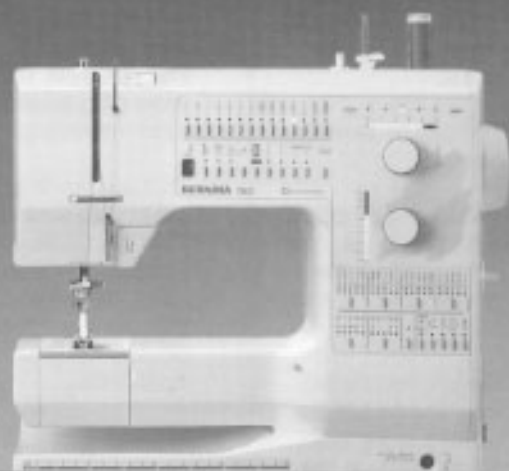


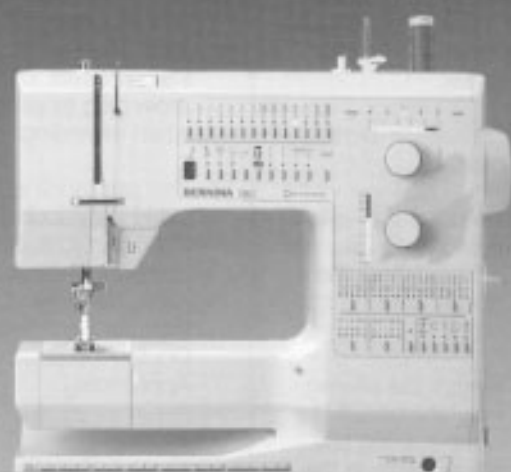
# BERNINA®



**BERNINA® 1260**

GB

# Instruction Manual



**BERNINA® 1260**

GB

# IMPORTANT SAFETY INSTRUCTIONS

1

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

Read all instructions before using this sewing machine.

## DANGER

To reduce the risk of electric shock:

1. An appliance should never be left unattended when plugged in.
2. Always unplug this appliance from the electric outlet immediately after using and before cleaning.
3. Always unplug before relamping. Replace bulb with same type rated 6 Volts/4 Watts.

## WARNING


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

1. Do not allow to be used as a toy. Close attention is necessary when this appliance is used by or near children.
2. Use this appliance only for its intended use as described in this manual. Use only attachments recommended by the manufacturer as contained in this manual.

3. Never operate this appliance if it has a damaged cord or plug, if it is not working properly, if it has been dropped or damaged, or dropped into water. Return the appliance to the nearest authorized dealer or service center for examination repair, electrical or mechanical adjustment.
4. Never operate the appliance with any air openings blocked. Keep ventilation openings of the sewing machine and foot controller free from accumulation of lint, dust and loose cloth.
5. Keep fingers away from all moving parts. Special care is required around the sewing machine needle.
6. Always use the proper needle plate. The wrong plate can cause the needle to break.
7. Do not use bent needles.
8. Do not pull or push fabric while stitching. It may deflect the needle causing it to break.
9. Switch the sewing machine off  when making any adjustments in the needle area, such as threading needle, changing needle, threading bobbin, or changing presser foot, and the like.
10. Always unplug sewing machine from the electrical outlet when removing covers, lubricating or when making any other user servicing adjustments mentioned in the instruction manual.
11. Never drop or insert any object into any opening.
12. Do not use outdoors.
13. Do not operate where aerosol (spray) products are being used or where oxygen is being administered.
14. To disconnect, turn all controls to the off  position, then remove plug from outlet.
15. Do not unplug by pulling on cord. To unplug, grasp the plug, not the cord.
16. Appliances provided with a cord reel: Hold plug when rewinding into cord reel. Do not allow plug to whip when rewinding.
17. This appliance is provided with double insulation. Use only identical replacement parts. See instructions for Servicing of Double-Insulated Appliances.

## Servicing of Double-Insulated Products

In a double-insulated product, two systems of insulation are provided instead of grounding. No grounding means is provided on a double-insulated product, nor should a means for grounding be added to the product. Servicing of a double-insulated product requires extreme care and knowledge of the system, and should be done only by qualified service personnel. Replacement parts for a double-insulated product must be identical to those parts in the product. A double-insulated product is marked with the words «DOUBLE INSULATION» or «DOUBLE INSULATED».

The symbol  may also be marked on the product.

## SAVE THESE INSTRUCTIONS!

This sewing machine is intended for household use only.



Dear Bernina Customer

Congratulations on choosing a Bernina 1260. You are now the proud owner of a sewing machine which fulfils every expectation in terms of use and quality. You own a first class product which will give you sewing pleasure for many years to come.

Some hundred years ago, my great grandfather invented the first ever hemstitch machine. This was the beginning of the Bernina family business and I am proud to be the fourth generation member of the family to have responsibility for the company. I am delighted to welcome you to the millions of satisfied Bernina owners around the world.

If you require any further information about your sewing machine or sewing in general, please do not hesitate to contact your Bernina dealer, who will be delighted to help you.

I wish you very happy and successful sewing.

Yours truly,

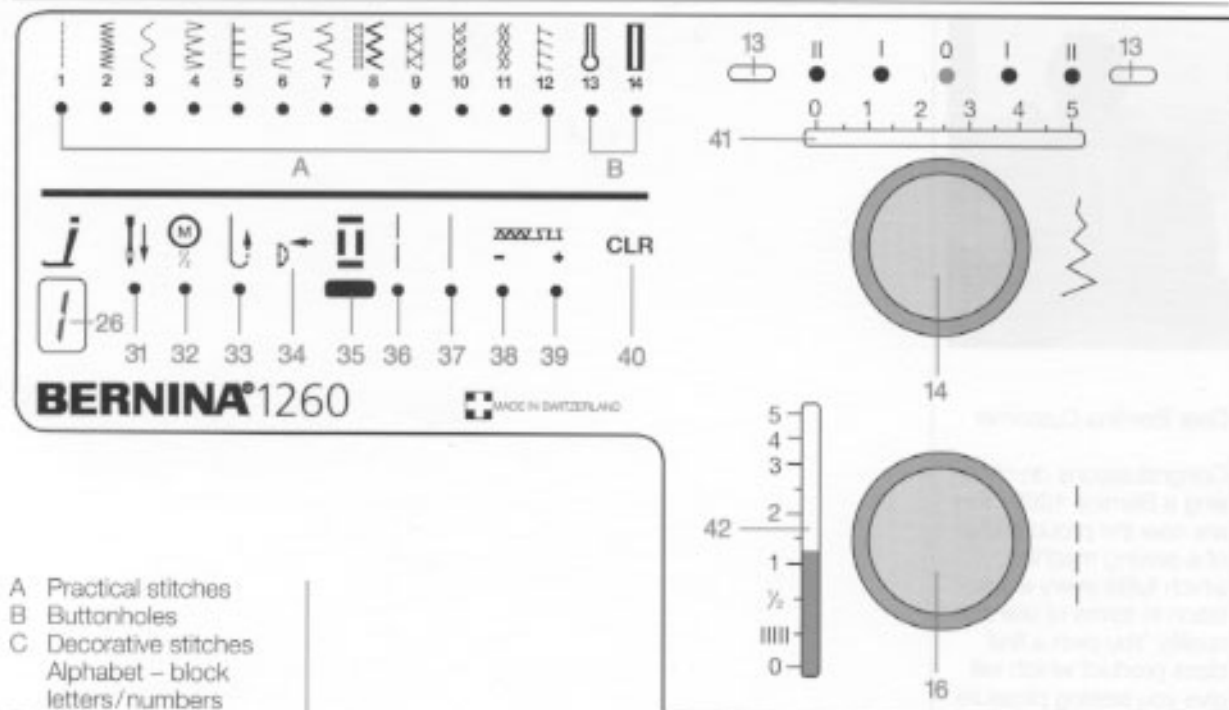
Hanspeter Ueltschi  
President

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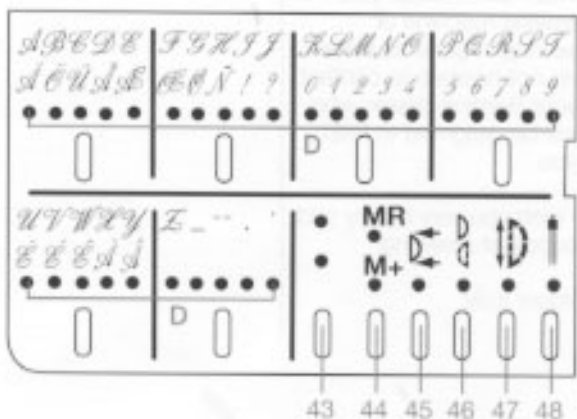
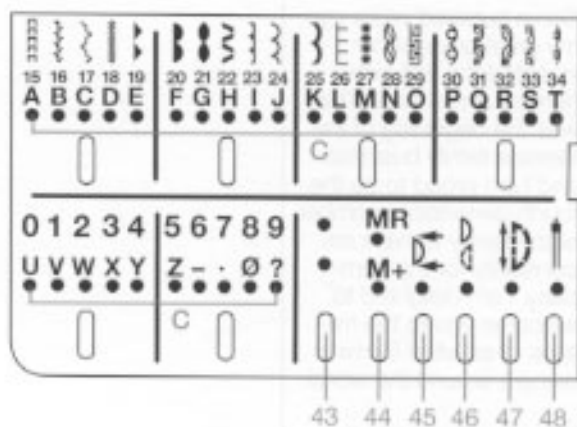
# Indicator/Control panel

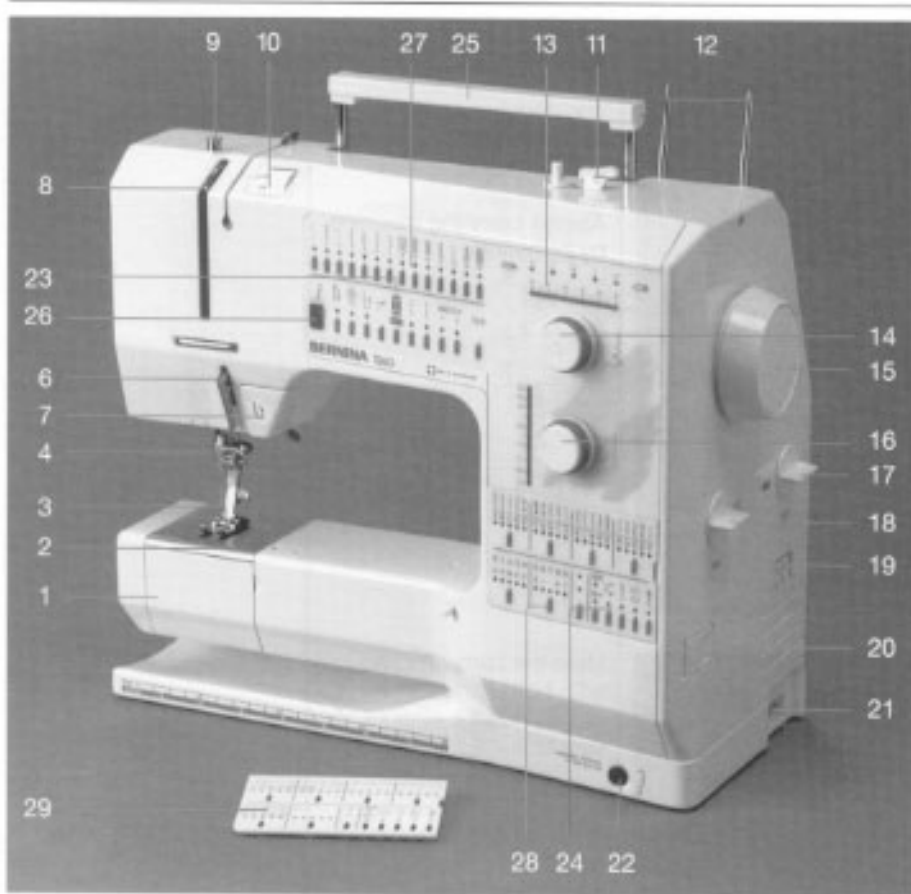
1



- A Practical stitches
- B Buttonholes
- C Decorative stitches
- Alphabet – block letters/numbers
- D Handwriting letters/numbers

