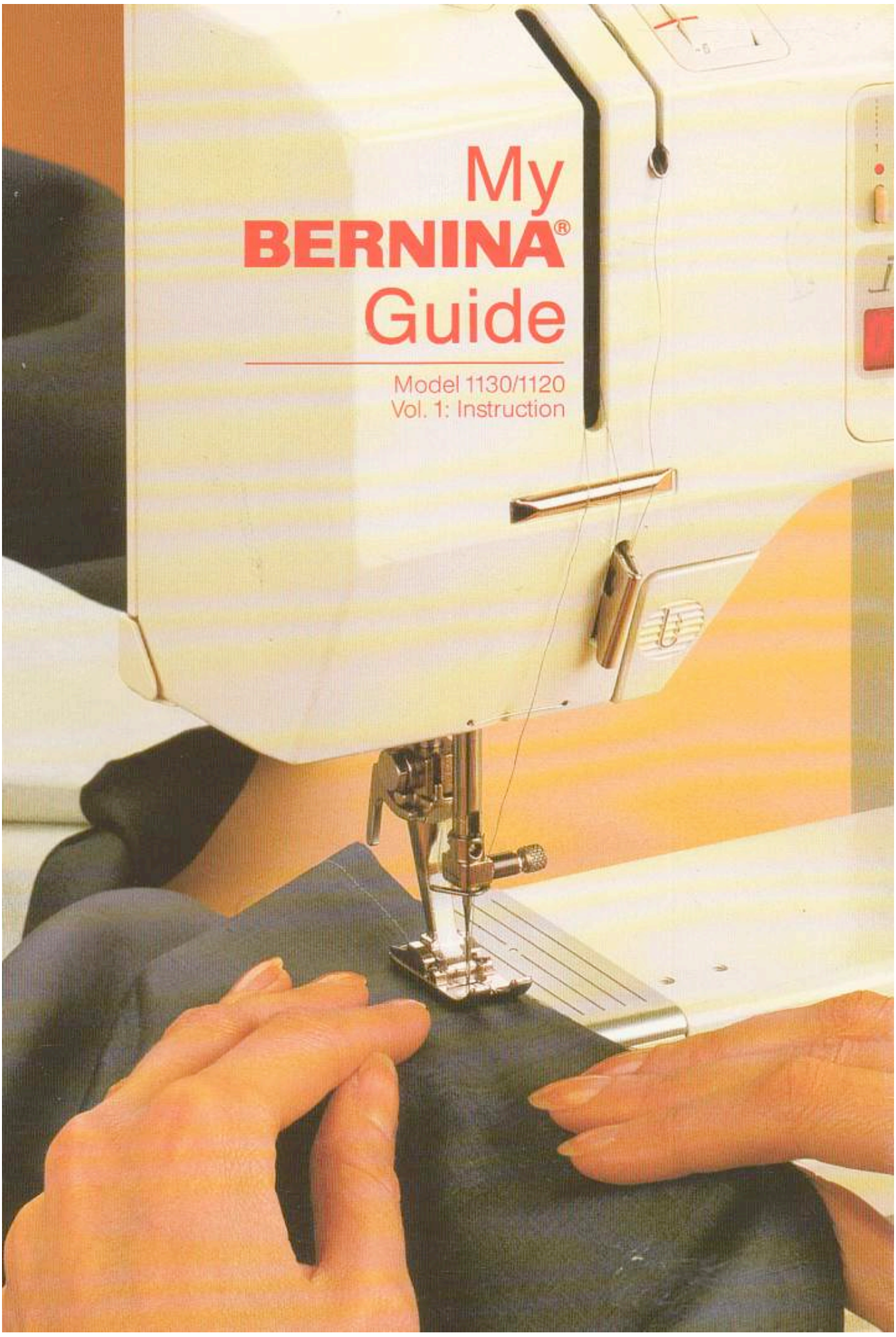
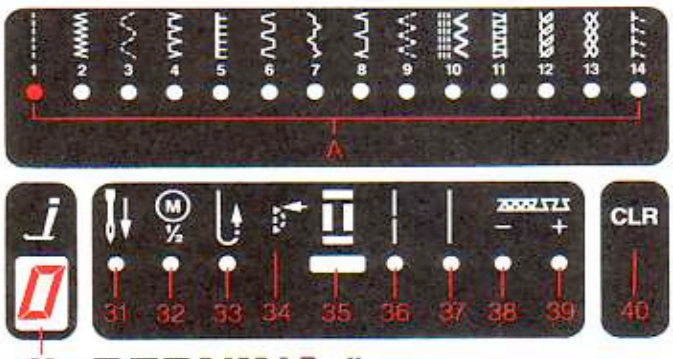
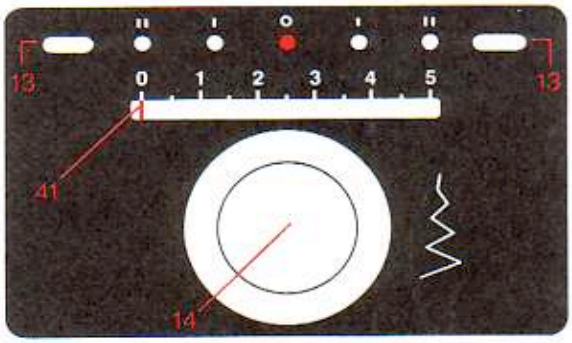
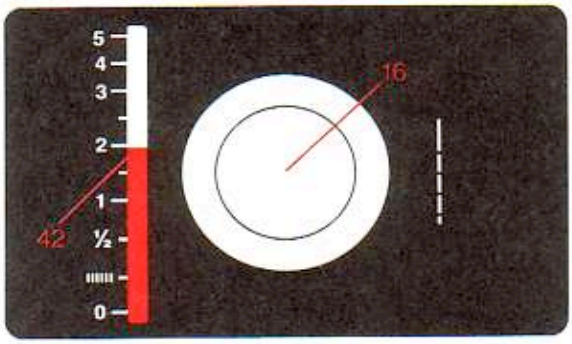
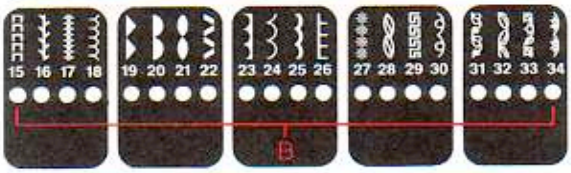

My
BERNINA®
Guide
Model 1130/1120
Vol. 1: Instruction

Indicator/Control panel BERNINA 1130









A Practical stitches
B Decorative stitches

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14 Selector knob for stitch width
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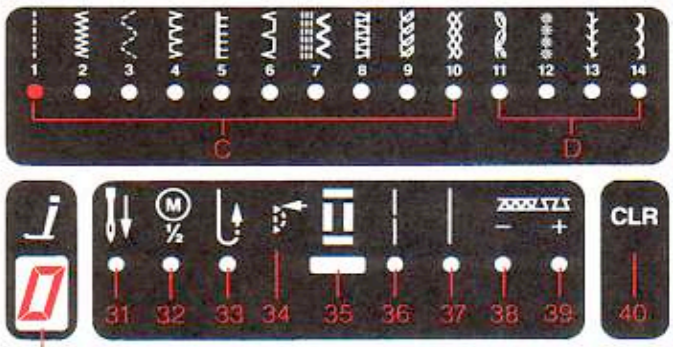
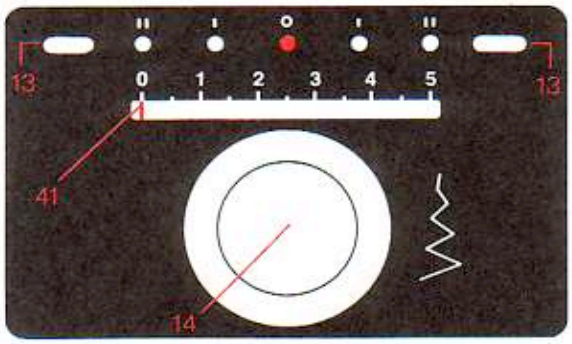
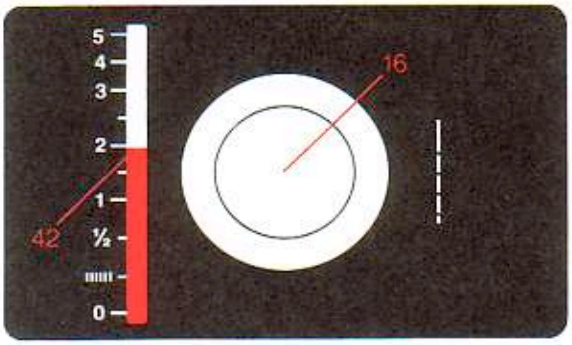
BERNINA 1120







C Practical stitches
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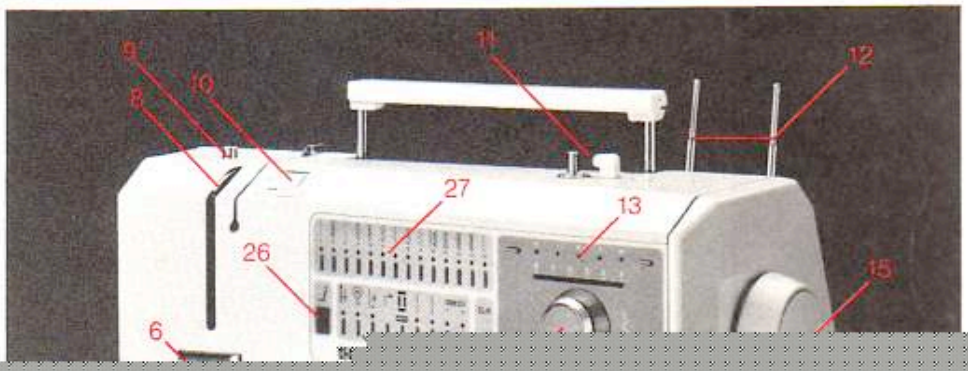
Details of the machine

1 Hinged front cover
2 Stitch plate
3 Presser foot
4 Needle clamp
5 Thread cutter
6 Thread regulator
7 Securing stitch control
8 Thread take-up lever
9 Pre-tension stud
10 Tension regulating dial
11 Bobbin winder (with on/off switch)
12 Thread holder pins
13 Needle position buttons



Setting up the machine

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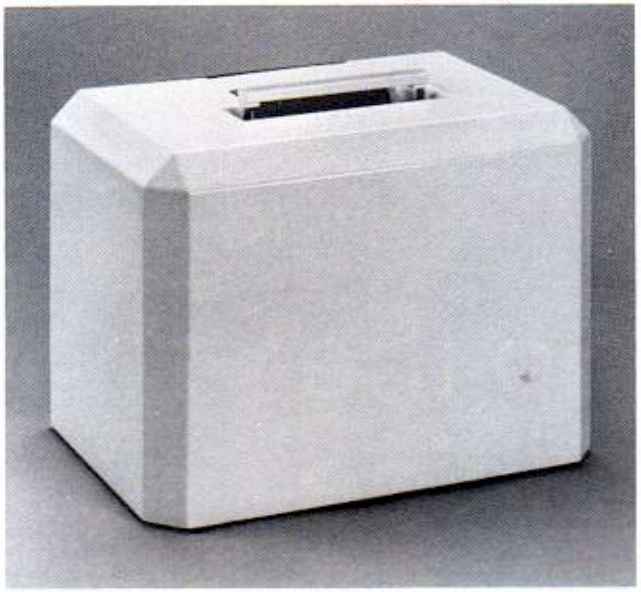
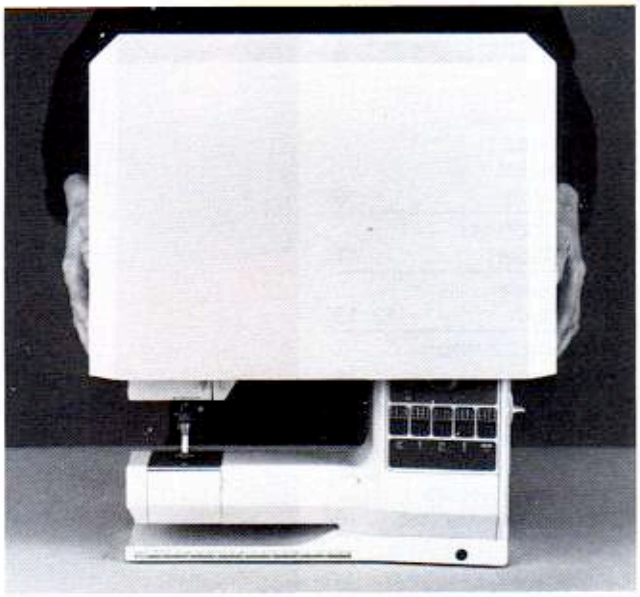
Carrying case

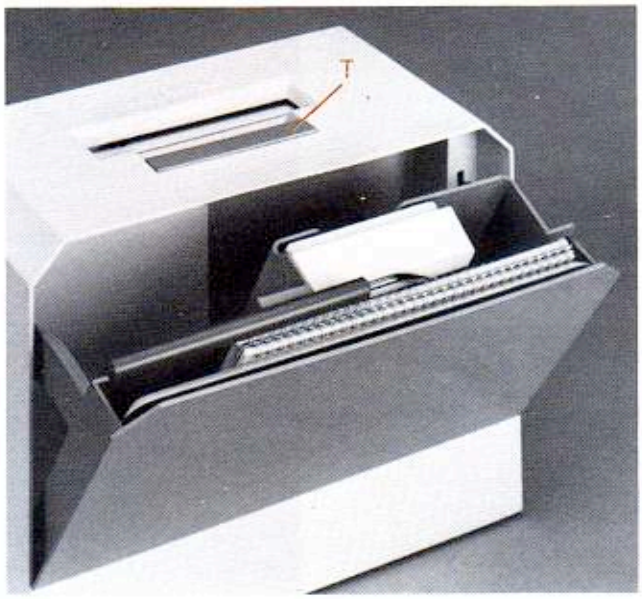


Carrying case, accessories

The carrying case protects the machine from dust and dirt.

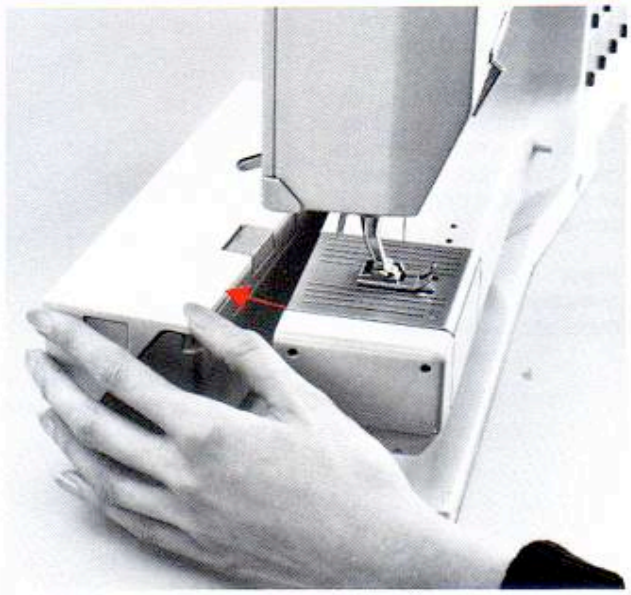
Always carry the machine by its handle.





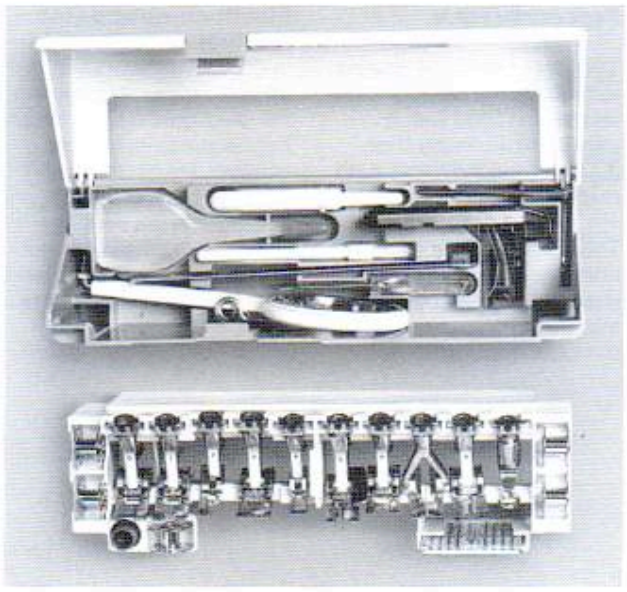
The case has a built-in accessories compartment. Press regulating bar T to swing out the accessories compartment. This has space to stow the foot control unit, the presser foot lifter, the sewing table and BERNINA instruction books.

Accessories box



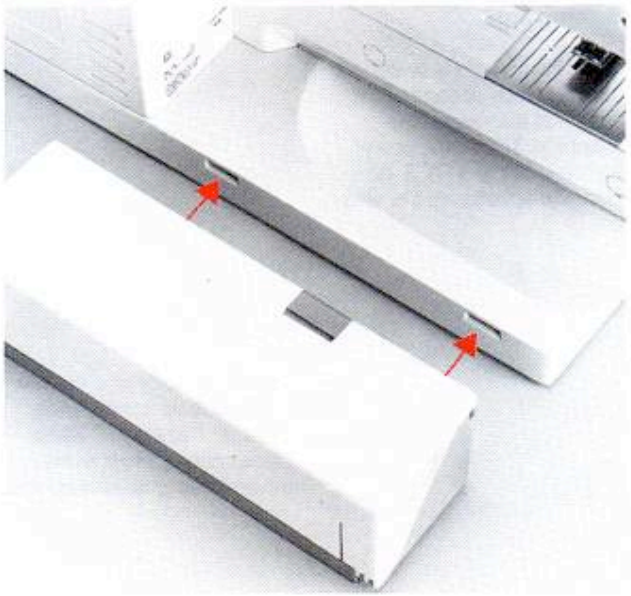
Removing the accessories box

Simply push the accessories box backwards.



Accessories box

The accessories box allows accessories to be seen at a glance.



Fitting the accessories box onto the machine

The accessories box has two fixing lugs that fit into the base plate of the machine.

Lay the accessories box onto the base plate from the rear, and press against the free arm until the fixing lugs engage in the holes provided.

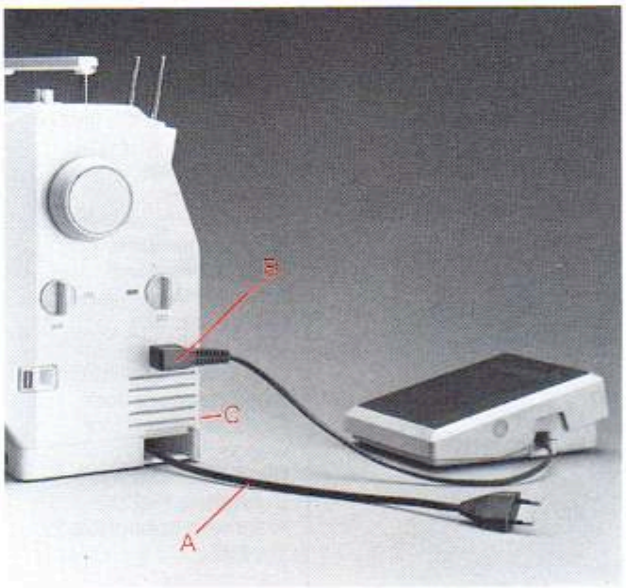
Standard accessories for the BERNINA 1130

6 bobbins with holes
130/705 H needle assortment
Ruler-template
Seam ripper
Darning ring, with arm
Needle threader
Small screwdriver
Special screwdriver
Cleaning brush
Oiler, filled
Seam/quilting guide
Zig-zag presser foot
Reverse pattern foot
Overlock foot
Blind stitch foot
Buttonhole foot
Automatic buttonhole foot
Zip foot
Darning foot
Jeans foot
Tailor tack foot
Embroidery foot

Standard accessories for the BERNINA 1120

6 bobbins with holes
130/705 H needle assortment
Ruler-template
Seam ripper
Darning ring, with arm
Needle threader
Small screwdriver
Special screwdriver
Cleaning brush
Oiler, filled
Seam/quilting guide
Zig-zag presser foot
Reverse pattern foot
Overlock foot
Blind stitch foot
Buttonhole foot
Zip foot
Darning foot
Jeans foot
Embroidery foot

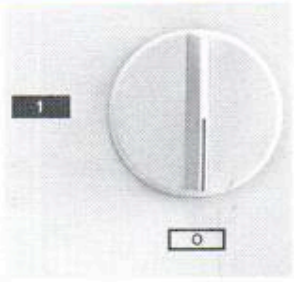
Mains cable, foot control unit, sewing light, power switch, needle stop



Connecting mains cable and foot control unit

Pull the mains cable (A) out from the machine and plug into a power socket. Pull the cable from the foot control unit and insert the plug into socket (B).

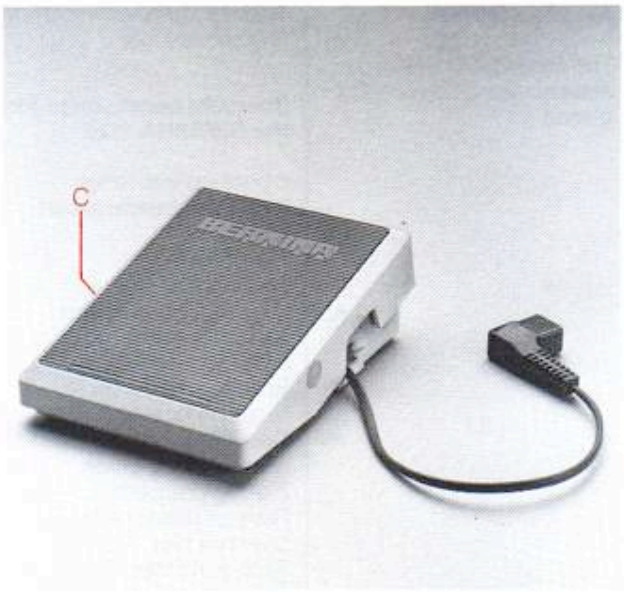
Press button (C) to automatically rewind the mains cable into the machine.



Power switch

The power switch is the rear knob on the handwheel side of the machine.

