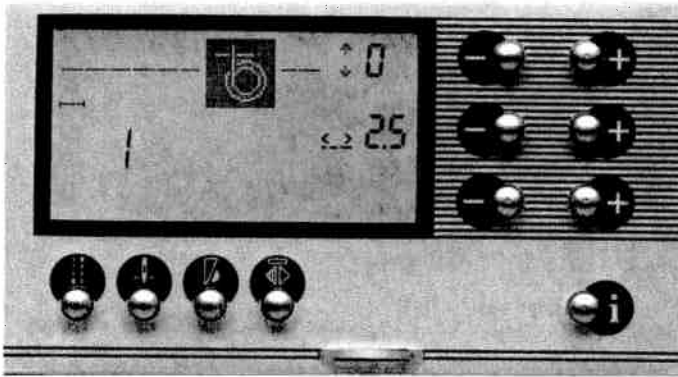
Model 2034:

> in ascending order

< in descending order

If you are in the last stitch, No. 88, (No. 61 in the case of model 2034) and continue to scroll you will return to stitch No. 0.

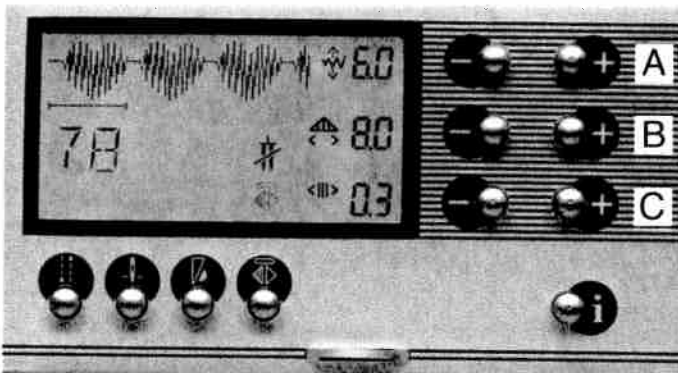
2. With the direct selection buttons for instant selection of the most commonly used stitches (0 - 9) and for the selection of the alphabets.
3. With the direct selection buttons to choose the stitch number: To select program No. 23, press button 2 then press button 3. The stitch number appears in the window.



Bobbin thread monitor (model 2046)




If the bobbin is nearing its end [2 ¼ yd (2 m)-3 ¼ yd (3 m)], or there is no thread on the bobbin, the bobbin symbol appears in the window.

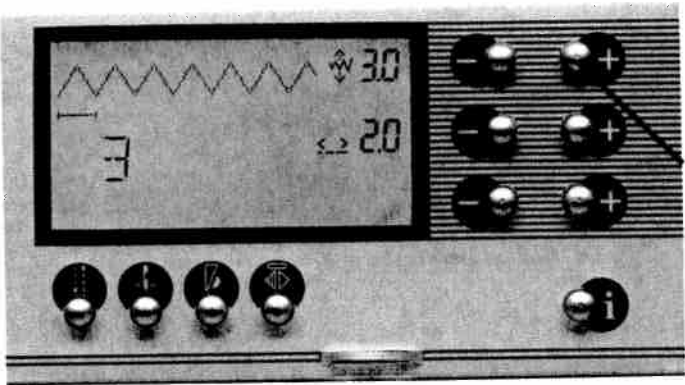
The symbol disappears after a full bobbin is inserted and you start to sew again.



Altering stitches

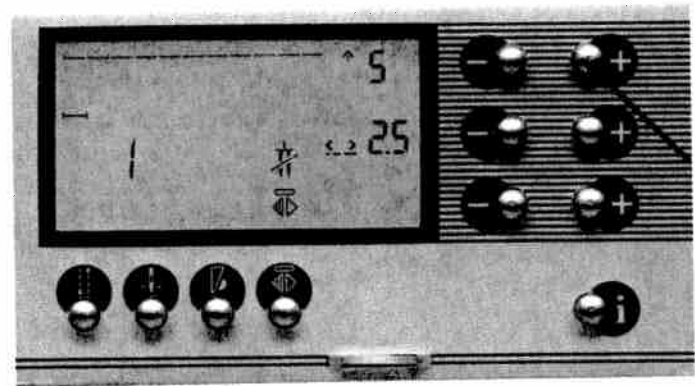
Adjust the length, width, balance, density or needle position of stitches by touching the appropriate +/- buttons to the right of the window. Each change is visible in the window.

To change:		Use +/- buttons:
	Stitch width	A
	Pattern width	
	Needle position for straight stitches	
	Stitch length	B
	Pattern length	
	Stitch density	C
	Pattern density	
	Balance	



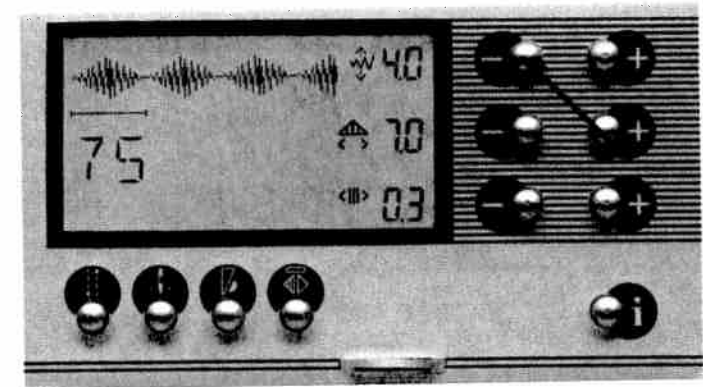
Altering the stitch width

The selected stitch can be sewn in various widths, e.g. zigzag stitch No. 3.



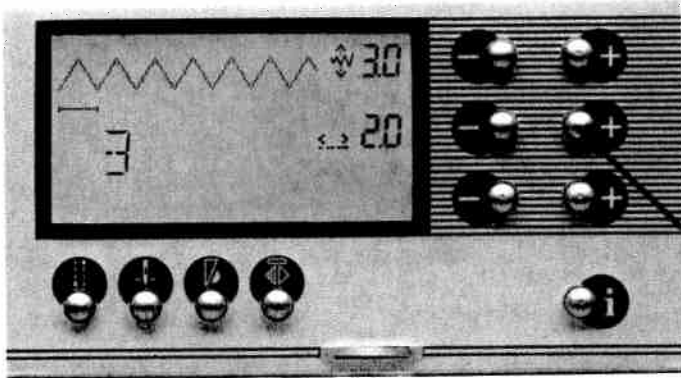
Altering the needle position

Straight stitch No. 1, stitch No. 2 and stitch No. 11 can be sewn in any of 13 different needle positions. Press +/- button A to move the needle to left or right of center.



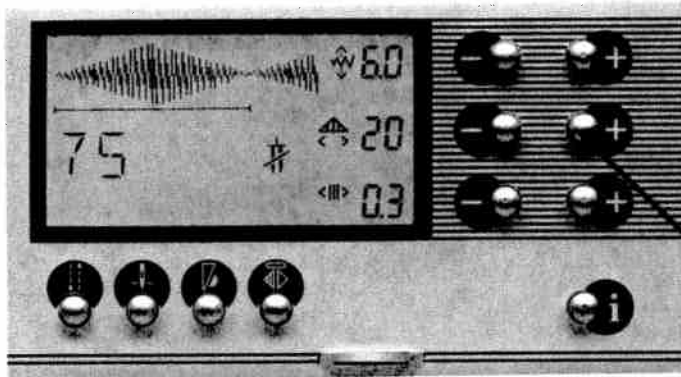
Altering the pattern width, e.g. Stitch 75 (Stitch 56 on model 2034)

For decorative stitches, the overall width of the pattern is shown in the window. When entered, stitch 75 comes up in a standard width and can be altered using +/- button A.



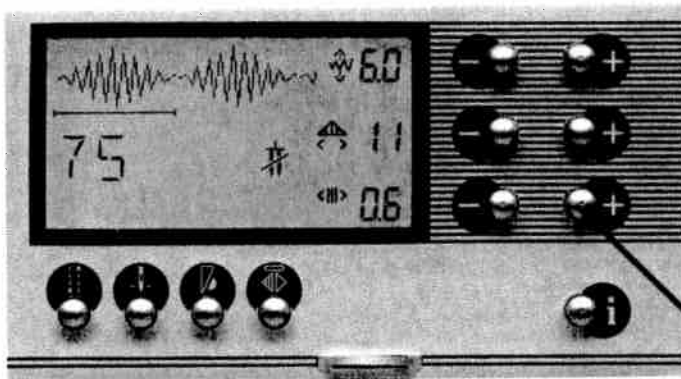
Altering the stitch length

The stitch length of a stitch can be altered using +/- button B.



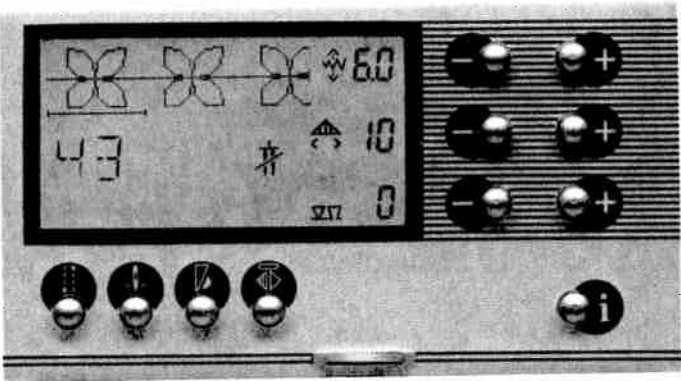
Altering the pattern length

The pattern length of decorative stitches can be altered using +/- button B. The density of the stitch will not change.



Altering the stitch density

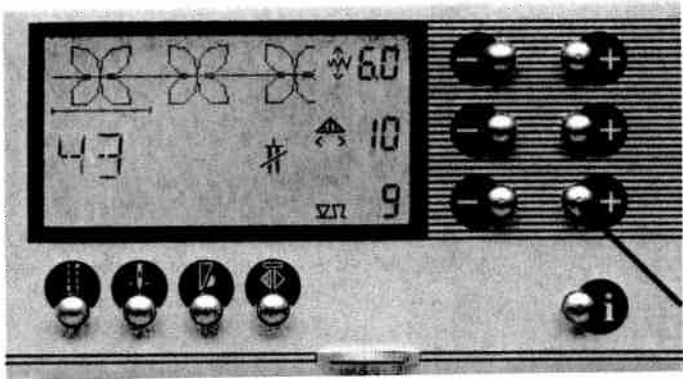
The stitch density of various stitches (buttonholes, satin stitches, etc.) can be changed. The pattern length will remain constant, but the pattern will be sewn more densely or less densely. Use +/- button C to adjust the density, when available.



Balance

Decorative stitches can vary on different fabric types – heavy fabric is fed differently than fine silk. The balance adjusts the reverse feed of the stitch so it is sewn in the best way for different fabrics.

After having selected a stitch, you will see the balance symbol with a "0" after it in the bottom right-hand corner of the Expression window. This symbol indicates that the balance can be altered on this stitch.

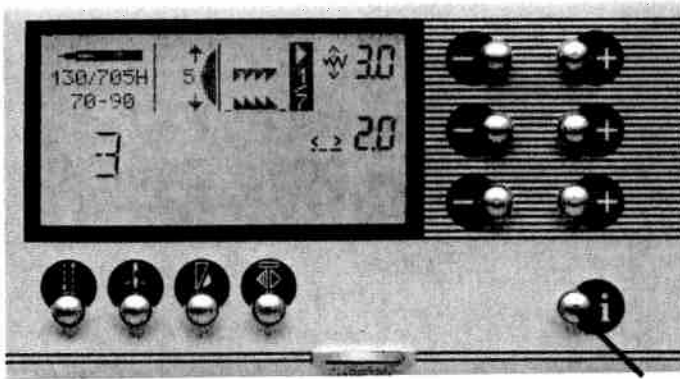


The standard balance setting is "0".

With +/- button C you can change the reverse feed of the machine from -9 to (+)9.

In the minus range the stitches are sewn shorter, and thus the overall length will be sewn shorter.

In the plus range the stitches are sewn longer or stretched out.

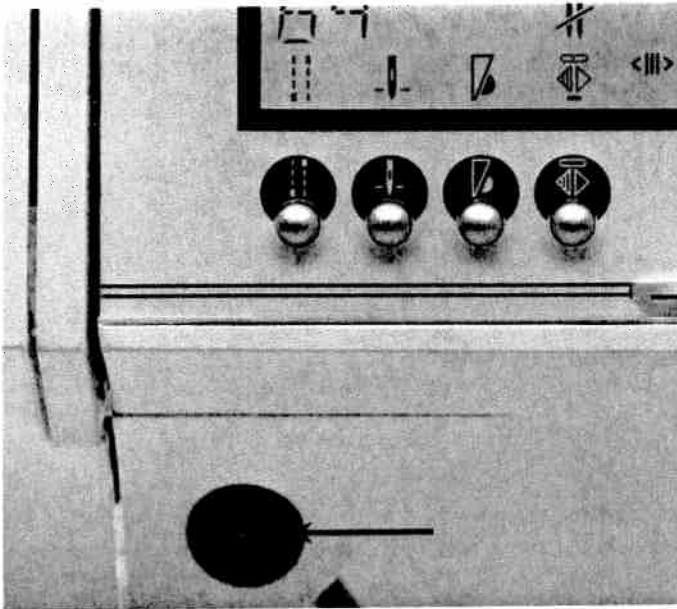


Info button

Touch the info button to receive information about the selected stitch.

Info menu

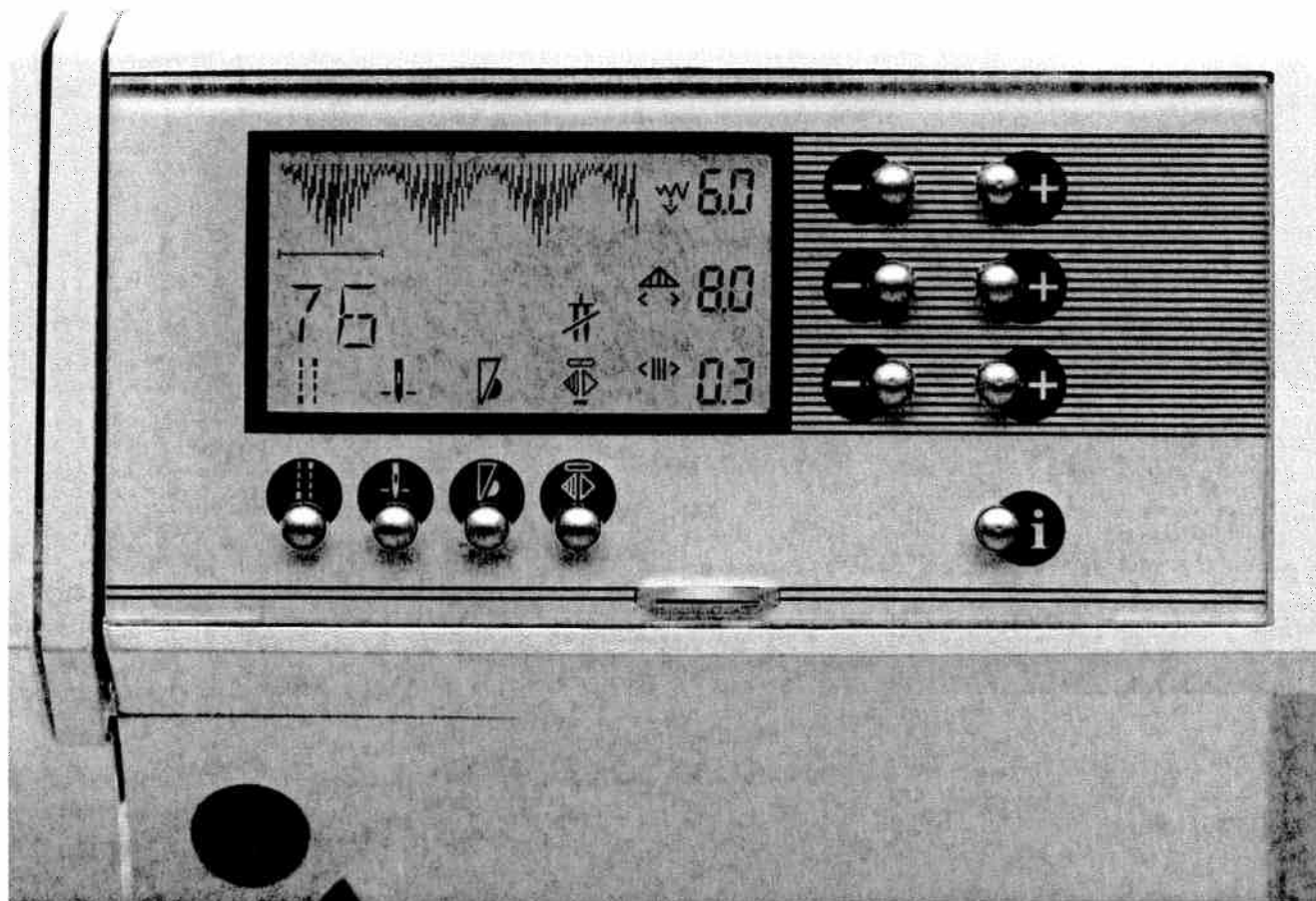
The info menu gives you the following information: needle size/type recommendation, needle thread tension setting, to engage or disengage the IDT, lower the feed dogs, page number of the info menu.



Reverse sewing

This button has several functions:

- when pressed, will reverse sew
- for permanent reverse press this button before starting to sew, the machine sews in reverse until you press the button again (2046)
- manual finish of a buttonhole (see page 72)
- programming the buttonhole
- determines the length of the darning program (model 2046) (see page 62)
- engages automatic tapering (see page 89-90)



Sewing function buttons

There are four sewing function buttons below the Expression window. With these buttons you can choose between "tie-off" at the beginning and/or the end of a stitch, set "needle up/down", "sew slow" and "pattern mirror".

Tie-off button (36)

When you press this button before starting to sew, the symbol appears in the window. Once the machine has tied off, the symbol disappears from the window. Press the button while sewing so you can tie off at the end of a seam or pattern. The symbol appears in the window. The pattern will then be completed and tied off. The machine will stop and the symbol will disappear.

"Needle up/down" button (37)

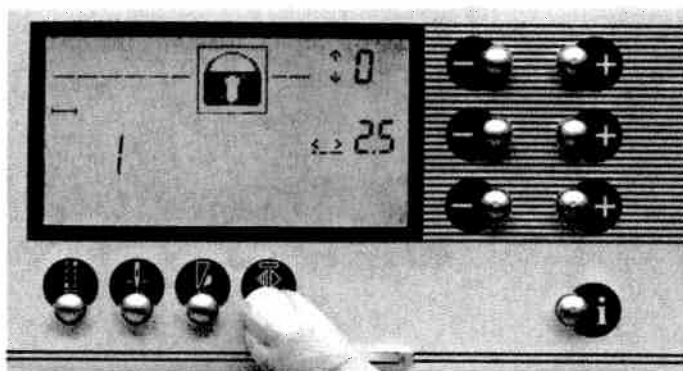
Use the "up/down" button to determine whether the needle should be in its highest position or in the fabric when you stop sewing. The symbol appears above the button in the window when the button is pressed. Press the foot control and the needle is lowered into the fabric. The needle will remain in the fabric each time you stop sewing. To remove the needle from the fabric, press the "needle up/down" button. The needle lifts out of the fabric, and the symbol disappears from the window.

"Sew slow" button (38)

When you press the "sew slow" button the speed of the machine is reduced by half. The symbol appears in the window and disappears when the button is pressed again.

"Pattern mirror" button (39)

This symbol will appear in the window for any stitch that can be mirrored. When the "pattern mirror" button has been pressed, a point will appear below the symbol indicating the pattern will be mirrored.



“Lock” button

“Pattern mirror” button: (39)

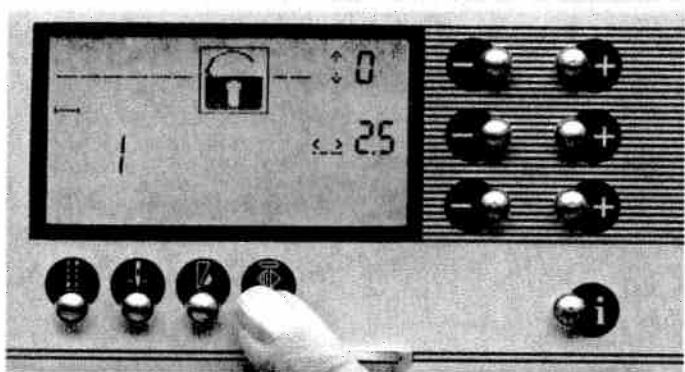
You can safeguard your sewing machine against the unintentional selection of another sewing program or another pattern sequence by means of the “lock” button.

Switching on the “lock” button:

Press the button until the locking symbol appears in the window. The symbol disappears when the button is released. The direct selection buttons (15 to 26), as well as the button (7) and the selection dial are now locked. The machine is now safeguarded against any unintentional selection of another sewing program or another pattern sequence.

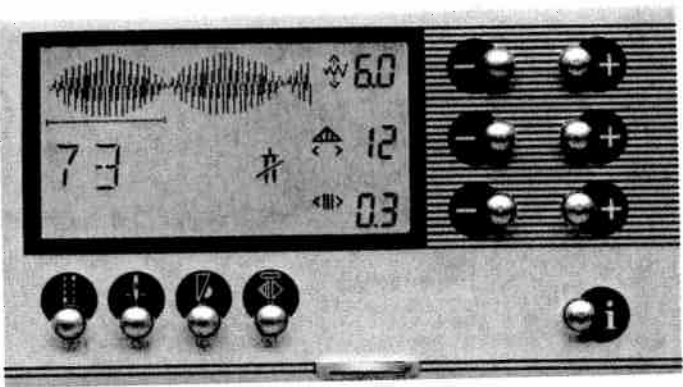
The memory button **m+** (14), the cursor button (8) and the clear / pattern start button (9) remain active. If the “lock” button is switched on and a pattern sequence has already been selected, it is still possible to alter this sequence. You can scroll within the pattern sequence at any time. The sewing function buttons can still be selected. The stitch length / width, pattern length / width and pattern density / balance can be altered.

Note: You can still mirror a pattern if you quickly tap the button (39).



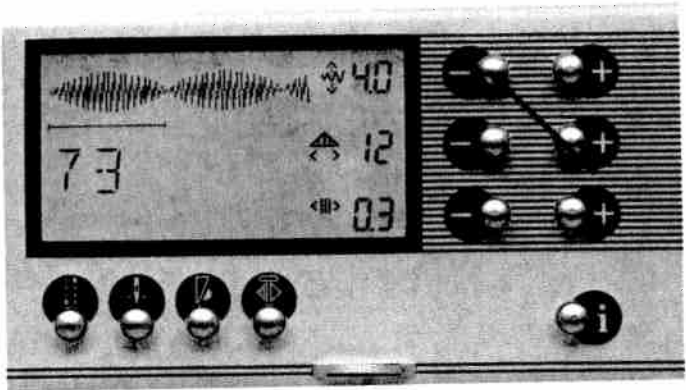
Switching off the “lock” button:

Press the button (39) until the unlocking symbol appears. The locking function is now switched off. This symbol disappears after the button is released.

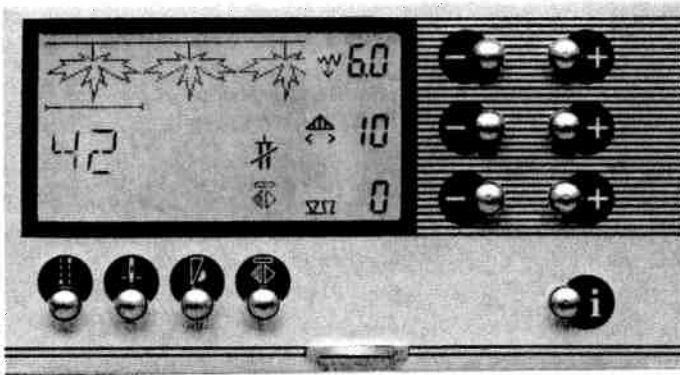


Twin needle

Depending on the needle position or the width of a stitch, the twin needle warning will appear in the window. This symbol indicates that a twin needle cannot be used to sew the stitch at the currently set width.



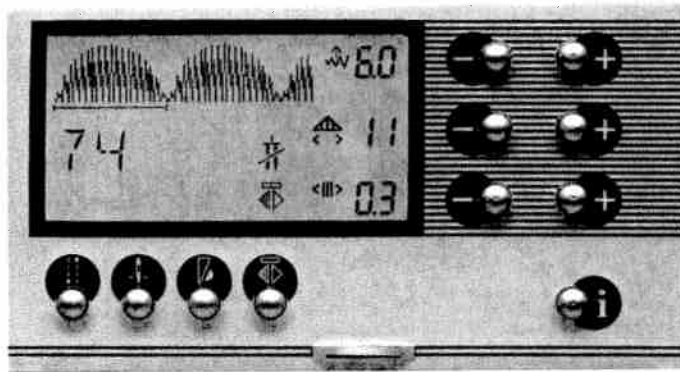
Reduce the pattern width until the warning symbol disappears. The stitch may now be sewn with a twin needle of 2.0 mm or less.



Formation of the stitches

The stitch formation varies.

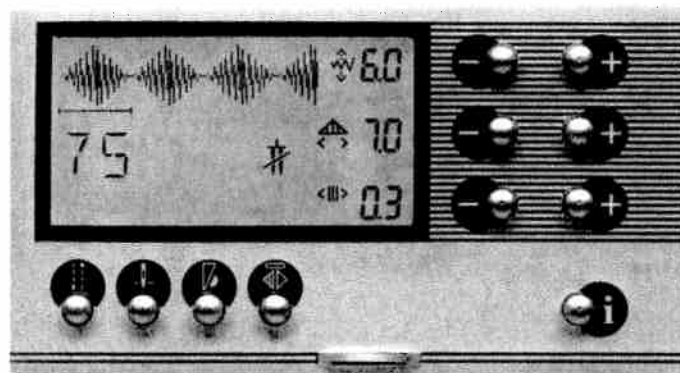
Some patterns are formed from the left, so only the right side of the stitch changes when the width is adjusted. The left-hand side of the stitch is always retained.



