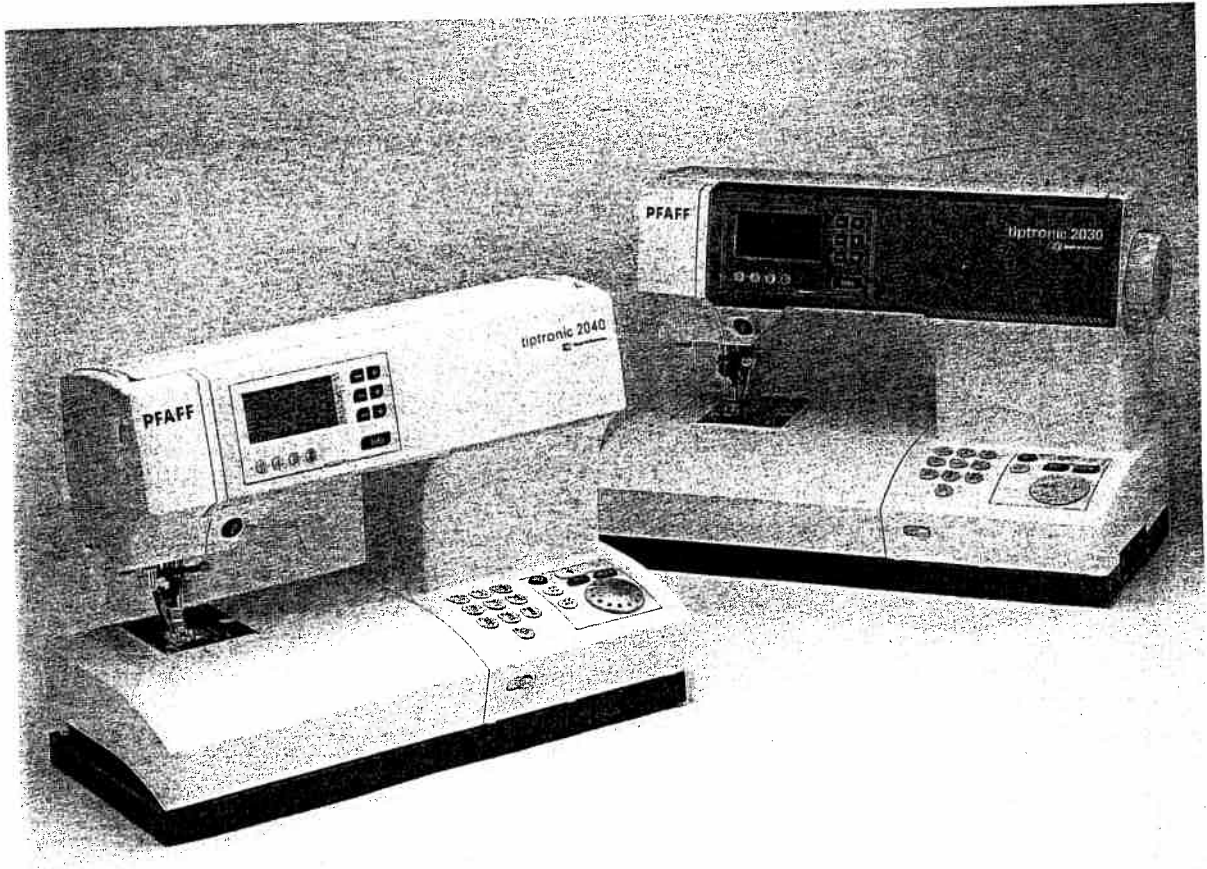


PFAFF

tiptronic
2030/2040



Instruction manual

Please fold this page open to simplify the understanding of this instruction manual when reading it.



Safety rules

For the United Kingdom only

The leads must definitely not be connected to the safety-lead terminal I nor to a plug with three pins.

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

Blue: Neutral

Brown: Live

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

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

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

Cut off mains plugs are definitely not to be used, but disposed of immediately.

Defective mains leads must be replaced complete.

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

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

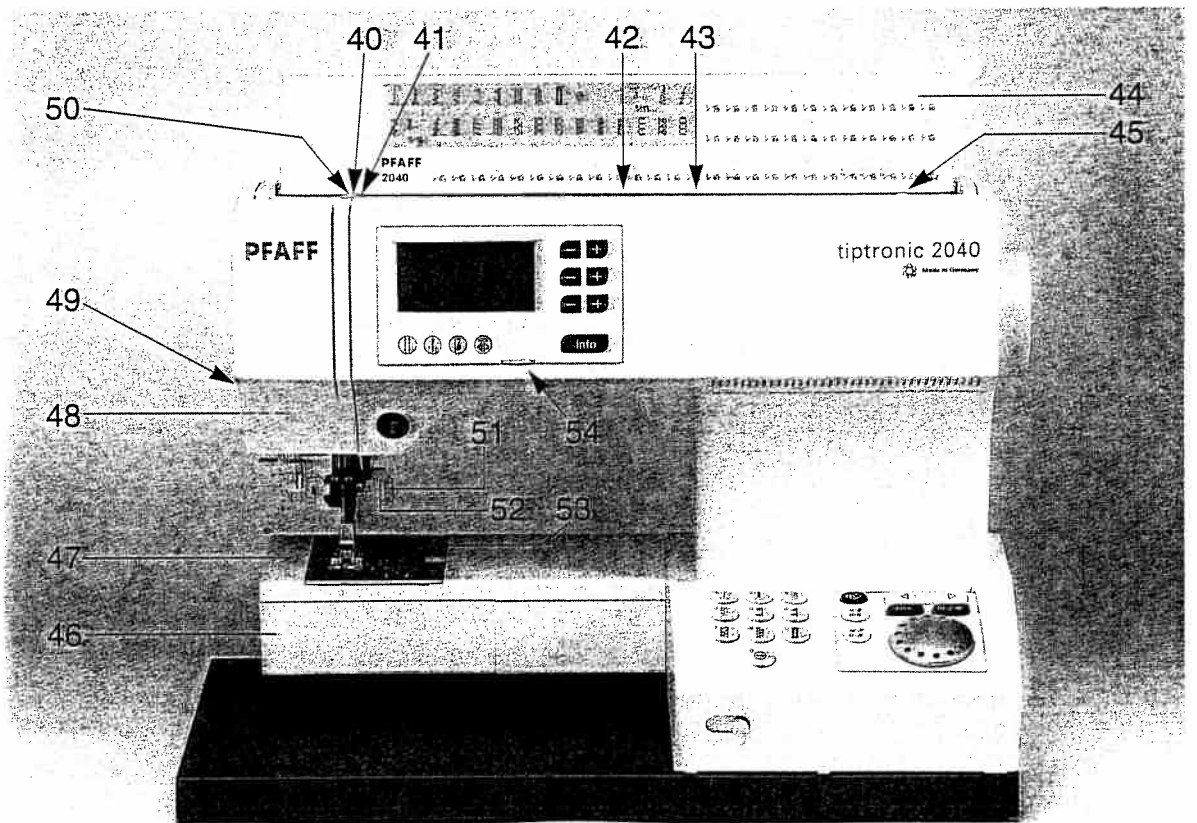
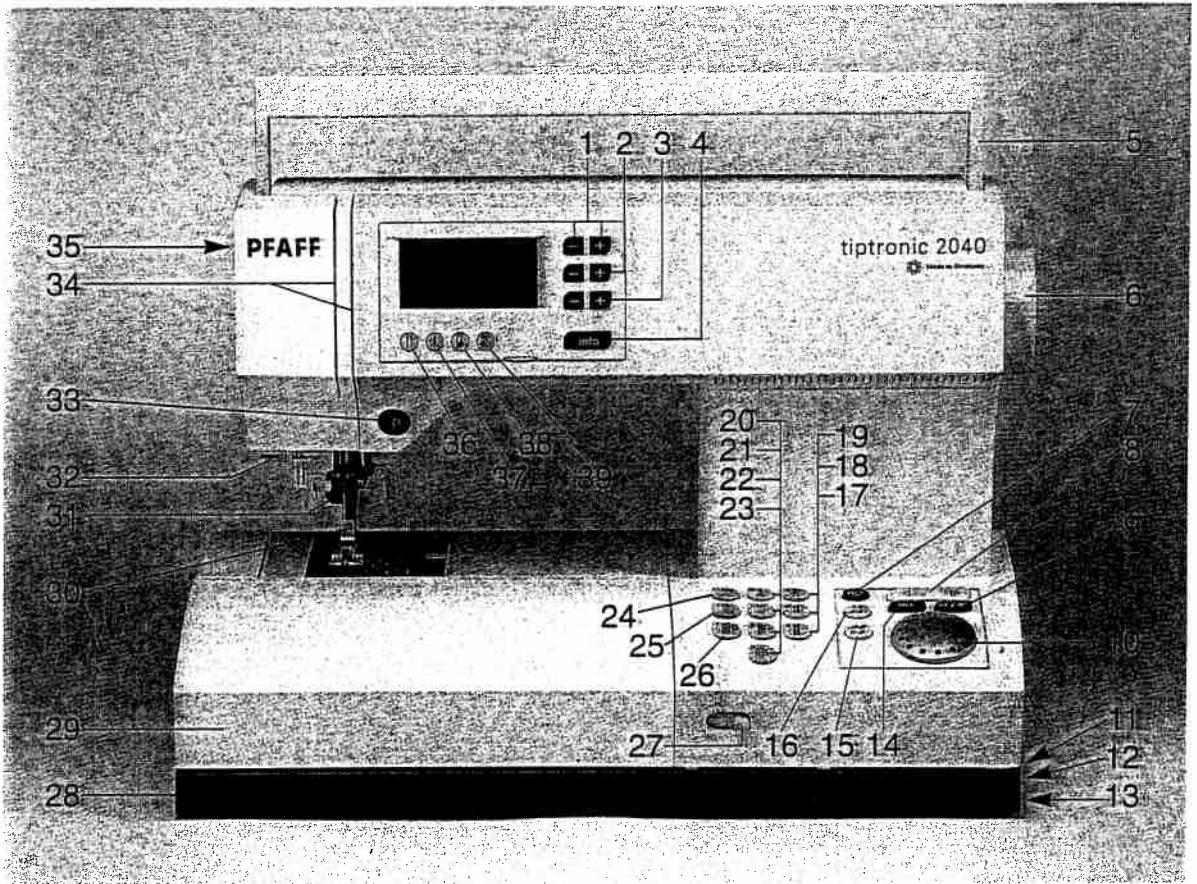
Please also observe the general safety notes on page 2.

Important safety instructions

For Australia only

- If the supply cord is damaged, it must be replaced by the manufacturer or its service agent or similarly qualified person in order to avoid a hazard.
- The appliance is not intended for use by young children or infirm persons without supervision.
- Young children should be supervised to ensure that they do not play with the appliance.
- Switch off or unplug the machine when leaving it unattended.
- Before servicing the appliance or replacing lamps, unplug the machine.

Index on pages 4 - 7



Parts of the sewing machine (model 2040)

- (1) Key pair a (stitch width/pattern width controls)
- (2) Key pair b (stitch length/pattern length controls)
- (3) Key pair c (stitch density/balance controls)
- (4) Info key
- (5) Carrying handle
- (6) Handwheel
- (7) "M" key
- (8) Cursor keys
- (9) Clear/pattern start key
- (10) Program selection knob
- (11) Connection socket "lead cord"
- (12) Connection socket "foot control"
- (13) Master switch
- (14) m+ key
- (15) Direct selection key "Alphabet"
- (16) Direct selection key "Alphabet"
- (17) Direct selection key "Linen buttonhole"
- (18) Direct selection key "Elastic blindstitch"
- (19) Direct selection key "Zigzag stitch"
- (20) Direct selection key "Stretch triple-straight stitch"
- (21) Direct selection key "Blindstitch"
- (22) Direct selection key "Faggoting stitch"
- (23) Direct selection key "Button attaching program"
- (24) Direct selection key "Straight stitch"
- (25) Direct selection key "Elastic stitch with 2 perforations"
- (26) Direct selection key "Closed overlock stitch"
- (27) Slide for lowering the feed dog
- (28) Base plate
- (29) Detachable work support
- (30) Presser foot holder with presser foot
- (31) Integrated dual feed/IDF
- (32) Needle threader
- (33) „Reverse sewing" key
- (34) Threading slots
- (35) Needle thread tension
- (36) "Tie-off" key
- (37) "Needle lowered/raised" key
- (38) "Slow sewing" key
- (39) "Pattern mirror" key
- (40) Take-up lever
- (41) Thread guide
- (42) Spool holder with unwinding disk
- (43) Hole for second spool holder
- (44) Top cover with stitch program chart
- (45) Bobbin winder
- (46) Hook cover (hook behind it)
- (47) Free arm
- (48) Sewing bulb (max. 5 W)
- (49) Thread cutter
- (50) Thread take-up
- (51) Presser foot lifter
- (52) Needle holder with retaining (set) screw
- (53) Needle plate
- (54) Contrast regulator



IMPORTANT SAFETY INSTRUCTIONS

For the United States only

This sewing machine is designed and manufactured for HOUSEHOLD use only. When you use an electric appliance, basic safety precautions should always be adhered to as follows:

Read all instructions before using this sewing machine.

DANGER To reduce the risk of electric shock:

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

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

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

Please also observe the general safety notes on page 2.

SAVE THESE INSTRUCTIONS



Notes on safety for domestic sewing machines in accordance with EN 60335-2-28 and/or IEC 335-2-28

1. The user must exercise adequate caution with regard to the up and down movement of the needle and constantly observe the sewing area while working.
2. **When leaving the machine, during maintenance work or when changing mechanical parts or accessories, always disconnect the machine from the mains by pulling out the mains plug.**
3. The maximum permissible wattage for the sewing lamp is 15 watts.
4. The tension of the drive belt may only be adjusted by a PFAFF mechanic.
5. The machine is to be put into operation according to the indications on the specification plate.
6. Do not place any objects in openings on the machine.
7. Do not use the sewing machine if:
 - there is visible damage
 - its function is disturbed
 - it is wet, e.g. with condensation, that may be caused by introducing a cold machine into a warm room.
8. Do not pull the mains plug out of the socket by its cord.
9. No liability will be accepted for any damage caused if this machine is used for any purpose other than that for which it is intended or if it is operated incorrectly.
10. To avoid the risk of electric shock, do not open the machine. There are no parts inside the machine which the user can repair. This is solely the responsibility of our qualified service staff.
11. Only original PFAFF parts may be used.
12. The machine is designed for a mains supply with a mains rated voltage of +/- 10% and a rated frequency of +/- 4%.
13. During conventional use, the outer parts of a non-electrically driven foot control can heat up to 85°C. Constant use at low speeds is not permissible, in order to avoid damage due to over-heating.
14. According to the laws concerning electromagnetic compatibility, no liability can be accepted for any mains interruptions caused, should the mains power line be changed or should changes be made to it.

Environment

The recommended environment is:

Ambient temperature 10°C to 40°C

Air humidity 20% to 80%.

Room temperature - 25°C to + 60°C

The machine is suppressed and insensitive to interference according to international conventions; however, it should not be operated in the direct vicinity of electronic devices.

This sewing machine is a high-quality electronic-mechanical appliance; it is a machine for supervised use in the home. It should be operated in such a way that it is not subjected to: dust, severe dampness, direct sunlight, static electricity, heat-producing objects, corrosive chemicals or liquids.

The machine is to be used on a firm and even surface which is open for ventilation purposes.

Treatment

Always protect the machine against damage which could be caused **by it being hit or dropped.**

Cleaning

Housing and display: To clean the housing use a dry, clean, soft, lint-free cloth. To remove any stubborn dirt, use a soft cloth moistened with alcohol.

Caution note!

Do not use any insecticides or chemical products such as petrol or liquid chemicals to clean the housing.

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 2030 model and to the model 2040. 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.

Index of headings

Accessories	20
Appliqué work	128
Automatic tapering	126, 127
Balance	44
Basting	65
Bobbin case	24, 25
Bobbin thread monitor (model 2040)	38
Bobbin thread tension	25
Bobbin thread, drawing up	28
Bobbin winding	21 - 23
Bobbin winding through the needle	30
Buttonhole, fully-automatic	89
Buttonholes	86 - 94
Buttonholes with gimp thread	93
Buttonholes, tips for difficult fabrics	94
Buttonholes, types	88
Buttons, sewing on	70
Carrying case	18
Changing a pattern within the pattern sequence	60
Circular embroidery guide	110
Cleaning and oiling	138
Combined borders	119
Cording foot/shirring foot	104
Covering seams	75, 76
Cross-stitch	132

Index of headings

Darning, automatic darning program (model 2040)	71
Darning, sewing on patches	71, 72, 77
Decorative stitches	119
Decorative stitches with twin needle	119
Detachable work support	21
Display, adjusting the contrast	38
Elastic utility stitches	66 - 69
Electrical connection	75 - 76
Embroidery stitch programs, tiptronic 2040	19
Embroidery stitch programs, tiptronic 2030	12
Embroidery, general notes	13
Eyelet embroidery	118
Feed dog, lowering	133
Felling foot/Appliqué foot	34
Foot control, connecting	102
Free motion embroidery	19
Free motion quilting foot/bias binder	121
Fringe foot/narrow edge foot	121
Gathering	107
General sewing aids	111
Hemstitching	111
IDF system	74
Info menu	65, 66
Invisible hems, blind stitch	134
Knit edge foot/ruffler	32, 33
Lace-work	45
M-memories, deleting all	66
Master switch	105
Monograms	73

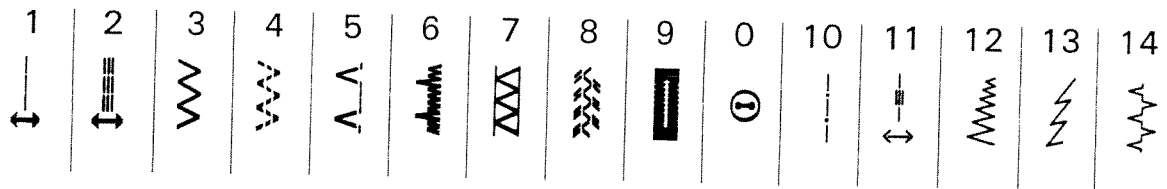
Index of headings

Needle plate, changing	138
Needle table	112, 113
Needle threader	27
Needle, changing	31
Needle, threading	26
Needle/bobbin thread tension	24, 25, 26
Non-elastic/elastic stitches	65 - 68
Non-stick fancy stitch foot for leather	108
Overlock stitches	69
Patchwork and quilting	130, 131
“Pattern beginning”	55
“Pattern beginning” within pattern combination	60
Pattern combinations, general notes	54
Pattern length/pattern width, changing for decorative stitches	122
Pattern length/stitch density	43
Pattern mirroring	46
Pattern sequence keys	55
Pattern sequence, deleting	59
Pattern sequence, deleting from	57
Pattern sequence, inserting into	58
Pattern settings, altering	40 - 44
Pattern sizes, altering	40
Pattern width/stitch length, altering	42
Patterns, storing	55 - 57
Pin tuck foot	103
Pin tuck foot with guide	108
Presser feet (special accessories)	101
Presser feet (standard accessories)	98 - 100
Presser foot lifter	28
Presser foot, changing	29

Index of headings

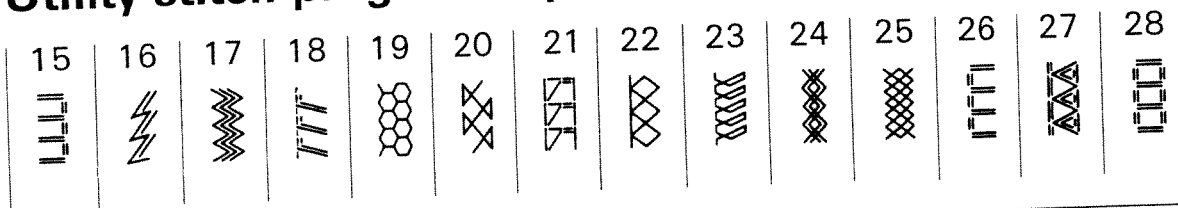
Reverse sewing	45
Richelieu	129
Roll hemming	79
Sewing function keys	46
Sewing lamp, changing	139
Sewing problems and their solutions	140
Sewing programs, selecting	39
Shell edging	82
Smocking	78
Stitch patterns, formation	48, 49
Stitch width/needle position, altering	41
Tapering/embroidering satin-stitch zigzag	123 - 125
Technical data	141
Thread cutter	28
Thread tension, general notes	24
Threading	26 - 27
Tie-off	46
Tips for a perfect buttonhole	94
Top cover with table of programs	18
Top feed (integrated dual feed)	32, 33
Twin needle	47
Twin needle, threading	31
Utility stitch programs, tiptronic 2040	8, 9
Utility stitch programs, tiptronic 2030	10, 11
Voltage switchover	19
Zipper, sewing in	80, 81
7/9 hole foot/braiding foot	109
1/4 inch quilt and patchwork foot	106

Utility stitch programs tiptronic 2040



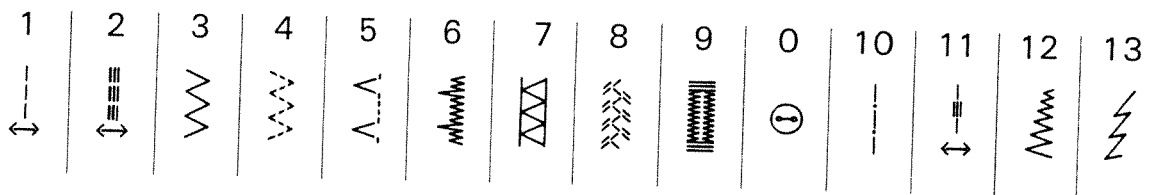
Program No.	Description	Application	Width up to mm
1	Straight stitch with 13 needle positions, stitch length 0 - 6 mm	For all straight stitch jobs and one 6 mm wide decorative topstitching stitch.	-
2	Stretch triple straight stitch, with 13 needle positions, stitch length 0 - 6 mm	For highly durable seams where great strength is needed. The seams will stretch without breaking.	-
3	Zigzag stitch, (center stitch build-up)	For serging, appliqué work, inserting lace, sewing with fringe etc.	6
4	Elastic stitch with two perforations	For sewing on elastic, darning tears and applying patches. Suitable for most fabrics	6
5	Blind stitch and shell edge	For securing hems invisibly	6
6	Elastic blind stitch	For securing hems invisibly in stretch fabrics	6
7	Closed overlock stitch	For simultaneously seaming and finishing one or several fabric layers. An overlock seam	6
8	Faggoting stitch	For sewing together foundation garments and over-stitching edge-joined fabrics. Gives an ornamental and hem stitching effect.	6
9	Linen buttonhole	For buttonholes in fine, non-stretch materials (blouses, shirts, bed linen)	6
0	Button attaching program	For automatically sewing on buttons	
10	Basting stitch	For basting cut-out parts together	
11	Quilt stitch with 13 needle positions	For decorative embellishments and topstitching quilt projects	
12	Zigzag stitch (infinitely variable width of the zigzag stitch during sewing)	As in program 3. (May be sewn from left to right or from right to left, using the pattern mirror key)	6
13	Stemstitch, narrow	Durable elastic seam, e.g. for working on leggings, and for embroidery work	3
14	Decorative elastic stitch	For overstretching elastic cords and wool threads as well as for gathering and smocking	6

Utility stitch programs tiptronic 2040



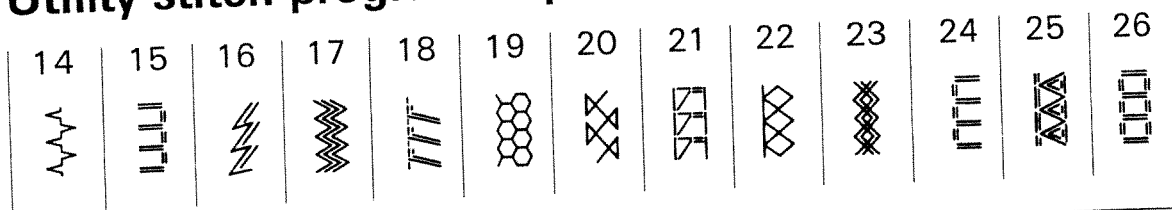
Program No.	Description	Application	Width up to mm
15	Quilting, appliqué or pinstitch	For appliqué work when quilting or pinstitching	6
16	Stemstitch, wide	Durable elastic seam, e.g. for working on leggings, and for embroidery work	3
17	Stretch triple zigzag stitch	For inserting elastic in sportswear and bathing suits. (Extremely durable seam for active wear)	6
18	Open overlock stitch	For closing and serging seams	6
19	Honeycomb stitch	For sewing on elastic thread, oversteitching terry cloth seams and for ornamental hem seams	6
20	Cross hem stitch	Gives an extremely elastic seam for sportswear	6
21	Closed overlock stitch with selvage thread	For simultaneous closing and serging of one or more layers of fabric	6
22	Pullover stitch	Elastic construction and serging seam open-knit fabric and jersey	6
23	Light-knit fabric patching stitch	For sewing and patching light knit wear (undergarments etc.)	6
24	Cross stitch	For cross-stitching work	6
25	Cross stitch	For cross-stitching work	4
26	Hem stitching	For securing edges in table linen and decoration of garments	6
27	Hem stitching		
28	Hem stitching		

Utility stitch programs tiptronic 2030



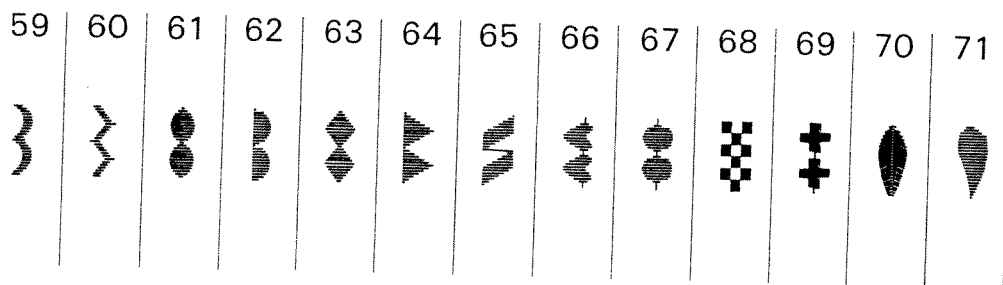
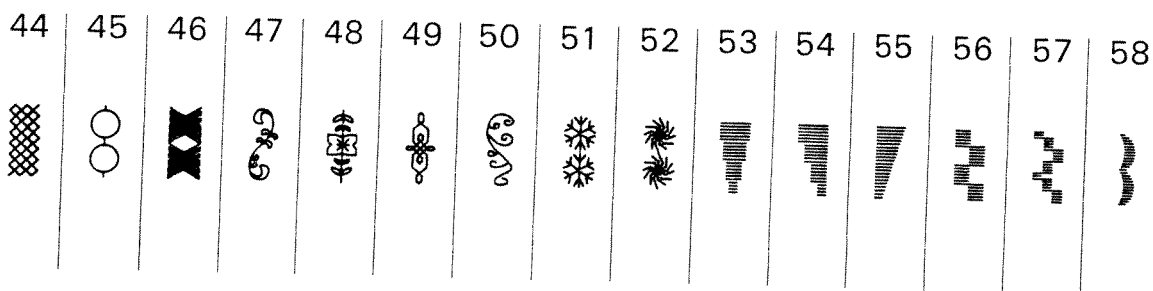
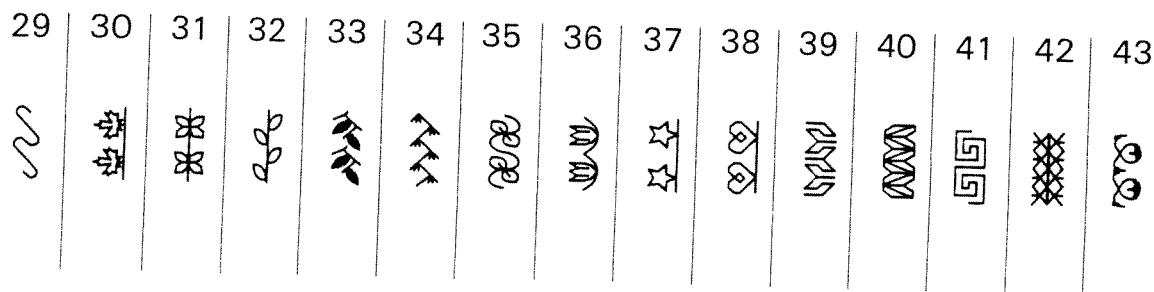
Program No.	Description	Application	Width up to mm
1	Straight stitch with 13 needle positions, stitch length 0-6 mm	For all straight stitch jobs and one 6 mm wide decorative topstitching stitch.	-
2	Stretch triple straight stitch, with 13 needle positions, stitch length 0-6 mm	For highly durable seams where great strength is needed. The seams will stretch without breaking.	-
3	Zigzag stitch, (center stitch build-up)	For serging, appliqué work, inserting lace, sewing with fringe etc.	6
4	Elastic stitch with two perforations	For sewing on elastic, darning tears and applying patches. Suitable for most fabrics	6
5	Blind stitch and shell edge	For securing hems invisibly	6
6	Elastic blind stitch	For securing hems invisibly in stretch fabrics	6
7	Closed overlock stitch	For simultaneously seaming and finishing one or several fabric layers. An overlock seam	6
8	Faggoting stitch	For sewing together foundation garments and over-stitching edge-joined fabrics. Gives an ornamental and hem stitching effect.	6
9	Linen buttonhole	For buttonholes in fine, non-stretch materials (blouses, shirts, bed linen)	6
0	Button attaching program	For automatically sewing on buttons	
10	Basting stitch	For basting cut-out parts together	
11	Quilt stitch with 13 needle positions	For decorative embellishments and topstitching quilt projects	
12	Zigzag stitch (infinitely variable width of the zigzag stitch during sewing)	As in program 3. (May be sewn from left to right or from right to left, using the pattern mirror key)	6
13	Stemstitch, narrow	Durable elastic seam, e.g. for working on leggings, and for embroidery work	3

Utility stitch programs tiptronic 2030



Program No.	Description	Application	Width up to mm
14	Decorative elastic stitch	For overstitching elastic cords and wool threads as well as for gathering and smocking	6
15	Quilting, appliqué or pinstitch	For appliqué work when quilting or pinstitching	6
16	Stemstitch, wide	Durable elastic seam, e.g. for working on leggings, and for embroidery work	3
17	Stretch triple zigzag stitch	For inserting elastic in sportswear and bathing suits (Extremely durable seam for active wear)	6
18	Open overlock stitch	For closing and serging seams	6
19	Honeycomb stitch	For sewing on elastic thread, overstitching terry cloth seams and for ornamental hem seams	6
20	Cross hem stitch	Gives an extremely elastic seam for sportswear	6
21	Closed overlock stitch with selvage thread	For simultaneous closing and serging of one or more layers of fabric	6
22	Pullover stitch	Elastic assembly and serging seam for open-knit fabric and jersey	6
23	Cross stitch	For cross-stitching work	6
24	Hem stitching	For securing edges in table linen and decoration of garments	6
25	Hem stitching		
26	Hem stitching		

Embroidery stitch programs tiptronic 2040



Eyelets

72



Darning program

73



Buttonholes

74



75



76



Alphabet

A
Z



Embroidery stitch programs tiptronic 2030

27	28	29	30	31	32	33	34	35	36	37	38	39	40	41

42	43	44	45	46	47	48	49	50	51	52	53	54	55	56

57	58	59

Buttonholes

60	61

Alphabet

A
Z

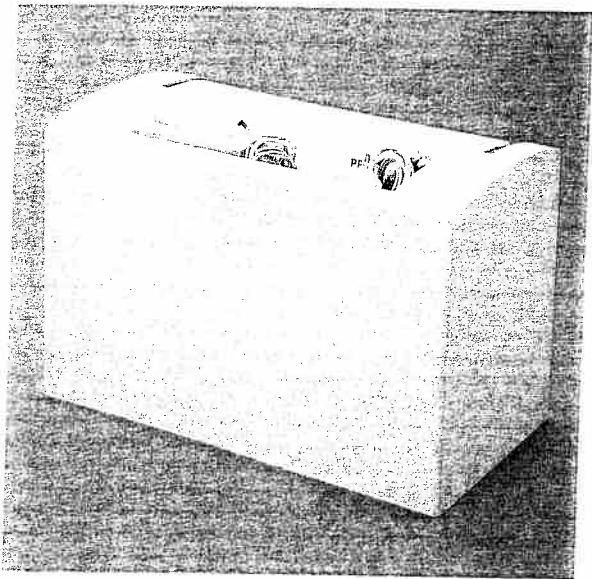
Technical section

Page 15 - 34



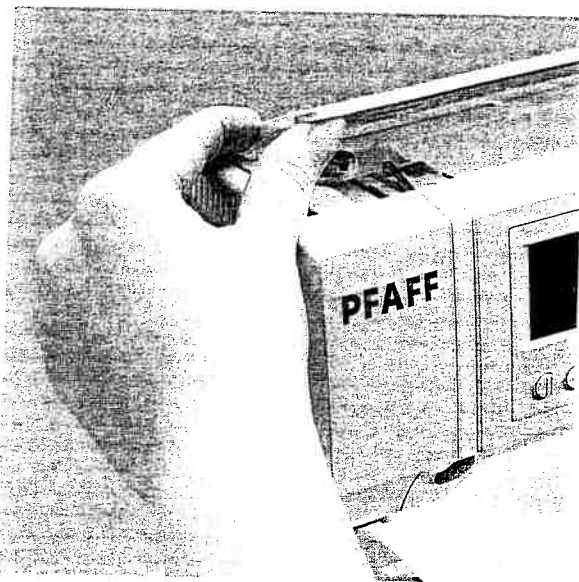
Contents

Carrying case	Page 18
Top cover with stitch program chart	Page 18
Electrical connection	Page 19
Voltage switchover	Page 19
Accessories	Page 20
Detachable work support	Page 21
Bobbin winding	Page 21 - 23
Bobbin case	Page 24 - 25
Needle/bobbin thread tension	Page 24 - 25
Threading the needle thread	Page 26
Needle threader	Page 27
Pulling up the bobbin thread	Page 28
Presser foot lifter	Page 28
Thread cutter	Page 28
Changing the presser feet	Page 29
Winding a bobbin through the needle	Page 30
Changing needles	Page 31
Threading twin needle	Page 31
Dual Feed/IDF	Page 32 - 33
Lowering feed dog	Page 34



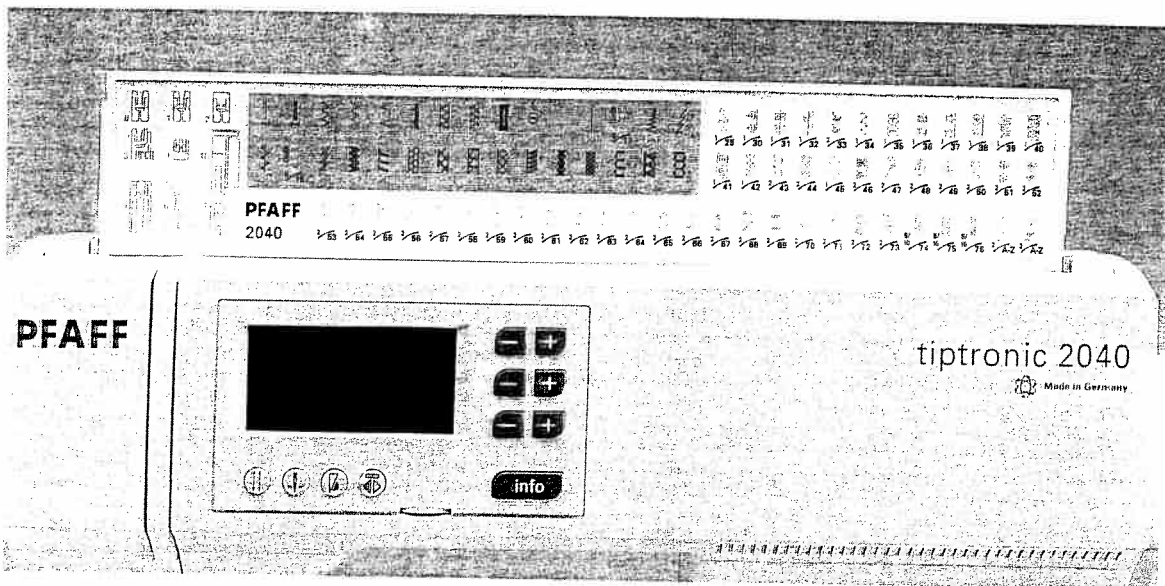
Carrying case

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



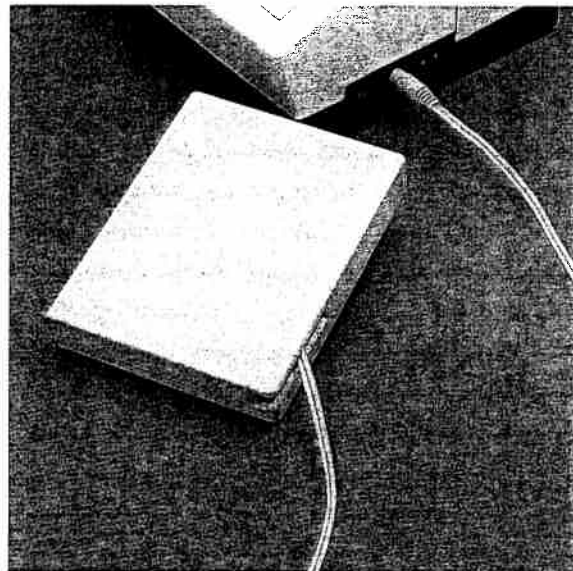
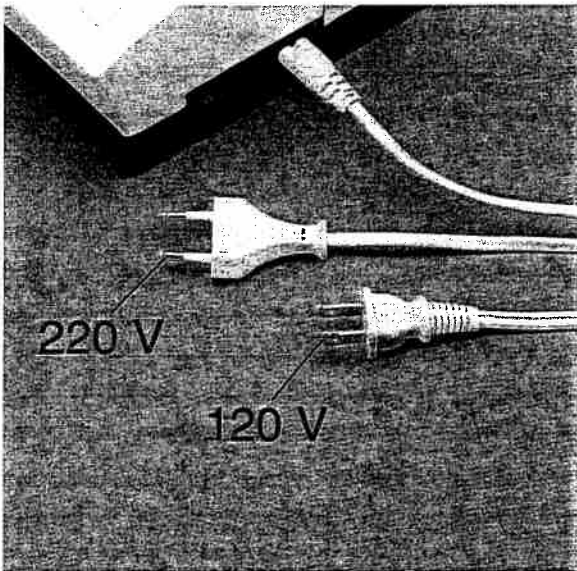
Top cover

Open the folding cover (44) upwards.



The programs of the sewing machine are illustrated on the inside of the top cover.

The appropriate presser foot to use for each program is also illustrated, e.g. Stitch **No. 2**, use presser foot **No. 0**.



Operating Instructions

Electrical connection

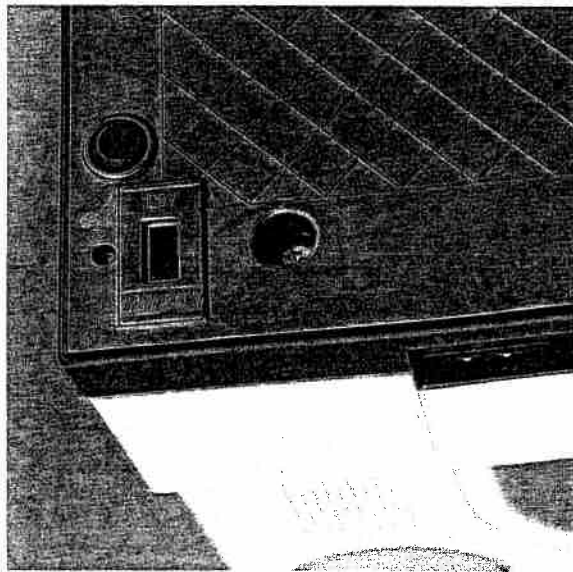
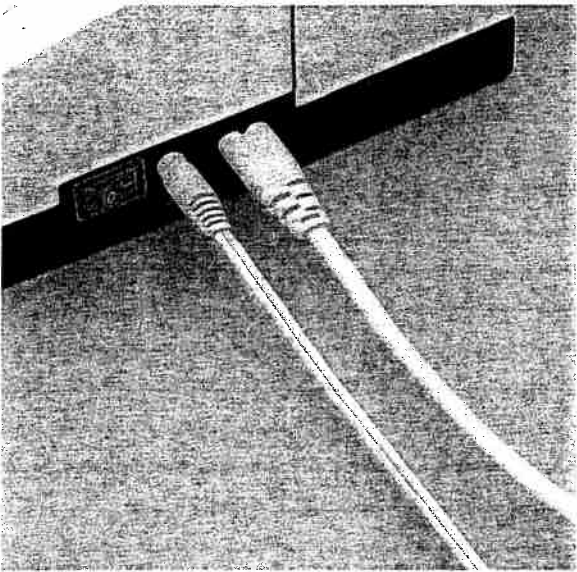
Connect the lead cord between the socket (11) of the sewing machine and the wall outlet.

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 tvd 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 display. The sewing machine is now ready to function.

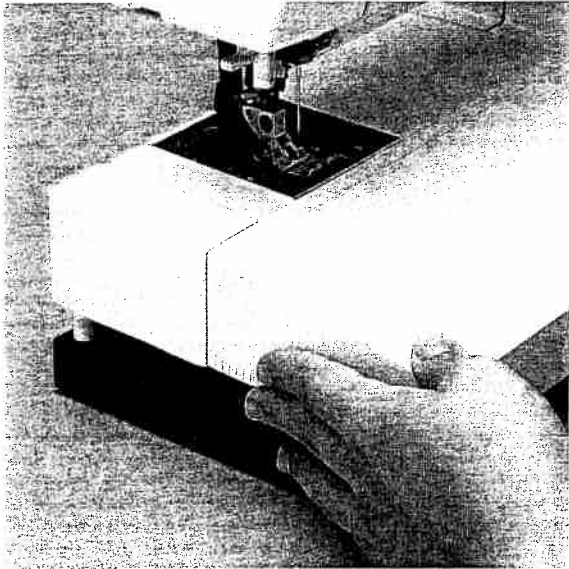
"0" = OFF

"I" = ON

Voltage switchover

220 V - 240 V ... 110 V

The sewing machine is set to the mains voltage for Europe 220 V - 240 V. If you require a mains voltage of 110 V, you must reset the voltage changeover switch on the underside of the machine to 110 V.

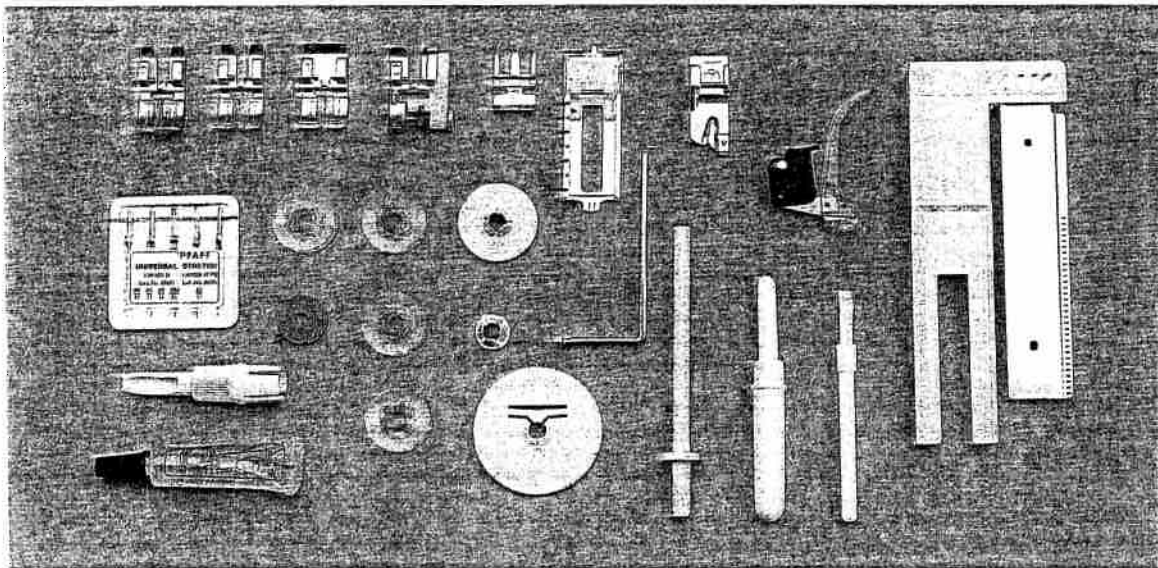


Accessory compartment

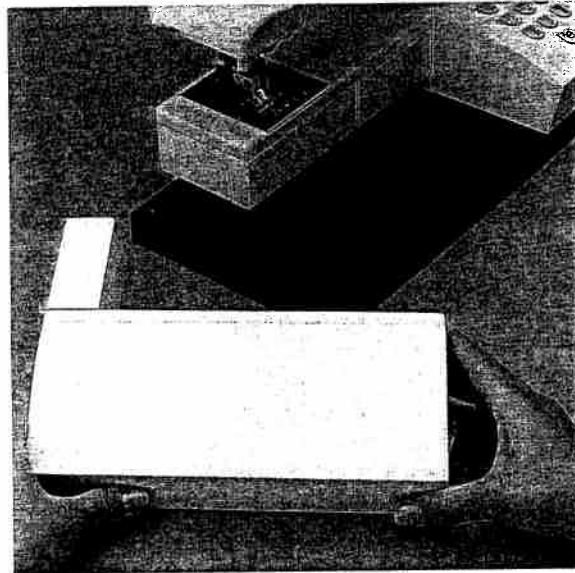
Open the accessory compartment by placing your left index finger on the ridged area on the left of the lid and open the lid upwards and away from you.