0 The machine is switched off.
1 The machine is switched on.



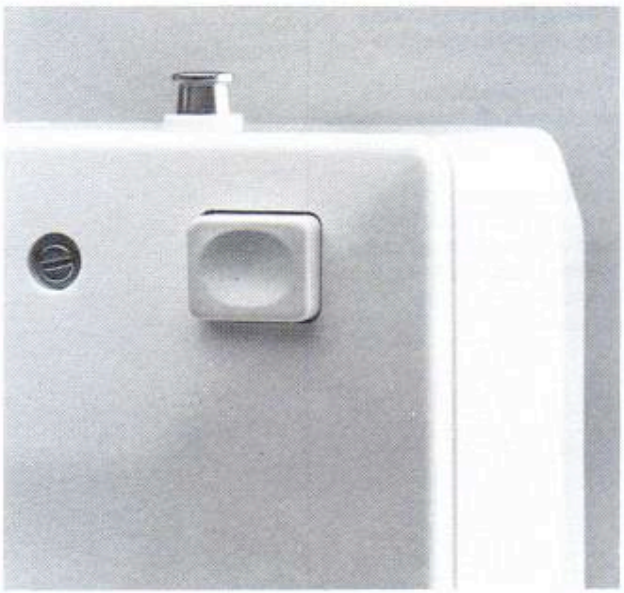
Foot control unit

The foot control unit is used to regulate the sewing speed. It is fitted with a cable winder. Press knob (C) to rewind the cable automatically.

The sewing speed can be controlled from virtually 0 to maximum speed by varying the pressure on the plate of the foot control unit.

Electronic needle stop and foot control unit

Whenever you stop sewing, the electronic system returns the needle to its highest position. By gentling tapping the back of the foot control with the heel, the needle can be moved electronically down into the work or respectively up out of the work.



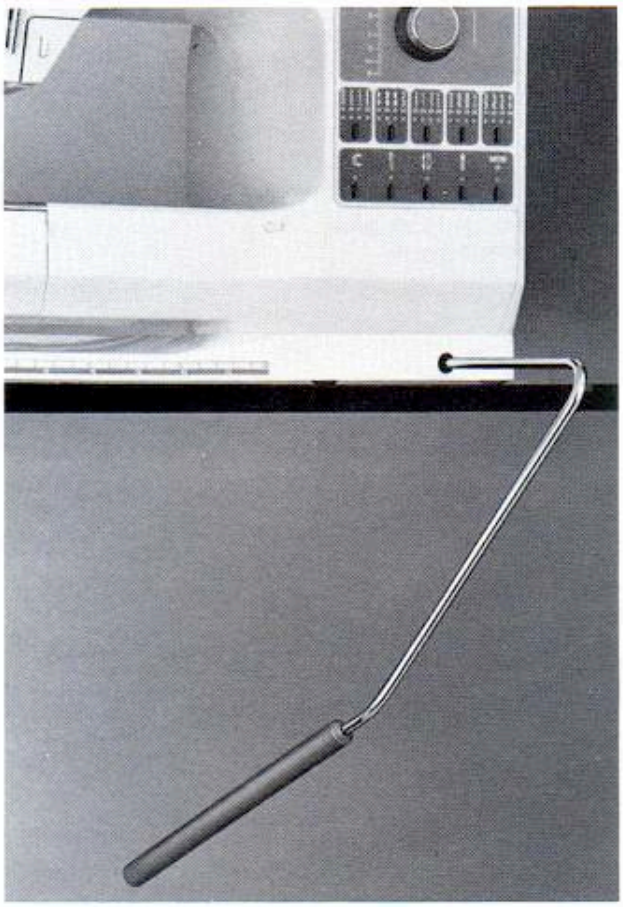
Sewing light

The sewing light is switched on and off by means of the switch at the rear of the machine. When the power switch is in the 0 position, the sewing light is also off.

Motor

The D.C. motor and electronic speed control give exceptionally good fabric penetration power, even when sewing at slow speed.

Presser foot lifter, sewing table



Raise the presser foot Lower the feed-dog

Many sewing operations are much simpler if both hands are free to guide the work.

The presser foot lifter is operated by the right knee and is used to raise and lower the presser foot, leaving both hands free.

When the presser foot lifter is moved to the right, the presser foot is raised and at the same time the feed-dog is lowered.

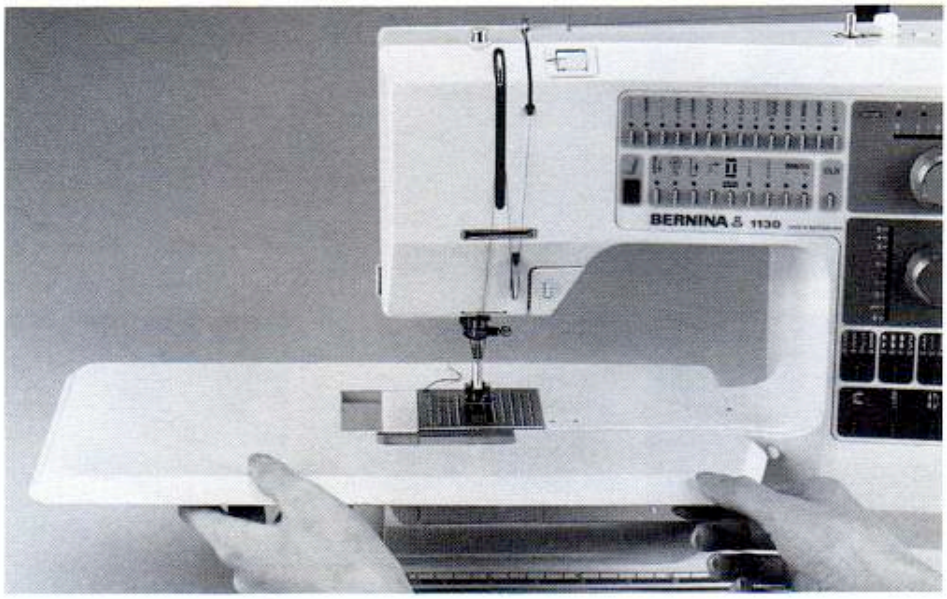
The next stitch returns the feed-dog to sewing position.

Attaching the presser foot lifter

The presser foot lifter is stored in the carrying case (see picture on page 8). The presser foot lifter socket is located on the front right hand side of the base plate. Insert the presser foot lifter so that it hangs to the left.

It should be possible to operate the presser foot lifter comfortably with the right knee, without need to alter the customary sitting position. If the angle of the presser foot lifter is uncomfortable, it can be adjusted.

Your BERNINA dealer will be pleased to make this adjustment for you.



Sewing table

The sewing table is used to enlarge the working surface. It simplifies all sewing where the free arm is not required.

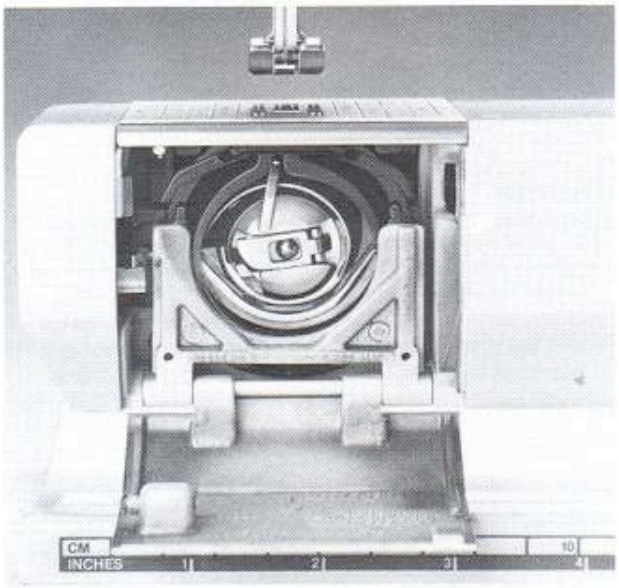
Fitting the sewing table

Slide the table along the free arm until the centering pins engage in the holes provided. Press firmly from the left to lock the sewing table in position on the machine.

Removing the sewing table

Push firmly to the left (away from the machine) to release the sewing table.

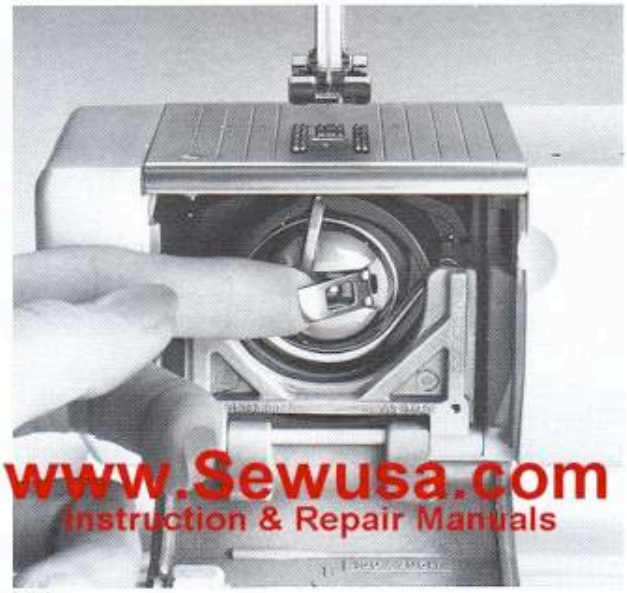
Bobbin case and bobbin, winding lower thread



▲1

Removing the bobbin case

Set the power switch to the ⊡ position.
Check that the needle is raised. If not, raise the needle with the handwheel.
Open the hinged front cover on the free arm (fig. 1).



▲2

With the index finger of the left hand, pull the bobbin case latch forward (fig. 2) and remove the bobbin case.

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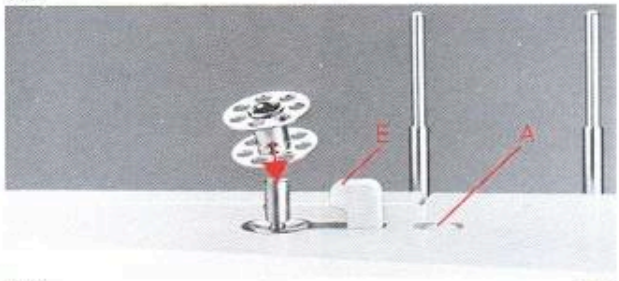

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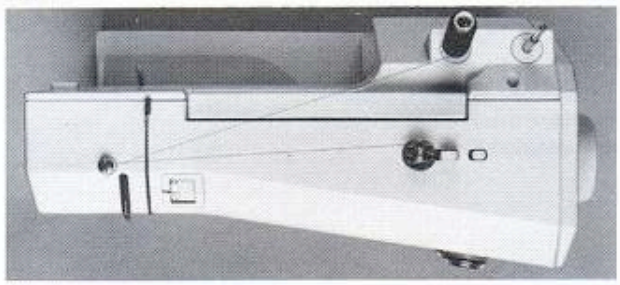
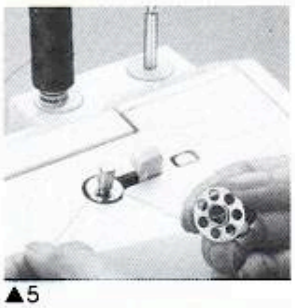


▼4

Winding lower thread

Place empty bobbin on spindle (fig. 3).
Take thread from the cotton reel on the thread holder pin, pass thread clockwise around the pre-tension stud to the empty bobbin (fig. 4).
Wind around the empty bobbin several times, again in a clockwise direction.
Set the power switch to the ■ position. Press the engaging lever E against the bobbin. The bobbin motor will start to run. When the bobbin is full, the bobbin winder will stop automatically. The winding operation can be stopped at any time, if necessary by pressing lever A (fig. 3).



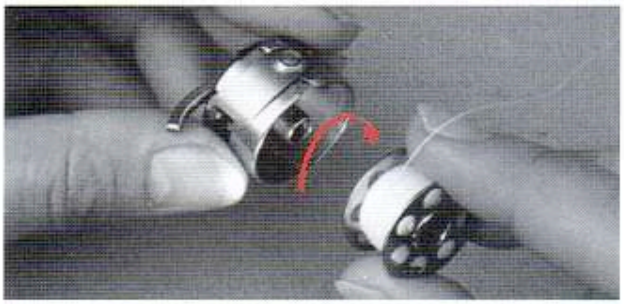
▲5

When removing the bobbin, cut the thread by pulling it under and up against the thread cutter at the base of the spindle (fig. 5).

Inserting the bobbin

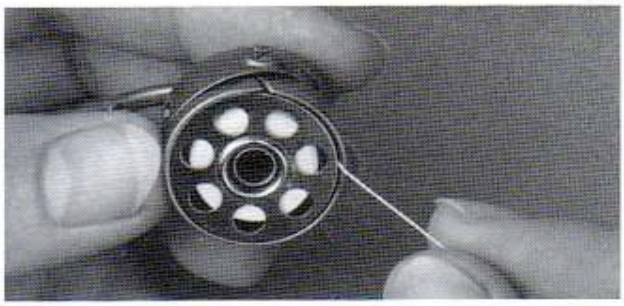
Hold the bobbin case in the left hand. Insert the bobbin with the thread running in a clockwise direction, see arrow (fig. 6).

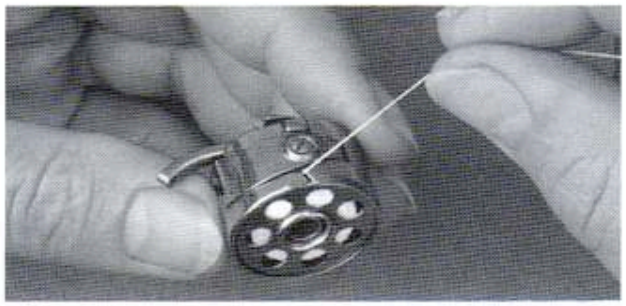
▼6



Bring thread anti-clockwise to the slot (fig. 7).

▼7





▲8

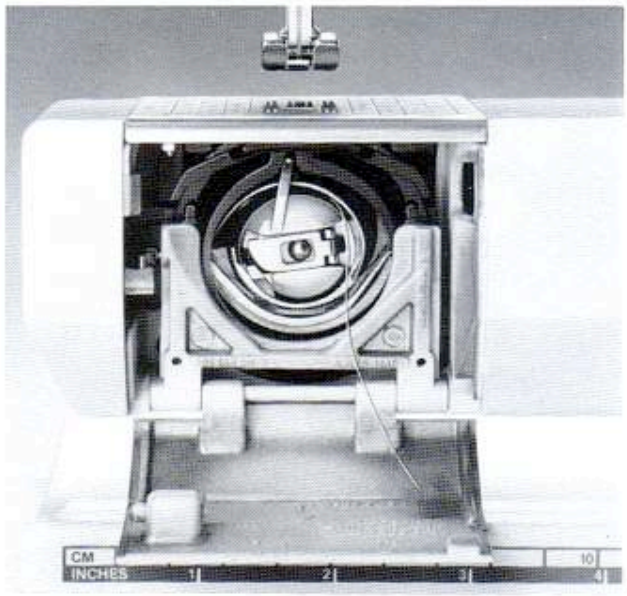
Pull the thread into the slot (fig. 8).

▲9

Pull the thread under the spring until it lies in the T-shaped slot at the end of the spring.

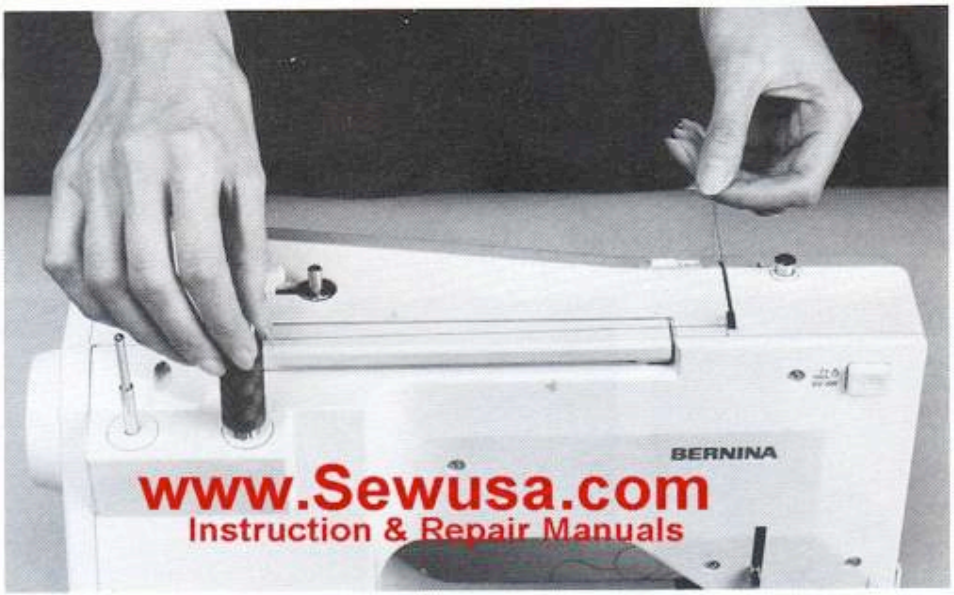
When the end of the thread is pulled, the bobbin should turn clockwise, in the direction of the arrow (fig. 9).

▼10



Inserting the bobbin case into the hook

Hold the bobbin case by the latch with the index finger and thumb of the left hand. Insert so that the finger of the bobbin case points upwards, engaging in the notch of the hook race cover (fig. 10). Check: pull end of thread. Close the hinged front cover.



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▲1

Threading the upper thread

Set the power switch to OFF ⏻ .
Check that the needle is in the raised position.
Raise the presser foot.
Place the cotton reel on one of the two thread holder pins. Hold the cotton reel in position whilst threading.

First clip the thread into the thread guide on the top of the machine, then bring it through the long slot (A) of the thread tension (fig. 1).

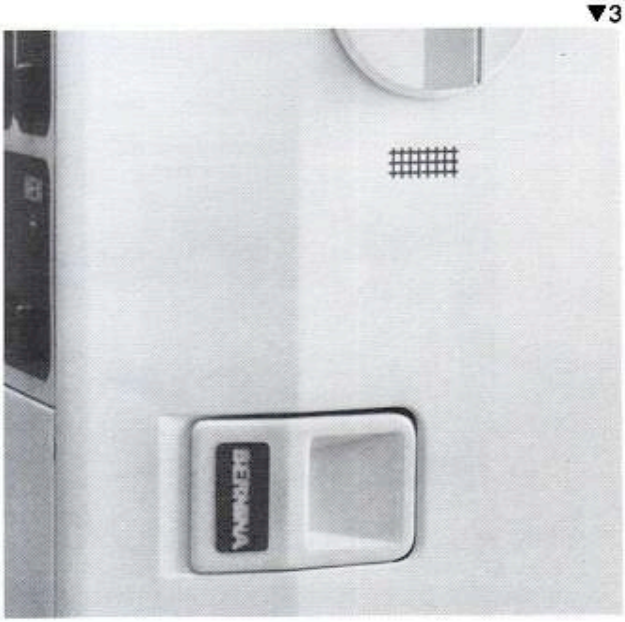
▲2

At the front of the machine, take the thread downwards under the thread regulator (B), up again to the thread take-up lever at the top (C) and then downwards to the needle holder thread guide (D) (fig. 2).

Always thread the needle from front to back.

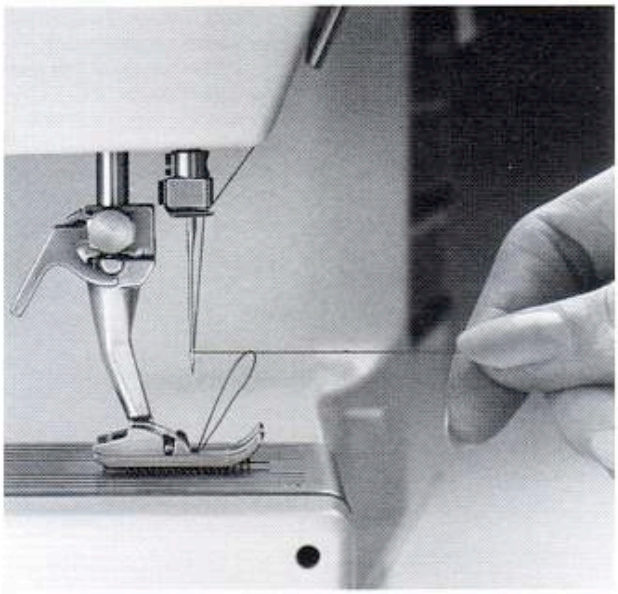
The small white plate on the front on the presser foot shaft helps when threading the eye of the needle.
Pull the thread approximately 10 cm (4") through the eye of the needle.

▼3



The Quick needle threader for threading the needle
(fig. 3)

Bringing up the lower thread, thread tension, feed-dog



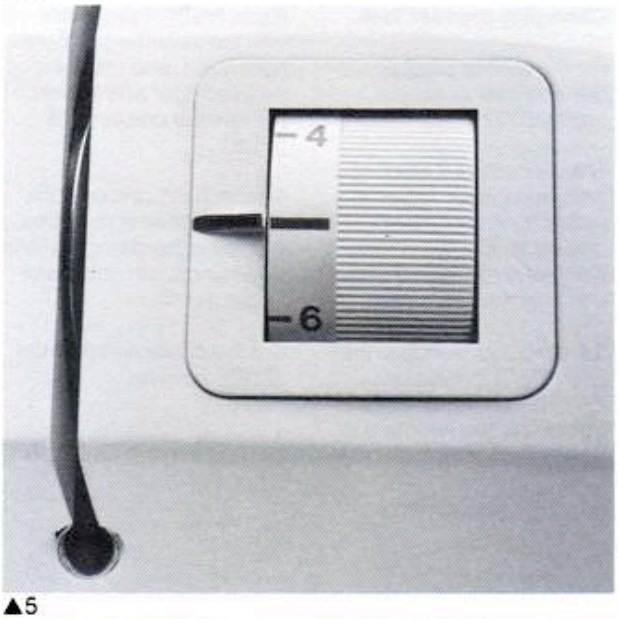
▲4

Bringing up the lower thread

Set the power switch to position.

Hold the end of the upper thread with the right hand. Sew a single stitch by tapping once on the foot control. The needle stop will ensure that the needle returns to its highest position. Pull the upper thread so that the lower thread is brought up through the hole in the stitch plate (fig. 4).

Take both threads through the slot in the presser foot and place to the side. Instead of using the needle stop, the lower thread can be brought up by turning the handwheel forward with the right hand until the needle returns to its highest position. In this case the upper thread has to be held with the left hand.



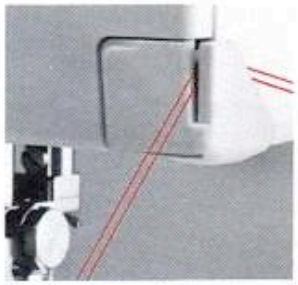
▲5

Thread tension

One of the main advantages of BERNINA machines is that there is very rarely any need to alter the thread tension for normal sewing. For the normal tension setting, the red mark on the tension regulating dial should match the adjacent mark on the machine (fig. 5).