- 13 Needle position buttons
- 14 Selector knob for stitch width
- 16 Selector knob for stitch length
- 26 Presser foot indicator
- 31 Needle stop down
- 32 1/2 speed
- 33 Reverse sewing button
- 34 Pattern begin
- 35 Selector button for buttonhole steps
- 36 Long stitch
- 37 Basting stitch
- 38, 39 Balance
- 40 Clear button
- 41 Light beam with blinker for stitch width
- 42 Light beam with blinker for stitch length
- 43 Selector button: Decorative stitches, Block letters, Handwriting letters
- 44 Programming button/Repeat button
- 45 Single pattern/pattern end
- 46 Mirror image
- 47 Double stitch pattern
- 48 Double needle limitation

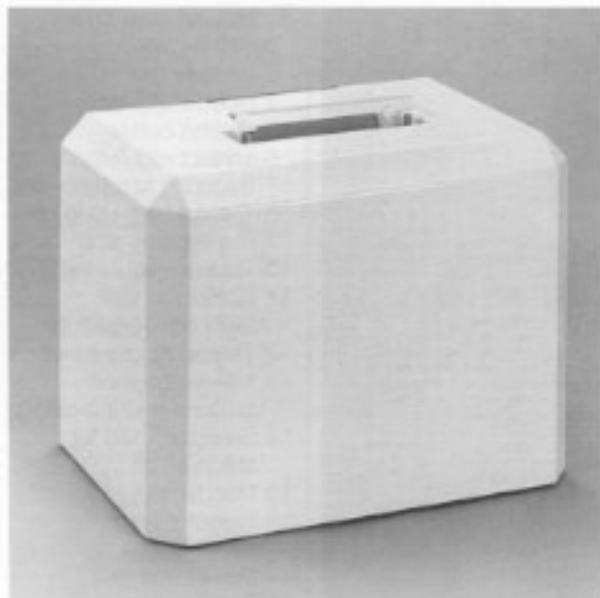




- 1 Hinged front cover
- 2 Stitch plate
- 3 Presser foot
- 4 Needle clamp
- 5 Thread cutter
- 6 Thread regulator
- 7 Securing stitch control
- 8 Thread take-up lever
- 9 Pre-tension stud
- 10 Tension regulating dial
- 11 Bobbin winder (with on/off switch)
- 12 Thread holder pins
- 13 Needle position buttons and indicators
- 14 Selector knob for stitch width
- 15 Handwheel
- 16 Selector knob for stitch length
- 17 Power switch
- 18 Feed-dog knob
- 19 Connection for foot control unit
- 20 Quick needle threader
- 21 Mains socket
- 22 Presser foot lifter socket
- 23 Selector button for general functions
- 24 Selector buttons for special functions
- 25 Carrying handle
- 26 Presser foot indicator
- 27 Practical stitches (selector buttons and indicators)
- 28 Panel for decorative stitches, block letters/numbers
- 29 Panel for handwriting letters/numbers
- 30 Light switch
- 31 Presser foot lifter



2



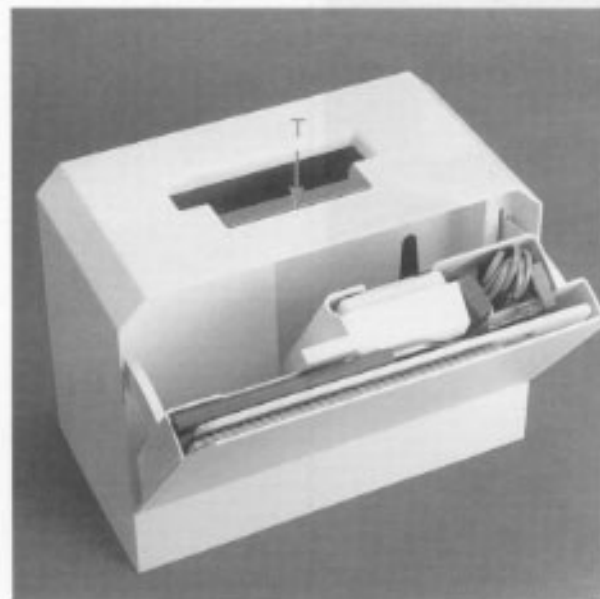
### **Carrying case, accessories**

The carrying case protects the machine from dust and dirt.

Always carry the machine by its handle.



Hold the carrying case with both hands to the sides and lift it straight upwards.



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, machine cable, the presser foot lifter, the sewing table, seam guide and BERNINA instruction books.



### Removing the accessories box

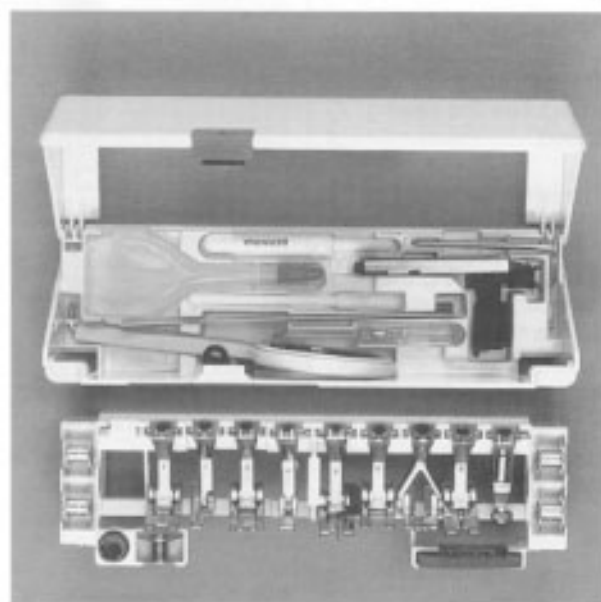
Simply push the accessories box backwards.

### Standard accessories for the BERNINA 1260

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  
Reverse pattern foot  
Overlock foot  
Blind stitch foot  
Buttonhole foot  
Special buttonhole foot  
Zip foot  
Darning foot  
Jeans foot  
Tailor tack foot  
Embroidery foot

### Accessories box

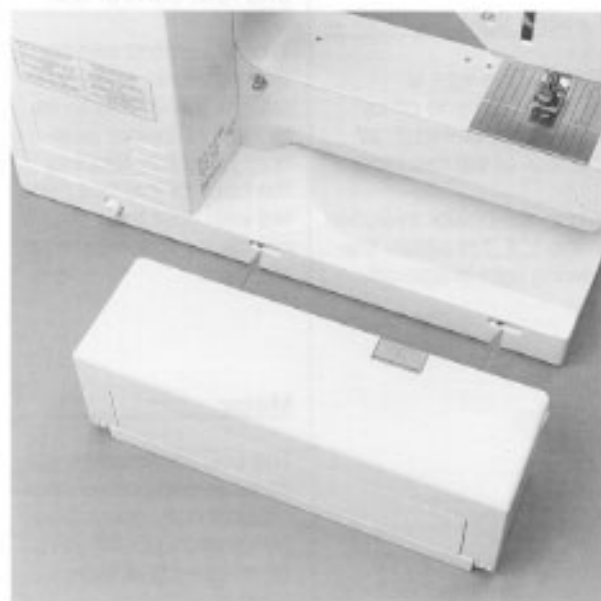
The accessories box allows accessories to be seen at a glance.



### Fitting the accessories box onto the machine

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

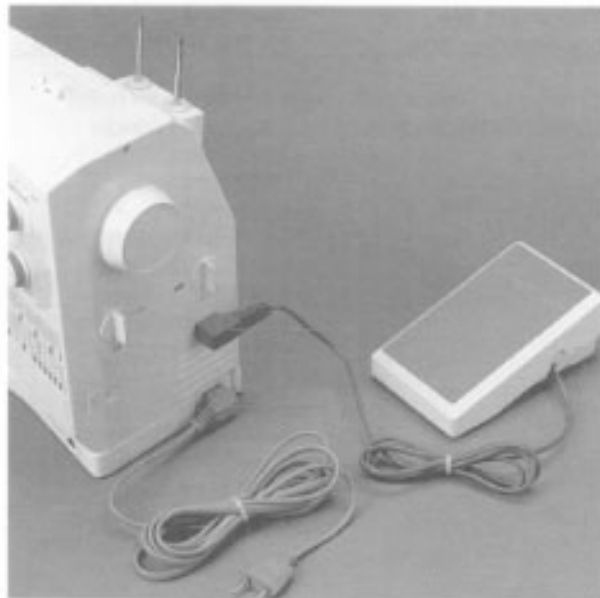
Lay the accessories box onto the base plate from the rear, and press against the free arm until the fixing lugs engage in the holes provided.





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

2



### Connecting mains cable and foot control unit

Plug the mains cable «A» into power socket. Plug the foot control into socket «B».

### WARNING: (USA/Canada only)

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



### Foot control

The foot control is used to regulate the sewing speed.

The sewing speed can be controlled from absolute minimum to maximum-speed by varying the pressure on the plate of the control.



### Power switch

The power switch is the rear knob on the hand-wheel side of the machine.

0 The machine is switched off.

1 The machine is switched on.

### USA/Canada only

Use only foot controller Type 366.

### Electronic needle stop and foot control unit

When you stop sewing the electronic system returns the needle to its highest or lowest position. By gently tapping the back of the foot control with your heel, the needle can be moved up or down.



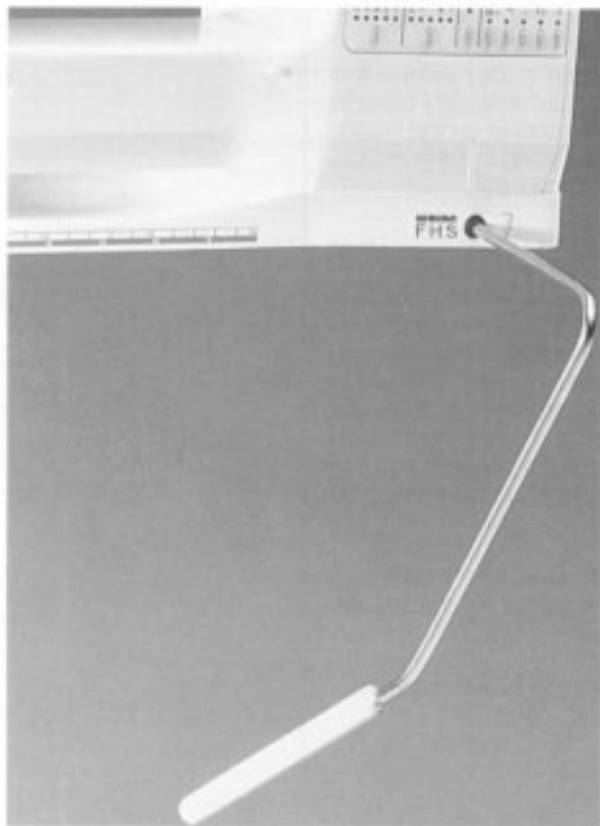
### Sewing light

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.



## **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.

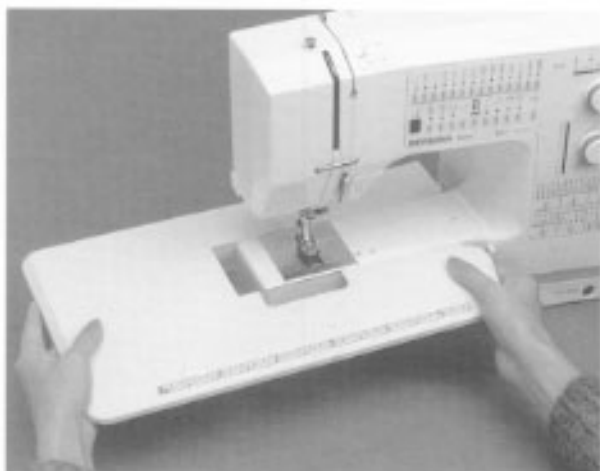
The next stitch returns the feed-dog to sewing position.