Arranging the accessories

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

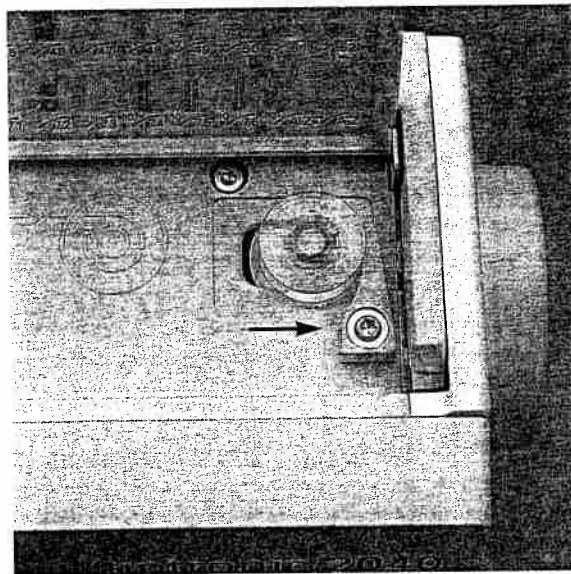
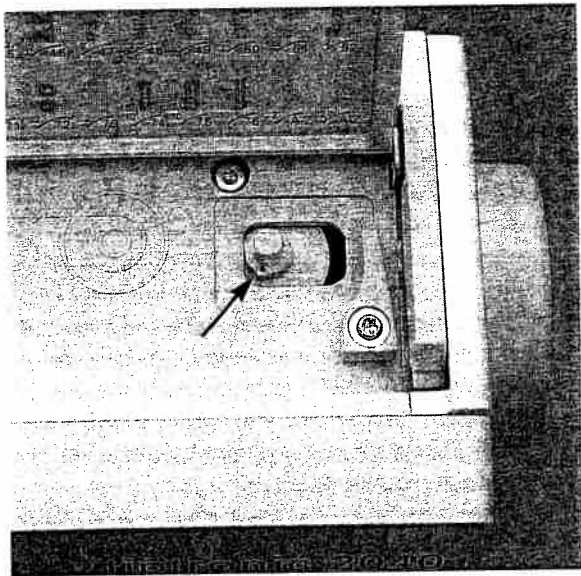


Accessories 2030/2040



Removing the detachable work support (free arm)

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

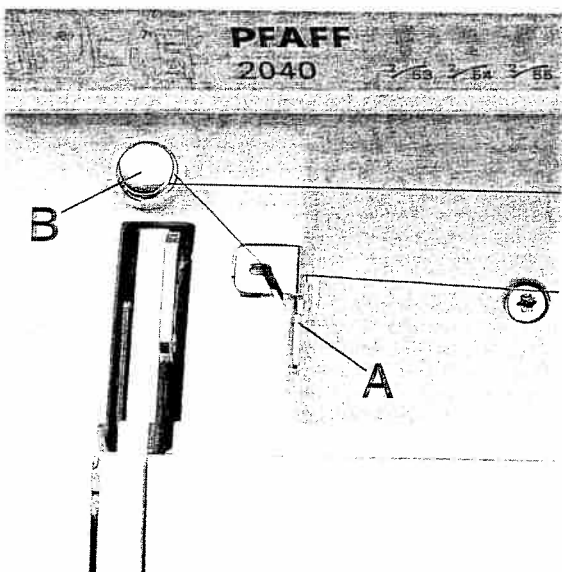
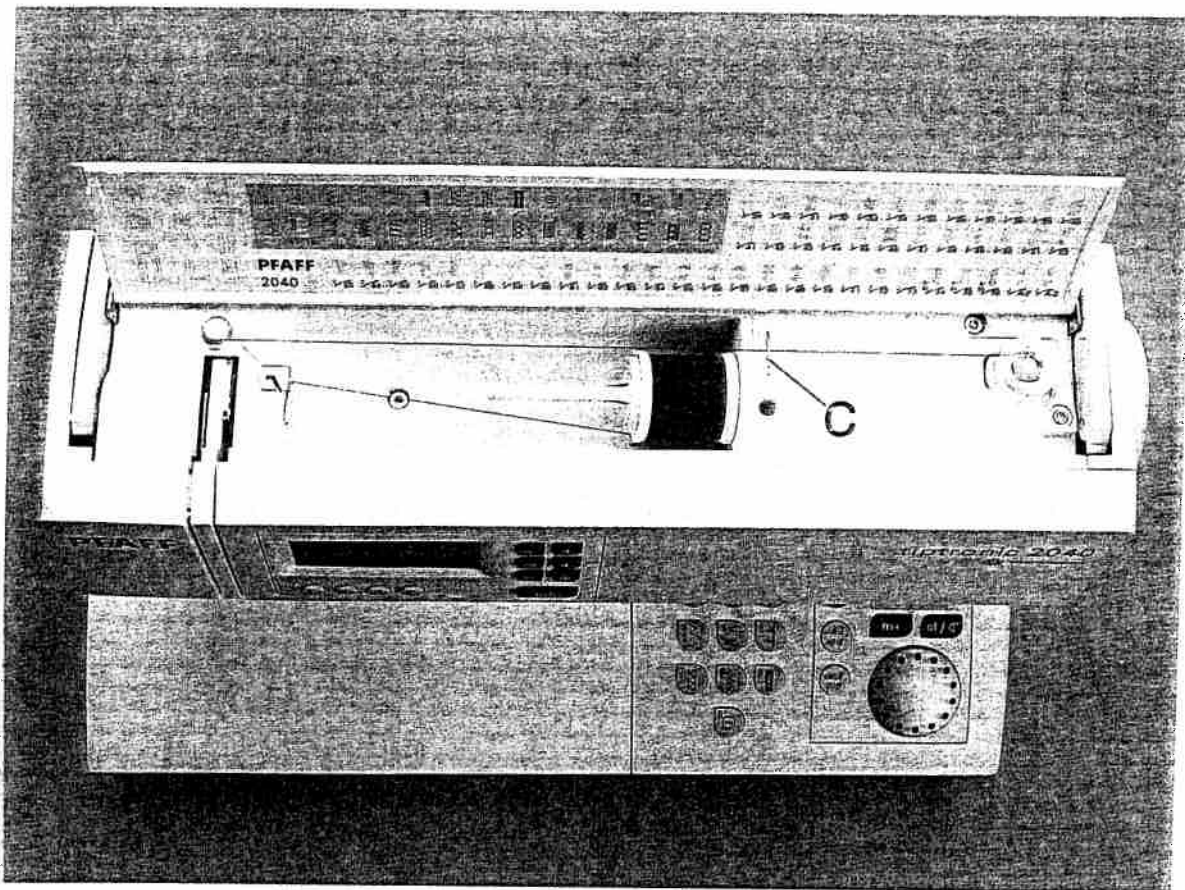


Preparing the machine for bobbin winding

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

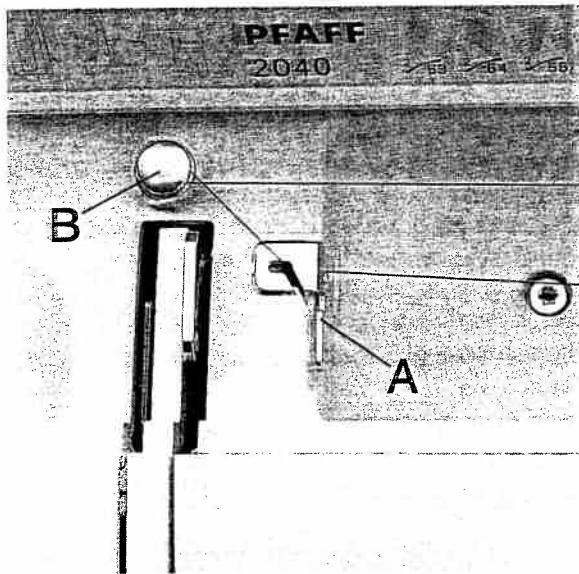
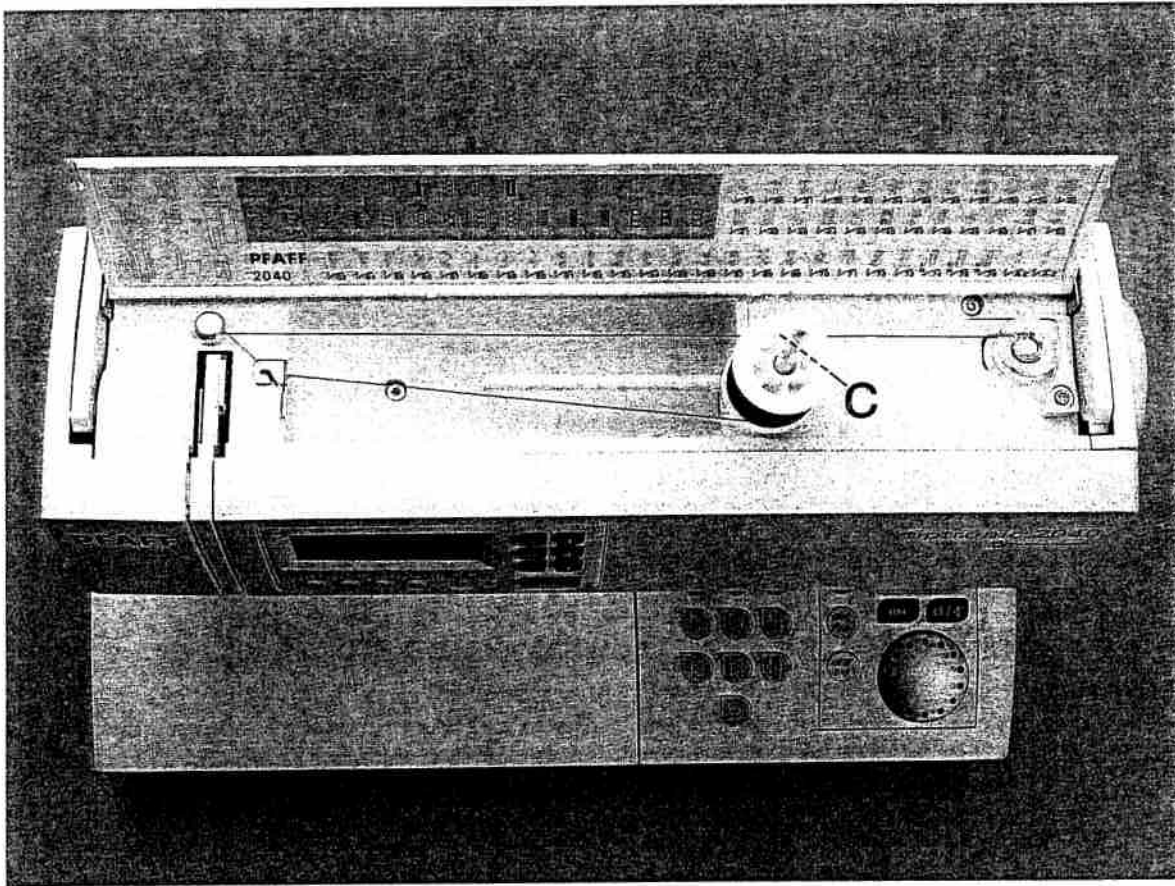
Place the sewing thread on the spool holder. To obtain free movement of the thread and hold the thread spool firmly, fit an unwinding disk of the right size for the thread spool.

Threading

Place the thread into **guide A** from the front and pull it counterclockwise through the pretension **device B**. Pull the thread under the **thread guide C** (from back to front). Wind the start of the thread round 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

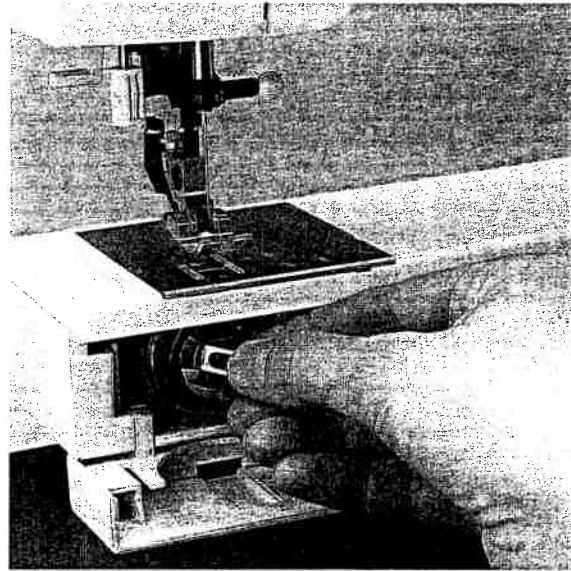
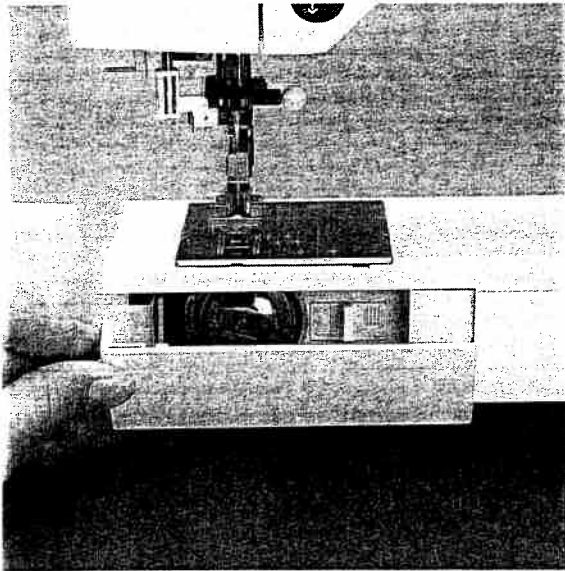
Insert the second spool holder in the hole provided.

Threading

Threading of the thread is carried out as in the case of the spool holder 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.



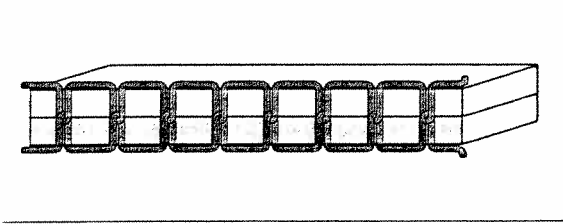
hook cover
switch off main switch

fold the hook cover (26) at the left side and swing it towards the front.

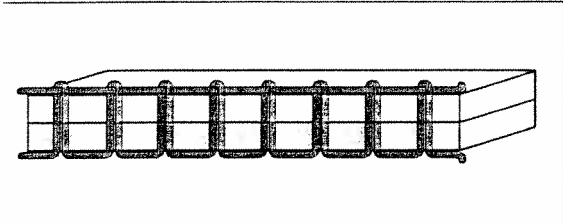
Taking out the bobbin case

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.

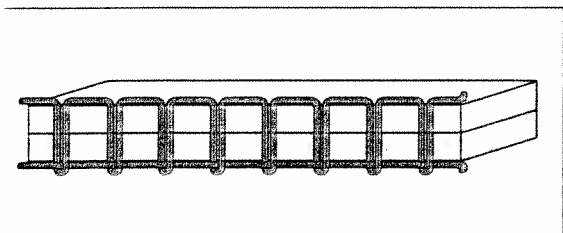
thread tension



To obtain a perfect seam appearance and durability make sure the needle and bobbin thread tensions are correctly adjusted with regard to each other, i.e. **the threads evenly interlace between the two fabric layers.**



The following is valid for general sewing work:
Thread interlace is visible on the top side of the fabric:
The needle thread tension is too tight or the bobbin thread tension is too loose.
The thread tension must be corrected.



Thread interlace is visible on the underside of the fabric:
The needle thread tension is too loose or the bobbin thread tension is too tight.
The thread tension must be corrected.
For decorative stitches and buttonholes the thread interlace 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.

Checking the bobbin thread tension:

Hold the bobbin case by the thread and move your hand sharply upwards. The bobbin case must slip downwards a little with each hand movement.

Correcting the tension:

Turn **adjusting screw C** just a little to the left to decrease the bobbin thread tension.

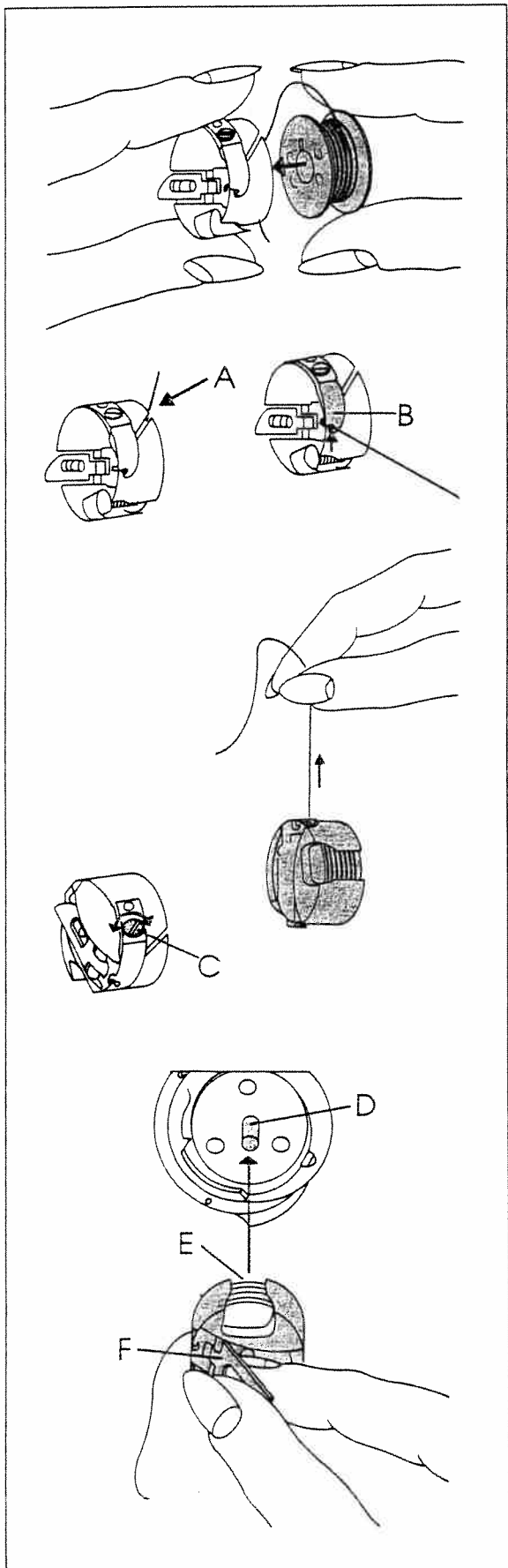
Turn the **adjusting screw C** just a little to the right to increase the bobbin thread tension.

Inserting the bobbin case

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

Check:

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



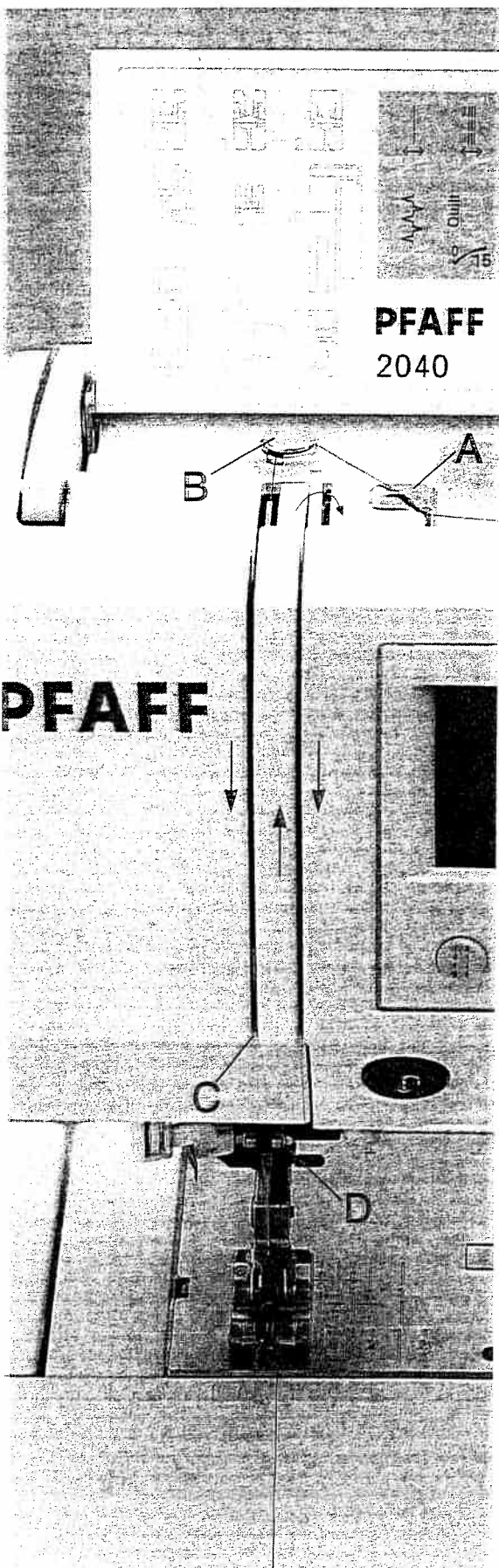
Threading the needle

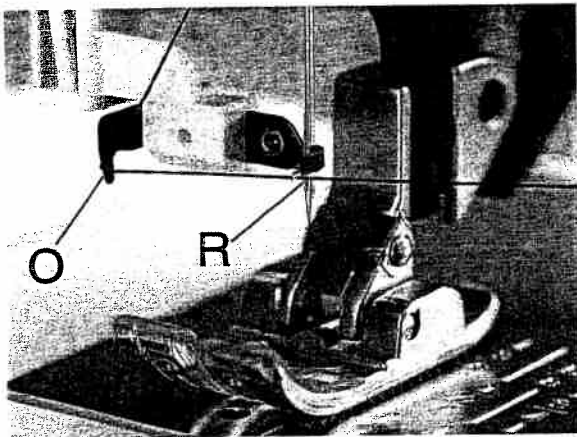
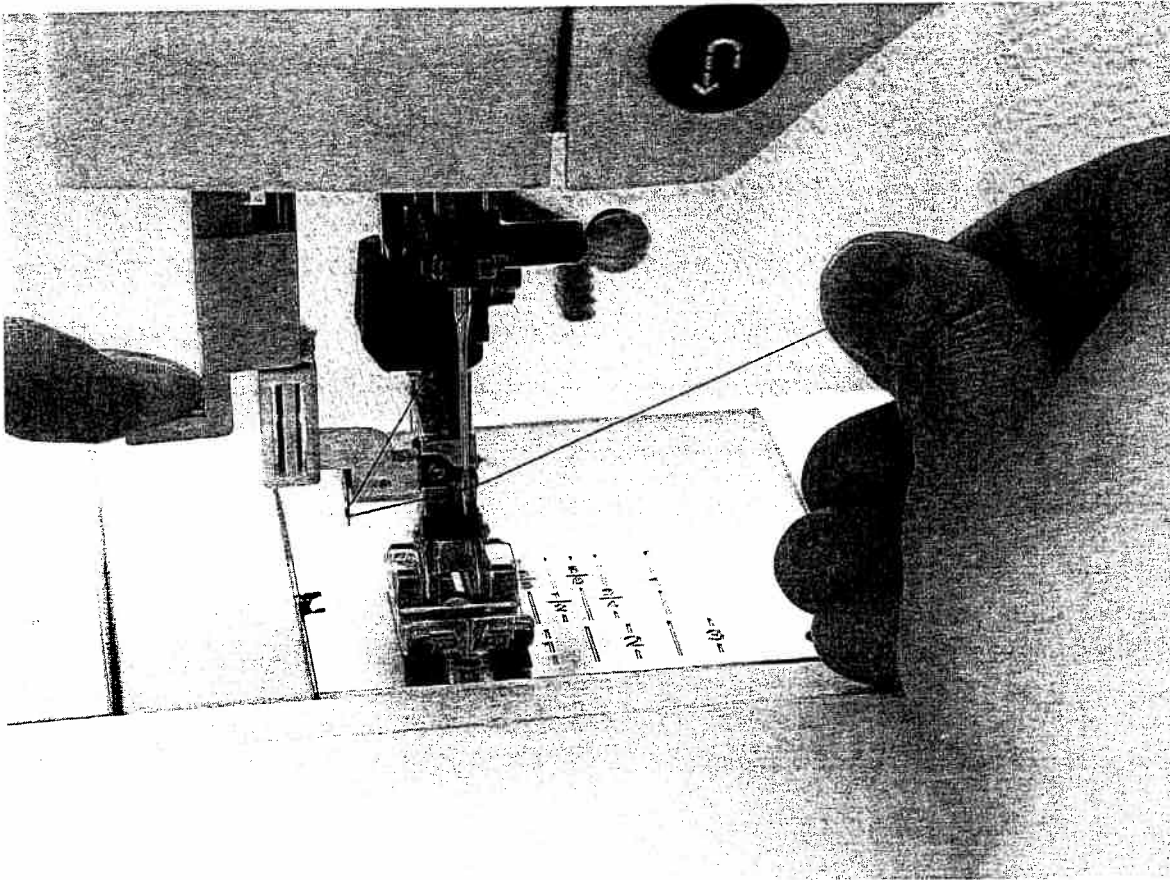
Switch off the master switch

Raise the presser foot lifter (51). Place the thread on the spool holder and fit an unwinding disk 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 hand-threading slot downwards. Pull the thread around the **stop C** in the right-hand 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**.

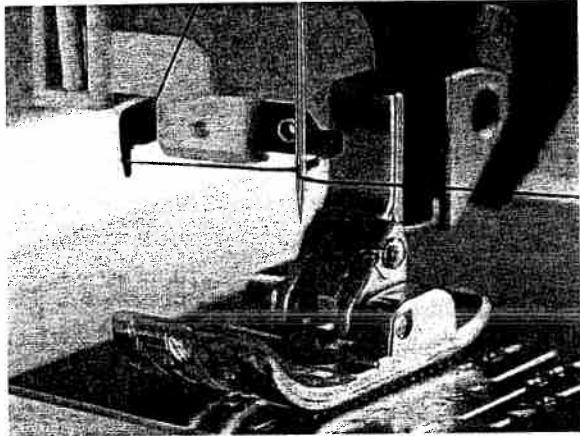
To thread the needle, please refer to the next page.

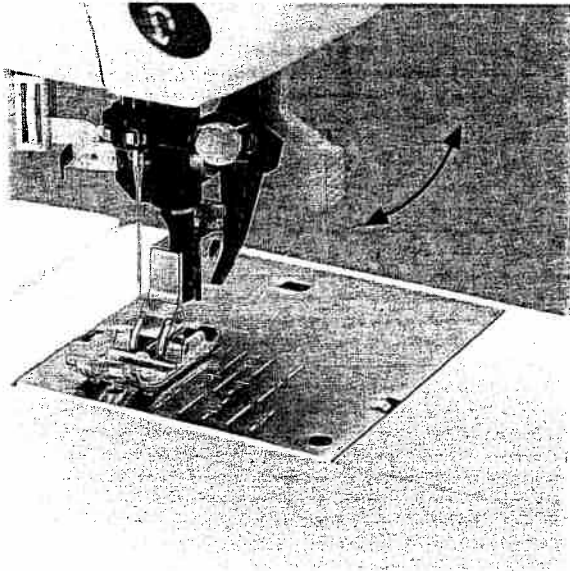




Needle threader

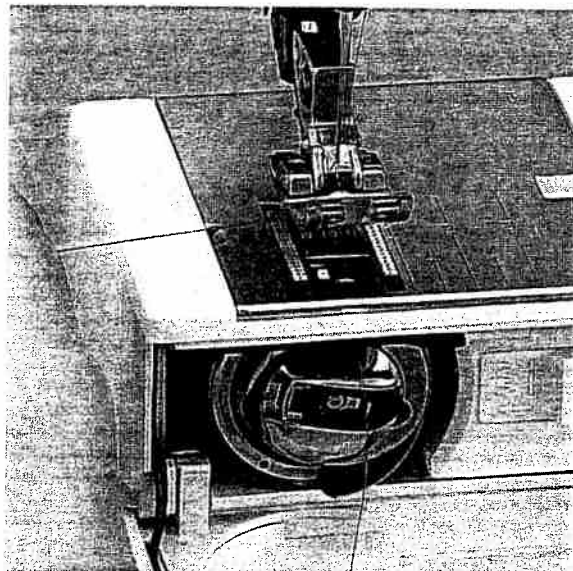
In order to make threading of the needle easier and quicker the PFAFF needle threader is provided. Lower the presser foot. Press the threader down with the handle. **Threader hook R** swivels through the needle eye. Place the thread over **hook O** and under the **thread hook R** and hold the end of 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 can form behind the needle. Release the threader and pull the rest of the thread end through the needle eye.





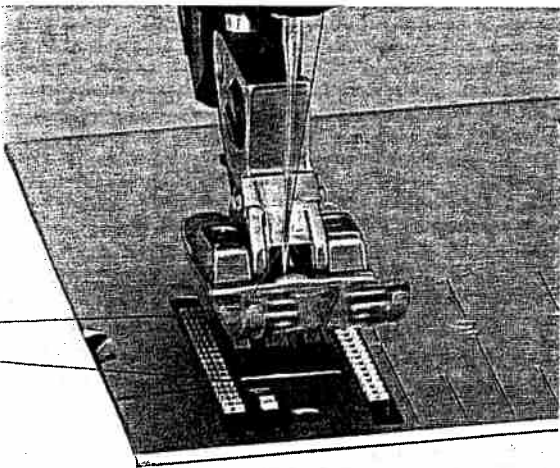
Presser foot lifter

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



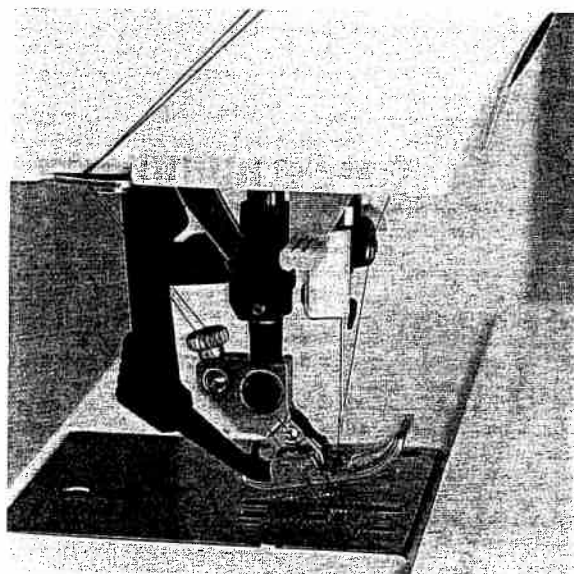
Drawing-up the bobbin thread

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.



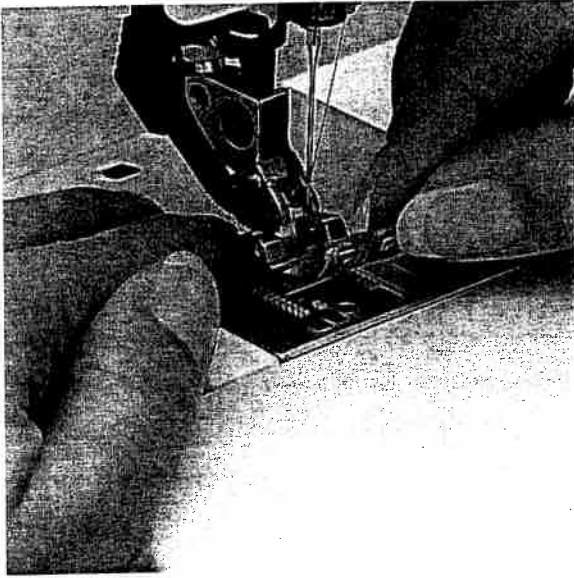
Bobbin thread

Remove the hook cover (46) and pull the thread under the presser foot to the left.



Thread cutter

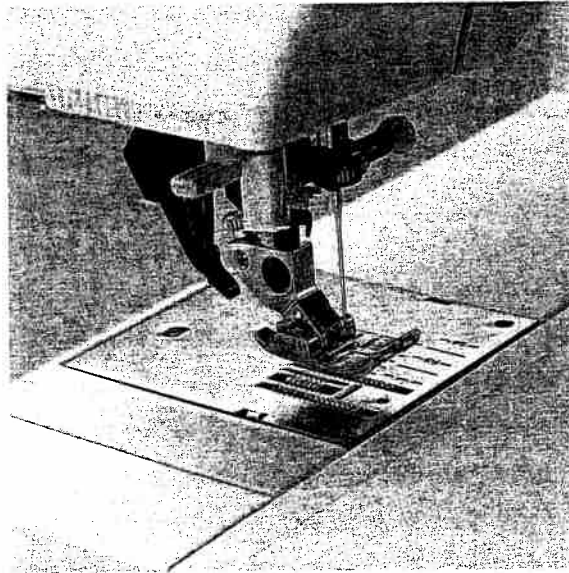
Pull the thread from the back to the front over the thread trimmer (49).



Removing the presser foot

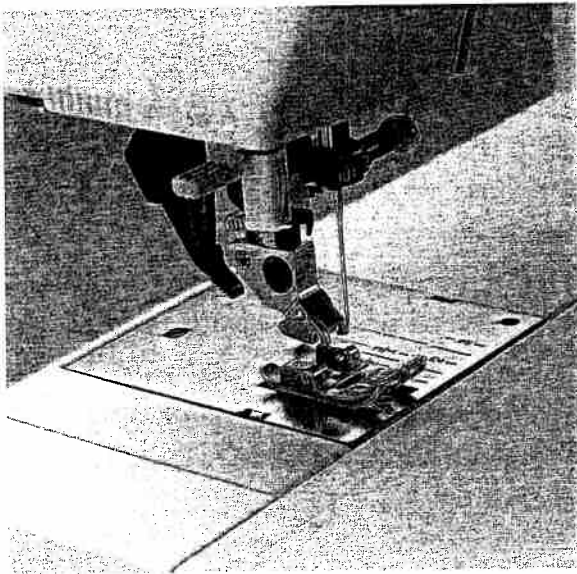
Switch off the master switch

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).



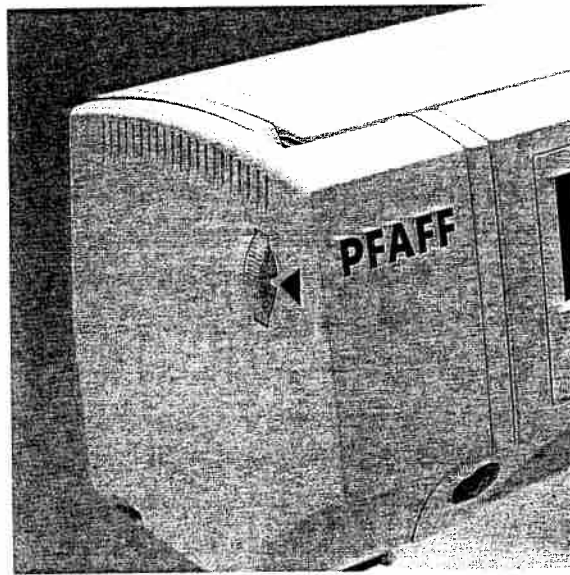
Attaching the presser foot

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:

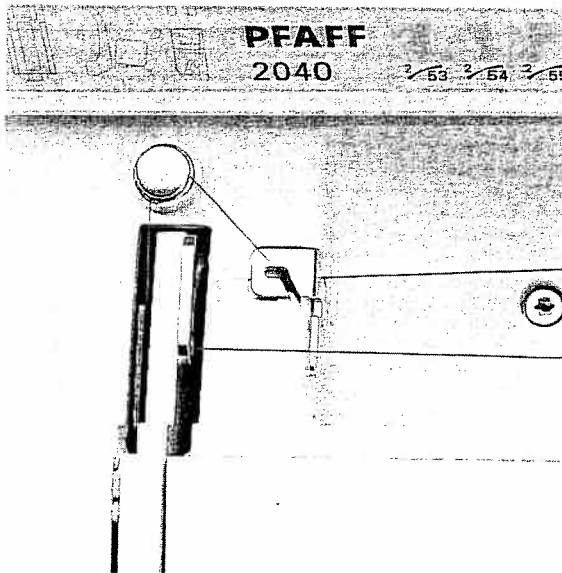
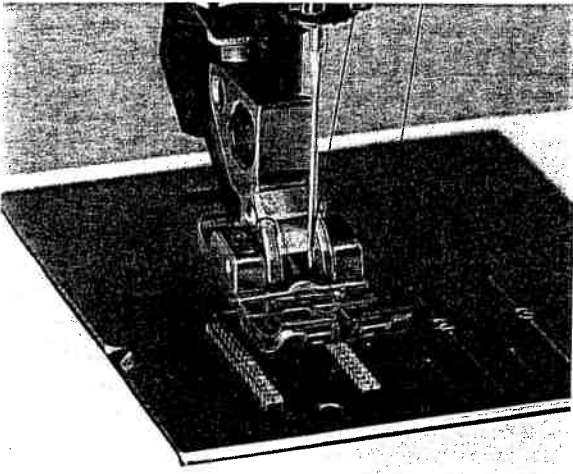
Please check that the presser foot is properly attached by raising the presser foot lifter.



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 3 - 5. For embroidery, darning and buttonhole sewing 3.

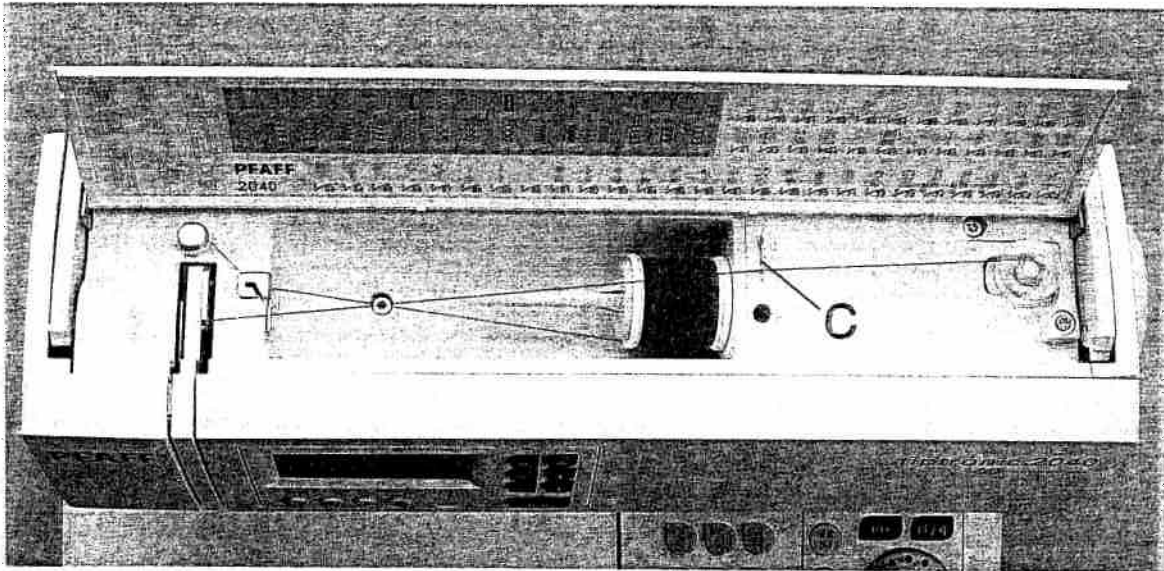


Winding a bobbin through the needle

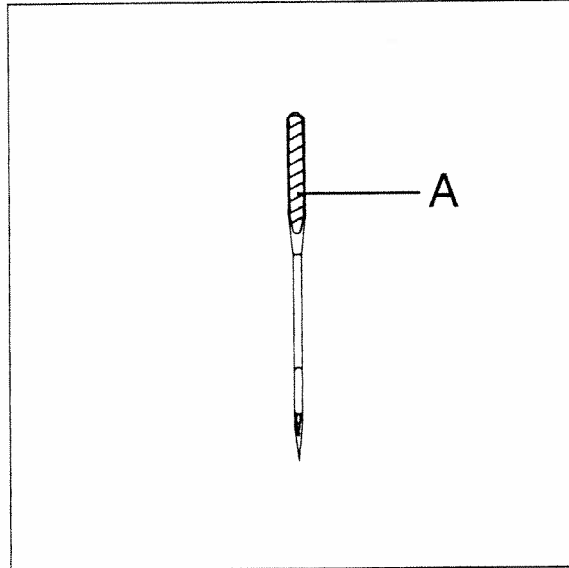
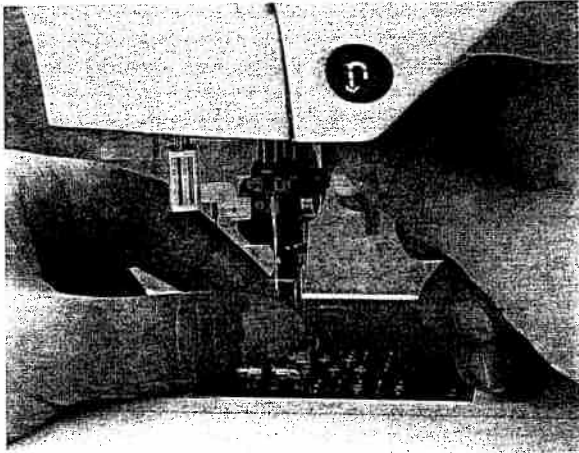
It is possible to wind bobbins even when the machine is fully threaded. Raise the presser foot lifter (51) to the top position. Pull the needle thread underneath the presser foot and upward through the right-hand threader slot (34).

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

Note: 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. Hold the end of the thread firmly and press the foot control.

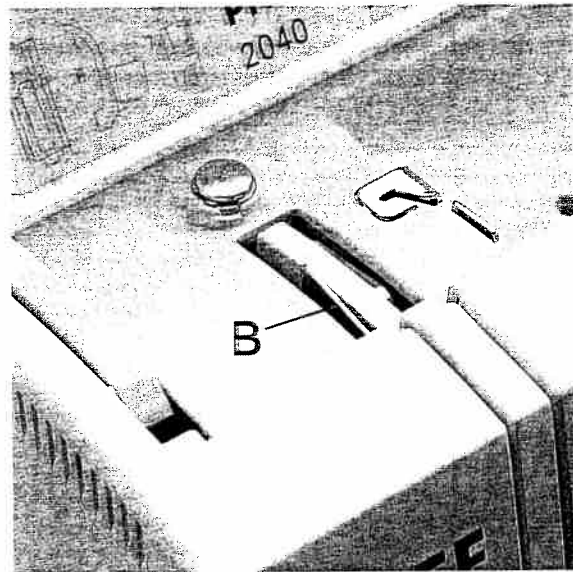
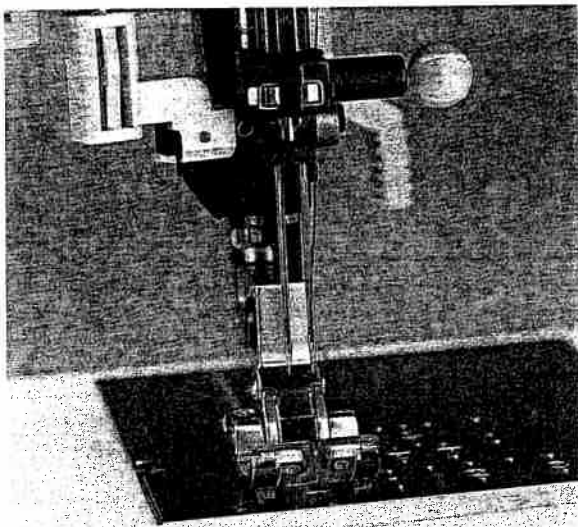


Changing the needle

Switch off the master switch

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

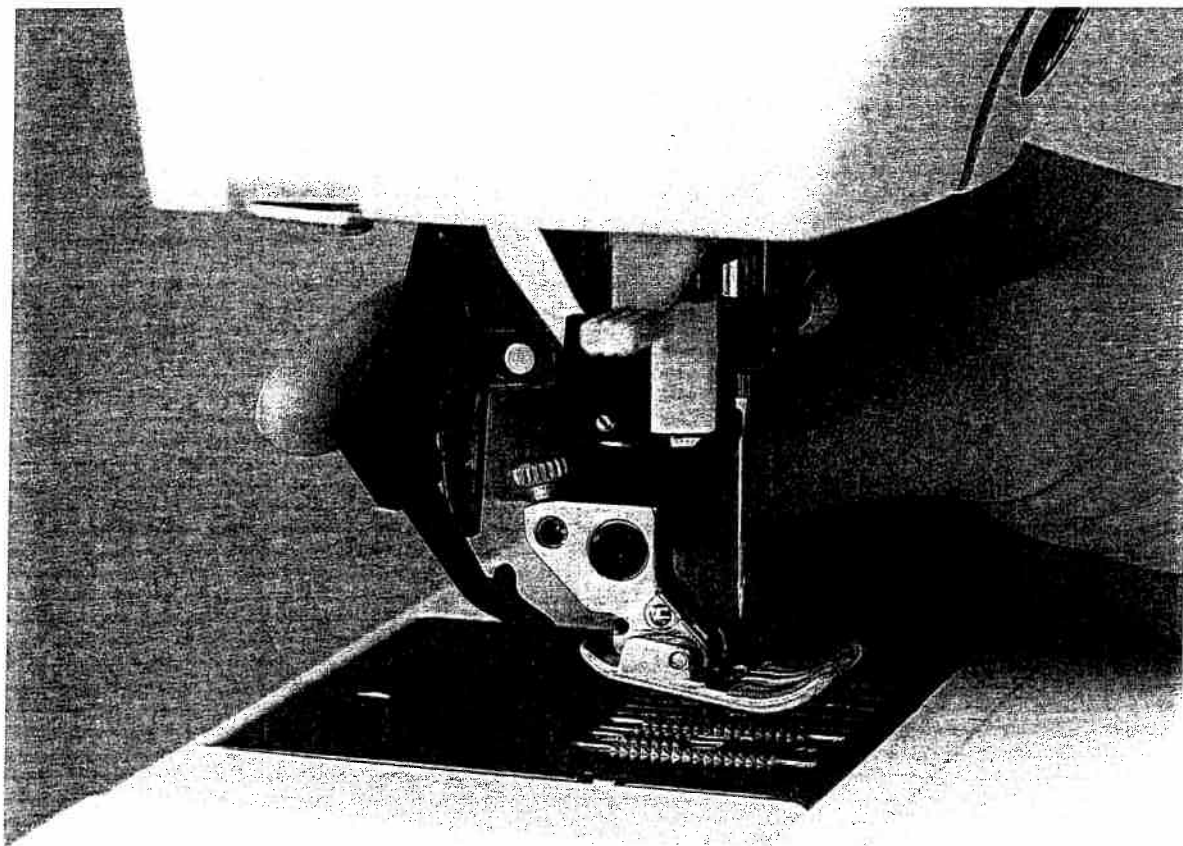
To insert: The **flat side A** of the needle must face to the rear. Lower the presser foot and insert the needle, pushing it up as far as it will go. Hold the needle and tighten the set screw (52) firmly.



Threading the twin needle:

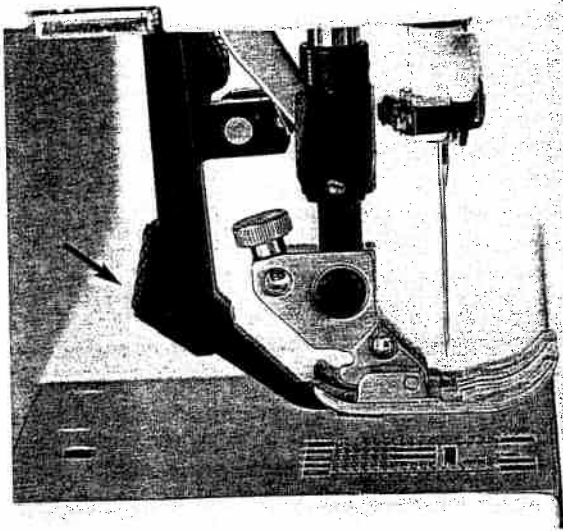
Replace the sewing needle with a twin needle. Insert the second spool holder and place one spool of thread on each of the spool holders. During threading in the left threading slot (34), make sure that you pass one thread each to the left and right sides of **tension disk B**. Continue threading in the 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 "Embroidering with the twin needle").