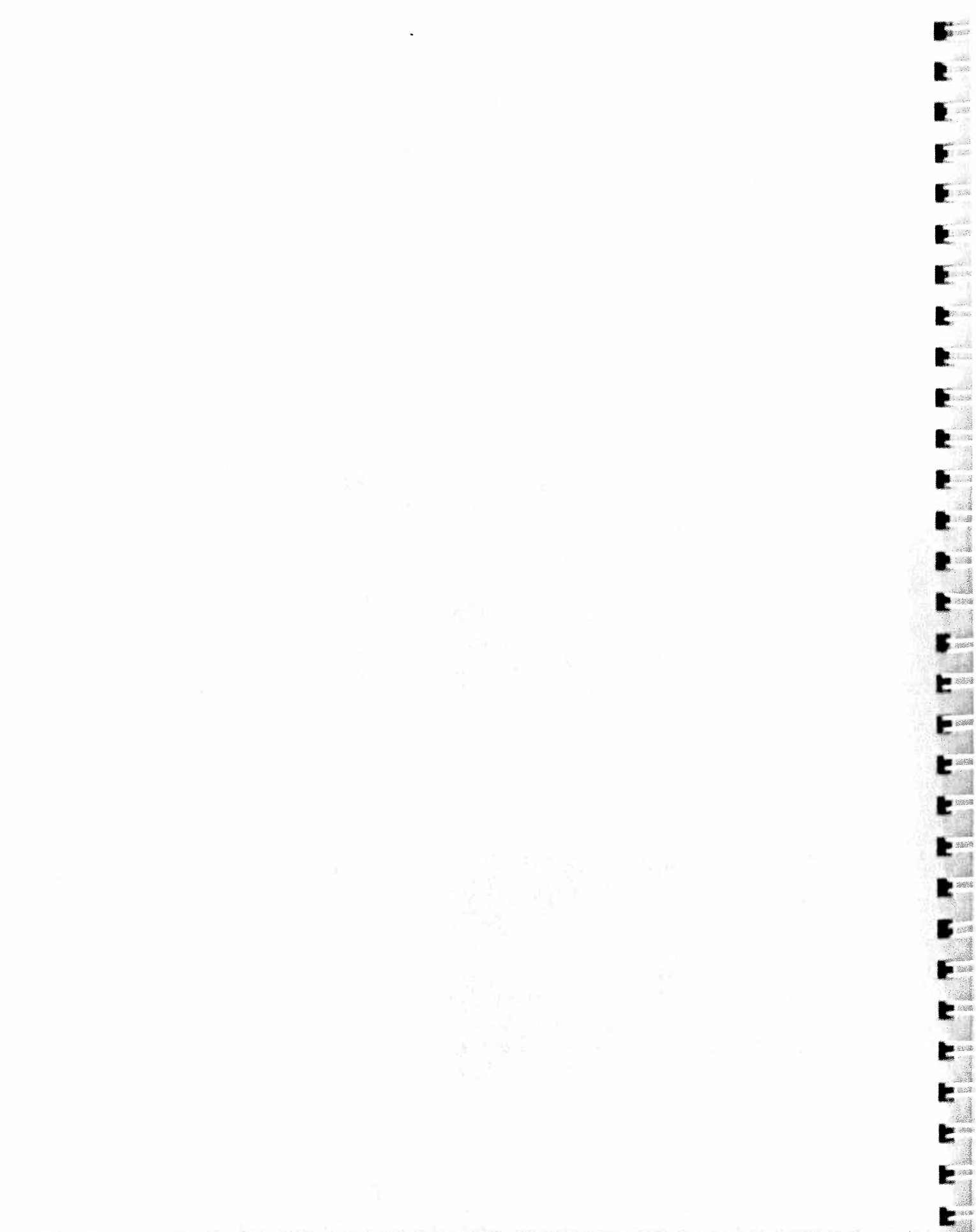
The patterns that are formed from the right will always retain the right side of the stitch, regardless of any changes in width.

Note: Do not use a twin needle to sew patterns that are formed from one side!

Do not use a twin needle if this symbol in the window lights up (see page 44).

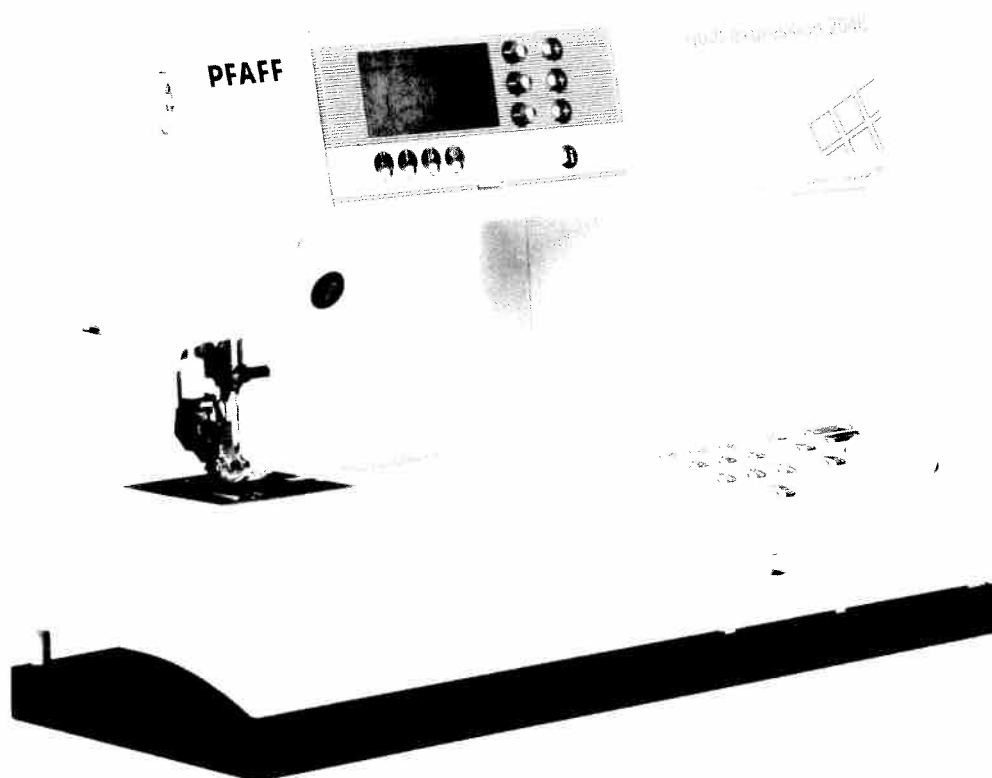


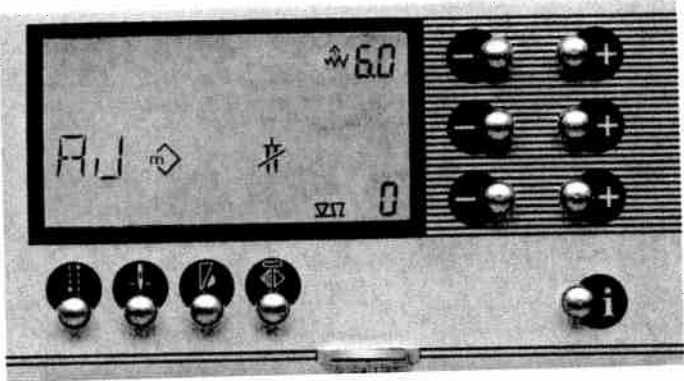
Patterns that are formed from the center will change equally from the right and the left when the width is adjusted.



Stitch Sequences

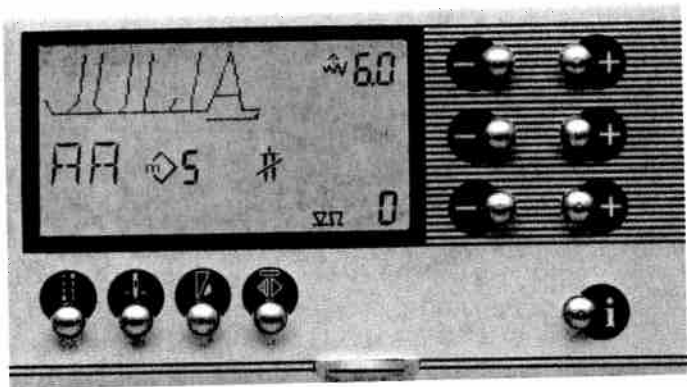
Stitch sequences	48
Buttons for the stitch sequence	49
Storing stitches	49, 50
Deleting from the stitch sequence	50
Inserting into the stitch sequence	51
Deleting a stitch sequence	51
Deleting all M-memories	52
Changing a stitch within a sequence	52
“Pattern start” function	52





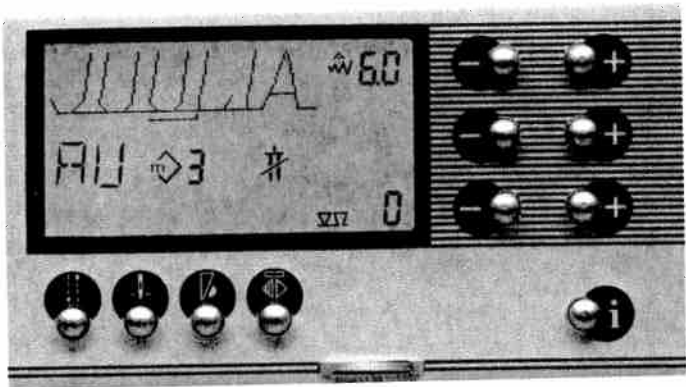
The symbol ◊ appears in the window.

Select the stitch using the direct selection buttons (15-26), or scroll to the desired stitch or letter with the selection wheel. Store the stitches by pressing the m+ button (14).



Once you have entered the stitch sequence, you can start to sew immediately. All stitches that have been sewn are automatically stored and remain in the machine's memory even after you switch off the machine.

Tip: In order to sew a stitch sequence once, press the tie-off button (36) when you have started to sew. The embroidery is tied-off on completion and the machine stops automatically.




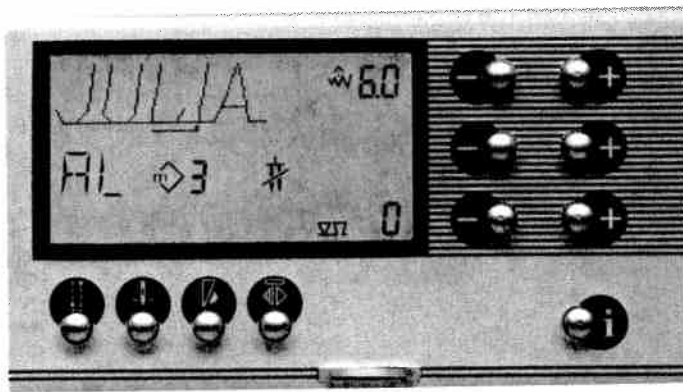
Deleting a pattern within the stitch sequence

If you wish to delete one stitch in the stitch sequence, scroll using the cursor buttons to the desired position in the stitch sequence. The cursor — must be below the stitch which is to be deleted. Press the clear button (9).


After deleting the stitch, the rest of the memory moves up to the cursor position.

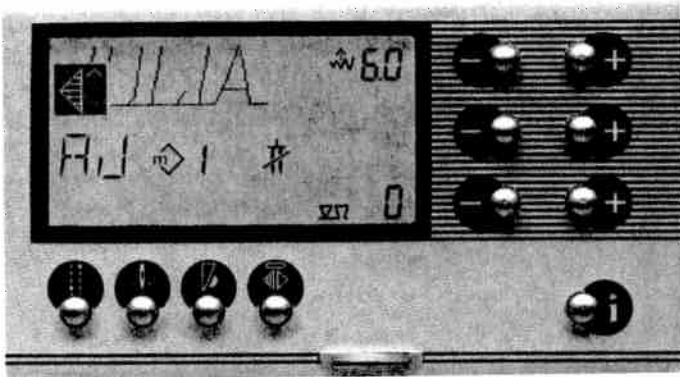
Inserting a stitch into the stitch sequence

If you wish to insert a stitch into a sequence, scroll using the cursor buttons to the desired position in the sequence. The cursor  must be in front of the pattern where the stitch is to be inserted (the position of the tip of the cursor). Select the new stitch and store it using the m+ button (14). After having inserted the stitch, the cursor moves to the position of the inserted stitch.



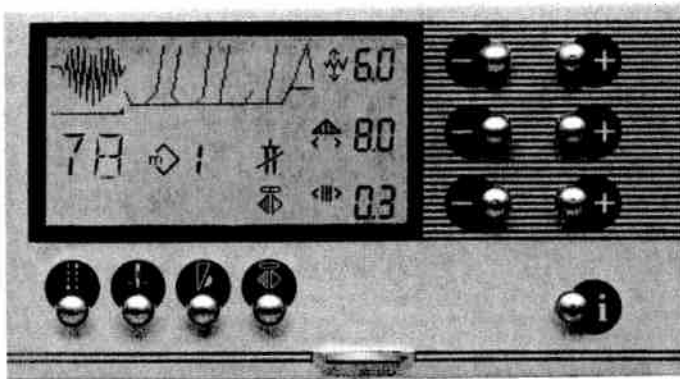
Inserting a pattern at the beginning of the stitch sequence

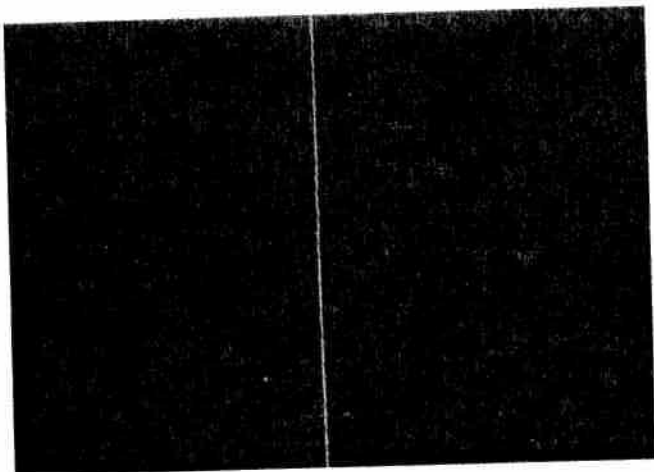
If you wish to insert a stitch at the beginning of a sequence, scroll to the left using the cursor button. Once the cursor is positioned at the beginning of the sequence, the symbol for the beginning of the sequence  appears in the window. Select the new stitch and store it using the m+ button (14). The new stitch will be inserted at the beginning of the sequence.



Deleting the stitch sequence

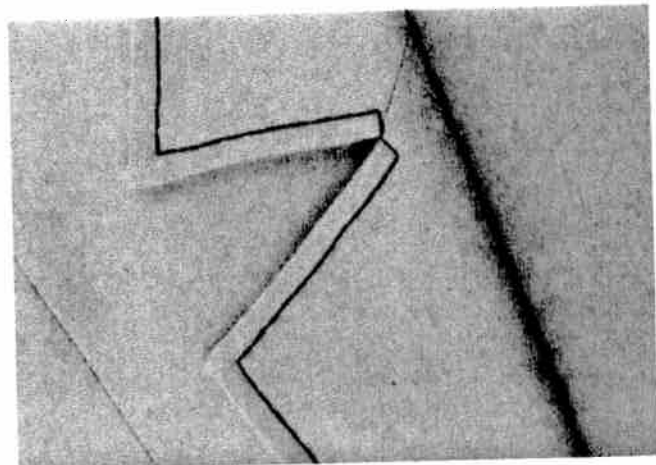
You can delete the stitch sequence by pressing the clear button (9) until the memory is completely empty.



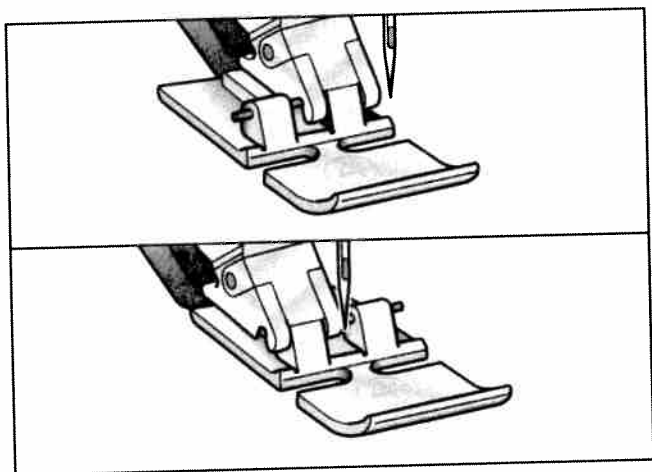


Straight stitch – 1

Stitch 1 is the basic straight stitch in center needle position. The stitch length can be increased up to 6 mm. Change the needle position of the straight stitch to sew in a zipper or topstitch along the edge of a collar. The 2046 and 2034 have 13 needle positions that can be adjusted with the +/- button "A".



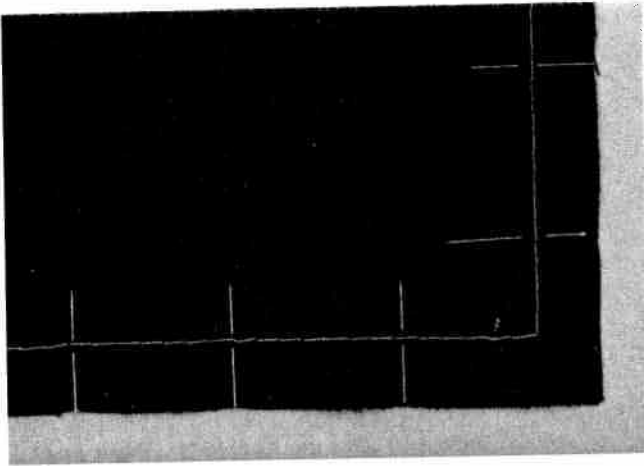
Tip: Use the "needle up/down" button to easily pivot at collar points.



Sewing in zippers – 1

There are different ways to sew in zippers. Follow the directions included with your pattern for best results.

For all types of zippers it is important to sew close to the teeth of the zipper. The zipper foot can be snapped to the presser foot ankle on the left or right, depending on how you will insert your zipper. Then set the needle position so that it enters close to the edge of the zipper teeth by using one of the 13 needle positions available. If the presser foot is attached on the right side, the needle must only be moved to the right. If the foot is attached on the left, the needle must only be moved to the left.

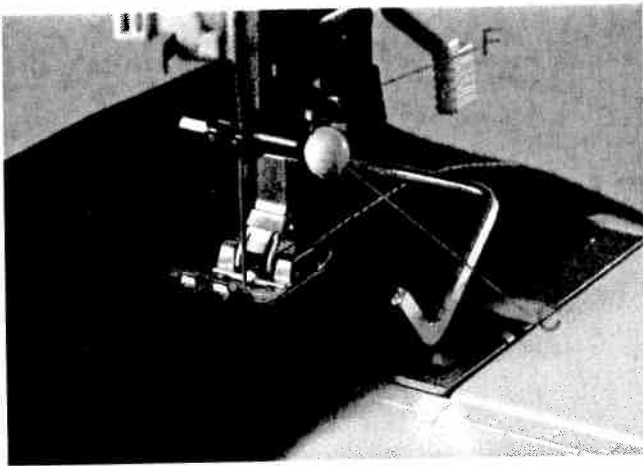


Basting stitch – 10

With stitch 10 you can baste a garment before trying it on. When you press the foot control, the machine will sew one stitch at a time. Press the foot control again for each stitch.

- Lower the feed dog and disengage the IDT.
- Place the fabric under the presser foot.
- Sew one stitch, then move the fabric the required amount to the rear.
- Continue to sew one stitch at a time until you finish basting.

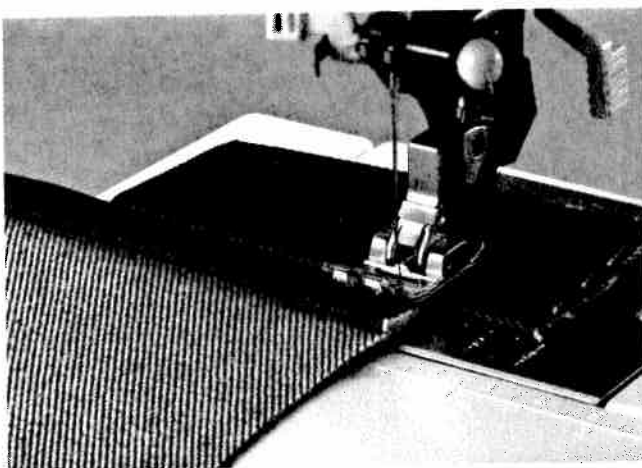
Tip: *Light fabrics are easier to baste with long straight stitches (6 mm). In this case the bottom feed need not be lowered. Use stitch 1, stitch length 6 mm.*



Topstitching

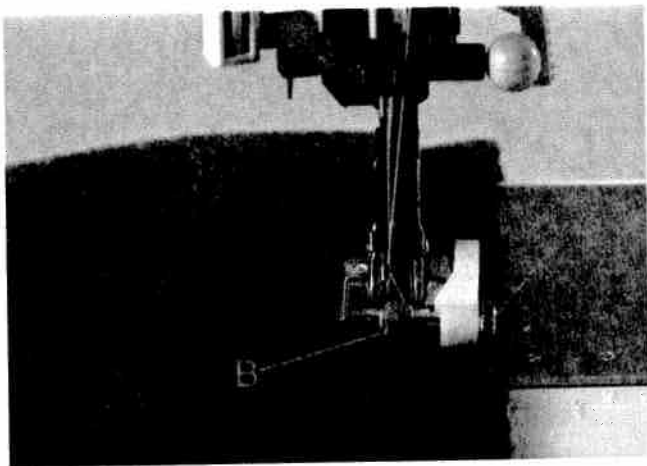
The straight stitch can be sewn in 13 different needle positions allowing you to guide the fabric edge along the presser foot for top stitching. The distance between the rows of topstitching can be determined by the needle positions.

You can also space your rows of topstitching by the width of the presser foot. Begin topstitching further from the fabric edge, by using the guide marks on the needle plate, or the edge guide. The guide marks are given in cm and inches. The edge guide is inserted into hole C and is secured with set screw F.



Feed aid for thick seams

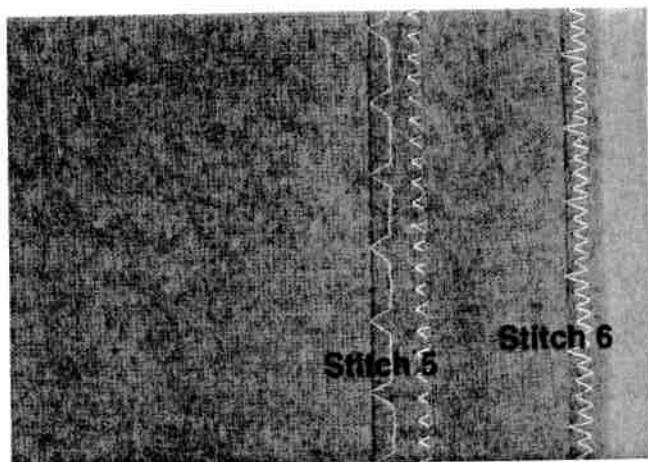
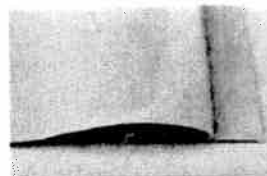
To ensure precise feeding at the beginning of a thick seam, place a piece of fabric of the same thickness as the seam under the presser foot to support it.



Blind hem stitch – 5

The blind hem stitch is used to make invisible hems on skirts, trousers and home decorating.

- Finish the edge of the hem.
- Fold and press the hem allowance inwards.
- Fold the hem back on itself so approximately 1/4 inch (6 mm) of the finished edge extends beyond the fold. The wrong side of your project should now be facing up.
- Place the fabric under the presser foot so that the fold runs along edge guide B.
- When the needle swings into the fold it should catch a small amount of fabric. If the stitches are visible on the right side, adjust edge guide B by turning adjusting screw A.



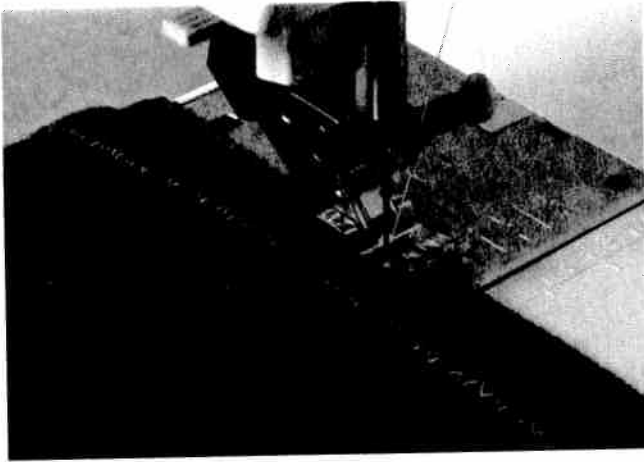
Elastic blind hem stitch – 6

The elastic blind hem stitch is especially suitable for stretchy fabrics. The hem is finished and sewn at the same time. There is no need to finish the raw edge first.

Create the blind hem as described above.

Zigzag stitch – 3

Raw edges can be finished easily with zigzag stitch 3. Make sure the needle pierces the fabric on the left swing of the needle and overcasts the edge of the fabric on the right swing of the needle.

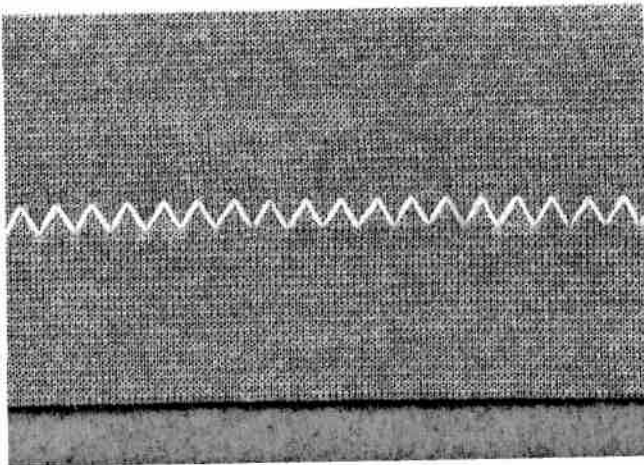


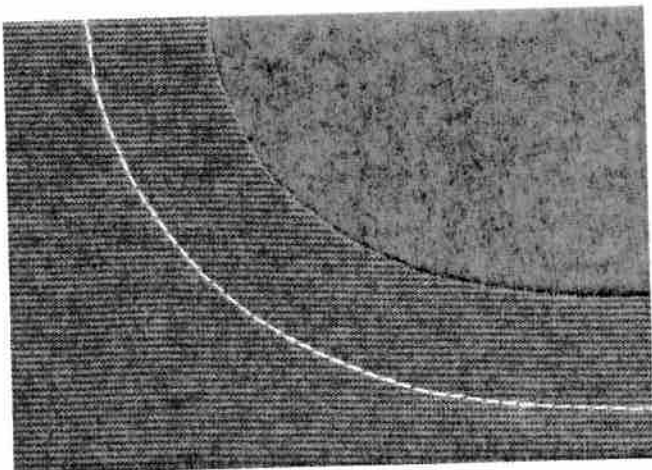
Stretch triple zigzag stitch – 15 (17/2034)

The stretch triple zigzag stitch produces a highly elastic and decorative seam. This stitch can be used for T-shirt hems and with decorative threads on denim.

- Fold up a hem the correct width.
- Topstitch the hem from the right side, or thread the top with decorative thread and sew.