## **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.



## **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.

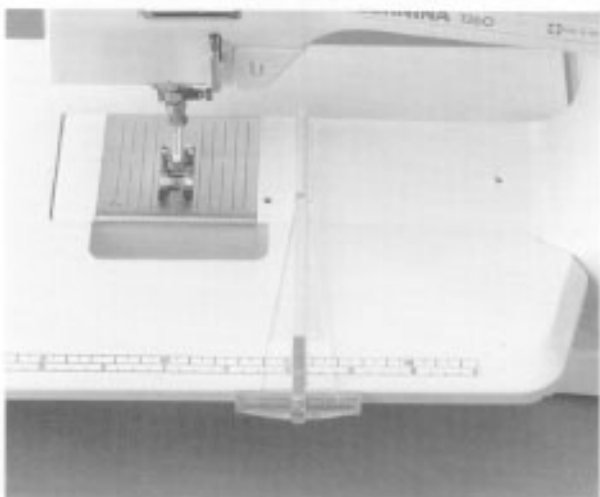
## **Sewing table**

The sewing table enlarges the working surface and simplifies all sewing work where the free-arm is not required.

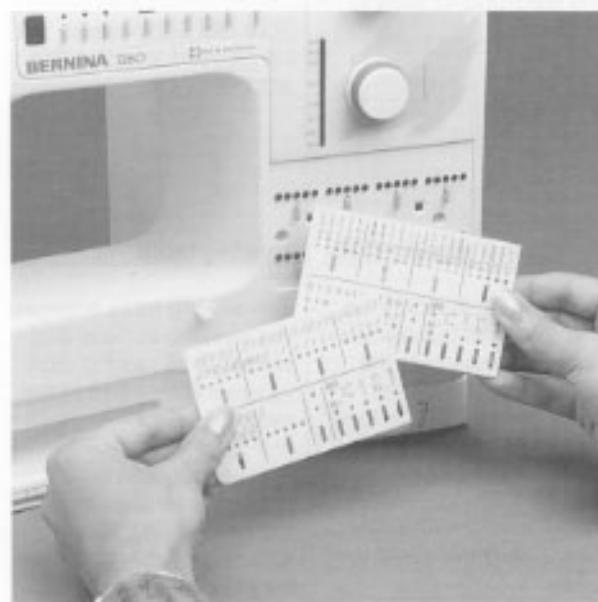
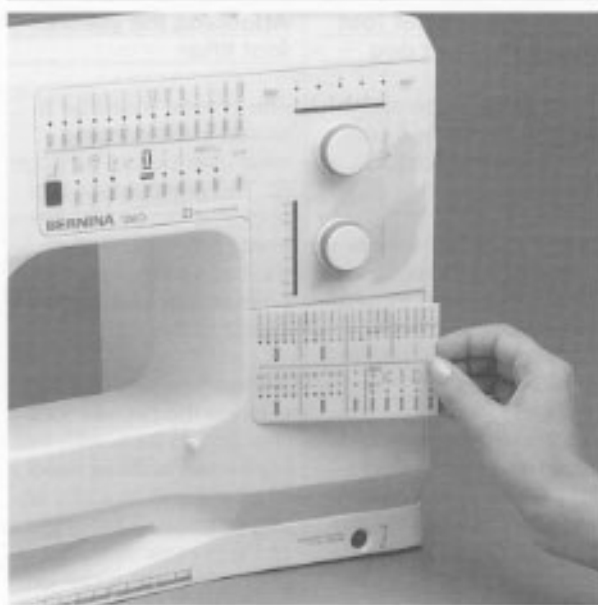
The seam guide is pushed from the left into the groove on the underside of the table and can be adjusted over the whole width of the sewing table.

The seam guide is in addition to the small ruler provided in the accessory box and allows you to sew and guide any seam width up to 15 cm (6").

The «0» on the measurement scale represents the centre needle position.



2



The 1260 is supplied with two panels – one attached to the machine and a supplementary panel in the pocket on the inside back page of this instruction manual.

The supplementary panel provides an additional selection of decorative stitches, letters and numbers. The panels have an indent on the right side. To change the panel, put your finger in the indent, pull the panel off and then attach the other panel by pushing it on firmly.

The magnets on the back of the panels are also the data chips.

Please handle the panels with care!

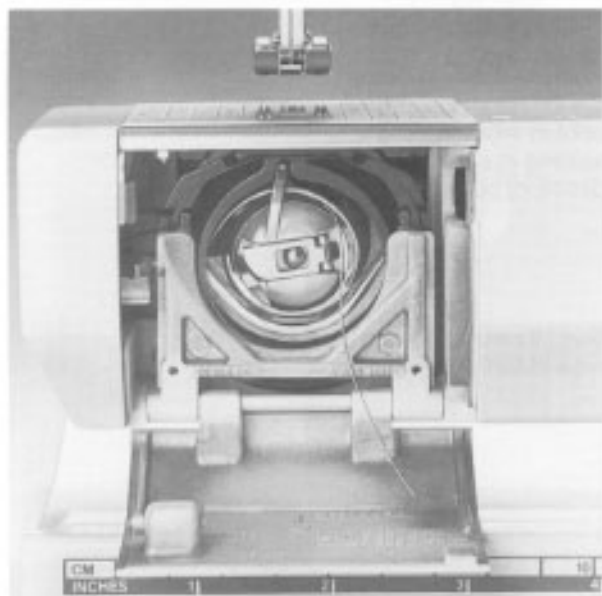
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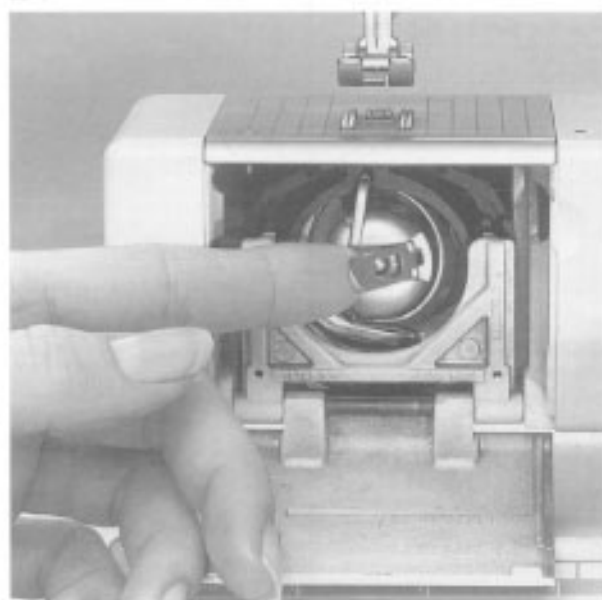
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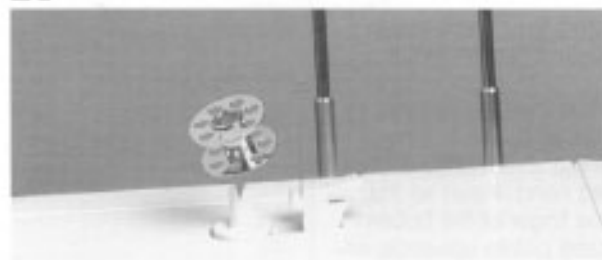
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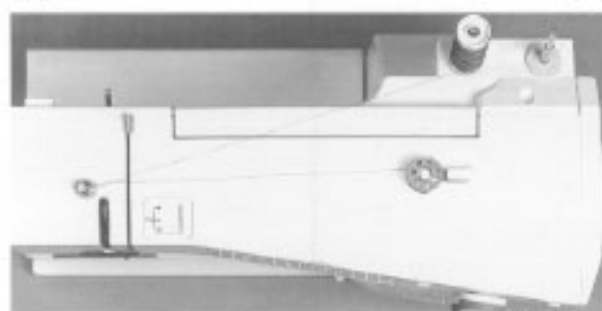
▲ 1



▲ 2



▲ 3



▼ 4

## Removing the bobbin case

Turn the power switch to the **0** position. Raise the needle fully with the handwheel. Open the hinged front cover on the free arm (fig. 1).

Pull the bobbin case latch forward with the index finger of the left hand (fig. 2) and remove the bobbin case.

## Winding the lower thread

Turn power switch to **1** position. Place empty bobbin on spindle (fig. 3). Take thread from the reel on the spool holder pin clockwise around the pretension stud to the empty bobbin (fig. 4). Bring the thread up through one of the holes in the bobbin case. Press the engaging lever «E» against the bobbin.

Press the foot control to start the bobbin winder motor and hold the thread end until it breaks. The speed of the bobbin winder can be regulated by increasing or decreasing the pressure on the foot control.

## WARNING:

Please refer to the safety instructions.

2



▲ 5

When removing the bobbin, take the thread over the small knife (fig. 5) to cut it.

2



### Inserting the bobbin

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



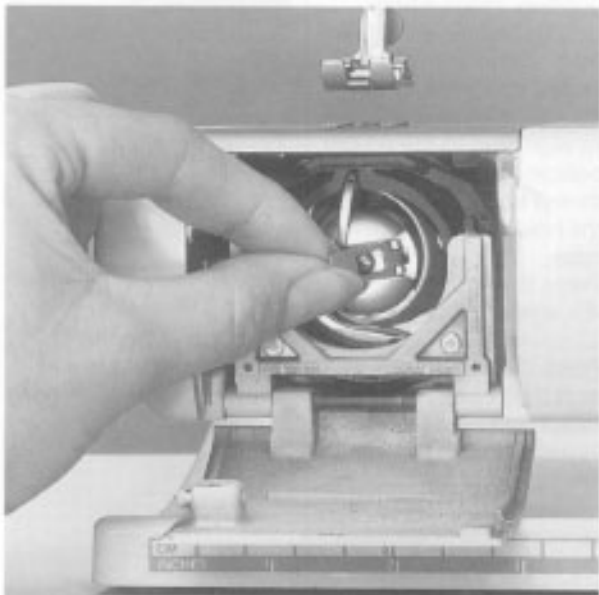
Bring thread anticlockwise to the slot.



Pull the thread into the slot and



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.



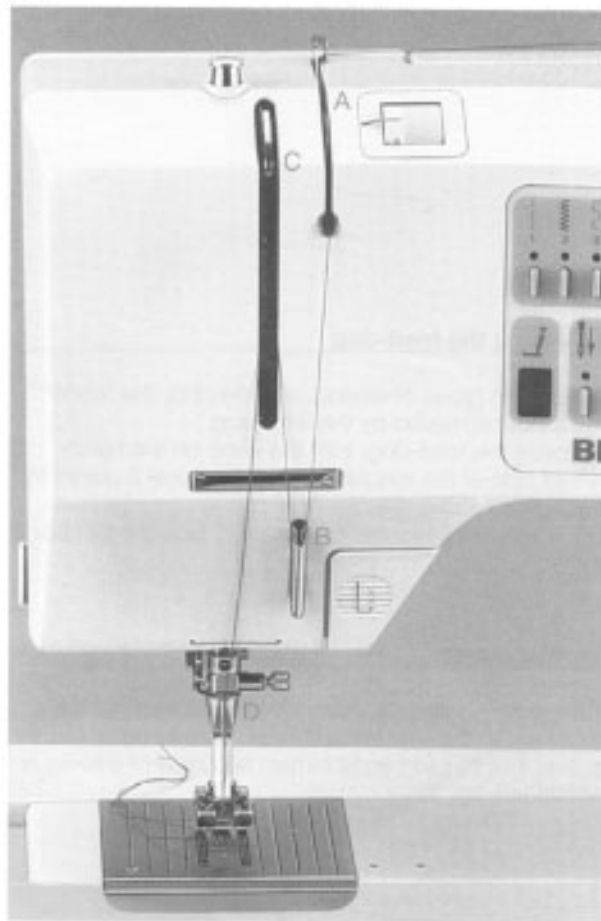
### Inserting the bobbin case into the hook

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. Check: pull end of thread. Close the hinged front cover.