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



The IDF System/Integrated Dual Feed (top feed)

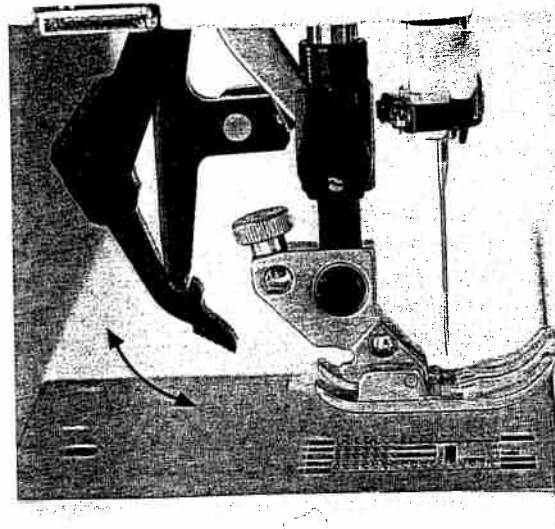
For sewing difficult materials PFAFF provides the ideal solution: the Integrated Dual Feed, IDF system. As on industrial machines, the IDF feeds the fabric from the top and bottom at the same time. The material is fed precisely. On light or difficult fabrics such as silk or rayon the dual fabric feed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



Engaging the top feed/IDF

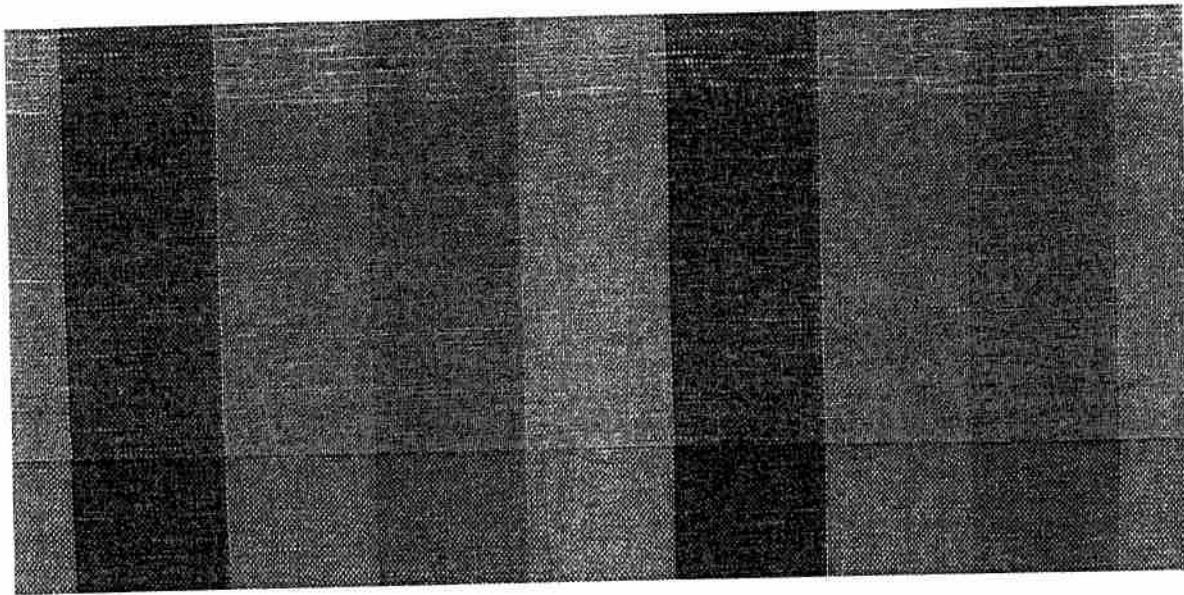
Important: For all work with the Dual Feed (IDF), use the presser feet with the center back cut-out.

Raise the presser foot. Press the top feed (31) downwards until it engages.

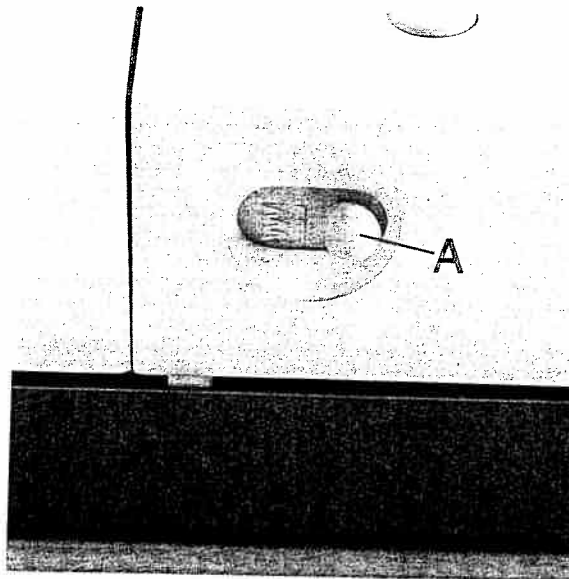
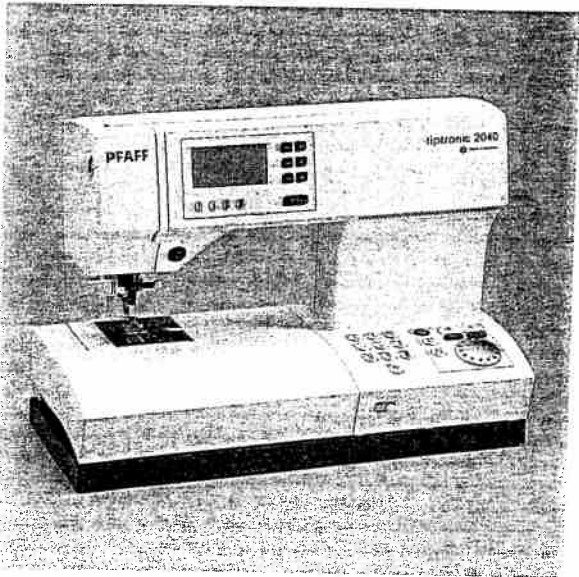


Disengaging the top feed/IDF

Hold the Dual Feed with two fingers at the marked points. Press the top feed (31) downwards a little, then pull it away from you and release the IDF slowly upward (see also fig. on page 32).



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

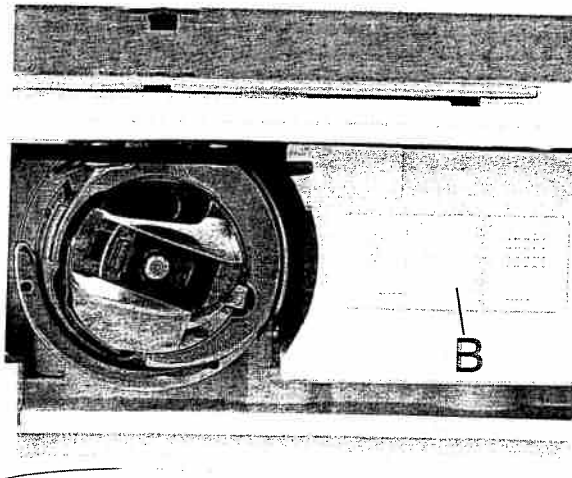
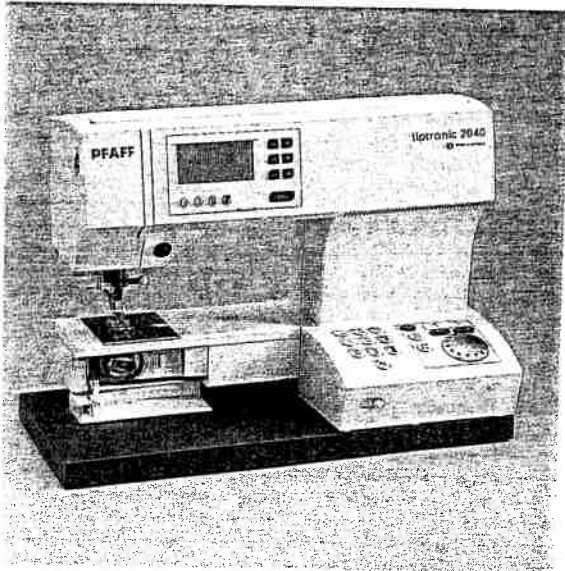


Lowering the feed dog

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.



You can also lower the feed dog by opening the hook cover and moving **slide B** to the right.

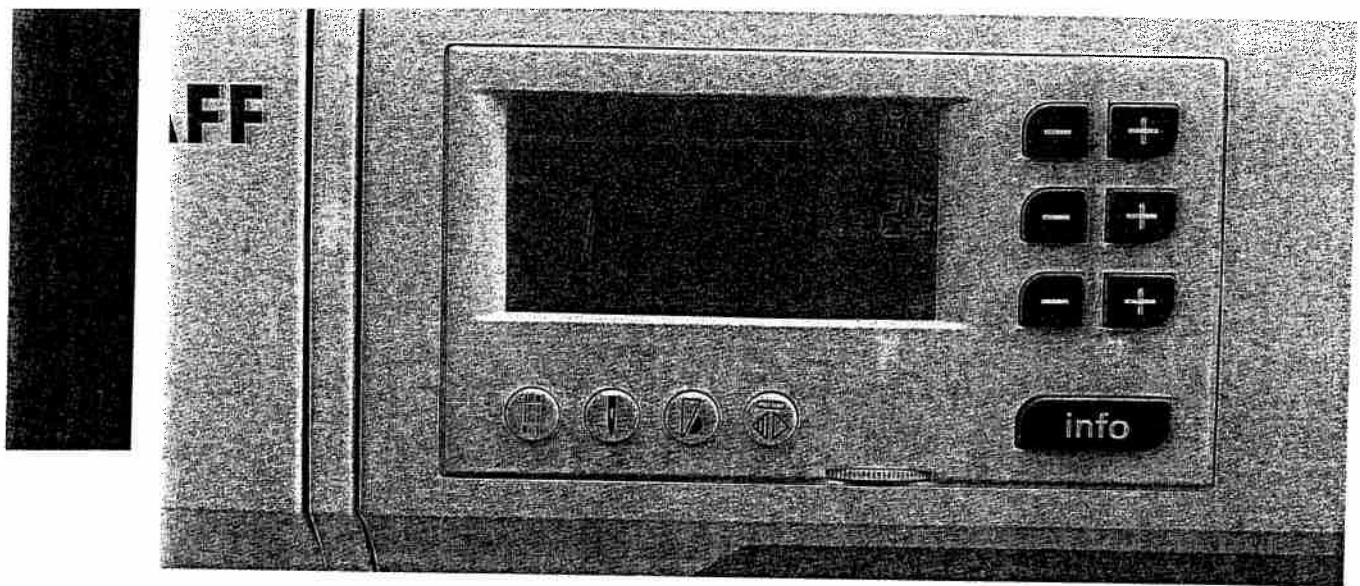
To engage the feed dog move the slide to the left.

Sewing
junctions

Sewing junctions
Page 37 - 49

Contents

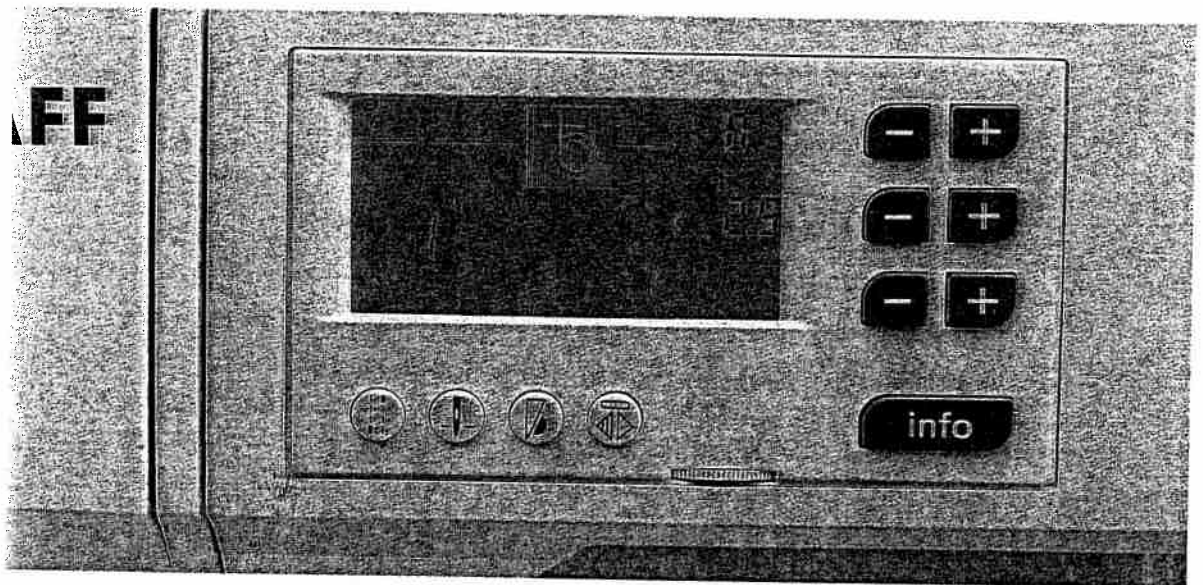
Adjusting the contrast on the display	Page 38
Bobbin thread monitor (model 2040)	Page 38
Selecting the sewing programs	Page 39
Altering pattern sizes	Page 40
Altering the stitch width/needle position	Page 41
Altering the pattern width/stitch length	Page 42
Altering the pattern length/stitch density	Page 43
Balance	Page 44
Info key/reverse sewing key	Page 45
Sewing function keys	Page 46
Twin needle	Page 47
Formation of the stitch patterns	Page 48/49



Adjusting the contrast on the display

The contrast setting on the display may change after long use or due to the machine being transported.

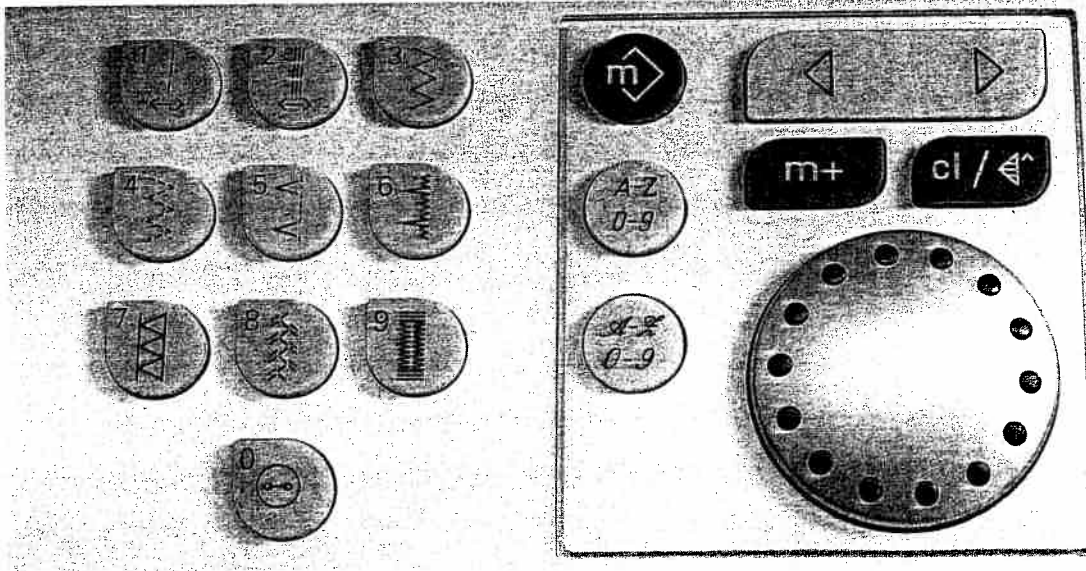
This setting can be readjusted with the contrast regulator (54).



Bobbin thread monitor (model 2040)

If the bobbin is nearing its end [2 1/4 yd (2 m) 3 1/4 yd (3 m)] or there is no thread on the bobbin, the bobbin symbol appears on the display.

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



Selection of the sewing programs

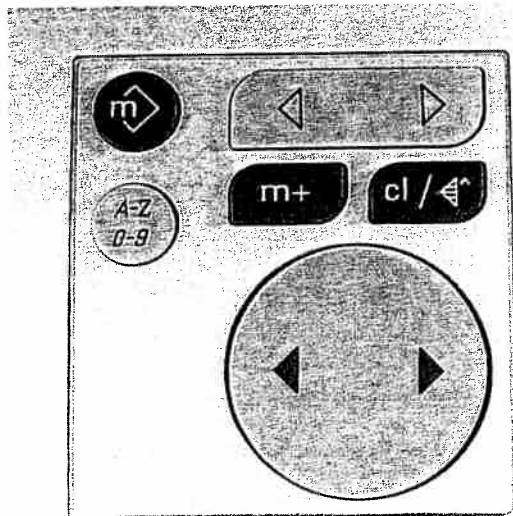
There are three ways of selecting your desired sewing program:

1. With the selection knob (selection key, model 2030): for scrolling backward and forward in the sewing programs.

Clockwise = in ascending order

Counterclockwise = in descending order

If you are in the last program, **No. 76** (No. 61 in the case of model 2030), and continue to scroll you will return to program **No. 0**.



2. With the direct selection keys for instant selection of the most commonly used programs (0 - 9) and for the selection of the alphabet programs.

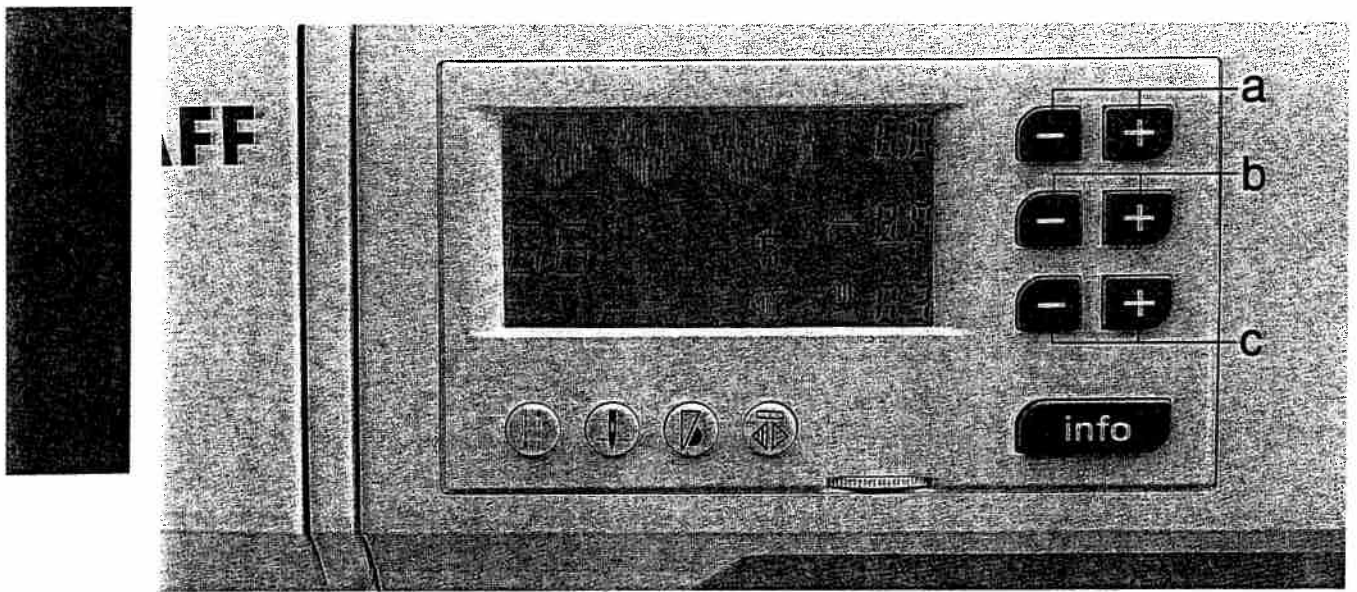
3. With the direct selection keys to the numerical program selection:

i. e. If you wish to select program **No. 23**, press key 2 then press key 3. The input program number appears on the display.

Model 2030: Program selection key




› in ascending order

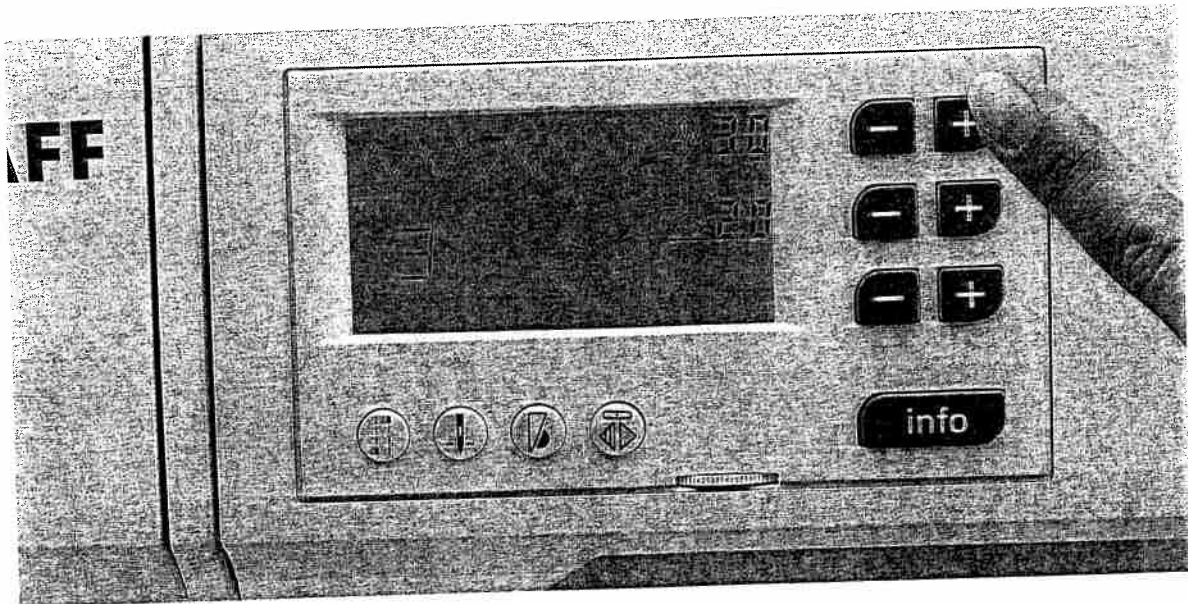
« in descending order



Altering pattern sizes

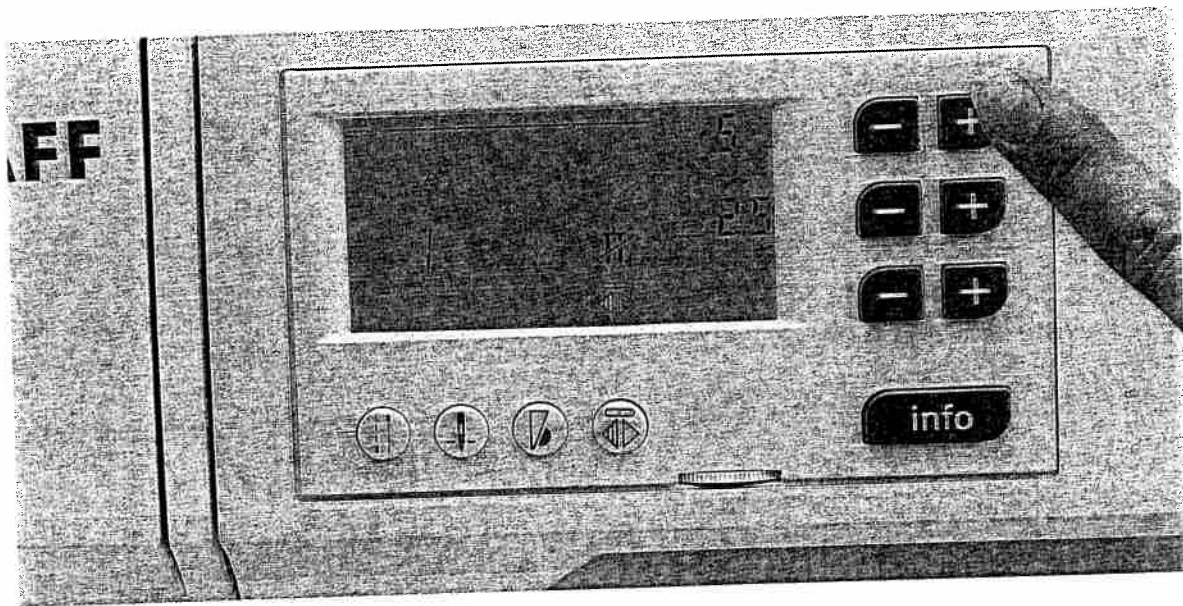
With key pairs **a**, **b** and **c** (located to the right of the display) you can change the stitch and/or pattern width and/or pattern length, change the density or the balance of a selected pattern, and select the needle position for straight stitches. Each change is visible on the display.

	To change:	Use key pair:
	Stitch width Pattern width Needle position for straight stitches	a
	Stitch length Pattern length	b
	Stitch density Pattern density Balance	c



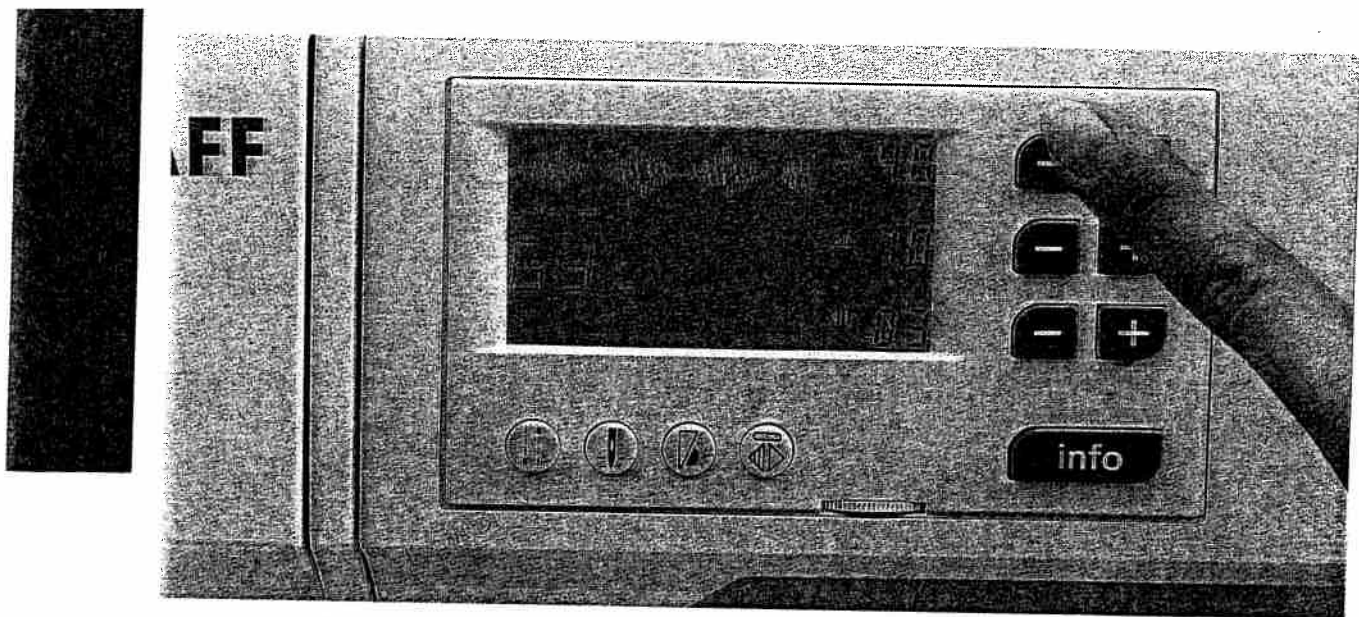
Altering the stitch width

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



Altering the needle position

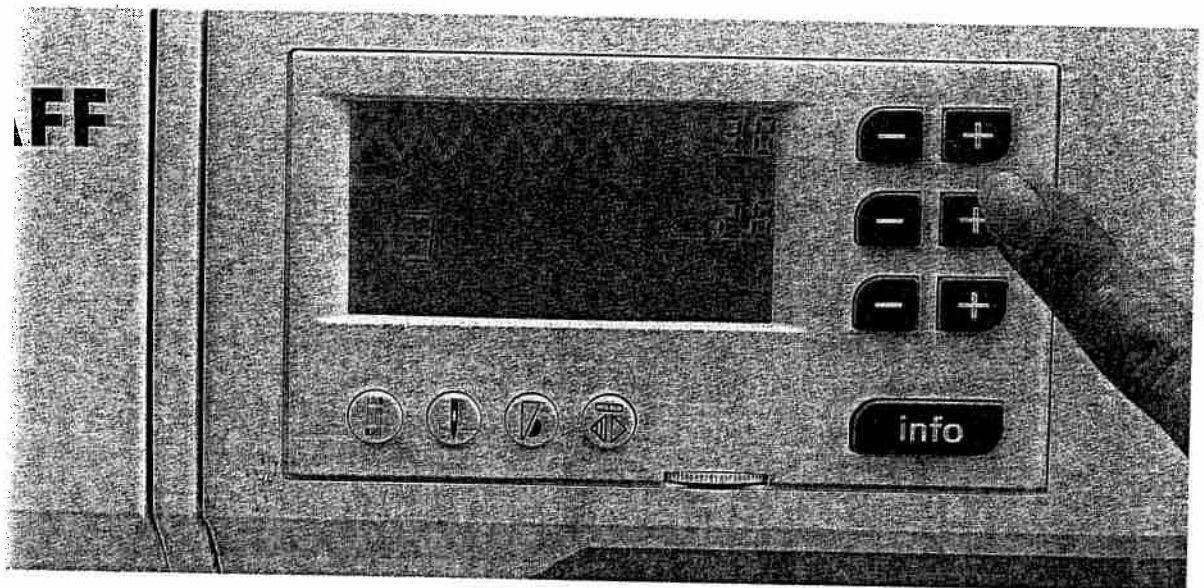
Straight stitch No. 1, stitch No. 2 and stitch No. 11 can be sewn in any of 13 different needle positions by pressing key pair a to move the needle to left or right of center.



Altering the pattern width

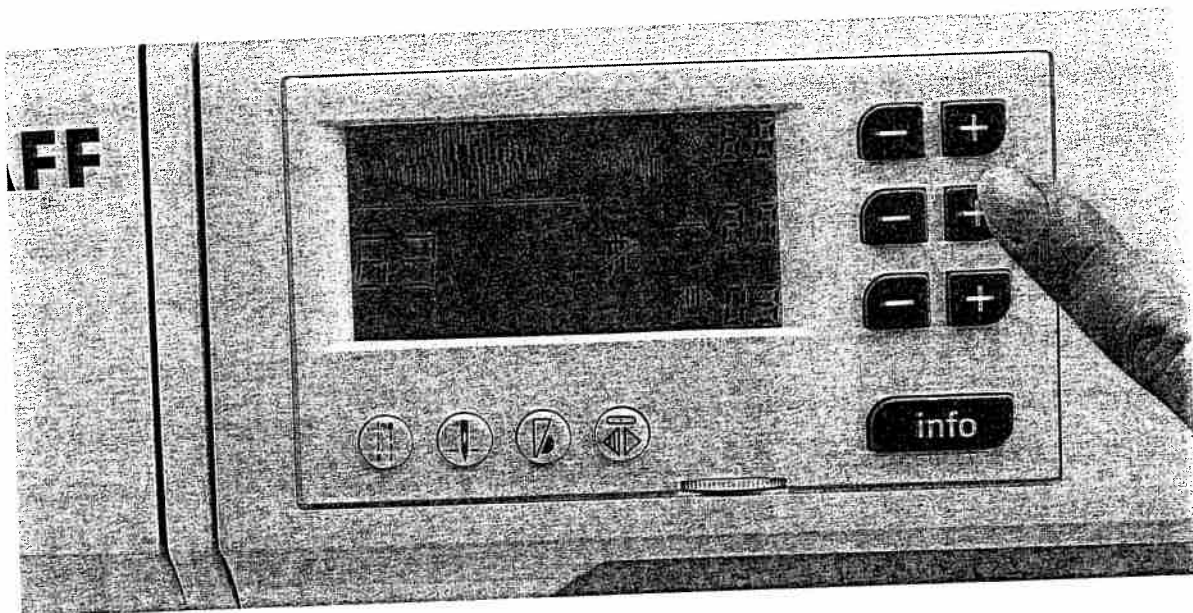
e.g. **Program 63 (Program 56 on model 2030).**

For decorative stitches, the overall width of the pattern is shown on the display. When entered, program 63 comes up in a standard width and can be altered using key pair **a**.



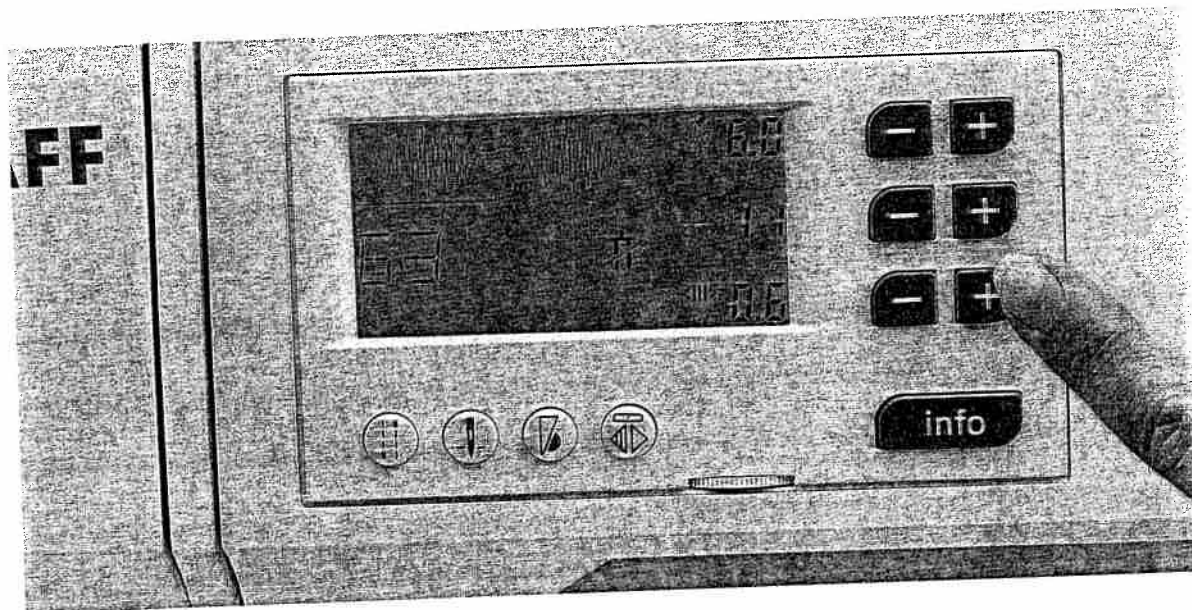
Altering the stitch length

The stitch length of a program can be altered using key pair **b**.



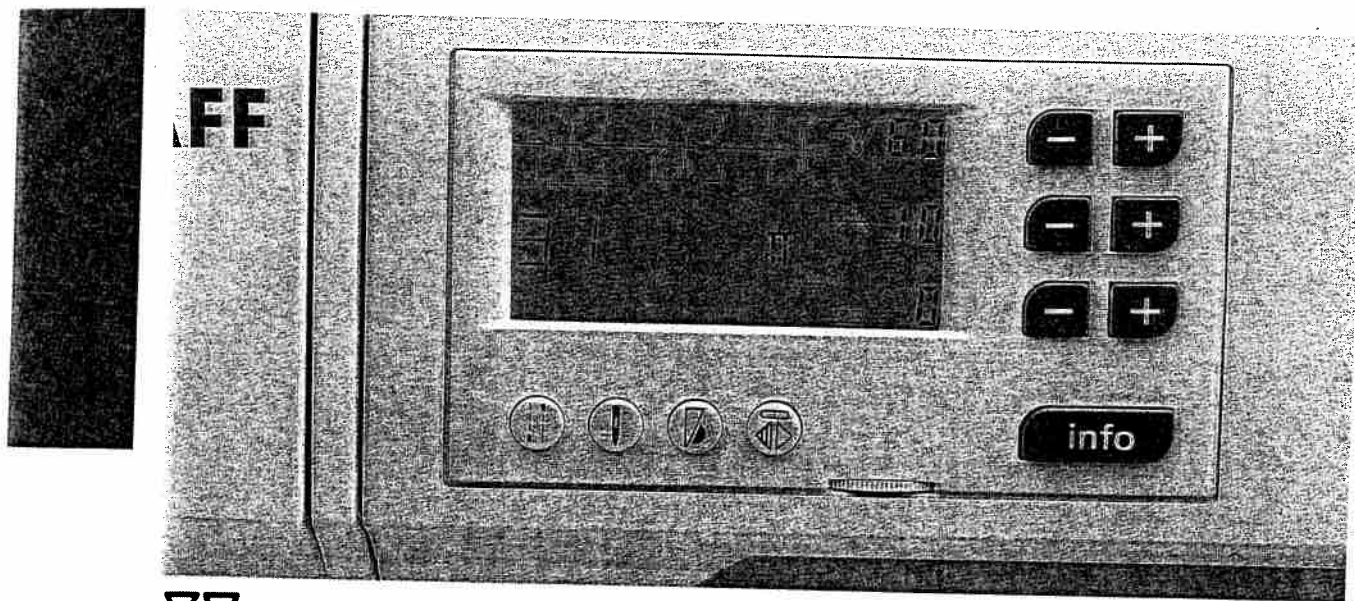
Altering the pattern length

The pattern length of decorative patterns can be altered using key pair b.



Altering the stitch density

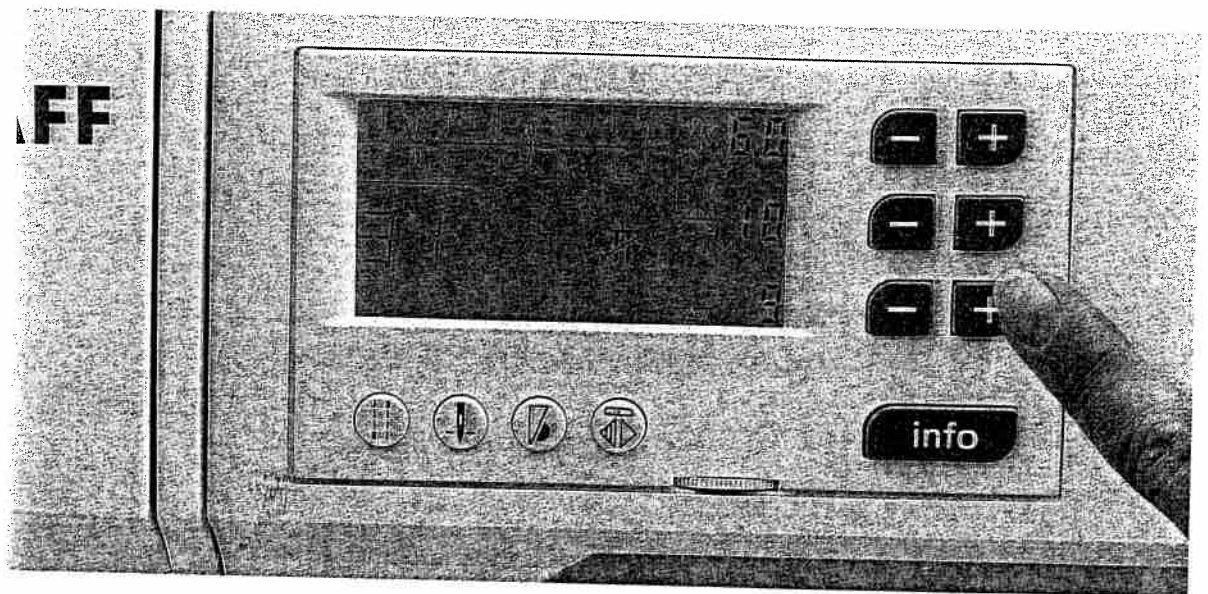
With various stitch programs such as buttonhole, satin stitches, etc. the stitch density of the pattern can be altered. The pattern length will remain constant, but the pattern will be embroidered more densely or less densely.



Balance

Embroidery patterns can vary on different fabric types - heavy material is fed differently than fine silk. Your tiptronic has a correction system that allows you to sew optimum embroidery stitches: the balance. With this system the reverse feed of a pattern can be adjusted.

To close up or stretch out a pattern, use the balance to alter the reverse feed. After having selected a pattern, you will see a symbol with a "0" after it at the bottom right-hand corner of the display. This symbol indicates that the balance can be altered on this stitch program.

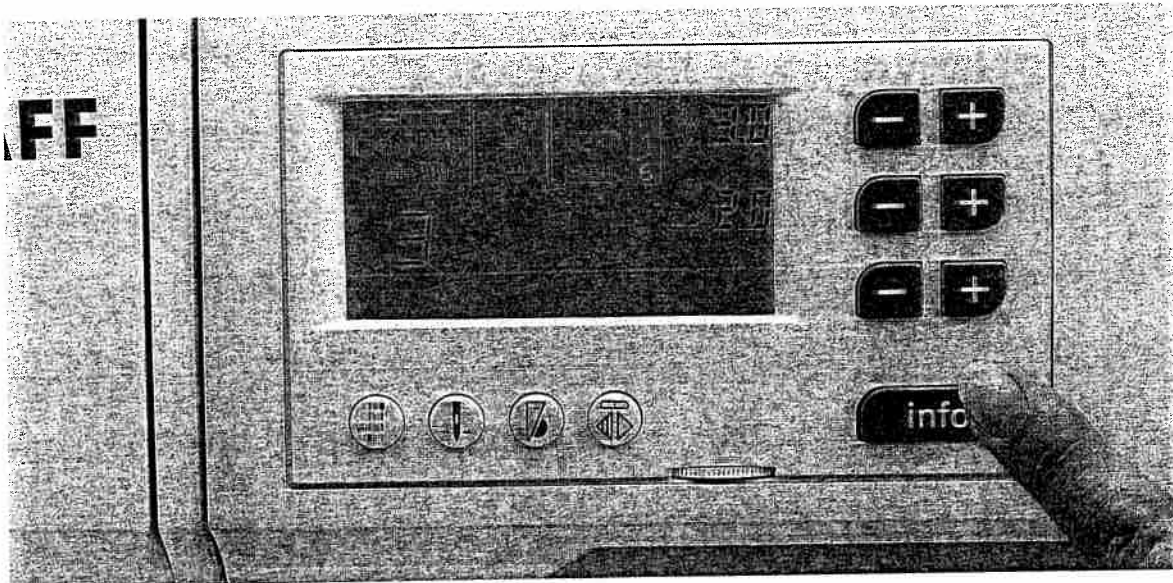


The standard setting of the balance is "0".

With key pair **c** you can change the reverse feed of the machine from -9 to (+)9. A number (with or without preceding sign) indicates the value set.

In the minus range the patterns or programs are sewn shorter and thus the overall length will be sewn shorter.

In the plus range the patterns are sewn longer and thus longer or stretched out.



Info key

The info key is below the key pairs **a - c**.
By pressing this key, you can receive information about the selected stitch program.

Symbols in the info menu:

Needle recommendation

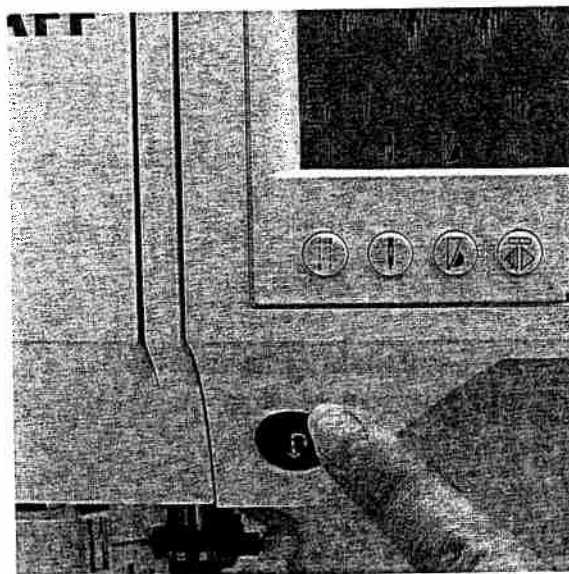
Needle thread tension

Top feed engaged

Top feed disengaged

Feed dog lowered

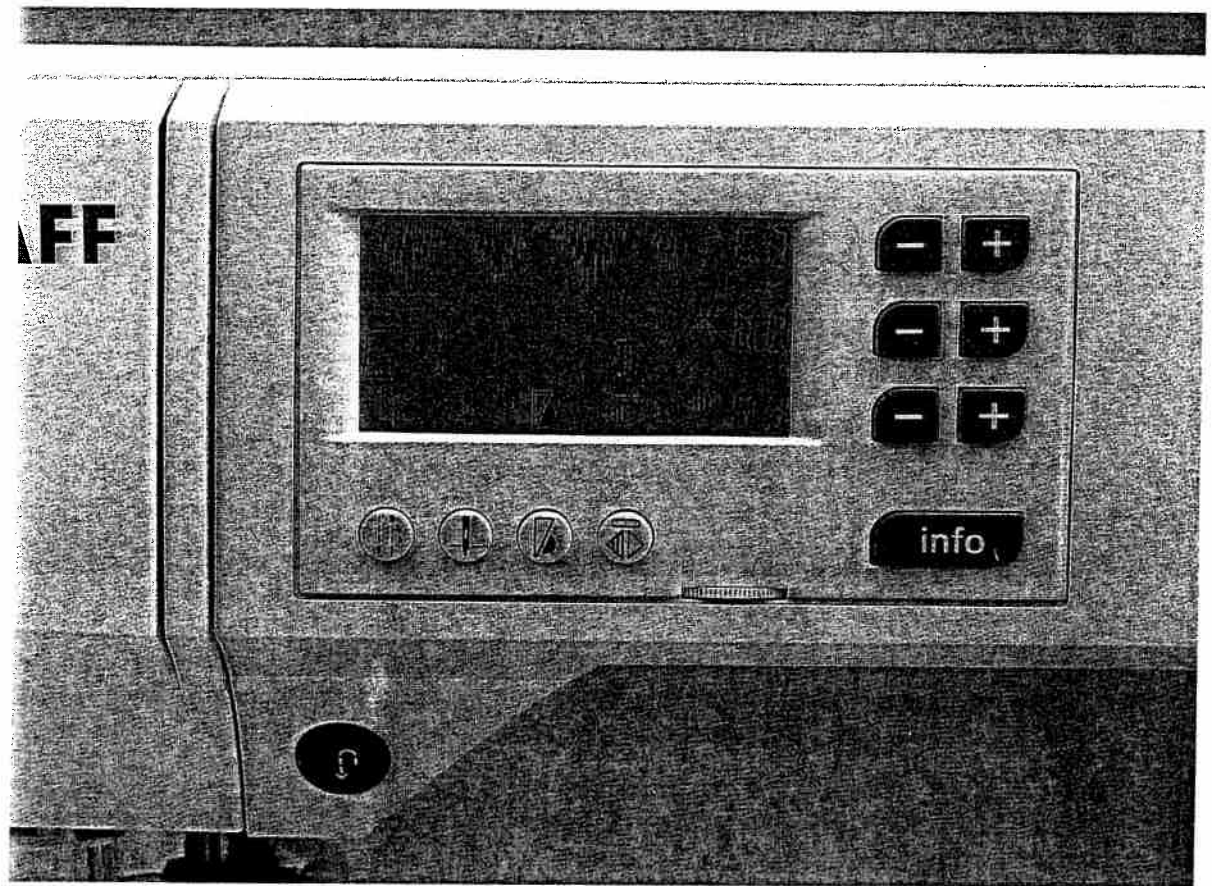
Page number of the info menu



Reverse sewing

This key has the following functions:

- when pressed, will reverse sew
- manual finish of a buttonhole
- programming the buttonhole
- determines the length of the darning program (model 2040)
- sewing on lace while tapering automatically (see page 126 on)



Sewing function keys

There are four sewing function keys below the display. With these keys you can choose between **"tie-off"** at the beginning and/or the end, setting **"needle raised/lowered"**, **"slow sewing"** and **"pattern mirror"**.