For special sewing, e.g. for tailor tacks, the thread tension can be adjusted with the aid of the regulating dial. Turning the tension regulating dial forwards, to number 4 or below, gives a looser upper thread tension. Turning the tension regulating dial backwards, to number 6 or above, gives a tighter upper thread tension.

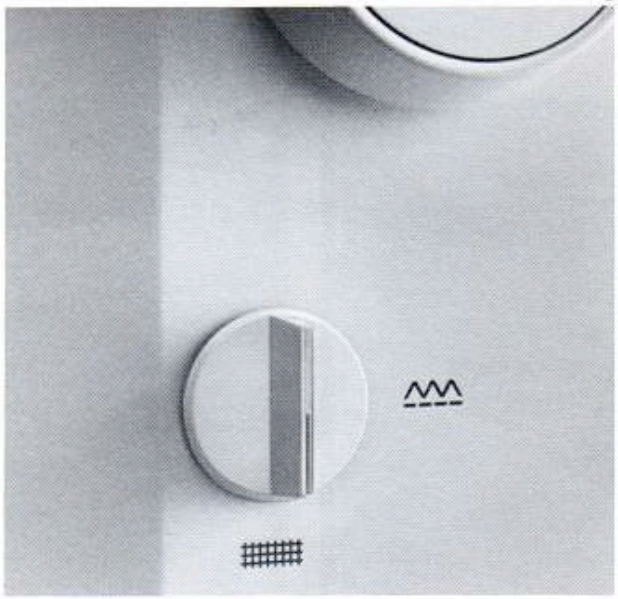
Do not forget:
The thread tension should be reset to normal when the special sewing has been completed.



Thread cutter

To remove the work, raise the presser foot, pull work out to the rear left and hook both threads into cutter. The thread ends free themselves when you start sewing again.

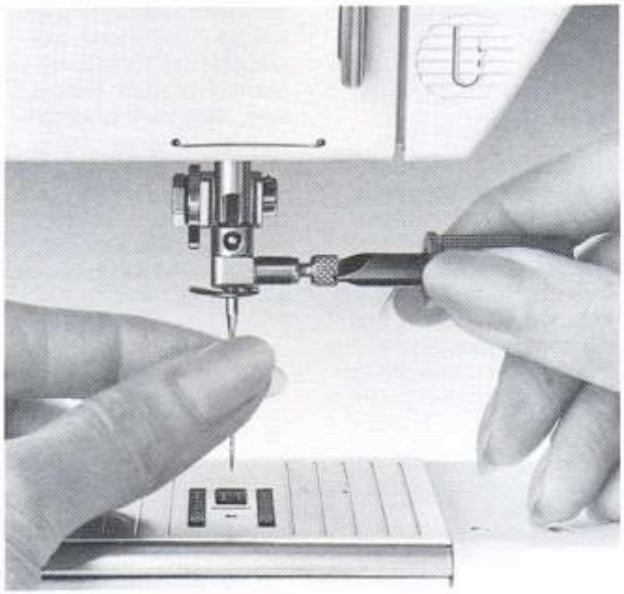
▼6



Lowering the feed-dog

For certain types of sewing, e.g. darning, the fabric must not be moved by the feed. In such cases, the feed-dog should be lowered by turning the near knob, on the handwheel side of the machine, to the right until the mark points to symbol (fig. 6).
For all normal sewing, the mark on the knob should point to symbol .

The feed-dog will return to sewing position with the first stitch.



▲1

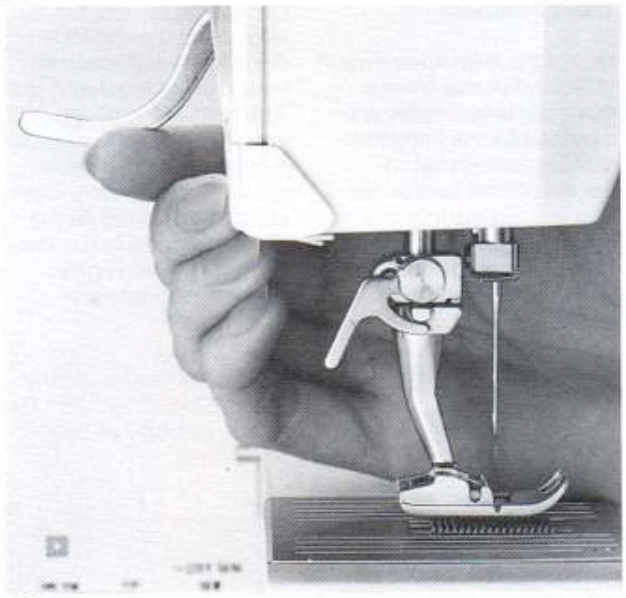
Inserting the needle

A small brown screwdriver for slackening or tightening the needle clamp is provided in the accessories box.

Set the power switch to the ⊡ position. Check that the needle is in the raised position. Lower the presser foot.

To slacken the needle clamp: Half a turn forwards, anti-clockwise (fig. 1).

To insert the needle: The flat side of the needle shank should always be to the rear. Insert the needle until it reaches the top. If the needle does not reach the top, i.e. is set too low, faulty stitches will result. Tighten the needle clamp securely.



▲2

Changing presser feet

For the various presser feet and their uses, see pages 20/21.

The success of a piece of sewing is largely governed by the correct choice of presser foot.
The feet are therefore easy and practical to change.

Set the power switch to the OFF ⊡ position.

Check that the needle is in the raised position.

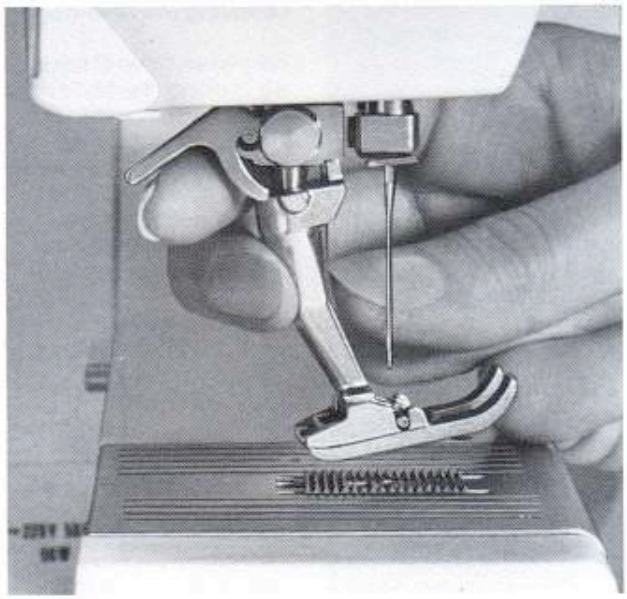
Raise the presser foot (fig. 2).

Raise the clamping lever with the index finger of the right hand, and using the middle finger and thumb, remove the presser foot (fig. 3).

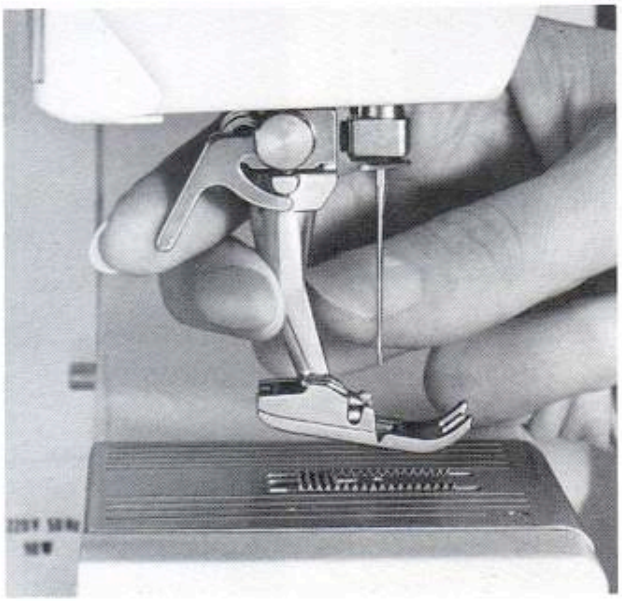
To attach the presser foot: the procedure is the same, but press the clamping lever downwards with the index finger (fig. 4).

Set the power switch to the ■ position.

▼3



▼4



Threads, Needles, Presser Feet

Needles and the sewing machine, Needles and thread, Needle and fabric, Needle/Thread Table	18
Special needles	19
Presser feet	20/21
Feed-dog and stitch length	21
Feed-dog and fabric feed	21
Feed-dog and the sewing of corners	22

All about sewing machine needles

1. Needles and the sewing machine

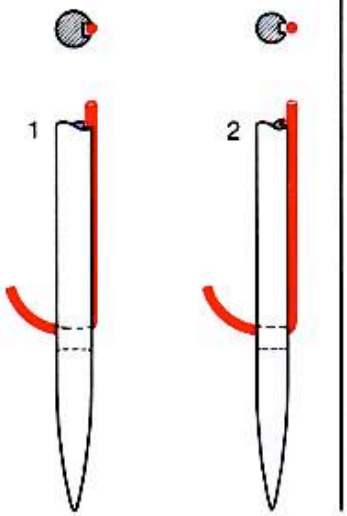
Your BERNINA has a *130/705 H needle system.* Make sure, when buying new needles, that they are the 130/705 H system. Commercially available needle sizes are nos. 70 to 120. The finer the needle, the lower the number. For thread, the opposite applies. The finer the thread, the higher the number.

The table below shows which needle should be used for which thread.

2. Needles and thread

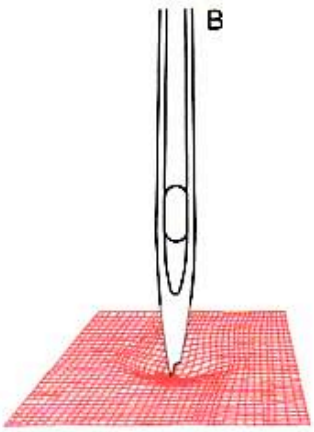
The needle size required depends on the thread selected. The needle must match the thread.

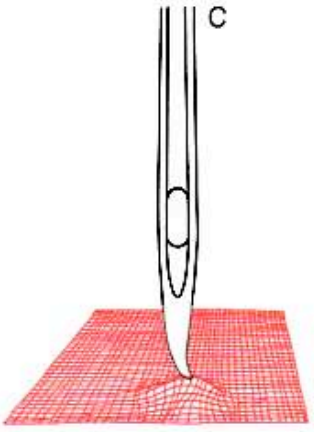
When sewing, the thread lies in the long groove of the needle (fig. 1). If the needle is too fine, the thread will not fit into the groove (fig. 2) and faulty stitching will result.



3. Needle and fabric Needle condition

The needle must be in perfect condition.
Sewing problems are caused by:
- Bent needles (A)
- Blunt needles (B)
- Hooked tips (C)





Needle/Thread Table

Needle	70	80	90	100	110–120
Darning thread	✱	✱			
Embroidery thread no. 30		✱			
Sewing thread Mercerised cotton		✱	✱		
Synthetic sewing thread		✱	✱		
Coarse mercerised cotton Mercerised synthetic			✱	✱	
Buttonhole thread for top stitching (Cordonnet)				✱	✱

All about sewing machine needles

The modern domestic sewing machine is capable of handling a very wide range of fabrics. However, as in the trade, special needles are required for some of these fabrics, e.g. needles with varying types of point.

Table of special needles	Needle description	Needle point	Suitable for
Standard needle	130/705 H	Normal point, slightly rounded	Universal needle for woven synthetic and natural fibres, e.g. linen, chiffon, batiste, organdy, wool, velvet
Special needles	130/705-SES	Fine ball point	Fine knitted fabrics, made from silk, synthetics, cotton and fine wool
	130/705 H-SUK	Medium ball point	Heavier knitted fabrics in synthetic or natural fibres
	130/705 H-S	Medium ball point	Special stretch needle. Especially for delicate or difficult stretch fabrics
	130/705 H-J	Extra fine point	Twill, workwear, heavy linen, denim fabrics, canvas. Pierces dense fabrics more easily
	130/705 H-LR+H-LL	Cutting point	Leather, suède, calfskin, kid, pigskin, imitation leathers and suedes, plastics

Presser feet

Presser feet are an important aid to sewing. They are designed with grooves and guides. The success of a piece of sewing is determined by the correct choice of presser foot.

To ensure the success of every piece of sewing, BERNINA's standard accessories include a wide range of presser feet.
Additional feet are available for special or specific sewing. Consult your BERNINA dealer.

Individual presser feet are not just for *one* particular type of work. They can also be used to simplify other tasks.

In the case of the buttonhole foot, for example,
Buttonholing =
main application;

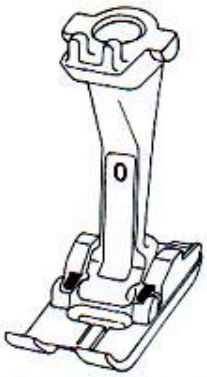
Gathering =
additional application.

Some presser feet can look quite similar at first glance so to avoid confusion they are identified by numbers. The presser feet shown on this page are standard accessories in most countries, but in some countries where sewing customs are different, the range of presser feet may vary.

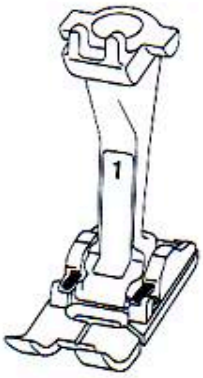
When a stitch is selected, the appropriate presser foot number will be displayed on the presser foot indicator (see inside cover, no. 26).

✻
Additional accessories for the BERNINA 1120 model

0
Presser foot for straight stitch and zig-zag



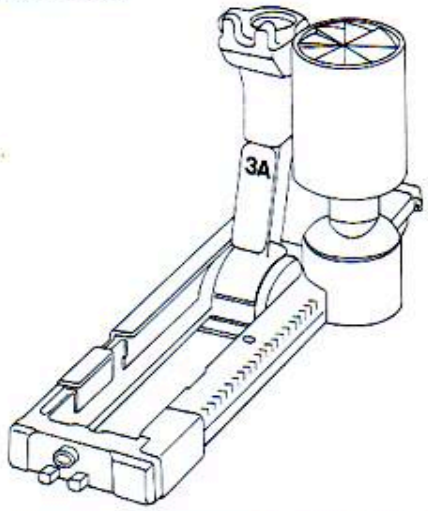
1
Reverse pattern foot



2
Overlock foot

Vari-overlock seam
Vari-overlock hems
Oversewing seam edges

3A ✻
Automatic buttonhole foot

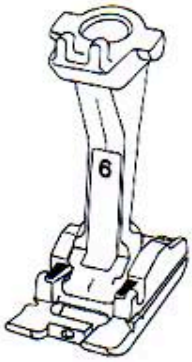


4
Zip foot

Sewing in zips
Piping

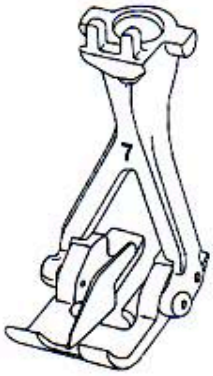
6
Embroidery foot

Decorative stitches
Satin stitching
Appliqué
Couching



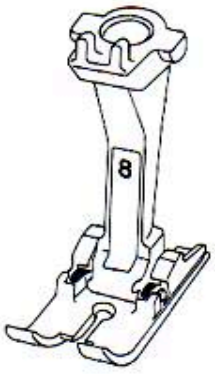
7 ✻
Tailor tacking foot

Tailor tacking
Fringing
Faggotting



8
Jeans foot

Straight stitch seams in thick, hard fabrics and over thick seams

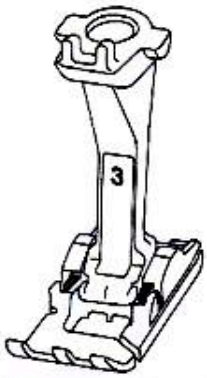


Feed-dog and fabric feed

3

Buttonhole foot

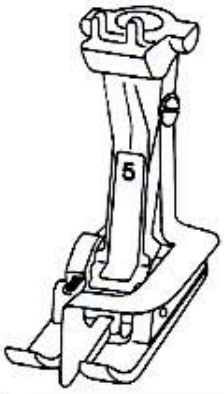
Buttonholing
Gathering



5

Blind stitch foot

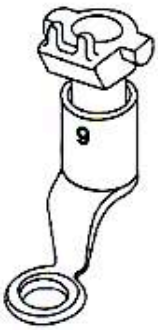
Blind hemming
Edge stitching



9

Darning foot

Darning
Free hand monograms
Free hand embroidery



1. Feed-dog and stitch length

With each stitch, the feed-dog moves forward by one step.
The length of this step is governed by the stitch length selected.
With an extremely short stitch length, the steps are extremely short. The fabric moves under the presser foot quite slowly—even at full sewing speed. For example, buttonholes, satin stitching and decorative stitches are sewn with this short stitch length.

Important:

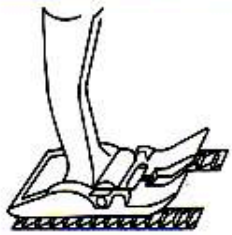
a)
Make sure that the fabric feeds evenly!

b)
Pushing will result in "gaps".

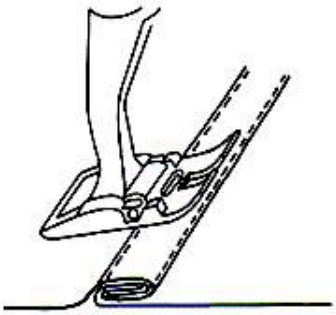
c)
Holding back will result in "pile-ups".

2. Feed-dog and fabric feed

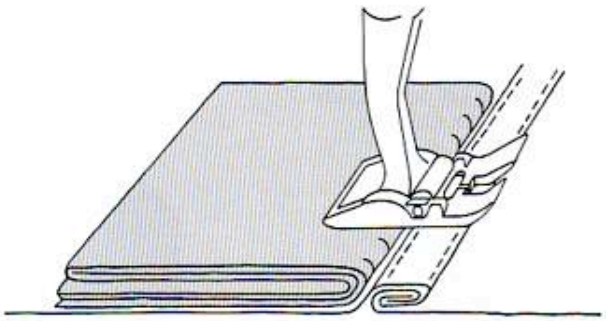
a)
The feed-dog can only work effectively if the presser foot is horizontal.



b)
If the presser foot is tilted, e.g. at a seam or hem, the feed-dog will be unable to grip the fabric. The work will stick.



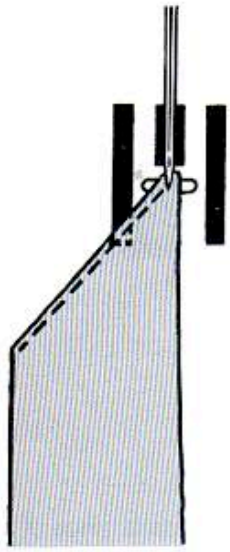
c)
Place a piece of fabric, folded to the thickness of the work, beside the sewing, so that the presser foot is again level and the sewing will feed without sticking.



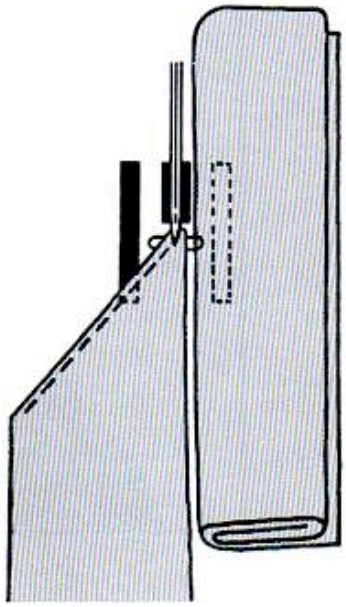
3. Feed-dog and the sewing of corners

a)
The two rows of teeth of the feed-dog are quite a distance apart because of the width of the zig-zag needle hole.

b)
When sewing corners, only a small part of the fabric is actually on the feed-dog so it cannot transport the work correctly.



c)
If a folded piece of fabric is placed against the corner, the feed-dog will once again be able to work properly.



Pratical & Decorative Stitches

Forward and reverse sewing practical stitches	24/25
Decorative stitches	26

Forward sewing practical stitches 1–9/Reverse sewing practical stitches 10–14

1 Straight stitch

Fabric

All types of *non-elastic* fabric.

Uses

All straight stitch work.

2 Zig-zag stitch

Fabric

Most types.

Uses

All simple zig-zag work, e.g. oversewing, especially on fine fabrics, sewing on elastic and lace, etc.

3 Running stitch

Fabric

Most types.

Uses

Mending, patching, reinforcing edges etc.

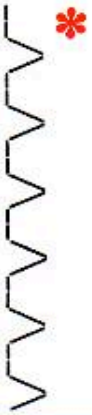
4 Vari-Overlock

Fabric

Primarily for fine synthetic, silk and cotton jerseys.

Uses

Highly elastic overlock seams and hems, particularly suitable for sports underwear, pyjamas, T-shirts, sweatshirts, running-suits etc.



9 Sewn-out zig-zag

Fabric

Most types.

Uses

Oversewing loosely woven fabrics, reinforcing and repairing edges, decorative work.

10 Triple straight stitch/triple zig-zag

Fabric

Corduroy fabrics, denim, deckchair fabrics, all heavy and tough fabrics.

Uses

Reinforced seams and visible hems. Sewing on tapes, extra strong seams for sportswear, woollen blankets, sleeping bags, rucksacks and soft toys.

11 Double overlock

Fabric

Firm knitted fabrics and hand and machine knitted fabrics.

Uses

Overlock seam for pullovers, jackets, sweatshirts etc.

12 Jersey stitch

Fabric

Interlock in natural, blended and synthetic fibres, velour.

Uses

Visible hems, visible seams, particularly for underwear, sweatshirts and delicate knitted fabrics, repairs in interlock underwear.

Forward sewing practical stitches 1–9/Reverse sewing practical stitches 10–14

5 Stretch stitch

Fabric

For highly elastic fabrics.

Uses

Highly elastic open seams for tailored outer wear, ski, horse-riding, climbing and hiking wear.

6 Universal stitch

Fabric

For firmer knitted fabrics, felt, leather etc.

Uses

Flat joining seams, visible hems, patchwork, interlock, sewing on elastic, mending, decorative seams.

7 Gathering stitch

Fabric

Most types.

Uses

Gathering with cord, sewing shirring elastic, joining seams (= raw edges pressed over and butted together).

8 Blind stitch

Fabric

Most types.

Uses

Blind hems, shell edging on soft jersey and fine fabrics, decorative work.

13 Honeycomb stitch

Fabric

Many types of interlock and jersey fabrics.

Uses

Visible hems, visible seams for T-shirts, sweatshirts, underwear, napkins, tablecloths, craft work etc.

14 Stretch Overlock

Fabric

Medium weight knitted fabrics, towelling, velour and other firmer fabrics.