Tip: *Lower needle thread tension for decorative threads.*





Stretch triple straight stitch – 2

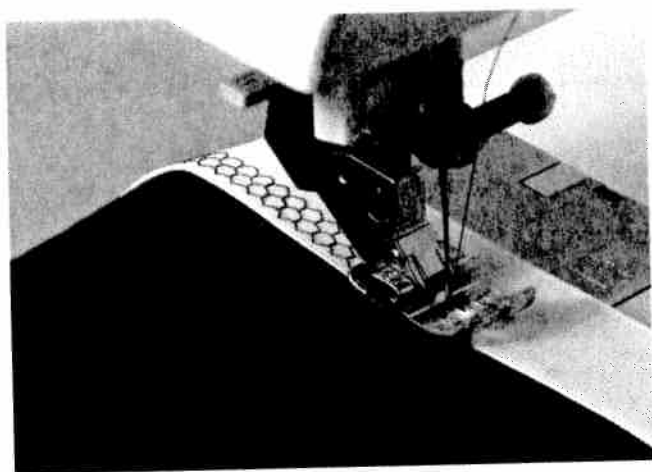
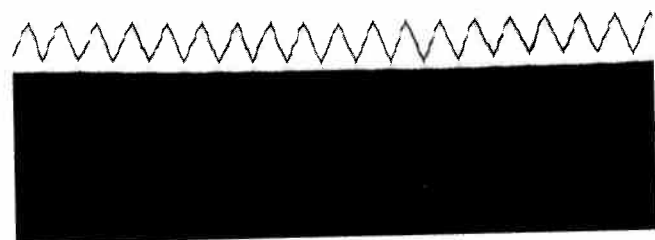
This stitch is used for sewing seams where strength is needed, such as underarm and crotch seams. The heavier the fabric, the longer the stitch length required.



Elastic stitch – 4

Use stitch 4 to add elastic to pajamas, skirts and sportswear.

- To create a waistband, finish the top edge of the garment.
- Cut elastic to comfortably fit around waist.
- Sew the ends of the elastic together.
- Divide the garment edge and elastic into quarters.
- Stretch the elastic to fit the fabric. Sew on elastic.



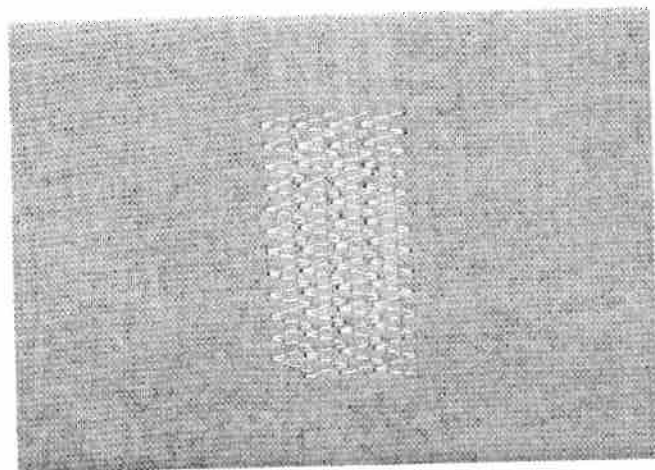
Honeycomb stitch – 17 (19/2034)

The honeycomb stitch is an elastic and decorative hem, which is very suitable for children's clothes and lingerie.

Darning with the elastic stitch – 4

Use the elastic stitch to repair holes, tears and damaged areas.

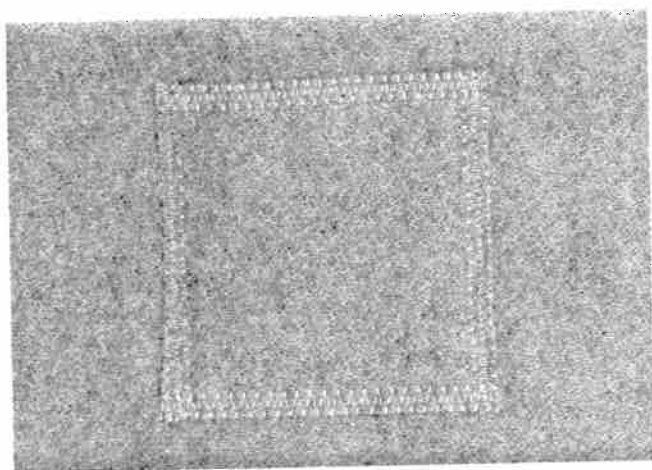
- If the area is only slightly damaged, sew over it with several rows of stitching until it is well covered.
- For tears, frayed edges or small holes, place a piece of fabric, slightly larger than the damaged area and of the same color, on the wrong side of the fabric. Stitch over the damaged area, then cut away the excess fabric close to the stitching on the back side of your repair.



Sewing-on patches – 4

The best way to repair larger holes is to patch the damaged area with a new piece of fabric.

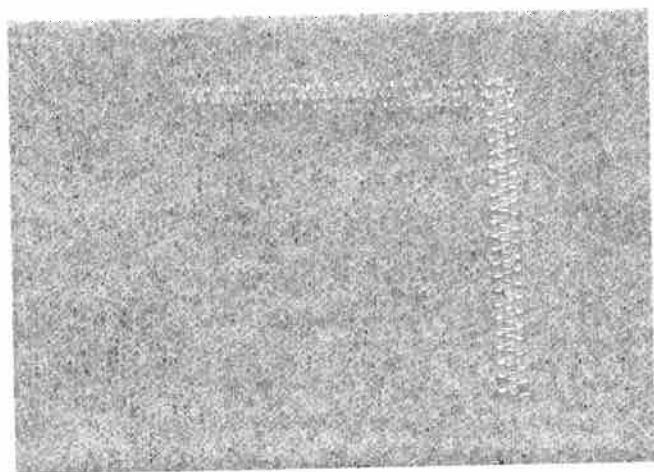
- Cut a piece of fabric slightly larger than the damaged area or hole.
- Stitch over the fabric edges with the elastic stitch.
- Cut back the damaged fabric on the reverse side close to the seam.



Repairing tears

On tears, frayed edges or small holes it is useful to lay a piece of material under the reverse side of the fabric. The underlaid fabric reinforces the workpiece and ensures perfect repair.

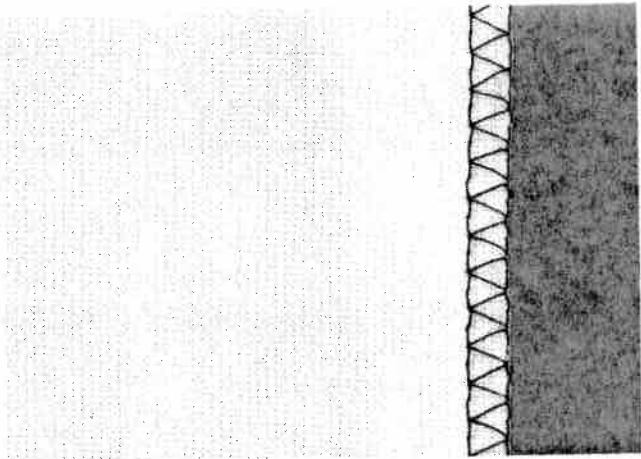
- Lay a piece of fabric underneath the damaged fabric. It must be a little larger than the damaged area.
- Now sew over the damaged area.
- Cut the under layed piece of material back to the seam.



Overlock stitches

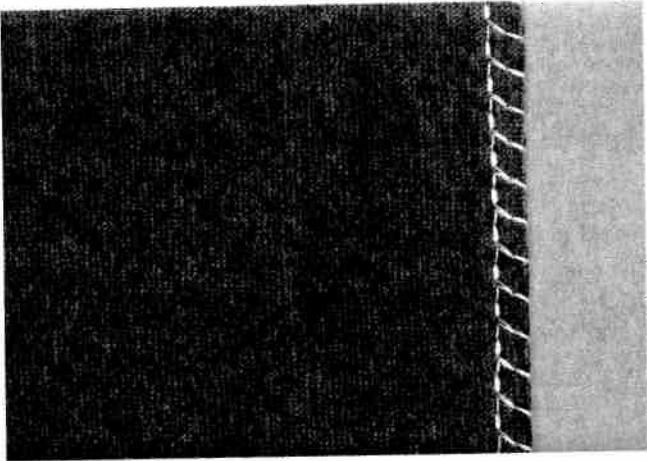
For elastic, knits and stretch fabrics, the 2034 and 2046 provide a selection of overlock stitches. These stitches join multiple layers of fabric and overcast them in one operation. These stitches have built-in stretch and are more durable than standard stitches.

Tip: Use blind stitch foot No. 3 when sewing overlock seams. This guides the fabric more precisely and prevents tunneling of the seam at wider stitch widths. Adjust the stitch width and guide of the foot to ensure that the right-hand swing of the needle clears the raw edge of the fabric and the pin of the presser foot.



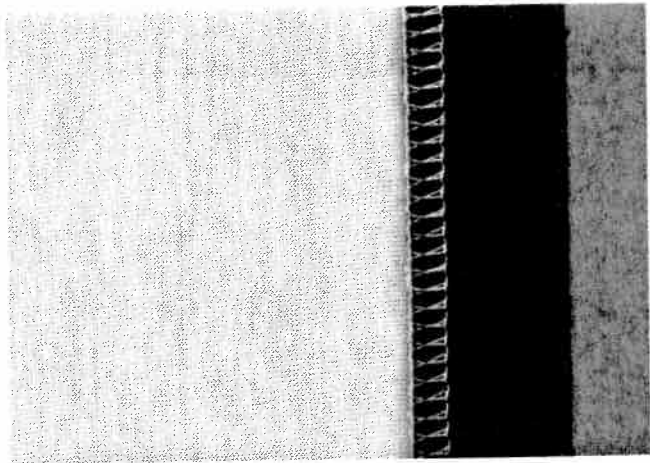
Closed overlock stitch – 7

This stitch, in a single operation, is suitable for sewing and serging fabrics that fray easily. The closed overlock is also a good stitch for attaching knit cuffs and collars to garments.



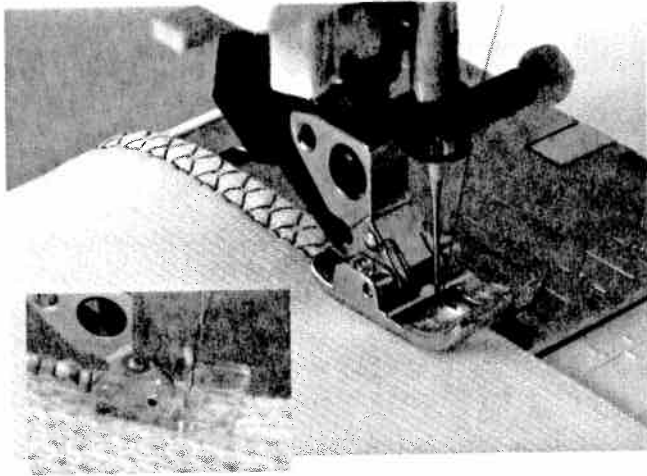
Open overlock stitch – 16 (18/2034)

The open overlock stitch works well when joining or edge-finishing fabrics that do not fray excessively.



Closed overlock stitch with selvage thread – 19 (21/2034)

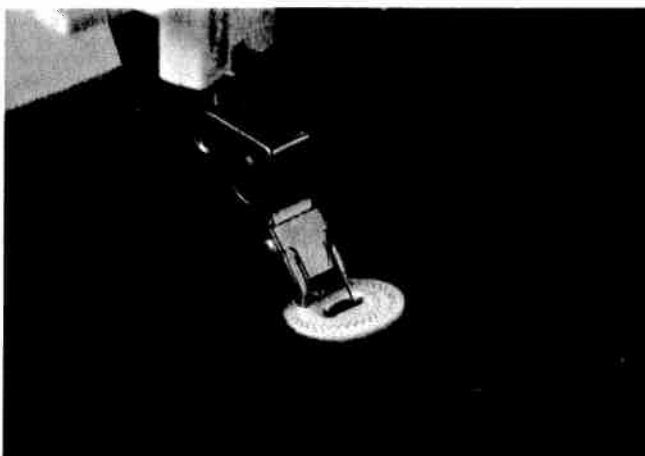
If you wish to sew a fabric that frays easily, select stitch 19 (21/2034). With this stitch an additional edge thread protects the fabric edge against further fraying.



Pullover stitch – 20 (22/2034)

Used together with the knit-edge foot (special accessories), this stitch can be used for open-knit and heavy knit fabrics. Garments can be joined effortlessly with this stitch.

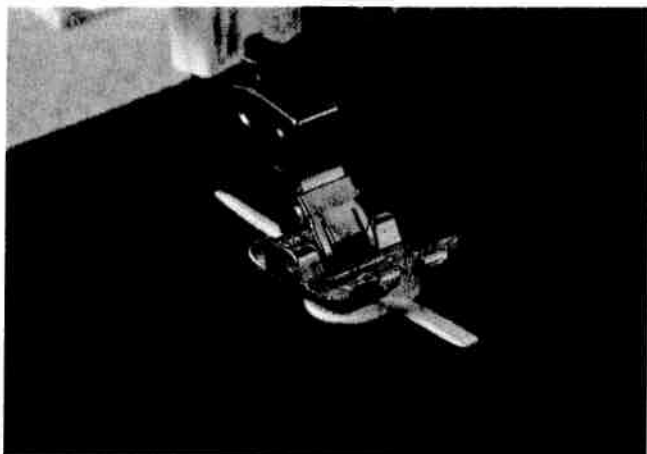
Tip: To prevent the seam from stretching while sewing, overcast a woolen thread or twill tape in the seam.



Sewing on buttons – 0

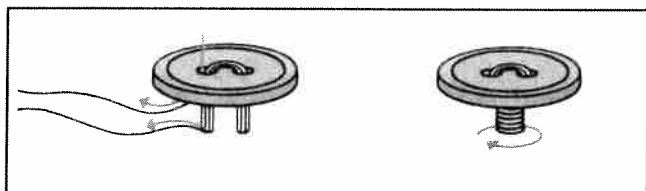
With Button sewing program 0 you can easily sew on two and four-hole buttons.

- Remove the presser foot and lower the feed dog. (Make sure the IDT is disengaged.)
- Mark the button position on your fabric. Place the button on the marked fabric.
- Turn the handwheel towards you and position the button so the needle enters the left hole in the button.
- Lower the presser foot lifter. The button will be held in place by the shank of the foot. Turn the handwheel to make sure the needle also enters the right hole of the button.
- Continue sewing on the button. The machine will complete the program for you.

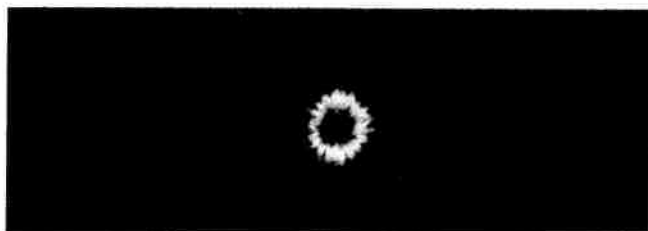


Sewing on buttons with shanks – 0

- Attach the presser foot.
- Leave the feed dogs lowered. Place a toothpick between the holes of the button and sew it on as described above.

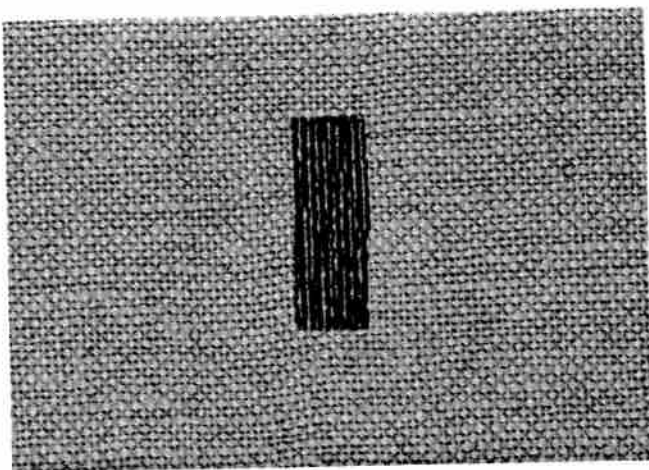


- Remove the toothpick and pull the button and fabric apart.
- Wrap the stem with sewing thread and knot it.



Eyelets – 84 (Model 2046)

To stitch eyelets on a belt or linen items, select stitch 84.

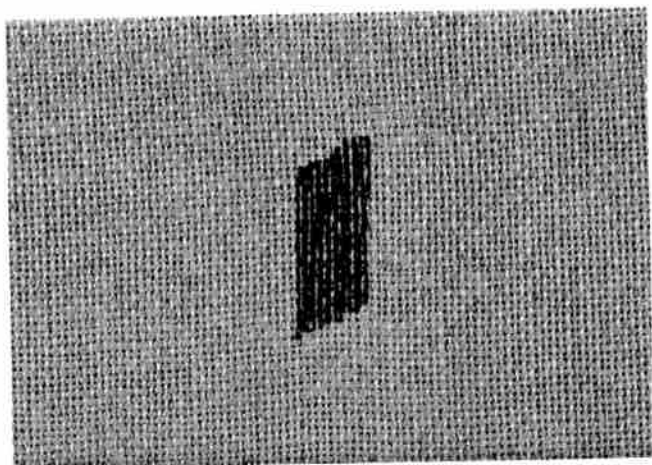


Automatic darning – 85 (Model 2046)

Stitch 85 is for strengthening damaged areas of fabric and repairing tears.

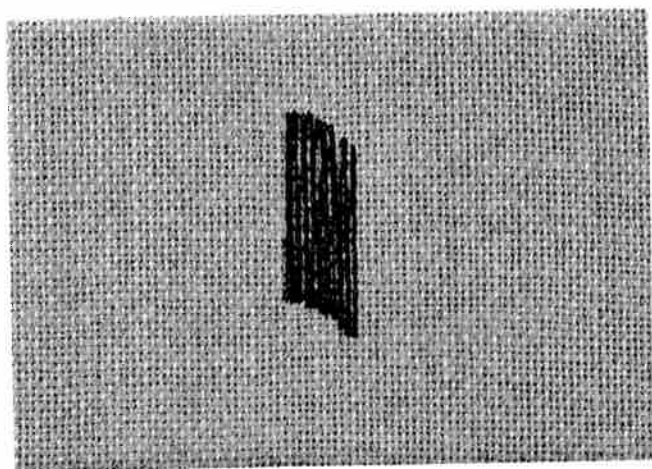
- Stitch over the damaged area at the required length.
- Press the reverse button; the machine finishes sewing the darning program and the darning length is saved.

The saved darning length can now be repeated as often as needed.

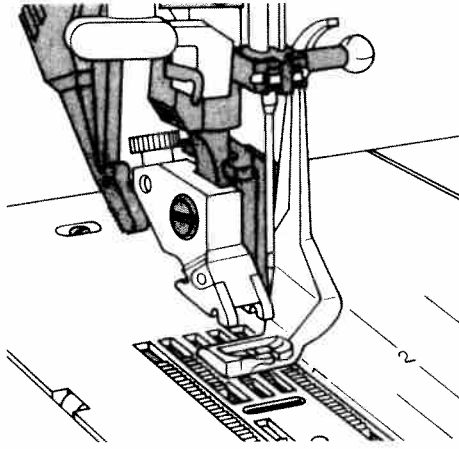


Depending on the type of fabric, the darning pattern may shift slightly out of square. You can straighten the pattern using the balance adjustment capability (see chapter "Balance", page 40).

If the pattern shifts this way you have to correct the balance in the plus-section.

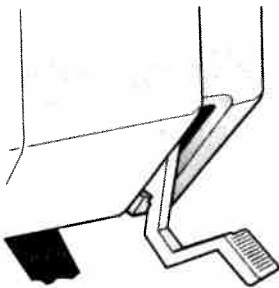


If the pattern shifts this way you have to correct the balance in the minus-section.

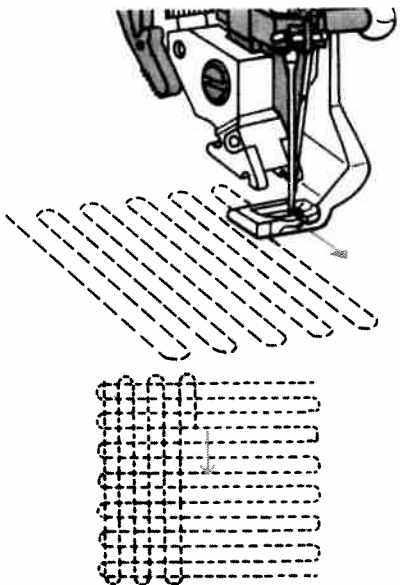


Darning with the straight stitch – 1

- Attach darning foot No. 6. Turn the handwheel toward you until the needle is set at its highest position. With thumb and index finger press the darning foot together. Insert the pin of the darning foot as far as it will go into the hole of the presser foot holder. The “C-shaped” guide should place itself around the presser bar. The long, plastic arm must be behind the needle clamp/needle set screw. Tighten the set screw.



- Darning position: Lower the presser bar lifter slowly and push it to the rear until it engages in the darning position. In this position the thread tension is engaged for darning.
- Lower the feed dog.
- Draw up the bobbin thread and hold the threads when you start sewing.



- Repair the damaged area/hole by guiding the fabric evenly forwards and backwards. The length of the seam is determined by the size of the hole.
- When you have covered the width of the damaged area, turn the fabric 90 degrees and stitch over the area again. Darning in both directions over a tear will produce a stronger repair.

Tip: Remember, when sewing with the feed dogs lowered, the stitch length is determined by you. An even, medium-to-fast sewing speed will allow you to sew a more consistent length of straight stitch. Sewing too slowly may cause small knots to appear on the reverse side of your work

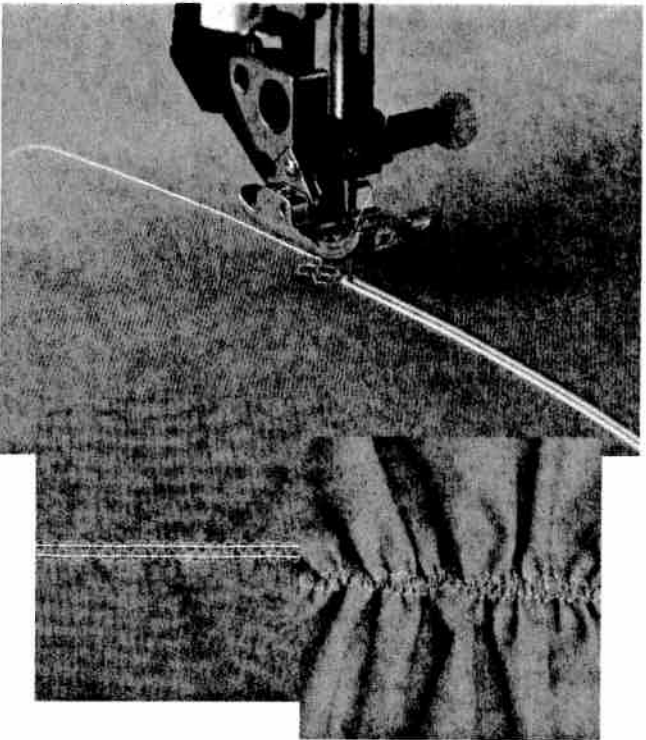


Gathering with straight stitch – 1

A straight stitch can be used to gather sleeves, cuffs, skirts or valances. To obtain neat and even gathers you should sew two or three rows of gathering stitches.

- Set your stitch length to 6.0 mm. Lower needle thread tension to 3.
- Mark the first gathering line on the right side of the fabric. Sew along this line. Leave about 4 - 5 inches (10-13 cm) of thread at the beginning and end of the seam.
- Sew 1 or 2 more rows of stitching, using the edge of the presser foot as a guide.
- Gather the fabric by pulling the bobbin (bottom) threads to the desired fullness.
- Distribute the gathers evenly and knot the thread ends together to secure the gathering.

Tip: *It is important to use a strong thread when gathering to avoid thread breakage when pulling on the gathering threads.*

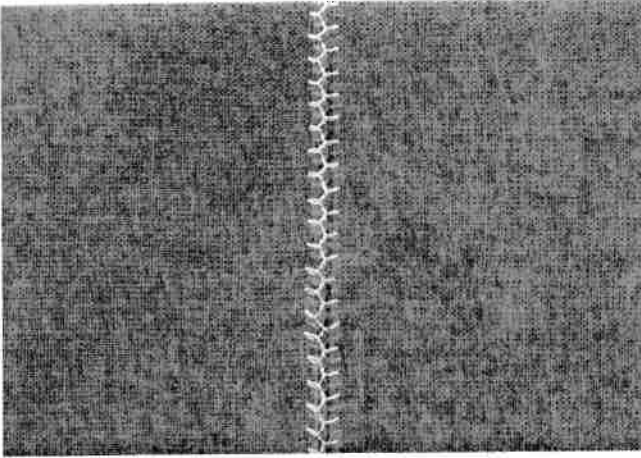


Gathering with elastic threads – 17 (19/2034)

Gathering with elastic thread is particularly suitable for visible, elastic gathering seams such as blouse sleeves, waist seams or necklines.

- Mark the first gathering row on the fabric. Sew a few stitches until the needle is in the middle of the presser foot. Turn the hand-wheel towards yourself until the needle is in the lowest position. Raise the presser foot and place the elastic thread around the back of the needle.
- Lower the presser foot and sew a few more stitches to secure the elastic thread to the fabric. Continue attaching elastic threads to fabric. Make sure you do not catch the elastic thread in the stitching.
- When you are finished attaching the elastic thread, pull on the ends of the elastic threads to gather. The amount of gathering is determined by the amount you pull on the elastic thread. Secure all thread ends.

Tip: *Use the cording foot (special accessory) to help guide the elastic thread.*

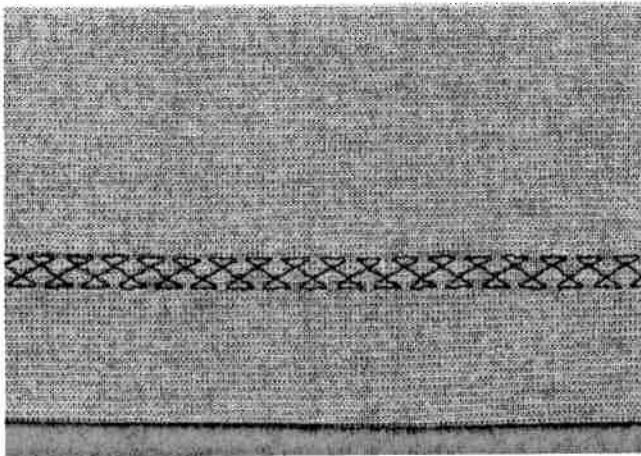


Bridging stitches – 8 or 13 (14/2034)

The bridging stitch creates a hemstitching effect. It is often used for connecting two finished fabric edges.

- Finish the fabric edges and press the seam allowance to the wrong side.
- Place the fabric under the presser foot with the edges approximately 1/8 inch (3 mm) apart.
- Stitch from the right side of the fabric, making sure that the needle catches the fabric on the right and left sides.