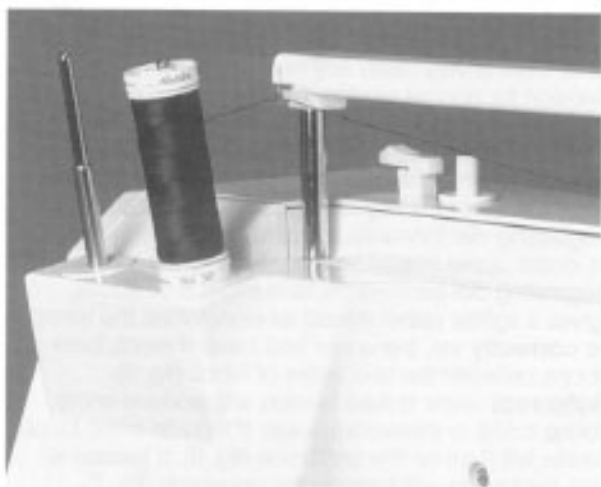
## Threading the upper thread



▲ 1



▲ 2



▲ 3

### Threading the upper thread

Turn the power switch to .

Check that the needle is fully raised.

Raise the presser foot. Place thread spool on one of the spool holders and hold while threading.

Slip the thread into the first guide on the back of the machine and then take it through the long slit of the thread tension (fig. 1).

Take the thread down through the long slot «A» on the front of the machine, slip it into the thread regulator «B», up into the slit of the thread take-up «C» and down again to the thread guide «D» on the needle clamp (fig. 2).

Thread the needle from front to back.

The eye of the needle is easy to see against the white plate on the presser foot shaft. Pull the thread approx. 10 cm (4") through the needle.

When using special threads such as metal or embroidery threads which wind quickly off the spool, thread the supplementary guide on the handle to control the thread feed.

When using the supplementary guide, take the thread directly from the spool to the guide and raise the handle (fig. 3). Continue threading as described above.

### WARNING:

Please refer to the safety instructions.

## Quick needle threader

### Quick needle threader

The needle threader is positioned on the right of the machine, under the handwheel.

Lay the thread lightly across the threader (fig. 4).

Run the threader down the needle from top to bottom (fig. 5).

When it reaches the eye, press the threader gently and remove it once the thread is through the needle eye (fig. 6).



▲ 4



▲ 5



▲ 6

2



▲ 1



▲ 2



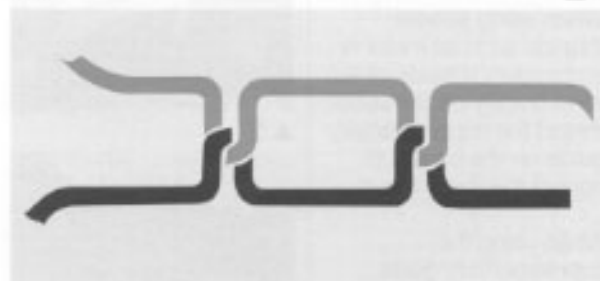
▲ 3



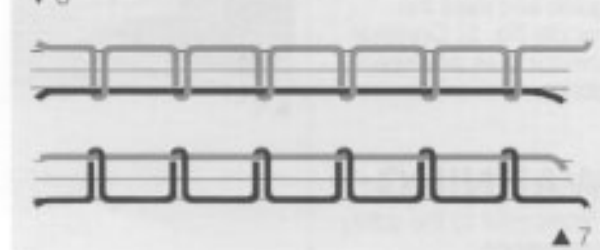
▼ 5



▲ 4



▼ 6




▲ 7


## Bringing up the lower thread

Turn the power switch to **1**. Hold the end of the upper thread and sew a stitch by tapping the foot control once. Pull the upper thread to bring the lower thread up through the stitch plate hole (fig. 1). Take both threads through the slot in the presser foot and to the side of the foot.

Instead of tapping the foot control, the lower thread can be brought up by turning the handwheel forwards until the needle is in its highest position.

## Lowering the feed-dog

For certain types of sewing, e.g. darning, the fabric must not be moved by the feed-dog. To lower the feed-dog, turn the knob on the handwheel side of the machine to the right until it points to the symbol  (fig. 2).

For normal sewing, the knob should face the symbol .

## Thread cutter

To remove your work, raise the presser foot, take the work out to the rear left and hook both threads into the cutter. The threads ends remain secure until sewing is continued (fig. 3).

## Thread tension

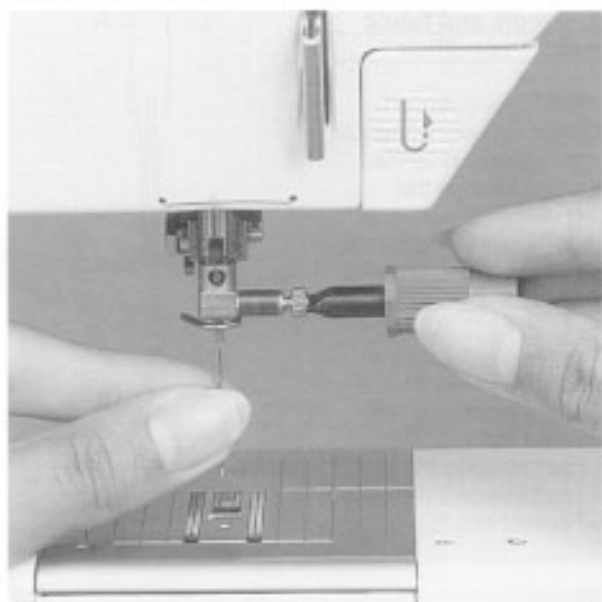
One of the main advantages of BERNINA machines is that there is very rarely any need to alter the thread tension for normal sewing. For the normal tension setting, the red mark on the tension regulating dial should match the adjacent mark on the machine (fig. 4). For special sewing, the thread tension 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. When the tension is **correctly** set, the upper and lower threads form loops between the two layers of fabric (fig. 5).

**Incorrect** upper thread tension will produce knots, loose loops or thread breakage. If tension is too loose knots will form on the underside (fig. 6). If tension is too tight knots will form on the upperside (fig. 7).

### Important!

The thread tension should be reset to normal when the special sewing has been completed.






▲ 1

## Inserting the needle

Use the small brown screwdriver provided in the accessory box to loosen or tighten the needle clamp.

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

To insert the needle:  
The flat side of the needle should always be to the back. Insert the needle until it reaches the top of the clamp. If the needle is not fully inserted, faulty stitches will occur.

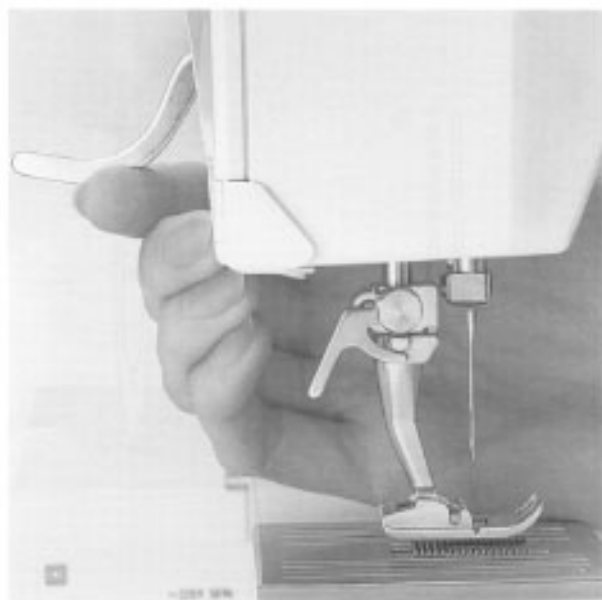
Tighten the needle clamp securely.

To loosen the needle clamp, make a half-turn forwards (fig. 1).

## WARNING:

Please refer to the safety instructions.

2



▲ 2

▼ 3

## Changing presser feet

A description of presser feet and their uses can be found on page 19.

Successful sewing depends on the correct choice of presser foot. The feet are very easy to change.

Turn the power switch to .

Check that the needle is raised.

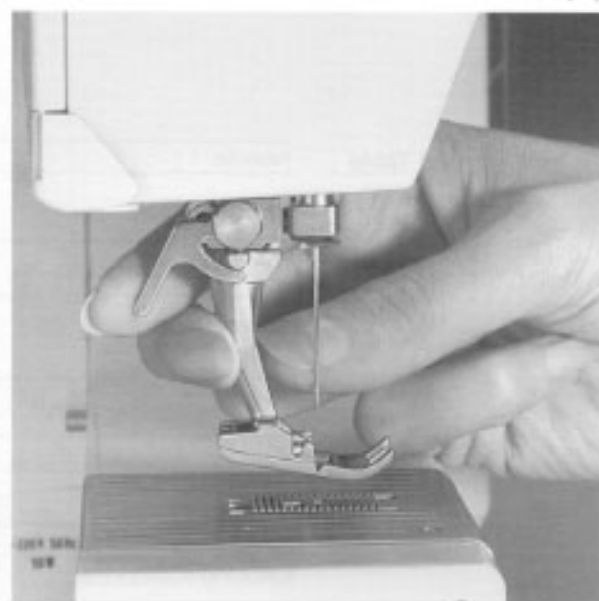
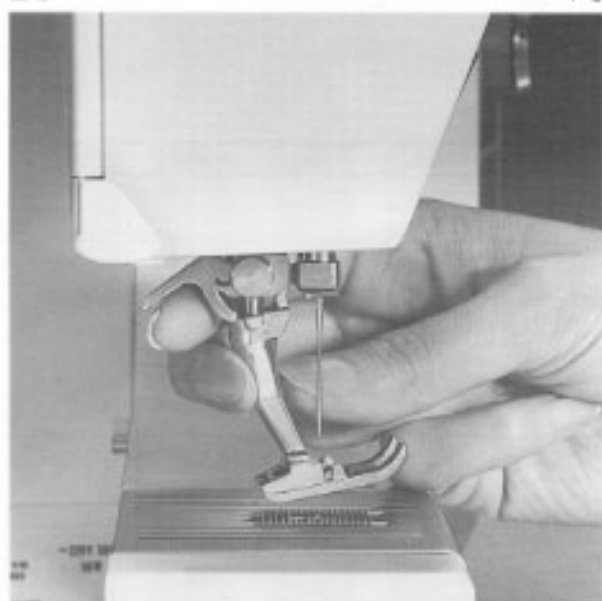
Raise the presser foot (fig. 2).

Raise the clamping lever with the index finger of the right hand and using the middle finger and the 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).

Turn the power switch to .

▼ 4





# Needles and sewing machine

## 1. Needles and sewing machine

Your BERNINA uses needle system 130/705H. Make sure you buy this system when replacing needles. Needles are available in sizes 70 to 120. The finer the needle, the lower the number. The opposite applies to thread – 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 suit 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 occur.



## 3. Needle and fabric

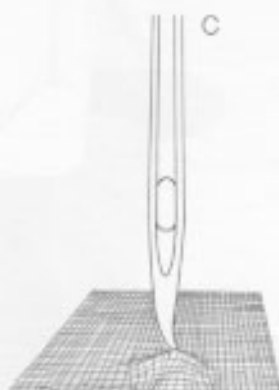
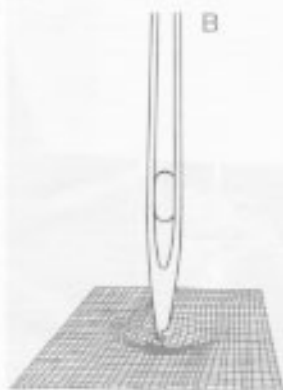
### Needle condition

Hard, closely woven fabrics sometimes require a stronger needle than those shown in the Needle/thread table in order to achieve perfect stitch formation on both sides of the fabric.

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)				■	■

## Sewing machine needles

The modern domestic sewing machine is capable of handling a large variety of fabrics. However, as in industry, special needles are required for different fabrics, e.g. needles with various different points.