Uses

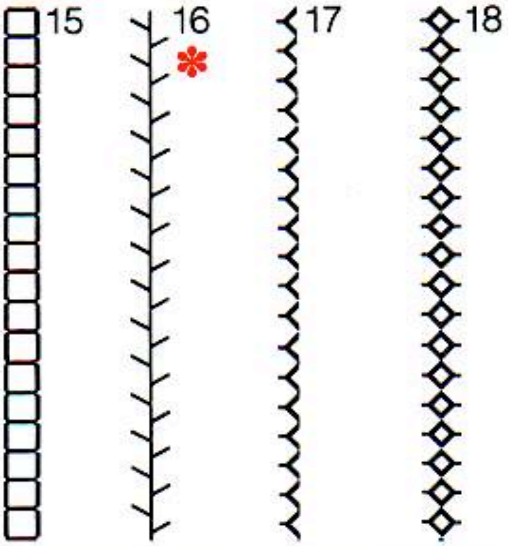
Overlock seams, flat joining seams, craft work.

✻ Practical stitches BERNINA 1120

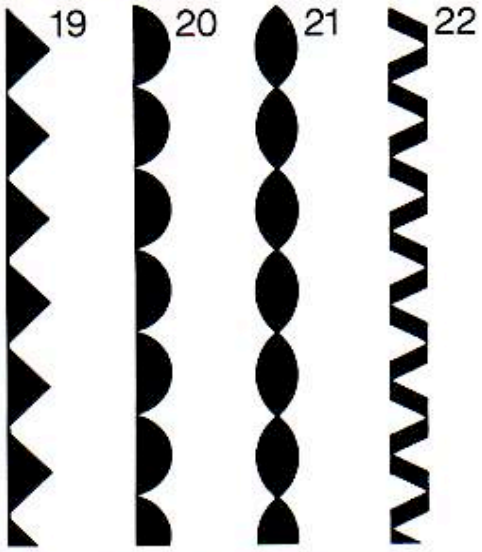
1 Straight stitch
2 Zig-zag stitch
3 Running stitch
4 Vari-Overlock
5 Stretch stitch
6 Blind stitch
7 Triple straight stitch/ triple zig-zag
8 Double overlock
9 Jersey stitch
10 Honeycomb stitch

Decorative stitches BERNINA 1130

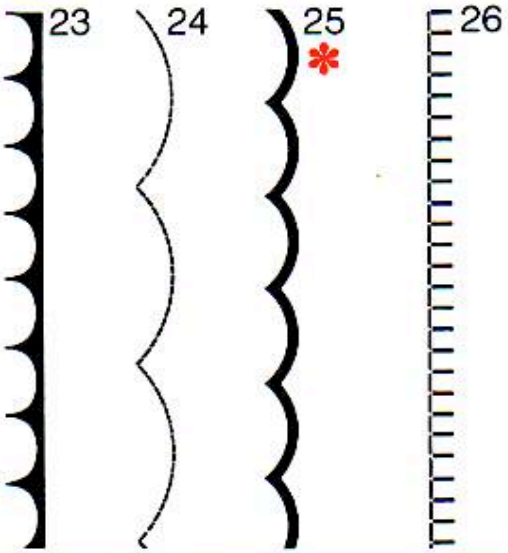
"Hand look" stitches



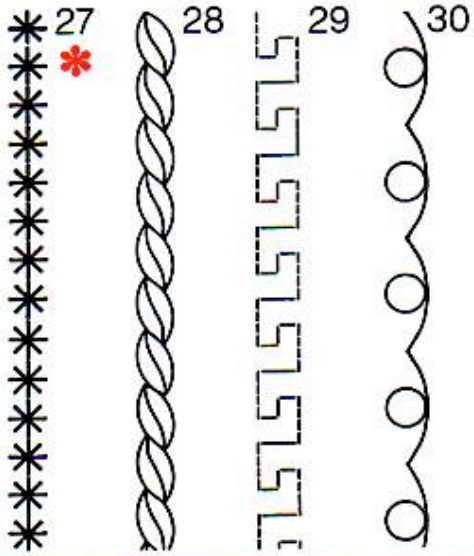
Compact stitches



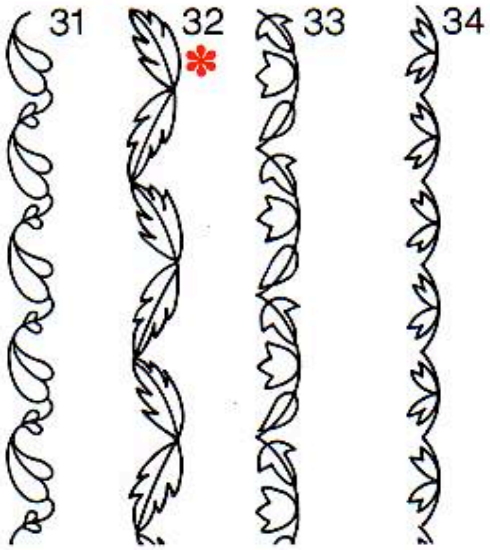
Edging stitches



Pearl stitches



Floral stitches



✻ Decorative stitches BERNINA 1120

11 = 32 of BERNINA 1130
12 = 27 of BERNINA 1130
13 = 16 of BERNINA 1130
14 = 25 of BERNINA 1130

Practical Sewing

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Automatic buttonhole with gimp cord	43
Fully automatic buttonhole	44
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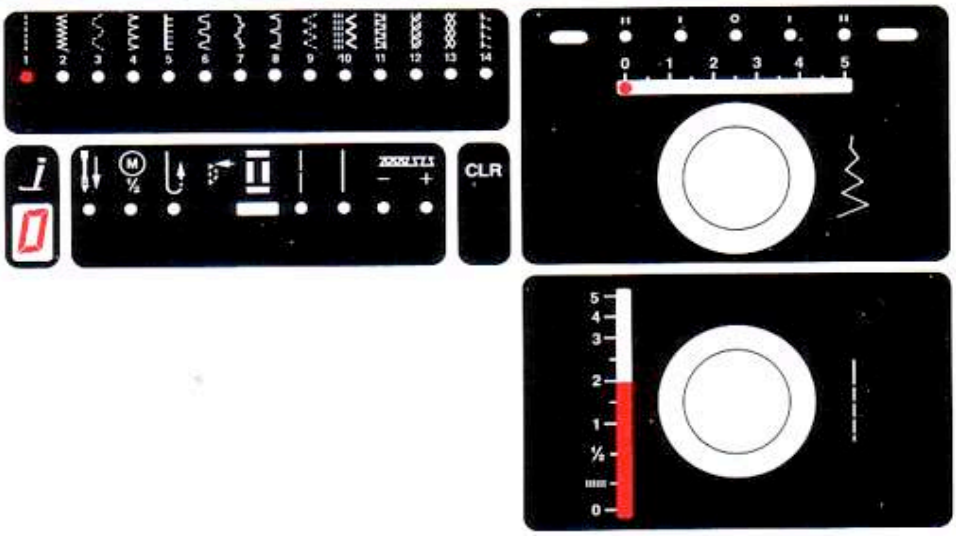
Mending woven fabric	46, 47
Mending interlock fabric	48
Darning	49, 50
Darning with small darning ring	50

Straight stitch, needle positions

Forward stitching

Select straight stitch – the indicator light will come on. The stitch length light beam will show the automatic basic setting.



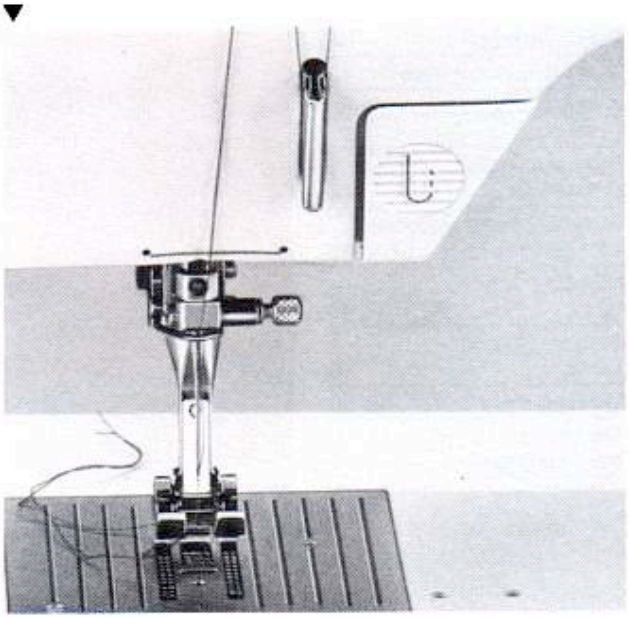
To alter the stitch length

The stitch length can be adjusted with the stitch length knob to suit the sewing and fabric.
The blinker will always show the basic setting.
The stitch length is returned to the basic setting by pressing the CLR button.

Securing the ends

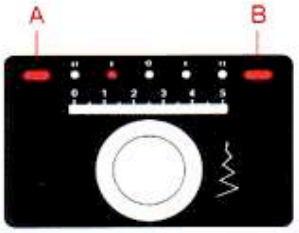
(At the beginning and end of a seam)
Press the Securing stitch control and the machine will sew in reverse. After 3–4 stitches, release the Secur-

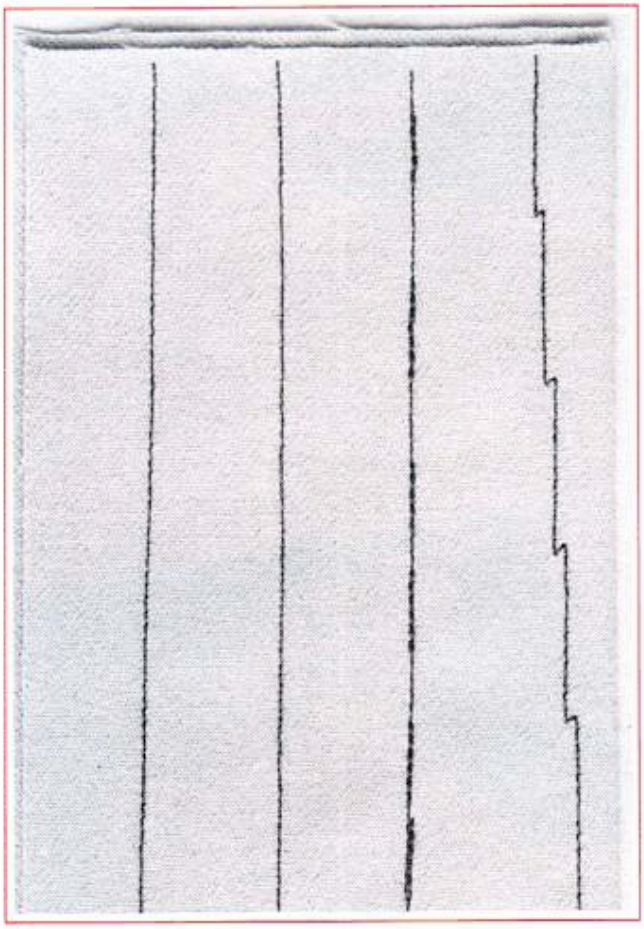
▼



Needle positions

The position of the needle can be moved to the left or right with the aid of buttons A and B.
Typical uses:
Edge stitching, page 41.
Sewing in zips, page 38.
For normal seaming, the needle usually remains in the centre.

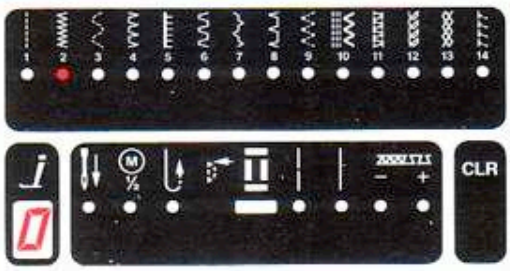


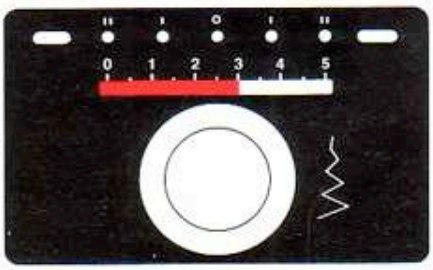


Zig-zag stitch/practical stitches

Zig-zag stitch/ practical stitches

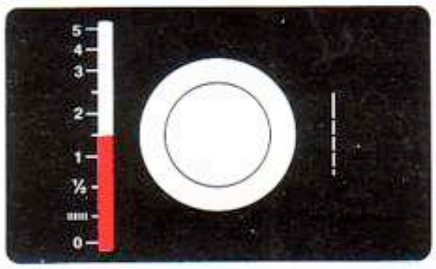
Select zig-zag stitch or a practical stitch.
- The indicator light will come on. The blinkers will show the automatic basic setting for the stitch width and stitch length.





Satin stitch = close zig-zag

- Select zig-zag stitch, adjust stitch width as required.
- Set stitch length to satin stitch. Sew a test piece!



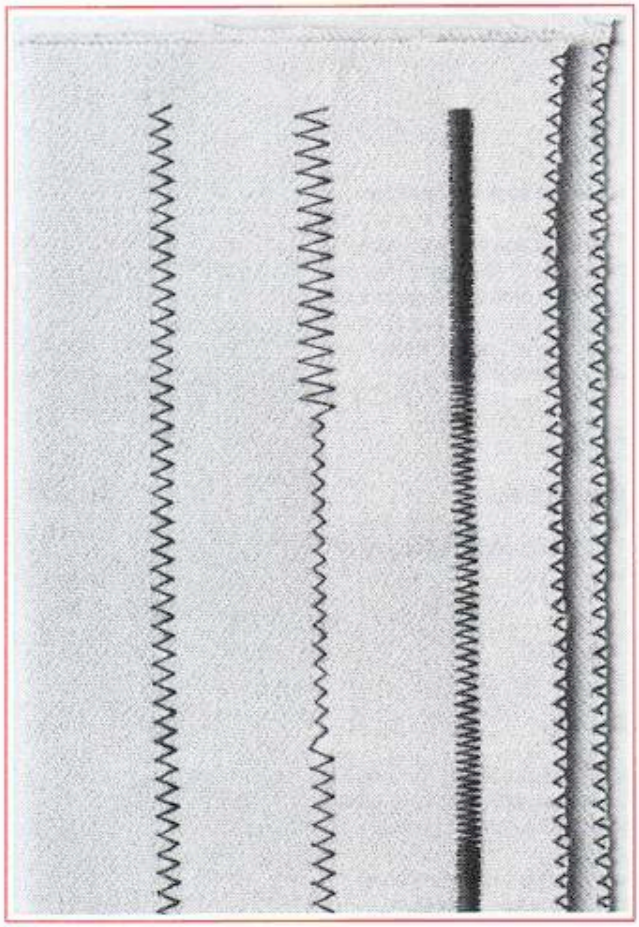
Fine adjustment with the balance buttons

– +

- If the zig-zag is too open, press the – button once or more times.
- If the zig-zag is too close, press the + button once or more times.

To alter the stitch width

The stitch width can be adjusted with the stitch width knob to suit the sewing and fabric.
The stitch width of any stitch can be altered at any time, even whilst sewing.
The stitch width is returned to basic setting by pressing the CLR button.



Oversewing edges

- Stitch selection:
Needle: 80-70
Thread: Embroidery 60/ Darning thread
If necessary, adjust the stitch width and stitch length to suit the fabric.
Generally, the zig-zag should not be *too* wide or the stitch length *too* long. Use as fine a thread as possible, especially on fine fabrics. Begin by cutting away the frayed edges. Guide the edge of the fabric to the centre of the foot, so that the needle goes into the fabric, then over the edge. When sewing on the edge, guide with the fingers to the edge.

Function buttons

Presser foot indicator

This shows a suitable presser foot for the stitch selected.

Needle stop down

Normally, when sewing, the machine will stop with the needle up. By pressing the "needle stop down" button (indicator light on) the machine automatically stops with the needle down in the fabric. When the button is pressed a second time (indicator light out) the machine again stops sewing with the needle up.

Reduced sewing speed

When the foot control is completely pressed down, the machine will run at half sewing speed.

Reverse sewing button

The machine will sew continuously in reverse. If the button is pressed a second time (indicator light out), the machine will return to forward sewing.

Pattern begin

This selects the beginning of any stitch.

Balance

- Fine adjustment for: buttonholes, satin stitch, reverse feed patterns, decorative stitches.
- Creative work (see decorative stitches page 32).

CLR

Clear button

To clear alterations, function buttons and programmes.

Buttonhole

See pages 42–45.

Long stitch

See page 39.

Basting stitch

See page 39.

Clearing

Clearing

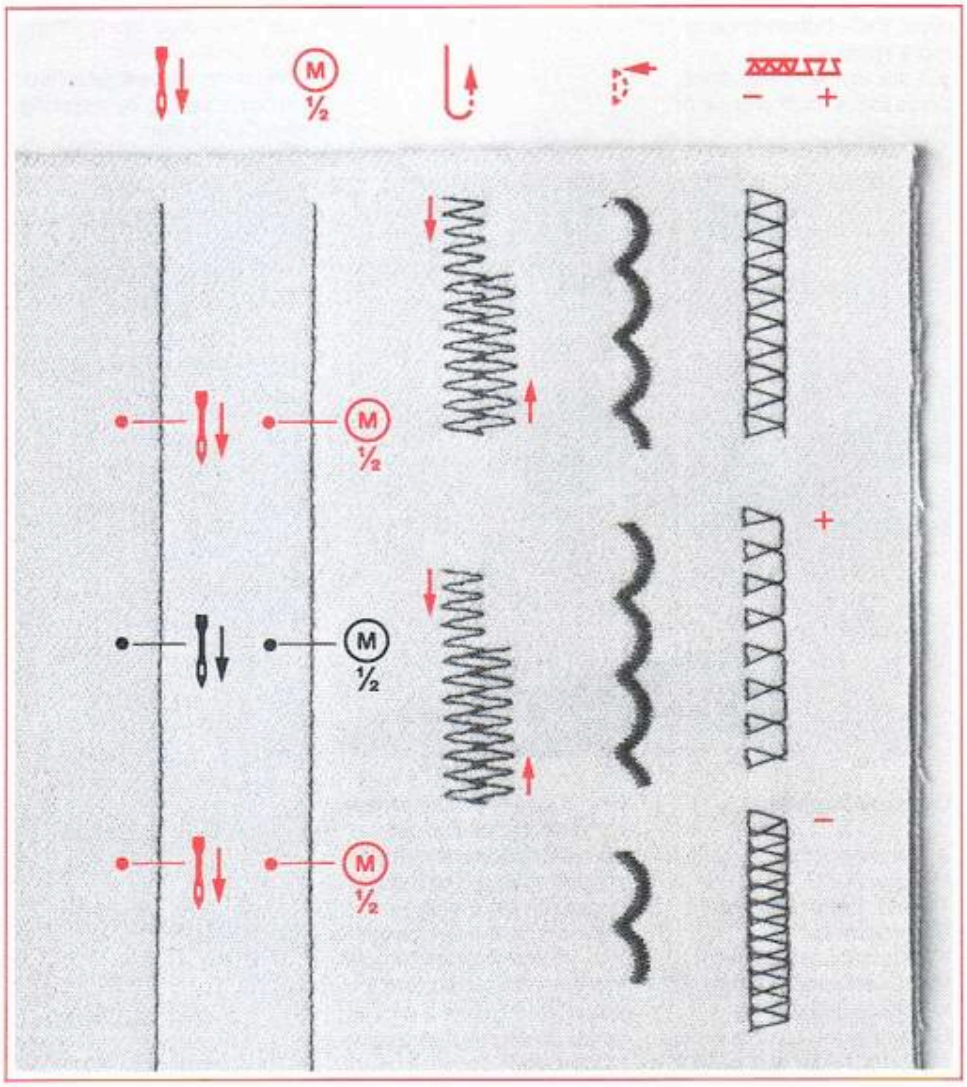
Stitches, function buttons and programmes can be cleared as follows:
Stitches and buttonhole:
- by selecting a different stitch.

Function buttons, programmes and memory:
- with the CLR button,
- by individually clearing, i.e. by pressing the appropriate button.

The following functions can only be cleared individually:

In case of error:

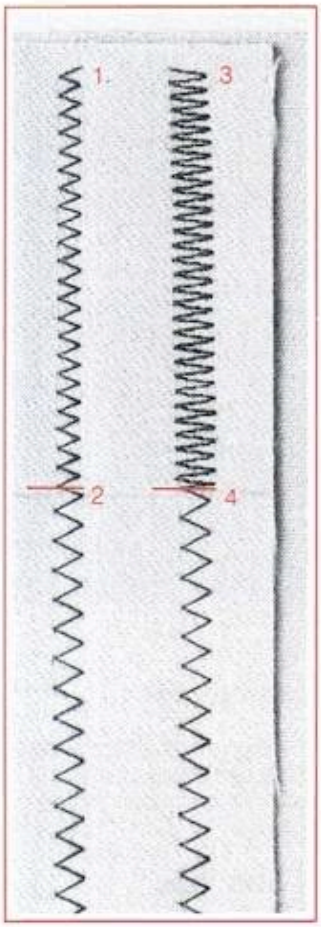
If an incorrect selection is made, press the CLR button twice and select straight stitch. The machine will then be reset at zero, and selection may be restarted.



Automatic storage

Automatic storage

Alterations to a stitch width and/or length will be programmed into the automatic storage. However many stitches are sewn between, when the altered stitch is reselected the alterations have remained. This is particularly valuable when constructing a garment, i.e. straight stitch and zig-zag.



For example:

1 Select Zig-zag stitch.
2 Alter the stitch width, e.g. width 4,
alter the stitch length, e.g. length 2.
3 Select Running stitch:
The basic setting will appear.
4 Re-select Zig-zag:
The altered setting will remain.

Any two altered stitches can be stored in this way. The altered values are retained until reset or cleared, or until the machine is switched off.

To return to the basic setting

There are two ways of doing this:
- Manually reset to the blinker.
Use this method when wishing to reset only the width *or* the length of a stitch. Or when wishing to reset only *one* of two altered stitches.
- With the CLR button.
This clears *all* altered settings.

Decorative stitches, altering

Use of the decorative stitches and function buttons

The stitches and function buttons may be used and varied in three different ways:
1. Altering the basic setting.
2. Combining basic setting and function buttons.
3. Programming.