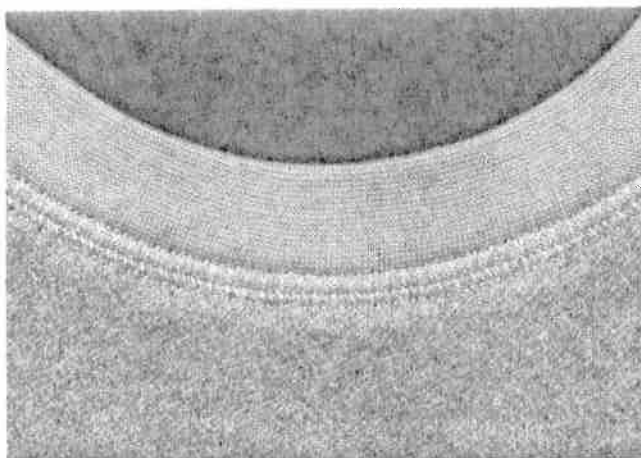
Tip: To make guiding the fabric easier, use the bridging guide (special accessory). It is available in 3 mm and 5 mm widths. The small post on the bottom of the guide is inserted in the small hole at the front of the needle plate.



Cross hem stitch – 18 (20/2034)

This highly elastic stitch is very suitable for decorative hems.

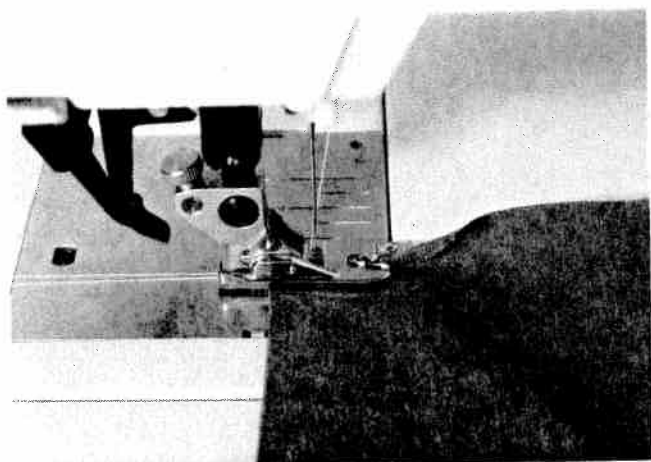
- Fold the hem allowance to the reverse side.
- Stitch the hem from the right side of the fabric. Trim any excess hem fabric up to the stitching.



Light-knit mending stitch – 21 (Model 2046)

The light-knit mending stitch is a stretchy covering stitch. It is very suitable for overstretching cuff and collar seams in stretch materials, especially for sportswear.

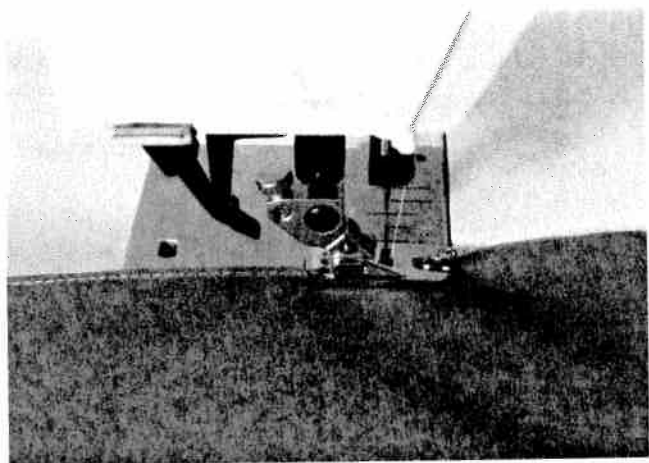
- Finish the sportswear as directed in the pattern.
- Now the seam allowance can be overstretching from the right side of the garment. This will add strength and keep the seams flat.



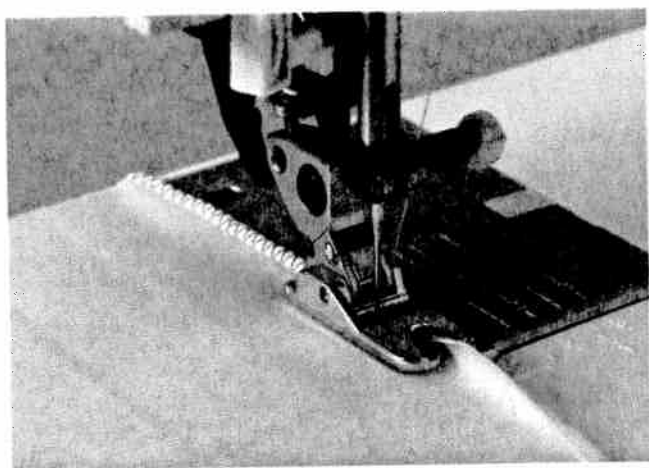
Rolled hem with hemmer No. 7 – 1

Use the rolled hemmer to finish the edges of blouses, scarves, or ruffles without having to iron the edges beforehand. Hemming prevents the edges from fraying and produces a neat and durable edge finish.

- Double-fold the fabric edge (about 1/8 inch / 2 mm per fold).
- Place the folded fabric edge under the hemmer and sew a few stitches to secure.
- Turn the handwheel towards you until the needle is at its lowest point. Raise the presser foot and slide the fabric into the scroll of the hemmer.

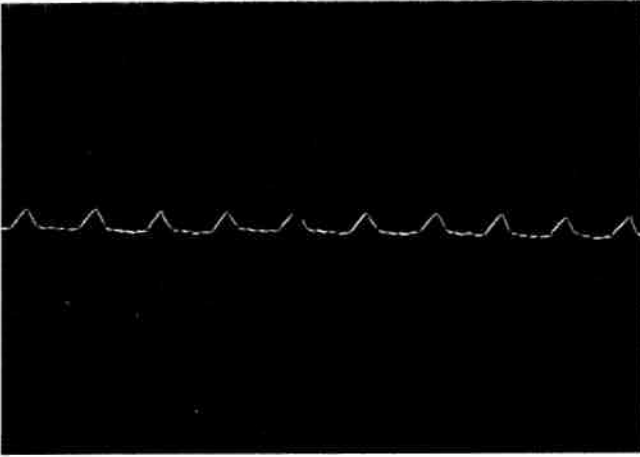


- Lower the presser foot and while sewing, guide the fabric edge evenly into the hemmer. When roll-hemming, make sure the raw edge of the fabric butts against the left edge of the hemmer opening. Ensure the fabric does not run underneath the right side of the presser foot.




Stitch 3

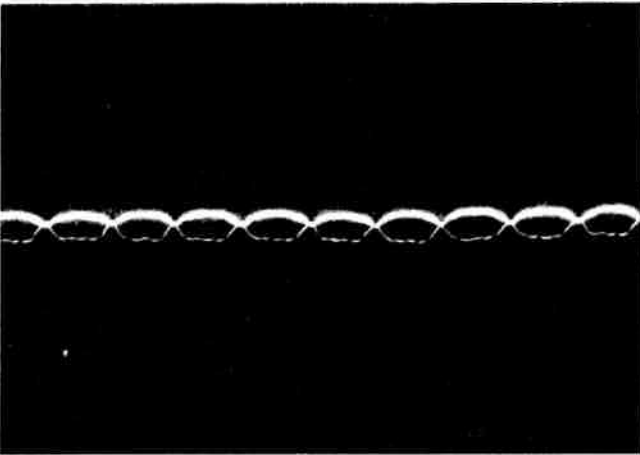
A narrow zigzag stitch also makes a nice rolled hem on lighter stretch fabrics.



Shell edging – 5

Shell edging is a very effective finish for thin, soft fabrics such as silk and rayon fabrics. It is frequently used as a hem finish on lingerie.

- Select blind stitch No. 5 and mirror it with the "Pattern mirror" button .
- Tighten the needle thread tension to create a deeper shell tuck.
- Finish the raw edge and press the seam allowance to the left.
- While sewing, make sure the fabric runs under the presser foot at half of the foot width, and the blind hem swings over the folded edge.



Tip: Add a colored pearl cotton thread on the folded edge as you sew the shell tuck. This creates a pretty contrast and strengthens the hem.

split



Buttonholes

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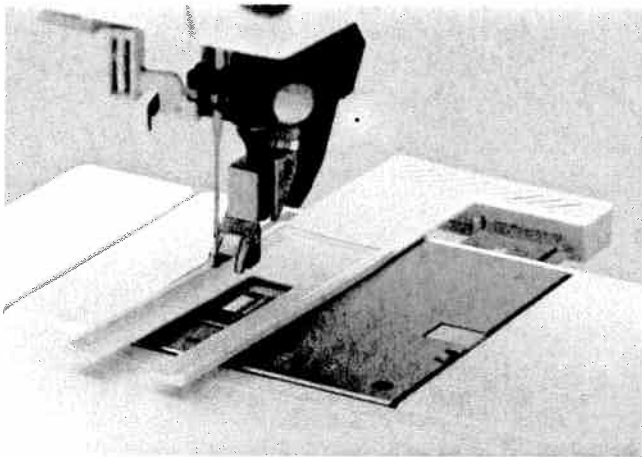
Buttonholes

Your Expression has the perfect buttonhole for every fabric and garment. Whether you wish to sew buttonholes on jackets, pants (trousers), blouses or stretch fabrics, 4 different buttonholes (3 on the model 2034) give your garments the professional touch.

The Expression uses sensormatic buttonhole guide No. 10 and sensors to ensure that every buttonhole is sized accurately. Perfect buttonholes can be sewn on even the most difficult of fabrics such as velvet, plush, knitted fabrics and heavy knits.

Your Expression offers you three ways of sewing a buttonhole:

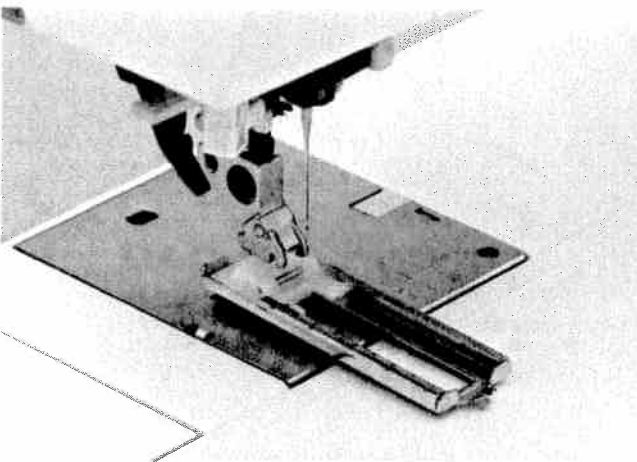
- fully automatically
- semi-automatically
- manual



Inserting the sensormatic buttonhole guide:

Push the metal part of the buttonhole guide into the slot (between the two arrows) on the back of the needle plate. The white part extends over the needle plate.

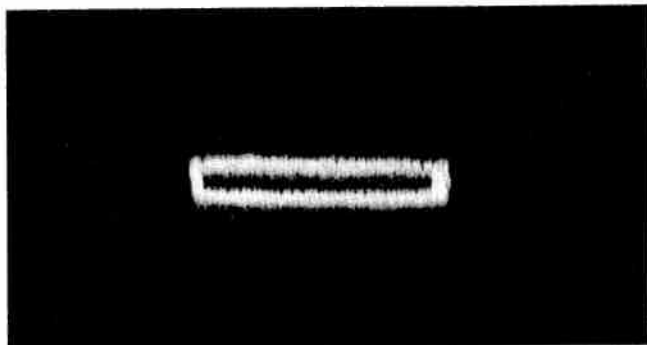
Press the guide towards the front as far as it will go. It must spring back slightly so that there is a small gap between the guide and the back of the machine.



Attaching buttonhole foot No. 5:

Use buttonhole foot No. 5 to sew buttonholes.

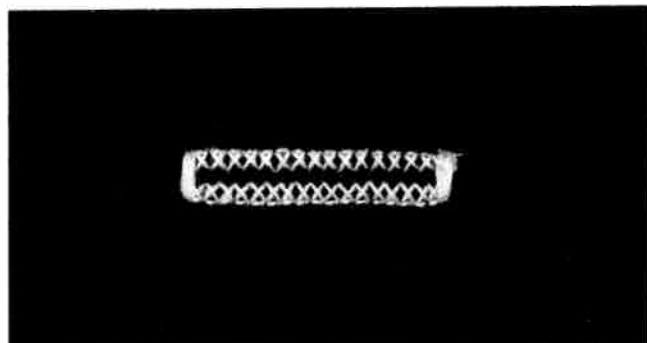
Before starting to sew, pull the runner of the foot toward the front to the second red mark (also see "Changing the presser foot" page 29). Snap on buttonhole foot No. 5.



Choose from the following buttonholes:

1) Linen buttonhole No. 9

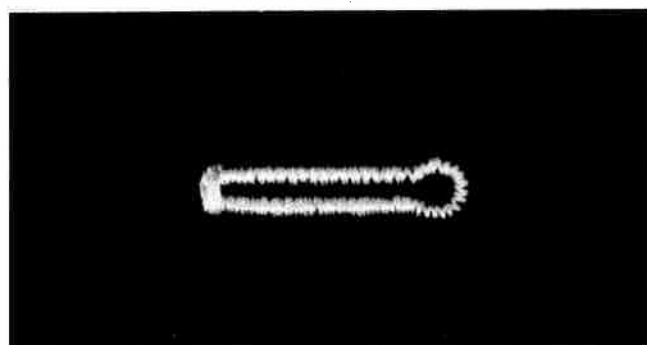
for blouses, shirts, dresses, etc.



2) Stretch buttonhole No. 87

(No 60 on the model 2034)

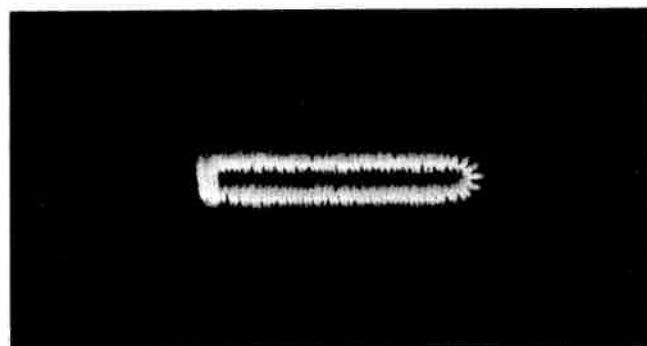
for stretch fabrics



3) Keyhole buttonhole No. 88

(No 61 on the model 2034)

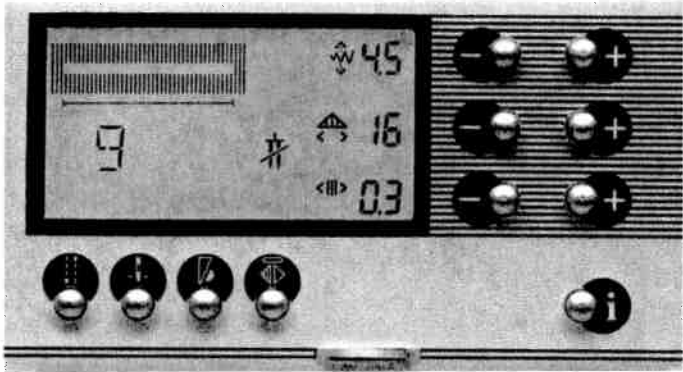
for jackets, coats and pants (trousers)



4) Round buttonhole No. 86

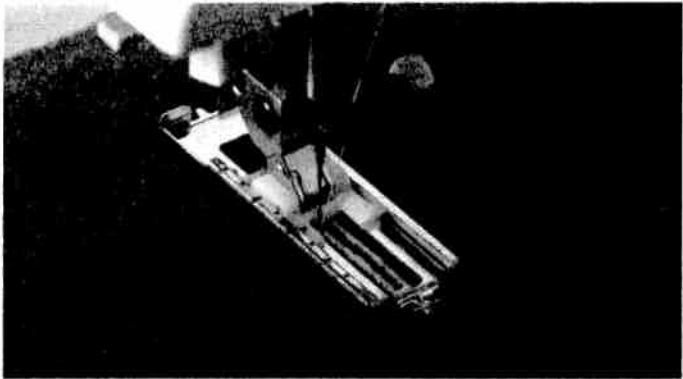
(only on model 2046)

for ladies' outer garments, especially blouses and dresses



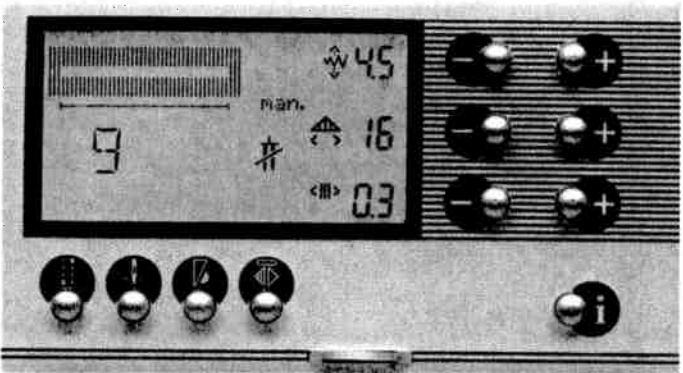
Fully automatic buttonhole

Select the desired buttonhole (e.g. No. 9). Adjust the size of the buttonhole by using the -/+ button B. You can also adjust the buttonhole width (-/+ button A) and the buttonhole density (-/+ button C). Sew as many buttonholes as you wish. Your Expression will continue to sew the same size buttonhole until you make adjustments.

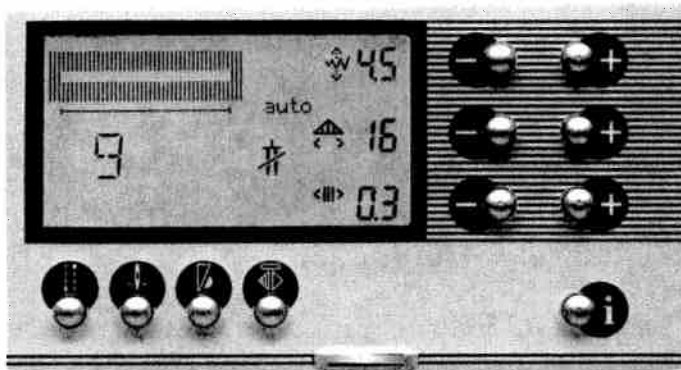


Semi-automatic buttonhole

You can also finish a buttonhole manually by pressing the "reverse sewing" button one time *after* the first bartack is sewn. This will allow you to place the last or back bartack where you want it.



The word "man" appears in the Expression window, after you have touched reverse. This indicates a manual finish of the buttonhole is desired. Before the left side of the buttonhole ends, the machine will slow down. When the left side of the buttonhole is the same length as the right side of the buttonhole press the "reverse sewing" button (33) once again.

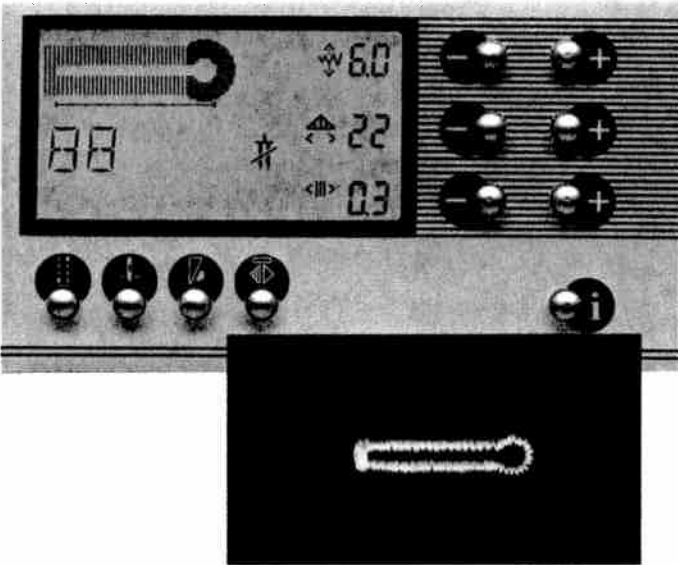
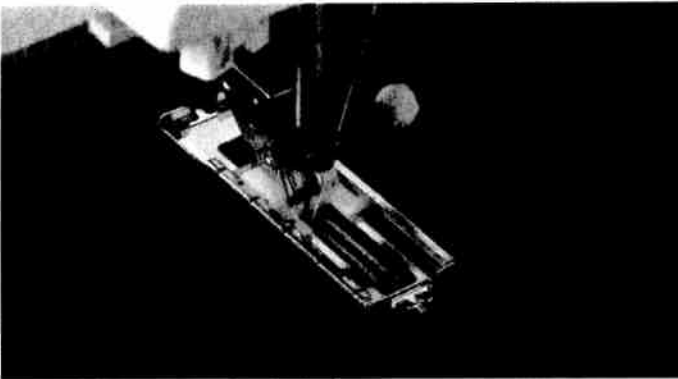
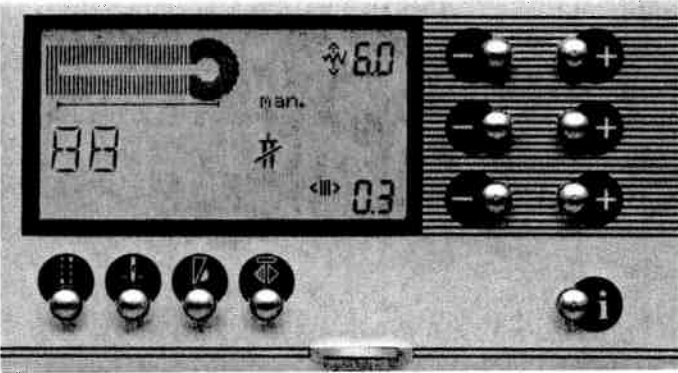


The second bartack will be sewn and complete the buttonhole. The word "auto" appears in the window.

All remaining buttonholes will now be sewn automatically.

Note: If the length or stitch density of a programmed buttonhole is changed, the programming is cancelled. Reprogramming with a new length value or a new density is required.





Manual buttonhole

You can also set the length of the buttonhole while sewing. Select the desired buttonhole. Press the “reverse sewing” button. The word “man” appears in the window. The buttonhole length, set previously, disappears.

Once you have reached the desired length, press the “reverse sewing” button once again. The machine will now sew the first bartack and the left side of the buttonhole.

Before the left side of the buttonhole is completed, the machine will slow down. To complete the buttonhole with a second bartack, press the “reverse sewing” button once again. The machine will sew the second bartack and complete the buttonhole. The word “auto” appears in the window. All remaining buttonholes can now be repeated fully automatically.

Note: The programming of the buttonhole is deleted when another program is selected.

You can also place the last bartack manually, even after the buttonhole has been programmed. Press the “reverse sewing” button one time after you have stitched the first bartack. The word “man” appears in the window. This indicates a manual finish of the buttonhole is desired. Before the left side of the buttonhole ends, the machine will slow down. When the left side of the buttonhole is the same length as the right side of the buttonhole press the “reverse sewing” button (33) once again.

The second bartack will be sewn and complete the buttonhole. The word “auto” appears in the window.

Keyhole buttonhole

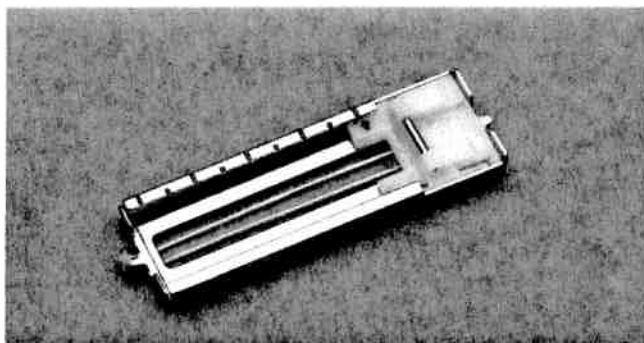
Keyhole buttonholes can be sewn with the buttonhole foot.

The keyhole buttonhole can be sewn fully automatically, semi-automatically and manually.

Warning: The keyhole buttonhole must be sewn with the rounded end towards the edge of your garment/ project. However, the buttonhole will begin sewing from the bartack end. It is important to first mark the length, measuring from the starting point inwards. Always sew the buttonhole from the inside to the outside towards the edge.

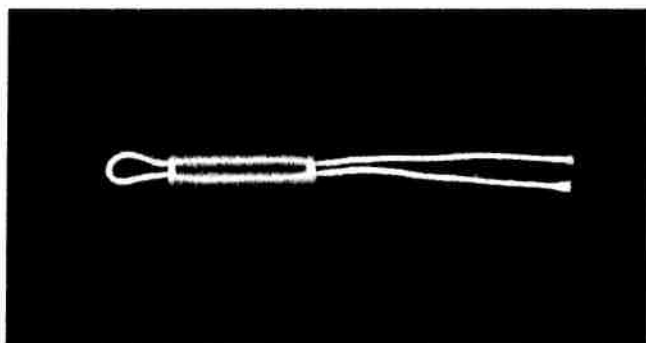
Choose stitch 88. A standard keyhole buttonhole will appear in the window along with the width, length and stitch density indications. These settings can be altered.

Tip: Cut open all buttonholes with the seam ripper. Open the curve of the keyhole buttonhole with a belt punch or awl.



Buttonhole with gimp thread

Buttonholes that are sewn with gimp threads are more durable and will not stretch. Use pearl cotton or a regular gimp thread approximately the same color as the sewing thread to stitch over. Place the center of a length of gimp thread over the metal bar extending from the center, back of the buttonhole foot. Pass the thread ends under the foot and pull up into the right and left guides on the clamp at the front of the presser foot. Buttonhole No. 9 can now be sewn.



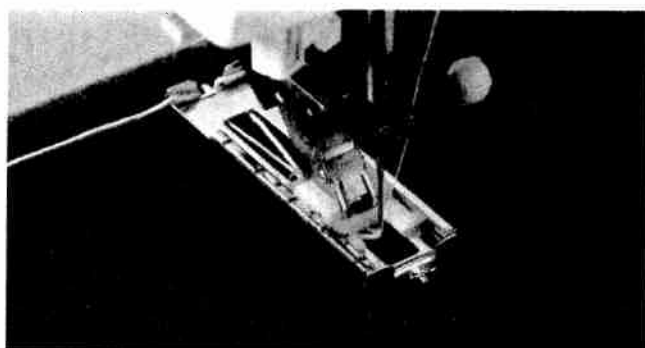
After completing the buttonhole, pull the ends of the gimp thread until the loop of thread is hidden below the buttonhole bartack. Cut off the gimp threads just behind the final bartack.



Keyhole buttonhole with gimp thread

Place the center of a length of gimp thread over the metal bar extending from the center, front of the buttonhole foot. Pass the thread ends under the foot and pull up into the right and left guides on the clamp at the back of the presser foot. Guide the gimp thread along the foot at the side.

Sew the right-hand seam of the buttonhole. After the machine sews the first few stitches of the curved end pull the gimp thread down from the clamp with a straight pin.



Warning: The presser foot must not be raised from the fabric surface.

Pull the gimp thread on the left towards the rear until the loop is just in front of the needle. Carefully sew the curve. After sewing the curve, hold the gimp thread a little more taut and finish sewing the buttonhole. Cut off the excess gimp thread.