### Table of special needles

Needle description	Needle point	Suitable for
<b>Standard needle</b> 130/705 H	Normal point, slightly rounded 	Universal needle for woven synthetic and natural fibres, e.g. linen, chiffon, batiste, organdy, wool, velvet
<b>Special needles</b> 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 	Workwear, heavy linen, denim fabrics, canvas. Pierces dense fabrics more easily
130/705 H-LR+H-LL	Cutting point 	Leather, suede, calfskin, kid pigskin, imitation leathers and suedes, plastics

## 1. Fabric feed 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 also short. The fabric moves under the foot quite slowly, even at full sewing speed. Button-holes, satin stitch and decorative stitches are all sewn with a 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. Fabric feed and height compensation

The height compensating plates guarantee perfect fabric feed when sewing thick areas and topstitching edges. One, two or three compensating plates can be used depending on the thickness (height).

- a) The feed-dog can only work properly when the presser foot is flat.



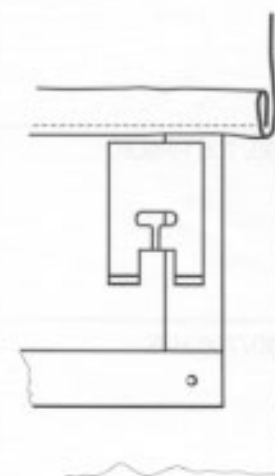
- b) When sewing thick areas, the presser foot is forced upwards which does not allow the feed-dog to grip and feed the fabric correctly.



- c) To compensate for the height (thickness), place one, two or three compensating plates behind the needle under the presser foot.



- d) To compensate in front of the presser foot, place one or more plates to the right of the foot flush with the needle. Sew over the thick area and then remove the plates.

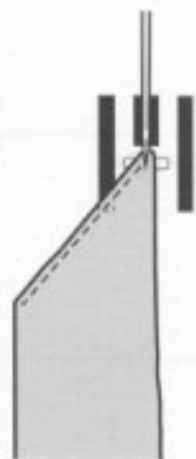


## 3. Fabric feed and sewing corners

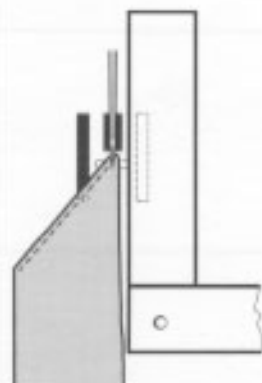
- a) The two rows of teeth of the feed-dog are quite a distance apart because of the width of the zig-zag needle hole.



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



- c) For an even feed, place one or more plates to the right of the presser foot flush with the fabric edge.



## 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.

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

1



### Reverse pattern foot

Straight stitch  
Zig-zag stitch  
Practical stitches  
Decorative stitches

2



### Overlock foot

Vari-overlock seam  
Double-overlock seam  
Oversewing seam edges

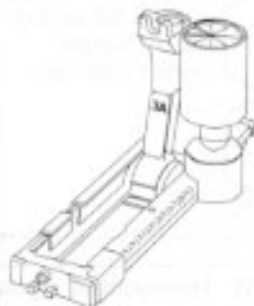
3



### Buttonhole foot

Buttonholing

3A



### Special buttonhole foot

Keyhole buttonholes  
Standard buttonholes  
(programmed)

4



### Zip foot

Sewing in zips  
Piping

5



### Blind stitch foot

Blind hemming  
Edge stitching

6



### Embroidery foot

Decorative stitching  
Satin stitching  
Applique  
Couching

7



### Tailor tacking foot

Tailor tacking  
Fringing  
Faggotting

8



### Jeans foot

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

9



### Darning foot

Darning  
Free hand monograms  
Free hand embroidery

# Simple practical stitches 1-8

## Reinforced practical stitches 9-14

Illustrations by  
 © 2004 by  
 The Editors of  
 The Sewing Book

### 1 Straight stitch

All types of non-elastic fabric. All straight stitch work.



### 2 Zig-zag stitch

Most types of fabric. All simple zig-zag work, e.g. oversewing, especially on fine fabrics, sewing on elastic and lace.



### 3 Running stitch

Most types of fabric. Mending, patching, reinforcing edges etc.



### 4 Vari-Overlock

Primarily for fine synthetic, silk and cotton jerseys. Elastic overlock seams and hems, particularly suitable for sports underwear, pyjamas, T-Shirts, sweat-shirts, running-suits etc.



### 5 Stretch stitch

Ideal for stretch fabrics. Open seams in all types of sportswear.



### 6 Universal stitch

For firmer knitted fabrics, felt, leather etc. For joining seams, visible hems, patchwork, mending on interlock, sewing on elastic, decorative seams.



### 7 Blind stitch

Most types of work; can be used for gathering leather with perle yarn or shirring elastic: flat joining seams (edges butted together).



### 8 Triple straight stitch

Corduroy, denim, outer wear fabrics, deck chair covers, carpet borders, rucksacks, sleeping bags etc. Visible seams and hems, sewing on tapes.



### 9 Double overlock

Firm knitted fabrics and hand and machine knitted fabrics. Overlock seam = Sewing and oversewing in one operation (pulovers, jackets, sweat-shirts etc.)



### 10 Jersey stitch

Interlock in natural, blended and synthetic fibres, velour. Visible hems, visible seams, particularly for underwear, sweatshirts and delicate knitted fabrics, repairs in interlock underwear



### 11 Honeycomb stitch

Many types of interlock and jersey fabrics. Visible hems, visible seams for T-shirts, sweat-shirts, underwear, napkins, tablecloths, craft work etc.



### 12 Stretch overlock

Medium weight knitted fabrics, towelling, velour and other firm fabrics. Overlock seams, flat joining seams, craft work.



### 13 Keyhole buttonhole

Heavy weight, non stretch fabrics. Jackets, coats, trousers, leisure wear, etc.








### 14 Standard buttonholes

Fine to medium weight woven fabrics. Blouses, dresses, trousers, bedlinen, etc.



# Decorative stitches, Letters, Numbers

## Decorative stitches

«Hand-look» stitches	Compact stitches	Edging stitches	Pearl stitches	Floral stitches
 15 16 17 18	 19 20 21 22	 23 24 25 26	 27 28 29 30	 31 32 33 34

## Alphabet:

### Block letters/numbers

A B C D | E F G H | I J K L | M N O P | Q R S T

U V W X Y | Z - . Ø ?

0 1 2 3 4 | 5 6 7 8 9

## Alphabet:

### Handwriting

### letters/numbers

A B C D E | F G H I J | K L M N O | P Q R S T  
 Ä Ö Ü Å Æ | Æ Æ Æ ! ? | 0 1 2 3 4 | 5 6 7 8 9

U V W X Y | Z \_ " . '   
 È É Ê Æ



## Presser foot indicator

This shows a suitable presser foot for the stitch selected.



## Needle stop down

The machine will stop with the needle in the fabric (indication light on). When the button is pressed again the machine returns to normal, e.g. the needle is out of the fabric when the machine stops (indication light off). Use: sewing corners, applique, outline quilting.



## Half sewing speed

When the foot control is completely pressed down, the machine will only run at half speed (indication light on). Press the button to cancel this function. Use: for delicate work, sewing buttonholes, embroidery etc.



## Reverse sewing button

The machine will sew continuously in reverse. When the button is pressed again (indicator light off), the machine will return to forward sewing. Use: mending with the Running stitch.



## Pattern begin

Selects the beginning of any stitch or programme. Use: embroidery.



## Buttonhole

For sewing buttonholes see pages 36–39.

## Long stitch

The machine only sews every second stitch (max. stitch length 10 mm). Use: top stitching, edge stitching and basting very fine fabrics.

## Basting

The machine only sews every sixth stitch (max. stitch length 30 mm). Use: basting.



## Balance

Fine adjustment of the stitch length. Use: satin stitch, embroidery, buttonholes etc.



## Stitch selection function for grey or red stitches

Yellow indication light – for grey stitches on the panel.  
Red indication light – for red stitches on the panel.

## CLR

### Clear

All altered functions are cancelled and the basic stitch length and width settings are restored.

#### Working *without* MR function

Press 1x – altered settings and additional functions are cancelled.

#### Working *with* MR function

Press 1x – closes the MR programme.  
Press 2x – cancels all functions.

EXCEPTION: These functions must be cancelled individually.



The functions in use are cancelled by pressing the appropriate buttons.



## Programming – repeating

For programming the selected stitch or letter.

The previously memorized programme can be recalled (repeated), even after switching off or a power failure.



## Single pattern/pattern end

The machine will stop at the end of a stitch or stitch combination. Use: embroidering motifs and borders.



## Mirror image

The machine will sew the selected stitch or stitch combination in mirror image (the indication light goes off when a new stitch is selected). Use: sewing borders with embroidery stitches.



## Double stitch pattern

The selected stitch or the memorized programme will be sewn with double the number of stitches. Use: all embroidery.



## Double needle limitation

The stitch width is restricted to the maximum width for a 2mm double needle (no needle breakages). This function is cancelled by pressing the CLR button. Use: sewing with a double needle.



## Forward stitching

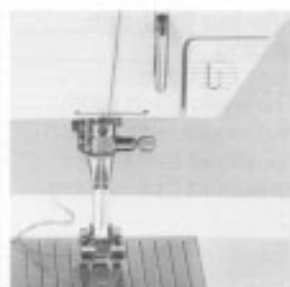
Select straight stitch – the indicator light will come on. The stitch length light beam will show the automatic basic setting.

## To alter 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 Securing stitch control and the machine will sew forwards again (fig. 1).

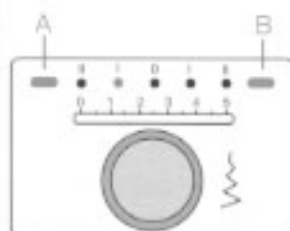


▲ 1

## Needle position

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 35. Sewing in zips, page 32.

**For normal seaming, the needle usually remains in the centre.**

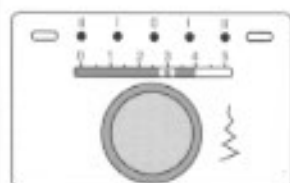


## Zig-zag stitch/practical stitches

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 the stitch length.

## 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 while sewing. The stitch width is returned to basic setting by pressing the CLR button.



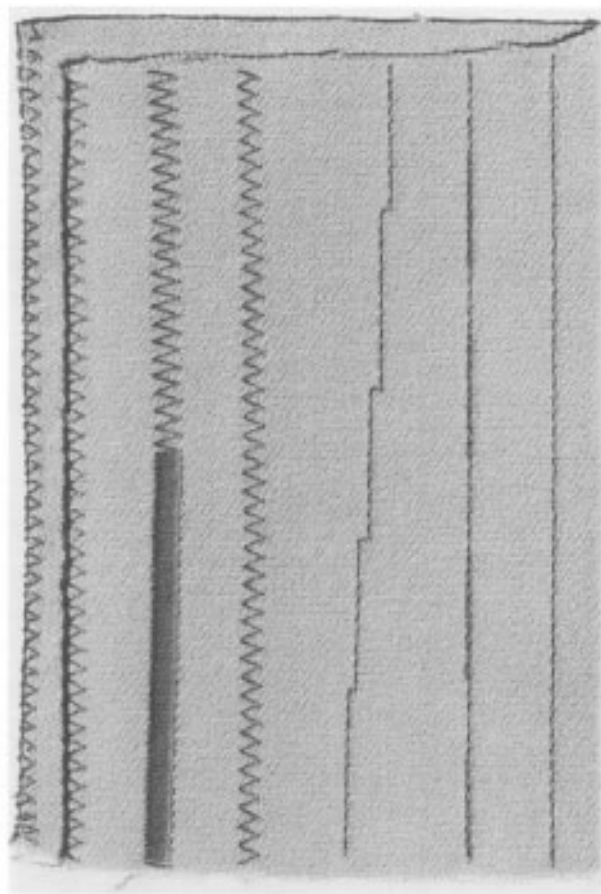
## Oversewing edges

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.