1. Altering the basic setting

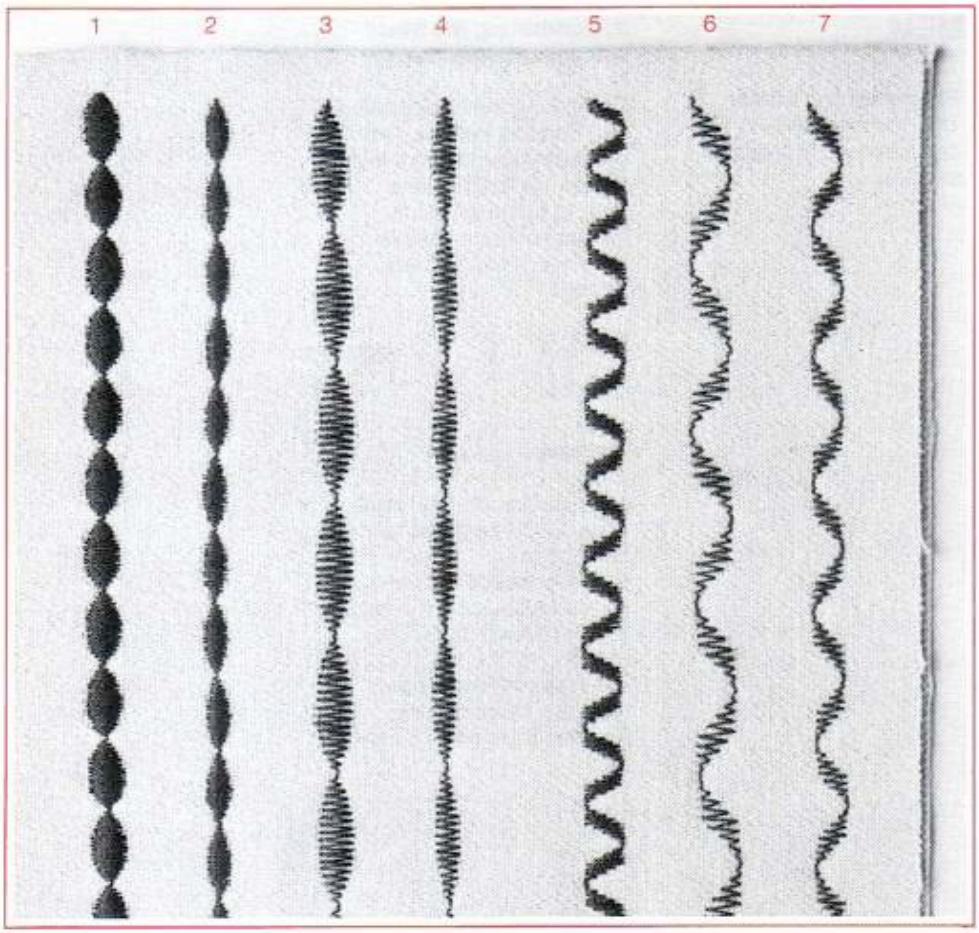
The alteration of stitch widths and stitch lengths offers a wide range of possibilities, e.g. for motifs, borders etc.

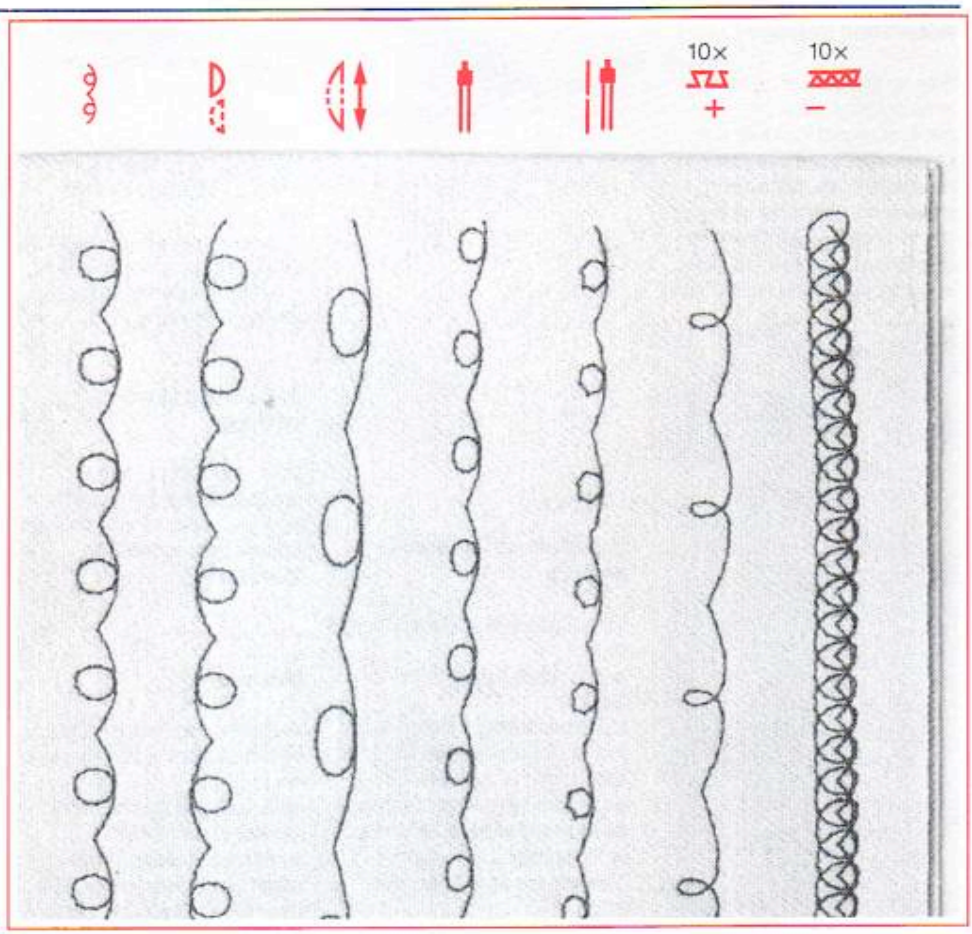
Method:

- Select the required stitch. The indicator light will come on.
- Adjust the stitch width and/or stitch length.
- Before making a new alteration, clear the adjustments with the CLR button.

For example:

	Stitch width:	Stitch length:
1	5	
2	3	
3	5	⅛
4	3	⅛
5	5	
6	5	¼
7	3	¼





Single pattern (pattern end)
The machine will stop either at the end of a pattern or at the end of a programmed group of stitches.

Mirror image
The machine will sew the selected stitch in mirror image.

Double stitch pattern
The machine will sew the selected stitch with double the number of stitches.

Double needle limitation
The stitch width is restricted to the maximum width for sewing with a double needle (2 mm double needle).

MEM
+

Programming button
The machine will programme the selected stitches.

2. Combining the basic setting and functions

Combining the basic setting and function buttons can give some surprising effects (see Vol. 2 "Inspirational sewing"). The following function buttons can be combined with the basic settings:

− +

Method:

- Select the required stitch.
- Select the required function button.
- Before selecting a new combination, clear the function button with the CLR button.

A number of function buttons may be combined simultaneously with a basic stitch.

BERNINA 1120

On this model, it is only possible to combine a stitch with the following function buttons:

+ −

Decorative stitches, typical programming applications

3. Programming

Programming enables groups of stitches to be selected and stored.

Method:

- Select the required stitch/press the MEM button.
- Select the next stitch/ press the MEM button.
- Select further stitch, and so on.

It is possible to store five stitches in this way. The indicator lights for the stitches selected will remain on as long as the stitches are stored in the memory. Before selecting a new programme sequence, press the CLR button twice, and clear special functions by pressing the appropriate button.

A useful tip for all embroidery work:

Pattern begin:

Always press this before starting to sew. The machine will then be at the start of the pattern.

Single pattern (pattern end):

The machine will stop:
- at the end of a stitch, or
- at the end of a programmed group of stitches.

This function is also extremely valuable when sewing motifs or parallel rows of embroidery.

Reduced sewing speed:

This is useful for difficult embroidery work.

BERNINA 1120

It is not possible to programme with this model.

Example 1

Sewn continuously

- Select stitch 19/press MEM 1x
- Select stitch 25/press MEM 1x
- Select stitch 20/press MEM 2x
- Select stitch 25/press MEM 1x

Example 2

Sewn continuously

- Select stitch 30/press MEM 1x
- Select mirror image/press MEM 1x

Example 3

Sewn in programmed groups

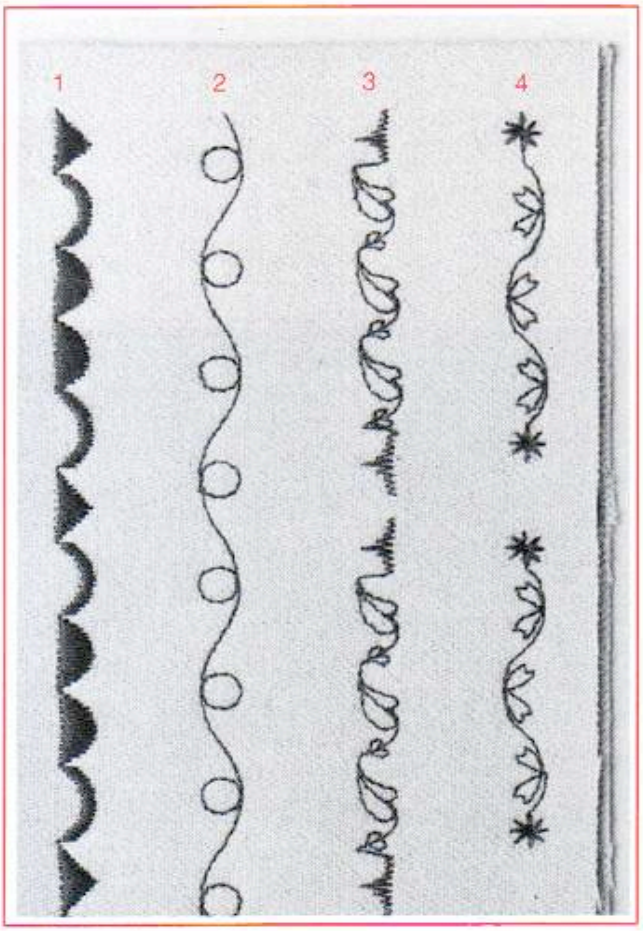
- Select stitch 23/press MEM 1x
- Select stitch 31/press MEM 3x
- Select stitch 23/press MEM 1x
- Press balance (–) 1x
- Select single pattern

Example 4

Sewn in programmed groups

- Select stitch 27/press MEM 1x
- Select stitch 34/press MEM 1x
- Select mirror image/press MEM 1x
- Clear mirror image/press MEM 1x
- Select stitch 27/press MEM 1x
- Select single pattern

Note:
The following symbol is used when a function button only must be cleared:



Sewing knitted fabrics

Important:

1.
Use a perfect needle. Even a very slightly blunt needle will damage the knit, causing it to ladder.
2.
Use fine sewing thread, particularly for fine knitted fabrics. Coarse thread can also damage the knit.
3.
Use darning thread for basting. When the seam is sewn, darning thread is easier to remove than the considerably thicker and shorter fibre basting thread.
4.
Press each seam as it is sewn, before going on to the next stage of sewing.
5.
Sew a sample to test the stitch and stretch. As modern textiles vary considerably in their elasticity, the basic setting should be adjusted, where necessary, to suit the fabric.

For extremely stretchy fabrics:
- Shorten the stitch length slightly and/or
- increase the stitch width slightly.

This gives the seam more thread, making it more stretchy. The seam should be as stretchy as the fabric.

Neckband with decorative seam

Needle: 80

Thread: Sewing thread

- Stitch: Honeycomb stitch

Suitable for firmer knitted fabrics. Fold the neckband in half and press. Make sure the edges are perfectly straight. Pin and baste to the right side of the neckline. Guide the work so that the stitches come exactly to the edge of the neckband. Cut the surplus neckline fabric from behind neckband.

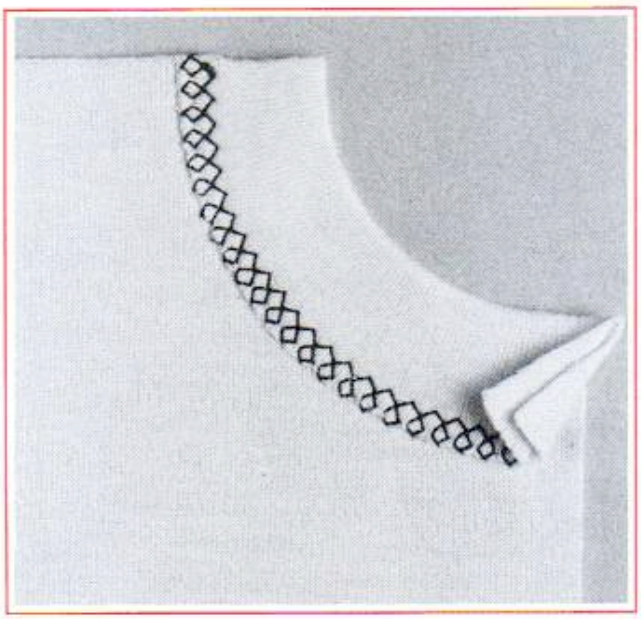
Neckband with overlock seam

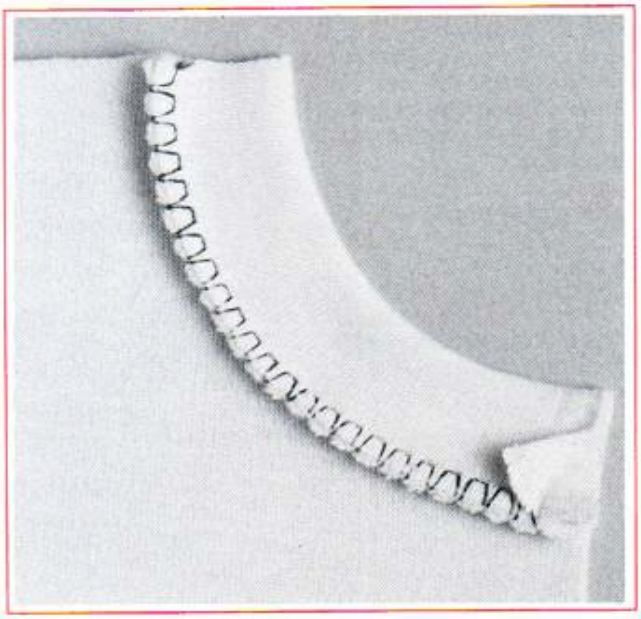
Needle: 80/70

Thread: Sewing thread

- Stitch: Vari-overlock

Specially designed for all fine knitted fabrics. Fold the neckband in half and press. Make sure the edges are perfectly straight. Pin and baste, right sides together, so that the edges of neckband are exactly in line with neckline edge. Position the work so that all edges are guided to the pin of the overlock foot.





Practical stitch hems

Preparation

Baste the hem, depth of hem plus minimum of 1 cm (⅜") extra, sew and cut away surplus fabric against stitch. Check with instructions for working with knitted fabrics (page 34).

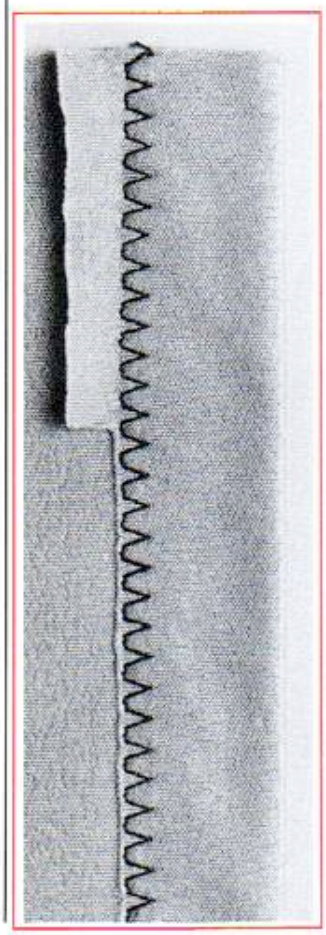
Visible hem with Vari-overlock

Needle: 80/70

Thread: Sewing thread/Darning thread

● Stitch: VVVV
Vari-overlock

Very stretchy hem, especially suitable for fine knitted fabrics.



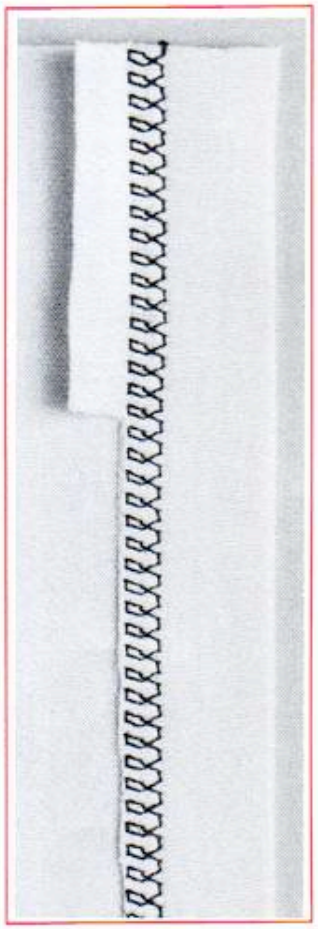
Visible hem with Jersey stitch

Needle: 80

Thread: Sewing thread

● Stitch:
Jersey stitch

Elastic visible hem for interlocks in cotton, fine wool, synthetic and blended fibres.



Visible hem with Triple zig-zag

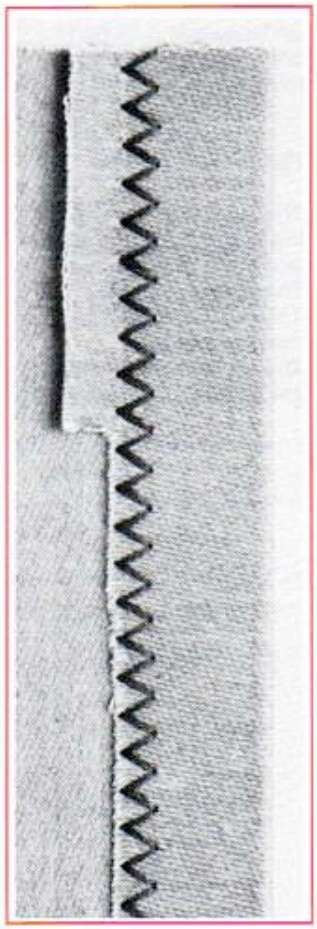
Needle: 80–90

Thread: Sewing thread

● Stitch:
Triple zig-zag

Stitch width: 2½–5, depending on material

Hard wearing visible hem for firm fabrics, e.g. denim, roller blind fabric, deckchair fabric etc.



Practical stitch seams

The type of seam chosen is governed by the garment being sewn, the choice of stitch primarily by the fabric being used.
There are three types of seam:

Open seams:

These are seams that are pressed open. They lie flat, and are not bulky.
They allow garments to be let out.

Used in dresses, trousers, skirts, coats, jackets etc.

Overlock seams:

These are seams that are sewn and oversewn in one operation.
They are quick to produce, and are narrow, but do not allow garments to be let out.

Used especially for knitted fabrics on pullovers, T-shirts, sweatshirts, running suits, underwear and for hand and machine knitted garments.

Flat joining seams:

These are seams in which the edges are overlapped and then oversewn.
They lie flat.
They are narrow, and again cannot be let out.
They do not curl. The edges are neat.

Used for beachwear, leisure wear, foundation garments and craft work.

Triple straight stitch seam

Open seam

Needle: 80 to 90
Thread: Sewing thread

● Stitch: ≡≡≡≡≡
Triple straight stitch

Hard-wearing reinforced seam for firm fabrics.

Zig-zag seam

Open seam

Needle: 80
Thread: Sewing thread

● Stitch: MMM
Zig-zag stitch
Stitch width: approx. 1
Stitch length: approx. 1½

Elastic seam for interlock fabrics in wool, synthetic or blended fibres, and for silk, cotton and wool jersey.

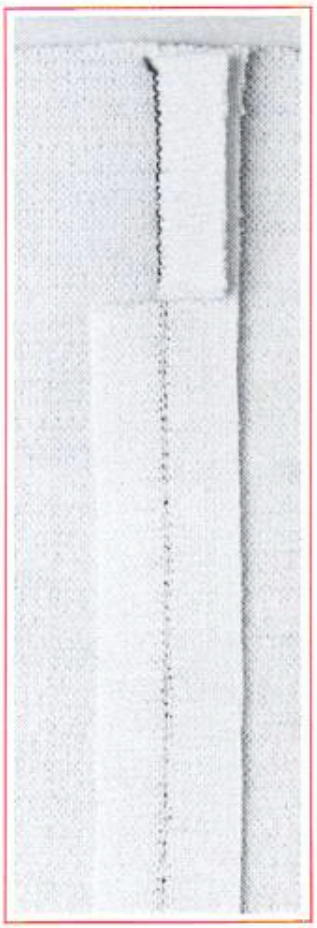
Stretch seam

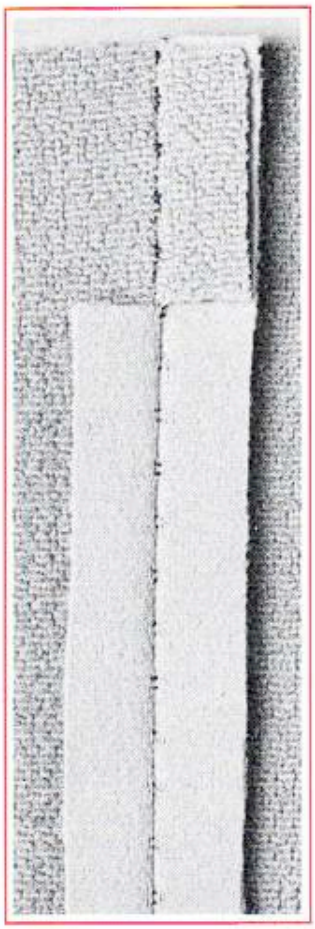
Open seam

Needle: 80
Thread: Sewing thread

● Stitch: ⊓⊓⊓⊓
Stretch stitch

Highly elastic seam for stretch fabrics, especially for sportswear.





Practical stitch seams

Vari-overlock seam

Needle: 80–70

Thread: Sewing thread

● Stitch: VVVV
Vari-overlock

Highly elastic overlock seam for all fine jerseys: dresses, blouses, underwear, sports-underwear.

Double overlock seam

Needle: 80

Thread: Sewing thread

● Stitch: WWW
Double overlock

Elastic overlock seam for firm, course or open knitted fabrics.

Stretch overlock seam

Needle: 80

Thread: Sewing thread

● Stitch: ////
Stretch overlock

Elastic overlock seam for thick, soft or looser knitted fabrics.