Buttonhole tips:

- A wider, less dense buttonhole is recommended on heavy fabrics.
- Use presser foot No. 1 for buttonholes that are to be sewn very close to a reinforced edge.
- Materials that shift or stretch easily should be reinforced with water-soluble, tissue paper or other lightweight stabilizer.
- Keyhole buttonholes are particularly stable and durable if a gimp thread is inserted while sewing (see "Keyhole buttonhole with gimp thread").
- Linen buttonholes are particularly dense and attractive if you use buttonhole twist thread.
- Buttonholes are normally selected a little larger than the button diameter. It is important to always sew a test buttonhole on the same fabric/stabilizer as your project.



Quilting

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Patchwork and quilting

Patchwork and quilting are traditional hand craft techniques to make use of left-over fabric. Over the years it has developed into a creative hobby.

Traditionally patchwork was sewn by hand. Today your creative ideas can be realized in a much shorter time with your Pfaff Expression.

A quilt consists of three layers, two layers of fabric with a layer of batting sandwiched between.

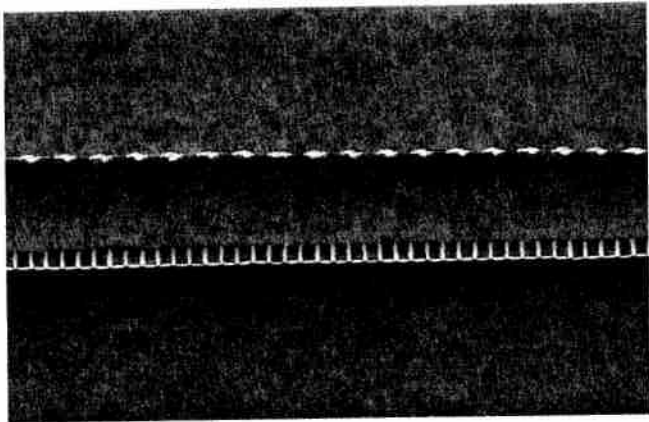


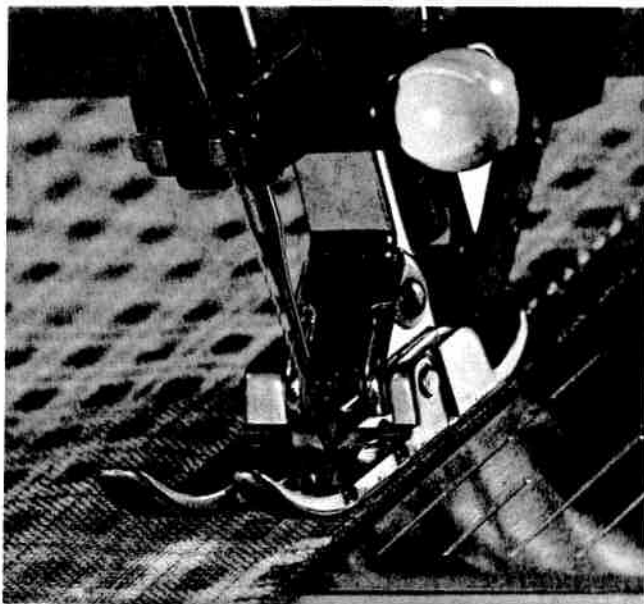
Piecing the quilt top

Cut out the pieces of fabric for your quilt top using templates. A seam allowance of 1/4" (6 mm) should already be included in the templates. Snap on the optional 1/4" quilting foot. Sew the pieces together following the design instructions to piece the quilt top.

The seam allowance of quilts are usually pressed towards the darker fabric side. Baste the completed quilt top to the batting and backing. In traditional quilts these three layers of material are then sewn together by hand with small stitches. However, it is quicker and more practical with your Pfaff Expression, e.g. with stitch 27 (11/2034) using monofilament thread on top and regular or decorative thread in the bobbin.

When the quilting is finished simply bind the edges or make it into cushions, wearable art or other smaller projects.





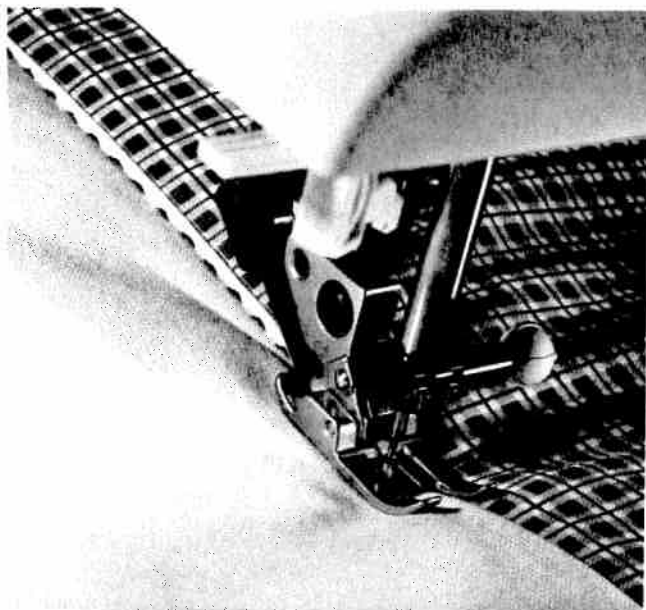
Quilt piecing

Cut the pieces necessary for your quilt top using templates you have bought or made yourself, making sure to include a seam allowance of $\frac{1}{4}$ " (6 mm).

Your Expression is perfect for piecing quilts. Set up your Expression with a straight stitch (1), stitch length 2.5, needle position 4 to the right and your IDT is engaged. The fabric pieces should just follow under the right of presser foot 0. Moving the needle position gives you a scant $\frac{1}{4}$ " seam.

Sew the pieces together as required by the block chosen. These squares will then be sewn together and will form the top of the quilt.

Tip: Use the $\frac{1}{4}$ " foot (820211-096) as an easy guide for your quilting. Set your 2034/2046 for center needle straight stitch and engage the IDT.



Stitch-in-the-Ditch

One way to hold the quilt top, batting and backing all together is using the stitch-in-the-ditch method of quilting. Stitching in the Ditch means following the seams in the quilt blocks.

Set your Expression with a straight stitch (1), stitch length 2.5, center needle position, IDT engaged.

Begin by pin basting your quilt through all layers – starting from the middle of your quilt and working out. Place a safety pin about every 6 – 8 inches (15 – 20 cm).

To begin quilting, start sewing from the middle of the quilt and continue out. Starting from the middle and sewing out will help keep layers in place. Plan which seams you will actually follow. This stitching will not only hold the quilt together, it will also create the pattern on the quilt back. You do not need to follow every seam in the quilt, sew every 3 – 4 inches to keep the quilt in place. Of course, you can sew more to create a decorative pattern for the back.

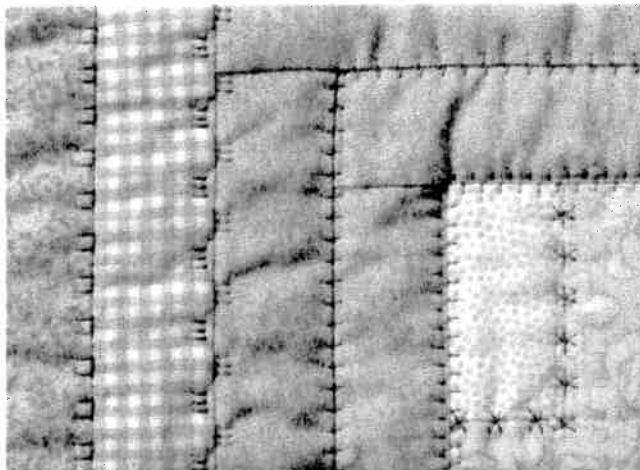
Tip: Use stitch 27 (11/2034) to make your stitch-in-the-ditch look handsewn.

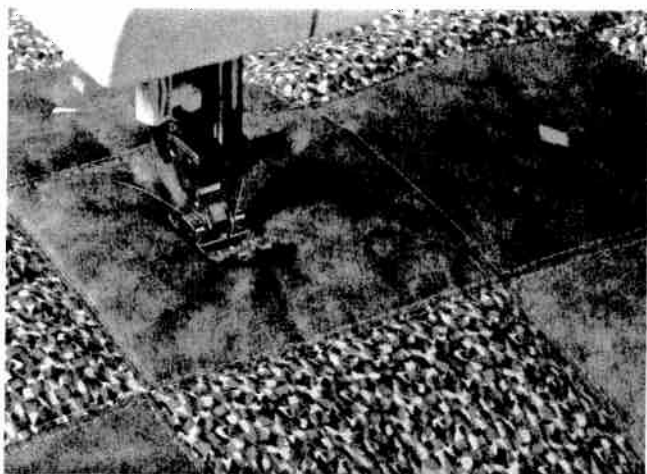
Tip: Change to a quilting or jeans needle when sewing through thick quilts. Test sew to ensure balanced stitching before starting to quilt.

Antique Quilt Stitches

Beautiful Crazy Patch quilting was originally sewn by hand. This hand stitched look can be accomplished faster and easier with the Pfaff Antique quilt stitches.

- Use invisible (monofilament) thread in the needle. Use a contrast or matching polyester or cotton thread in the bobbin.
- Set the needle thread tension to 7-9.
- When you sew the stitch on the three layers of your quilt, you should only see your bobbin thread. Create the stitch pattern on top of the fabric. The intermediate stitch disappears and thus produces a handstitched appearance. Adjust your needle tension as needed to produce the desired effect.





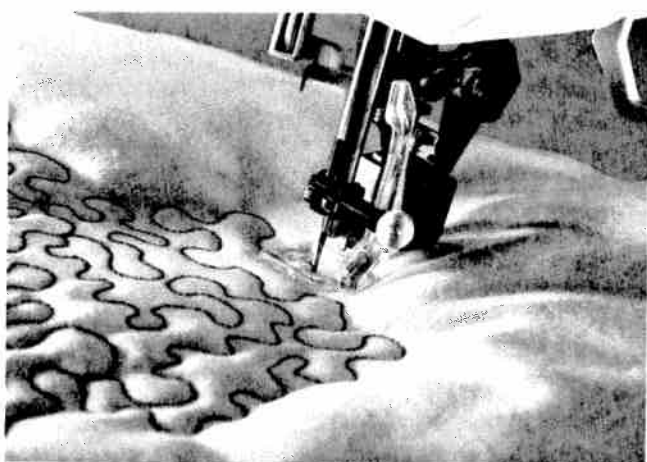
Tying the Quilt

Tying a quilt is another way to hold the quilt top, batting and back together. Previously done by hand, your Expression has great decorative stitches that will "tie" your quilt with ease.

Choose a decorative stitch that is a forward moving stitch, such as 75 or 78 (56 or 58 for model 2034). Prepare your quilt as explained in the Stitch-in-the-Ditch method.

In order to sew the stitch only once, press the tie-off button when you have started to sew. Now sew this stitch every 3 – 4" (7 – 10 cm) all over the quilt. Again plan your stitch placement so that there is a nice pattern on the front and the back.

This is a very simple and beautiful way to secure a quilt.



Free Motion Stippling

Free Motion Stippling not only keeps the top, batting and backing together, but it also adds texture and interest to your quilt.

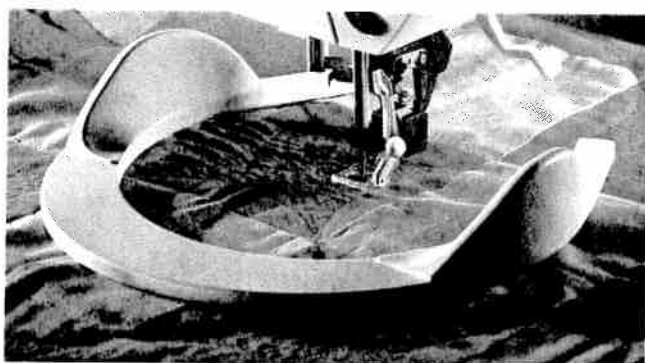
Set your Expression for stippling with a Straight Stitch (1). Attach the darning foot. Lower the feed dog and set up your machine in the darning position.

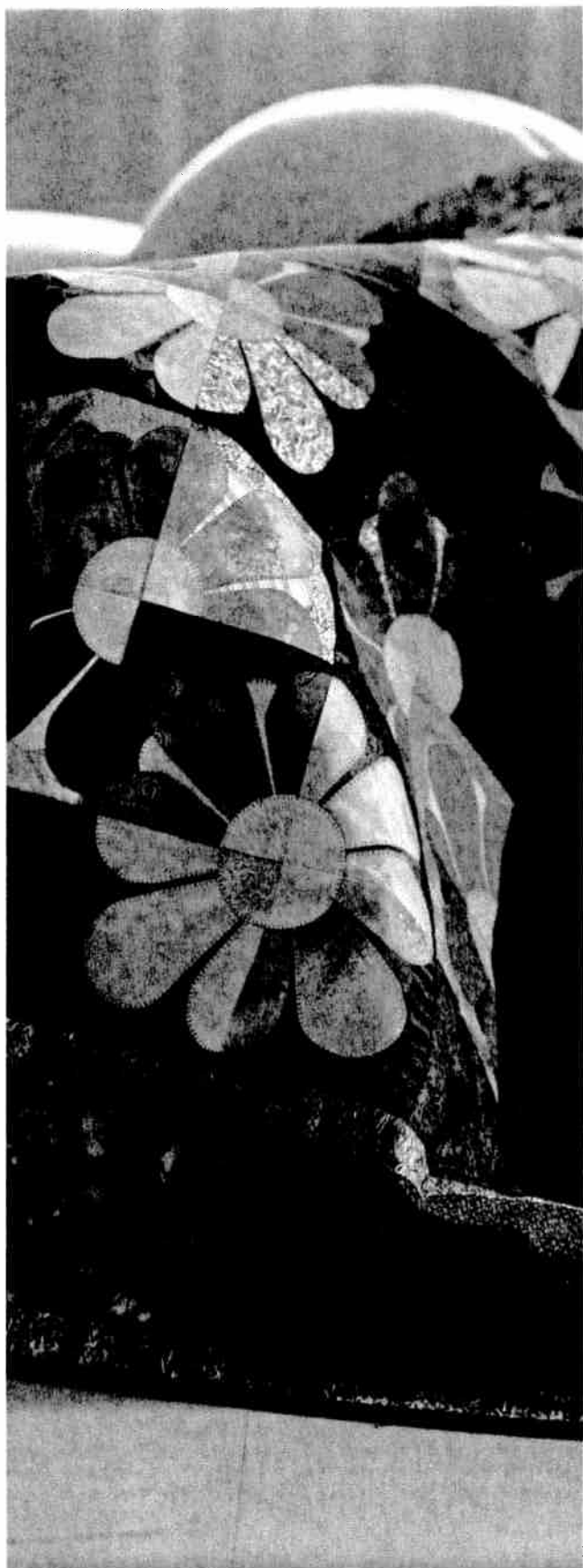
Prepare your quilt as explained in the Stitch-in-the-Ditch method.

Practice stippling on scraps of fabric and batting. When the feed dog is lowered you control the stitch length. Remember using a constant speed will help to keep the stitches even.

Begin near the center of your quilt. Take one stitch and pull the bobbin thread to the top of the quilt. Take a few stitches right next to one another to secure the threads. Now move the quilt so that your stitching creates scrolls and swirls. The stippling should not cross itself – make one long continuous swirl of stitching.

Tip: Use the Free-motion guide grip (412 53 88-01) to help move the quilt in a more consistent way. The Quilting table and Free-motion guide foot are extra accessories created to make your stippling easier.





Quilt Appliques

Appliques add that special touch for your quilt.

There are many different ways of applying appliques to a quilt. One way is to add the applique to the block before the quilt is put together.

Set your Quilt Expression with stitch 3, stitch length 0.5, stitch width 4-6 mm, presser foot 2.

Adhere the applique piece to the block. Place stabilizer behind the block and applique. Sew around the applique with the satin stitch. Make sure the stitch is 80% on the applique – just covering up the applique's raw edge.

Another way to add an applique to a quilt is to finish the edge of the applique and sew it on with the hand applique stitch 15 (2034) / 28 (2046).

First prepare the applique. Cut the applique form out of fabric and a piece of light weight iron on interfacing. Place the right side of the fabric and the rough (iron-on) side of the interfacing together. Use a straight stitch (1), stitch length 2.0, center needle position and sew the fabric and interfacing together using a 1/4" seam. Trim around the applique leaving 1/8" seam allowance and clip into curves. Slash the interfacing so that the applique can be turned right side out. Finger press the applique.

Place the applique on the quilt. When you are satisfied with the position, iron it down.

Follow around the edge of the applique with the straight part of the hand applique stitch. Let the horizontal part of the stitch just catch into the applique. This is the part that will keep the applique in place.

Tip: Press the needle raised/lowered function to position the needle in the fabric when you stop sewing. This makes turning easy with your Expression.



Decorative sewing/ Specialty techniques

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General notes on decorative sewing

To enhance your own home textiles or garments your Expression offers you a wide variety of fancy and decorative stitches. Create a greater variety of embellishments by combining different patterns, colors and sizes. Use specialty decorative threads to enhance the lovely stitching.

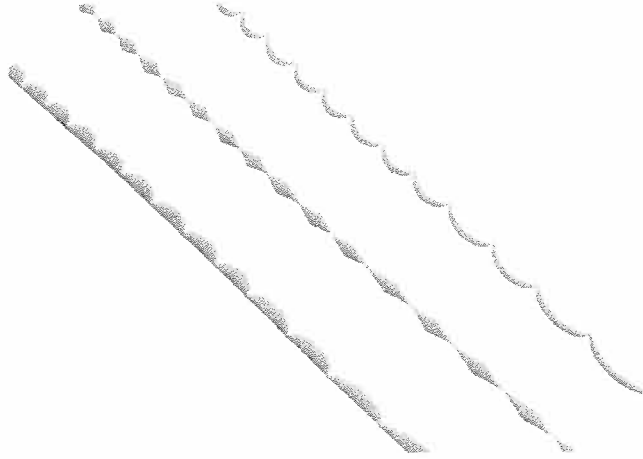
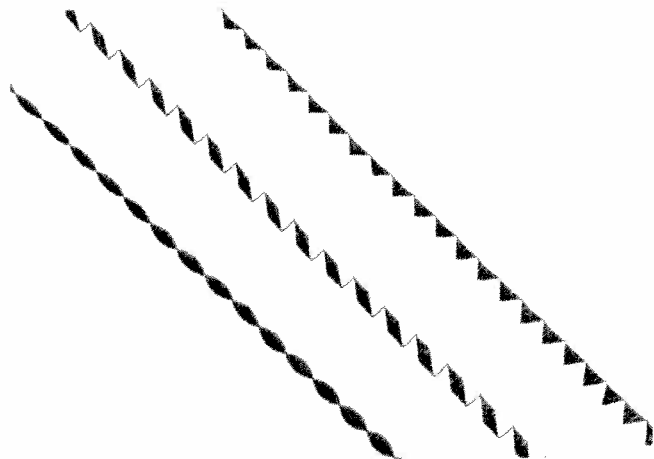
Always use stabilizers under fabric when sewing decorative stitches. Properly stabilizing your fabric will help eliminate distortion of your decorative stitches.

The following recommendations apply to all decorative sewing:

The stitch length and width can be altered as desired.

Lower the upper thread tension to between 2-3. Adjust as needed so bobbin thread does not pull to the top side of your project. Your embroidery results will be much prettier if your tension is properly adjusted.

Presser foot No. 1 (for dual feed) and No. 2 (without dual feed) are most suitable for decorative work. We recommend presser foot No. 2 for heavier fabrics.

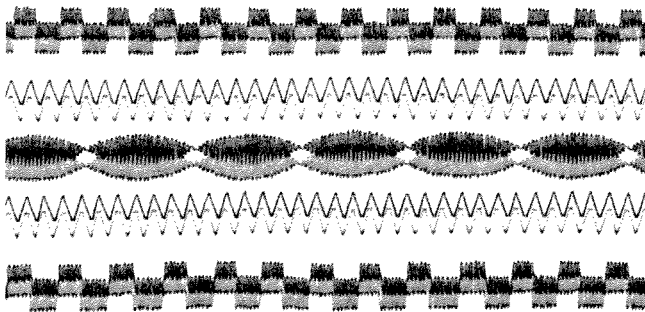
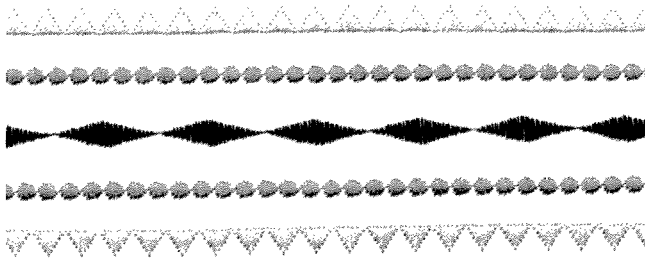
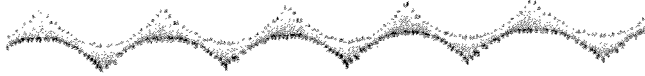
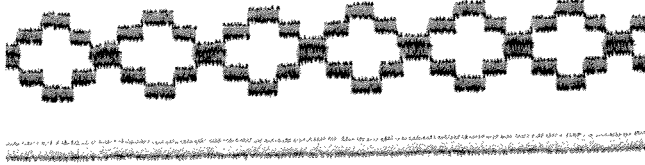


Changing the pattern width

The pattern width can be altered using button pair A (1). The width can also be adjusted while sewing.

Changing the pattern length

The pattern length can be altered using button pair B (2). The length can also be adjusted while sewing.



Combined Borders

Create borders of any width by combining different decorative stitches. Rayon embroidery threads give shiny, smooth stitching results and come in many colors and weights.


Place stabilizer under fabric.

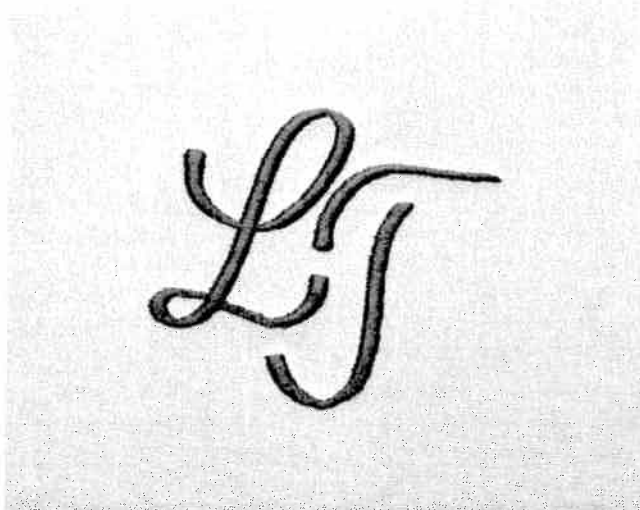
Mark the center of your fabric with a fabric marking pen/pencil. Sew stitch 69 (model 2034 stitch 50); stitch width 6 mm along your line. Next press the "Pattern mirror button" (39). Position your fabric even with the top of the first row of stitching. Sew the second row of stitching directly across from the first.

Sew stitch 3; stitch density 0.2 mm and stitch 72 (model 2034 stitch 53) along each side of your center embroidery. Your completed border should now have six rows of decorative stitching.

Twin needle

Additional decorative effects can be achieved using a twin needle. The illustration shows what beautiful borders can be created with just a little imagination!

Note: DO NOT use a twin needle when the warning symbol  appears in the window (see page 44).



Free-motion monograms

Use stitch 3 (stitch width 3-6 mm) to create wonderful monogram initials of your own design.

Transfer the initials with a fabric marker to the area to be embroidered.

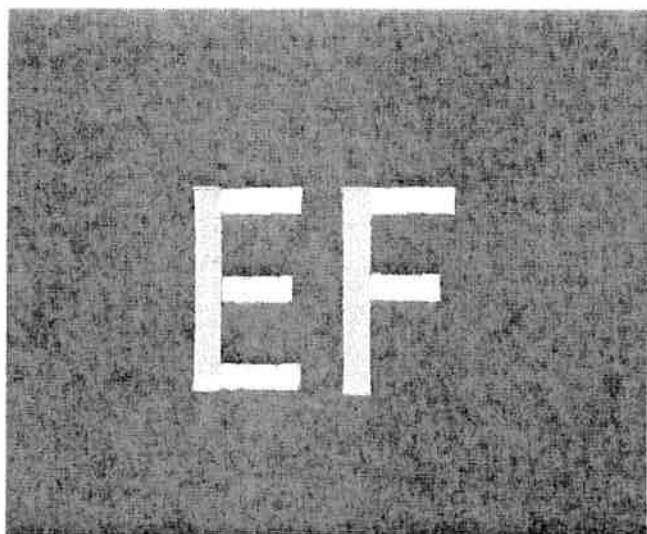
Attach the darning foot and bring it into the darning position (see page 63).

Lower the feed dog.

Place a tear-away stabilizer under your fabric. Then place a piece of water-soluble stabilizer on the right side of the fabric. Place the fabric in an embroidery hoop and use the zigzag stitch, in varying widths, to follow your traced lines. Do not forget to use the darning position.

Knot the threads on the back of your project and remove the stabilizers. The remaining water-soluble stabilizer will dissolve in water.

TIP: Sewing at a medium to fast speed will allow you to move the fabric more slowly, and give you more control of your free-motion monogram. A slightly faster speed will also give you more consistency in the density of your stitches. Practice on scrap fabric until you are comfortable with the free-motion technique.



Block capitals are a little easier to embroider. Simply stitch along the marked lines with stitch 3, stitch width 3-6 mm and stitch density 0.2 - 0.3 mm.

Apply stabilizer under the fabric and water-soluble stabilizer on the top of the fabric.

Mark the monogram on the fabric.

Sew along the marked lines with the zigzag stitch.