## Satin stitch = close zig-zag

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

When sewing on the edge, guide with the fingers to the edge.





## Automatic storage

### Automatic storage

An individual alteration to a stitch width, length and/or needle position will remain in the machine, even when any number of other stitches are selected in between.

### For example

1. Select zig-zag (basic setting).
2. Alter the stitch width to 5 and stitch length to 1.
3. Select Running stitch, alter width to 4, length to 1.
4. Select straight stitch (basic setting).
5. Select zig-zag, the altered settings remain.
6. Select Running stitch, the altered settings remain.

Any two 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.

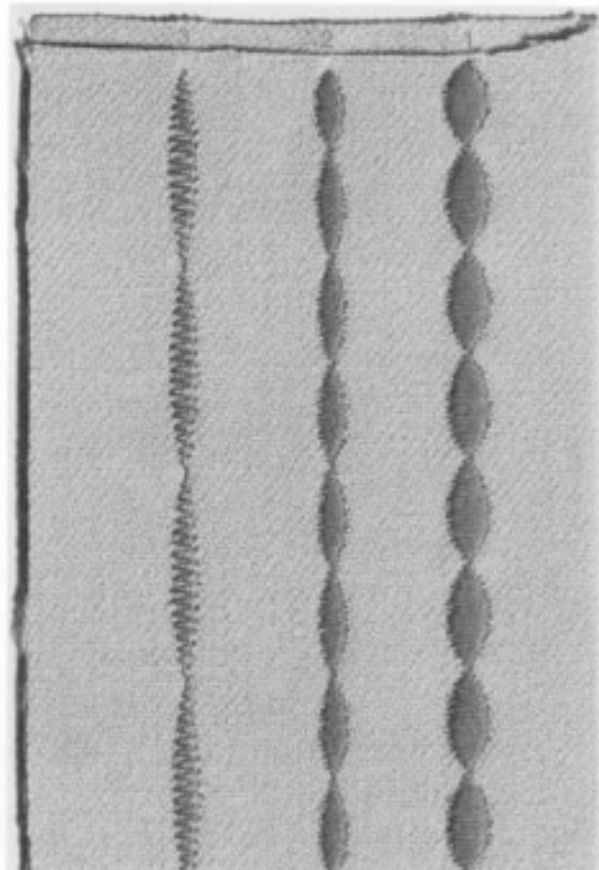
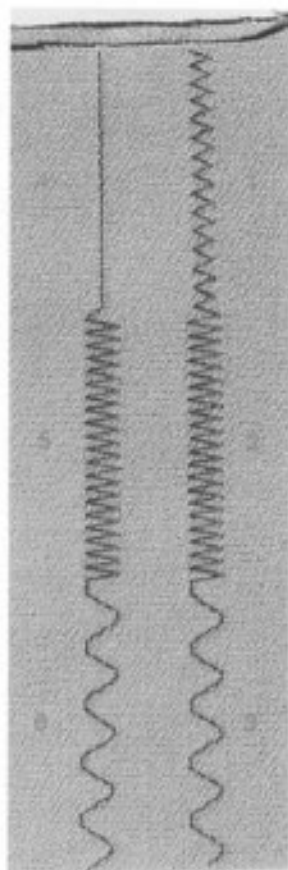
## Decorative stitches, altering the basic setting

### Altering the basic setting

The basic stitch width and length settings can be altered to suit the fabric and type of work.

### Example:

1. Select the desired stitch (indicator light on) (basic setting).
2. Alter stitch width to 2. Press the Pattern begin button  $\text{P}^*$  and sew.
3. Alter stitch length to  $\frac{1}{2}$ . Press  $\text{P}^*$  and sew.



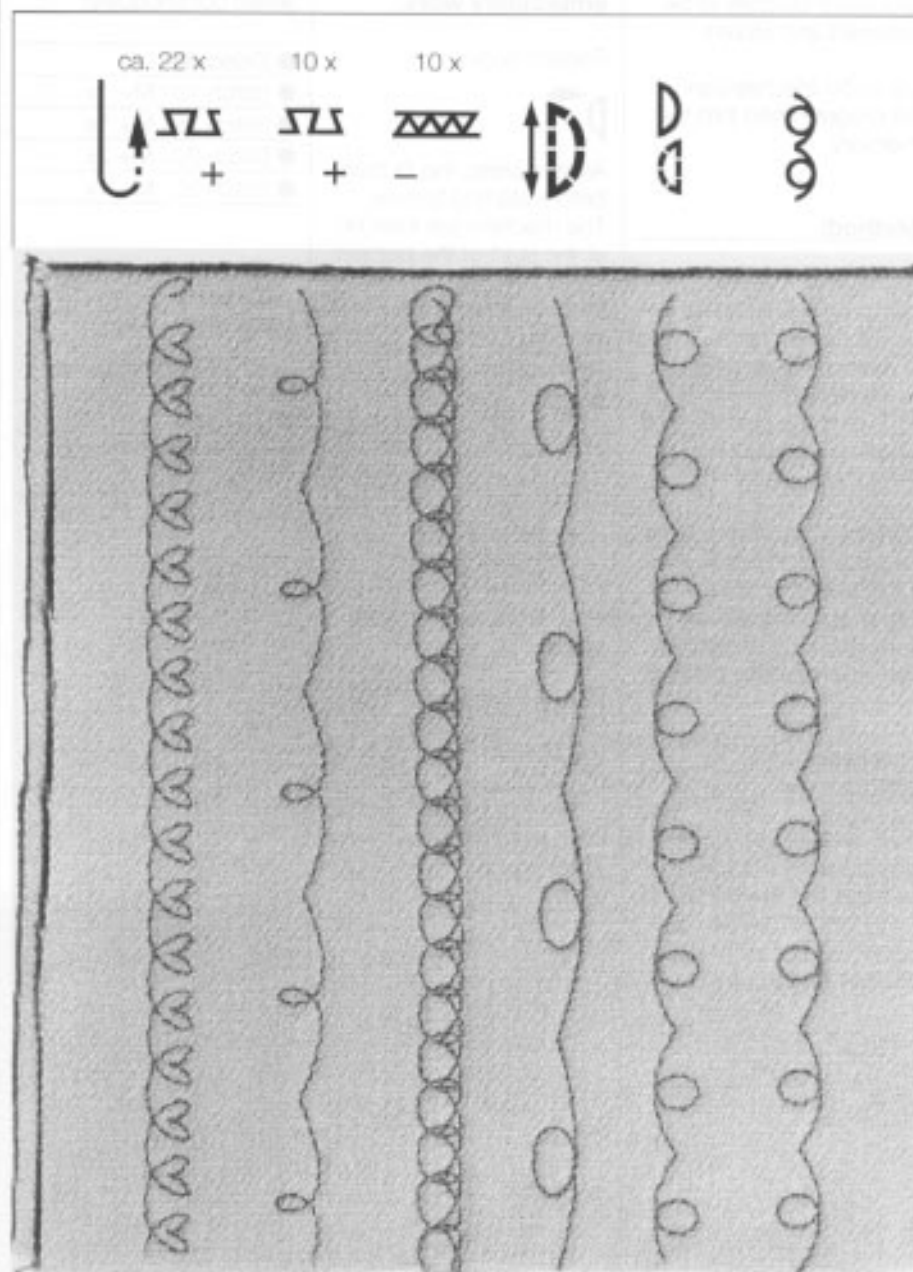
## Combining the basic settings and functions

Combining the basic settings and functions can give some surprising effects.

The following functions can be combined with the basic settings:

-  Mirror image
-  Double stitch pattern
-  Balance
-  Long stitch
-  Double needle limitation
-  Reverse sewing

## Example:



## Balance

Various effects (stitch changes) result through adding numbers of Balance + or - to a stitch.

## Method:

- Select the desired stitch.
- Select the desired function.

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

Programming enables groups of stitches to be selected and stored.

Up to 50 stitches can be programmed into the memory.

### Method:

- Press MR button (the upper indication light will come on).
- Select the desired stitch and press M+.
- Select the next desired stitch and continue as above.

**Before selecting a new programme, press the CLR button x 2 and clear any individual functions by pressing the appropriate button.**

### Repeating the programme

If other sewing (without the programme) is required, the last memorized programme can be returned to simply by pressing the MR button (x 1 only).

### A useful tip for all embroidery work:

Pattern begin:



Always press this button 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.

Use: Embroidery motifs repeats

Reduced speed:



Use: Buttonholes, embroidery

### Example 1

(sewn continuously)

- Select MR
- Stitch 19/ M+ 1x
- Stitch 25/ M+ 1x
- Stitch 20/ M+ 2x
- Stitch 25/ M+ 1x

### Example 2

(sewn continuously)

- Select MR
- Stitch 30/ M+ 1x
- Select Mirror image / M+ 1x

### Example 3

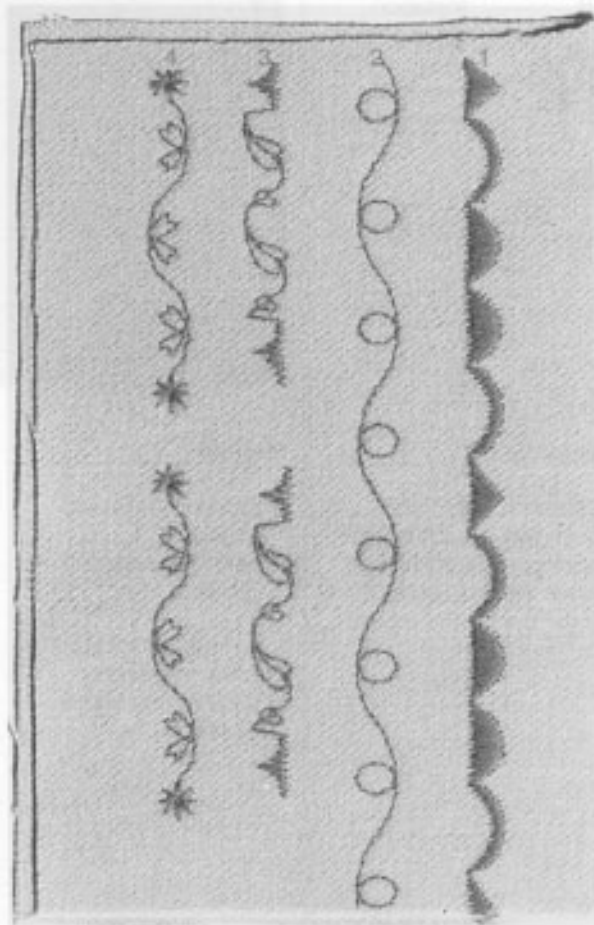
(sewn in programmed groups)

- Select MR
- Stitch 23/ M+ 1x
- Stitch 31/ M+ 2x
- Stitch 23/ M+ 1x
- Select Single pattern / pattern end

### Example 4

(sewn in programmed groups)

- Select MR
- Stitch 27/ M+ 1x
- Stitch 34/ M+ 1x
- Select Mirror image / M+ 1x
- Clear Mirror image / M+ 1x
- Stitch 27/ M+ 1x
- Select Single pattern / pattern end



## Programming/ combining

Up to 50 symbols can be entered into the memory, a space between words counts as one entry. Pressing the CLR button once clears the programme. The memory allows any programme until either the memory is full or the CLR button is pressed. Practical and decorative stitches, letters, numbers and/or Mirror image can be combined and programmed. Other functions can be combined with a memorized programme.

### Method:

- Press MR (upper indication light is on).
- The yellow light should be on for grey stitches on the panel.
- The red light should be on for red stitches on the panel.
- Select the desired stitch and press M+ (lower indication light is on), etc.

## Altering the basic setting

By altering, for example, the stitch width, letters and numbers can be worked to the desired size or perhaps small/large letters combined together. With the Balance button to give a fine adjustment to the stitch length, any stitch can be regulated to suit the fabric and the thread.