Tie-off key (36)

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

"Needle raised/lowered" key (37)

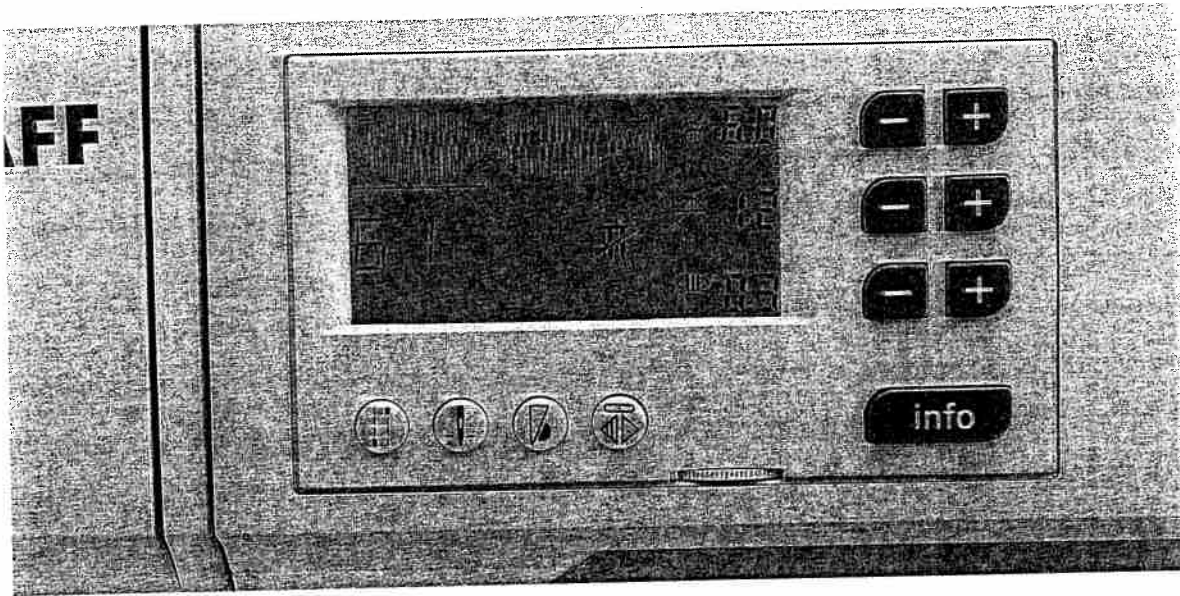
You can determine whether the needle should be in its highest position or in the fabric when you stop sewing. The symbol appears above the key on the display when the needle is lowered and disappears when the key is pressed again.

"Slow sewing" key (38)

By pressing the **"slow sewing"** key the speed of the machine is reduced by half. The symbol appears on the display and disappears when the key is pressed again.

"Pattern mirror" key (39)

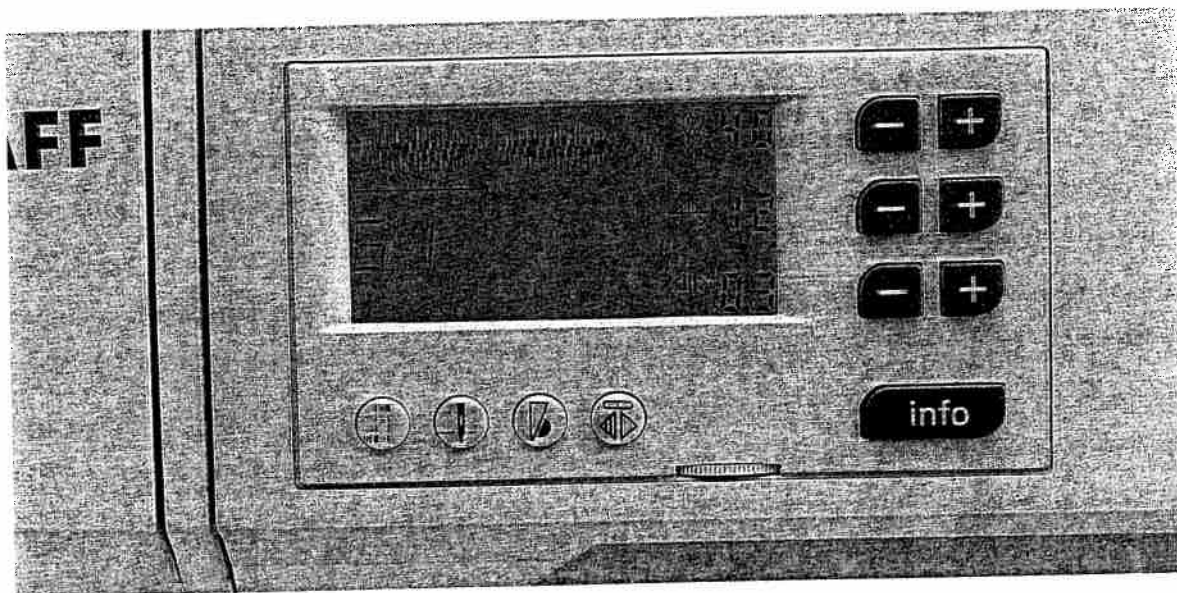
This symbol will appear on the display for all patterns that can be sewn inverted, i.e. mirrored. When the **"pattern mirror"** key has been pressed, a point will appear below the symbol indicating the pattern will be mirrored.

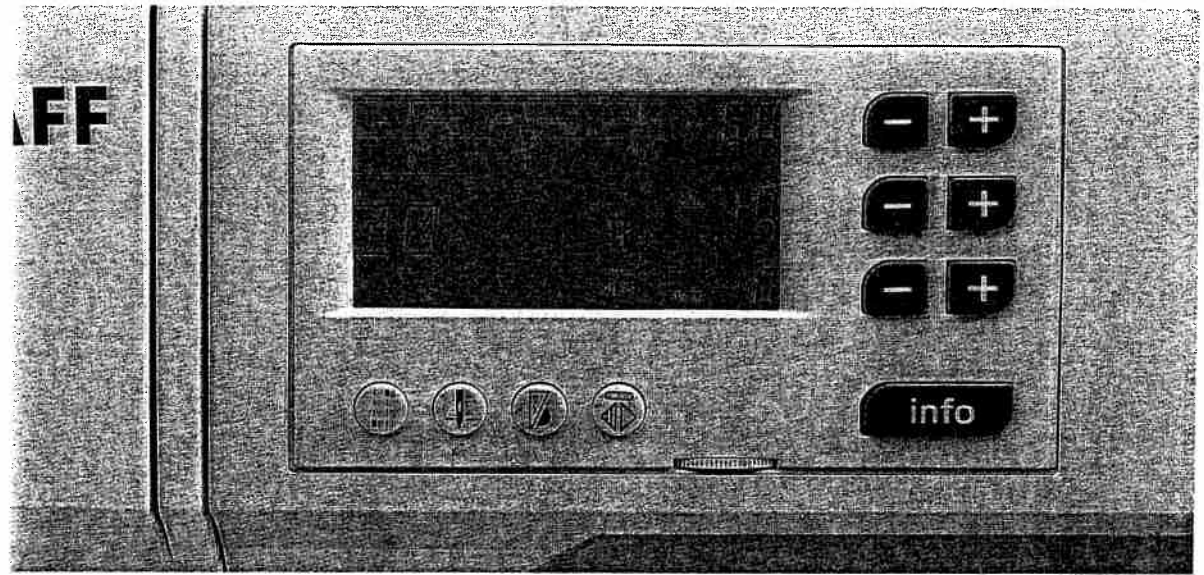


Twin needle

Depending on the needle position or the width of a pattern, this warning symbol may appear on the display. This symbol indicates that a twin needle **cannot** be used to sew the program at the currently set width.

Reduce the pattern width until the warning symbol disappears. You may now insert a twin needle with a distance between the needles of no more than 2 mm and safely sew the selected pattern.



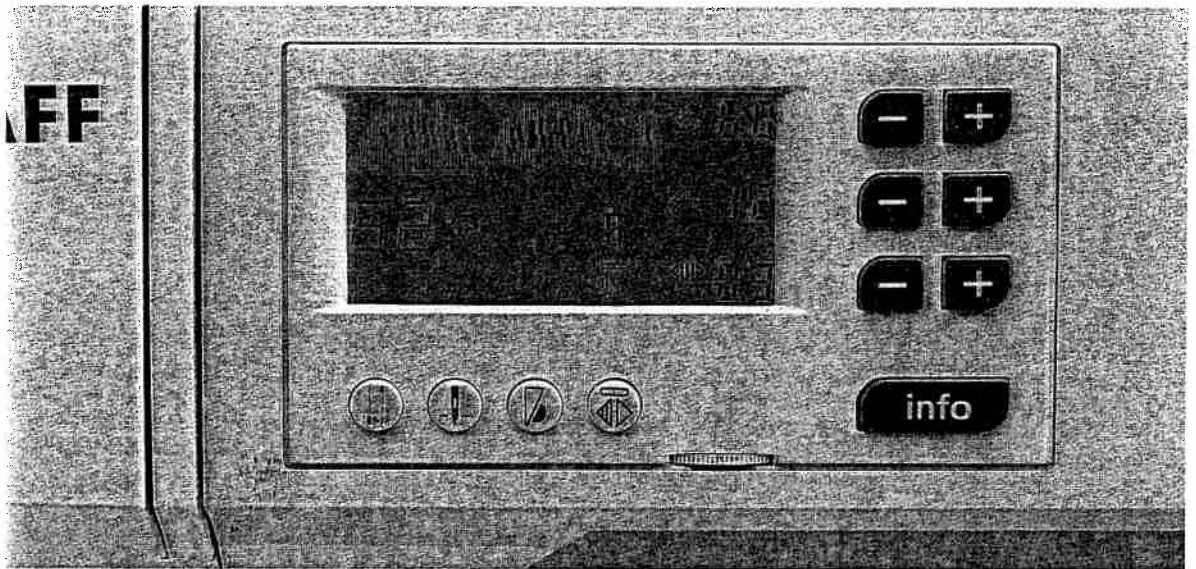


Formation of the stitch patterns

The stitch pattern formation varies.



Some patterns are formed from the left, i.e. when the stitch width is changed only the outside right piercing point of the needle changes. The left-hand piercing point is always retained.

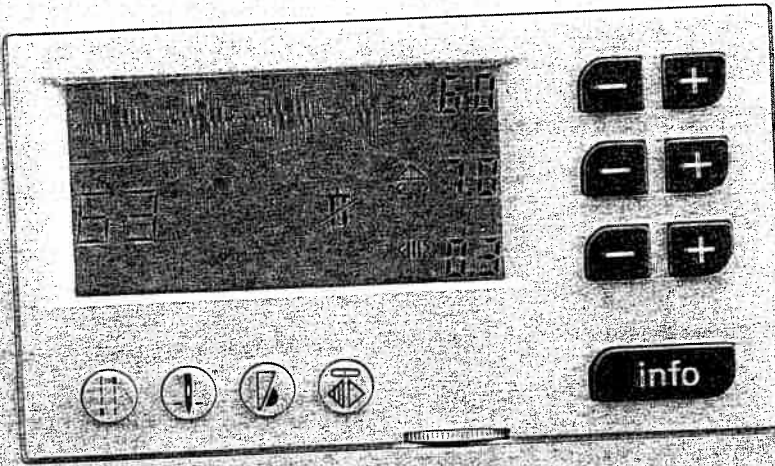


The patterns that are formed from the right will always retain the right-hand needle entry position, regardless of any changes in width.

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 display lights up (see **page 47**).

FF



Patterns that are formed from the center will change equally from the right and the left when they are widened/narrowed.

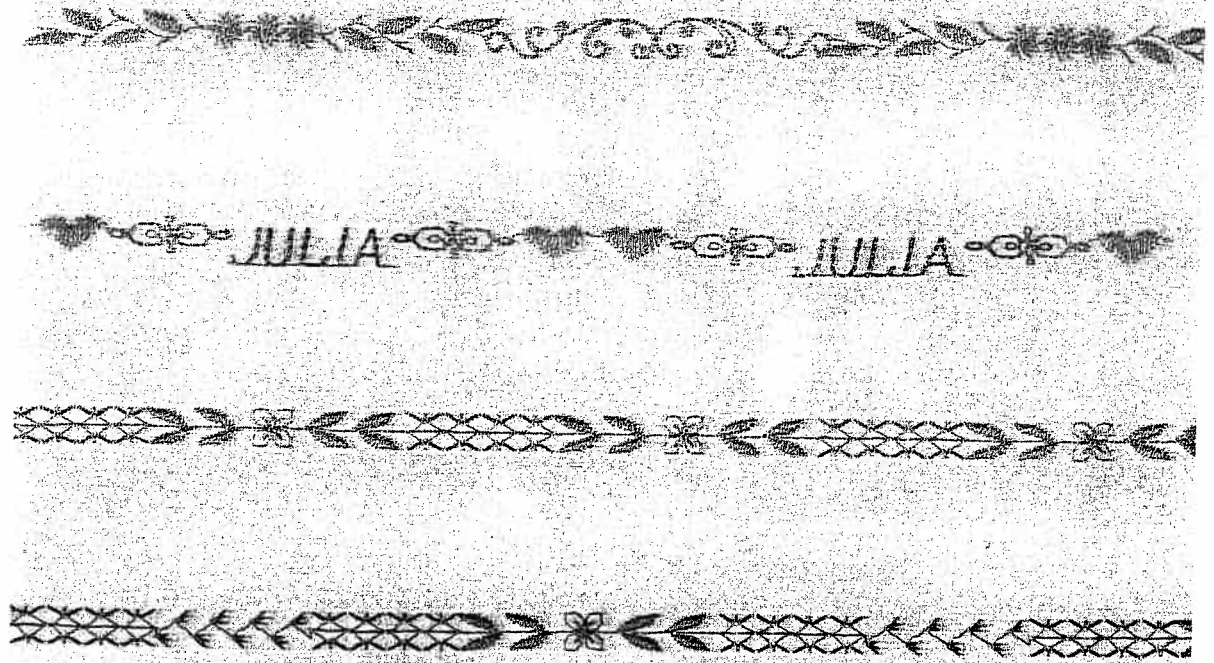
Pattern combinations

Page: 53 – 60

Pattern
combinations

Contents

Pattern combinations	Page 54
Keys for the pattern sequence	Page 55
Storing patterns	Page 55 - 57
Deleting from the pattern sequence	Page 57
Subsequent inserting into the pattern sequence	Page 58
Deleting a pattern sequence	Page 59
Deleting all M-memories	Page 59
Changing a pattern within the pattern sequence	Page 60
"Pattern beginning" function	Page 60

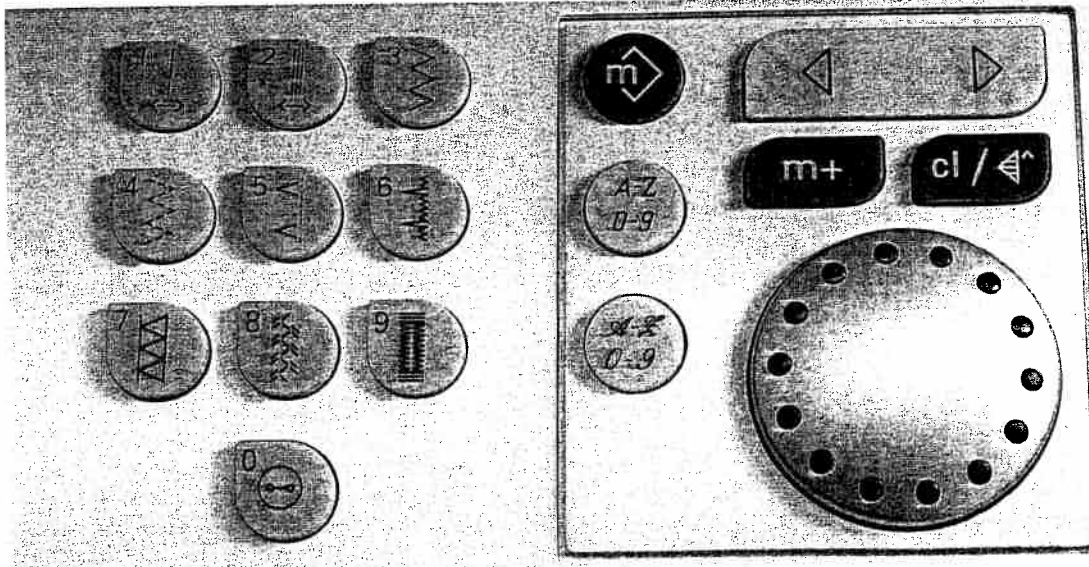


Pattern combinations

Your tiptronic offers you the possibility of storing pattern and word sequences in the memories of the machine. The pattern combinations are stored, after having been sewed once, until you overwrite or delete the memories.


The tiptronic 2040 has 6 m-memories, the tiptronic 2030 has 3 m-memories.

Up to 20 patterns or letters can be stored in each memory.




Keys for the pattern sequence

The following keys can be found next to the selection knob (selection key on the model tiptronic 2030)

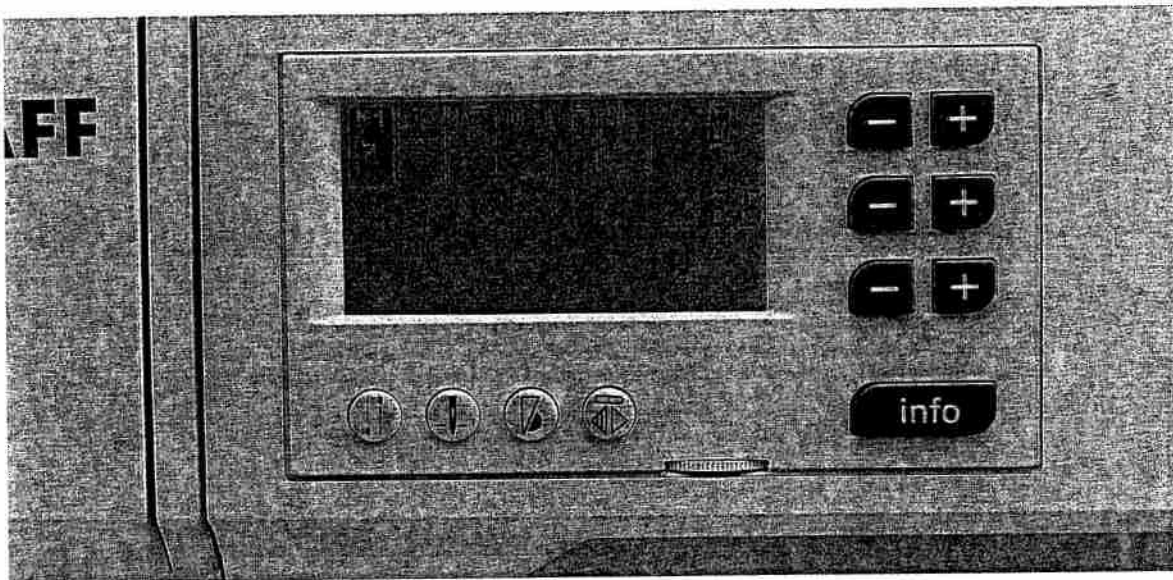
m-key:  for opening or closing an m-memory

m+: for storing selected patterns in the m-memory


cl/key pattern beginning: for deleting patterns in the m-memory / when an m-memory is not activated; Pattern is sewn from the beginning of the pattern.

Cursor keys:  for selecting an m-memory/scrolling through the m-memories which are activated.

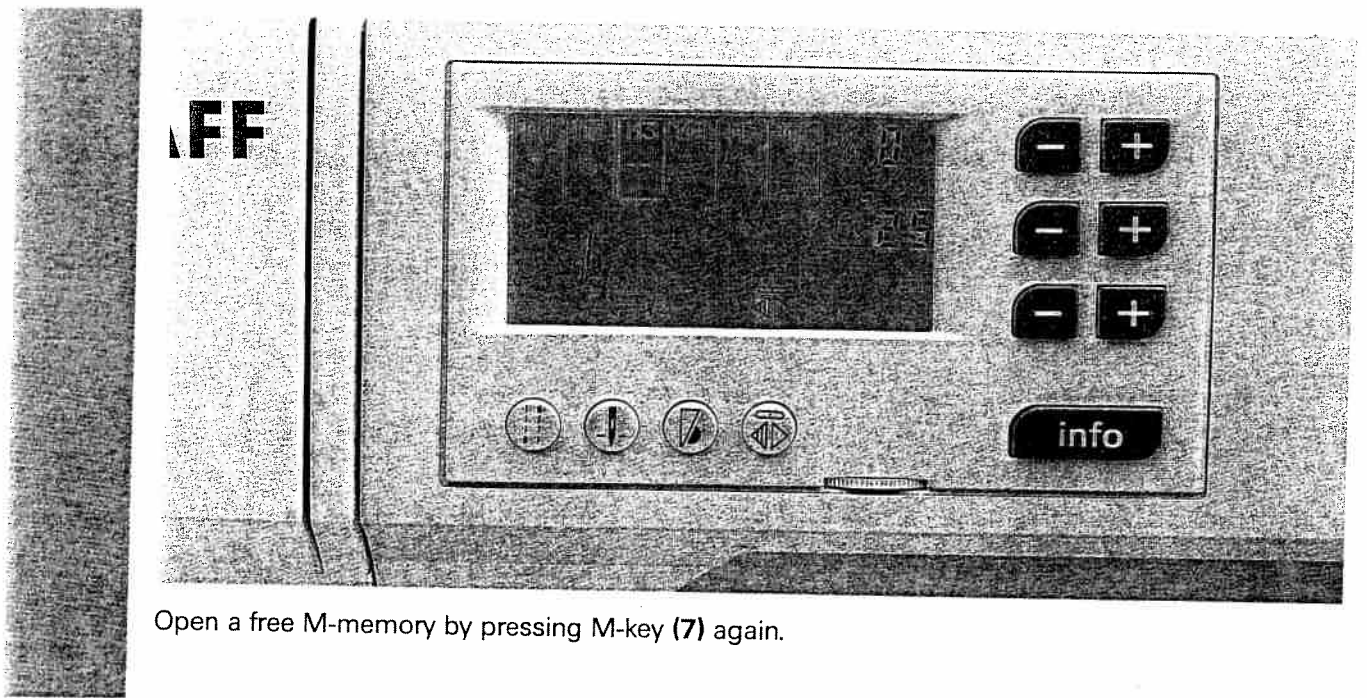
A-Z keys (2 x on the 2040, 1 x on the 2030): for the direct selection of the fonts



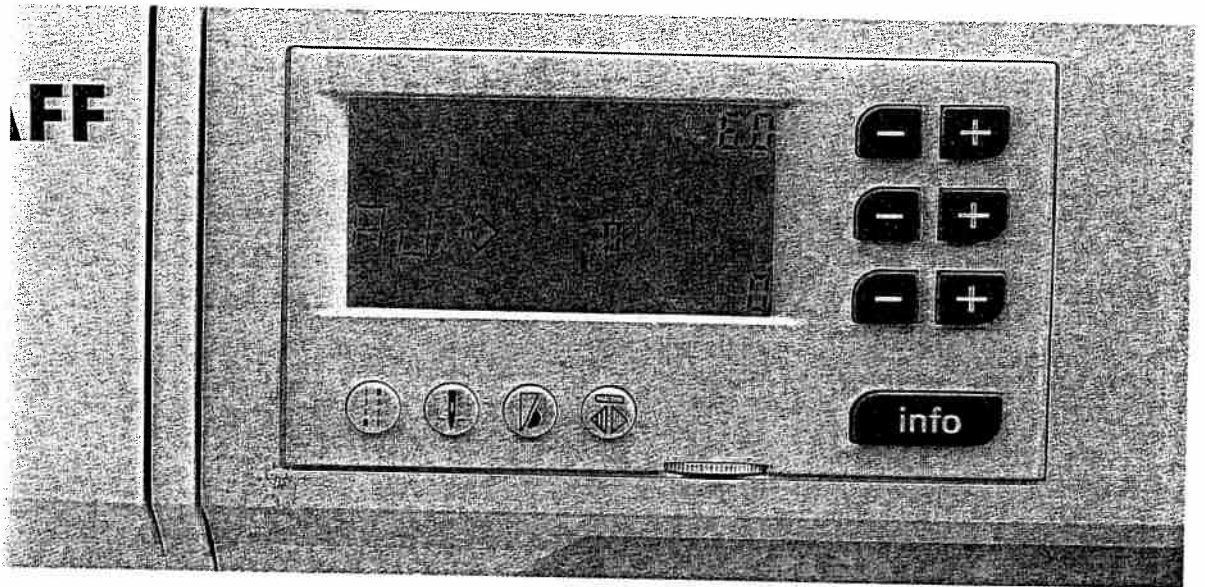
Opening an m-memory

Press the **m-key** .

All the m-memories appear on the display. Select an empty m-memory by scrolling using the cursor key **(8)**.

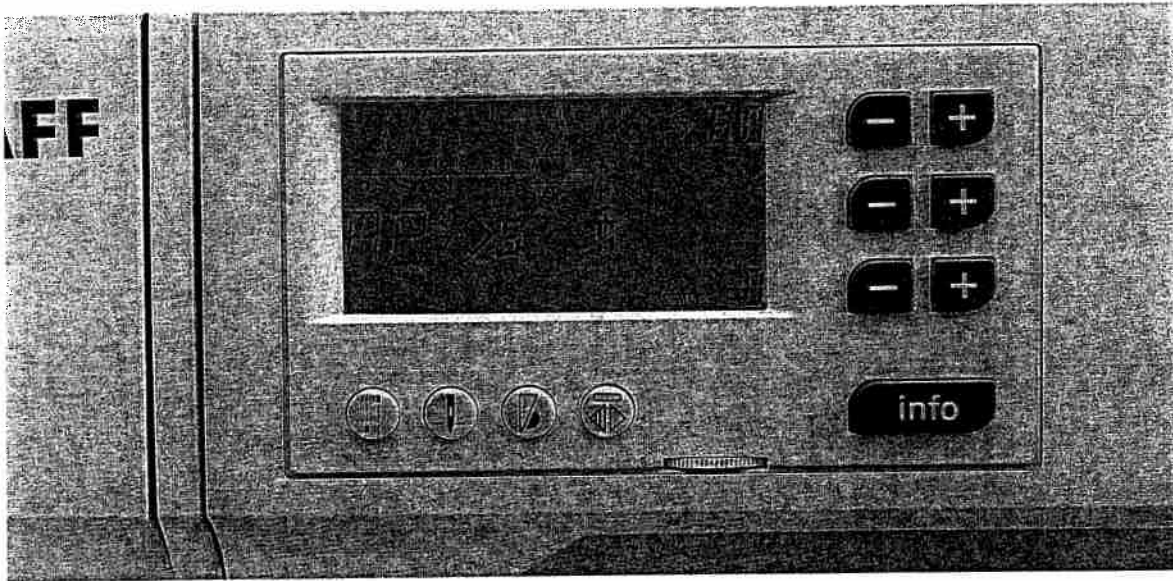


Open a free M-memory by pressing M-key (7) again.



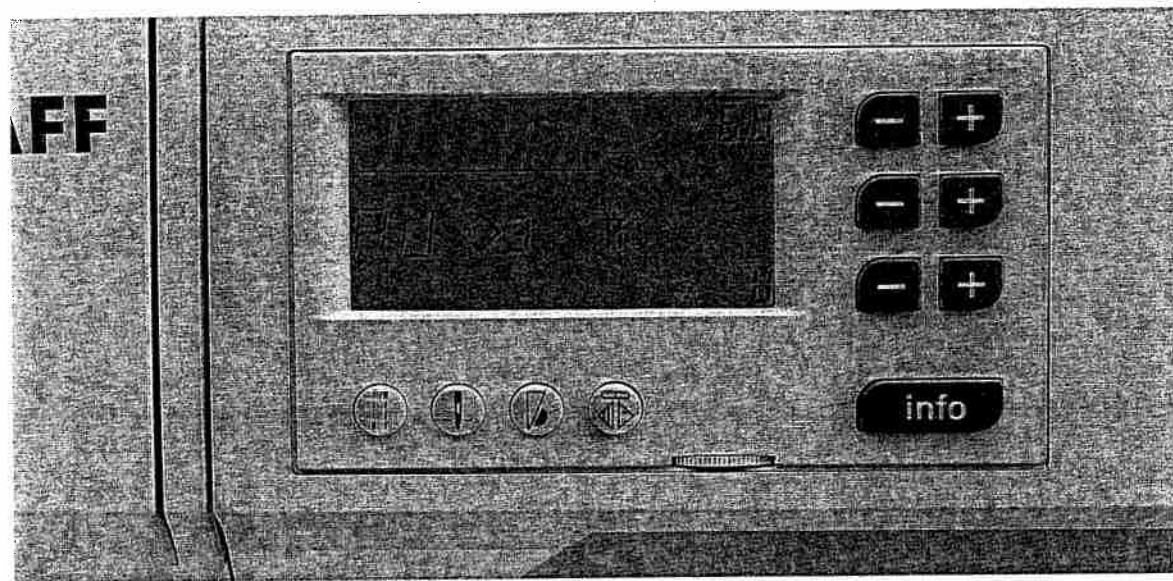
The symbol m appears on the display.

Select the desired pattern, e.g. using the direct selection key (16). Using the selection knob scroll to the desired letters and store these by pressing the m+ key (14).



Once you have entered the pattern sequence, you can start to embroider immediately. All patterns, that have been embroidered once, are automatically stored and remain in the machine's memory even after you switch off the machine.

Tip: In order to embroider a pattern sequence in the M-memory only once, press the tie-off key (36) once you have started to embroider. Thus the embroidery is tied-off on completion and the machine stops automatically.




Subsequent deleting of a pattern within the pattern sequence

If you wish to delete a pattern in the pattern sequence, scroll using the cursor keys to the desired position in the pattern sequence. The cursor \rightarrow must be below the pattern which is to be deleted. Press the clear key (9).

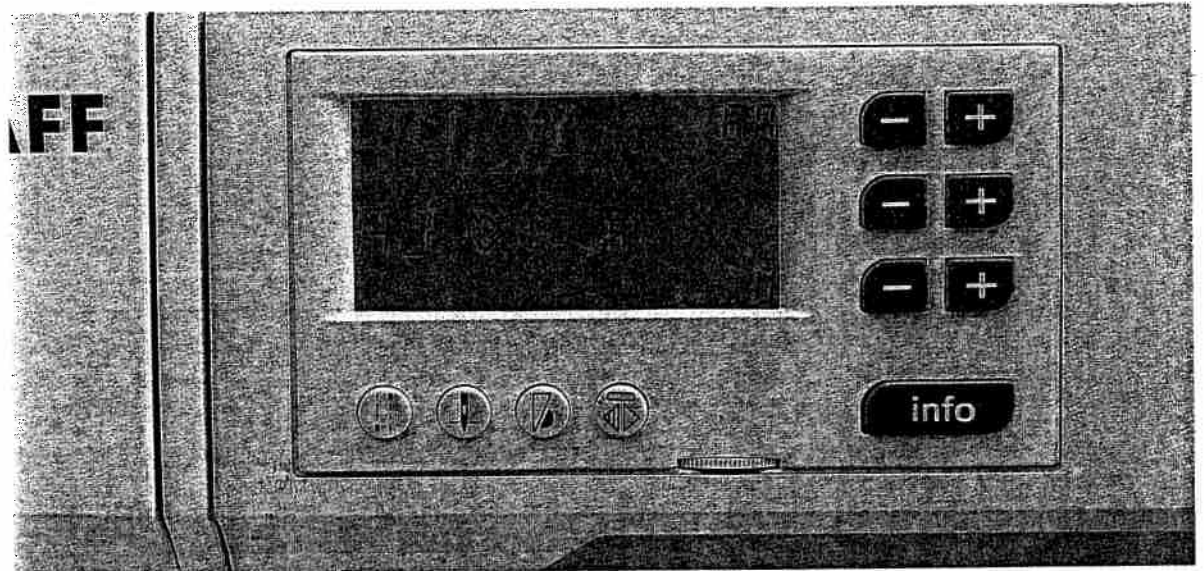
After having deleted the pattern, the following part of the memory moves up to the cursor position.




Subsequent inserting of a pattern into the pattern sequence

If you wish to insert a pattern into the pattern sequence, scroll using the cursor keys to the desired position in the pattern sequence. The cursor  must be in front of the pattern which is to be inserted (the position of the tip of the cursor). Select the desired pattern and store it using the **m+** key (14).

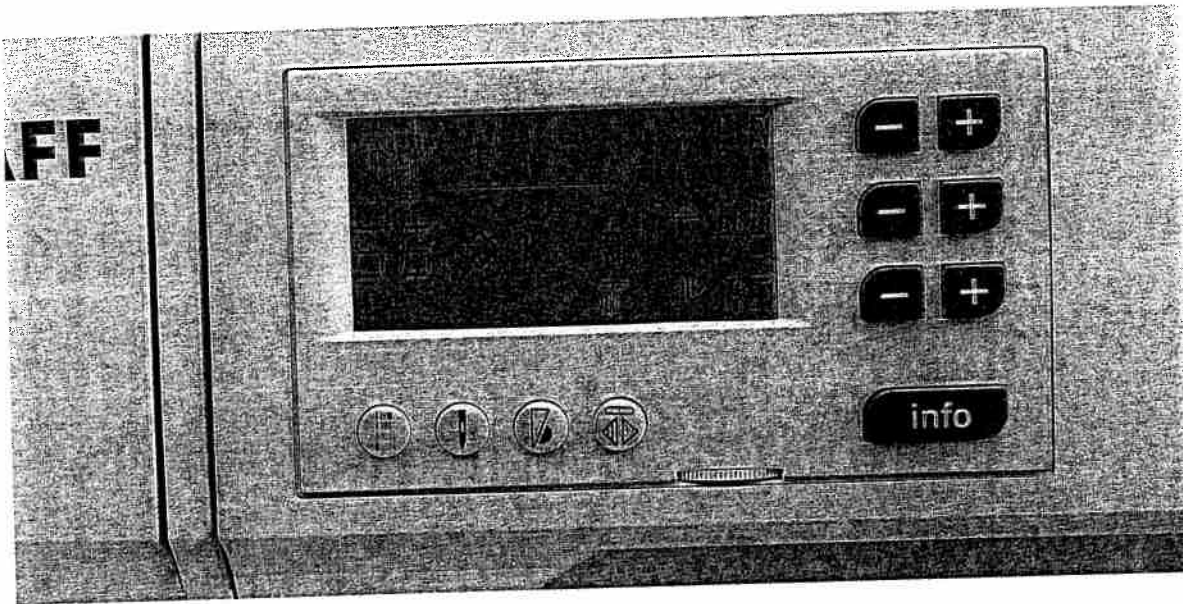
After having inserted the pattern, the cursor moves to the position of the pattern inserted.



Inserting a pattern at the beginning of the pattern sequence

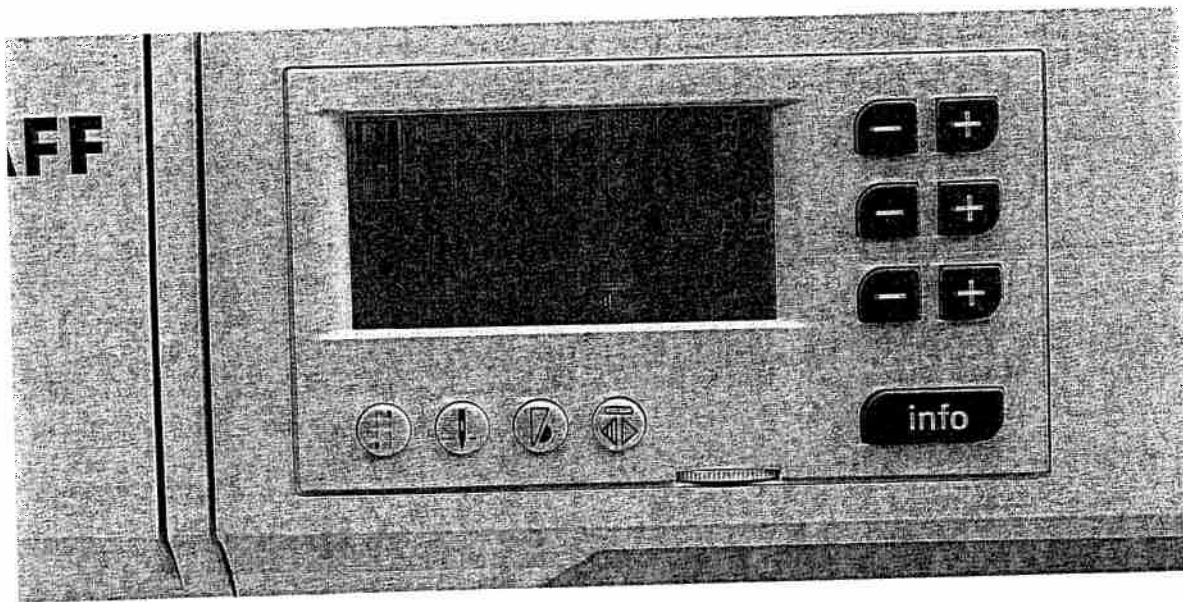
If you wish to insert a pattern at the beginning of a pattern sequence, scroll to the left using the cursor key. Once the cursor is positioned at the beginning of the pattern sequence, the symbol for the beginning of the pattern sequence  appears on the display. Select the desired pattern and store it using the **m+** key (14).

The pattern will be inserted at the beginning of the pattern sequence.



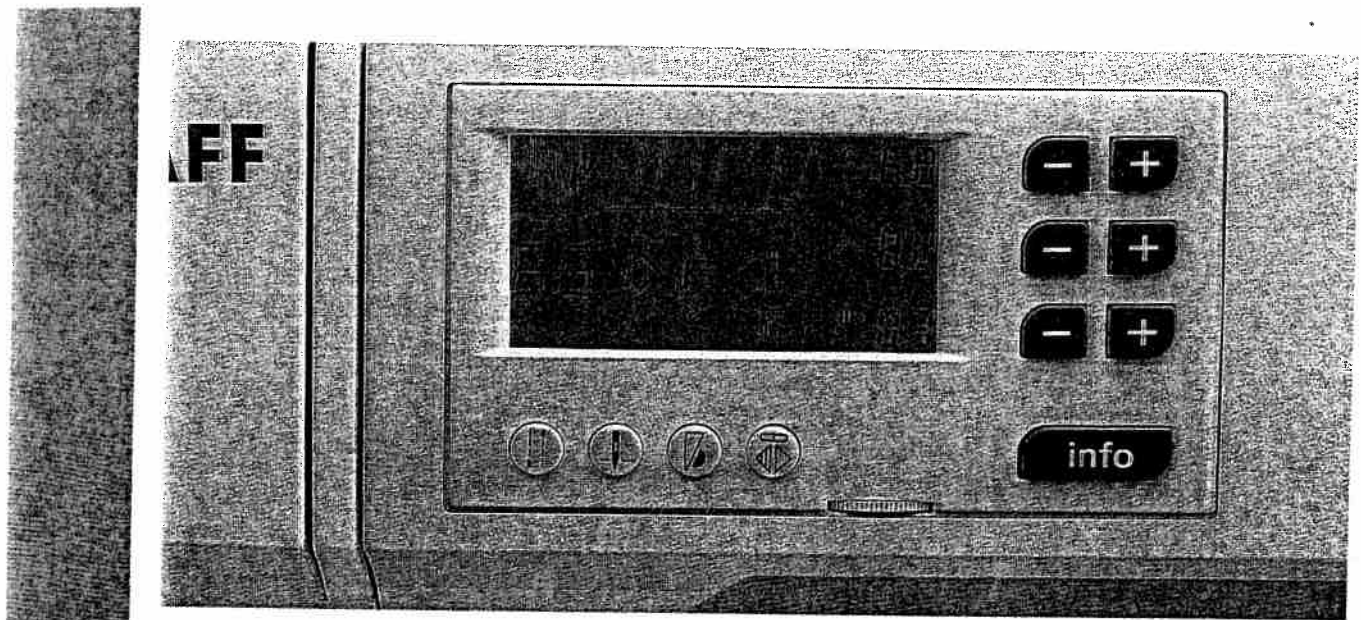
Deleting the pattern sequence

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



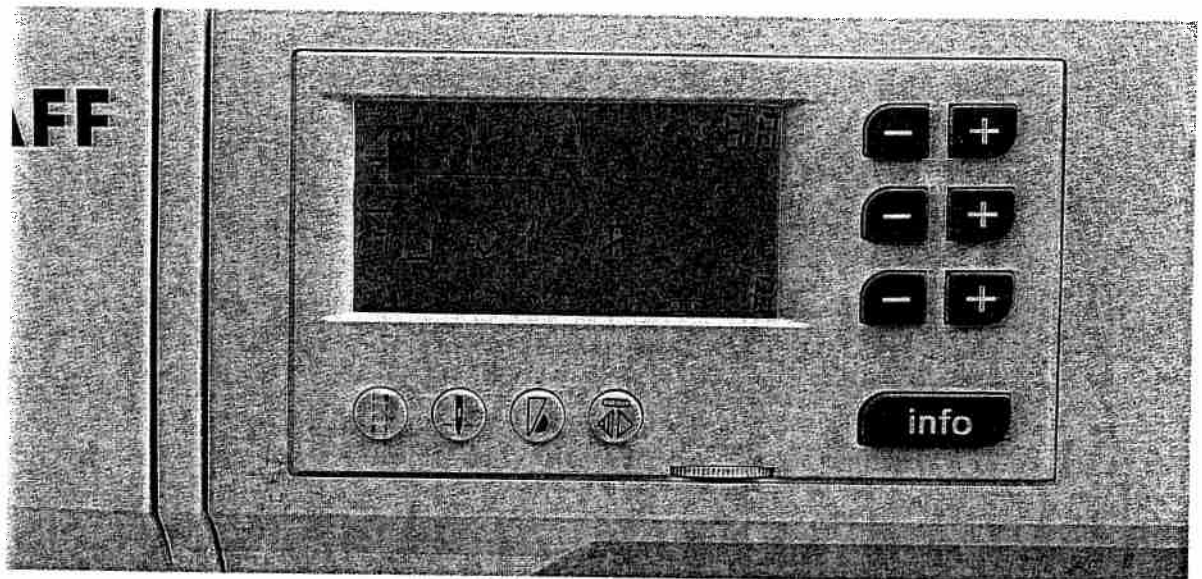
Deleting all M-memories

You can delete all M-memories at once by holding down the clear key (9) while turning on the machine.




Changing a pattern within the pattern sequence

If you wish to subsequently change the length or width of a pattern within the pattern sequence, position the cursor below the desired pattern. Now the pattern can be enlarged, narrowed down or mirrored.



"Pattern beginning" function

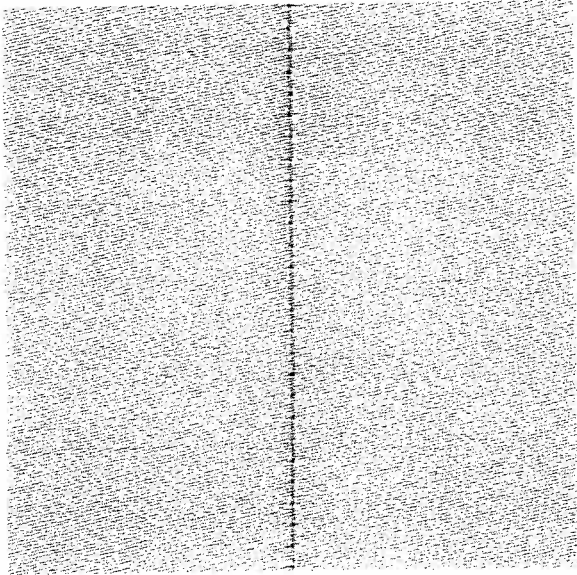
If you have interrupted the sewing operation and would like to start the pattern sequence again, position the cursor — as far to the left as possible, until the symbol  appears on the display. Then press the clear/pattern beginning key (9).

Utility stitches
Page 61 - 82

Utility stitches

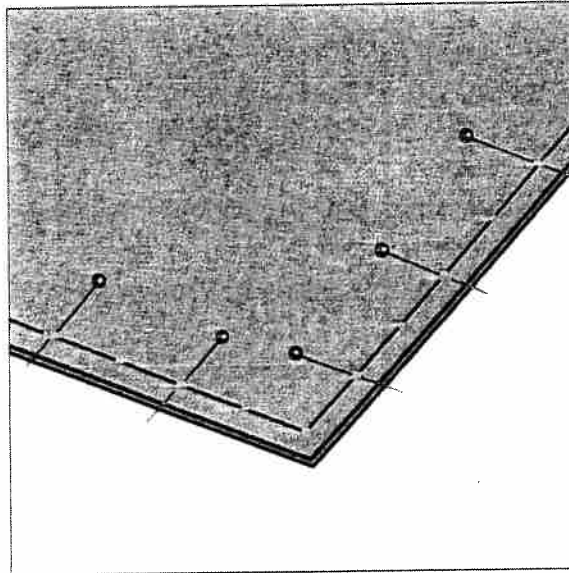
Contents

General sewing aids	Page 65 - 66
Non-elastic/elastic stitches	Page 65 - 68
Overlock stitches	Page 69
Sewing on buttons	Page 70
Darning/inserting patches	Page 71 - 72, 77
Lace work	Page 73
Gathering	Page 74
Covering stitches	Page 75 - 76
Smocking	Page 78
Hemming	Page 79
Zipper	Page 80 - 81
Shell edging	Page 82



Straight stitch - Prog. 1

Program 1 is the basic straight stitch in center needle position. The stitch length can be increased up to 6 mm as required. Some sewing jobs can be accomplished more easily by changing the needle position, e.g. sewing in a zipper. The **tiptronic 2040 + 2030** have 13 needle positions that can be adjusted with key pair "a".

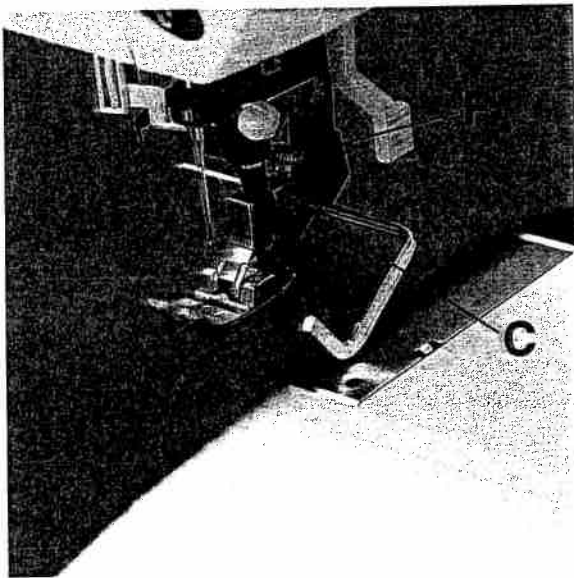


Basting stitch - Prog. 10

With **prog. 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 for each further stitch required.

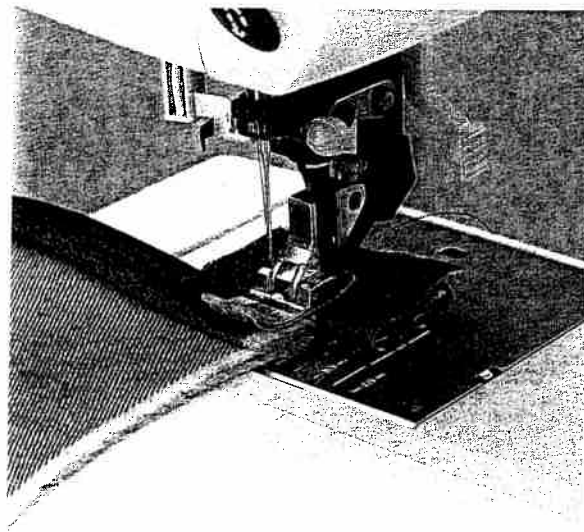
- Lower the bottom feed and disengage the top feed.
- Place the fabric under the presser foot.
- Sew one stitch, then pull the fabric the required amount to the rear.
- Repeat this as many times as you need to finish the work.

Tip: To prevent the fabric layers from shifting, insert dress pins crosswise to the basting position. Light fabrics are easier to baste with long straight stitches (6 mm). In this case the bottom feed need not be lowered.