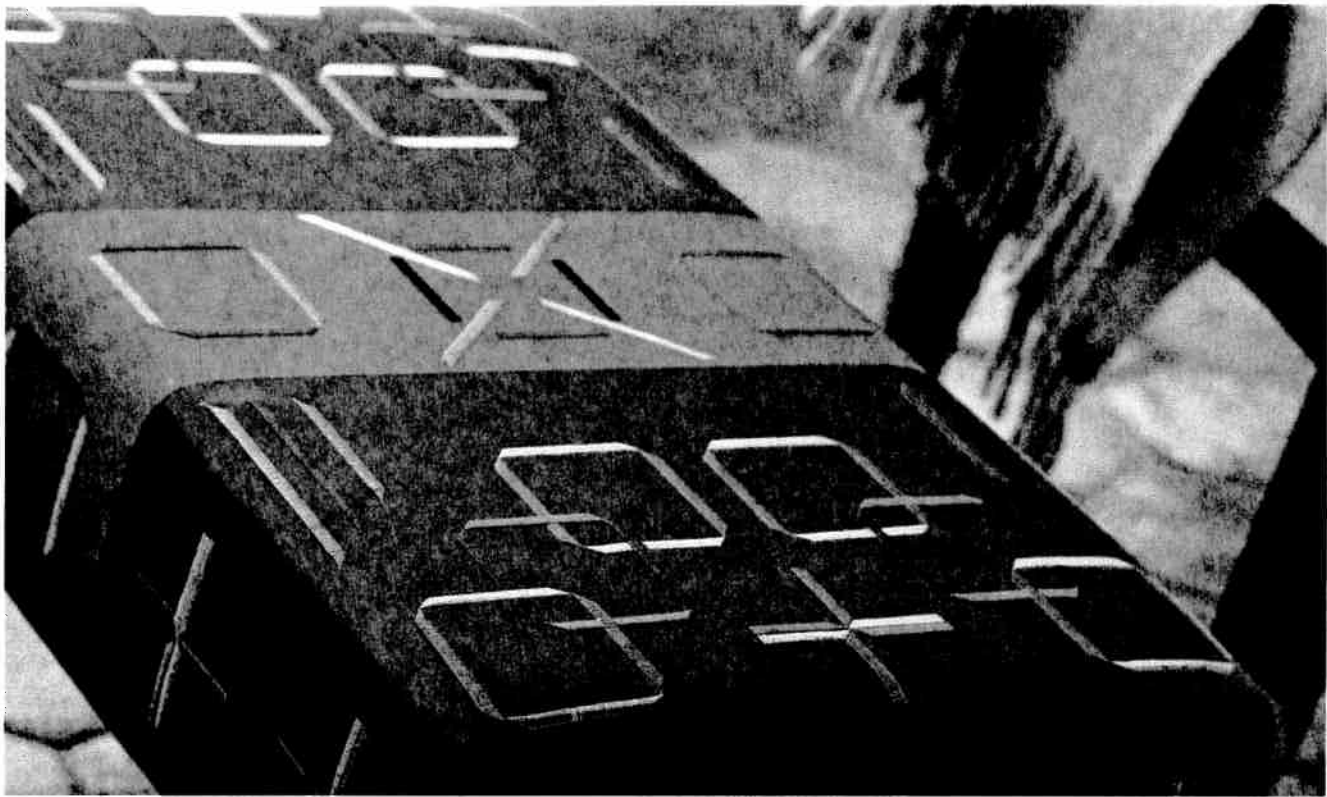
Free-motion embroidery

These striking embroidery designs can easily be sewn with your Expression.

Set your Expression as for free-motion monograms.

Draw the outline of the embroideries on fabric where you want to stitch them.

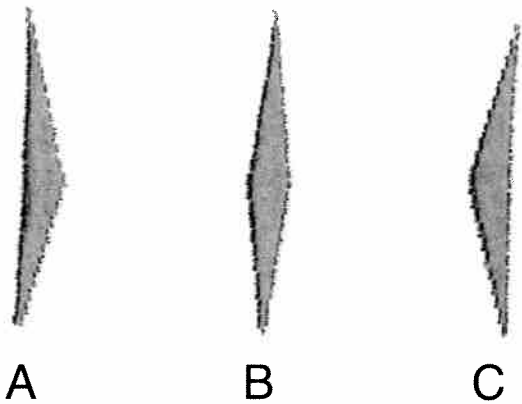
Follow the instructions and tips for free-motion monograms to stitch your embroideries.



Tapering with the satin-stitch zigzag

With your Expression you also have the option of increasing or decreasing the width of the zigzag stitch in 0.5 mm increments.

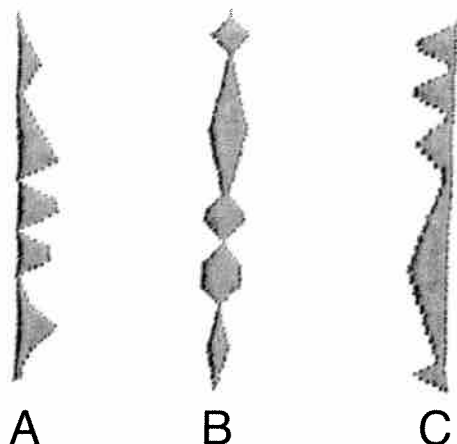
This technique of adjusting the width of a zigzag seam is called TAPERING. You can achieve great effects by adjusting the size of a wide zigzag stitch.



Manual change/ Regular pattern

- Place stabilizer under fabric.
- Set needle thread tension to 3. Select the zigzag stitch needle position (stitch 11/2046, 12/2034). Pressing the "Pattern mirror button" (39) will change the stitch from a right (C) to left (A) needle position stitch. Zigzag stitch 3 is used when a center (B) needle position motif is desired.
- Set stitch length to 0.2 - 0.3 mm. Begin sewing.
- With +/- button A increase the width from 0 to 6 mm and reduce it again to 0 mm.

Note: If you have selected the right or left needle position, the stitch width only changes in one direction.



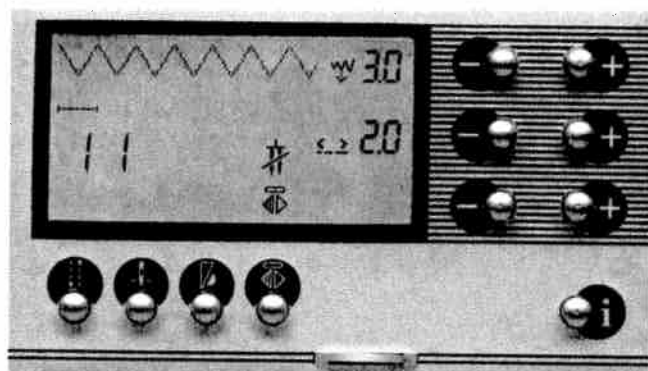
Manual change/ Irregular pattern

- Place stabilizer under fabric.
- Set needle thread tension to 3. Select zigzag stitch 11/2046, 12/2034 for motifs with a right or left needle position or zigzag stitch 3 for motifs with a center needle position.
- Set stitch length to 0.2 - 0.3 mm.
- Using +/- button A increase and reduce the width while sewing.

Note: If you have selected the right or left needle position, the stitch width only changes in one direction.

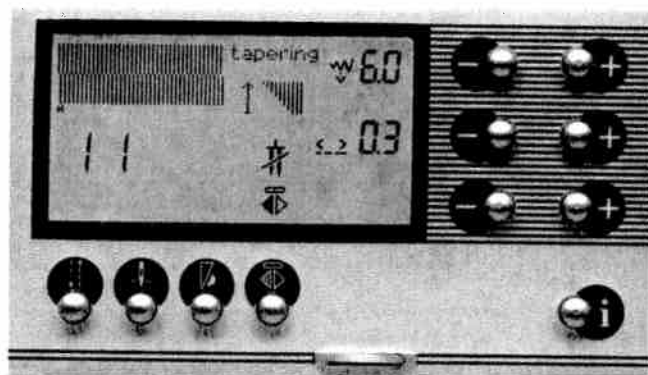
Try creating flowers and leaves with this technique.

These larger embroideries are perfect for home decorating projects like placemats, cushions and valances.



Automatic tapering

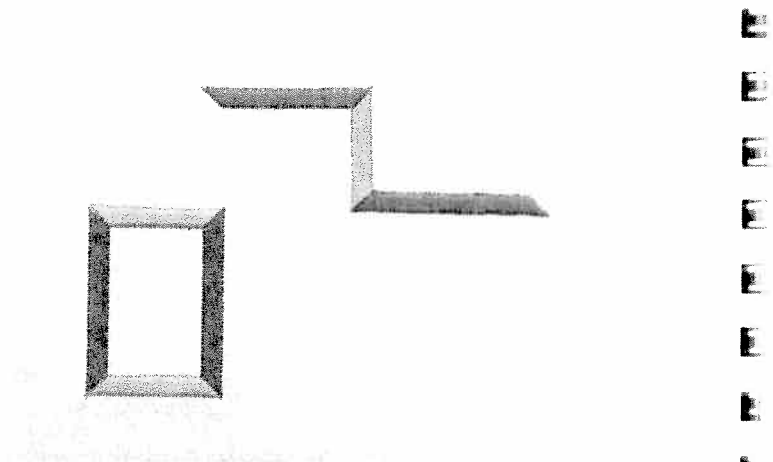
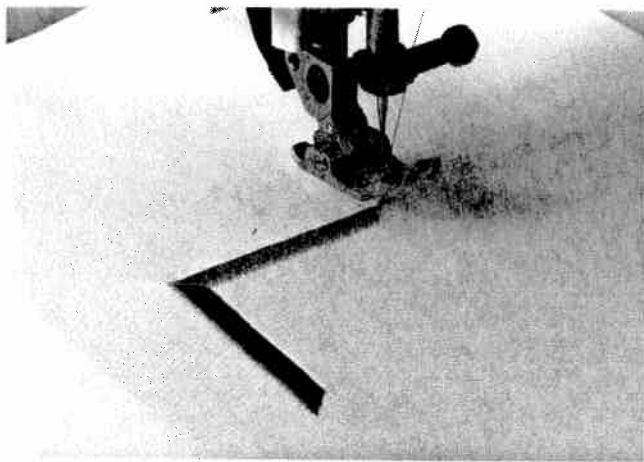
You can use both stitch No. 3 and stitch No. 11/2046, 12/2034 for automatic tapering. If you would like to embroider the corners of a border, select zigzag stitch No. 11/2046, 12/2034. Press the tie-off button (36) three times.





A dense zigzag stitch appears in the Expression window and beside it the word "tapering" with an arrow pointing to the taper of the corner on the left. Start sewing the point.

Continue to sew to the length you desire, then press the reverse sewing button (33) while sewing. The taper will be sewn automatically at an angle of 45°.

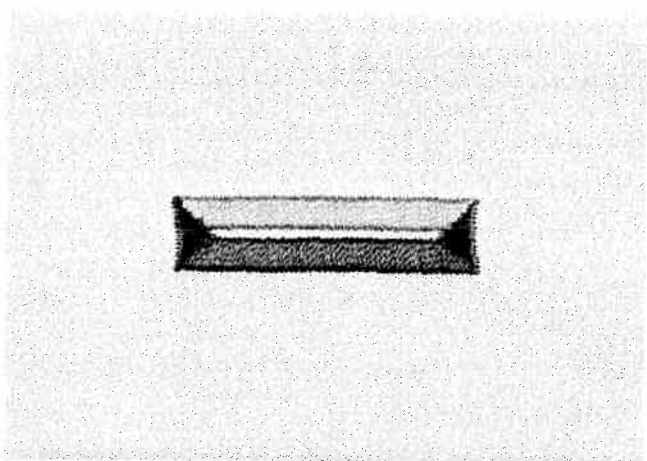
The machine stops at the taper and the needle remains in the fabric so that you can turn the fabric 90°.



When you start to sew again, the machine will automatically make a taper at 45°. The present sewing operation is indicated in the window.


- To start the pattern without a taper, press the tie-off button  (36) twice before starting to sew. Use +/- button A to change the width of the satin stitch before sewing.
- To sew a pattern without a taper, press the tie-off button  (36) four times before starting to sew.
- To change the width of the satin stitch and begin sewing with a taper, press the tie-off button (36) two times, use +/- button A to select the width, and press the tie-off button one more time. The stitch will begin in the taper, then stitch at the width you have selected.

Now you can sew simple but perfect tapering motifs.



Decorative buttonhole

This buttonhole is an attractive variation of the classic linen buttonhole.

- Select stitch No. 11/2046, 12/2034.
- Press the tie-off button  three times.
- Sew the first side of the buttonhole to the desired length.
- When sewing the bartacks, make sure that you sew three zigzag stitches at full length. This guarantees that a gap is formed between each buttonhole side.
- Then sew the second side of the buttonhole as long as the first.

Tip: The info button shows you all the tapering worksteps in abbreviated form.



Appliqué designs

Appliqués are easily created and produce a beautiful effect. By using a variety of materials and patterns you can obtain many different effects. You can make a perfect densely stitched seam with the applique foot (special accessories). The special cutout on the sole allows the extra thickness of a satin stitch zigzag to pass smoothly under the foot. Fusible webbing keeps the appliqué in place so you can easily stitch around the form.

- Snap on the applique foot.
- Transfer your pattern to the paper side of the fusible webbing - remember that any letters or numbers have to be drawn as a mirror image.
- Iron the paper-backed webbing to the back side of the appliqué fabric. Cut the motif out and pull off the paper.
- Place the appliqué pieces on base fabric and iron securely.
- Stitch around all appliqués with appliqué stitch (No. 28/2046, 15/2034) or with a narrow, satin-stitch zigzag, stitch width 2 - 4 mm, stitch length 0.2 to 0.6 mm. Make sure the stitch covers the outer edge of the appliqué so that no fraying occurs later.

TIP: If a taper is required you can narrow the satin stitch zigzag in 0.5 mm increments with the +/- button A (see Tapering, page 88).



Cross-stitch

Cross-stitch embroidery has always been a wonderful traditional, embroidery technique.

What used to be stitched by hand with a great deal of effort can now be sewn with the 2034 and 2046 with astonishing ease and speed.

With cross-stitch No. 22 (2046) or No. 23 (2046/2034), design your own cross-stitch combinations. These patterns look as if they were hand-embroidered and give a special touch to table linen, towels or garments.

Tips for cross-stitching:

- Sew slowly.
- Use foot No. 2.
- Place stabilizer under the fabric.
- You can embroider on Aida cloth as used for hand cross-stitching. The length and width of the cross-stitches of your Expression can be altered depending on the count/size of the Aida cloth squares.
- Use decorative threads to make your cross-stitch look more professional.

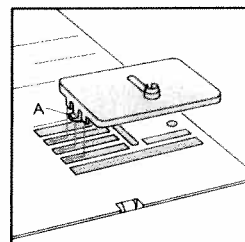


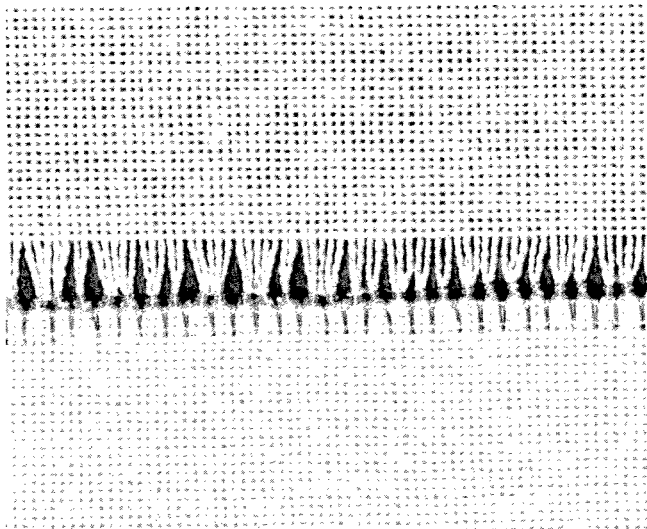
Eyelet embroidery

Eyelet embroidery enhances your linens and blouses. Using an eyelet plate (special accessory) and various utility and decorative stitches beautiful embroidery can be produced.

And this is how it's done:

- Lower the feed dog.
- Place the eyelet plate onto the needle plate making sure that the pin (A) at the back of the plate fits into the middle cutout of the needle plate. Push the plate down at the front.
- Tightly hoop your marked embroidery fabric.
- With small scissors cut one or two of the fabric threads at the center of the marked eyelet area and push the fabric over the pin of the eyelet plate. The fabric must fit snugly around the pin.
- Remove the presser foot.
- Place the presser foot lifter in the darning position.
- Pull up the bobbin thread and hold it for the first few stitches.
- Stitch around the cut with zigzag pattern No. 3. While doing so, turn the hoop with the fabric slowly and evenly. The stitches should be very close to each other.
- Secure with a few straight stitches.

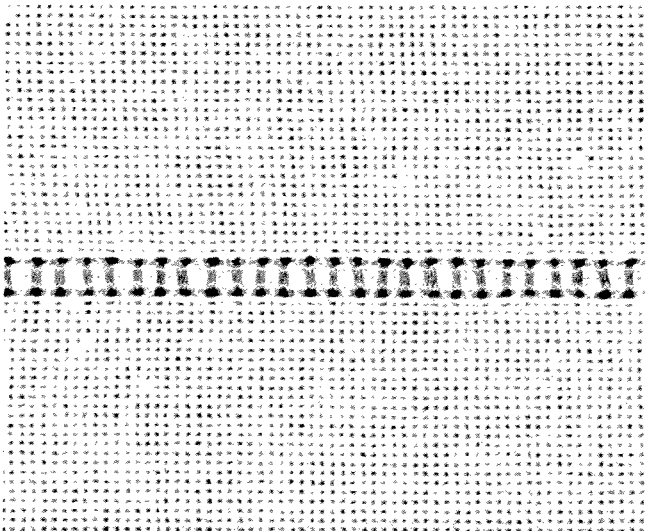




Hemstitching

This is a technique everyone recognizes – but was previously only embroidered by hand! With your Expression you can produce hemstitching much quicker and easier.

Special hemstitches No. 24, 25 and 26 are built into your machine. By changing the stitch length and width you can achieve different effects. Use a wing needle for hemstitching. (A normal needle is only used for very light fabrics – size 80.) Hemstitching is most successful on woven natural fabrics from which single threads can be easily pulled. Embroidery and darning thread, particularly cotton, are very suitable. With the hemstitches on your Expression, various techniques can be applied.



Traditional hemstitching

- Use stitches No. 24, 25 and 26 to create lovely hemstitched holes.
- Sew the appropriate program on a piece of test fabric.

For pulled thread hemstitching:

- Count the threads of the fabric within the area of the sewn pattern. Adjust the pattern width so the needle is not piercing a thread to be pulled, but falling to the side of the threads of your fabric. This will allow you to easily remove the threads within the pattern area.
- Pull 1 - 3 threads out of the fabric to the right and left of the pattern.
- Overstitch the remaining threads with the selected program. The needle must enter the pulled threads on both sides close to the edges.

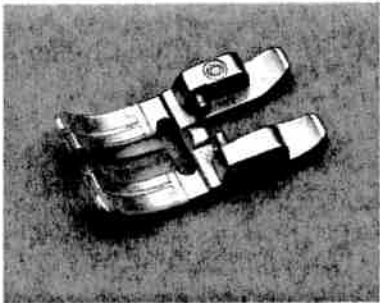
Accessories and needles

Presser Feet (standard accessories)	96-97
Special accessory table	98-99
Felling Foot/Appliqué Foot	100
Pintuck Foot	101
Cording Foot/Gathering Foot	102
Knit-Edge Foot/Ruffler Attachment	103
1/4 inch Quilting Foot	104
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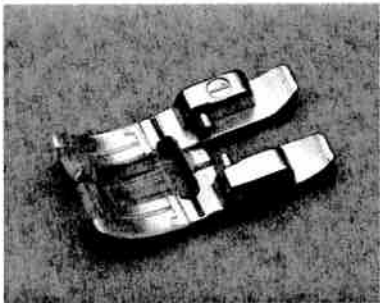


Presser feet (normal accessories)

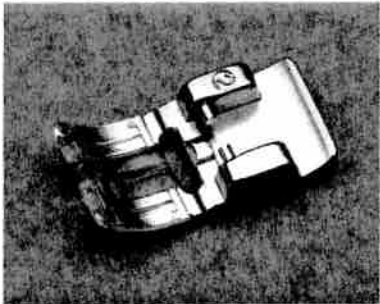
Standard Presser Foot
with IDT
820250-096



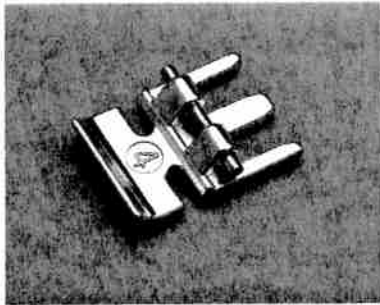
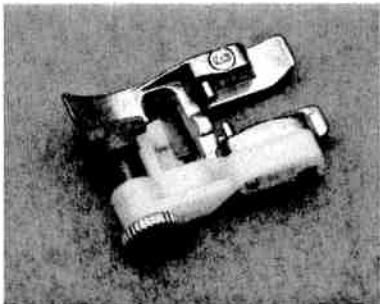
Fancy Stitch Foot with
IDT
820253-096



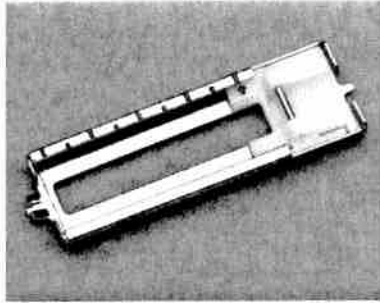
Fancy Stitch Foot
820278-096



Blindhem/Overlock
Foot
820256-096



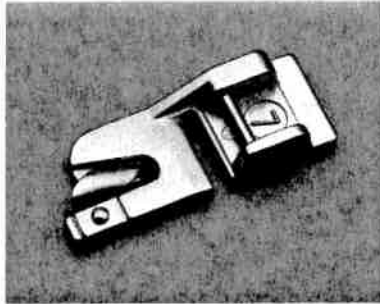
Zipper Foot with IDT
820248-096



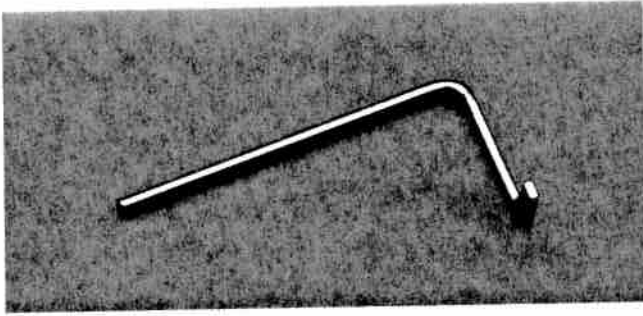
Buttonhole Foot
820295-096



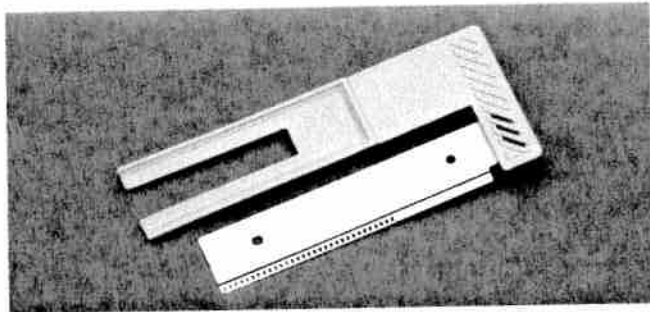
Darning Foot
820243-096



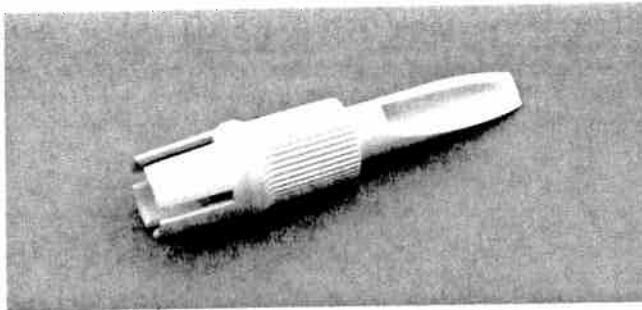
Rolled Hem Foot
3 mm
820249-096



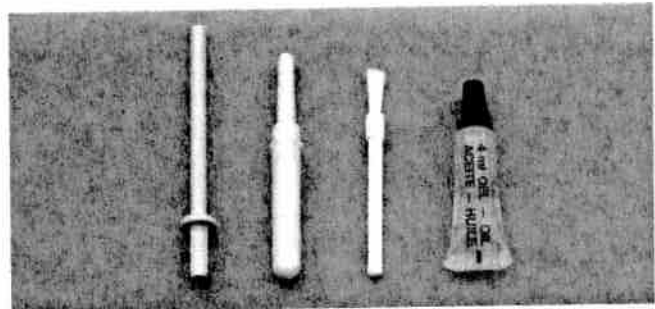
Edge Guide/Quilting Guide
820251-096



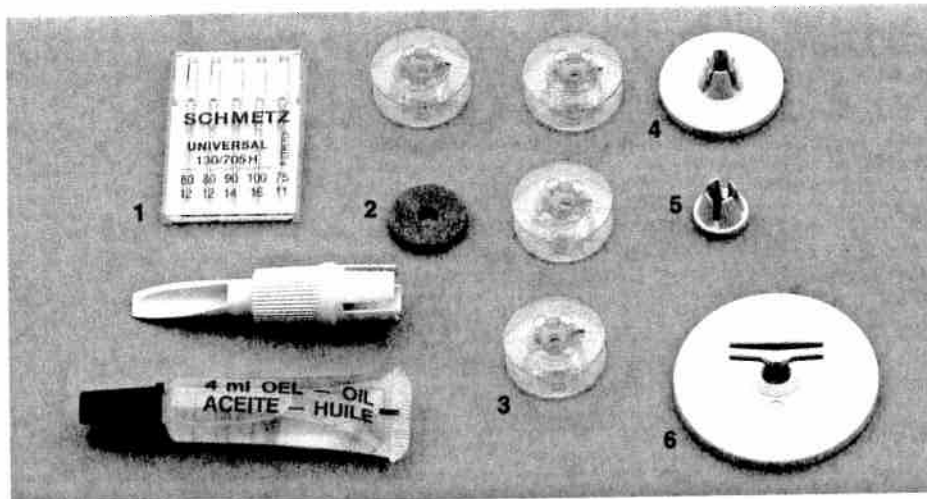
Buttonhole Guide
820294-096



Bulb Remover/Needle Plate Changer
820292-096



Second spool holder	93-033 063-44/000
Seam ripper	99-053 016-91/000
Brush	93-847 979-91/000
Oil	93-035 910-91/000



1 Needle box
48-020 804-32/000

2 Felt pad
93-033 064-05/000

3 Bobbins
820361-096

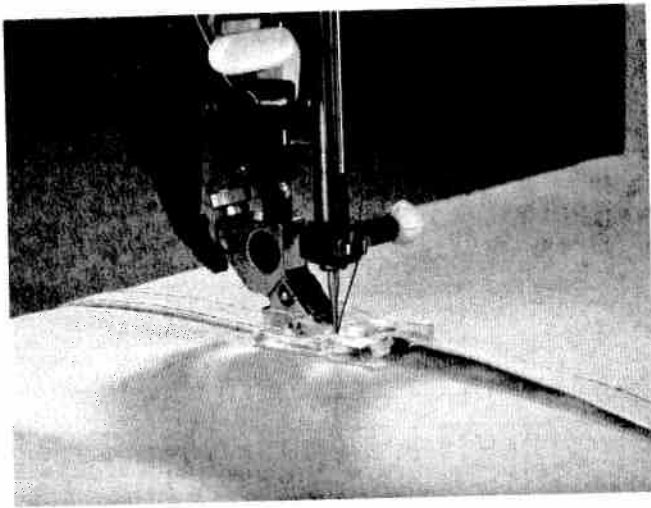
4-6 Spool cap
4. 93-035 050-44/000
5. 93-036 048-44/000
6. 93-036 049-44/000

Special accessories/presser feet (available from your dealer):

Designation	Order No.	Sewing work
Appliqué Foot	820214-096	For appliqué work
Open Toe Appliqué Foot 6 mm, with IDT	820215-096	Allows full view of work surface
Bias Binder	820245-096	For binding edges with bias tape
Five-groove Pintuck Foot (size 80 twin needles with needle spacing 2.0 - 2.5)	820226-096	For creating pintucks on light to medium weight fabrics
Seven-groove Pintuck Foot (size 80 twin needles with needle spacing 1.6 - 2.0)	820227-096	For creating pintucks on lightweight fabrics
Pintuck Blade	820223-096	Enhances the effect of an uncorded pintuck
Fringe Presser Foot with IDT	820232-096	For creating fringe/loop embroidery effects
Straight Stitch Foot with Round Needle Hole, with IDT	820235-096	Warning! Only use straight stitch in center needle position.
Straight Stitch Needle Plate	820276-096	For top-stitching seams, quilting and sewing very light and soft materials (silk, jersey etc.) Warning! Only use straight stitch in center needle position.
Felling Foot 4.5 mm Felling Foot 6.5 mm	820218-096 820219-096	For flat-felled seams on light to medium weight fabrics
Gathering Foot, Plastic	820231-096	For gathering on very light weight fabrics
Gathering Foot, Metal	820233-096	For gathering on light to medium weight fabrics
Ruffler Attachment	820255-096	For placing dense or loose pleats at regular intervals. Warning! Only use straight stitch in center needle position.
Three-groove Cording Foot	820234-096	For cording
Eyelet Plate 4 mm	820273-096	For eyelet embroidery
Eyelet Plate 6 mm	820274-096	For eyelet embroidery
Rolled Hem Foot 2 mm	820220-096	For hemming edges
Rolled Hem Foot 4 mm, with IDT	820221-096	For hemming edges
Rolled Hem Foot 3 mm	820249-096	For hemming edges
Knit-Edge/Piping/Beading Foot	820216-096	For sewing knitted fabrics
Non-stick Foot with IDT	820240-096	For sewing leather and synthetics
Non-stick Decorative Stitch Foot	820239-096	For embroidering leather
Non-stick Maxi-stitch Embroidery Foot	820277-096	For embroidering leather
Circular Embroidery Guide	820246-096	Circular embroidery

Designation	Order No.	Sewing work
Bridging Guide, 3 mm and 5 mm	820228-096	For sewing together two edges of fabrics with a hemstitch seam effect
1/4 inch Quilting Foot	820212-096	For quilting and patchwork jobs
1/4 inch Quilting Foot with IDT	820211-096	For quilting and patchwork jobs
Pintuck Foot with Decorative Stitch Guide, 6 mm	820224-096	For embroidering areas between pintucks
Couching/Braiding Foot with IDT	820230-096	For oversewing cords
7/9 Hole Cord Foot with IDT	820222-096	For oversewing decorative threads
Narrow Edge Foot with IDT	820217-096	For topstitching narrow edges, sewing lace or second fabric edge to main fabric and stitch-in-the-ditch quilting
Free-motion Quilt Foot	820242-096	For quilt and embroidery work
Finger Guard	820236-096	For all sewing work
Quilting Guide	820279-096	For quilt work

The following pages contain application examples of some special accessory feet.