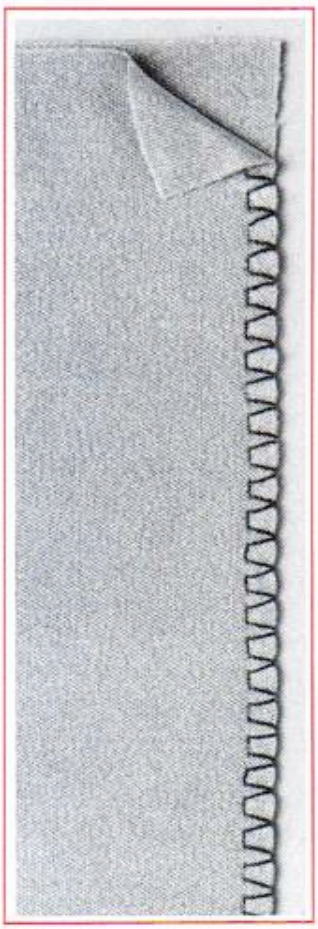
Flat joining seam

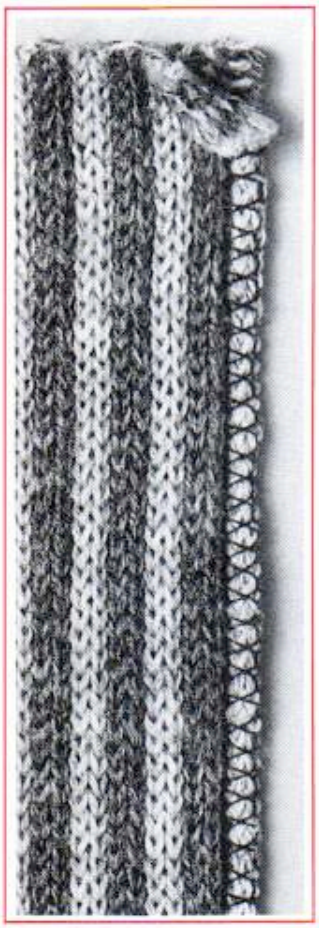
Needle: 80

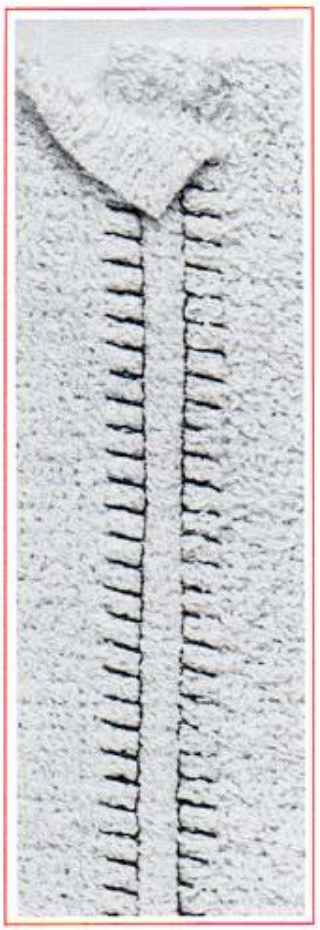
Thread: Sewing thread

● Stitch: ////
Stretch overlock

Visible seam for towelling, velour, leather etc.







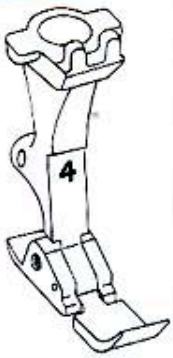
Zips

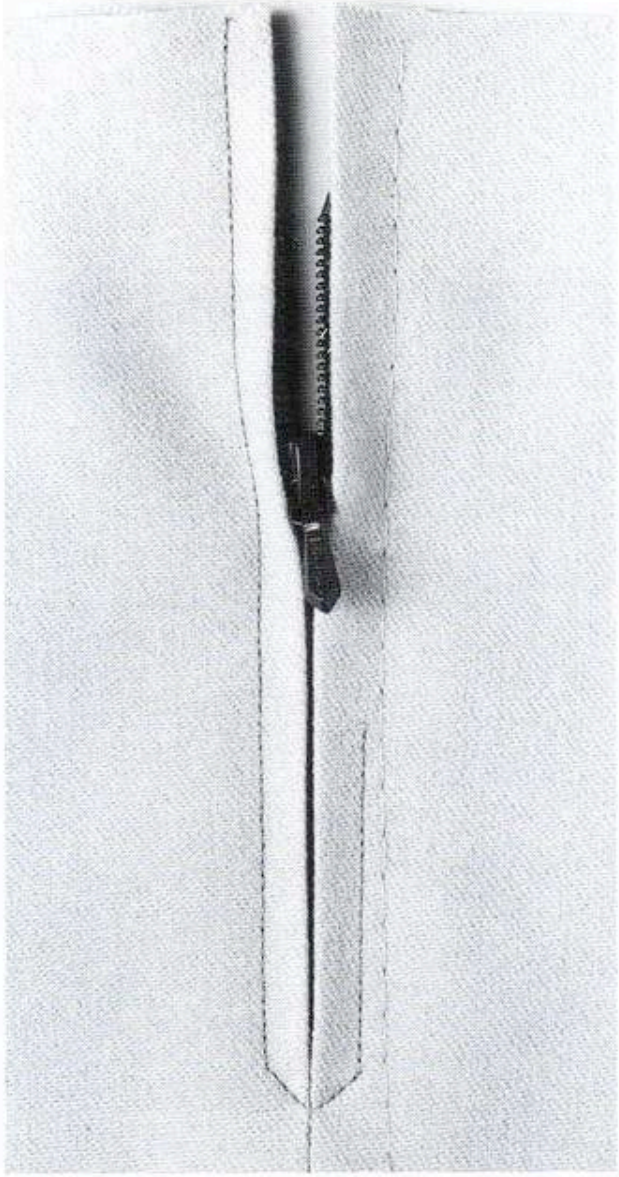
Zip fastener inserted flat

Method:
Baste entire length of seam. Mark length of zip and sew seam *only* to start of zip. Remove basting stitches from *sewn part of seam* only. Press entire seam, trim and oversew. Remove remaining basting stitches.
Baste the zip into position so that teeth are covered by the fabric. Sew in the zip, starting each side at the bottom and sewing to the top, once with needle position right, once with needle position left.

Needle: 80
Thread: Sewing thread
Zip foot: 4

● Stitch: ------
Straight stitch
Alteration:
Needle position left/right





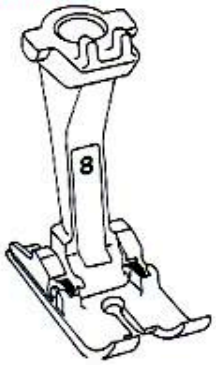
Jeans foot

Thick fabrics and seams

The Jeans foot enables exceptionally thick and hard fabrics to be sewn easily. Select a stitch length of between 2 and 3.5 mm, depending on fabric.

Note that the needle position setting *must* be "centre", and the stitch width "0".

Use a Jeans needle, or needle size 100.



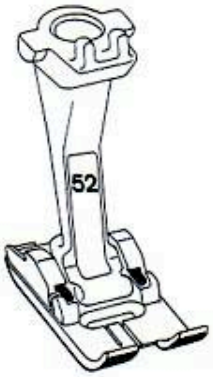
Plastic/Leather

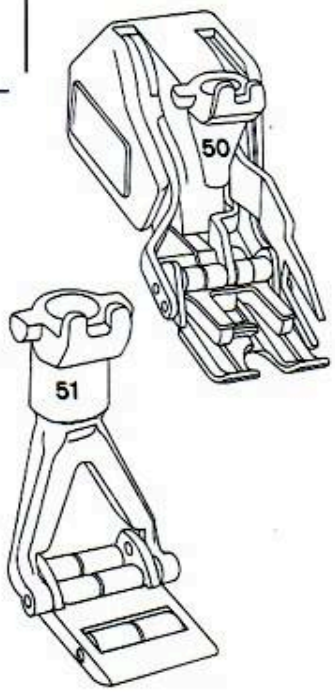
Plastic

Like synthetic fabrics, plastic is also made from a varying number of raw materials. When sewn, plastic should be handled according to the surface and grain.
If the fabric does not feed correctly, i.e. sticks to the presser foot, use one of the following special presser feet: (1) Walking foot (No. 50), (2) Roller foot (No. 51), (3) Teflon foot (No. 52).
Always sew plastic with a long stitch length to avoid tearing.

Leather and imitation leather

Naturally it is possible to sew leather. Some leathers will require a special leather needle.
Always sew a test piece before starting on the work itself. The stitch length should not be too short. Use Walking foot (No. 50), or Roller foot (No. 51), or Teflon foot (No. 52) as required. (These presser feet are additional accessories for both models.)





Long stitch

Long stitch

With the Long stitch, the machine sews every other stitch, giving a maximum stitch length of 10 mm. Long stitch can be sewn in any of the 5 needle positions.

Needle: 80

Thread: Sewing thread

● Stitch: ------
Straight stitch

Stitch length: 1½–5

Needle position: any position

Function button:
Long stitch — —

For fine fabrics Long stitch can also be used for basting.

Top stitching using buttonhole thread (Cordonnet)

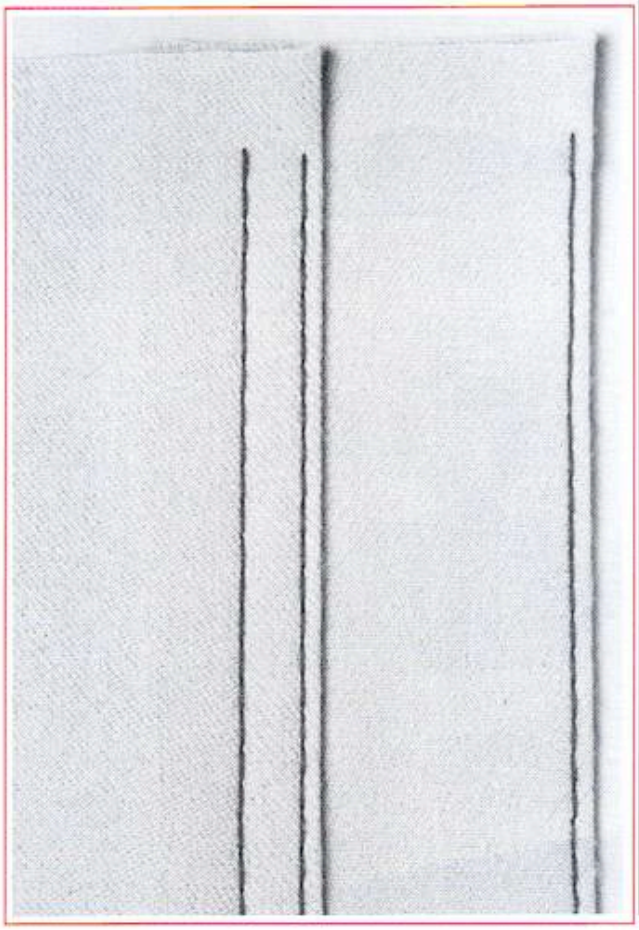
a) Buttonhole thread as the upper thread

Rule of thumb: Use size 110 needle

With certain fabrics a size 100 needle could be large enough. Sew a test piece.

b) Buttonhole thread as the lower thread

If the thicker needle is unsuitable for the fabric, the buttonhole thread should be wound on the bobbin and used as the lower thread. If the sewing line is not visible, e.g. when sewing on pockets, mark the line with basting in a contrasting colour. This will show on the reverse side and can easily be removed when the work is completed.



Basting stitch

Basting stitch

With Basting stitch, the machine sews every sixth stitch, producing long basting stitches, up to a maximum length of 3 cm. Basting stitches can be sewn in any of the 5 needle positions.

Needle: 80–90

Thread: Sewing thread/ Basting thread

● Stitch: ------
Straight stitch

Stitch length: 1½–5

Needle position: any position

Function button:
Basting stitch —

To secure the ends at the beginning and end of the seam, sew a few stitches with normal straight stitching.

Blind hemming

Needle: 80–70

Thread: Sewing thread/ Darning thread

● Stitch:
Blind stitch

Important

As with hand sewing, fine fabrics require a fine needle and a fine thread. This work is best done at slow speed.

Method

The hem should be prepared in the same way as for sewing by hand. Oversew raw edge, baste and press.

Positioning the hem

The hem is positioned under the foot as shown in fig. 1.

Test piece

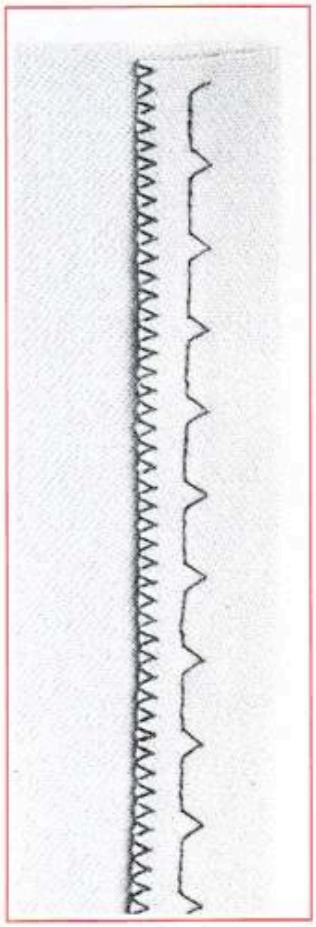
(Either on a scrap piece of fabric from garment, or directly on the hem.) Given the variations in fabric thicknesses, it is advisable to sew a test piece first. As when sewing by hand, the needle should only catch the edge of the fabric.
The basic setting is always a stitch width of 2.8. With the variations in fabric thickness, minor adjustment may be required.
Test piece:
Sew slowly to the point when the needle swings to the left. With the aid of the handwheel, bring the needle down until it is just about to enter the fabric. Check that it is only *just* catching the fabric. If necessary adjust the stitch width slightly: narrower if the needle is going in too far and a little wider if it is failing to catch sufficiently.
Check the next zig-zag stitch in the same way. Then sew for approximately 10 cm (4") and check again.

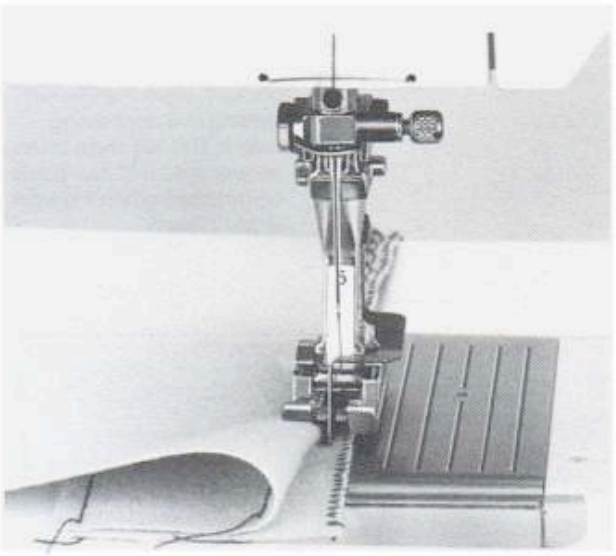
Guiding the work

Guide the hem as shown in fig. 2.

Tip:

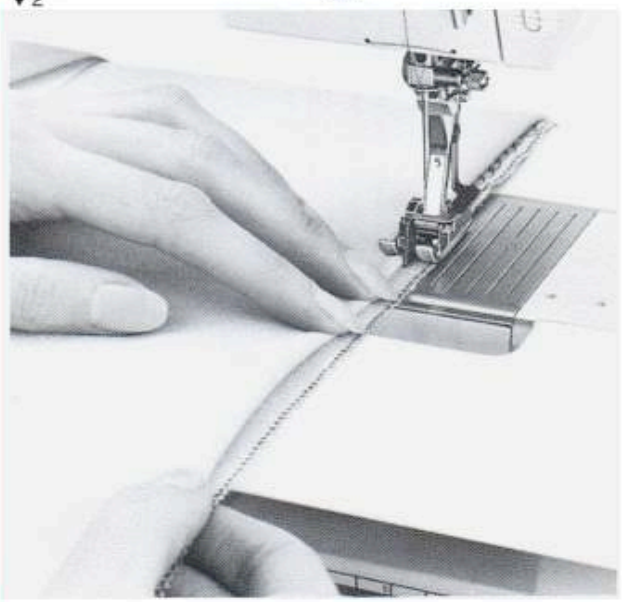
Whilst sewing, hold the under fabric back slightly.





▲1

▼2



Edge stitching

Edge stitching

On collars, cuffs, lapels, hems etc.

Needle: 80

Thread: Sewing thread

● Stitch: ------
Straight stitch

Stitch length: as required

Needle position: left/half left

Presser foot: Blind stitch foot No. 5

Top stitching

For edges of all kinds.

Needle: 80

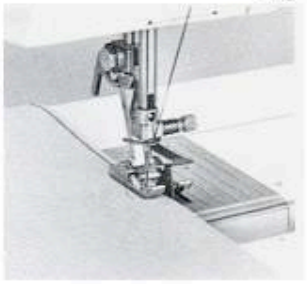
Thread: Sewing thread

● Stitch: ------
Straight stitch

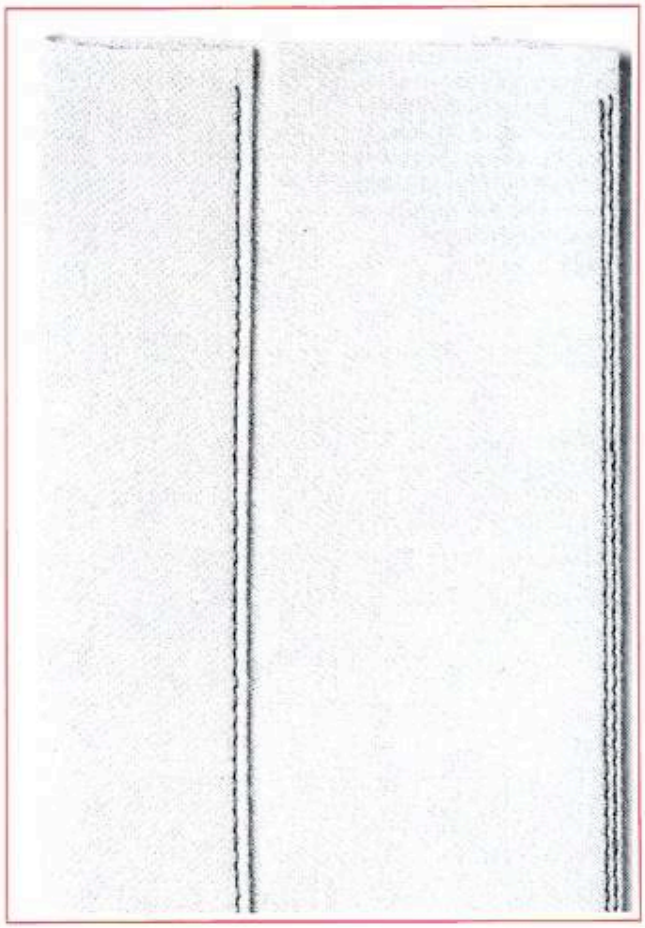
Needle position: any position

Guide the edge of the fabric to the outer edge of the presser foot or the marks in the needle plate.

▼3

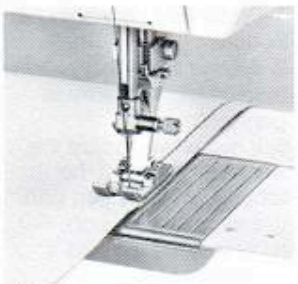


Place the edge of the fabric, from the left, against the guide on the Blind stitch foot (fig. 3). Set the Needle position to left or half left. For longer stitches, use Long stitch.



Widths:
Edge of Presser foot = 7.5 mm (5/16") (fig. 4)
Guide lines on stitch plate
Line 1 = 1 cm (3/8")
Line 2 = 1.5 cm (5/8") (fig. 5)
Line 3 = 2 cm (3/4")
Line 4 = 2.5 cm (1") (fig. 6)
Line 5 = 3 cm (1 3/16")

It is also possible to sew intermediate widths using the left, half left, right and half right needle positions.



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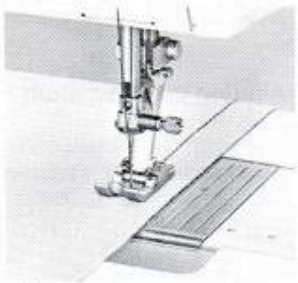
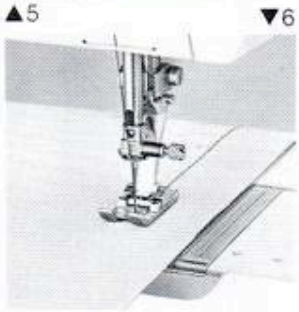


▲5 ▼6



Automatic buttonhole

Needle: 80–70
Thread: Embroidery thread 60/Darning thread, sewing thread

Method

When sewing buttonholes, thread the lower thread through the finger of the bobbin case.

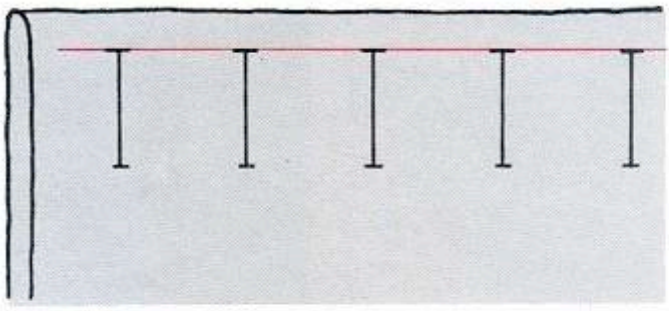
Test piece

1. Press the buttonhole button.
2. Always sew a test button hole on fabric exactly as garment.
3. If necessary, adjust the stitch length to suit the fabric: Forward bead with the stitch length knob: reverse bead with the + or – balance button.
Bead too dense = – button.
Bead too open = + button.

Altering the bead width

The width of the bead can be altered using the selector knob for stitch width (test).

Mark buttonholes



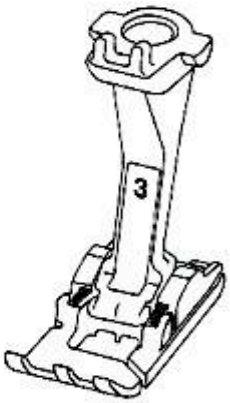
Sewing the buttonhole

Bring the needle to the centre of the presser foot with the aid of the hand-wheel or needle stop.
Lower the needle into the fabric at the start of the buttonhole, lower the presser foot.

1.
The machine will sew the first bead forwards.
Stop the machine when the buttonhole is the desired length.

2.
Press the buttonhole button.
The machine will sew the bar tack and the reverse bead.
Once again, stop the machine when the second bead is level with the first.

3.
Press the buttonhole button.
The machine will sew the bar tack and securing stitches.
The machine will stop automatically and be ready to start the next buttonhole.
On all further buttonholes, *do not press the buttonhole button* at the start of sewing.
The machine is already set to sew the first bead (stage 1).



Automatic buttonhole with gimp cord

The gimp cord strengthens the buttonhole.