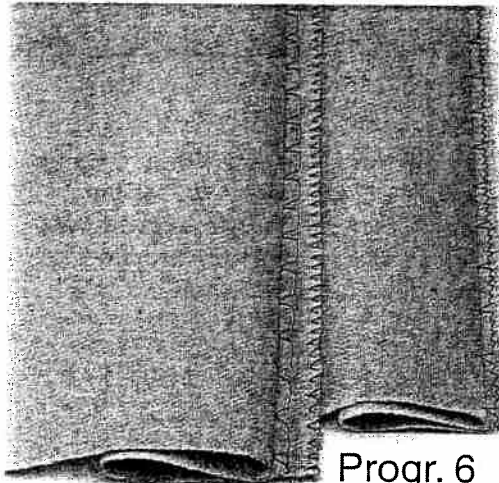
Top stitching

Straight stitch can be sewn in 13 different needle positions allowing you to always guide the presser foot along the fabric edge for top stitching work. The distance between the rows of topstitching is then determined by the needle positions. If you wish to begin your topstitching further from the fabric edge, simply use 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, we recommend placing a piece of fabric of the same thickness as the work under the presser foot to support it.



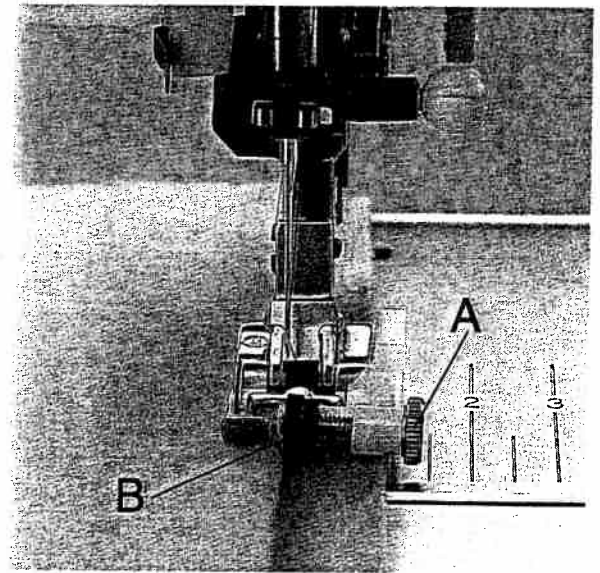
Progr. 5
Progr. 6

Elastic blind stitch

Prog. 5

The elastic blind stitch is especially suitable for stretch fabrics. The hem is serged and sewn at the same time, thus serging the raw edge is not necessary.

For the work sequence see the description above.

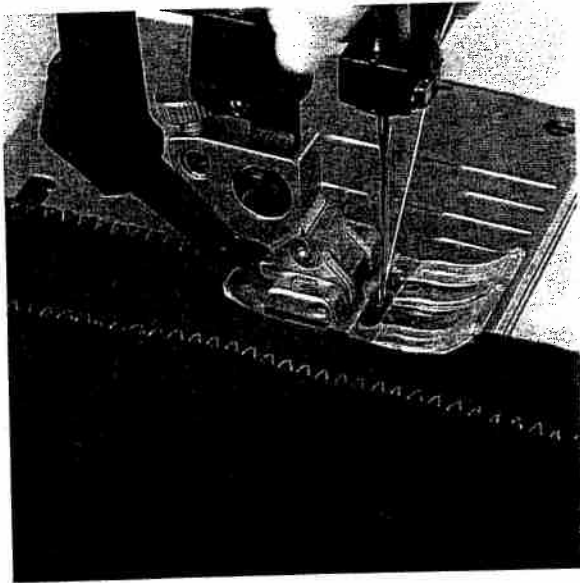


Blind stitch

Prog. 6

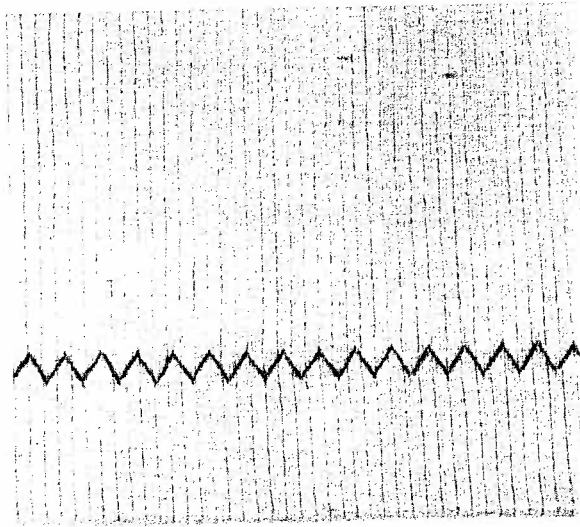
Blind stitch is best suited for invisible hems and eliminates the need for hand sewing.

- Serge the edge of the hem.
- Fold and press the hem allowance inwards.
- Fold the hem back on itself so approximately 1/2 inch (1 cm) of the serge edge extends beyond the fold just created. The wrong side of your project should now be facing up.
- Place the fabric under the presser foot so that the crease line runs along edge guide **B**.
- When the needle enters the crease line it must only pick up one fiber of the fabric. If the stitches are visible on the face side, adjust edge guide **B** by turning **adjusting screw A**.



Zigzag stitch - Prog. 3

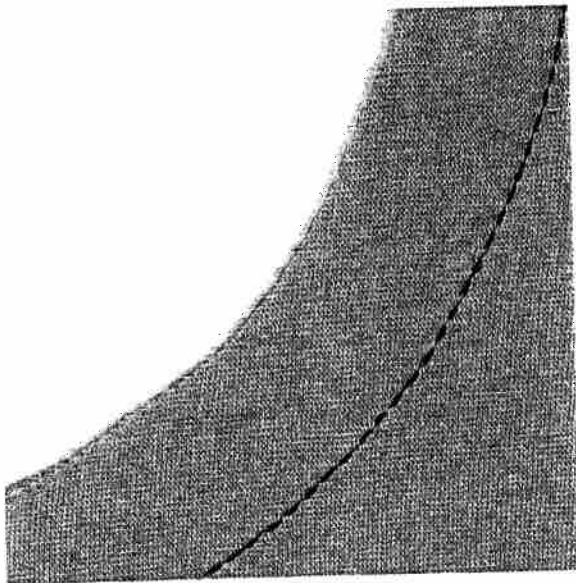
Raw edges can be serged/finished easily with **zigzag stitch 3**. Make sure the needle pierces the fabric on the left swing of the needle and overcasts the edge of the fabric on the right swing of the needle.



Stretch triple zigzag stitch - Prog. 17

The stretch triple zigzag stitch produces a highly elastic and decorative seam, which is particularly suitable for hems on T-shirts and undergarments.

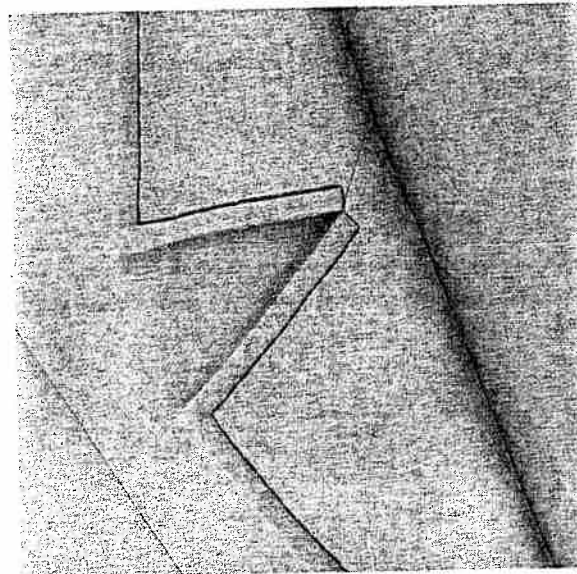
- Serge the edge of the hem.
- Fold the hem inwards at the required width.
- Topstitch the hem from the face side.



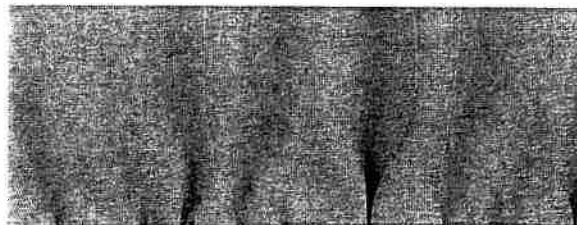
Stretch triple straight stitch

Prog. 2

This program is used for sewing all seams where great strength is needed, e.g. crotch seams. The heavier the fabric, the longer the stitch length required.



Tip: If you wish to topstitch a collar point with **prog. 1**, use the function "**needle lowered**". The needle will remain in the fabric when the machine stops, allowing you to easily pivot the fabric.

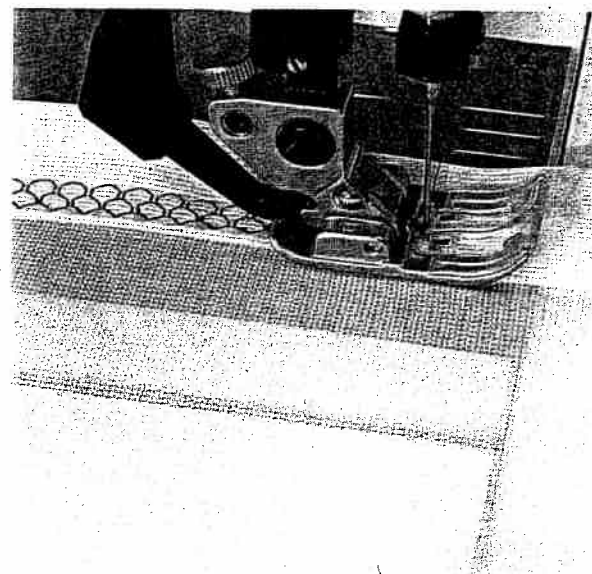


Elastic stitch

Prog. 4

Due to its high elasticity this stitch is ideal for sewing on elastic, e.g. onto undergarments.

- If replacing elastic, cut off old elastic close to its edge.
- If needed gather the fabric edge with the 6 mm long straight edge stitch (see page 74).
- Divide the fabric and elastic into quarters and mark. You may find it easier to handle if you pin the elastic to the fabric at the matching marks.
- Stretch the elastic to fit the fabric, matching marks as you sew.
- Overlap the ends slightly and secure with the elastic stitch.
- On skirts and pants (trousers) the elastic is sewn onto the prepared edge with the elastic stitch.



Honeycomb stitch

Prog. 19

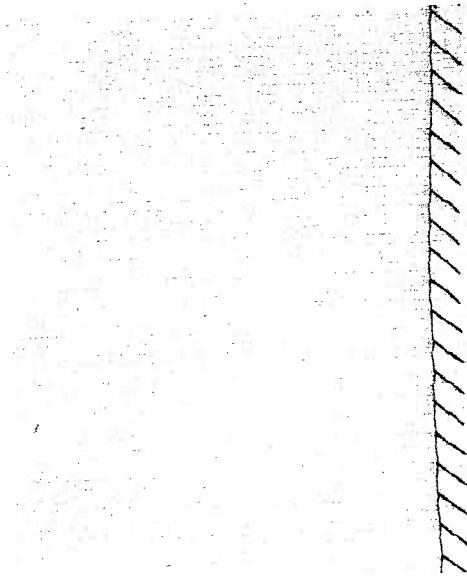
The honeycomb stitch is an elastic and decorative hem, which is very suitable for undergarments and T-shirts.

Fold the seam or hem edge over twice and overstretch with the honeycomb stitch.

Overlock stitches

For elastic and knits and other stretch fabrics, the **tiptronic 2040 and the 2030** provide a selection of overlock stitches. These stitches join multiple layers of fabric and serge them in one operation. They have a higher elasticity and are more durable than standard stitches.

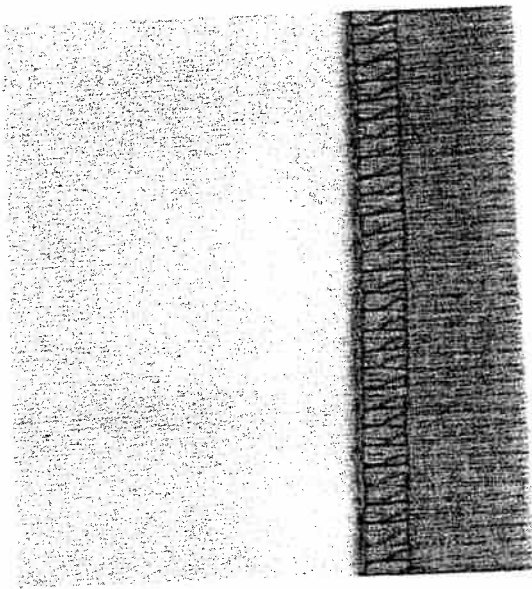
Tip: We recommend you use **blind stitch foot No. 3** when sewing overlock seams. This guides the fabric more precisely and prevents tunneling of the seam at wider stitch widths. Adjust the stitch width and guide of the foot to ensure that the right-hand swing of the needle clears the raw edge of the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



Open overlock stitch

Prog. 18

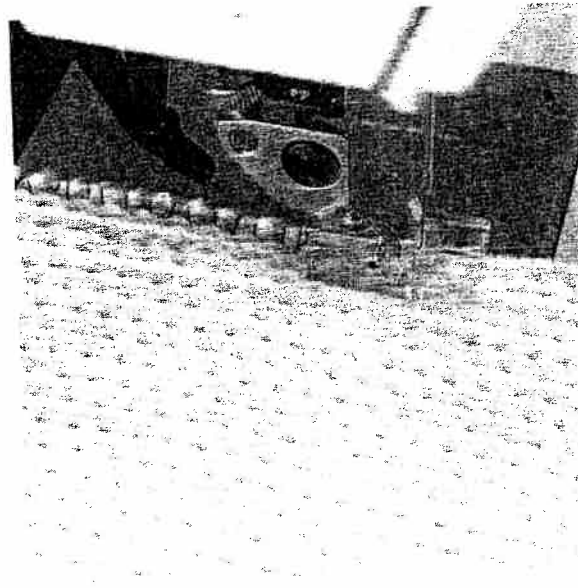
The open overlock stitch works well when joining or edge-finishing fabrics that do not fray excessively.



Closed overlock stitch with selvage thread

Prog. 21

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

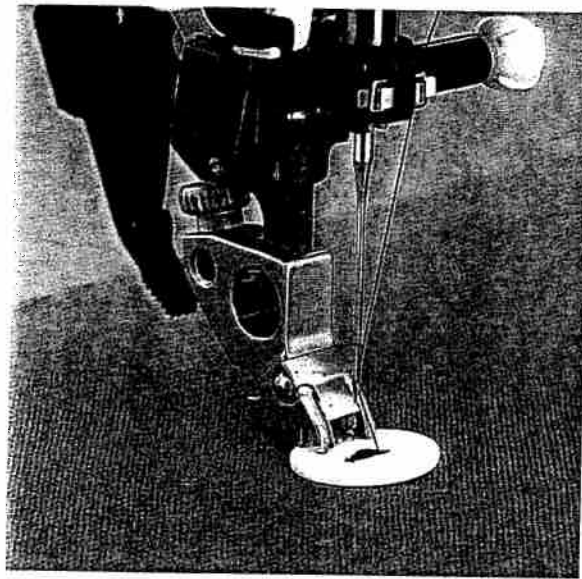


Pullover stitch

Prog. 22

Used together with the knit-edge foot (special accessories), this stitch can even be used for open-knit fabrics. Fashion-knit garment sections can also be joined effortlessly with this stitch.

TIP: To prevent the seam from stretching while sewing, it is advisable to add a woolen thread under light tension.

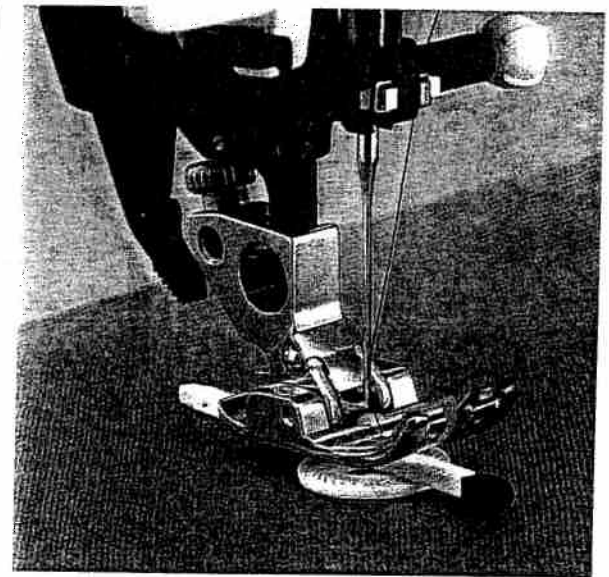


Sewing on buttons

Prog. 0

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

- Remove the presser foot and lower the feed dog.
- 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. 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.

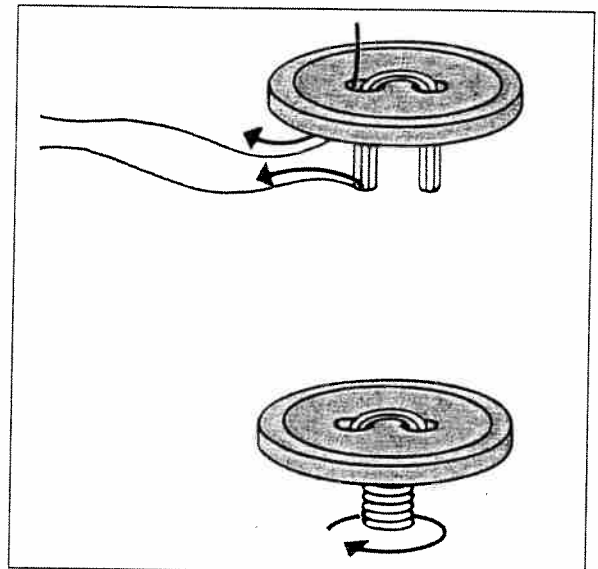


Sewing on buttons with shanks

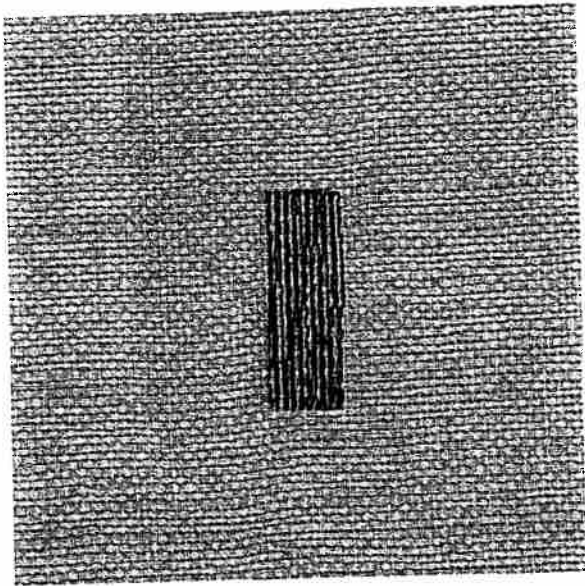
Prog. 0

Attach the presser foot

- Leave the feed dogs lowered. Place a match between the holes of the button and sew it on as described on the left.



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



Automatic darning - Prog. 73

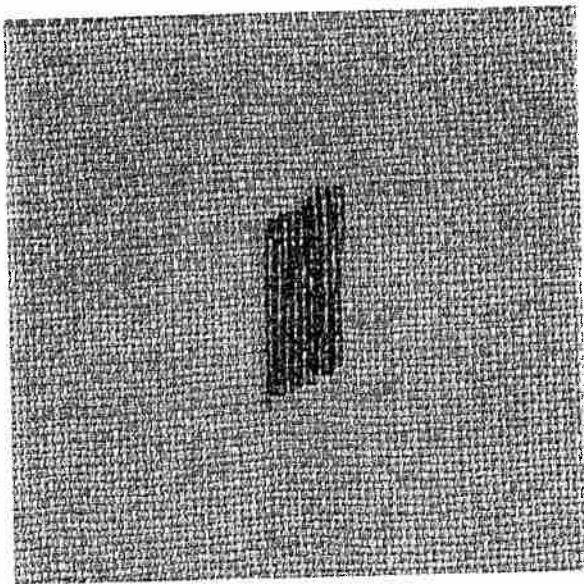
(Model 2040)

Program 73 is mainly for strengthening damaged areas of fabric.

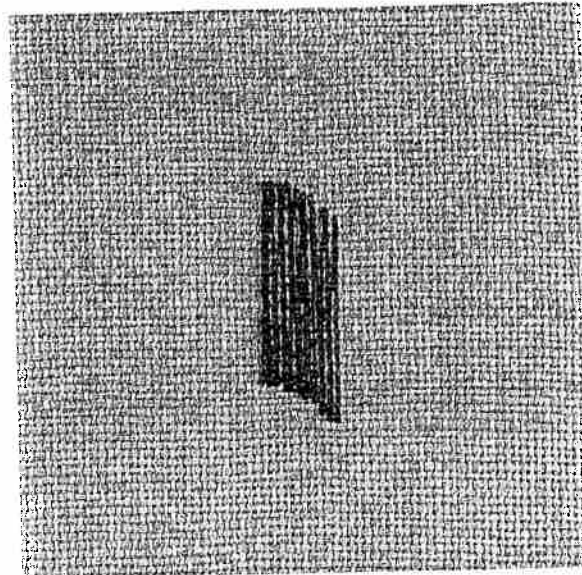
- Stitch over the damaged area at the required length.
- Press the reverse key; the machine finishes sewing the darning program and the darning length is thus saved.

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

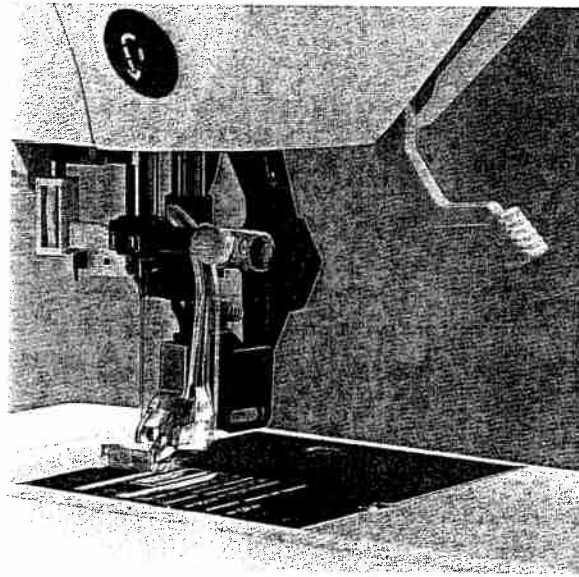
Depending on the type of fabric, the darning pattern may shift slightly out of square. You can straighten the pattern using the balance adjustment capability (see chapter "Balance", page 44).



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

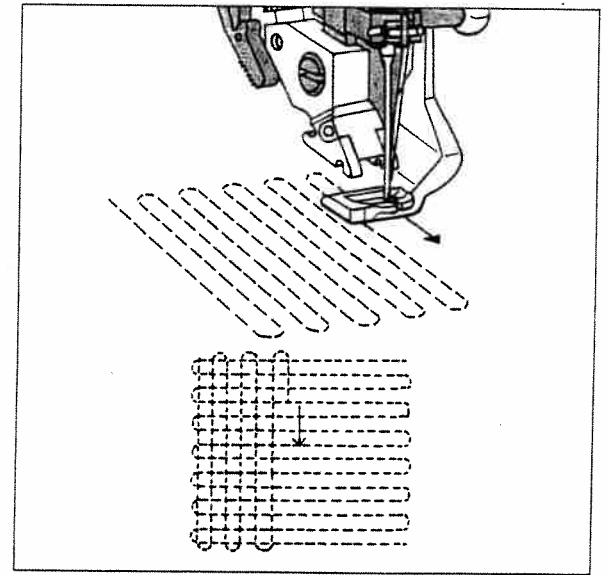
Prog. 1

Attach darning foot **No. 6**. Turn the handwheel towards 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.

Darning position: Lower the presser bar lifter slowly and push it lightly to the rear until it engages in the darning position.

Warning! Only in this position is the thread tension engaged for darning.

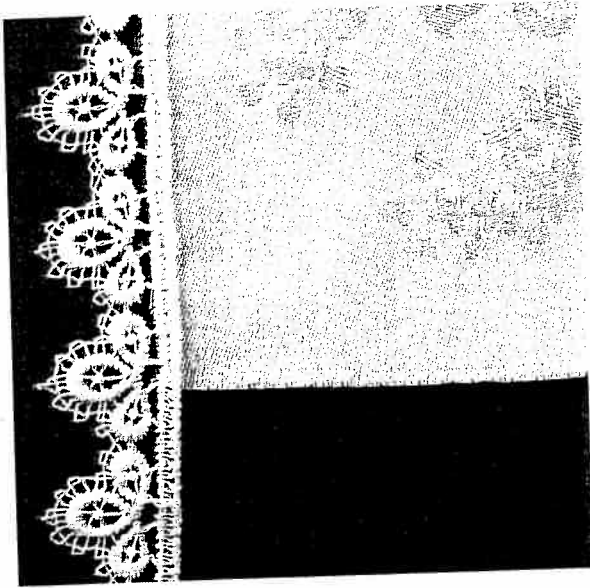
- Place the work to be repaired in a darning/embroidery hoop.
- Lower the feed dog.
- Draw up the bobbin thread and hold the threads when you start sewing.



- 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 than a single pass.

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.



Lace-work:

Tablecloths, napkins and clothing can all be beautifully enhanced with lace trimmings.

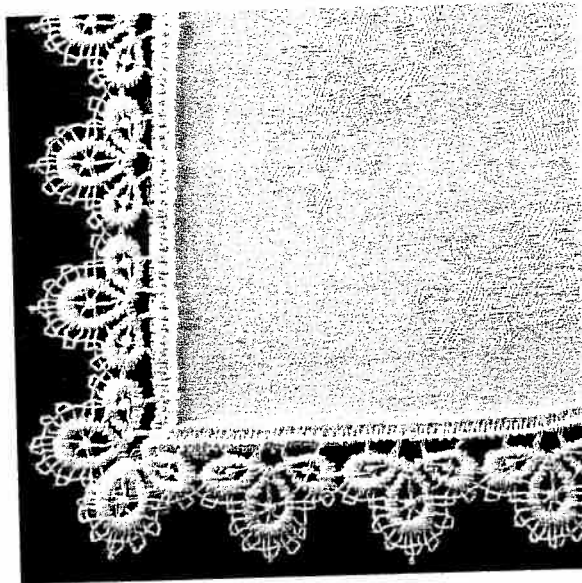
Lace edges

Prog. 1

Prog. 3

Lace trims provide a lovely enhancement to home décor projects, crafts and garments.

- Serge/clean-finish the fabric edges with a zigzag or overlock stitch.
- Lay the lace on the right side of the fabric, overlapping slightly.
- Stitch the lace to the fabric.



Lace edges with corners

Prog. 1

Prog. 3

- Serge/clean-finish the fabric edges with a zigzag or overlock stitch.
- Lay the lace on the right side of the fabric, overlapping slightly.
- Fold the lace into a miter at the corner, pivot and continue stitching to the next corner.
- Continue until all edges are stitched.

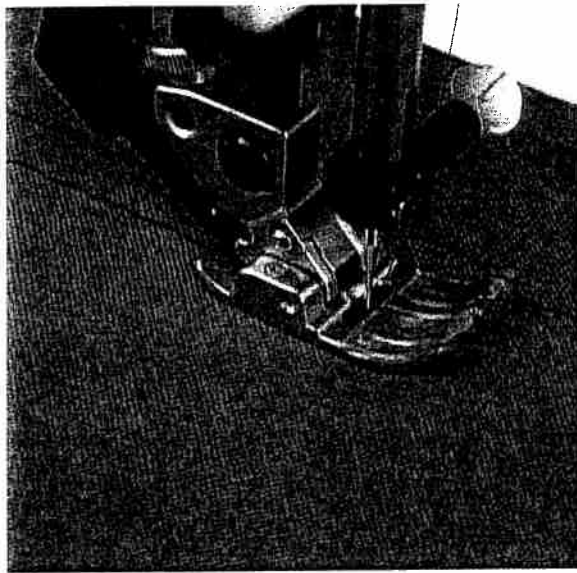
Lace inserts

Prog. 1

Prog. 3

A beautiful heirloom effect can be achieved on christening wear, children's clothes and other garments with lace inserts.

- Baste the lace to the face side of the fabric.
- Stitch very close to both edges of the lace using straight stitch 1.
- Carefully slit the fabric behind the lace at the center. Press these edges towards the garment.
- From the front side of your project overstitch both edges of the lace with a small zigzag stitch. Cut away the excess fabric on the back of your project close to the stitching.



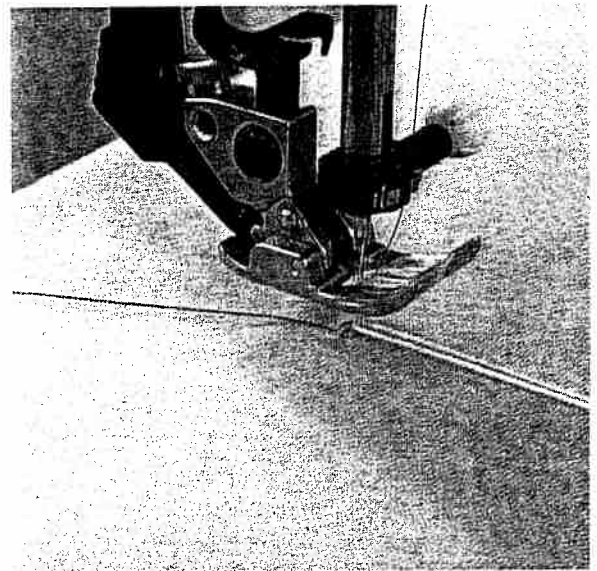
Gathering with straight stitch

Prog. 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.

- 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.



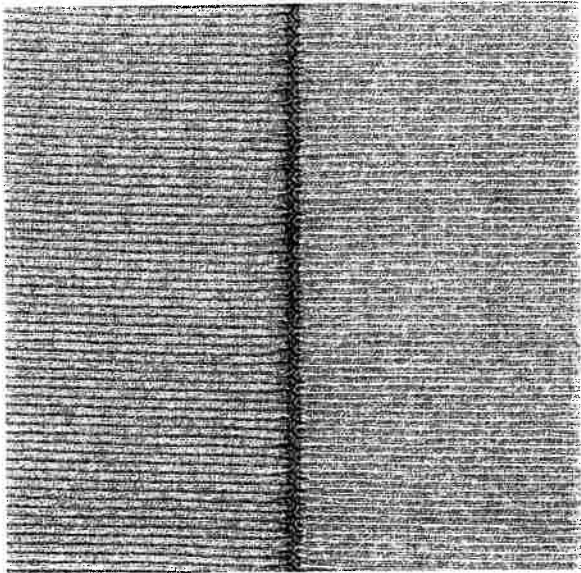
Gathering with elastic threads

Prog. 19

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.
- 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: If you work with the cording foot (**special accessory**), the elastic threads should be laid in the foot from the side and drawn into the grooves. During stitching of the gathering seam ensure that the elastic thread is not stretched or pierced by the needle.



Covering seams

Covering stitches are used when a flat seam finish is desired. This type of stitch produces a flatlock effect that lends a professional look to collar seams, plackets or raglan seams.

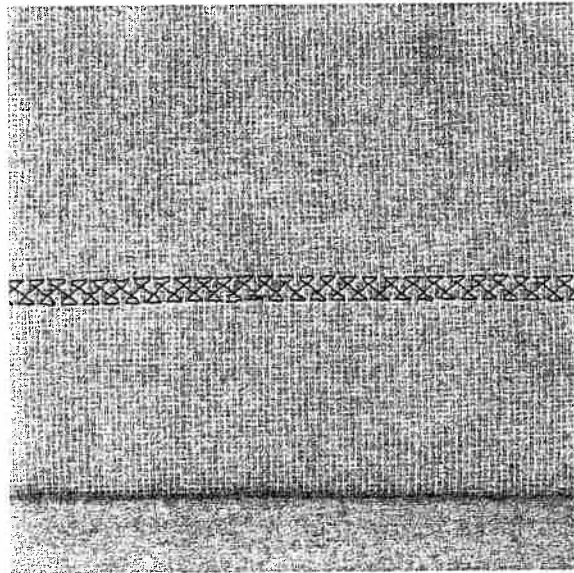
Faggoting stitch

Prog. 8

The faggoting stitch creates a very elastic seam with a hem stitching effect. It is often used for connecting two finished fabric edges.

- Serge 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 pierces the fabric on the right and left sides.

TIP: You may find it easier to guide the fabric edges when using the faggoting 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.

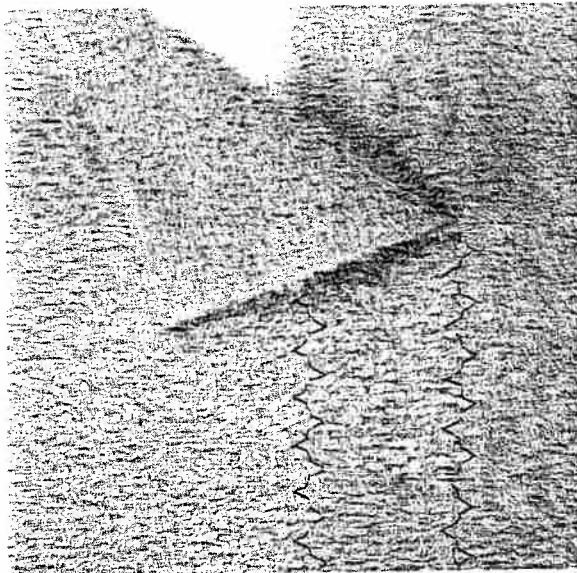


Cross hem stitch

Prog. 20

This highly elastic stitch is very suitable for decorative hems, e.g. on T-shirts and undergarments.

- Serge/clean finish the raw edge.
- Fold the hem allowance to the reverse side.
- Stitch the hem from the right side of the fabric. When sewing, make sure the underneath fabric edge is fully overstitched.

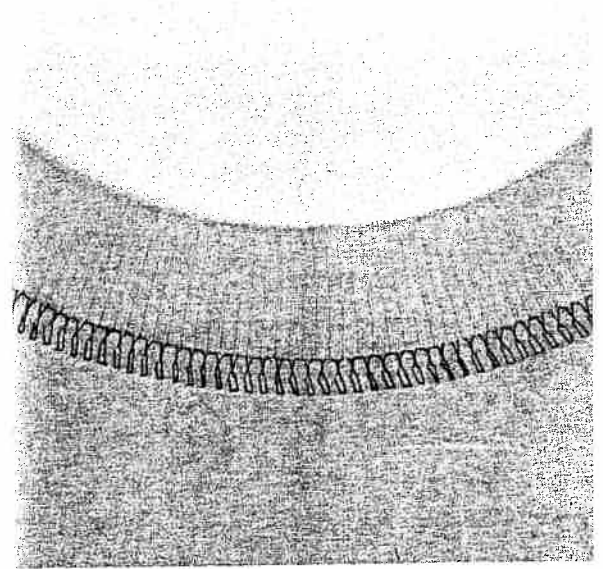


Fancy elastic stitch

Prog. 14

The fancy elastic stitch is very useful for fabrics that require a flat seam, e.g. terry cloth.

- Overlap the two fabric edges about 3/4 of an inch (2 cm) and overstretch each edge with the fancy elastic stitch.

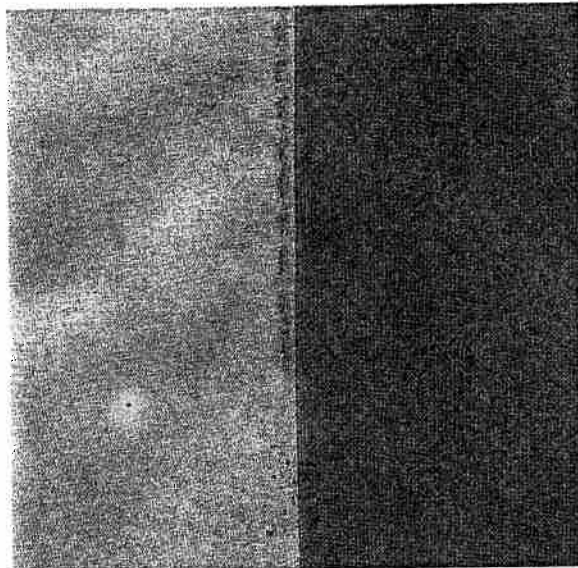


Light-knit mending stitch

Prog. 23 (Model 2040)

The light-knit mending stitch is a stretchable covering stitch. It is very suitable for overstretching cuffs in stretch materials, e.g. sweatshirts or sportswear.

- Sew the cuff onto the workpiece with an overlock stitch.
- Now the seam allowance can be overstretch from the face side of the fabric. Make sure that the needle enters the fabric close against the seam.



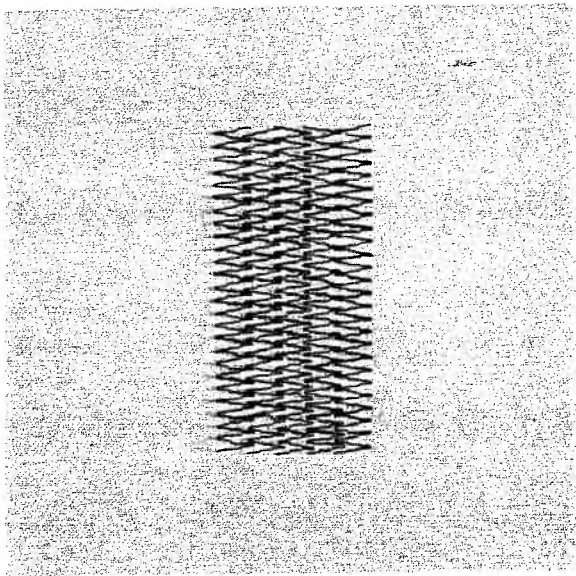
Quilting stitch

Prog. 11

In traditional quilting three layers (2 fabric and 1 batting) are joined together with small hand stitches to create beautiful family heirlooms. The sewing machine makes accomplishing this technique much easier and faster! The tiptronic 2020 and 2010 enable you to achieve a won-

derful hand-quilted look by machine, e.g. with **program 11**.

This stitch works equally well for topstitching on jackets and overcoats. Combining the quilt stitch with other decorative stitch programs can create unique new patterns.



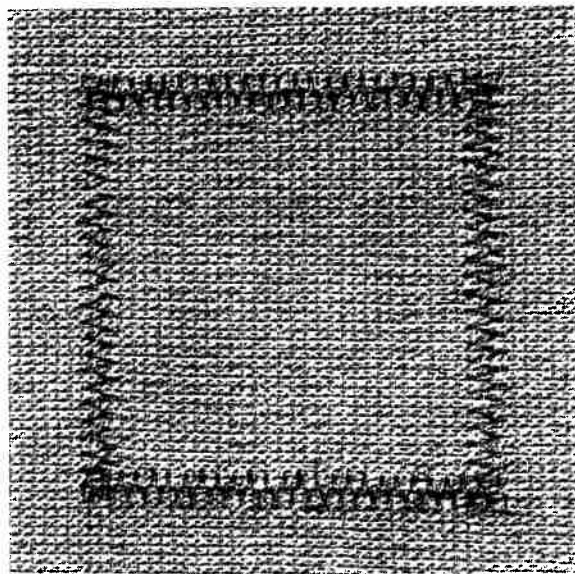
Darning with the elastic stitch

Prog. 3

The elastic stitch is very suitable for repairing holes, tears and damaged areas.

If the area is only slightly damaged, you may sew over it with rows of stitches until it is well covered. No additional backing is needed for these slightly damaged areas. When doing so, make sure the stitch rows overlap each other.

For tears, frayed edges or small holes it is advisable to place a piece of fabric, slightly larger than the damaged area and of the same color, on the wrong side of the fabric. This strengthens the fabric and ensures a much stronger, longer-lasting darn. Overstitch the damaged area as described above and cut away the excess material close to the stitching on the back side of your work.

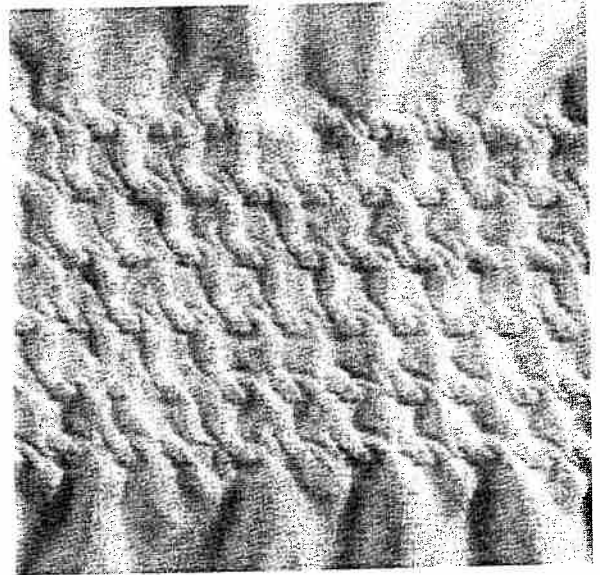


Sewing-on patches

Prog. 3

The best way to darn/repair larger holes is to patch, by covering the damaged area with a piece of new fabric of a matching color.

- Cut a piece of fabric slightly larger than the damaged area or hole.
- Strengthen the wrong side of the patch with iron-on stabilizer.
- Baste the new piece of material over the damaged area.
- Overstitch the fabric edges with the elastic stitch.
- Cut back the damaged fabric on the reverse side close to the seam.



Smocking - Prog. 1

Smocking is achieved by sewing numerous parallel seams across your fabric to create a gathering effect. Smocking is mainly used in children's wear and heirloom techniques. There are different methods of creating the smocked effect:

1) Smocking with gimp thread (non-elastic)

For beautiful smocking effects you will need two and one half to three times the desired finished width of fabric. The smocked section is usually made before the completion of the garment. Light firm materials such as batiste or fine linen are best suited for this technique. Using a fabric pen, or other **non-permanent** pen or chalk, draw a straight line on the fabric as a guide for the first gathering seam. Attach the presser foot (**the special accessory appliqué foot also works well**): loosen the screw at the rear end of the presser foot holder and insert the edge guide through the opening. Position the edge guide 1 inch (2 - 2.5 cm) from the needle and tighten the screw. Place the fabric to be gathered under the presser foot, right side up. Position the gimp thread under the presser foot so it runs exactly along the groove at the center of the foot. Sew the first gathering seam, leaving approximately 4 inches (10 cm) of the gimp thread at the beginning and end of the seam. Place the edge guide on this stitching line the next row will sew approximately 1 inch (2 - 2.5 cm) from the first row. Different spacing will achieve different gathering effects. Continue to sew the remaining rows using the edge guide for

spacing. Carefully pull the ends of the gimp thread and gather the fabric evenly over the entire fabric width.

2) Smocking effect with elastic threads

For this technique, elastic thread is wound onto the bobbin without tension. The needle thread may be a regular sewing or an embroidery thread. Since elastic threads are much thicker than normal bobbin threads, the tension on the bobbin case must be set extremely loose. However, the tighter you set the bobbin-thread tension, the greater the gathering effect you will obtain. For this kind of smocking, fine and light material such as lightweight knit fabric, silk or satin are also suitable.

Mark the first line on the fabric to be gathered. Sew along this line and knot the threads at the beginning and end of the seams. For the remaining parallel seams the material must be stretched to its **original** length during sewing (do not overstretch fabric).

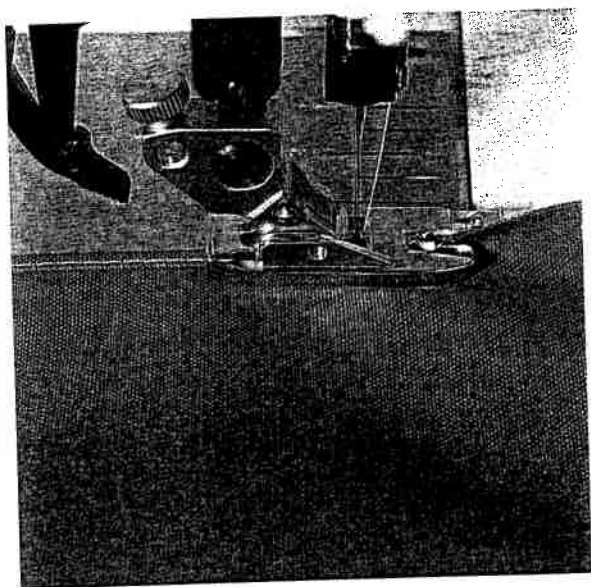
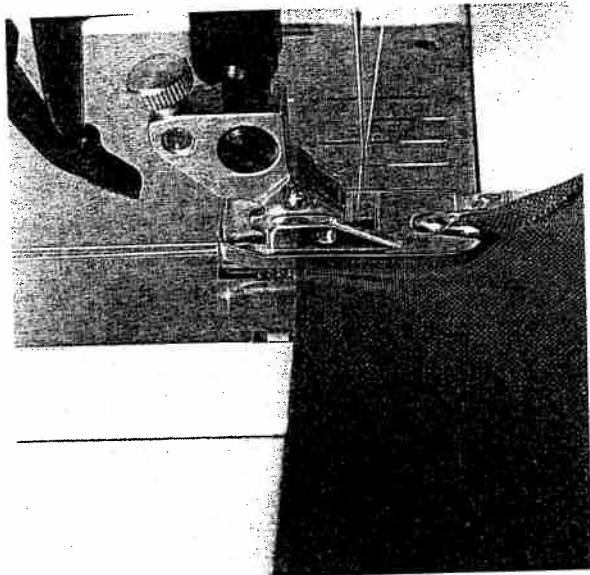
TIPS: You may find having a second bobbin case for specialty work a convenience! Always sew a test seam first!

Roll hemming with hemmer No. 7

Prog. 1

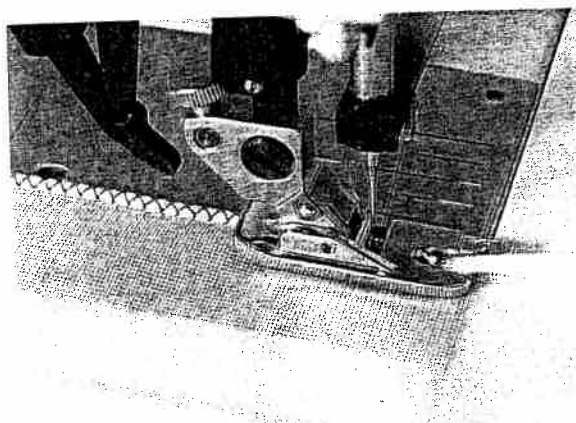
With the roll hemmer you can finish the edges of blouses, scarves, or ruffles without having to iron the edges beforehand. Hemming prevents the edges from fraying and produces a neat and durable edge finish.

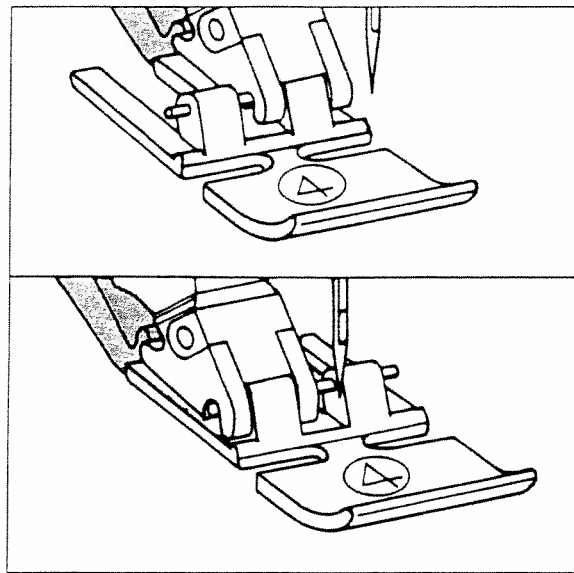
- Double-fold the fabric edge (about 1/8 inch / 2 mm per fold).
- Place the folded fabric edge under the hemmer and sew a few stitches to secure.
- Turn the handwheel towards you until the needle is at its lowest point. Raise the presser foot and slide the fabric into the scroll of the hemmer.
- Lower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



Program 3

A narrow zigzag stitch also makes a nicely finished rolled hem.