Felling Foot

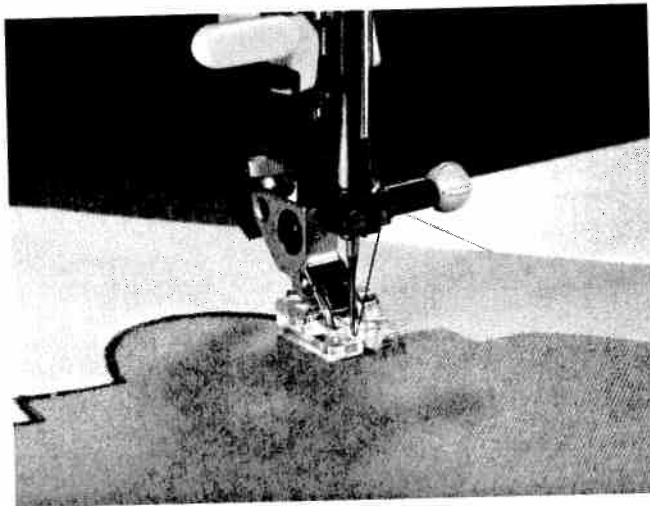
Flat felled seams are particularly strong and are commonly known as jeans seams. Seams on sportswear and children's wear, blouses and shirts are more durable with this technique. You can make these seams particularly decorative by using a sewing thread of a contrasting color. The felling foot is available in two different widths.

- Attach the felling foot to the presser foot holder.
- Place the fabrics wrong sides together.
- Overlap the raw edge of the lower ply by about 3/8 " to 5/8 " (1 - 1.5 cm).
- Place this overlapping edge over the tongue of the felling foot. The fabric must be placed fully under the presser foot.
- Sew along the folded edge with a straight stitch.
- Separate the fabric and feed the protruding hem into the felling foot. The hem is turned over by the foot and is overstitched along the edge. Pull the two fabric layers taut during sewing.

Stitch: 1

Stitch length: 3

Tension: 4-5



Appliqué Foot

Appliqués are easily sewn and always produce a beautiful effect. By using different materials and patterns you can create countless new designs. You can make a perfect densely stitched seam with the appliqué foot, which has a special cutout on its sole for the satin stitch seam.

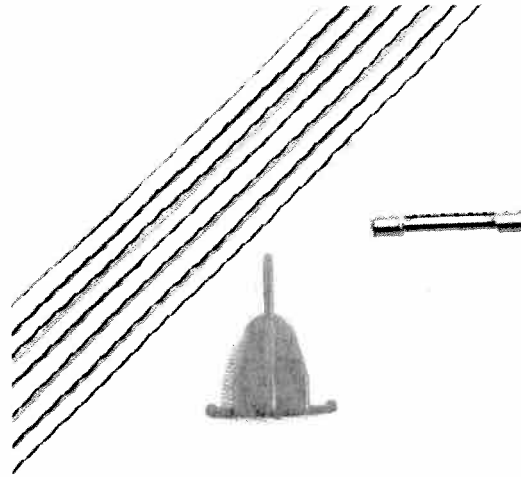
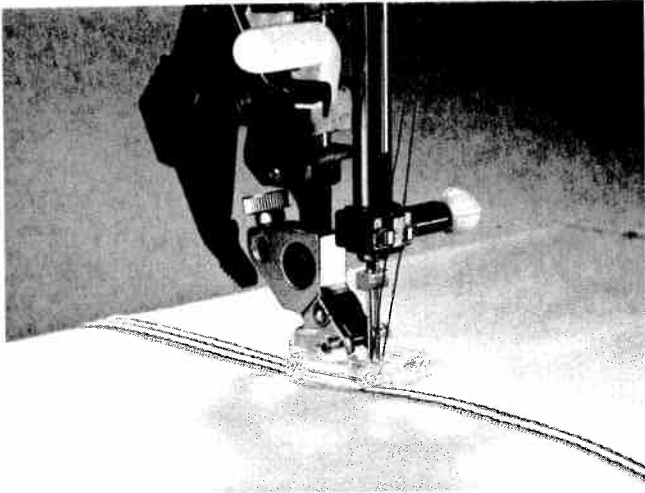
- Attach the appliqué foot.
- Transfer your drafted pattern to the paper side of a fusible, paper-backed webbing. Remember that any letters or numbers have to be drawn as mirror images.
- Iron the fusible webbing onto the appliqué material. Cut out your motif and peel the paper from the back of the appliqué.
- Position and press your appliqué pieces in place on your base fabric.
- Place a stabilizer under your work area.
- Stitch over all contours with a narrow satin stitch zigzag. Make sure that the needle sews over the outer edge so that no fraying occurs later.

Stitch: 3

Stitch length: 0.35

Stitch width: 1.5-4.0

Tension: 2 - 3



Pintuck Foot

This classic heirloom sewing technique can be easily duplicated on many types of fabric such as light cotton and linens. Undergarments and children's clothes are given a nostalgic touch by pintucking.

- Attach the pintuck foot.
- Insert a twin needle on your machine (e.g. 130/705 H-ZWI; 1.6 or 2.0 mm needle spacing; size 80).
- Thread the two needles (see page 31).
- Using a water-soluble marker, draw a placement line for your first pintuck.
- Increase the bobbin thread tension by turning the adjusting screw of the bobbin case slightly to the right (see chapter on "Bobbin thread tension"). This will help form well-defined pintucks.
- Sew your first pintuck. When you start on the second pintuck, allow the first pintuck to run parallel in a groove in the foot. This will produce evenly spaced pintucks.

Stitch: 1

Stitch length: 2.5

Tension: 5

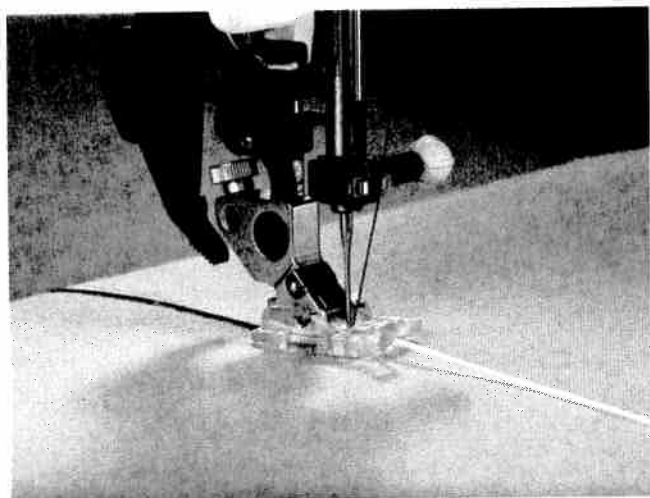
Tip: *If you would like to emphasise the pintuck effect, you can attach a pintuck blade (special accessory) on the front edge of the needle plate. The pintuck blade pre-shapes the fabric prior to sewing and produces a better-defined pintuck.*

For thin fabrics use the pintuck foot with 7 grooves and the small pintuck blade, for heavier materials use the pintuck foot with 5 grooves and the large pintuck blade.

Inserting a gimp thread creates a similar optical effect by making the pintuck appear even more raised.

A cording tongue is not used when inserting a gimp thread in your pintucks.

- Remove the needle plate.
- Thread the gimp thread from below through the hole at the center front of the needle plate.
- Replace the needle plate. The notch between the needle plate and the sewing machine provides space for the gimp thread while sewing. Feed the gimp thread under the work support so that it does not become knotted during sewing.
- Gently pull the fabric taut while sewing the pintucks.



Cording Foot

Cording is a technique in which pearl thread or a fine cord is overstitched to produce a purl seam. With this you can obtain an effect similar to braiding. Appliqués can also be made more effective with this seam.

- Attach the cording foot.
- Place the pearl thread in the foot so it leads through one of the grooves at the front and lies under the presser foot at the back.
- Overstitch the pearl thread with a narrow satin stitch. This produces what is known as the purl seam.

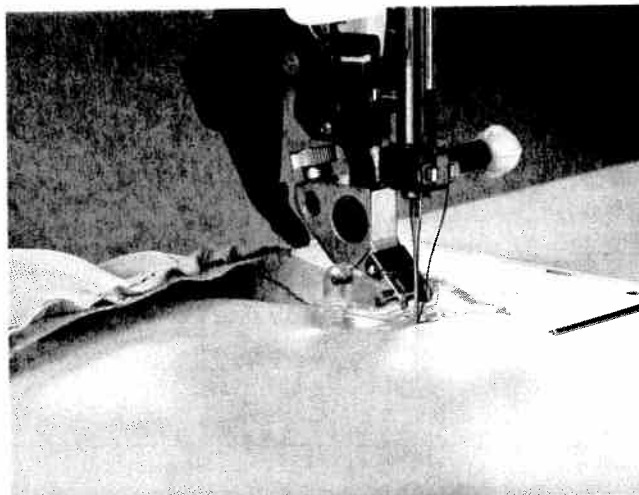
Tip: You can also obtain a remarkable effect by overstitching a medium pearl thread with a thread of a different color.

Stitch 11/2046 12/2034

Stitch length: 0.4 - 0.6

Stitch width: 1.5 - 2

Tension: 3



Gathering foot

Beautiful gathering effects can be achieved quickly and easily with the shirring foot, e.g. on lightweight children's wear or home decorating projects.

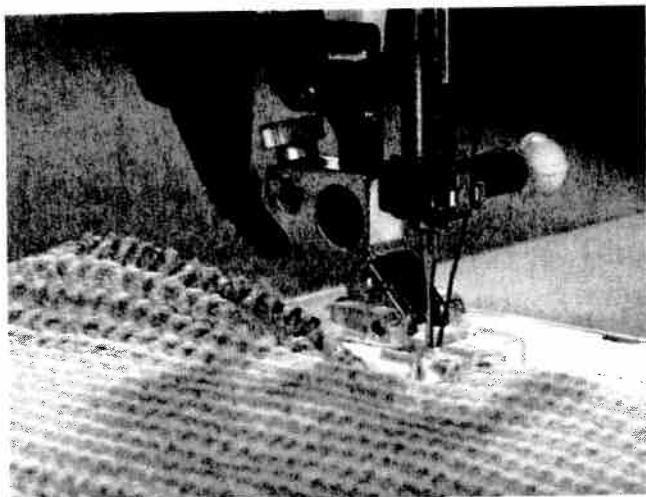
- Attach the shirring foot by hooking the rear bar of the foot into the rear groove of the foot holder. Push the foot upwards until it snaps into the front bar.
- Place the fabric to be gathered, face up, under the presser foot, and the fabric to remain flat, face down, on the top through the foot cutout.
- Hold the top fabric slightly taut while sewing. The harder you pull, the greater the gathering effect you achieve.
- Be sure to guide the fabric edges evenly through the foot.
- Disengage the shirring foot by pushing it down at the front and remove it in the direction of the groove of the presser foot holder at the back.

Tip: Tighter gathers can be achieved by increasing the needle thread tension and the stitch length.

Stitch: 1

Stitch length: 3

Tension: 3-5



Knit-Edge/Piping/Beading Foot

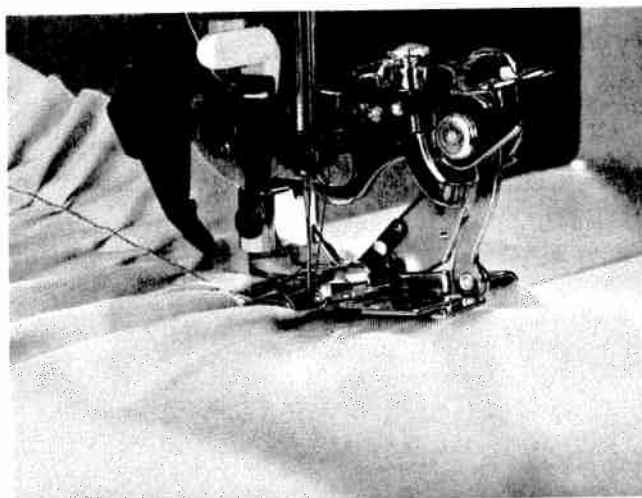
Thick seams in knitted fabrics or imitation furs can be sewn easily with the knit edge foot. In order to obtain a perfect seam on knit fabrics (e.g. shoulder seams), we recommend sewing over a wool thread, pulled slightly taut into the seam. This will give the seam additional strength and keep it from stretching out of shape.

Stitch: 16/2046 18/2034

Stitch length: 3.0

Stitch width: 6.0

Tension: 3-5



Ruffler Attachment

With the ruffler you can make closely or widely spaced pleats automatically while sewing. This is very useful for ruffles, frills, home textiles, etc.

The ruffler can be used in three different ways:

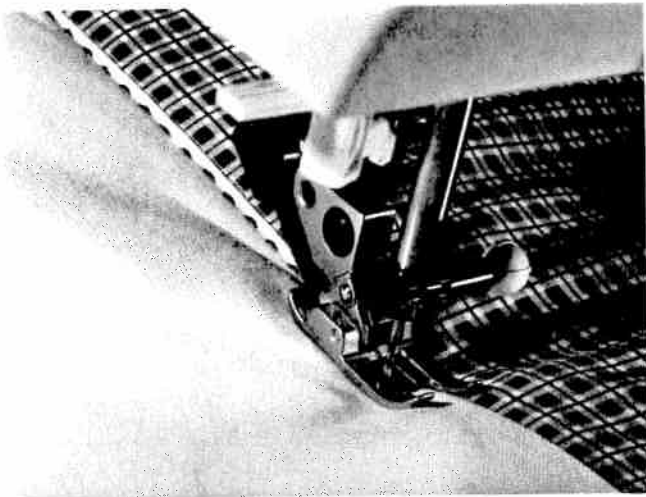
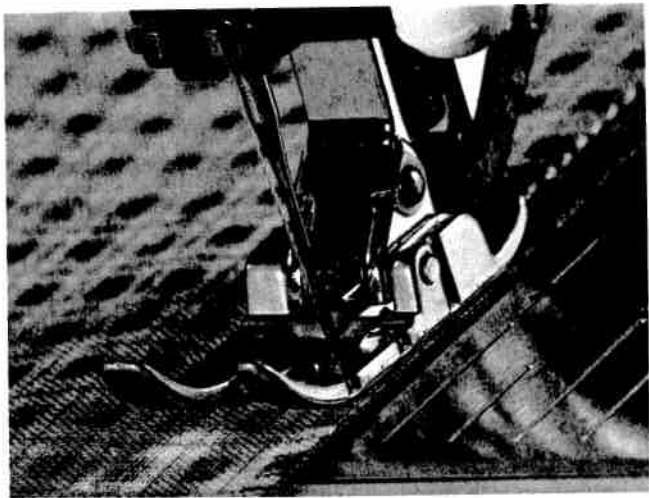
1. Folding and securing pleats in fabric.
2. Folding pleats in fabric and securing to a second fabric in one operation.
3. Folding pleats in fabric, attaching lace and securing to another fabric in one operation.

When you buy the ruffler from your PFAFF dealer, full operating instructions are included.

Stitch 1

Stitch length: 3

Tension: 3-5



1/4 inch Quilting Foot

A quilt consists of two layers of fabric with a layer of batting sandwiched between. Many geometric pieces of fabric are joined together in continually changing patterns to form the top layer of the quilt. This is tacked to a middle layer of polyester or cotton batting and a backing layer.

The 1/4 inch quilting foot is particularly suitable for joining your pieces of fabric. The clearance between the needle and the outer edge of the foot is 1 /4" (6.3 mm) and between the needle and the inner edge of the foot 1/8" (3.15 mm).

- Attach the 1/4 inch quilting foot.
- Engage the dual feed (IDT).
- Sew together your pieces of fabric using stitch 1. For a seam allowance of 1 /4" guide your fabric along the outer edge of the foot. For a seam allowance of 1/8" guide your fabric along the inner edge of the foot.

Stitch: 1

Stitch length: 2.5

Tension: 3 - 5

Quilting of the fabric layers

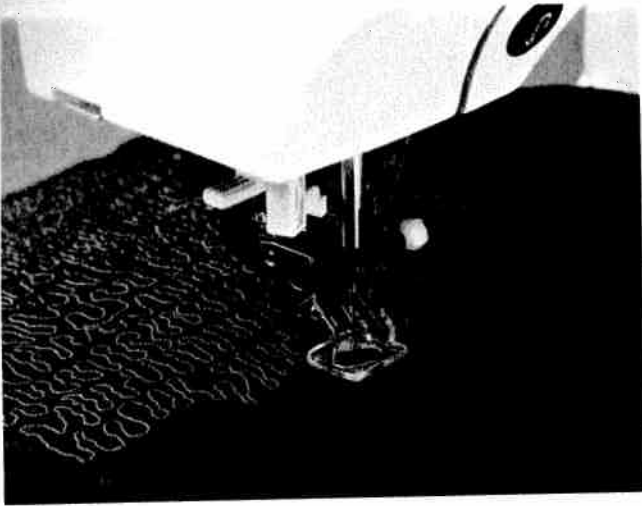
In traditional quilting the three layers of fabric are joined with small hand stitches. This hand-stitched look can be accomplished faster and easier with the sewing machine (stitch 27/2046 11/2034).

- Use invisible (monofilament) thread in the needle. Use a contrast or complementary polyester or cotton thread in the bobbin.
- Set the needle thread tension to 7-9. Loosen the bobbin thread tension approximately 1/4 turn counterclockwise to allow the needle thread to pull the bobbin thread to the top side of your work. You may find it beneficial to purchase a second bobbin case (available from your PFAFF dealer) for working with specialty techniques and threads.
- When you sew the stitch on the three layers of your quilt, you should only see the triple stitch of your bobbin thread. The intermediate stitch disappears and thus produces a hand-stitched appearance. Adjust your needle and bobbin thread tensions as needed to produce the desired effect

Stitch: 27/2046 11/2034

Stitch length: 3 - 4

Tension: 9



Free-motion Quilt Foot

The free-motion quilt foot in combination with the straight stitch is well suited for free-motion quilting. The three layers of your quilt are guided manually during free-motion quilting. The faster you sew, the more consistent and uniform your stitches will become. Try this technique out first on a test piece. Free-motion quilting is possible in both curved and straight lines. For free-motion, straight-line quilting (center needle position), with a spacing of 1/4 inch (6.35 mm), use the four red markings on the corners of the foot as a guide.

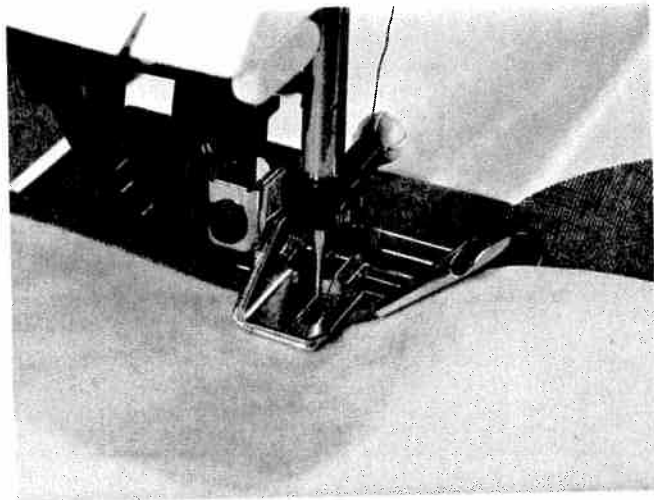
- Loosen the screw on the back of the presser foot holder.
- Press the free-motion quilt foot gently together with thumb and index finger.
- Guide the pin of the free-motion quilt foot into the hole of the presser foot holder as far as it will go. The long fork of the free-motion quilt foot must be positioned behind the needle clamp.
- Tighten the screw.
- Bring the free motion quilt foot into the darning position (see page 63) and lower the feed dog (see page 34).

Tip: Free-motion embroidery can also be completed using the free-motion quilt foot.

Stitch: 1

Stitch length: 2.5

Tension: 3-5



Bias Binder

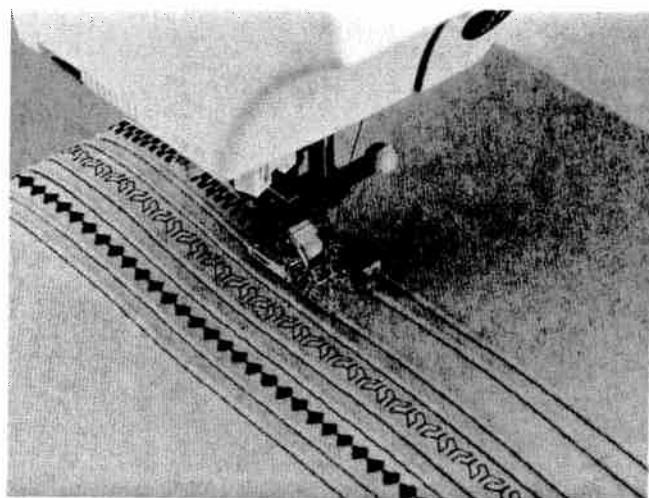
Binding with bias tape is a very easy method of giving fabric edges a smooth and neat appearance. For this you need unfolded bias tape about 1" (24 mm) wide.

- Remove the presser foot and holder. Attach the bias binder.
- Cut the beginning of the bias tape at a diagonal.
- Feed the tape into the scroll of the binder and pull out to the back.
- Adjust the binder and/or the needle position so that the needle pierces the fabric approximately 1/16" (1 - 1.5 mm) from the folded edge of the bias tape.
- Stitch about 1" (2.5 cm) along the bias tape.
- Insert the edge of the fabric to be bound between the bias tape edges into the slot of the binder. The bias tape will enclose the raw edge automatically during sewing.

Tip: You can obtain an additional decorative effect by using a zigzag or fancy stitch.

Stitch: optional

Tension: 3-5



Pintuck Foot with Decorative Stitch Guide

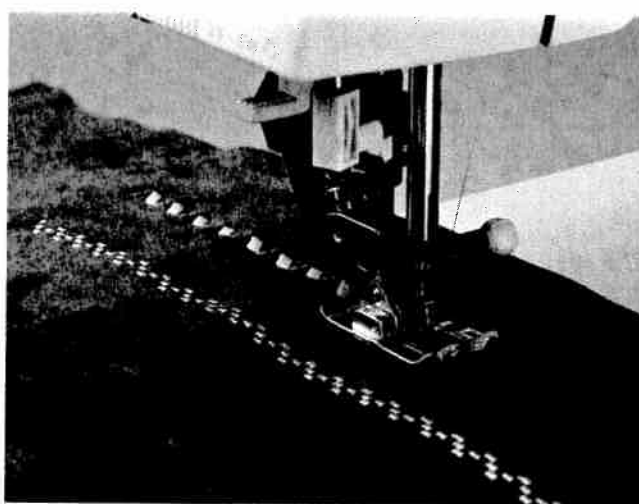
With this foot you can accurately sew pintucks with a spacing of 5 or 11 mm. The same foot allows you to precisely space decorative stitches up to 6 mm wide between the pintucks.

- Attach the pintuck foot with guide. The foot can be attached with the guide pointing to the left or the right.
- Insert a twin needle (2.0 or 2.5 mm space between needles).
- Thread the two needles (see page 31). Set the needle thread tension tight (4 - 5) and sew one pintuck (see also page 83) with or without gimp thread.
- Place the first pintuck under the groove in the extended guide. Sew a second pintuck. The second pintuck will automatically be spaced to allow a decorative stitch to be sewn in the area between pintucks.
- Sew all remaining pintucks.
- Replace the twin needles with a normal sewing needle.
- Set the needle thread tension to 3.
- Place stabilizer under work area.
- Place two pintucks in the guides on either side of the center of the foot. Stitch your desired decorative stitches in this space.