The gimp cord is particularly important for all knitted fabrics – including hand and machine knits – to prevent the buttonhole from pulling out of shape.
The thickness of the cord depends on the fabric to be sewn. Suitable cords are perle yarn no. 8, buttonhole thread, or fine crochet cord. Sew a trial buttonhole first. Lay the fabric under the foot so that the loop of the cord will come at the end of the buttonhole pulled by the button (fig. 1.).

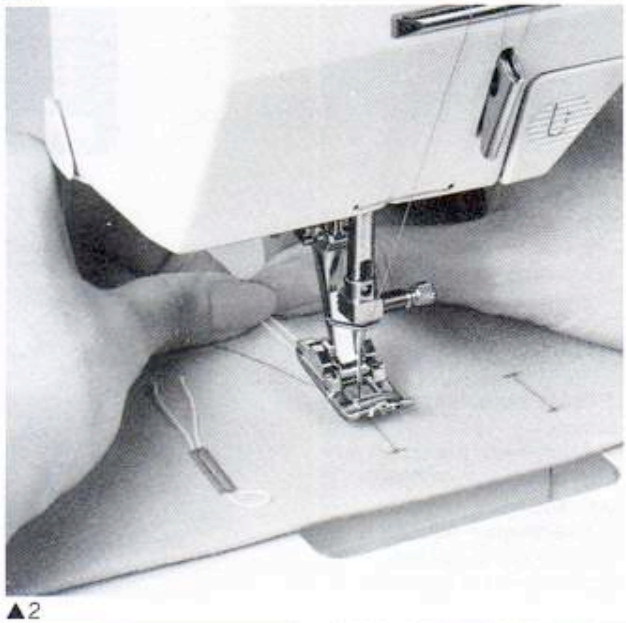
Positioning the cord

It is easier to position the cord if the needle is already in the fabric: Bring the needle to the centre of the presser foot, using the handwheel or needle stop. Lower the needle into the fabric at the start of the buttonhole. Do not lower the foot yet.

Hook the gimp cord over the centre prong at the front of the buttonhole foot (fig. 1). and take both ends back under the foot (fig. 2). Lower the foot. Check that the cord is able to slide, i.e. that it is not trapped by the foot.

Sew the buttonhole. Do not hold the gimp cord. It must be able to slide.
Finally, pull through the loop of cord.

▲1



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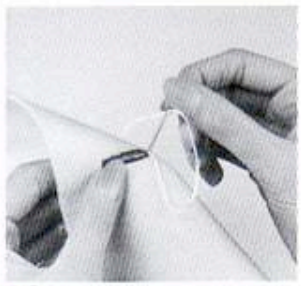


▲3

Securing the gimp cord

In knitted fabrics, pull the ends of the cord through to the back using a coarse hand sewing needle (fig. 3) and tie or sew in securely. (In woven fabrics, the cord ends can be simply cut off.)

▲4

Cutting the buttonhole open

It is best to cut from both ends towards the centre of the buttonhole (fig. 4). This avoids cutting through a bar tack.

Fully automatic buttonhole

Fully automatic buttonhole

Needle: 80–70

Thread: Embroidery thread 60/Darning thread, sewing thread

Method

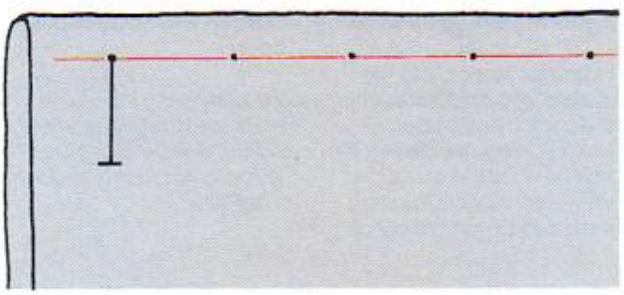
When sewing buttonholes, thread the lower thread through the finger of the bobbin case.

Test piece

1. Press the buttonhole button.
2. Always sew a test buttonhole on fabric exactly as garment.
3. If necessary, adjust the stitch length to suit the fabric: Forward bead with the stitch length knob; reverse bead with the + or – balance button.
Bead too dense = – button.
Bead too open = + button.

Mark buttonholes

Mark *one* buttonhole only as the buttonhole will be programmed.

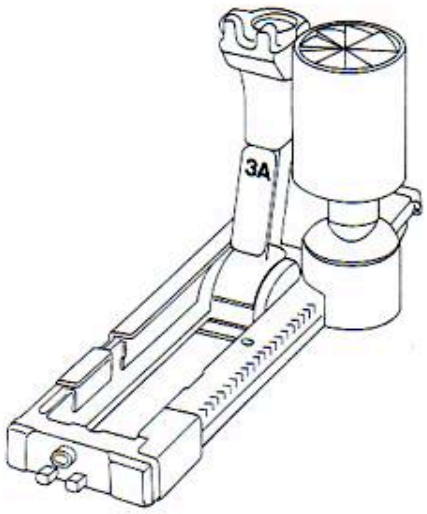


Sewing the buttonhole

Bring the needle to the centre of the presser foot with the aid of the hand-wheel. Lower the needle into the fabric at the start of the buttonhole. Lower the presser foot.

1.
The machine will sew the first bead forwards.
Stop the machine when the buttonhole is the desired length.

2.
Press the buttonhole button.
The machine will switch to AUTOmatic.
The buttonhole is programmed.
From now on, do not press the buttonhole button again.
The machine will complete the buttonhole automatically.
For further buttonholes, simply insert the needle at the start of the buttonhole. The machine will sew the entire buttonhole automatically.



Fully automatic buttonhole with gimp cord

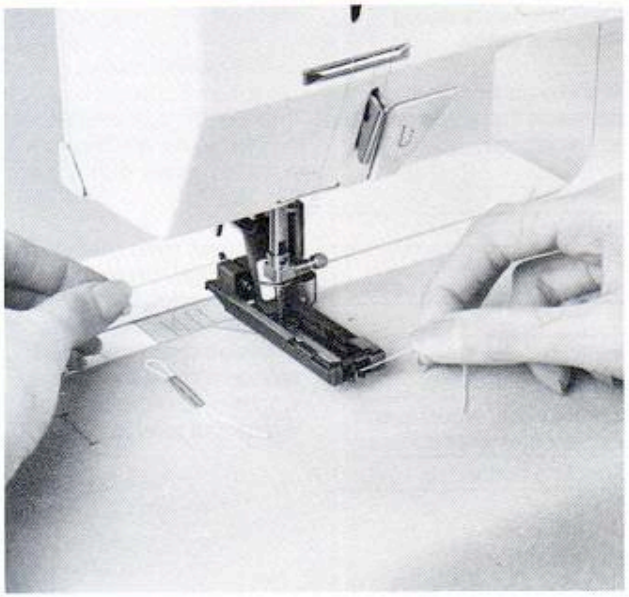
The gimp cord strengthens the buttonhole.

The gimp cord is particularly important for all knitted fabrics – including hand and machine knits – to prevent the buttonhole from pulling out of shape.
The thickness of the cord depends on the material to be sewn. Suitable cords are perle yarn no. 8, buttonhole thread, or fine crochet thread. Sew a trial buttonhole first. Lay the fabric under the foot so that the loop of the cord will come at the end of the buttonhole pulled by the button (fig. 1).

Positioning the cord

It is easier to position the cord if the needle is already in the fabric: Move the needle to the centre of the presser foot, using the handwheel or needle stop. Lower the needle into the fabric at the start of the buttonhole. Do not lower the foot yet.

Guide the cord, to the right, under the buttonhole foot and hook it over the prong at the back.
Then bring it round, to the left and forwards under the foot.
Pull both ends of the cord into the retaining slots at the front (fig. 2).
Cut away any excess cord (fig. 3).



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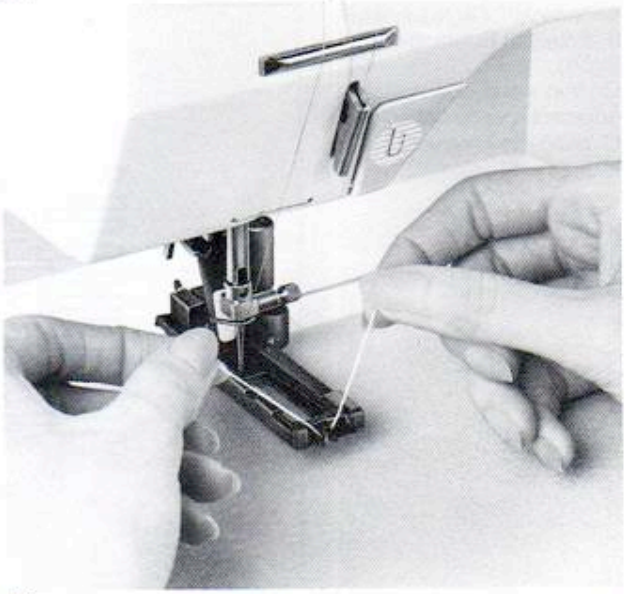

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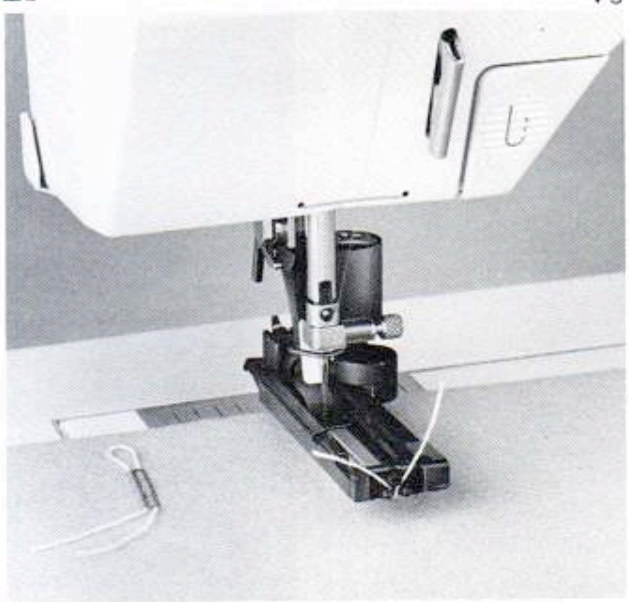


▼3

Securing the gimp cord and cutting buttonhole open, see "Automatic buttonhole", page 43.

Mending woven fabric

Mending tears using Running stitch

Modern darning method for tears and thin areas on virtually all fabrics.

Needle: 80–70

Thread: Embroidery thread 60/Darning thread

● Stitch: Running stitch

Stitch length: Adjust to suit the fabric where necessary

Function button:

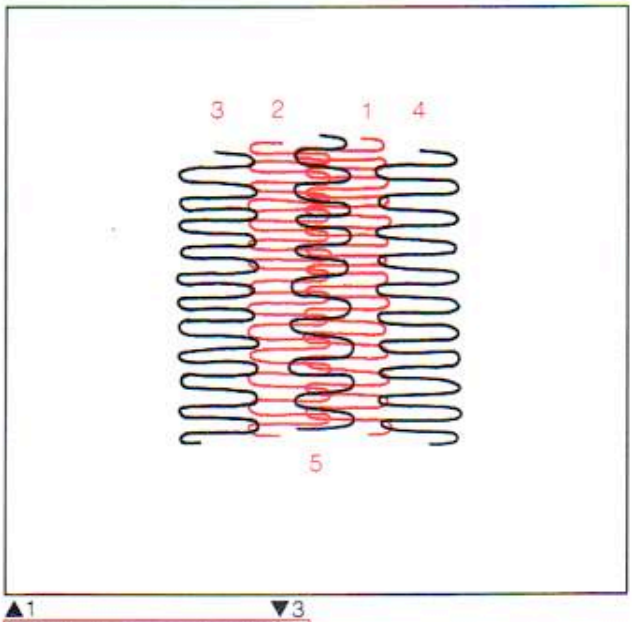
Important:

Always lay a fine fabric underneath. On tears, sew 3–5 rows of Running stitch (fig. 1).
On thin areas, sew sufficient adjacent rows to cover. Overlap the rows very slightly.

Method

On flat garments it is possible to turn the work, lower the needle into the fabric to do this, so the stitching is always in a forward direction (fig. 1).

On tubular items (sleeves, trouser legs), press the reverse sewing button after the first row, move the fabric sideways slightly, and sew the second row in reverse. Continue alternating forwards and reverse (fig. 2).



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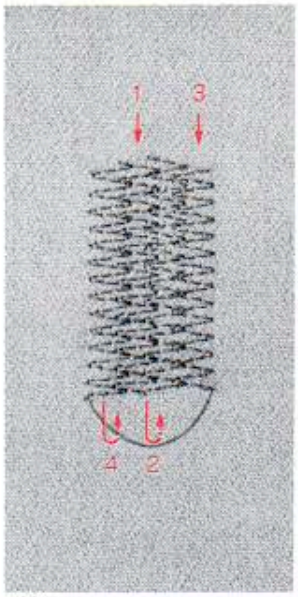

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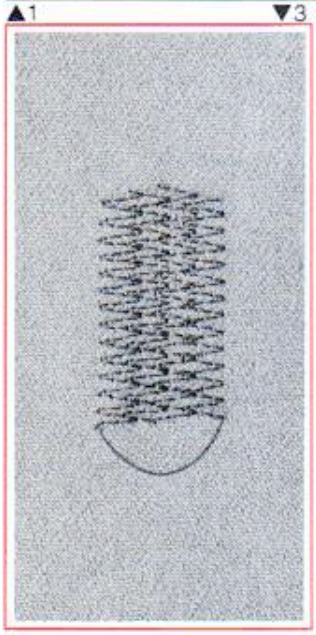


▼3

Mending woven fabric

Patching using Honeycomb stitch

For outerwear and especially jeans.

Needle: 80

Thread: Embroidery thread 60/Darning thread

Step 1

● Stitch: ------
Straight stitch

●Function button:
Basting stitch

Do not cut away worn/torn areas. Pin patch to the right side and baste along the edge using darning thread.

Step 2

Clear Basting stitch.

● Stitch:
Honeycomb stitch

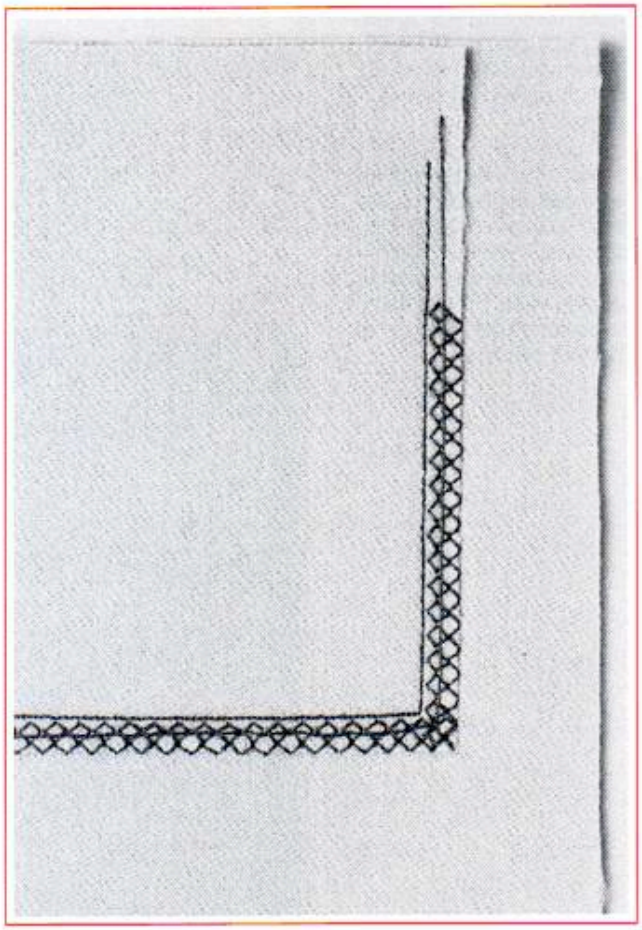
Oversew edges with Honeycomb stitch. Guide the edge of the patch to the right of the zig-zag slot of the foot to ensure all Honeycomb stitches are on the patch.

Step 3

● Stitch: ------
Straight stitch

Stitch length: approx. 1

Sew a straight stitch along the inside edge of the Honeycomb stitch. Then cut away the worn/torn piece from behind patch. This is easier with the straight stitch.



Mending interlock fabric

Patching using Jersey stitch

Primarily for mending interlock underwear.

Needle: 80–70
Thread: Embroidery thread 60/Darning thread

● Stitch:
Jersey stitch

Small tears/worn areas are best darned. See page 49. For larger tears or worn areas, it is better to sew on a patch as this retains the elasticity.

Cut out a patch, possibly from the sound part of similar discarded garment. Where possible round off the corners to preserve elasticity.

Pin on the patch and baste as close as possible to the edge using small basting stitches. Then sew patch into place using 1–2 rows of Jersey stitch. Finally, cut away torn/worn piece from behind patch.

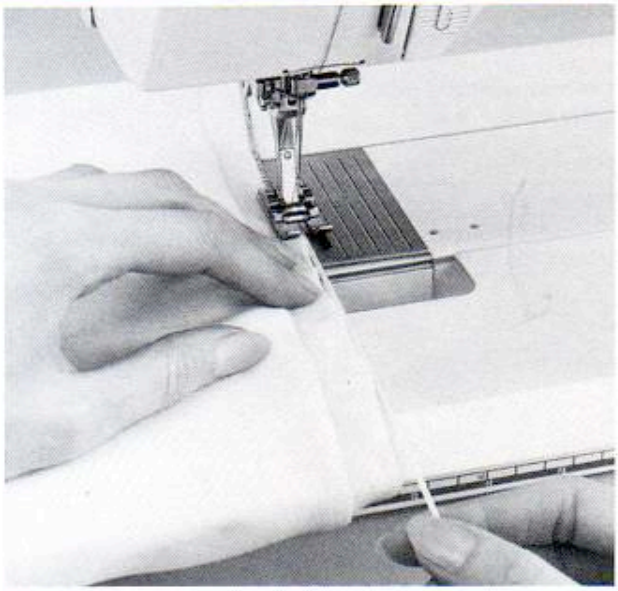
Edging with elastic thread

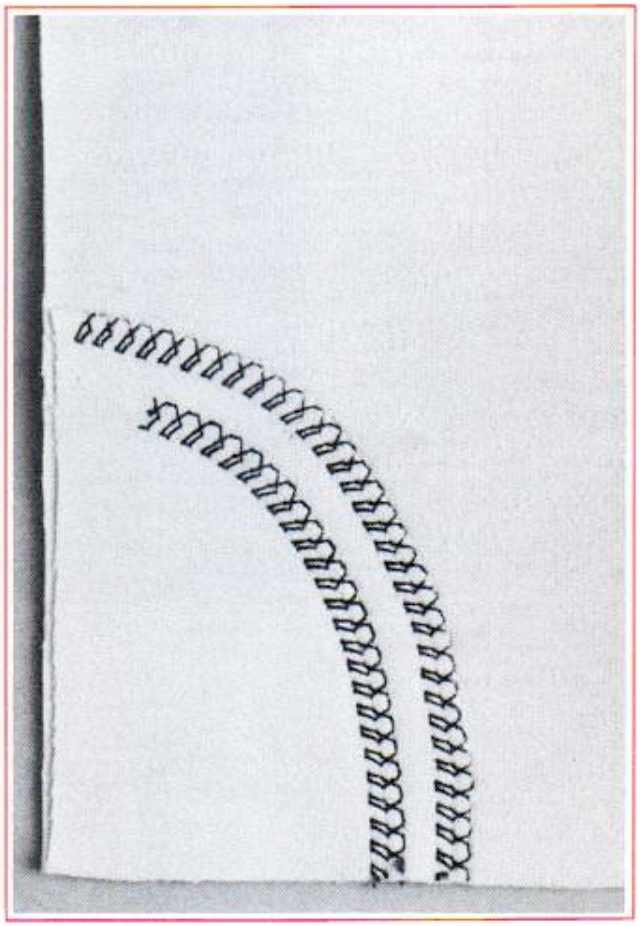
The elastic thread is used to restore distorted edges to their original shape.

Needle: 80–70
Thread: Embroidery thread 60/Darning thread

● Stitch:
Zig-zag stitch
Stitch width: approx. 3
Stitch length: 1–1½

Guide two strands of elastic thread along the edge and sew in place with zig-zag stitch, gently pulling on the elastic thread.





Darning

The principle of darning

The feed-dog must be lowered for darning as the work is moved to and fro by hand and not by the feed-dog. It is important to guide evenly when darning and this will take a little practice.

Recommendation

Whenever possible, use a darning ring to keep the darning area taut.
Move the ring backwards and forwards without pressure, otherwise jerky movements occur, resulting in torn threads.
Always work from left to right, moving up and down over the hole, not from side to side. Finish each stage with needle in fabric on the right and pivot the work 90° (except with tubular items).
Work is guided with little fingers and thumbs to the outside of the hoop, held firmly to give a smooth movement. Use the sewing table and support the elbows on the work table.
Position the machine slightly further back from edge of table than normal.

Darning technique

There are various methods of darning. The method described here is one that is easy to learn:

Needle: 80–70

Thread: Embroidery thread 60/Darning thread

● Stitch: ------
Straight stitch

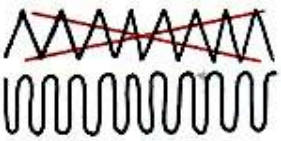
Stitch length: 0

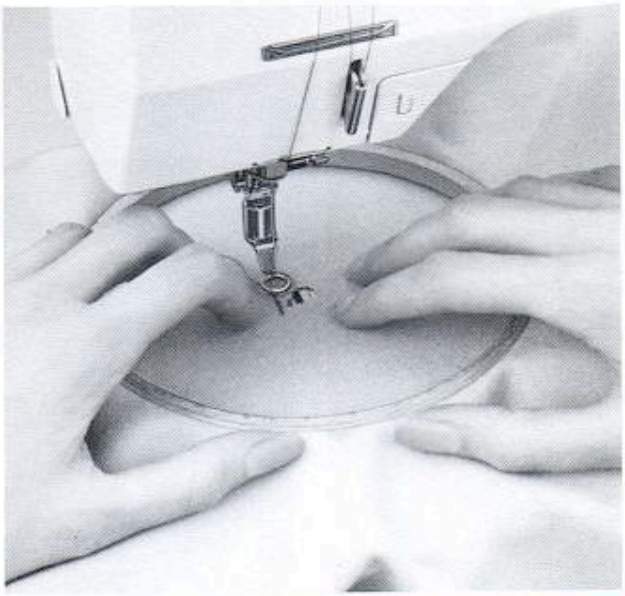
Feed-dog: lowered

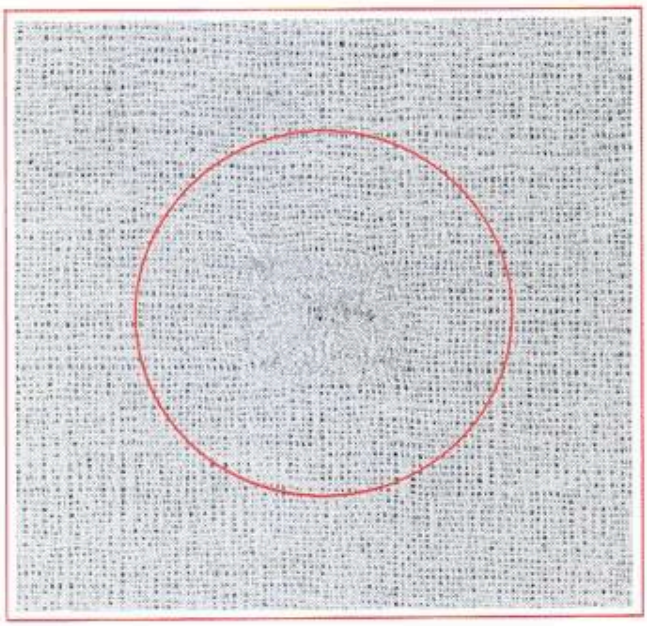
Presser foot: Darning foot 9

Important

Darn in a curved rather than a pointed shape, otherwise the fabric is liable to tear. Beginners often tend to prefer L and M movements, but care must be taken to ensure that this does not result in a circular movement (fig. 1).