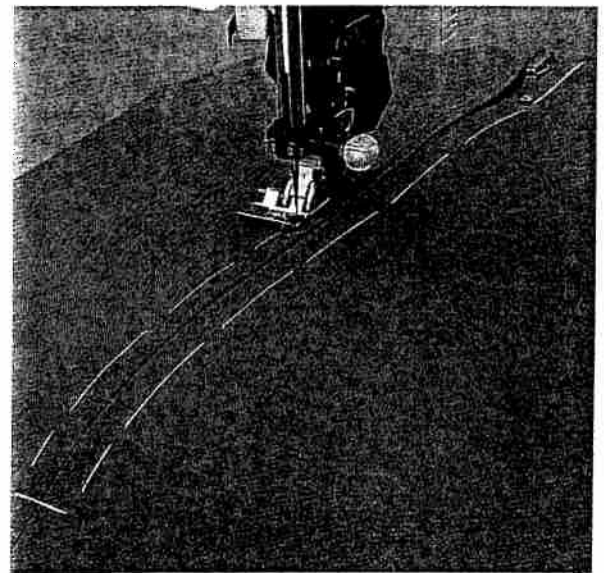


Sewing in zippers

Prog. 1

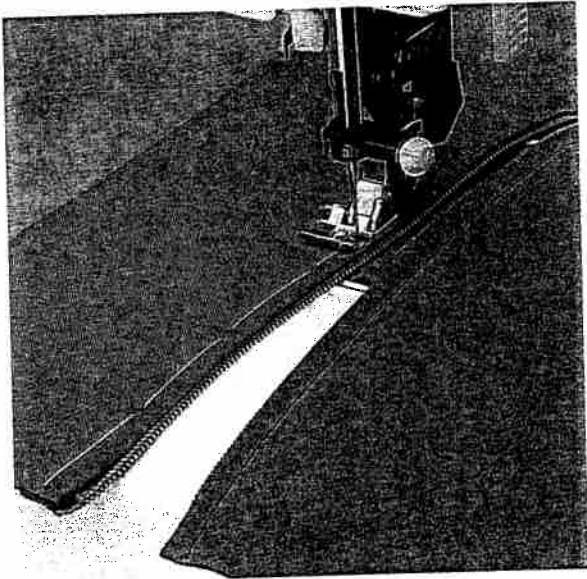
There are different ways to sew in zippers. For skirts we recommend inserting a centered zipper. For men's or ladies' pants (trousers), a lapped zipper works best. Different types of zippers are available in retail stores: invisible, metal, plastic, jeans and outerwear to name a few. We recommend metal zippers for heavier fabrics such as denim. For all other materials a plastic zipper will work well and create a softer finish to your completed garment.

For all types of zippers it is important to sew close to the teeth of the zipper. The zipper foot can be engaged in the foot holder to the left or right, depending on the method of insertion. Additionally, you can set the needle 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.

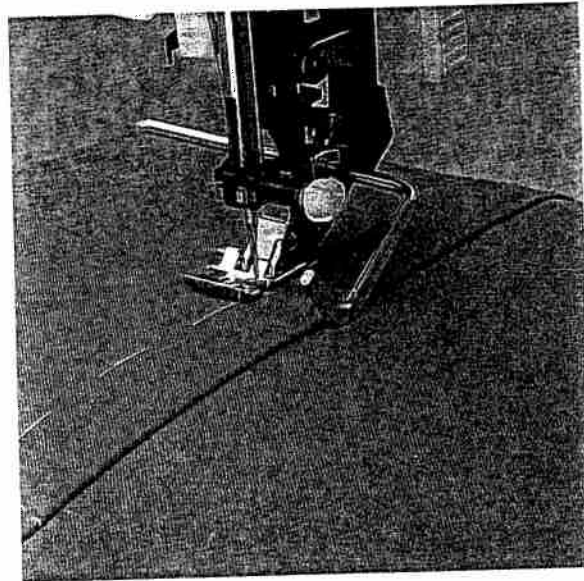
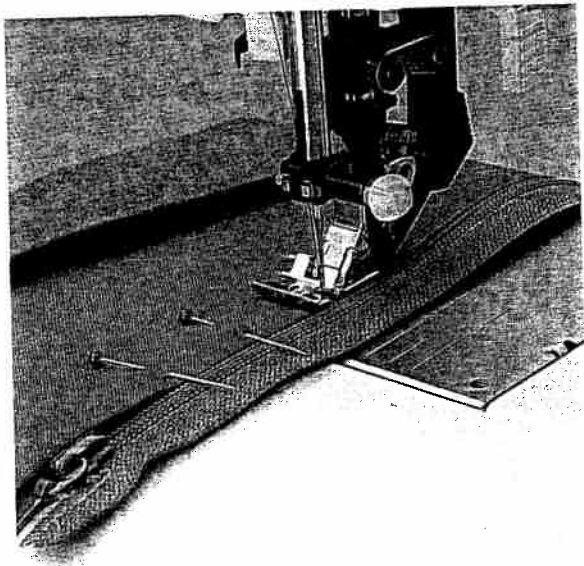


Inserting centered zippers (concealed on both sides)

- Attach the zipper foot to the right side.
- Baste or pin the zipper in place and position it under the presser foot so that the teeth run along the side of the presser foot. Bring the needle into the desired, right-hand position.
- Sew in half of the zipper, leaving the needle in the material. Raise the presser foot and close the zipper.
- You can now sew the rest of the seam to the end of the zipper and stitch the cross-wise seam.



- Sew the second half of the zipper parallel, the same distance from the center seam as the first half.
- Stop shortly before the end of the seam and leave the needle in the material. Raise the presser foot and open the zipper.
- You will now be able to complete the seam.

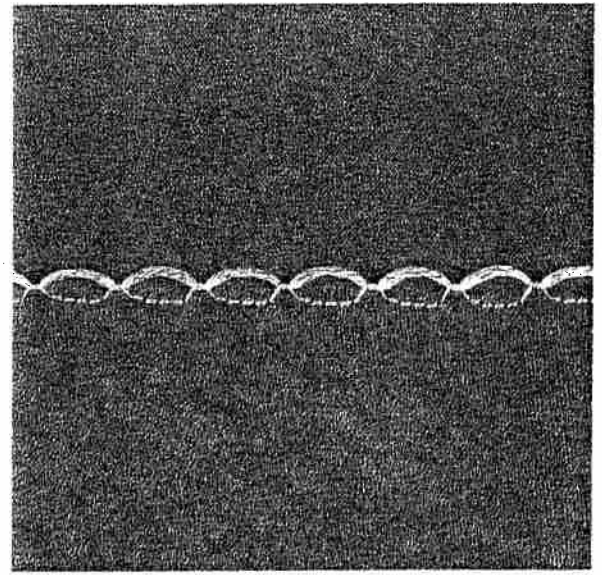
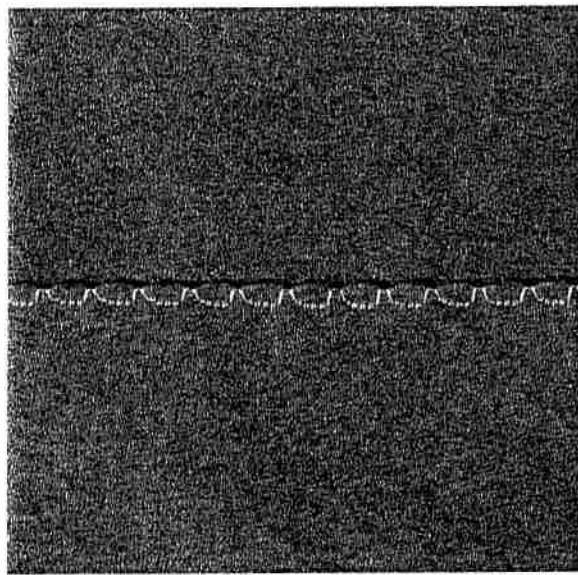


Trouser zippers

- Press the left front seam allowance over $\frac{3}{8}$ in (4 mm) narrower than the actual seam allowance.
- Baste the zipper under the overlapping edge so that the teeth are still visible.
- Engage the zipper foot on the right and set the needle to the required position.

- Stitch close to the edge of the zipper teeth.
- Shortly before the end of the seam, open the zipper and finish sewing the seam.
- Close the zipper and baste the overlap evenly onto the other zipper half.
- Stitch along the basted seam.

TIP: To achieve accurate seams we recommend using the edge guide.



Key

"Pattern mirroring" 

Shell edging

Prog. 5

Shell edging is very effective for thin, soft fabrics such as silk and rayon fabrics. It is frequently used as an edge finish on undergarments. Select **blind stitch No. 5** and mirror it with the

"Pattern mirror" key 

The tighter the needle thread tension is set, the farther the shell edging will pull in. Serge 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. This provides a more prominent shell edging effect.

Tip: If you add a colored pearl cotton thread at the edge you can strengthen the shell edging and obtain a pretty contrast at the same time. Instead of pearl cotton thread you can also place a different colored light fabric underneath.

Buttonholes
Page 83 - 94

Buttonholes

Contents

General notes on buttonholes	Page 86
Inserting the buttonhole guide	Page 87
Inserting the buttonhole foot	Page 87
Types of buttonholes	Page 88
Fully automatic buttonhole	Page 89
Semi-automatic buttonhole/ manual finish	Page 90 - 91
Manual buttonhole	Page 92
Buttonholes with gimp thread	Page 93
Tips for a perfect buttonhole	Page 94



Buttonholes

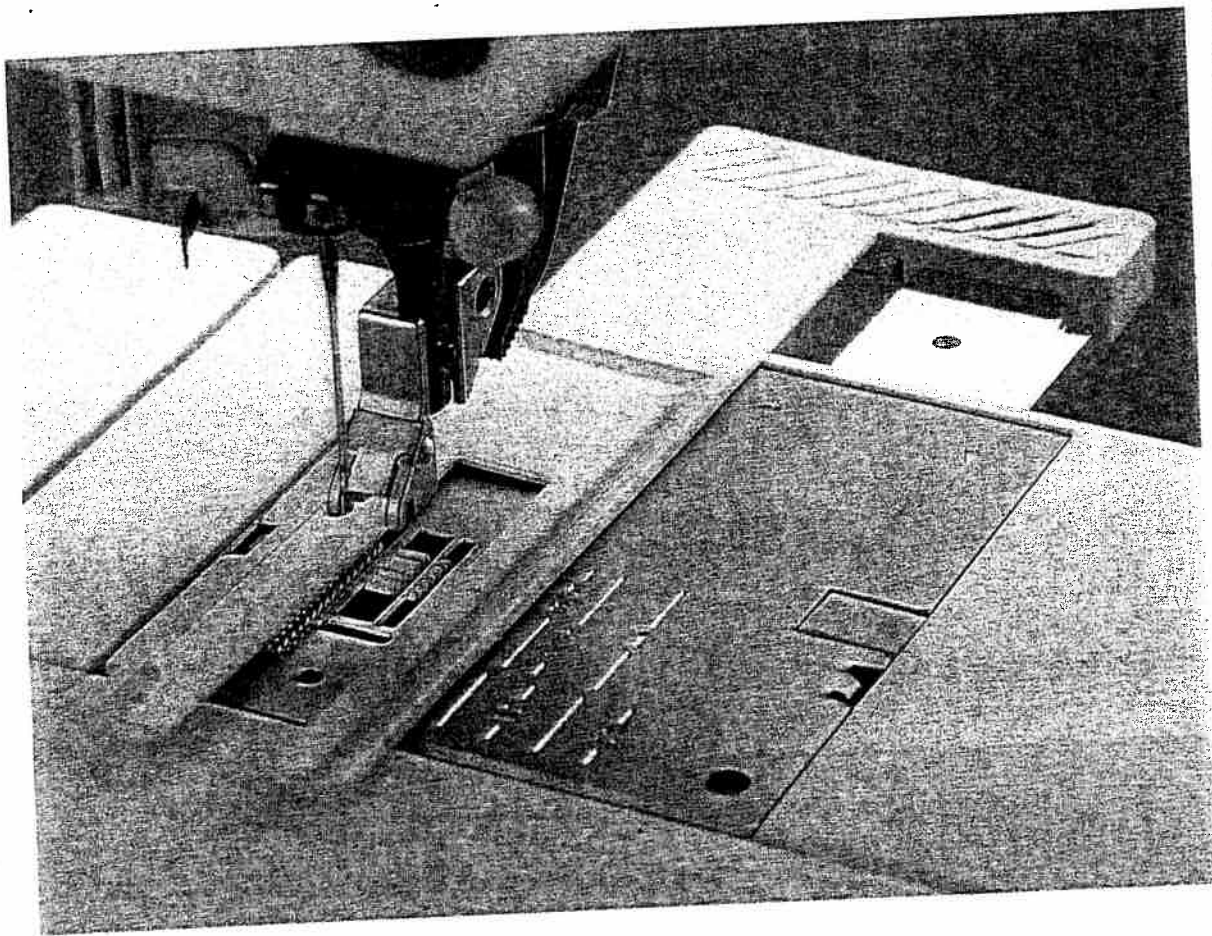
Your tiptronic has the perfect buttonhole for every fabric and garment. Whether you wish to sew buttonholes on jackets, pants (trousers), blouses or stretch fabrics, 4 different buttonholes (3 different buttonholes on the model 2030) give your hand-made garment the professional touch.

The tiptronic uses 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 tiptronic offers you three ways of sewing a buttonhole:

- fully automatically
- semi-automatically
- manual

The values for a semi-automatic and manual buttonhole are entered during the sewing operation.

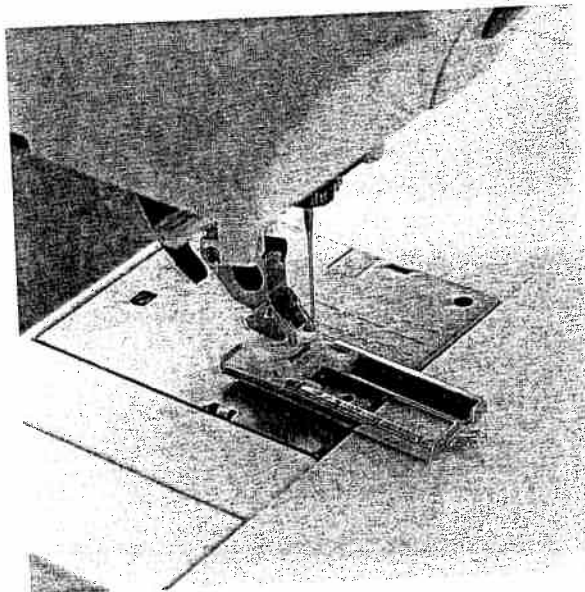


Inserting the buttonhole guide:

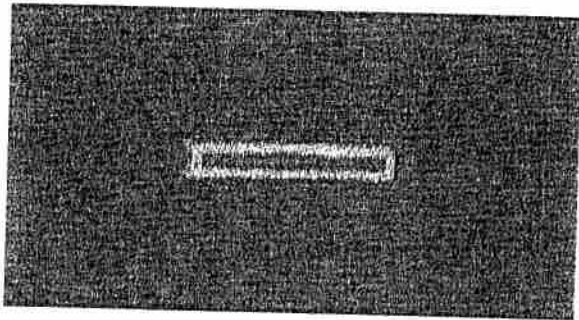
- Push the metal part of the buttonhole guide into the slot (between the two arrows) on the housing at the back of the needle plate. The white plastic part extends over the needle plate.
- Press the guide towards the front as far as it will go. It must spring back slightly so that there is a small gap between the guide and the back of the machine bed.

Inserting the 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).

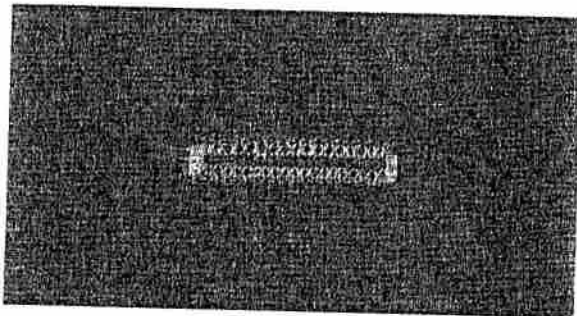


You can choose from the following buttonholes:



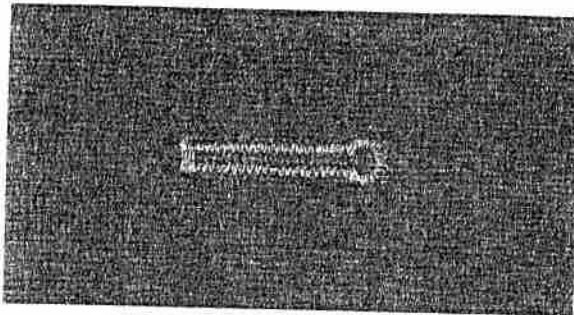
1) Linen buttonhole No. 9

for blouses, shirts, dresses, etc.



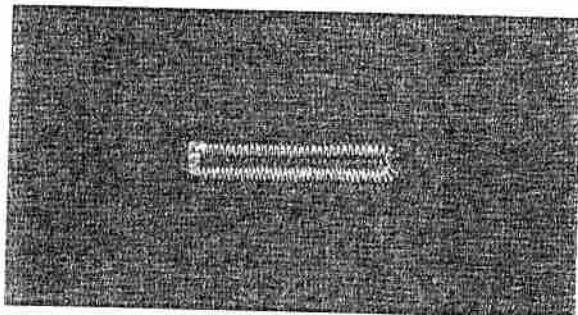
2) Stretch buttonhole No. 75
(No. 60 on the model 2030)

for stretch fabrics



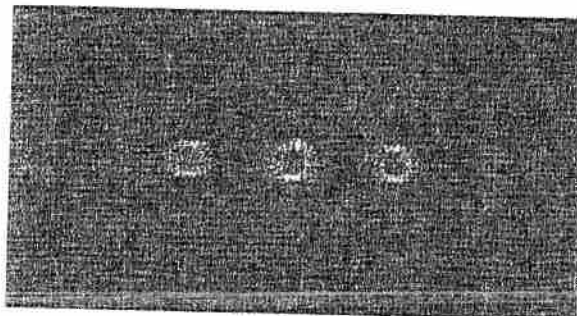
3) Keyhole buttonhole No. 76
(No. 61 on the model 2030)

for jackets, coats and pants (trousers)



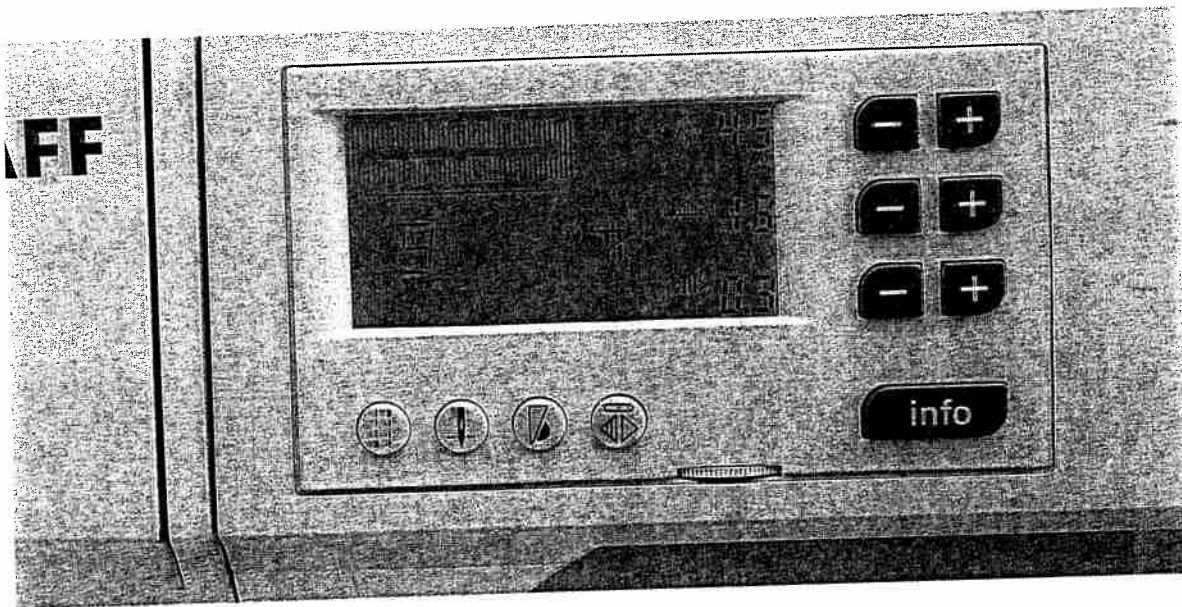
4) Round buttonhole No. 74
(only on model 2040)

for ladies' outer garments, especially blouses and dresses



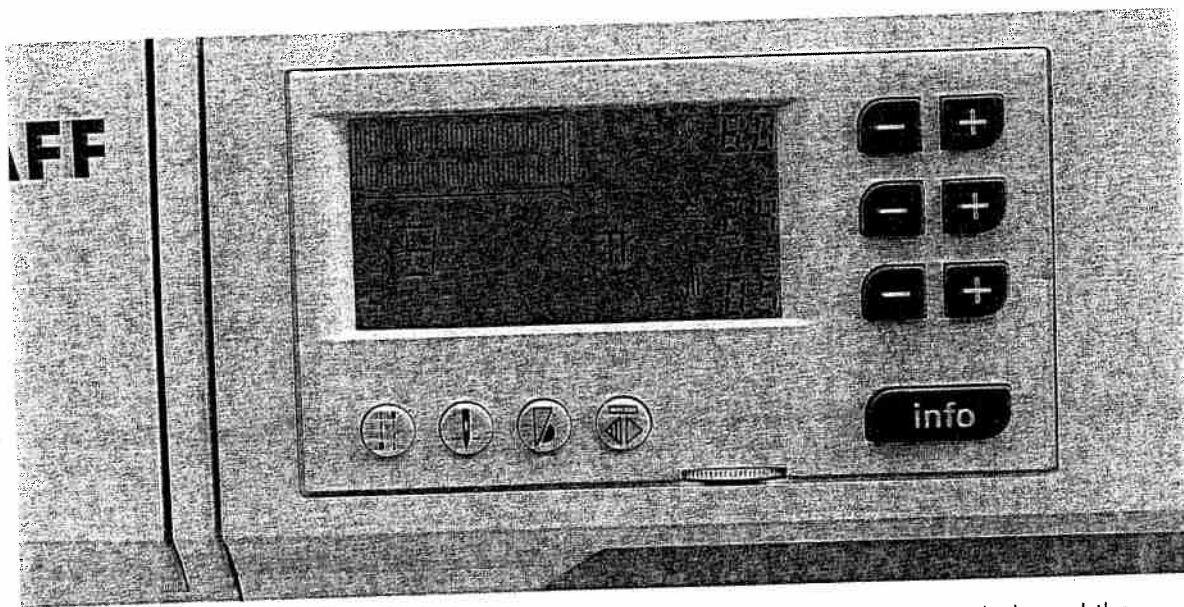
5) Eyelet No. 72
(only on model 2040)

for belts and undergarments

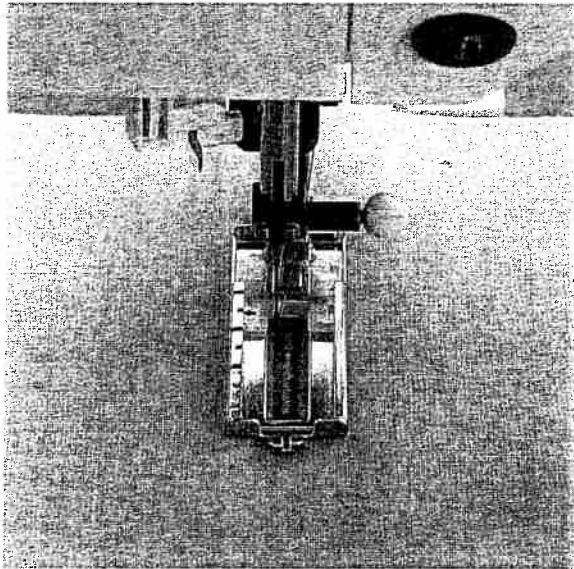


Fully automatic buttonhole

Select the desired buttonhole (e.g. No. 9). You can immediately start sewing.

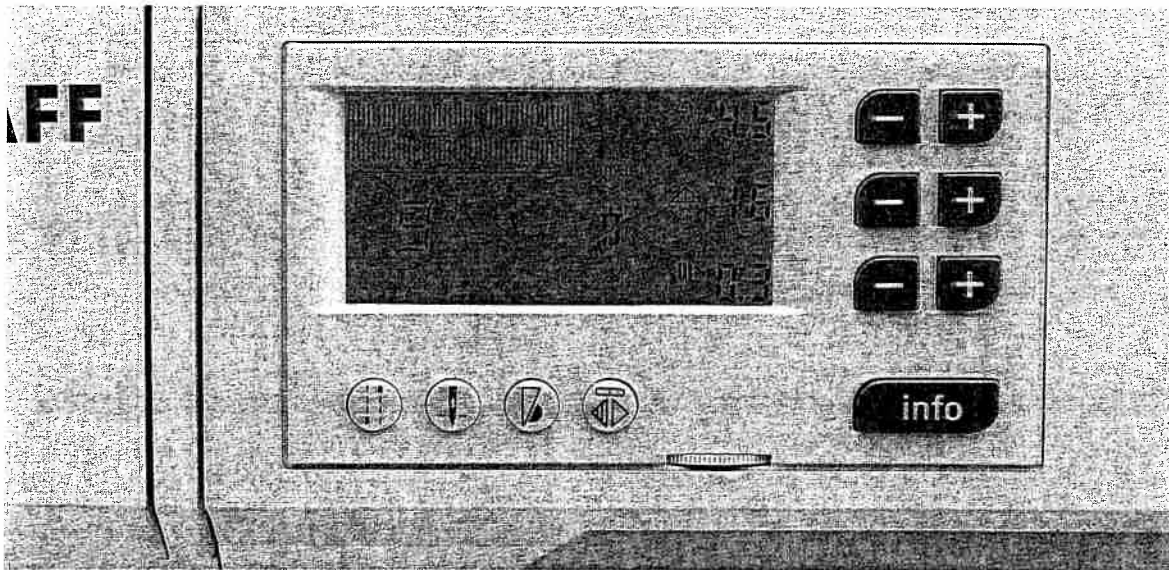


Using the key pairs **a**, **b** and **c**, you can adjust the length and width of the buttonhole and the stitch density.

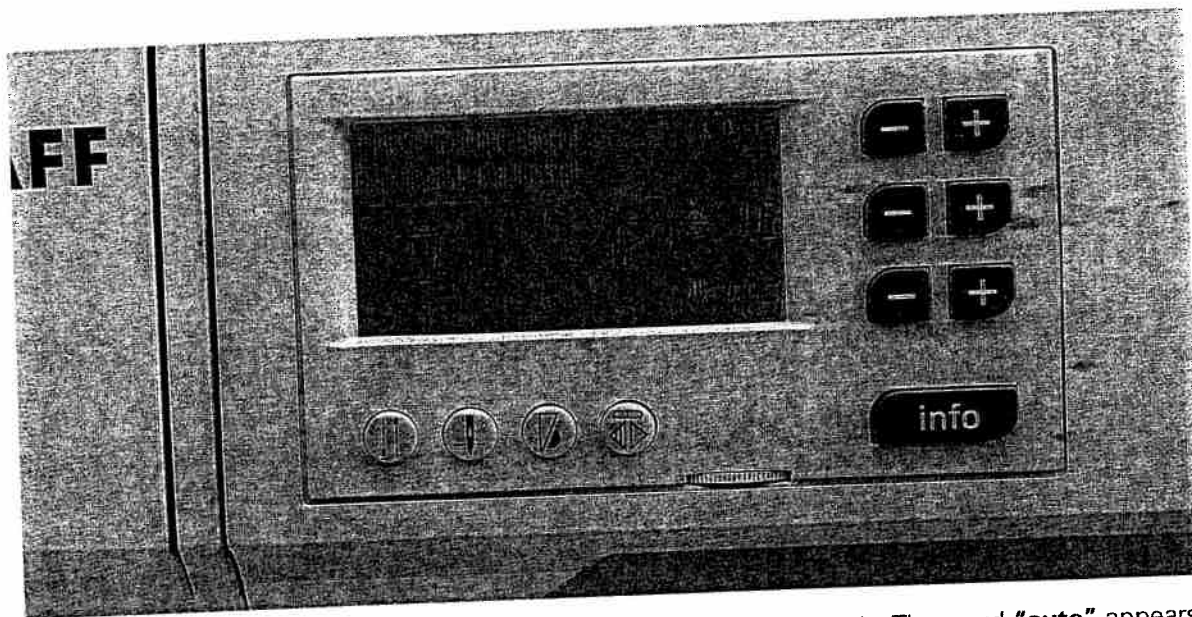


Semi-automatic buttonhole

You can also finish a buttonhole manually by pressing the **"reverse sewing"** key (33) one time after you have started sewing the buttonhole.



The word **"man"** appears in the display, indicating 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"** key (33) once again.



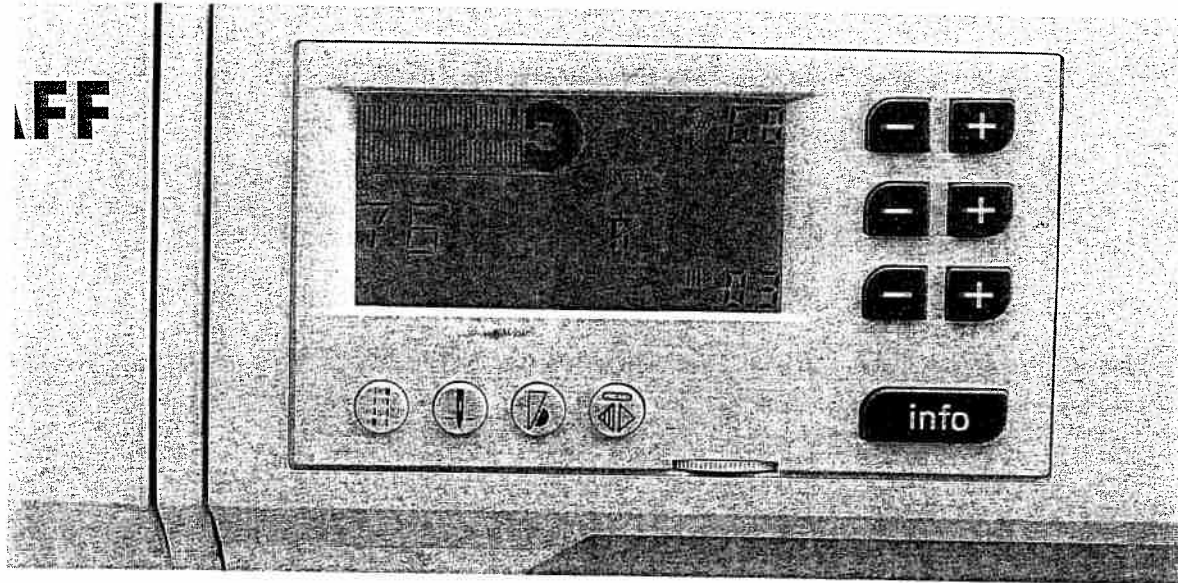
The machine will sew the second bartack and complete the buttonhole. The word "auto" appears on the display.



All remaining buttonholes will now be sewn automatically.

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

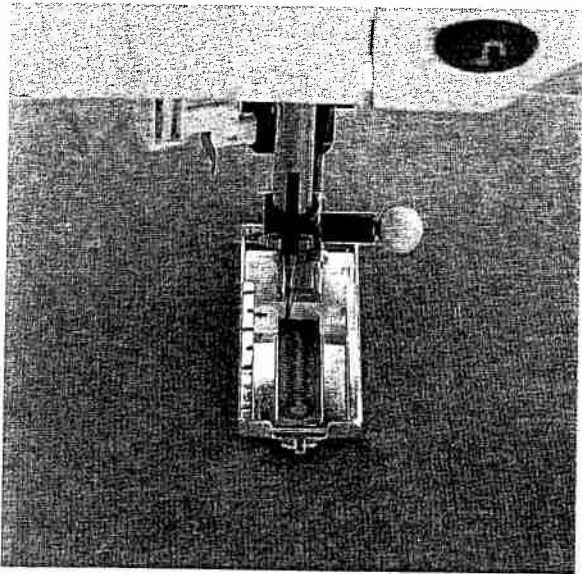
FF



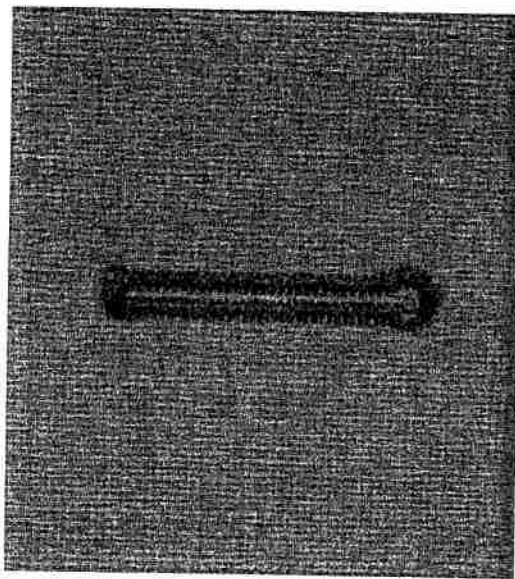
Manual buttonhole

You can also set the length of the buttonhole while sewing. Select the desired buttonhole. Press the "reverse sewing" key. The word "man" appears on the display. The buttonhole length, set previously, disappears.

Once you have reached the desired length, press the "reverse sewing" key once again. The machine will now sew the first bartack and the second buttonhole seam.

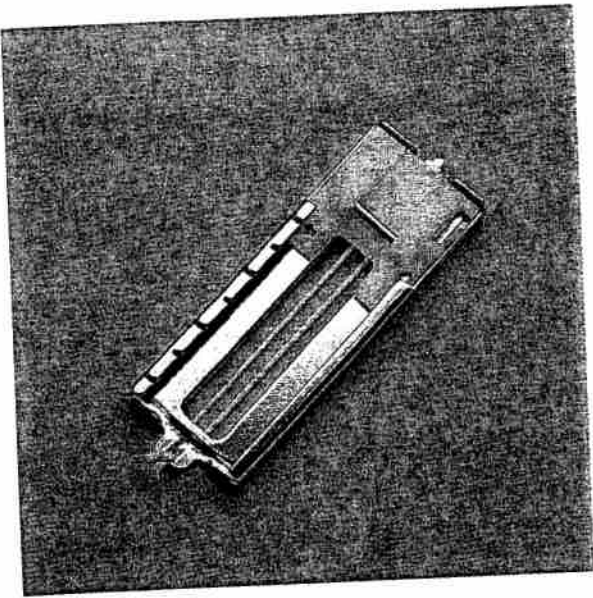


Before the left side of the buttonhole is completed, the machine will slow down. To complete the buttonhole with a second bartack, press the "reverse sewing" key once again. The machine will sew the second bartack and complete the buttonhole. The word "auto" appears on the display.



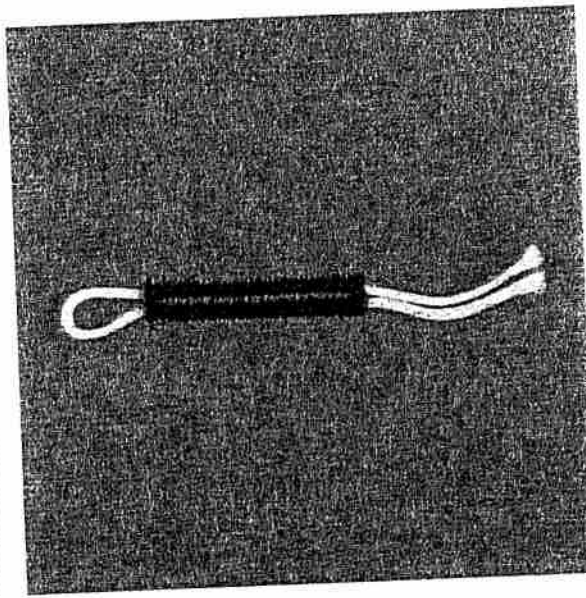
All remaining buttonholes can now be repeated fully automatically.

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



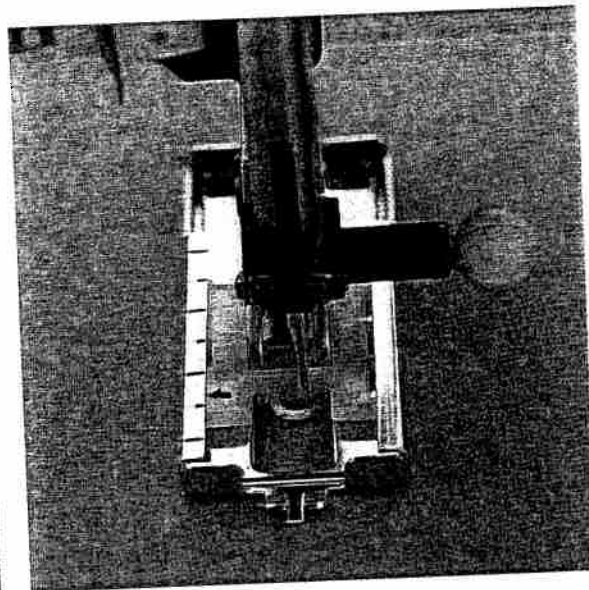
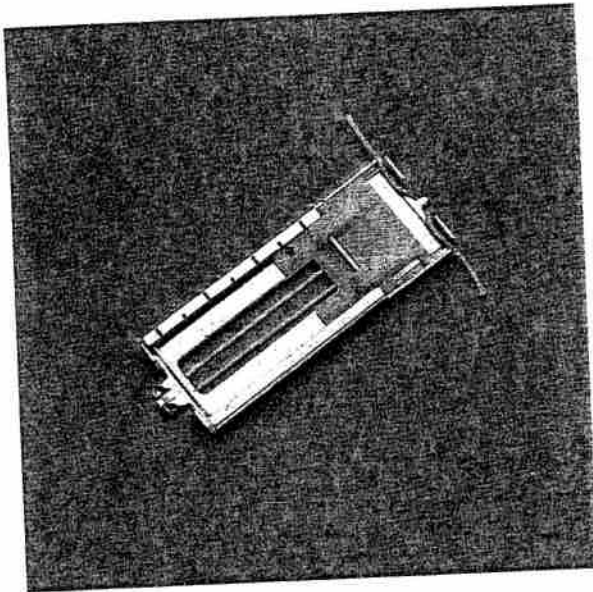
Buttonhole with gimp thread

Buttonholes that are sewn with gimp threads are more durable and professional appearing. Use pearl cotton or a regular gimp thread available at sewing shops. 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.

With the following tips perfect buttonholes can be achieved on even the most difficult fabrics:

- A wider, less dense buttonhole is recommended on heavy fabrics.
- Buttonholes that are to be sewn very close to a reinforced edge, may sometimes not feed optimally with the buttonhole foot. In this case, use the presser foot **No. 1**.
- 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 embroidery and darning 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.

Accessories and needles

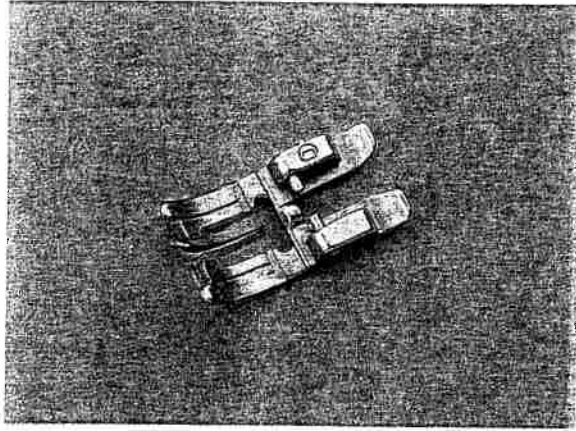
Page 95 - 114

Accessories
and needles

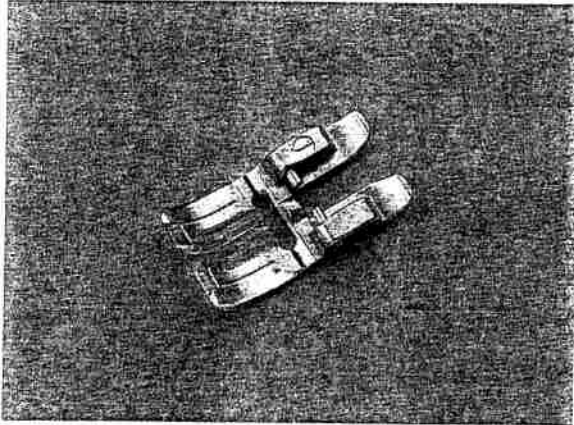
Contents

Presser feet (standard accessories)	Page 98 - 100
Special accessory table	Page 101
Felling foot/appliqué foot	Page 102
Shirring foot	Page 103
Cording foot/shirring foot	Page 104
Knit edge foot/ruffler	Page 105
1/4 inch quilt and patchwork foot	Page 106
Free motion quilting foot/ bias binder	Page 107
Pintuck foot with guide	Page 108
Non-stick fancy stitch foot for leather	Page 108
7/9 Hole foot/braiding foot	Page 109
Circular embroidery guide	Page 110
Fringe foot/narrow edge foot	Page 111
Needle chart	Page 112 - 113

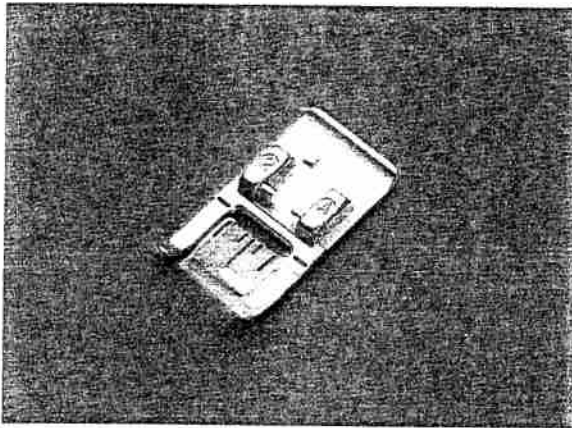
Presser feet (normal accessories)



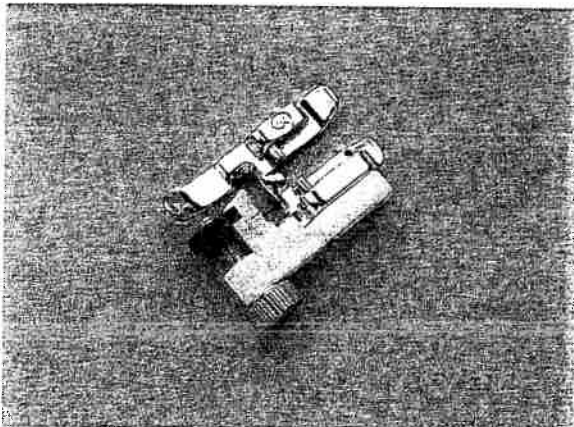
- 0 Standard presser foot**
Order No.: 98-694 816-00



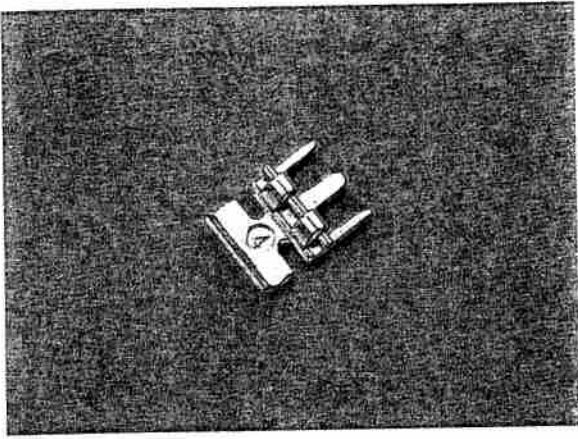
- 1 Fancy stitch foot (for dual feed)**
Order No.: 98-694 814-00



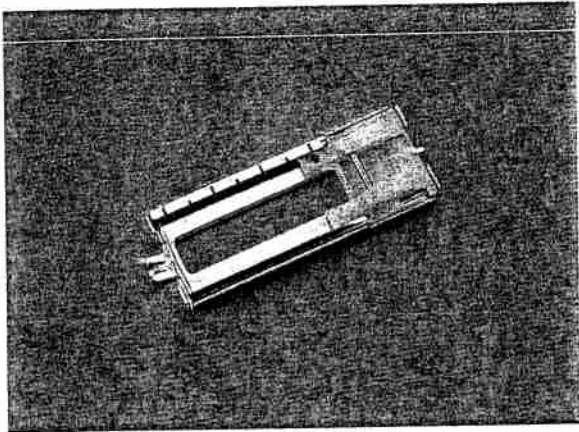
- 2 Fancy stitch foot (not for dual feed)**
Order No.: 98-694 897-00



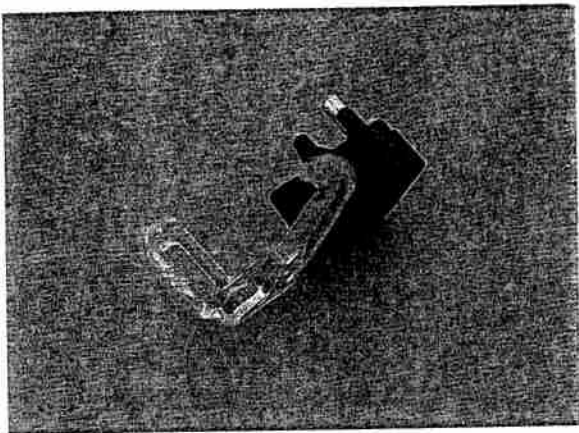
- 3 Blind stitch and overlock foot**
Order No.: 98-694 890-00



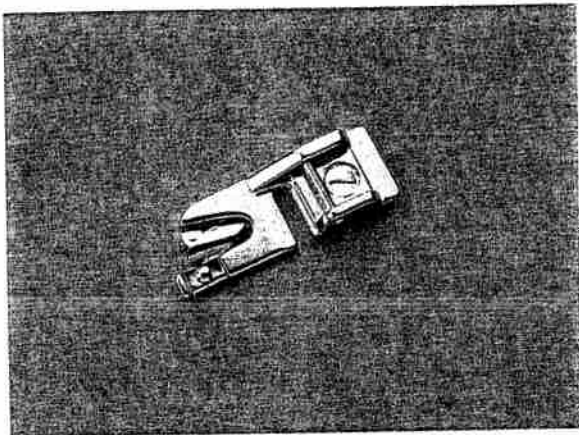
4 Zipper and edge presser foot
Order No.: 98-694 884-00