Stitch: 1

Stitch length: 2.5

Tension: 3-5



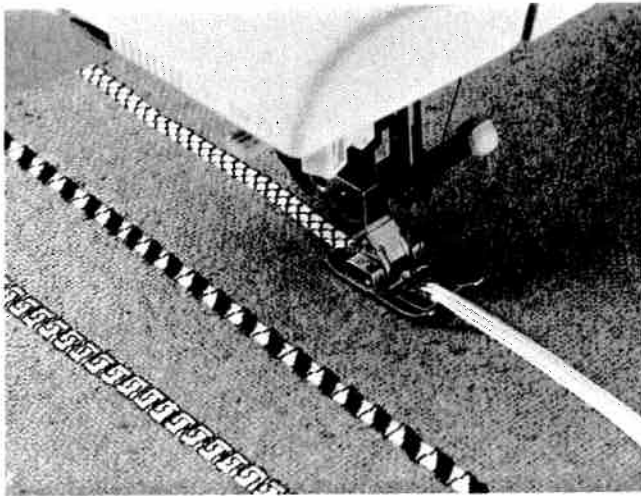
Non-stick Maxi-stitch Embroidery Foot (for leather)

The synthetic coating on the underside of this foot makes it particularly suitable for sewing decorative and utility stitches of up to 6 mm wide on leather, synthetic leather and vinyl. It may be helpful to back these fabrics with a fusible woven or knit interfacing. Due to the stretch of these fabrics, it is important to use a stabilizer under the fabric when embroidering. A needle with a longer eye (system 130 N) is recommended for thicker leather. On softer leathers an embroidery needle works well.

- Attach non-stick maxi-stitch embroidery foot.
- Embroider leather as desired.
- Remove stabilizer.

WARNING! Very closely set stitch, i.e. short stitch length/ tight stitch density, may cause leathers, synthetic leathers and vinyls to perforate and tear. It is important to remember that needle piercing points will remain visible in leather.

Stitch: optional



7/9 Hole Cord Foot with IDT

Beautiful decorative effects can easily be achieved with this presser foot. Up to 9 cords may be stitched over using decorative stitches and a variety of embroidery threads.

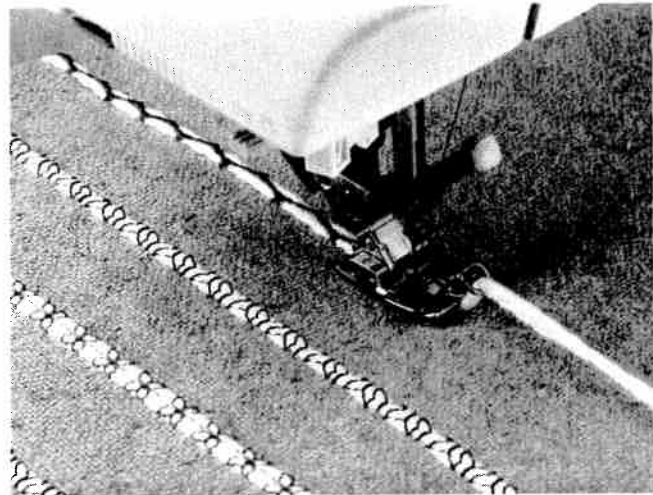
- Cut your cords to the desired length. Thread the cords through the holes in the foot from the top to the bottom. Lead the cords under the presser foot and out the back. Leave the thread tails extending about 1 1/2 inches to 2 inches (4 - 5 cm) at the back.
- Attach the 7/9 Hole Cord Foot with IDT.
- Sew over the threads with a stitch and thread of your choice.

Tip: Pearl thread or embroidery twist is well suited.

Tie the cord tails together to prevent the cords from slipping out of the foot.

Stitch: optional

Tension: 3



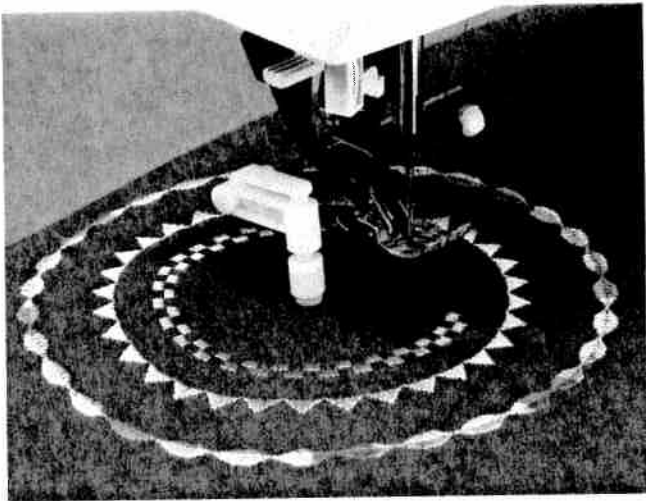
Couching/Braiding Foot with IDT

This special foot is best suited for over stitching heavy/bulky cords (e.g. loosely twisted wool) or a narrower tape/ribbon.

- Thread your cord or ribbon through the wire loop/guide at the front of the foot. Feed it down through the hole in the center of the foot and guide under the foot and to the back.
- Attach the couching/braiding foot to the machine.
- Select a stitch and decorative thread of your choice and stitch over the cord or ribbon.

Stitch: optional

Tension: 3



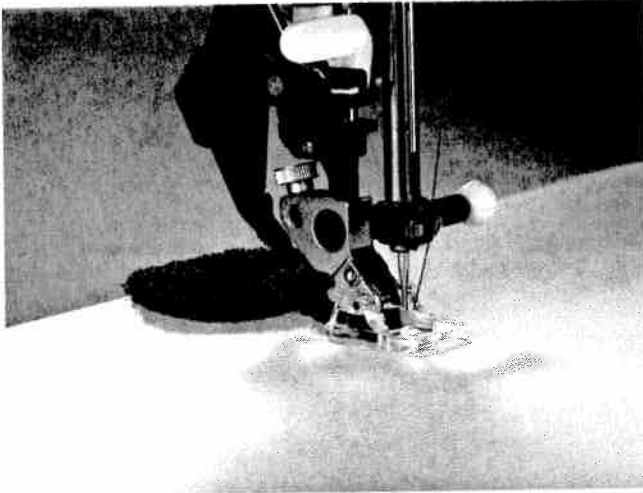
Circular Embroidery Guide

The circular embroidery guide allows you to create perfect embroidered circles. The creative possibilities are endless! Your fabric is automatically fed in a circle, allowing you to embellish your clothing and household items.

The guide is marked in 1 cm increments.

- Mark a center point with a fabric marker on your fabric.
- Insert the circular embroidery guide from the left into the hole at the back of the presser foot holder. The radius of the circle is determined by the placement of the guide in the holder. The full width of the circle will be equal to twice the distance between the needle and the rubber guide point.
- The guide is secured with the screw on the presser foot holder.
- Stabilize your fabric.
- Place the center marked point of your fabric directly below the rubber point of the embroidery guide.
- Select the desired decorative stitch and begin sewing.
- Change the radius with every new circle by loosening the screw and sliding the circular embroidery guide to another mark on the guide arm.

Stitch: optional



Fringe Presser Foot with IDT

With this special foot for fringe embroidery you can produce fantastic effects in no time. This foot is particularly effective on terry cloth.

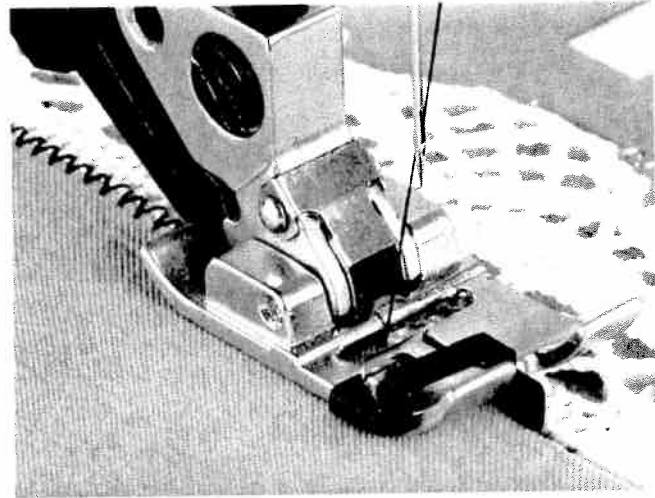
- Mark your desired pattern with a fabric marking pen.
- Place a piece of stabilizer under the fabric.
- Attach the fringe foot.
- Set the upper thread tension to 2 - 3.
- Embroider the motif row by row. For circles you must work from the outside inwards.
- When using heavier threads, you should select a slightly longer stitch length. Always sew a test seam first.
- When you have finished, pull the work carefully from the machine by holding the last loops. If you pull too quickly, you will pull the end loops flat/tight.
- Knot the beginning and end threads on the reverse side.

Stitch: 3

Stitch length: 0.5 - 1

Stitch width: 1.5 - 2.5

Tension: 2 - 3



Narrow Edge Foot with IDT

This presser foot makes narrow edge topstitching easier. It is excellently suited to edge-joining separate fabric pieces, i.e. attaching lace to a finished fabric edge. The metal guide in the center of the foot acts to keep the two fabrics separated. The center guide also makes quilting neat and easy. The metal guide follows the seam for perfect quilting.

Topstitching with a narrow edge

For narrow edge topstitching place the fabric edge against the center guide of the presser foot. Move the needle into the desired left hand position and topstitch. The center guide allows for perfect topstitch spacing.

Stitch: 1

Stitch length: 2.5

Tension: 3-5

Sewing on lace

Place the folded/pressed edge of your fabric to the left of the center guide and the finished edge of your lace to the right of the center guide. Both fabric and lace should be placed under the foot right side up. The center guide will keep the fabrics properly separated allowing for more precise stitching. Choose zigzag stitch No. 3 and sew catching the edge of the fabric and the lace. Adjust the width and length of your zigzag as desired.

Stitch: 3

Stitch length: 1 - 3.0

Stitch width: 1.5 - 3.5

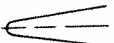

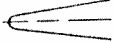









Tension: 3-5

Needle table


Using the correct needle guarantees better stitching of the fabric.

Fabric weight light needle size 60 70 75	Fabric weight medium needle size 80 90	Fabric weight heavy needle size 100 110 120
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Needle points


System & No.	Profile	Point and eye	Suitable for
130/705 H Size: 60-130		Light ball point	Universal needle for synthetics, chiffon, batiste, organdy, woolens, velvet, fancy seams and embroidery work.
130/705 H-SUK Size: 70-100		Medium ball point	Coarse knitted fabrics. Latex, double-knit fabrics, Quiana and Simplex.
130/705 H-PS Size: 75-100		Medium ball point	Stretch-fabric needle developed especially for Pfaff. Particularly suitable for delicate stretch and knitted fabrics.
130/705 H-SKF Size: 90-110		Heavy ball point	Wide-meshed corsetry. Lycra, Simplex and Latex
130/705 H-J Size: 90-110		Acute ball point	Twill, work wear, heavy linen, blue jeans and light canvas.
130/705 H-LR Size: 80-100		Narrow twist point (cuts right)	Leather, suede, calf and goatskin leathers
130/705 H-PCL Size: 80-110		Narrow twist point with left twist groove	Imitation leathers, plastic materials, plastic sheeting and oil cloth.
130 H-N Size: 70-110		Light ball point, long eye	Topstitched seams with buttonhole silk or No. 30/3 synthetic thread, metallic thread
130/705 H-WING Size: 100/120		Hemstitching point	Effective hemstitching on heavily dressed materials, organdy, glass cambric
130/705 H-M Size: 60-80		Acute round point	Micro-fiber woven fabrics
130/705 H-Q Size: 80/90		Light ball point	Topstitched seams for quilting
130/705 H-E Size: 75-90		Medium ball point	Embroidery work


Needle chart

	Classification	Stitch length	Stitch width	Needle spacing	Suitable for
	130/705 H-ZWI	2.5 mm	—	1.6 mm	normal pintucks
	Size: 80	2.5 mm	—	2.0 mm	normal pintucks
	130/705 H-ZWI				
	Size: 80	2.5 mm	—	2.5 mm	wide pintucks
	Size: 90	2.5 mm	—	3.0 mm	extra wide pintucks
	Size: 100	3.0 mm	—	4.0 mm	topstitch hem for knits

Fancy patterns with twin needles


Before sewing the desired decorative stitches, check whether the needles can penetrate freely by turning the handwheel. In this way, needle breakage is avoided as much as possible.

	Ornamental stitch patterns/zigzag patterns				
	130/705 H-ZWI				
	Size: 80	0.5-1.5 mm	wide	1.6 mm	decorative stitching
	Size: 80	0.5-1.5 mm	narrow	2.0 mm	decorative stitching
	Size: 80	0.5-1.5 mm	narrow	2.5 mm	decorative stitching

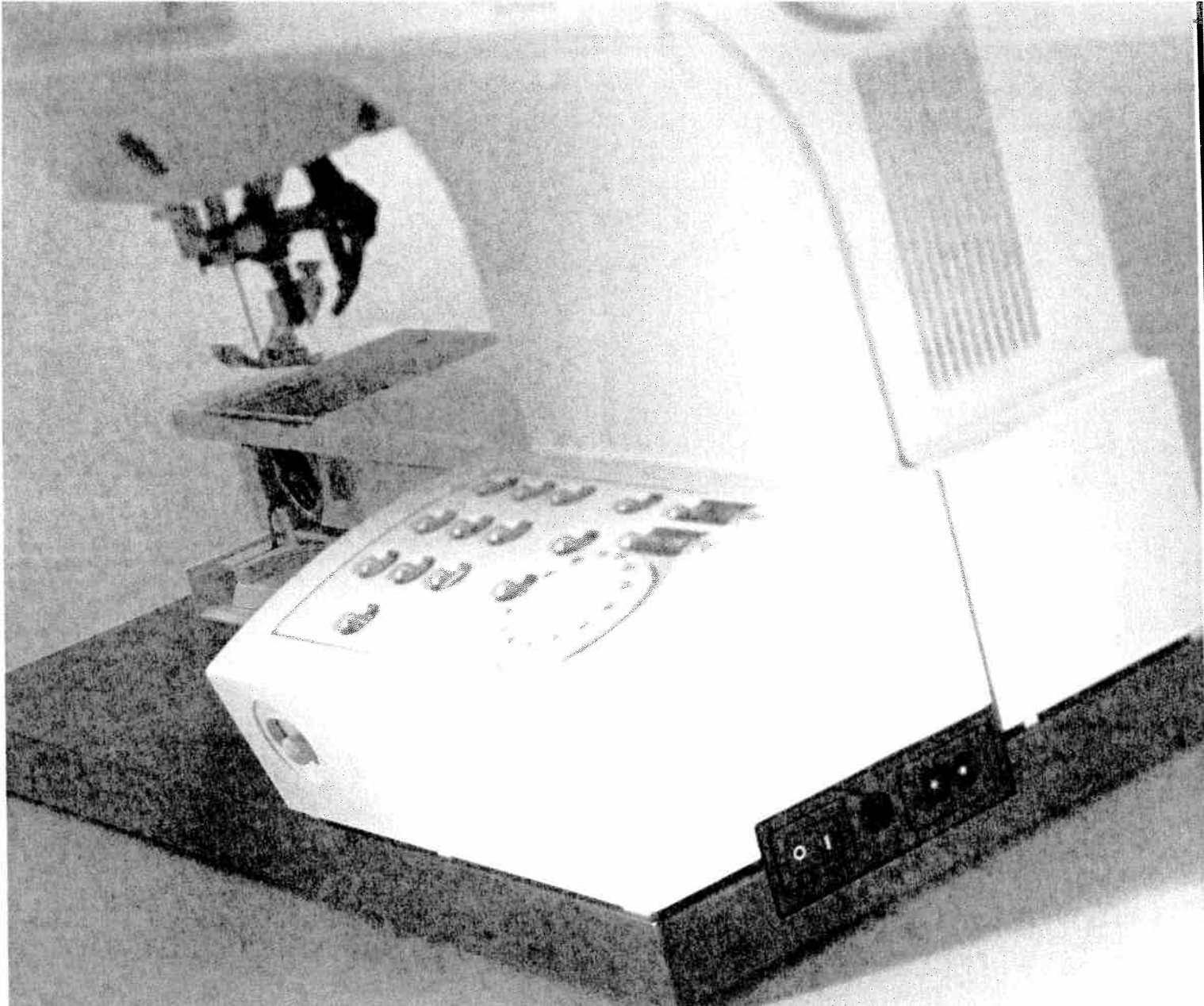
	Hemstitch/special twin needle				
	130/705 H-ZWI-HO				
	Size: 80	2.3-3.0 mm	very narrow	—	Decorative hemstitch effect. Well finished woven fabric and fine batiste are particularly suitable.
	Size: 100	2.0-3.0 mm	very narrow		

Triple needle

Before sewing the desired decorative stitches, check whether the needles can penetrate freely by turning the handwheel. In this way, needle breakage is avoided as much as possible.

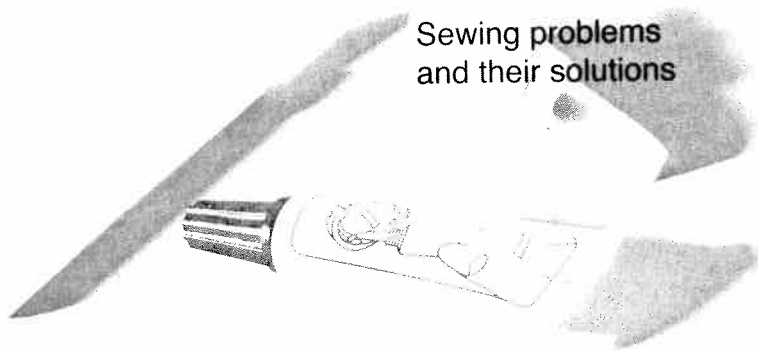
	130/705 H				
	Size: 80	0.5-1.5 mm	very narrow	2.5 mm	decorative stitching
	Size: 80	0.5-1.5 mm	very narrow	3.0 mm	decorative stitching

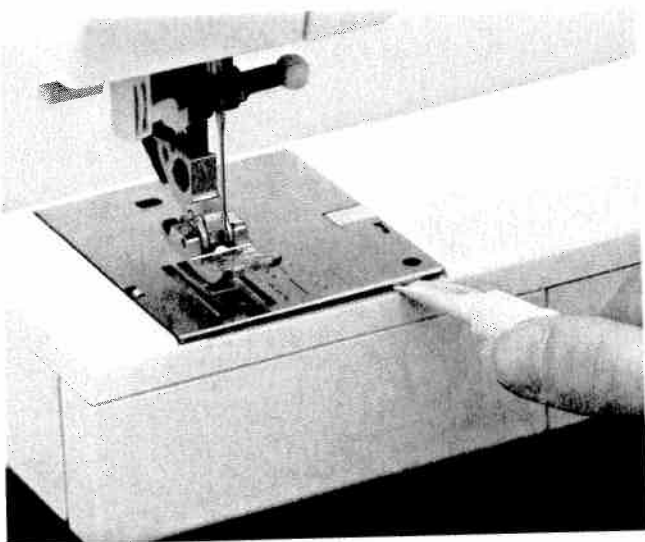




Maintenance

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Changing the needle plate

Switch off the main switch.

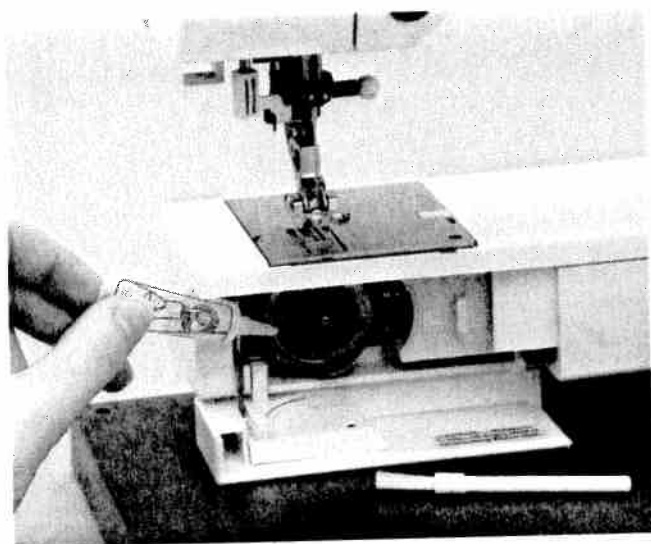
Removal

- Raise the presser foot. Position the needle plate changer (lamp changer) as shown and press the needle plate up on the right, then on the left. It can now be easily removed.

Replacing

- Place the needle plate against the rear edge of the cut-out then press down at the front until you hear it snap in place. Before you start sewing, check that the needle plate is lying flat.

Tip: Lower the feed dog to make removing the needle plate easier.

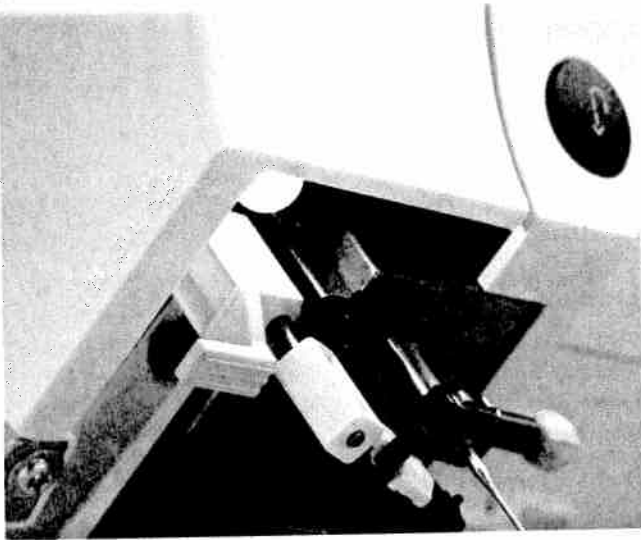


Cleaning and oiling

- Switch off the main switch.
- Remove the needle plate and lower the feed dog. Clean the feed dog and hook area with the brush.
- Apply only one drop of oil to the area in the hook shown above. The machine otherwise requires no maintenance and must not be oiled at any other points.
- Clean and oil the sewing machine every 10 - 15 hours of operation.

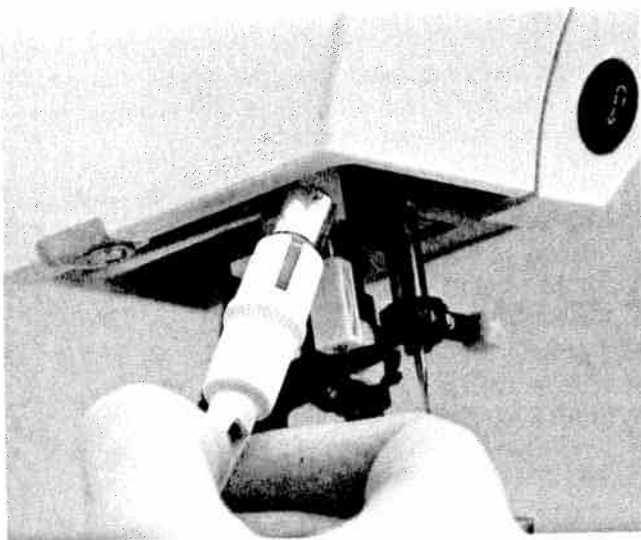
Cleaning the display

Wipe the display with a soft, lint-free dry cloth. DO NOT use aggressive cleansers or solvents!



Changing the light bulb

- Switch off the main switch. Disconnect the lead cord and the foot control plug from the machine.
- Remove the accessory tray. The light bulb is located inside the sewing machine near the needle threader.



Bulb removal

Push the bulb remover, as shown in the figure, up as far as it will go. Now turn the bulb half a rotation counterclockwise and remove the bulb.

Insertion of the bulb

Insert the bulb in the lamp changer. Guide the bulb into the diagonal holder and turn it until the pins of the bulb engage. Push the bulb upward into the holder as far as it will go and turn it half a rotation in a clockwise direction. Remove the bulb changer from the bulb, the bulb is held firmly.

Important: The maximum wattage of the bulb is 5 watts.

Bulbs can be purchased from your PFAFF dealer (order No. 92-329 975-05/000).

Sewing problems and their solutions

Problem/Cause	Remedy
The machine skips stitches The needle is not properly inserted. Wrong needle is in use. Needle is bent or blunt. The machine is not properly threaded. Needle is too small for thread.	Push needle fully upwards. Flat side facing the back. Use needle system 130/705 H. Insert a new needle. Check how the machine is threaded. Use a larger needle.
Needle thread breaks See reasons above. Thread tension is too tight. Thread is poor or has slubs in it, or has become dry after overlong storage. Thread is too thick.	See above. Adjust thread tension. Only use good quality threads. Use needle with large eye (system 130 N).
Needle breaks off Needle is not pushed fully in. Needle is bent. Needle is too thick or too thin. Needle is bent, and has hit the needle plate because you are pulling or pushing the fabric. The bobbin case is not properly inserted.	Insert new needle and push fully in. Insert different type of needle. See needle table (Page 110, 111). Only guide the fabric lightly. When you insert the bobbin case, push it fully into the stop. Pull lightly on the end of the thread to make sure bobbin case is secure.
The seam is sewn unevenly The tension needs adjusting. Thread is too thick, stubbed or hard. The bobbin thread is unevenly wound. Thread loops at top or underside of fabric.	Check needle and bobbin thread tensions. Only use good quality threads. Do not wind thread by hand. Make sure thread is pulled solidly into bobbin tension spring. Check bobbin threading path. Re-thread machine, making sure presser foot is raised to its highest position. This ensures that needle thread is securely in thread tension system. Adjust bobbin thread tension as needed.

Problem/Cause	Remedy
<p>The machine does not feed or feeds irregularly</p> <p>Sewing lint has collected between the feed dog teeth rows.</p> <p>Feed dog is lowered.</p> <p>Slide A is at the left or slide B is at the right (see page 34)</p> <p>The needle plate is not lying flat.</p>	<p>Remove needle plate, remove lint with brush.</p> <p>Push slide A to the right or slide B to the left.</p> <p>Press downwards at the front of the needle plate until you hear it snap into place.</p>
<p>The machine is running with difficulty</p> <p>There are thread remnants in the hook ways.</p>	<p>Remove the threads and apply a drop of oil to the hook.</p>
<p>The machine does not sew the selected stitch</p> <p>Switch off the machine, wait 10 seconds and switch on again. Select the desired stitch again.</p> <p>Before changing presser feet and needle the main switch must be switched off. Do not attempt to sew without fabric under the presser foot. When leaving the machine, even for only a short time, switch off the main switch. This is important if there are any children nearby.</p>	
<p>Display incorrect or no display</p> <p>When static electricity is being discharged some segments of the display will fail.</p> <p>The contrast on the display may be disturbed when the machine is cleaned or is transported (display is illegible or dark)</p>	<p>Switch off the machine on completion of the sewing operation and then turn it back on again after approx. 10 seconds. All segments must appear again on the display. Select the desired stitch again.</p> <p>Set the contrast using the contrast control.</p>

Technical data

Dimensions (w x h x d)	408 x 290 x 187 mm
Weight	8.3 kg
Nominal voltage (reversible)	120 V / 220 ... 240 V
Power consumption	75 W
Sewing lamp	12 V / max. 5 W
Sewing speed	max. 950 stitches/min min. 80 stitches/min
Stitching width	0 ... 6 mm
Stitching length	0 ... 6 mm
Presser foot lift	8mm
Max. presser foot height	10.5 mm
Needle system	130 / 705 H

Package contents

Sewing machine
Carrying case
Foot control
Lead cord
Accessories
Instruction manual