## Repeating the memorized programme

By selecting the MR button the last memorized programme is recalled (repeated). The indication light will show the first stitch of this programme (decorative stitch or letter). This programme will remain in the machine until a new sequence is entered into the memory.

### Example 1

\*BERNINA 1994\*

- Press MR
- Press stitch selection (yellow light is on)
- B/M+ 1x
- E/M+ 1x
- R/M+ 1x
- N/M+ 1x
- I /M+ 1x
- N/M+ 1x
- A/M+ 1x
- - space/M+ 1x
- Press stitch selection (red light is on)
- 1 /M+ 1x
- 9 /M+ 2x
- 4 /M+ 1x

If the result is satisfactory complete the sequence by pressing CLR once. To recall the programme select MR and press . If you want to sew the programme with double the stitches, press .

### Example 2

Supplementary panel

The letters on the second panel are programmed in exactly the same way as the block letters. After sewing, the connecting threads between the letters are cut away.

**Before selecting a new programme sequence, press CLR twice and cancel special functions individually by pressing the appropriate buttons.**

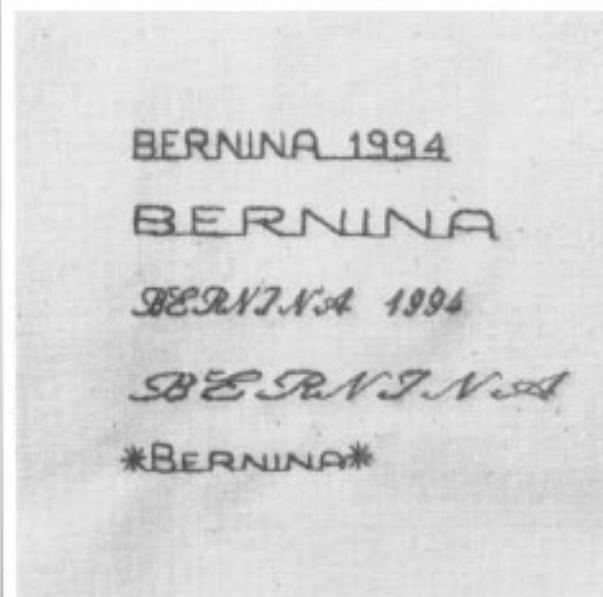
### Example 3

(altering basic settings)  
\*BERNINA\*

- Press MR
- Press stitch selection (yellow light is on)
- Stitch 27/M+ 1x
- Press stitch selection (red light is on)
- B/M+ 1x
- Select E
- Alter stitch width to 3
- M+ 1x
- R/M+ 1x
- N/M+ 1x
- I /M+ 1x
- N/M+ 1x
- A/M+ 1x
- Press stitch selection (yellow light is on)
- Stitch 27/M 1x

### To make corrections

Press CLR and cancel individual functions by pressing the appropriate buttons. Reprogramme.



**Important:**

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

To achieve maximum stretch:

- shorten the stitch length slightly and/or
- increase the stitch width slightly.


This puts more thread in the seam and improves its elasticity. The seam should stretch as much as the fabric.

**Neckband with Honeycomb stitch**

Needle: 80

Thread: Sewing thread

Feed-dog: 

● Stitch:  Honeycomb stitch


Press 1 cm (3/8") to wrong side. Sew from the right at a foot's width from the edge. Trim surplus fabric on the wrong side (if necessary).

**Neckband with overlock stitch**

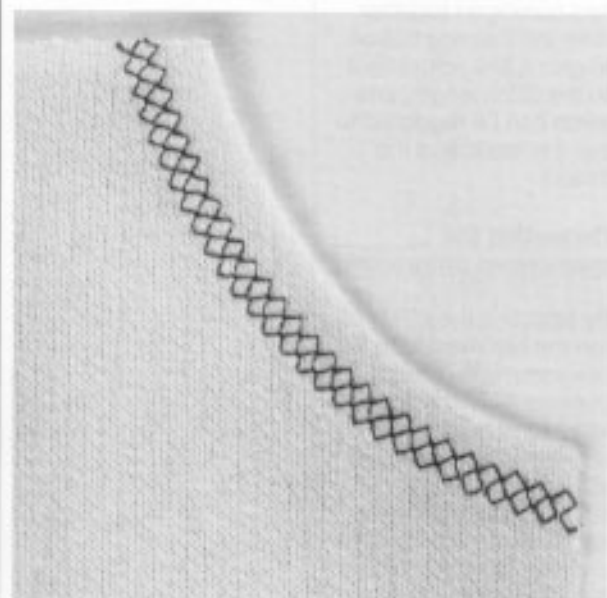
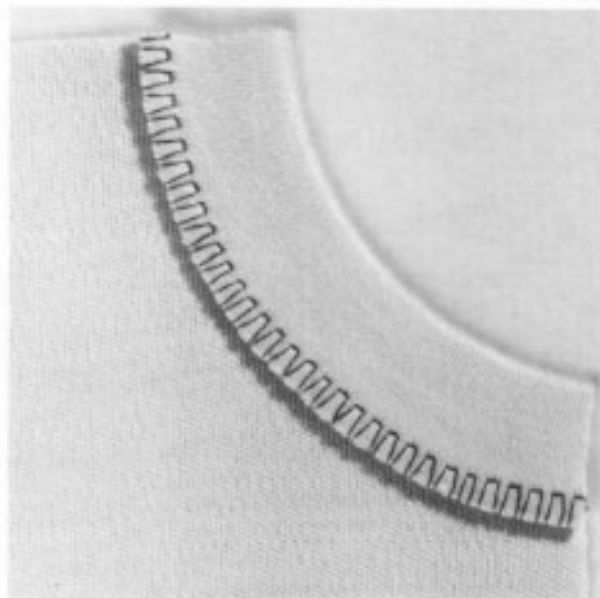
Needle: 80/70

Thread: Sewing thread

Feed-dog: 

● 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.



## Preparation

Baste the hem, depth of hem plus minimum of 1 cm (3/8") extra, sew and cut away surplus fabric close to stitch. Check with instructions for working with knitted fabrics (page 28).

## Visible hem with Jersey stitch

Needle: 80

Thread: Sewing thread

Feed-dog: 

● Stitch: 

Jersey stitch


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

## Visible hem with Triple zig-zag

Needle: 80

Thread: Sewing thread

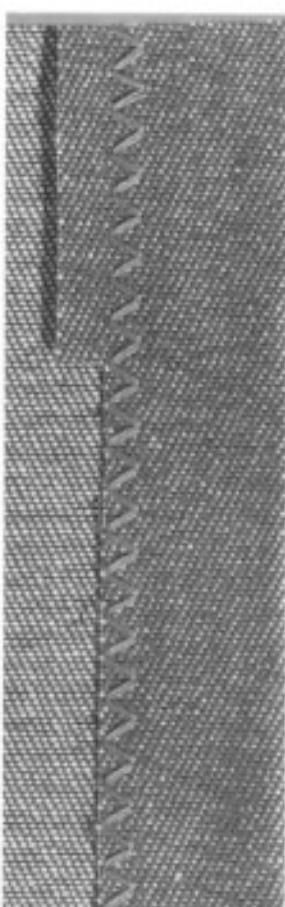
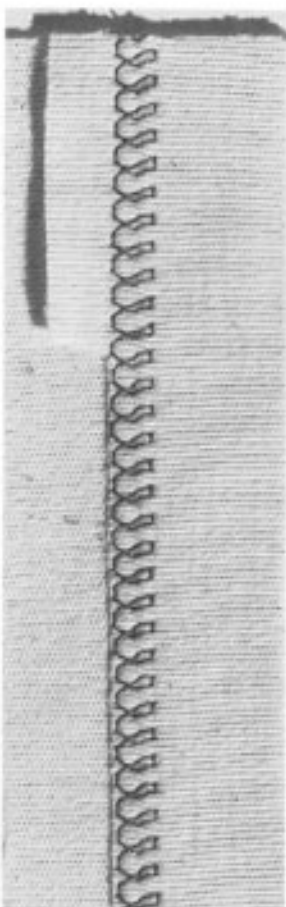
Feed-dog: 

● Stitch: 

Triple zig-zag

● Stitch width: 2½–5, depending on fabric

Hard wearing visible hem for firm fabrics, e.g. denim, outer wear fabrics, deckchair fabric etc.





The type of seam chosen is governed by the garment being sewn, the choice of stitch primarily by the fabric being used. There are 3 types of seams:

### Open seams:

Seams that are pressed open. They lie flat and are not bulky.  
Use: dresses, trousers, skirts, coats, jackets etc.

### Overlock seams:

Seams that are sewn and neaten in one operation.  
Use: knitted fabrics for pullovers, T-shirts, sweat-shirts, running suits, underwear and for hand and machine knitted garments.

### Flat joining seams:


Seams in which the edges are overlapped and oversewn.  
Use: beachwear, leisure wear, foundation garments and craft work.

### Triple straight stitch seam

Open seam

Needle: 80-90

Thread: Sewing thread

Feed-dog: 

● Stitch 

Triple straight stitch

Hard-wearing reinforced seam for firm fabrics.

### Zig-zag seam

Open seam

Needle: 80

Thread: Sewing thread

Feed-dog: 

● Stitch 

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

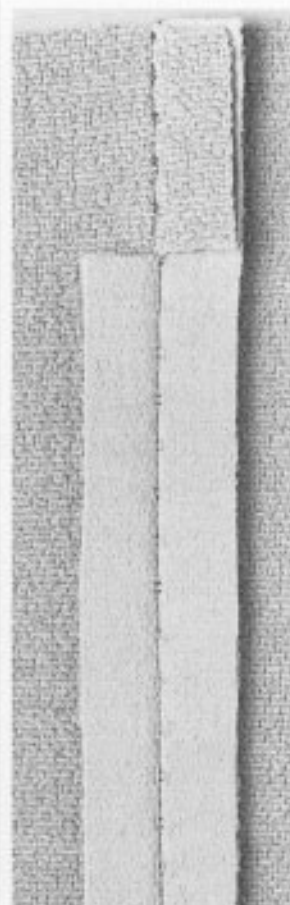
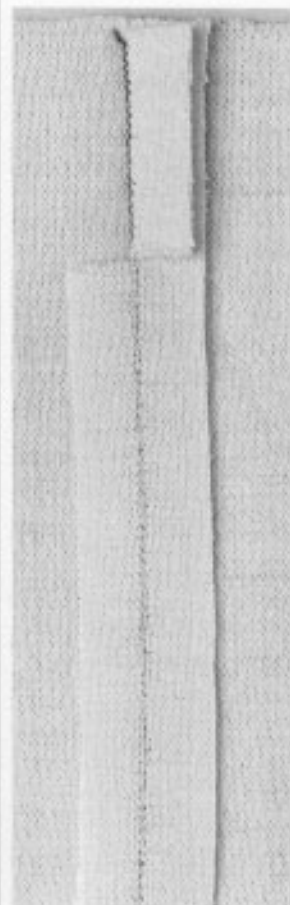
Thread: Sewing thread

Feed-dog: 

● Stitch 

Stretch stitch


Highly elastic seam for stretch fabrics, especially sportswear.