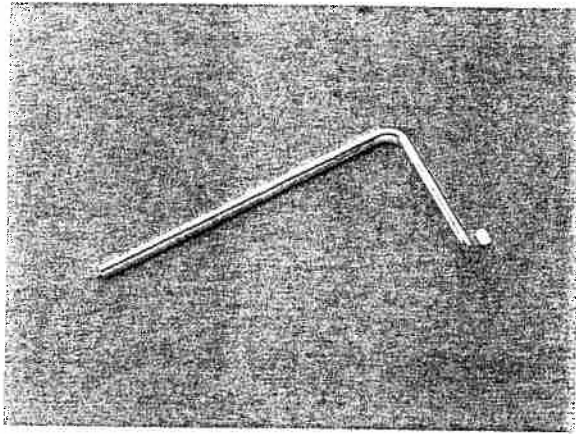
5 Buttonhole foot
Order No.: 93-036 990-91



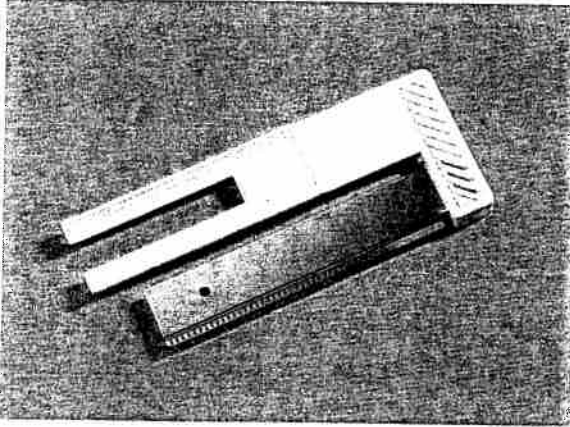
6 Darning foot
Order No.: 93-035 960-91



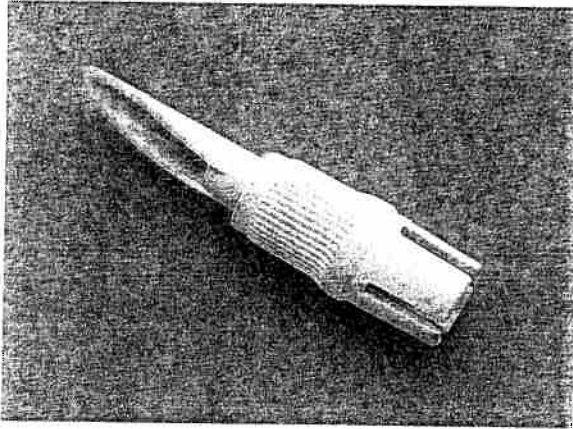
7 Hemmer
Order No.: 98-694 818-00



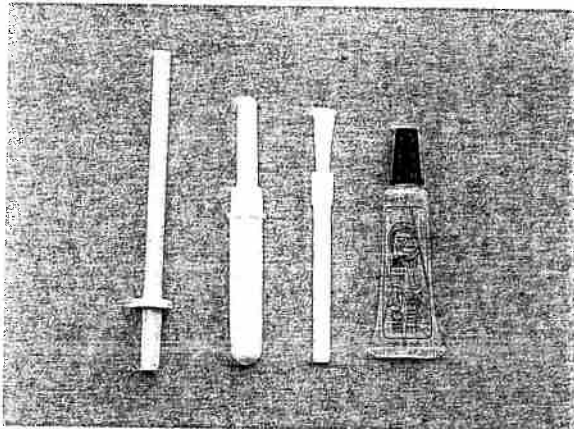
8 Edge guide
Order No.: 98-802 422-00



10 Buttonhole guide
Order No.: 93-037 595-91



Bulb remover/Needle plate changer
Order No.: 93-038 920-91



Second spool holder

Seam ripper

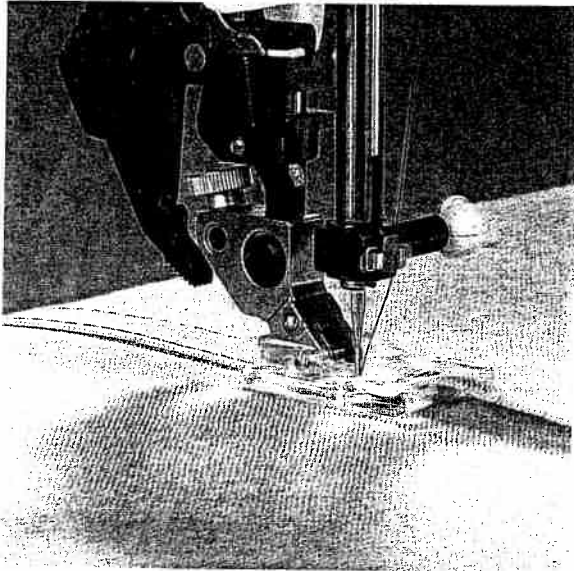
Brush

Oil

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

Designation	Order No.	Sewing work
Appliqué foot	93-042 941-91	For appliqué work
Open toe appliqué foot	93-036 931-91	Allows full view of work surface
Bias binder	98-053 484-91	For binding edges with bias tape
Pintuck foot, 5 grooves (size 80 twin needles with needle spacing 1.6 - 2.0)	93-042 950-91	For creating pintucks on light to medium weight fabrics
Pintuck foot, 7 grooves (size 80 twin needles with needle spacing 1.6 - 2.0)	93-042 953-91	For creating pintucks on lightweight fabrics
Cording tongue (2)	93-035 952-45	Enhances the effect of an uncorded pintuck
Fringe foot	93-042-943-91	For creating fringe/loop embroidery effects
Straight stitch foot with round hole	98-694 821-00	Warning! Only use straight stitch in center needle position.
Needle plate with round hole	98-694 822-00	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	93-043 946-91	For flat-felled seams on light to medium weight fabrics
Felling foot 6.5 mm	93-042 948-91	
Shirring foot	93-036 998-91	For gathering on very light weight fabrics
Shirring foot (metal)	93-036 967-91	For gathering on light to medium weight fabrics
Ruffler	98-999 650-00	For placing dense or loose pleats at regular intervals.
Cording foot	93-036 915-91	For cording
Eyelet plate dia. 4 mm	93-036 976-45	For eyelet embroidery
Eyelet plate dia. 6 mm	93-036 947-45	
Eyelet plate dia. 8 mm	93-036 948-45	
Roll hemmer 2 mm	98-694 873-00	For hemming edges
Hemmer 4 mm (for dual feed)	98-694 823-00	
Hemmer (without dual feed)	98-694 818-00	
Knit-edge foot	93-042 957-91	For sewing knitted fabrics
Non-stick presser foot	93-036 962-91	For embroidering leather
Circular embroidery guide	93-036 953-91	Circular embroidery
Faggoting guide	93-036 952-46	For sewing together two edges of fabrics with a hem-stitch seam effect
Quilting and patchwork foot	93-036 925-91	For quilting and patchwork jobs
Quilting and patchwork foot (for dual feed)	93-036 927-91	
Pintuck foot with guide	93-036 942-91	For embroidering areas between pintucks
Braid foot	93-036 936-91	For oversewing cording
7/9 hole foot	93-036 946-91	For oversewing decorative threads
Narrow-edge foot	93-036 939-91	For topstitching narrow edges, sewing lace or second fabric edge to main fabric and stitch-in-the-ditch quilting
Roller foot	91-046 703-03/001	For sewing leather
Free motion quilt foot	93-036 963-91	For quilt work
Quilt work finger guard	93-036 910-91	For all sewing work

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



Felling foot

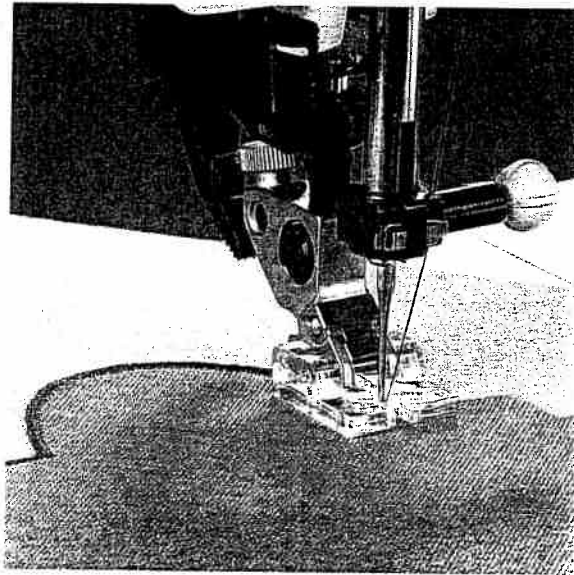
Flat felled seams are particularly strong and are commonly known as jeans seams. Seams on sportswear and children's wear, blouses and shirts are more durable with this technique. You can make these seams particularly decorative by using a sewing thread of a contrasting color. The felling foot is available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

Program: 1

Stitch length: 3

Tension: 1 - 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.

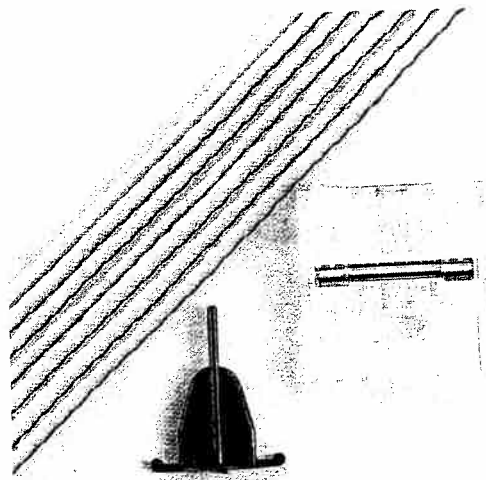
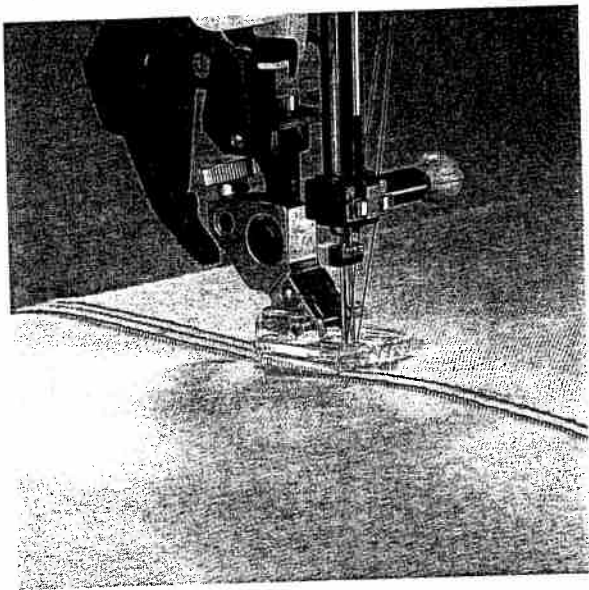
- Attach the appliqué foot.
- Transfer your drafted pattern to the paper side of a fusible, paper-backed webbing. Remember that any letters or numbers have to be drawn as mirror images.
- Iron the fusible webbing onto the appliqué material. Cut out your motif and peel the paper from the back of the applique.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

Program: 3

Stitch length: 0.35

Stitch width: 1.5 - 2

Tension: 2 - 3



Pintuck foot

This classic heirloom sewing technique can be easily duplicated on many types of fabric such as cotton and light woolens. 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.

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

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

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

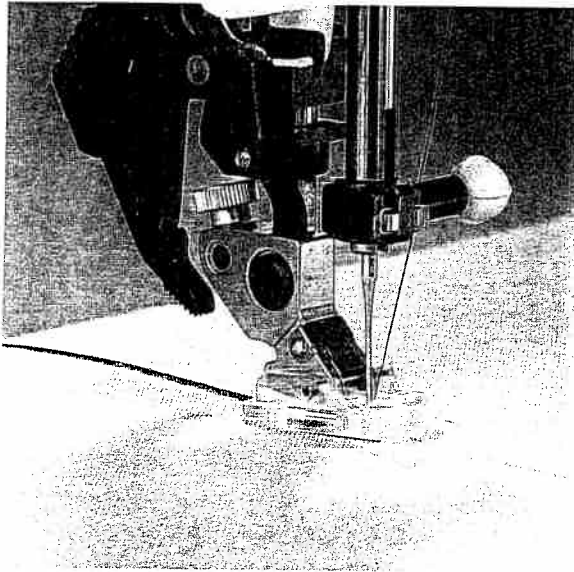
A cording tongue **is not used** when inserting a gimp thread in your pintucks.

- 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.

Program: 1

Stitch length: 2.5

Tension: 5



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.

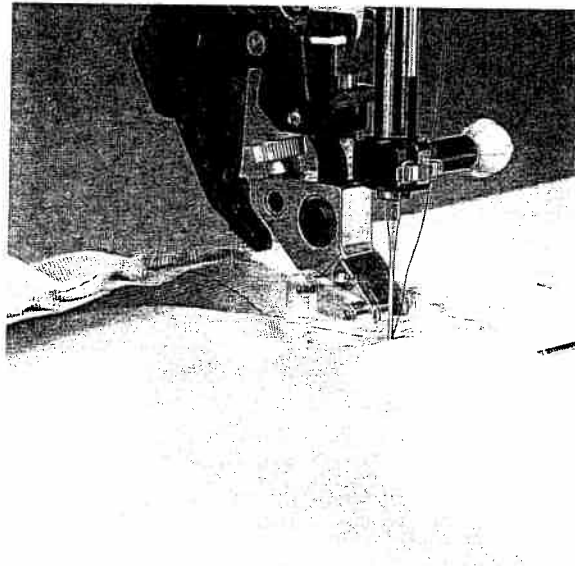
Tip: You can also obtain a remarkable effect by overstitching a medium pearl thread with a thread of a different color.

Program: 12

Stitch length: 0.4 - 0.6

Stitch width: 1.5 - 2

Tension: 3



Shirring 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.

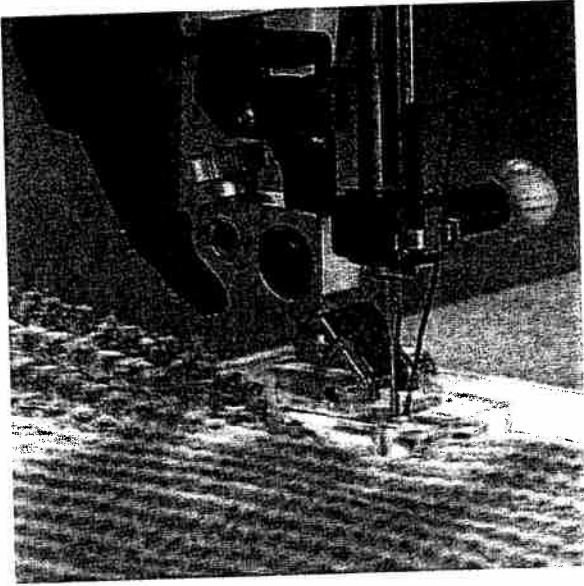
- Attach the shirring foot by hooking the rear bar of the foot into the rear groove of the foot holder. Push the foot upwards until it snaps into the front bar.
- Place the fabric to be gathered, face up, under the presser foot, and the fabric to remain flat, face down, on the top through the foot cut out.
- 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.

Program: 1

Stitch length: 3

Tension: 3 - 5



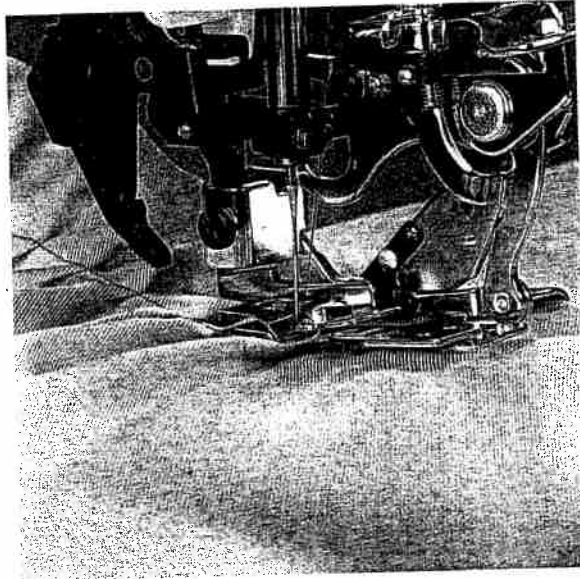
Knit edge/piping/beading foot

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 over-sewing a wool thread, pulled slightly taut, into the seam. This will give the seam additional strength and keep it from stretching out of shape.

Program: 15

Stitch length: 6.0

Tension: 3 - 5



Ruffler

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:

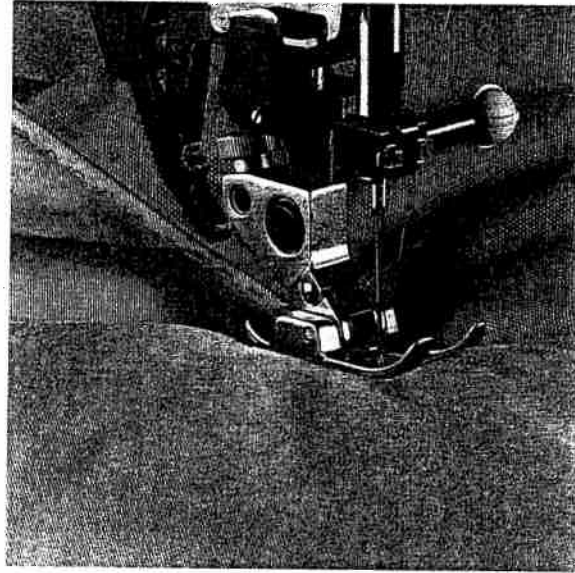
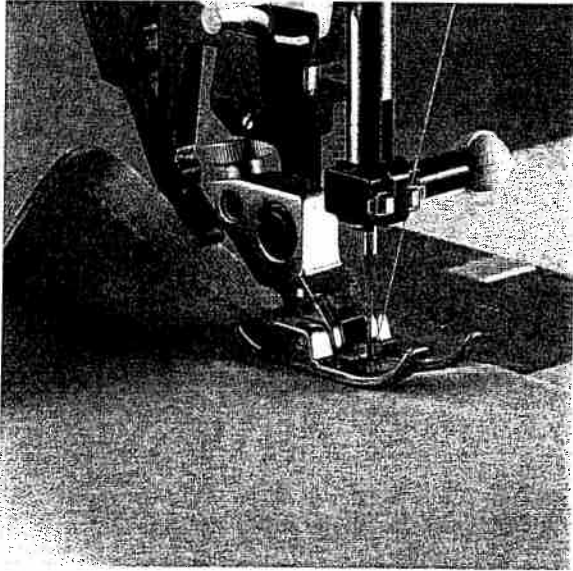
1. Folding and securing pleats in fabric.
2. Folding pleats in fabric and securing to a second fabric in one operation.
3. Folding pleats in fabric, attaching lace and securing to another fabric in one operation.

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

Program: 1

Stitch length: 3

Tension: 3 - 5



1/4 inch Quilt and patchwork 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 quilt and patchwork 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 quilt and patchwork foot.
- Sew together your pieces of fabric using program 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.

Program: 1

Stitch length: 2.5

Tension: 3 - 5

Quilting of the fabric layers:

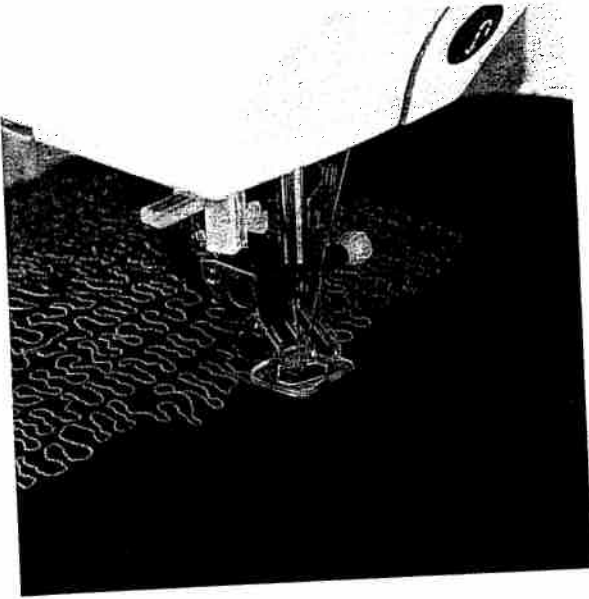
In traditional quilting the three layers of fabric are joined with small hand stitches. This hand-stitched look can be accomplished faster and easier with the sewing machine (program 11).

- 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.

Program: 11

Stitch length: 3 - 4

Tension: 9



Free-motion quilt foot

The free-motion quilt foot in combination with the straight stitch is well suited to 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.

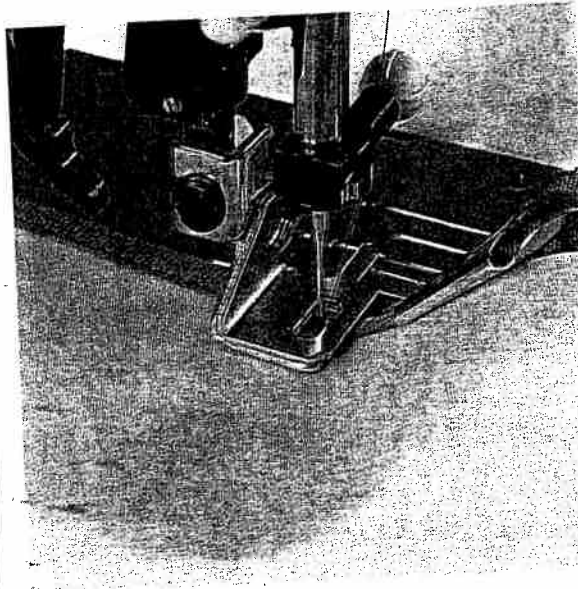
- Loosen the knurled screw on the presser foot holder.
- Press the free motion quilt foot gently together with thumb and index finger.
- Guide the pin of the free-motion quilt foot into the hole of the presser foot holder as far as it will go. The long fork of the free-motion quilt foot must be positioned behind the needle clamp.
- Tighten the knurled screw.
- Bring the free motion quilt foot into the darning position (see page 72) and lower the feed dog (see page 34).

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

Program: 1

Stitch length: 2.5

Tension: 3 - 5



Bias tape binder

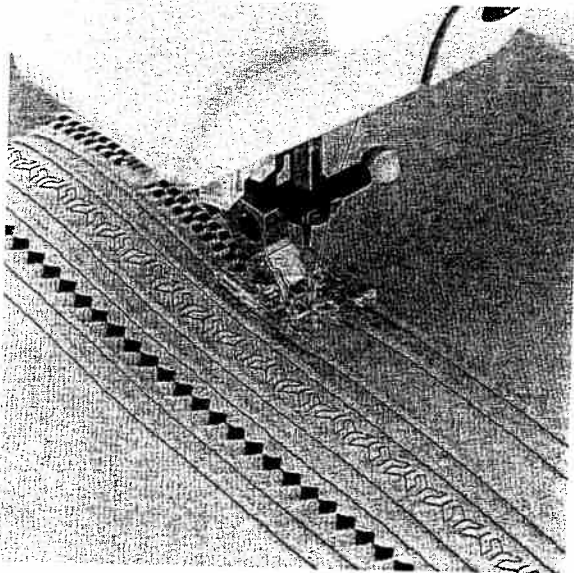
Binding with bias tape is a very easy method of giving fabric edges a smooth and neat appearance. For this you need unfolded bias tape about 1" (24 mm) wide.

- 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.

Program: optional

Tension: 3 - 5



Pintuck foot with 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 (1.6 or 2 mm space between needles).

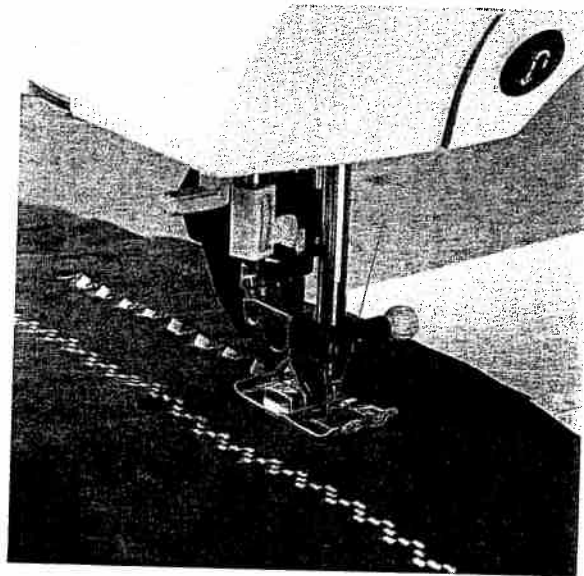
Thread the two needles (see page 31). Set the needle thread tension tight (4 - 5) and sew one pintuck (see also **page 103**) with or without gimp thread.

- 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. Embroider your desired decorative stitches in this space.

Program: 1

Stitch length: 2.5

Tension: 3 - 5



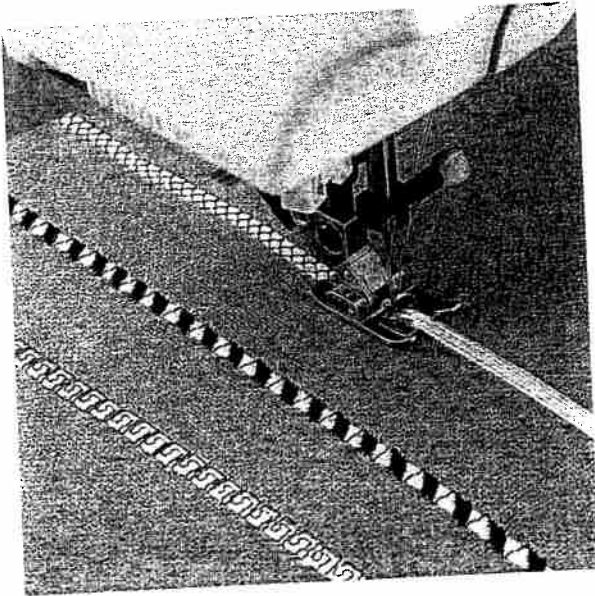
Non-stick fancy stitch foot (for leather)

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 fancy stitch 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 vinyl's to perforate. It is important to remember that needle piercing points will remain visible in leather.

Program: optional



7/9 hole foot

Beautiful decorative effects can easily be achieved with this presser foot. Up to 9 cords may be overstepped 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 foot.
- Overstitch the threads with a stitch and thread of your choice.

Tip: Pearl thread or embroidery twist is well suited.

Program: optional

Tension: 3



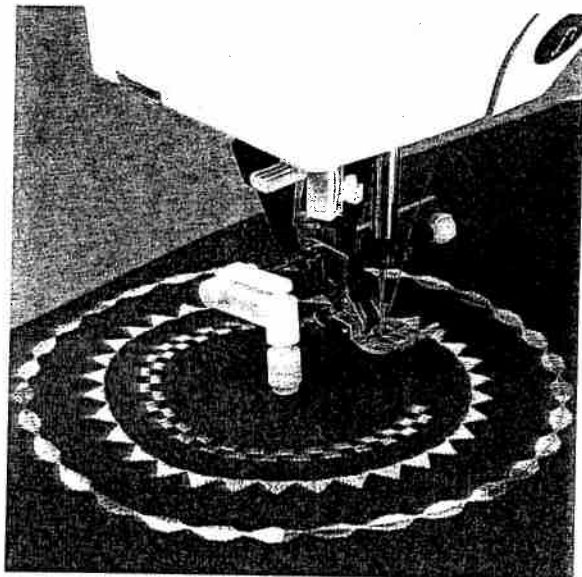
Braiding foot

This special foot is best suited for overstepping 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 braiding foot to the machine.
- Select a stitch and decorative thread of your choice and overstepp the cord or ribbon.

Program: optional

Tension: 3



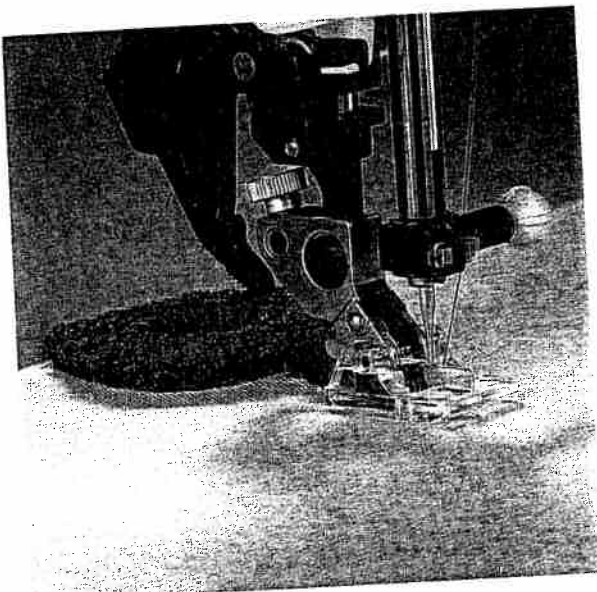
Circular embroidery guide

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 embroidery pattern 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.

Program: optional



Fringe foot

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

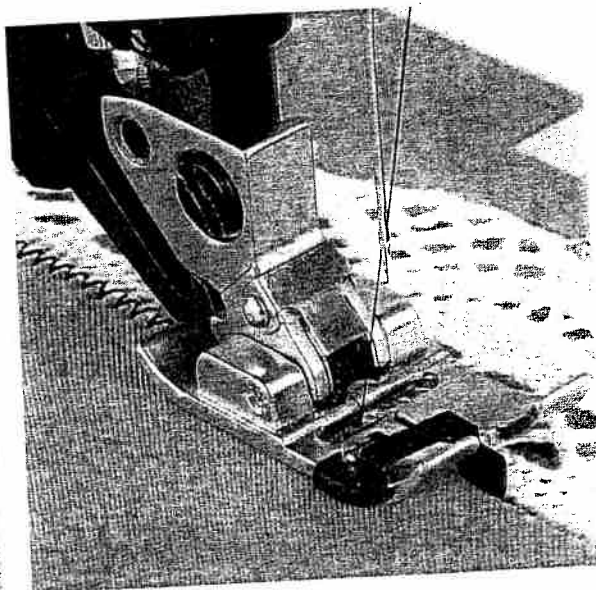
- Mark your desired pattern with a fabric marking pen.
- Place a piece of stabilizer under the fabric.
- Attach the fringe foot
- Set the upper thread tension to 2 - 3.
- Embroider the motif row by row. For circles you must work from the outside inwards.
- When using heavier threads, you should select 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.

Program: 3

Stitch length: 0.5 - 1

Stitch width: 1.5 - 2.5

Tension: 2 - 3



Narrow edge foot

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.

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

Program: 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.

Program: 3

Stitch length: 1 - 3.0

Stitch width: 1.5 - 3.5

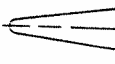
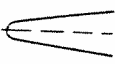
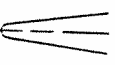
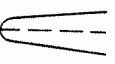

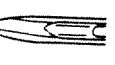

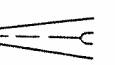
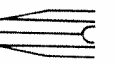

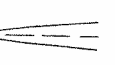

Tension: 3 - 5

Needle table


Using the correct needle guarantees better stitching of the fabric.

Fabric weight light <hr/> needle size 60 70 75	Fabric weight medium <hr/> needle size 80 90	Fabric weight heavy <hr/> needle size 100 110 120
---	---	--

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 - 110		Medium ball point	Coarse knitted fabrics, Latex, double-knit fabrics, Quiana and Simplex.
130/705 H-PS Size: 70 - 110		Medium ball point	Stretch-fabric needle developed especially for Pfaff. Particularly suitable for delicate stretch and knitted fabrics.
130/705 H-SKF Size: 70 - 110		Heavy ball point	Wide-meshed corsetry, Lycra, Simplex and Latex
130/705 H-J Size: 90 - 110		Acute round point	Twill, work wear, heavy linen, blue jeans and light canvas.
130/705 H-LR Size: 70 - 110		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 N Size: 70 - 110		light ball point, long eye	Topstitched seams with buttonhole silk of No. 30/3 synthetic thread
130/705 H-WING Size: 100/120		Hemstitching point	Attractive 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	Top-stitched seams for quilting
130/705 H-E Size: 80, 90		Medium ball point	Embroidery work

Needle chart


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

Fancy patterns with twin needles

Before sewing the desired embroidery 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	embroidery
	Size: 80	0.5-1.5 mm	narrow	2.0 mm	embroidery
	Size: 80	0.5-1.5 mm	narrow	2.5 mm	embroidery

Hem stitch / special twin needle

	Classification	Stitch length	Stitch width	Needle spacing	Suitable for
	130/705 H-ZWI-HO Size: 80 Size: 100	2.3-3.0 mm 2.0-3.0 mm	very narrow very narrow	- -	Decorative hem stitch effect. Well finished woven fabric and fine batiste are particularly suitable.

Triple needle

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

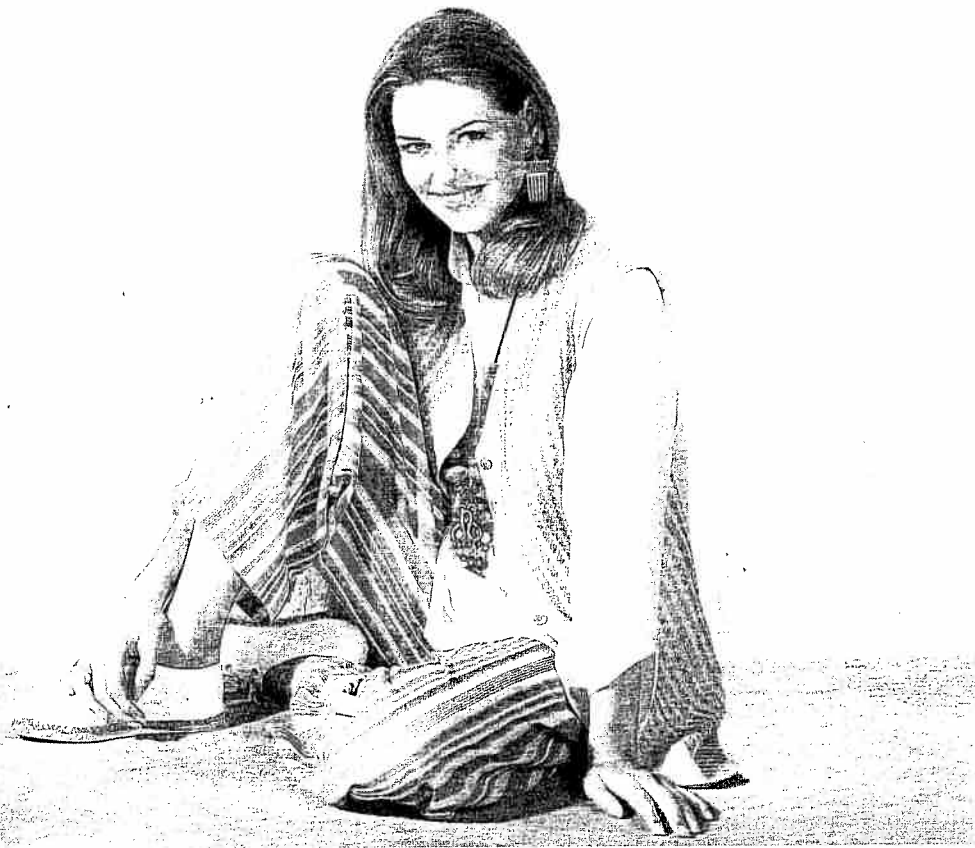
	Classification	Stitch length	Stitch width	Needle spacing	Suitable for
	130/705 H				
	Size: 80 Size: 80	0.5-1.5 mm 0.5-1.5 mm	very narrow very narrow	2.5 mm 3.0 mm	embroidery embroidery



Traditional embroidery techniques
Page 115 – 134

Contents

General notes on embroidery	Page 118
Combined borders	Page 119
Combined borders using twin needle	Page 119
Monograms	Page 120
Free motion embroidery	Page 121
Altering pattern width/length for combined borders	Page 122
Tapering/Embroidering with satin-stitch zigzag	Page 123 - 125
Automatic tapering	Page 126 - 127
Appliqué work	Page 128
Richelieu	Page 129
Patchwork/Quilting	Page 130 - 131
Cross-stitch	Page 132
Eyelet embroidery	Page 133
Hemstitching	Page 134



General notes on embroidery

To enhance your own home textiles or garments the tiptronic 2040 and 2030 offer you a wide variety of fancy and decorative stitches. You can produce even greater embroidery variations by combining different patterns, colors and sizes. For embroidery work we recommend using special embroidery threads which are available from your PFAFF dealer.

For areas to be embroidered you should always use an iron-on backing or other stabilizer under the fabric. Properly stabilizing your fabric will help eliminate distortion of your embroidery stitches. Mark your embroidery lines with a fabric marking pen or chalk. It is important to use **only** fabric marking pens/pencils. These marks can be removed after completing of your embroidery work.

The following recommendations apply to all embroidery work:

The stitch length and width can be altered as desired.

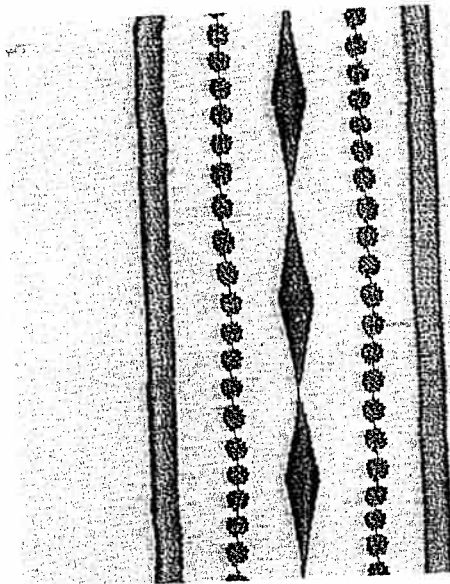
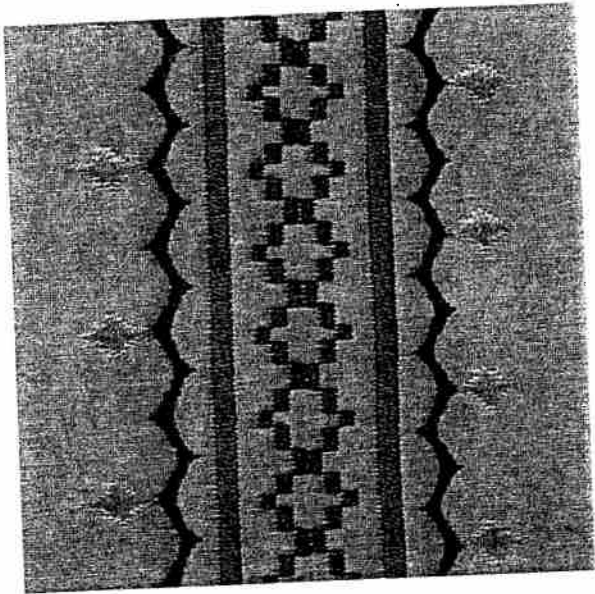
Thread tension:

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.

If needed, the bobbin thread tension can be increased/decreased to produce a consistent quality and a three-dimensional appearance to your work (see page **25**).

Presser feet:

Presser feet No. 1 (for dual feed) and **No. 2** (without dual feed) are most suitable for embroidery work. We recommend **presser foot No. 2** for difficult to handle fabrics.



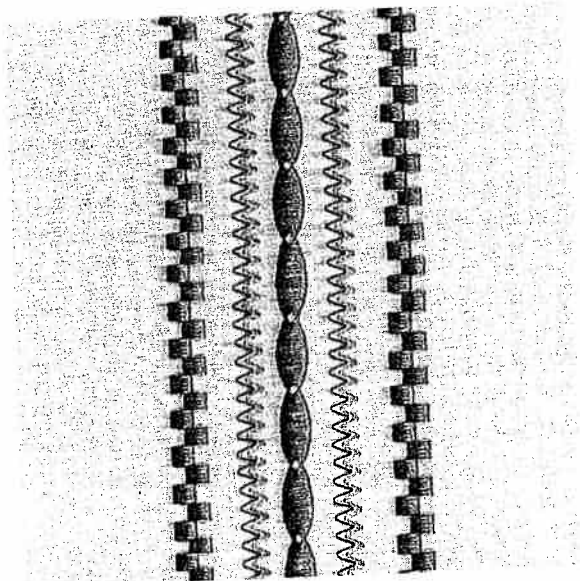
Combined Borders

Following, we give you an example of how you can create borders of any width by combining different embroidery programs. Coats Alcazar rayon embroidery threads are very suitable. They are available in many colors and weights. However, for this example, only one weight of thread was used for the embroidery work.

Apply iron-on backing or other stabilizer under the fabric.


Mark the center of your fabric with a fabric marking pen/pencil. Embroider **program 57 (model 2030 prog. 50)**; stitch width 6 mm along your line. Next press the **"Pattern mirror key" (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 program 3; stitch density 0.2 mm and **program 60 (model 2030 prog. 53)** along each side of your center embroidery. Your completed border should now have six rows of embroidery borders.

Finally embroider on the second tip of the last pattern embroidered a motif from **program 63 (model 2030 prog. 56)**. To do so turn the fabric crosswise.

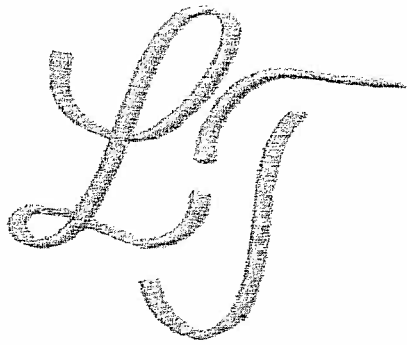


Twin needle

Additional embroidery 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 on the display (see page 31).

Variegated embroidery thread was used for this border combination. What a beautiful effect! Apply iron-on backing or other stabilizer under the fabric.



Monograms

On terry cloth or other woven fabric, the darning foot and **program 3** (stitch width 3 - 6 mm) allow you to monogram any initials of your own design.

Free motion guiding, however, does require a little practice at the beginning.

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

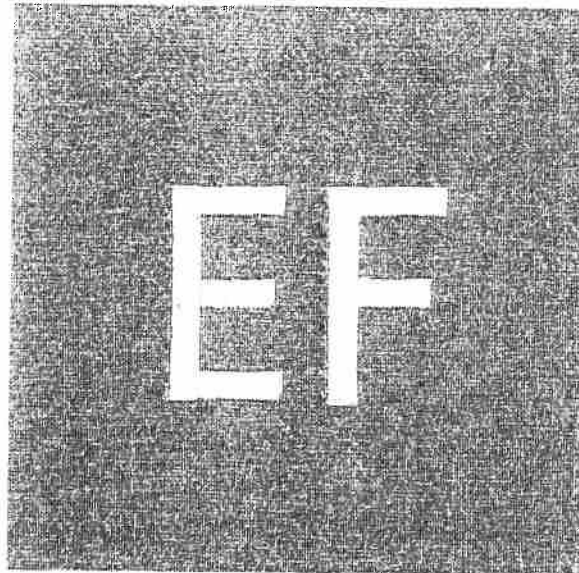
Attach the darning foot and bring it into the darning position (see page 72).

Lower the feed dog.

Place a piece of water-soluble stabilizer on the right side of the fabric. Frame 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 work and remove the stabilizer. 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, giving you more control of your free-motion embroidery. 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.



On terry cloth, it is important to first sew the monogram with a narrower stitching. This first row of stitching (base or pad stitching) will help keep the loops of the terry cloth from poking through your finished monogram and give the monogram a raised or padded look. After you have completed your base stitching, set the width of your zigzag slightly wider and oversew the monogram again. These steps will give your monogram a more professional appearance.

Block capitals are a little easier to embroider. The feed dog does not need to be lowered; i.e. no free motion guiding is required. Simply stitch along the marked lines with **program 3**, stitch width 3 - 6 mm and stitch density 0.2 - 0.3 mm.

Apply iron-on backing or other stabilizer under the fabric and water-soluble stabilizer on the top of the fabric.

Mark the monogram on the fabric.

Embroider the marked lines with the zigzag stitch.



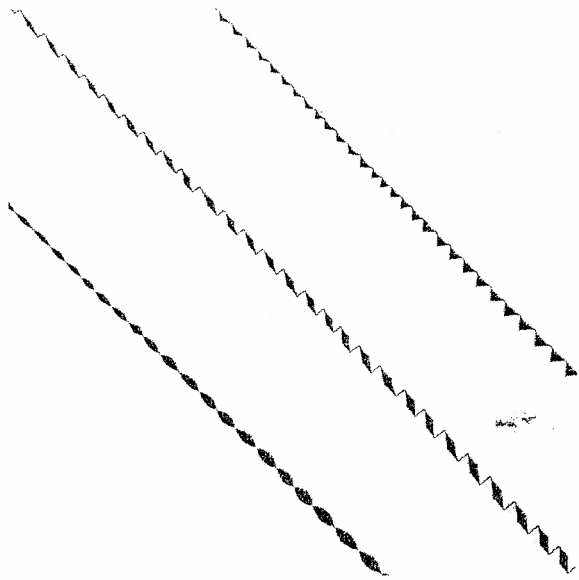
Free motion embroidery

These striking embroidery motifs can easily be sewn with your tiptronic using the following method:

- Draw the outline of the finished belt onto the fabric using marking pen or chalk.
- Copy the motifs on to a water-soluble stabilizer.
- Position the motifs on the belt and pin in place.
- Frame the fabric and the water-soluble stabilizer in an embroidery hoop.
- Embroider the belt using free motion embroidery.

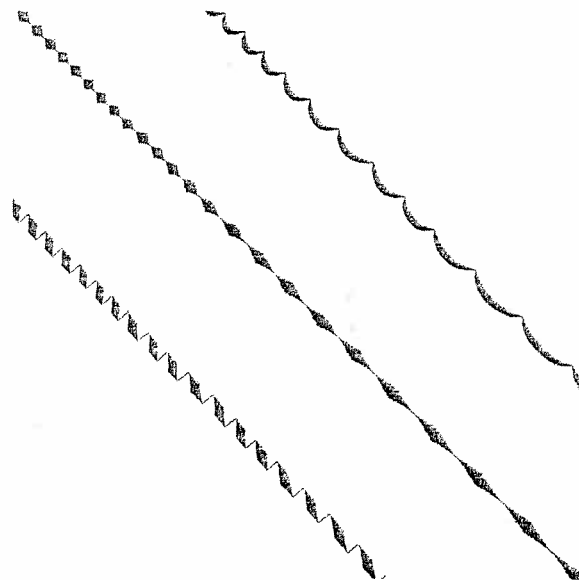
Tip: The quicker you sew, the more even the embroidery.

You can use a dense zigzag stitch for the stem and sew with the feed dog engaged (also see "Tapering").