Main faults:

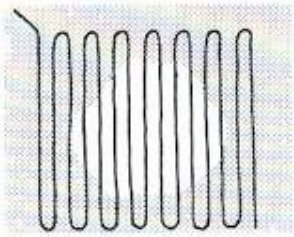
Thread frequently breaks:
● Fabric being guided unevenly.

● Stitching unattractive, thread loose on top:
Fabric being moved too quickly.

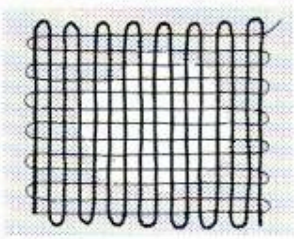
● Small knots form on underside:
Fabric being moved too slowly.

The three steps

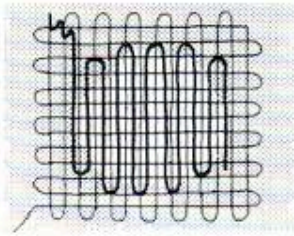
1.
Stretch work in darning ring. Start at top left of darn, work from left to right across hole, finishing at top right. Turn 90°.



2.
Again work from left to right, filling in hole, but not too densely otherwise a ridge will form at the edges of the darn.



3.
Fill in the darn, working in same direction as step 2, but only over the "hole", not to the edge of the darn.

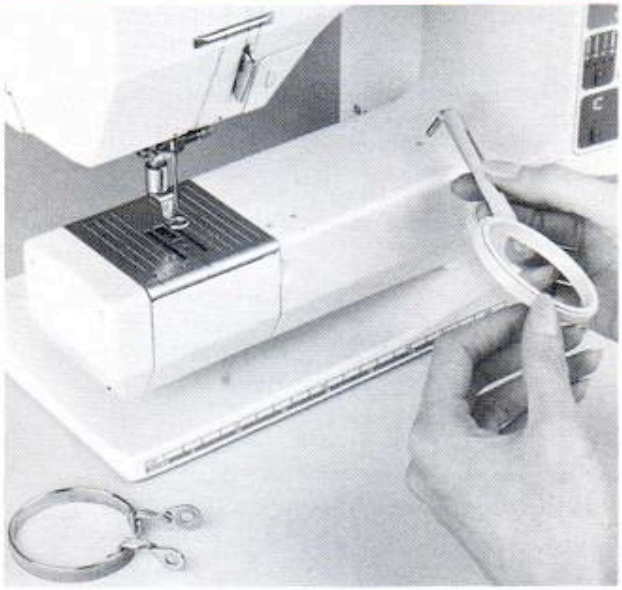


When the darning technique has been mastered, work the rows of stitches in irregular lengths so the darn blends into the fabric.

Darning with small darning ring

The small darning ring

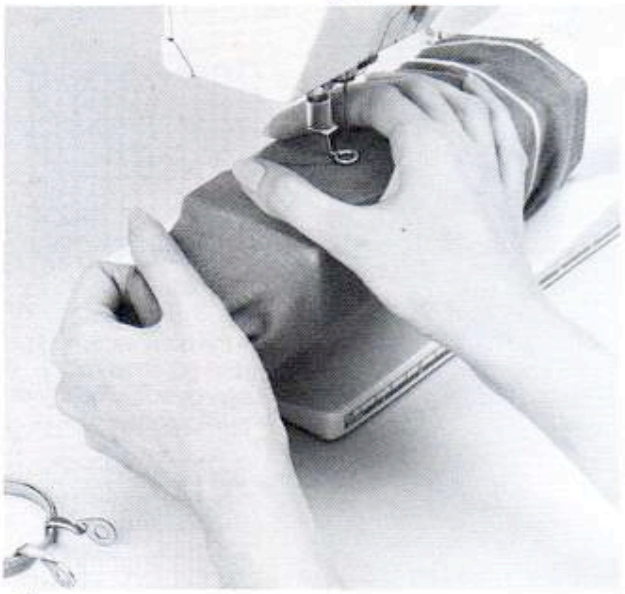
The small darning ring is particularly practical for darning small torn/worn areas in fine fabrics and in fine underwear, fine socks and pullovers, e.g. in Helanca, interlock, jersey.



▲1

Stretching the work

- Fit the darning ring, without the spring clip, on to the free arm (fig. 1).
- Slide the garment over the free arm going also over the darning ring.
- Push the darning ring as far as possible to the left. Place the index finger and thumb of the right hand on the darning ring, to form a circle.
- With the left hand, stretch the fabric over the end of the free arm. Hold the tensioned fabric with the thumb of the right hand (fig. 2).



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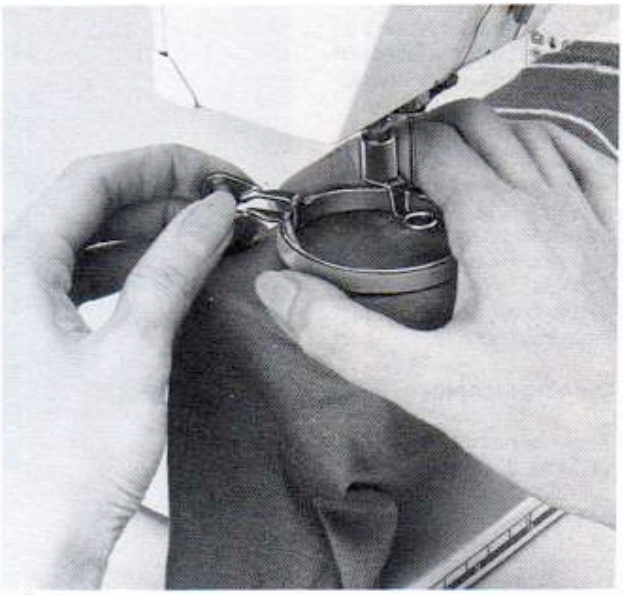


▲3

- Using the left hand, fit the spring clip as follows: Close the spring clip, insert under the index finger of the ring hand and *hold firmly*. Then press the spring clip down into the ring (fig. 3).

Darning technique

Tubular items are usually stitched up and down and then side to side as it is not possible to turn the work.

Maintenance & Trouble-Shooting

Fault prevention	52
Changing the bulbs	53
Maintenance: Cleaning and oiling	54

Fault prevention

If the sewing machine does not sew properly, it is usually due to incorrect operation.

Check whether:

- The upper and lower threads are correctly threaded.
- The needle has been correctly inserted, with the flat side of the shank to the rear.
- The needle size is correct. See needle and thread table.
- The machine is clean. Brush out any remnants of thread.
- The hook race is clean and oiled.
- Any remnants of thread are trapped between the thread tensioning discs and beneath the bobbin case spring.

Upper thread breaks

- The upper thread tension is too tight.
- Poor quality needles. Ideally, needles should be purchased from a BERNINA dealer.
- The needle has been fitted incorrectly. The flat side of the shank must be to the rear.
- The needle is blunt or bent.
- Poor quality thread, knotted or dried out thread.
- Stitch plate or hook tip damaged. Take to a BERNINA dealer.

Lower thread breaks

- The lower thread tension is too tight.
- The bobbin is jamming in the bobbin case. Replace bobbin.
- The hole in the stitch plate has been damaged by the needle. This must be re-polished by an expert.
- The needle is blunt or bent.

Faulty stitching

- Wrong needles. Use only 130/705 H needle range.
- The needle is blunt or bent, or incorrectly fitted. Push right to the top when inserting.
- Poor quality badly polished needle.
- The needle point does not suit the fabric being sewn. If necessary, use ball point for knitted fabrics and cutting point for hard leather.

Needle breaks

- Needle clamping screw not sufficiently tightened.
- Fabric withdrawn forwards instead of backwards, under the presser foot.
- When sewing over a thick area, the fabric was pushed while the needle was still in the material. Use the Jeans foot.
- Poor quality thread, unevenly wound or knotted.

Faulty tension

- Remnants of thread between the thread tensioning discs.
- Remnants of thread under the bobbin case spring.
- Lower thread still threaded in the bobbin case finger.
- Threaded with foot down.
- Incorrectly threaded. Check lower and upper threads.

Machine fails to sew full zig-zag width:

- Check whether "Double needle limitation" button (46) is still selected.

Machine fails to run, or will only run slowly

- Plug is not properly inserted.
- Power switch in ☐ position.
- Reduced speed button (32) is selected.
- Machine gummed up by unsuitable oil. Machine will have to be cleaned by a specialist.
- Machine has been standing in a cold room.

Machine stitching in reverse

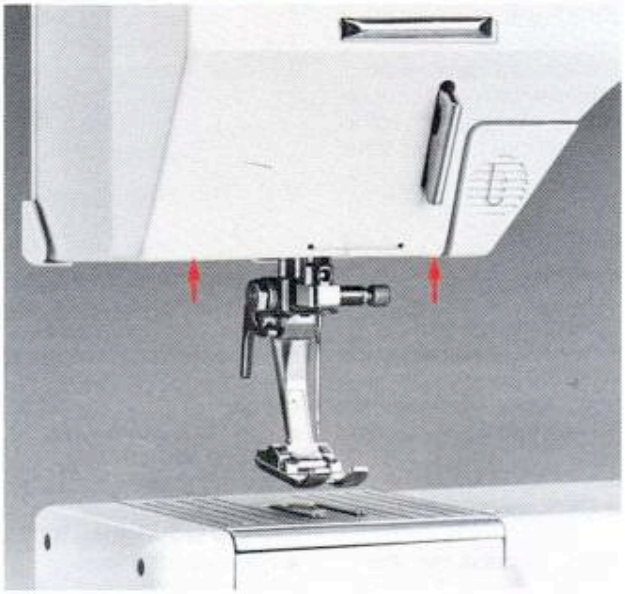
- Selector button (33), "Reverse sewing" is still engaged.

Machine is not sewing selected programme

- Switch the machine off, then on again, using the power switch.

If you have occasion to take your machine to a specialist, always ensure that you also take the foot control and accessories!

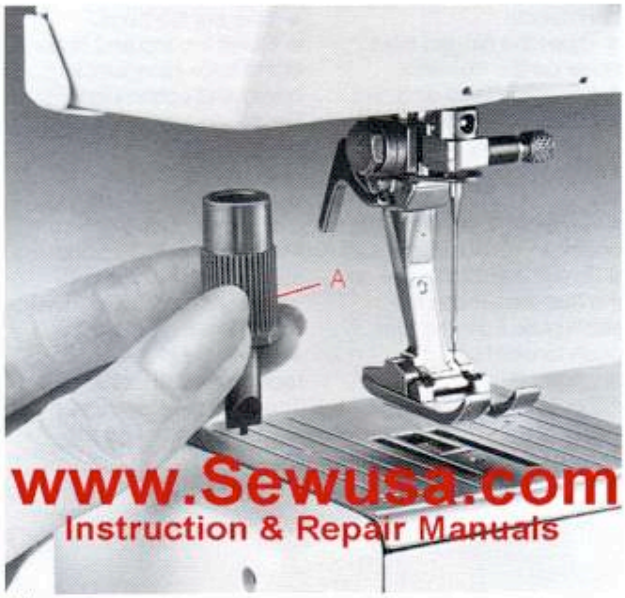
Changing the bulbs



Fitting the bulbs

Disconnect the machine from the mains by removing the mains cable from the socket!

There are 2 low voltage 6 volt/4 watt bulbs provided. The first is located in front to the left of the presser foot, the other behind, to the right.



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▲1

Changing bulbs

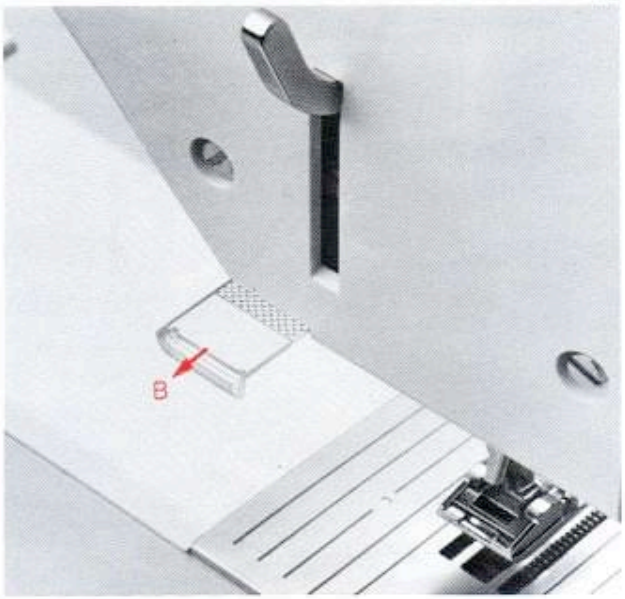
To change the front bulb: (fig. 1).
Using special tool A, press the bulb upwards, twist to the left and withdraw.

To change the rear bulb:

Remove diffuser B. The bulb can then be removed in the same way as the front bulb.

To insert new bulbs

Place the new bulb on the special tool (fig. 3).
Insert into the holder with the bulb, press upwards and twist to the right, to the stop.
For the rear bulb, refit diffuser B.



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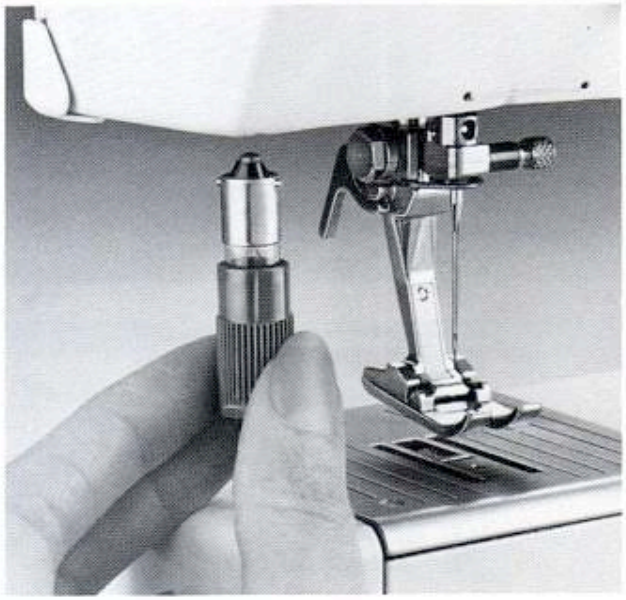

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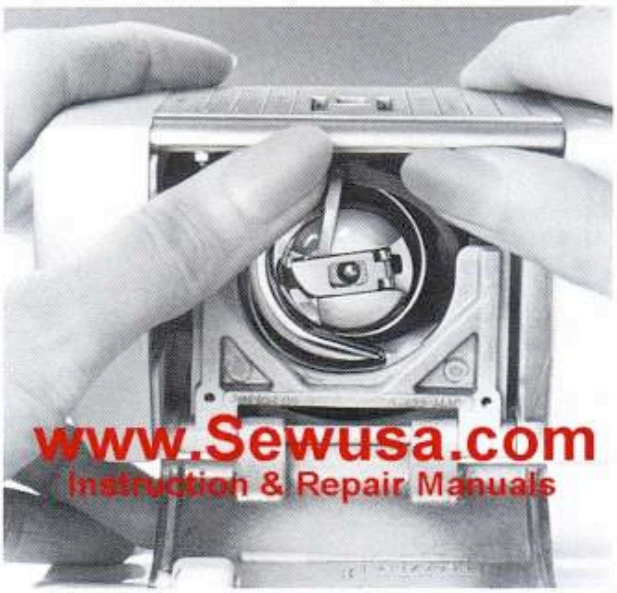

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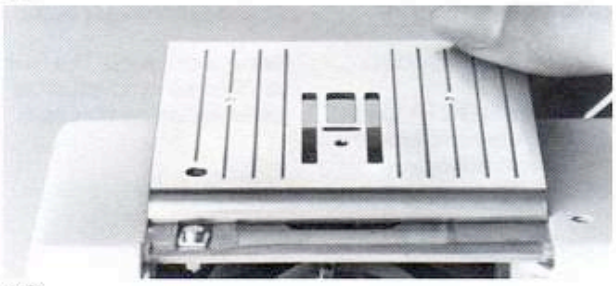

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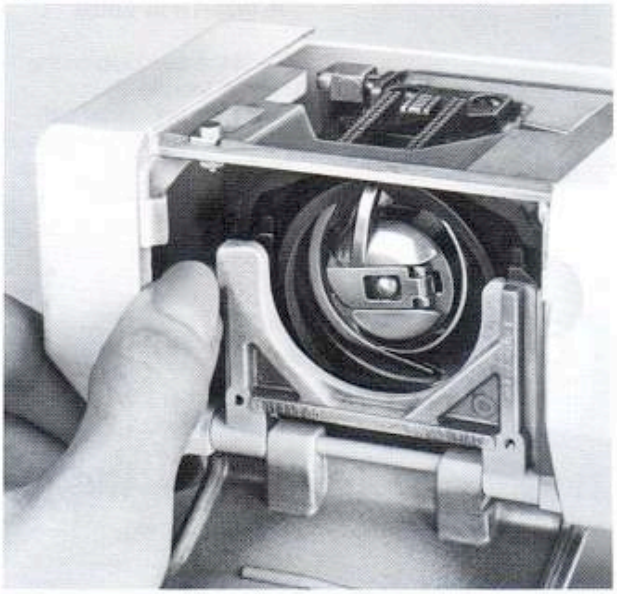

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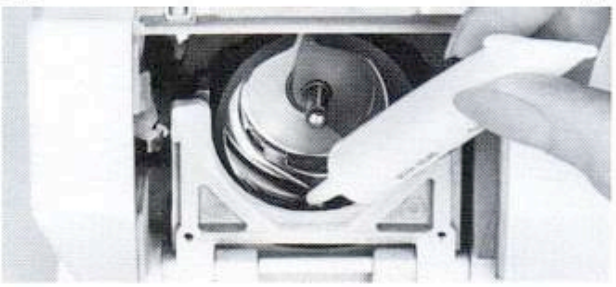


▼4

If the machine is stored in a cold room, it should be brought to a warm room approximately one hour before use, to restore the oil in the bearings to a fluid state.

To oil the hook: Apply 1–2 drops of oil after 3–4 hours' sewing.

Cleaning

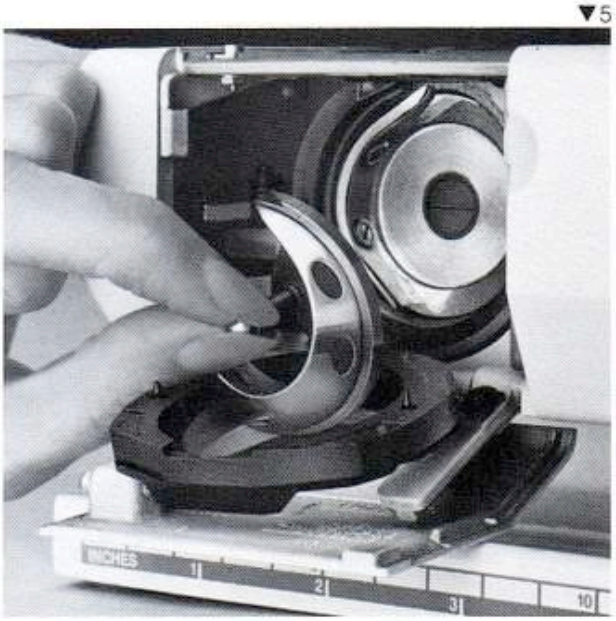
When sewing, pieces of thread will collect under the stitch plate and around the hook. These remnants must be removed at regular intervals.

- Disconnect the machine from the mains by removing the mains cable from the socket!
- Remove the presser foot and needle.
- Open the hinged front cover on the free arm.
- Lower the feed-dog. Set knop 18 to position ▦. Using both thumbs, press the stitch plate up and back (fig. 1).
- Clean the feed-dog and underside of the stitch plate.
- To refit the stitch plate on the free arm, insert the stitch plate from the rear, push forward until it engages (fig. 2).

To clean and oil the hook

- Disconnect the machine from the mains by removing the mains cable from the socket!
- Take out the bobbin case, see page 12.
- With the thumb of the left hand, press the lower release lever to the left (fig. 3).
- Fold down the semi-spherical locking strap with the black hook race cover.
- Take out the hook.
- Clean the top and bottom of the hook race with a brush and cotton cloth. Never use a screwdriver or scissors etc. to remove remnants of thread.
- Lightly oil the hook race, 1–2 drops of oil (fig. 4). Insert the hook. If necessary, turn with the handwheel until the hook driver is on the left (fig. 5).
- Close the black hook race cover and locking strap. The pawl must engage.
- Check by turning the handwheel.
- Insert the bobbin case.

▼5



Safety instructions

SEV, VDE (Official Testing Authorities in Switzerland and West Germany).
The following safety precautions must be observed:

- The moving needle is a source of danger (risk of injury to the fingers). Always, therefore, keep your eyes on the area in which you are working.

- Any operations performed within the needle movement area, e.g. changing a needle or presser foot, must always be carried out with the machine switched off (power switch at 0). The same applies to removing and replacing the lower thread bobbin.

- **When carrying out maintenance (cleaning or oiling), whenever work is interrupted or finished and also for changing bulb, the sewing machine should be disconnected from the mains by removing the mains cable from the socket.**

- **Repairs to the electronics, with particular reference to changing the connecting lead, should be carried out only by a BERNINA dealer.**