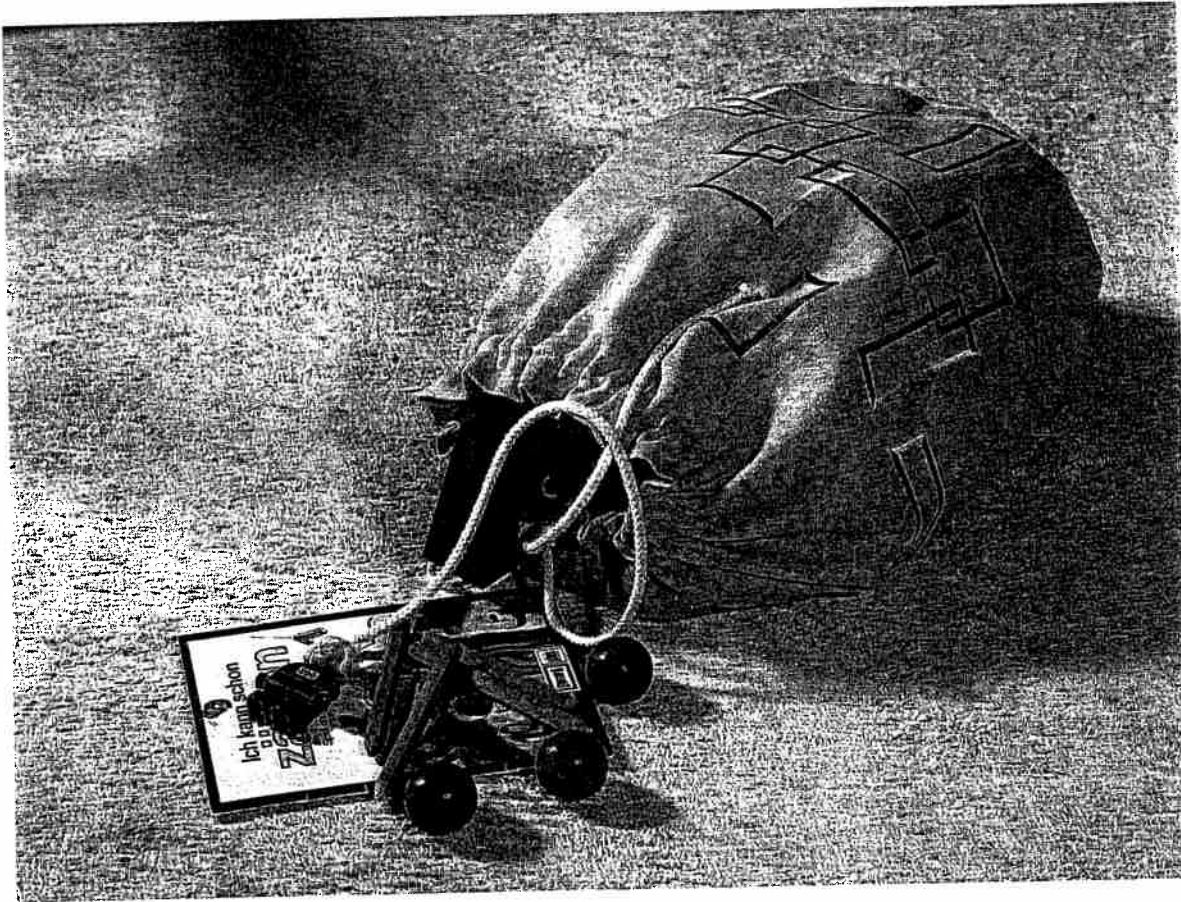
Changing the pattern width

The pattern width can be altered using key pair **a (1)**. The width can also be adjusted while sewing.



Changing the pattern length

The pattern length can be altered using key pair **b (2)**. The length can also be adjusted while sewing.



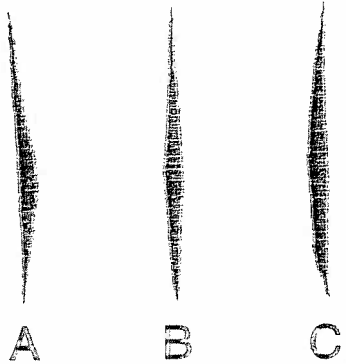
Tapering/Embroidering with the satin-stitch zigzag

With your tiptronic 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.

Brand new - and only with PFAFF - you can now automatically taper with your tiptronic, i.e. you can embroider perfect corners at 90° angles. You can use this technique for appliqué, decorative buttonholes and for interesting embroidery patterns.

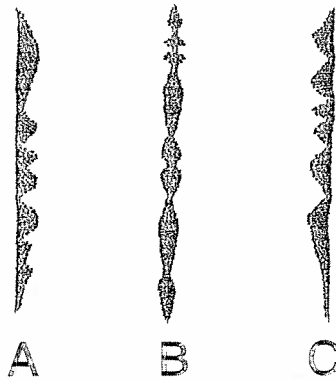
The instructions for automatic tapering are described on the following pages.



Manual change/ Regular pattern

- Apply iron-on backing or other stabilizer under fabric.
- Set needle thread tension to 3. Select the zigzag stitch needle position (**Prog. 12**). Pressing the "**Pattern mirror key**" (**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 mm.
- With key pair **a** increase the width while sewing 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

- Apply iron-on backing or other stabilizer under fabric.
- Set needle thread tension to **3**. Select zigzag stitch **12** 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 key pair **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.



Floral embroidery

For this blossom arrangement the work was done exclusively with the satin stitch zigzag in combination with the variable stitch width and different needle positions.

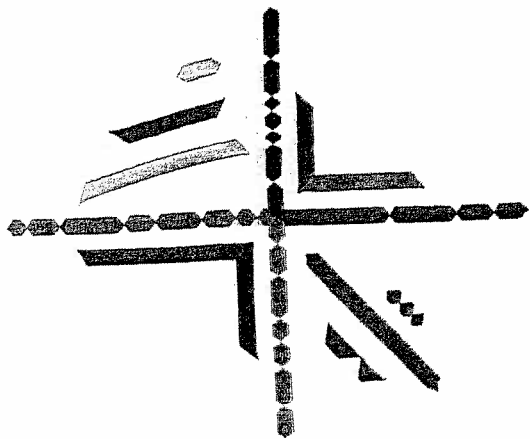
- Apply iron-on backing or other stabilizer under fabric.
- Draw the outlines of the floral motif with a fabric marker.
- Set the needle thread tension to **3**, stitch length to 0.2 - 0.3 mm.
- Select zigzag stitch **12** for motifs with a right or left needle position or zigzag stitch **3** for motifs with a center needle position.

Blossoms

- Select program **3** (center needle position) and embroider individual petals. Change the stitch width using key pair **a** to follow the blossom contour.

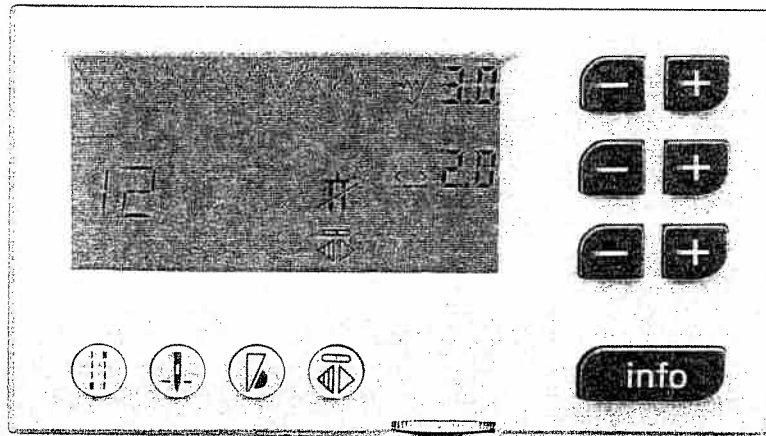
Leaves

- In program **12** (right or left needle position) select the desired needle position ("Pattern mirror key") and embroider a leaf half. Vary the stitch width using key pair **a**. After finishing the first leaf half turn the hand wheel towards your until the needle is at its lowest position.
- Pivot 180° and embroider the second leaf half.



Such motifs can be easily achieved using automatic tapering. Instructions for creating these motifs are described on the following pages.

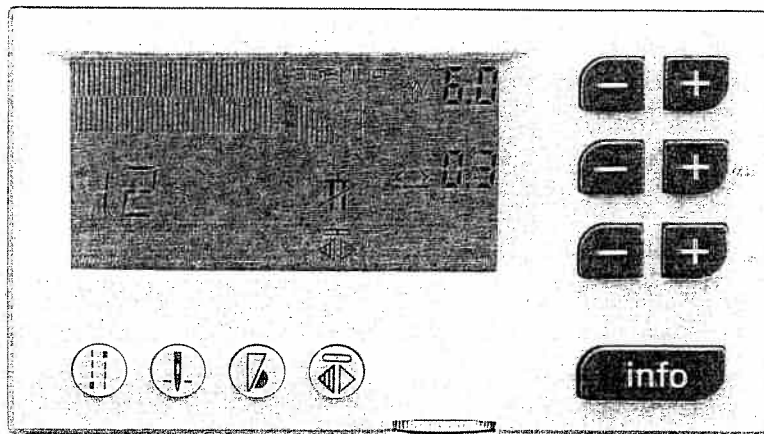
FF



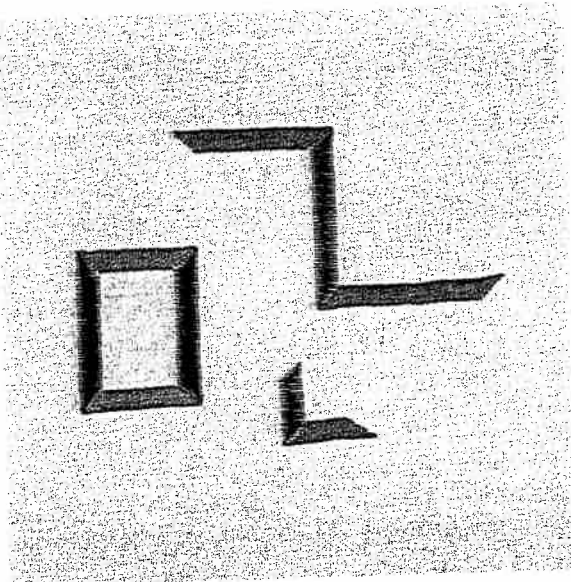
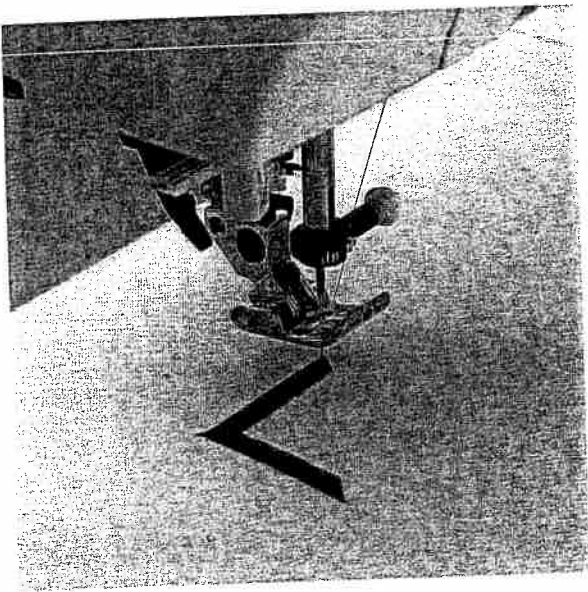
Automatic tapering

You can use both stitch **No. 3** and stitch **No. 12** for automatic tapering. If you would like to embroider i.e. the corners of a border, then select zigzag stitch **No. 12**. Press the **tie-off key (36)** three times. A dense zigzag stitch appears on the display and beside it the word "tapering" with an arrow pointing to the taper of the corner on the left. Now you can start sewing the point. If you wish to sew the corner, then press the reverse sewing key **(33)** while sewing. The taper will be sewn automatically at an angle of 45°.

FF



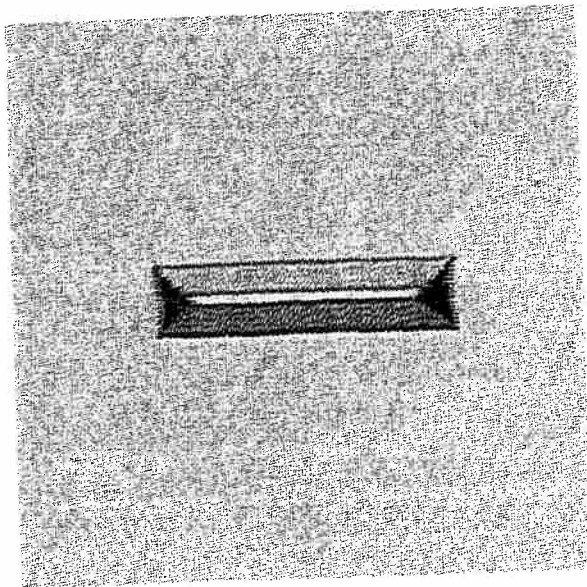
The machine stops at the taper and the needle remains in the fabric so that you can turn the fabric 90°.



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

- If you wish to start the pattern without a taper, then press the **tie-off key (36)** twice before starting to sew.
- If you wish to sew a pattern without a taper, then press **the tie-off key (36)** four times before starting to sew.

Now you can sew simple but perfect tapering motifs.

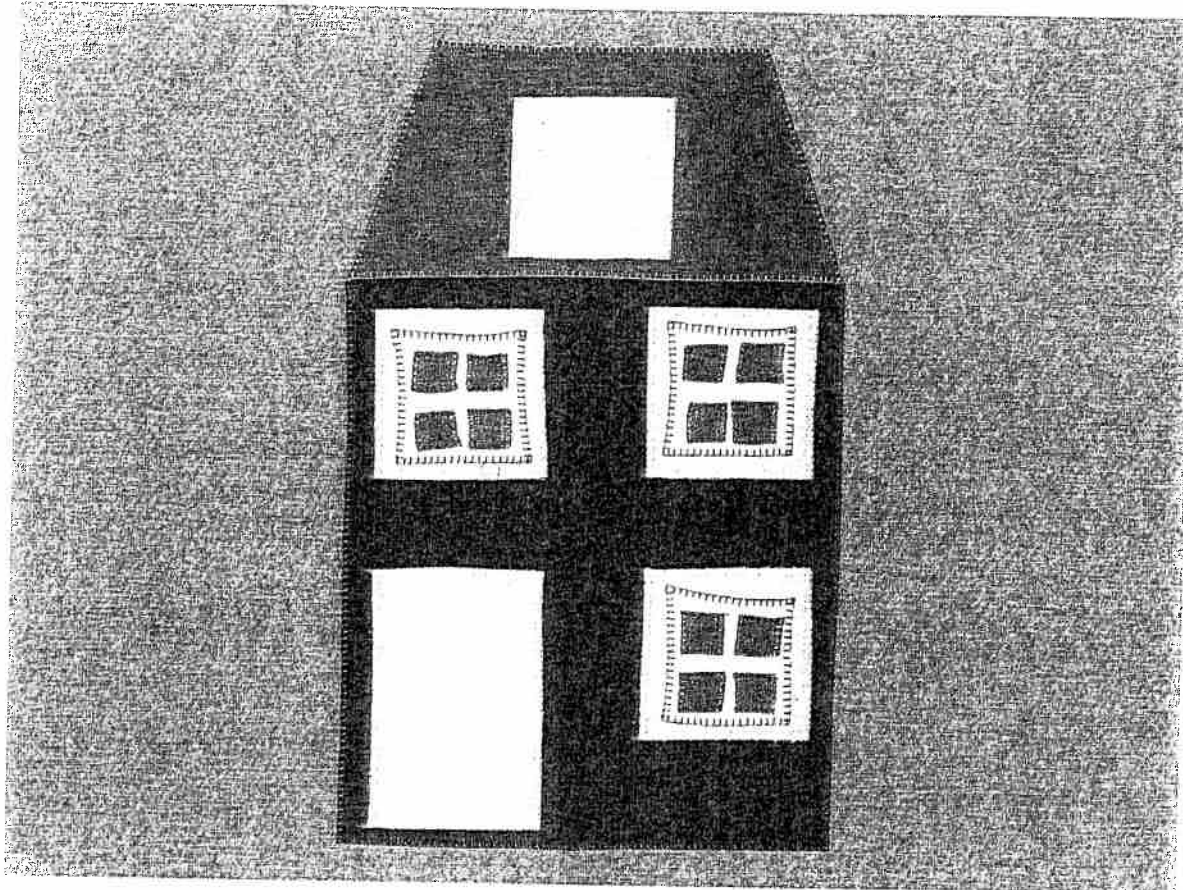


Decorative buttonhole

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

- Select **program No. 12**.
- Press the **tie-off key** three times.
- Sew the first buttonhole seam 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 seam.
- Then sew the second buttonhole seam as long as the first one.

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

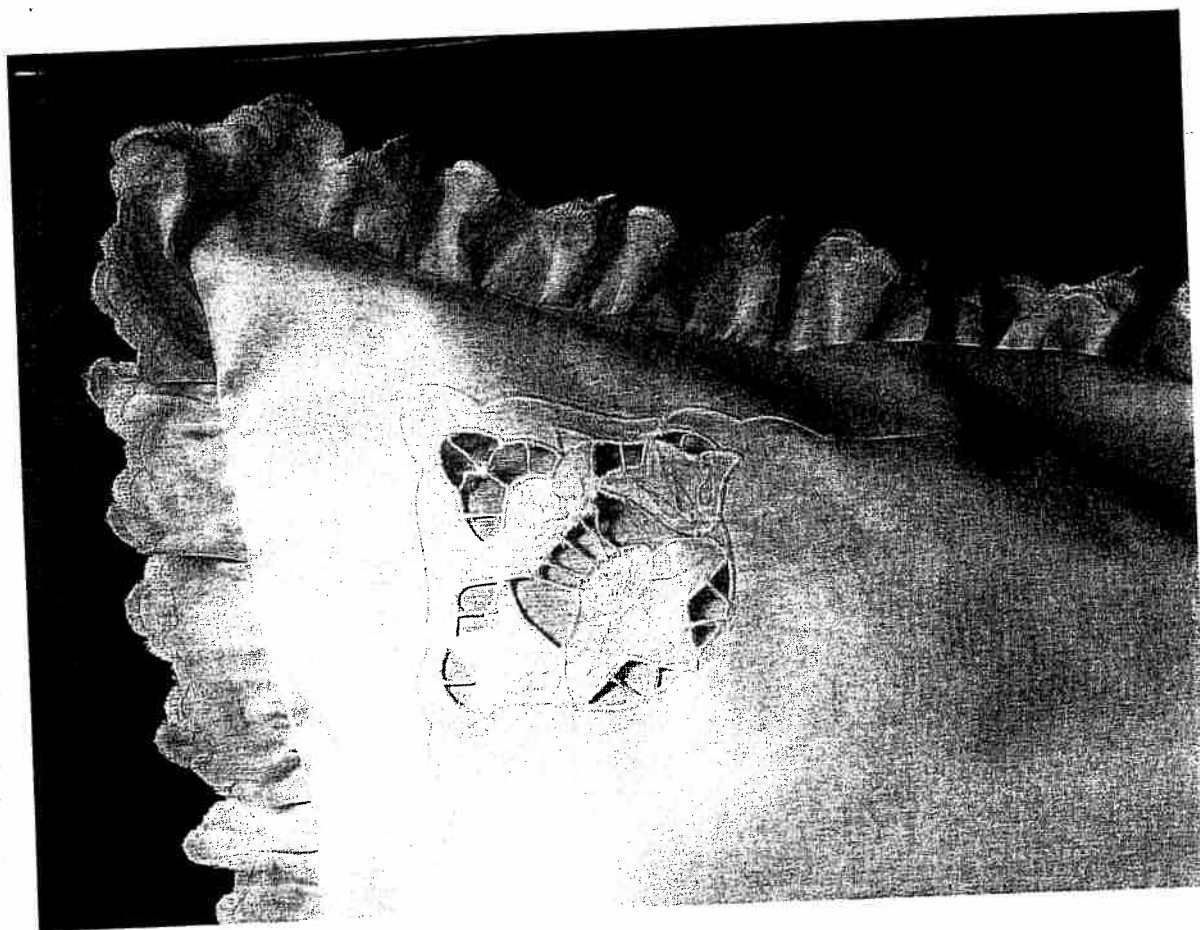


Appliqué work

Appliqués are easily created and always produce a beautiful effect. By using different materials and patterns you can obtain many different design effects. You can make a perfect, densely stitched seam with the appliqué 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, paper-backed webbing makes appliqué work easier for you.

- Attach the appliqué foot to the sewing machine.
- 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 all contours either with appliqué stitch (**No. 15**) with a narrow, satin-stitch zigzag, stitch width 2 - 4 mm, stitch length 0.2 to 0.6 mm. Make sure the needle overstitches the outer edge 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 "-" key of key pair **a** (see Tapering, **page 124**).



Richelieu

This very artistic form of bar and eyelet embroidery is easy to create with your sewing machine.

- Transfer your pattern onto the right side of the fabric using a fabric marker.
- Place two layers of water-soluble stabilizer under the area to be embroidered and tightly hoop the fabric and stabilizer.
- Attach the fancy stitch foot to your machine.
- To make the embroidery more stable, sew along all marked lines with **straight stitch 1** (stitch length approx. 1 mm).
- Carefully cut away the fabric from the areas that will form the cutouts approximately 1/8 " (2 mm) from stitching. Do not cut away the stabilizer - it helps maintain the shape and stability of the areas while sewing.
- Embroider the contours with a satin stitch zigzag (**Prog. 3**).
- When all satin stitching is completed, tear away large areas of water-soluble stabilizer and dissolve remaining small areas in water.



Quilting

Quilting is a traditional hand sewing technique. The method that the wives of American settlers developed to make use of material remnants has become a very popular artistic hobby for many sewing enthusiasts.

A quilt always consists of three layers of material. Lots of geometrically shaped pieces of material are joined together in continually changing patterns to form the top layer of the quilt. This is tacked onto the middle layer of polyester or cotton batting and connected to the back layer of the quilt. The quilt backing is usually one uniform piece of fabric.

The entire quilt is sometimes also bordered with the back layer. The work of piecing the individual bits of material together must be very precise. For quilting, the 1/4" quilting foot is particularly suitable (special accessory). The distance between the needle and the outer edge of the foot is 1/4 inch, i.e. 6.3 mm, and from the inner edge of the foot 1/8 inch (3.15 mm).

In addition, the tiptronic 2040 and the tiptronic 2030 have quilt stitch **No. 11 and No. 15**, which enable you to quickly and easily achieve a hand-quilted look! Use invisible sewing thread (nylon monofilament) as the needle thread and wind the bobbin with cotton thread to contrast or blend with the colors of your quilt top. The needle thread tension must be set quite tight (7), and the bobbin thread tension quite slack (approximately 1/4 turn counterclockwise) to allow the needle thread to pull the bobbin thread to the top of your quilt. When you sew the stitch on the three plies of fabric of the quilt, you only see the triple stitch of the bobbin thread. The intermediate stitch disappears and thus appears to be hand-quilted (see **page 76**).



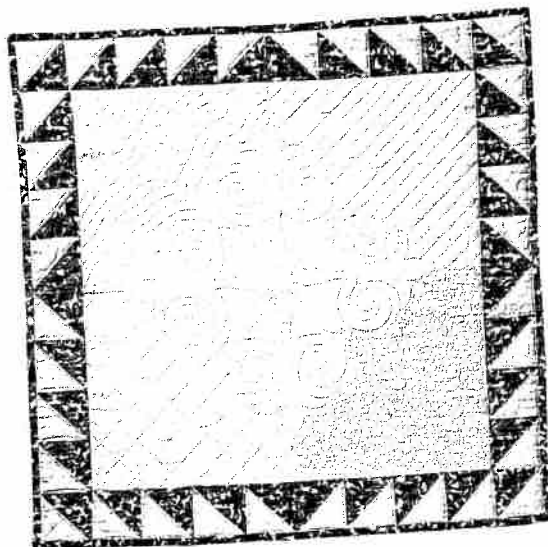
And this is what you do

Cut out the pieces of your quilt top using templates you have bought or made yourself. A seam allowance of 1/4" (6.3 mm) should already be included in the templates. Sew the pieces together following the design instructions to piece the quilt top.

The seam allowances of quilts are usually not serged and are always 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 the sewing machine, e.g. with **program 11**. Quilting is usually stitched about 3 mm away from the seam.

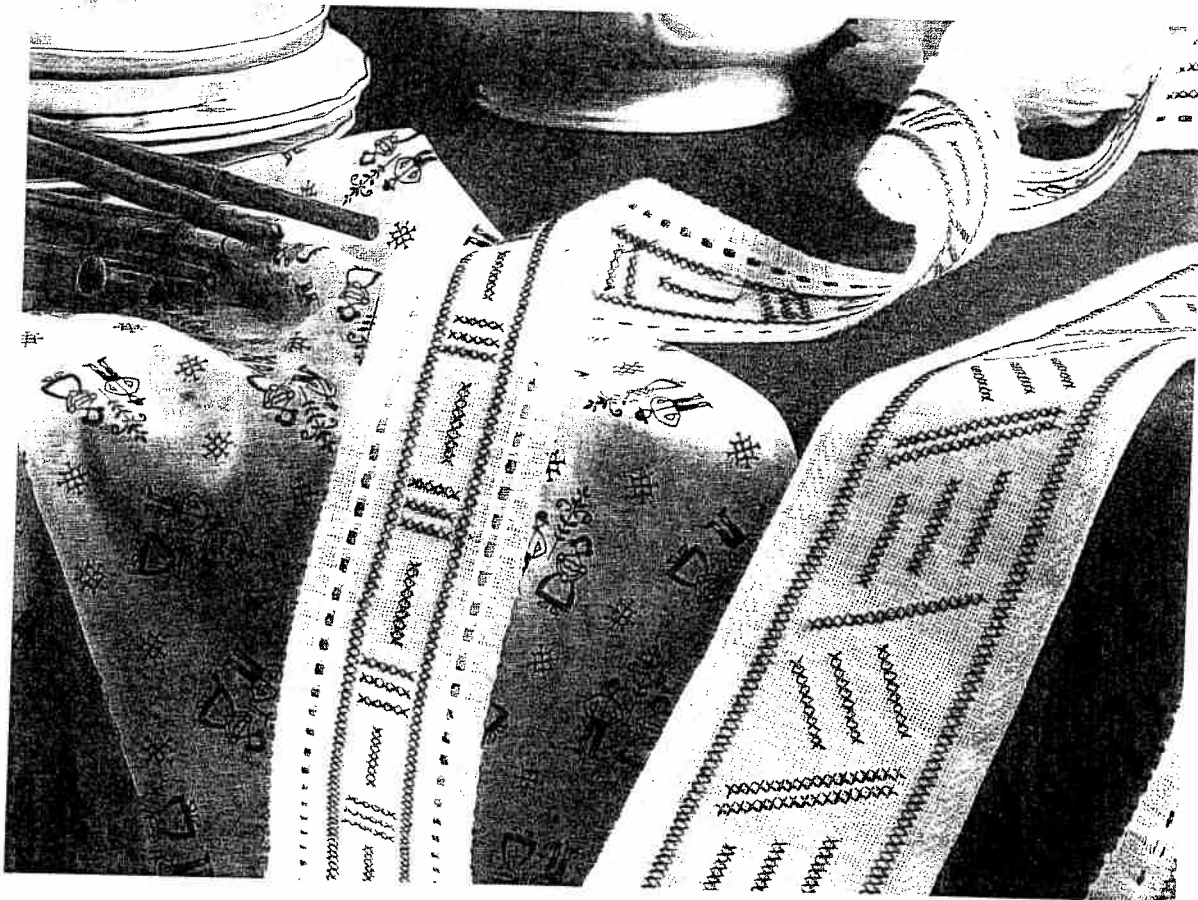


When the quilting is finished you can simply bind the edges or make it into cushions, wearable art or other smaller projects.



Free motion machine quilting

Embroidery or free motion quilting is particularly suitable on solid colored fabrics. In free motion quilting the quilt is guided by hand through the machine using **program 1** and the free motion quilting foot (special accessory) with the feed dog lowered. You can also use templates to trace your quilt motifs on the fabric. (See **page 107**).



Cross-stitch

Cross-stitch embroidery has always been an important subject within the traditional, folkloric embroidery techniques.

What used to be stitched by hand with a great deal of effort can now be sewn with the tiptronic 2040 or 2030 with astonishing ease and speed.

With cross-stitch program **No. 24 and No. 25** (2040), **No. 23** (2030) you can design your own combinations - these patterns look as if they were hand-embroidered and give a special touch to table linen, towels or garments.

Tips for cross-stitch sewing:

- Sew slowly.
- Use the fancy stitch foot.
- For the most professional-looking embroidery, special embroidery threads are recommended: e.g. Coats Alcazar rayon No. 30 + 40 or cotton machine embroidery thread
- Place a stabilizer under the fabric.
- An embroidery hoop is recommended when working with very soft materials.
- You can also embroider on Aida material as used for hand cross-stitching. The length and width of the cross-stitches of your tiptronic 2040 or 2030 can be altered depending on the count/size of the Aida cloth squares.

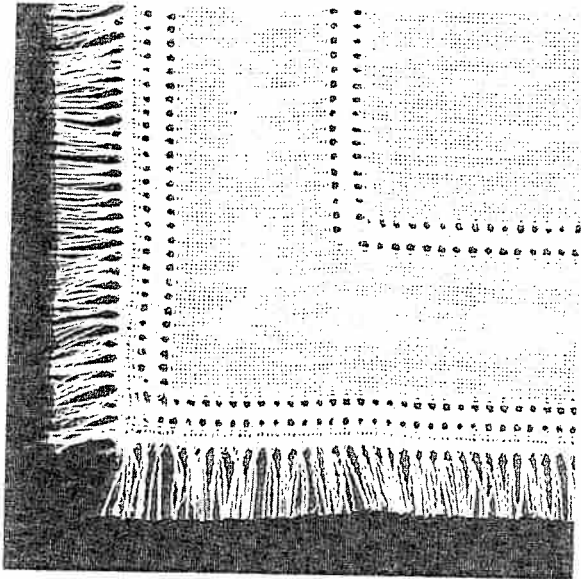


Eyelet embroidery

Eyelet embroidery enhances your linens and can be produced very easily with the tiptronic 2040 and/or 2030. 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 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.



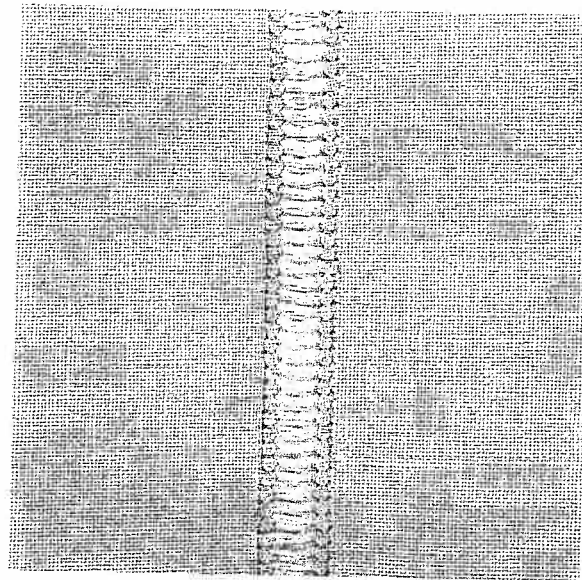
Hemstitching

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

Special hemstitching programs, program **No. 26, 27 and 28** in the case of model 2040, program **No. 24, 25 and 26** for model 2030, are built in to your machine. By changing the stitch length and width you can achieve different effects. A wing needle is required for hemstitching work. A normal needle is only used for very light fabrics - size 80.

Hemstitching work is most successful on coarser linen fabrics from which single threads can be easily pulled. Embroidery and darning thread, particularly cotton, are very suitable.

With the hemstitching programs of your tiptronic various techniques can be applied.



Traditional hemstitching

- Program **No. 26, 27 and 28** (2040),
No. 24, 25 and 26 (2030)

- Sew the appropriate program on a piece of test fabric.
- 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 material to the right and left of the pattern width.
- Overstitch the remaining threads with the selected program. The needle must enter the pulled threads on both sides close to the edges.

Maintenance
Page 135 - 142

Contents

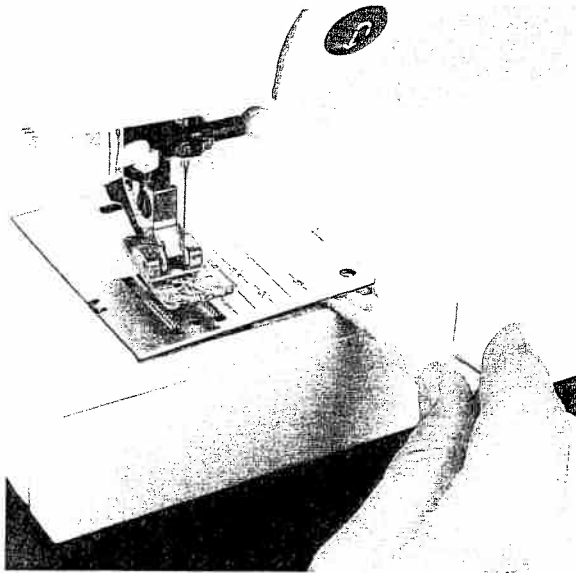
Changing the needle plate
Changing the sewing lamp
Cleaning and oiling
Sewing problems and
their solutions

Page 138

Page 139

Page 138

Page 140



Changing the needle plate
Switch off the main switch

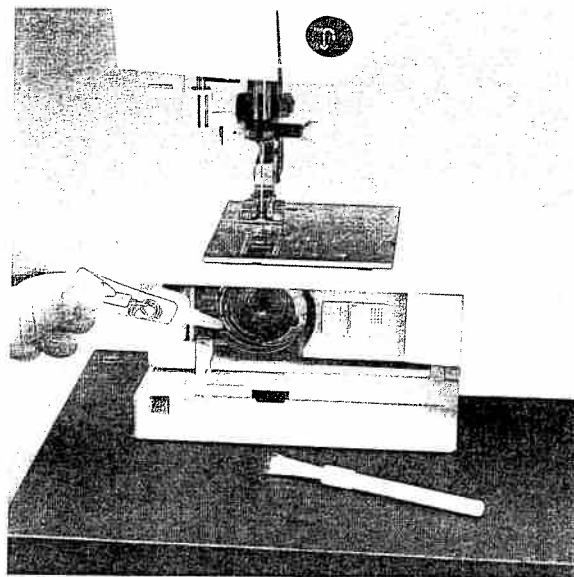
Removal

Raise the presser bar lifter. Position the needle plate changer (lamp changer) as shown above and press the needle plate upwards first 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 downwards at the front until you hear it snap in place. Before you start sewing, check that the needle plate is lying flat.

Tip: Changing the needle plate is even easier with the feed dog lowered!



Cleaning and oiling
Switch off the main switch

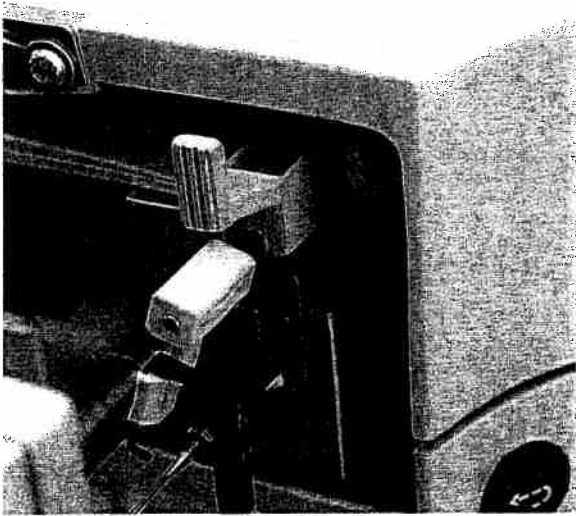
Remove the needle plate and lower the feed dog. Clean the feed dog and hook area with the brush.

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

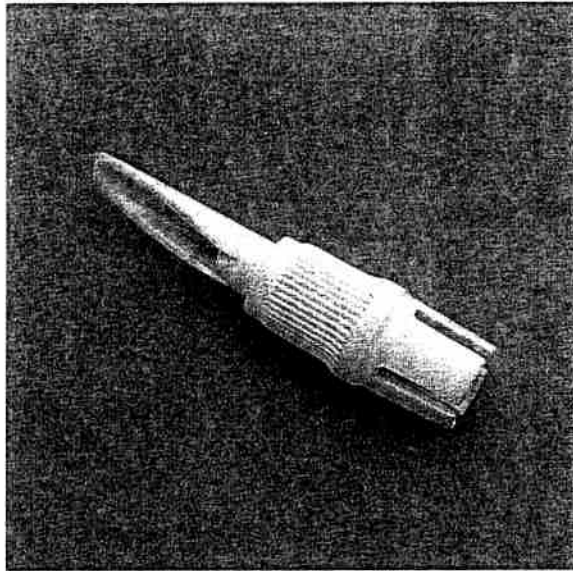
Wipe the display with a soft, lint-free dry cloth. **DO NOT** use aggressive cleansers or solvents!



Changing the sewing lamp

Switch off the main switch. Disconnect the lead cord and the foot control plug from the machine. Remove the detachable work support.

The sewing lamp (bulb) is located inside the needle head of the sewing machine.

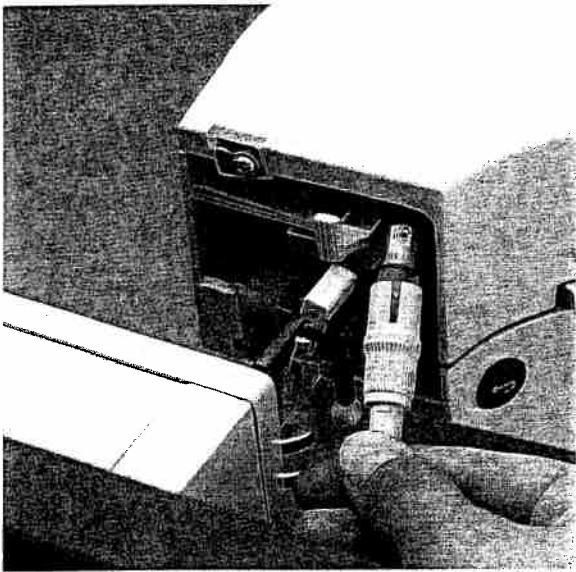


Important:

The maximum wattage of the bulb is 5 watts. Bulbs can be purchased from your PFAFF dealer (order No. 92-329 975-05).

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 clock-wise direction. Remove the bulb changer from the bulb, the bulb is held firmly.



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 counter clock-wise and remove the bulb.

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.
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 112/113). 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 laid. 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 bar is raised to its highest position. This ensures that needle thread is securely in thread tension system. Adjust bobbin thread tension as needed.
The machine does not feed or feeds irregularly	Sewing lint has collected between the feed dog teeth rows. Feed dog is lowered. Slide A is at the left or slide B is at the right (see page 34).	Remove needle plate, remove lint with brush. Push slide A to the right or slide B to the left.
The machine is running with difficulty	There are thread remnants in the hook ways.	Remove the threads and apply a drop of oil to the hook.
The machine does not sew the selected program	Switch off the machine, wait 10 seconds and switch on again. Select the desired program again. Before changing presser foot 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.	
Display / Incorrect or no display	When static electricity is being discharged some segments of the display will fail. The contrast on the display may be disturbed when the machine is cleaned or is transported (display is illegible or dark)	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 program again. Set the contrast using the contrast control.

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 / 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	8 mm
Max. presser foot height	10.5 mm
Needle system	130 / 705 H

Package contents

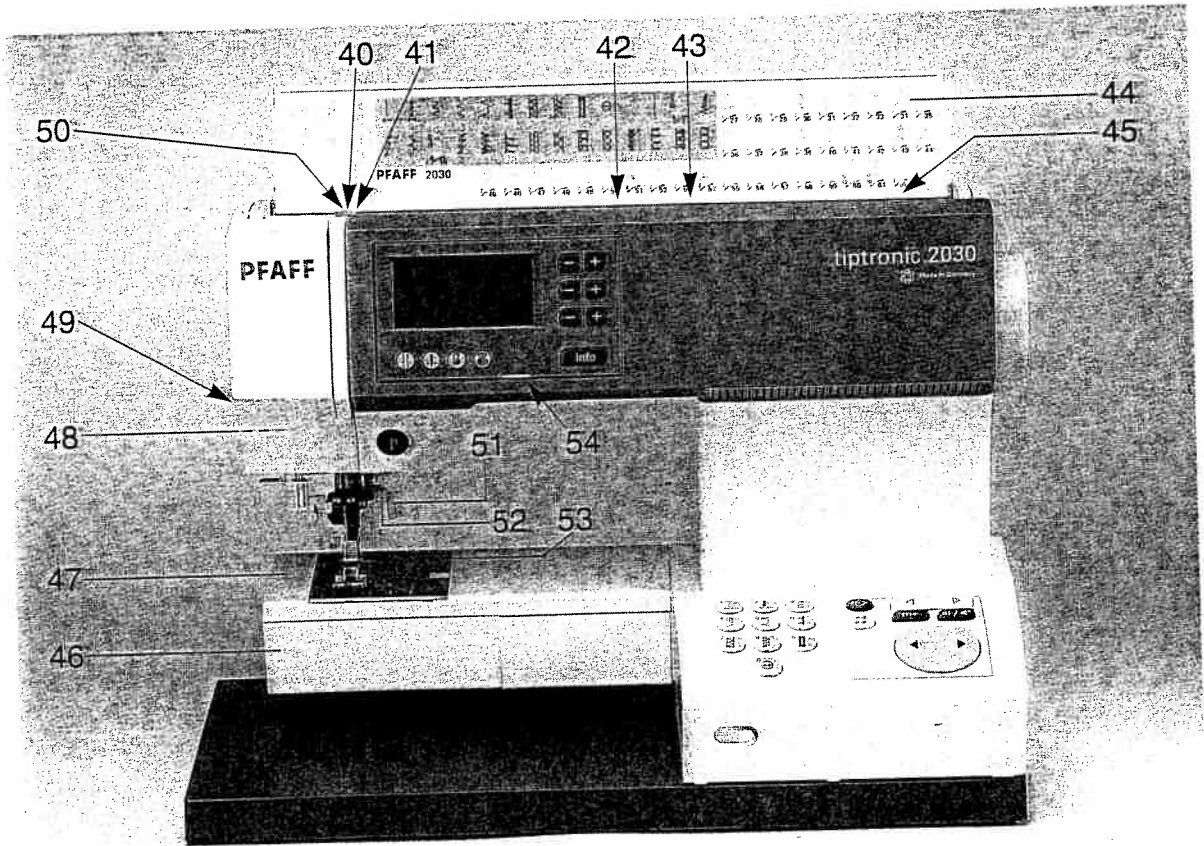
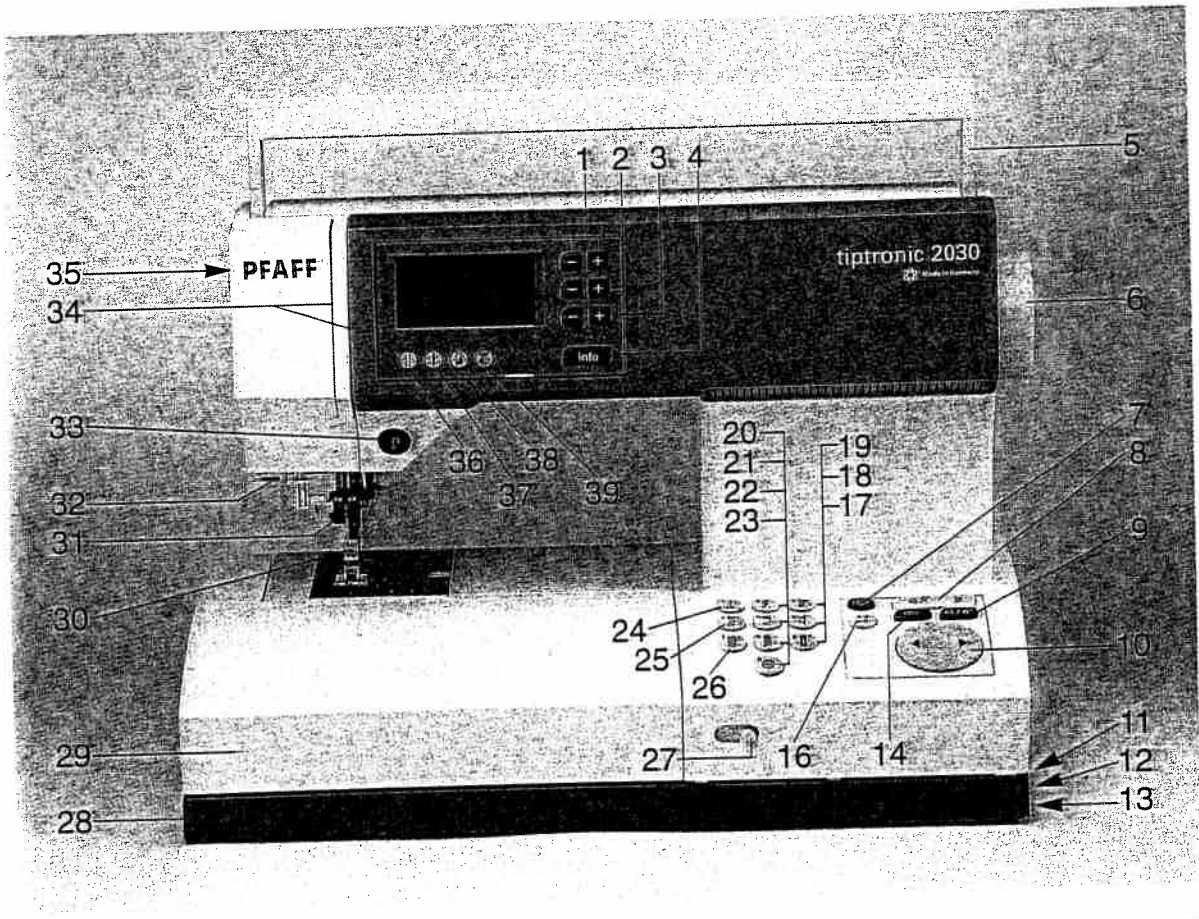
Sewing machine
Carrying case
Foot control
Lead cord
Accessories
Instruction manual

Please fold this page open to simplify the understanding of this instruction manual when reading it.

Index on pages 4 - 7

Parts of the sewing machine (model 2030)

- (1) Key pair a (stitch width/pattern width controls)
- (2) Key pair b (stitch length/pattern length controls)
- (3) Key pair c (stitch density/balance controls)
- (4) Info key
- (5) Carrying handle
- (6) Handwheel
- (7) "M" key
- (8) Cursor keys
- (9) Clear/pattern start key
- (10) Program selection key
- (11) Connection socket "lead cord"
- (12) Connection socket "foot control"
- (13) Master switch
- (14) m+ key
- (16) Direct selection key "Alphabet"
- (17) Direct selection key "Linen buttonhole"
- (18) Direct selection key "Elastic blindstitch"
- (19) Direct selection key "Zigzag stitch"
- (20) Direct selection key "Stretch triple-straight stitch"
- (21) Direct selection key "Blindstitch"
- (22) Direct selection key "Faggoting stitch"
- (23) Direct selection key "Button attaching program"
- (24) Direct selection key "Straight stitch"
- (25) Direct selection key "Elastic stitch with 2 perforations"
- (26) Direct selection key "Closed overlock stitch"
- (27) Slide for lowering the feed dog
- (28) Base plate
- (29) Detachable work support
- (30) Presser foot holder with presser foot
- (31) Integrated dual feed/IDF
- (32) Needle threader
- (33) "Reverse sewing" key
- (34) Threading slots
- (35) Needle thread tension
- (36) "Tie-off" key
- (37) "Needle lowered/raised" key
- (38) "Slow sewing" key
- (39) "Pattern mirroring" key
- (40) Take-up lever
- (41) Thread guide
- (42) Spool holder with unwinding disk
- (43) Hole for second spool holder
- (44) Top cover with stitch program chart
- (45) Bobbin winder
- (46) Hook cover (hook behind it)
- (47) Free arm
- (48) Sewing bulb (max. 5 W)
- (49) Thread cutter
- (50) Thread take-up
- (51) Presser foot lifter
- (52) Needle holder with retaining (set) screw
- (53) Needle plate
- (54) Contrast regulator



PFAFF

G. M. Pfaff
Aktiengesellschaft
Werk Karlsruhe-Durlach
Gritznerstraße 11
76227 Karlsruhe

Printed in Germany
Rohr Druck GmbH
Mainzer Straße 105
67657 Kaiserslautern
Subject to technical changes
No. 29-629 989-33/000 · RD · 5/99 engl.