## Vari-overlock seam

Needle: 80-70

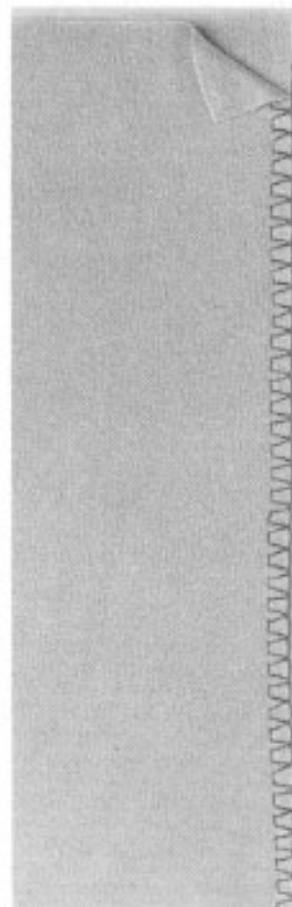
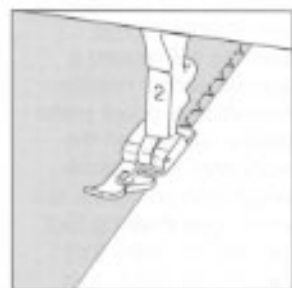
Thread: Sewing thread

Feed-dog: 

● Stitch: *WVV*

Vari-overlock

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



## Double overlock seam

Needle: 80

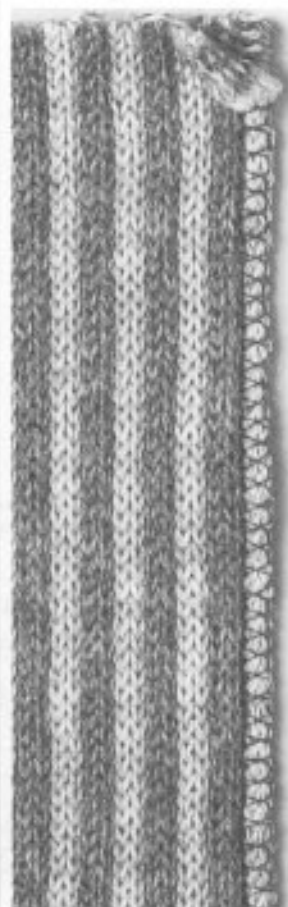
Thread: Sewing thread

Feed-dog: 

● Stitch: *ZZZ*

Double overlock

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



## Stretch overlock seam

Needle: 80

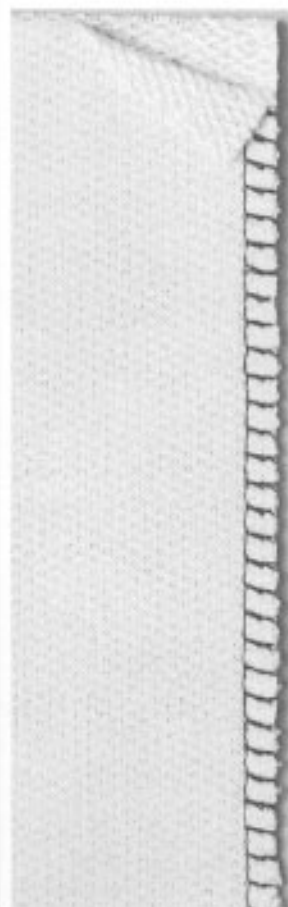
Thread: Sewing thread

Feed-dog: 

● Stitch: *TTTT*

Stretch overlock


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



## Flat joining seam

Needle: 80

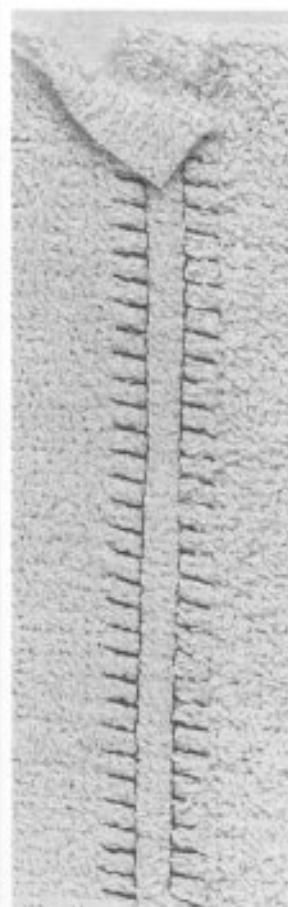
Thread: Sewing thread

Feed-dog: 

● Stitch: *TTTT*

Stretch overlock

Visible seam for towelling, velour, leather etc.





## Zips

### Zip fastener inserted flat

#### Method:

Baste the zip into position so that the teeth are covered by the fabric. Sew in the zip, each side from bottom to top, once with needle position right and once with needle position left.

#### Tip:


Hold thread when starting to sew, especially on outer edges, pockets, etc.

If the fabric and/or zip make a thick, hard surface, it is worth trying a 90 or 100 needle to obtain perfect stitch formation on both sides.

Needle: 80

Thread: Sewing thread

Zip foot: 4

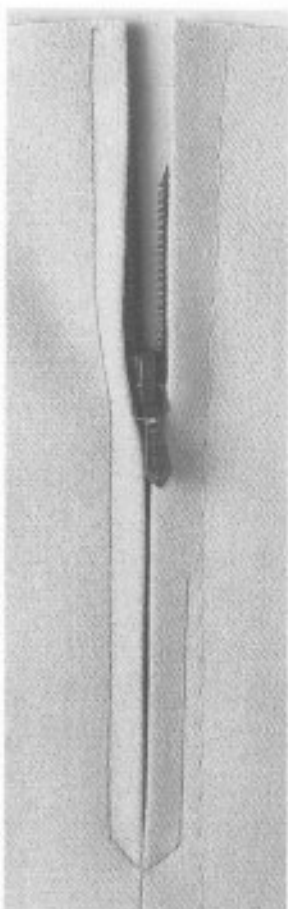
Feed-dog: 

● Stitch: -----

Straight stitch

Alteration:

Needle position left/right

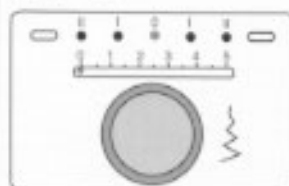


## Jeans foot

### Thick fabrics and seams

The Jeans foot makes it easier to sew thick and hard fabrics. Select a stitch length between 3 and 4 to suit the 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: Walking foot (No. 50), Roller foot (No. 51), 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 optional accessories).

## Long stitch

### Long stitch

With the Long stitch, the machine sews every other stitch, giving a maximum stitch length of 10 mm.

Needle: 80

Thread: Sewing thread

Feed-dog: 

● Stitch: -----

Straight stitch

Stitch length: 3–5

Needle position: any

Function button: — — —

Long stitch

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

For top stitching the Long stitch can be combined with the Triple straight stitch.

## 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/1¼".

Basting stitches can be sewn in any of the 5 needle positions.

Needle: 80–90

Thread: sewing thread/  
Basting thread

Feed-dog: 

● Stitch: -----

Straight stitch

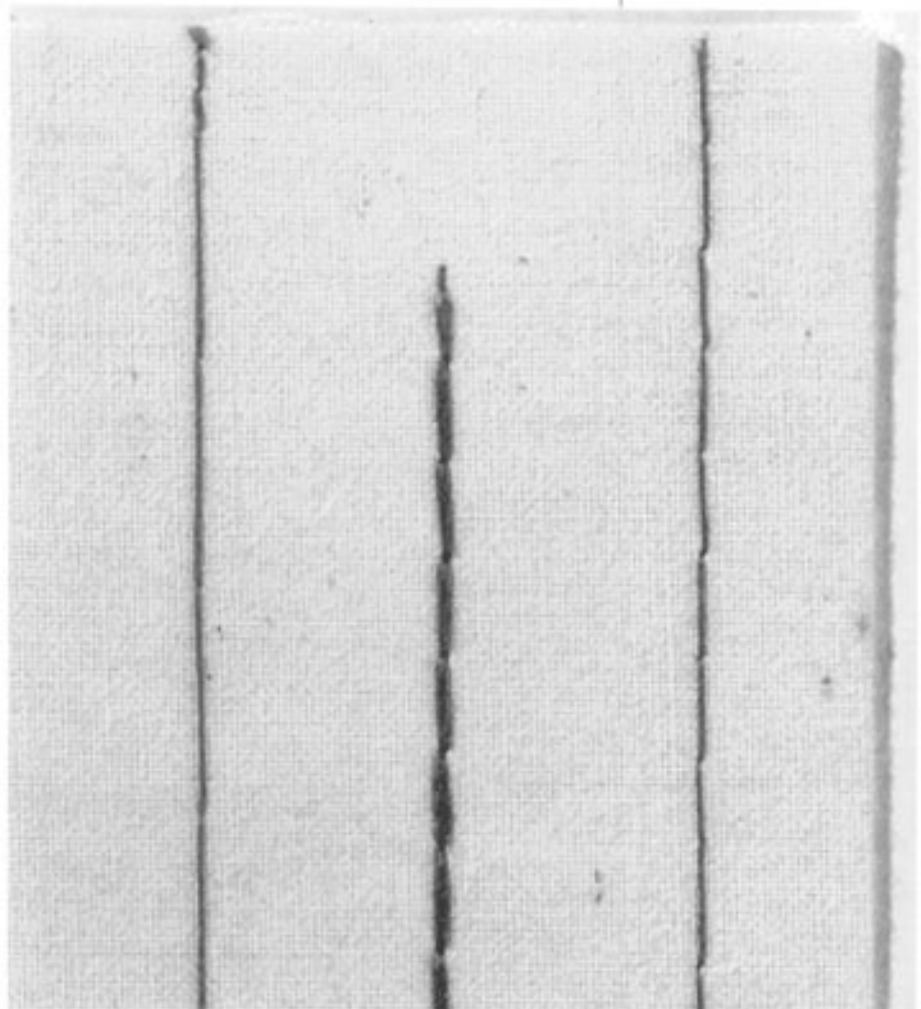
Stitch length: 1½–5

Needle position: any

● Function button: — — —  
Basting stitch


Tip:


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



Needle: 80–70

Thread: Sewing/Darning thread

Feed-dog: 

● Stitch:   
Blind stitch

## Preparation

Prepare hem as for hand sewn hem.

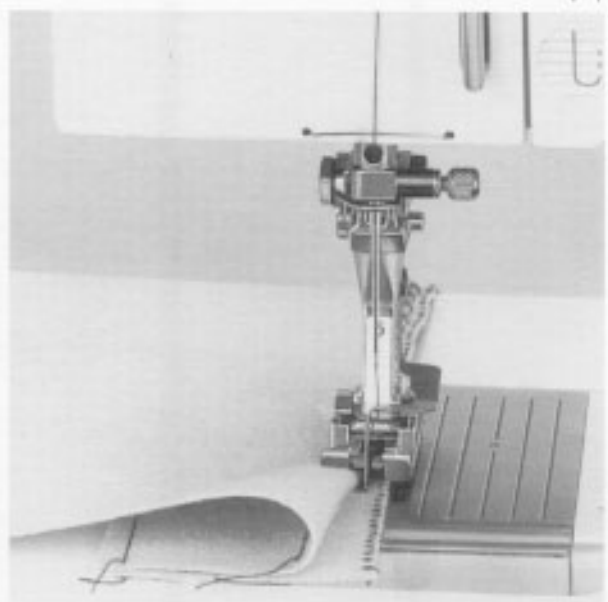
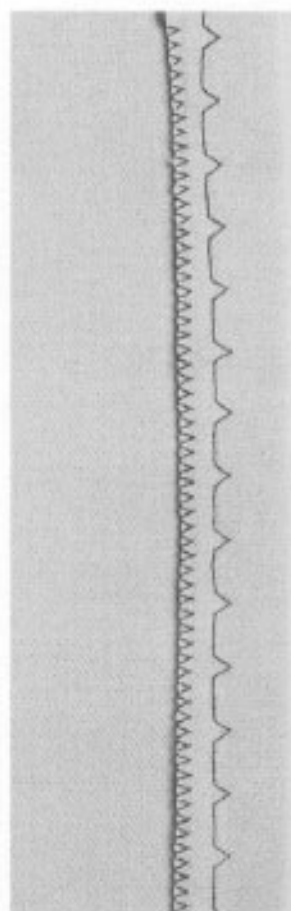
## Positioning the hem

Position work under the foot as shown in fig. 1

## Sewing

The needle should just catch the edge of the fabric, as when sewing by hand. Given the variations in fabric qualities and thicknesses, it is advisable to test sew. Minor adjustments to the stitch width may be necessary.

Tip:  
While sewing, hold the fabric back slightly.



Collars, cuffs, lapels, hems etc.

## Narrow edge stitching

Needle: 80-90

Thread: Sewing thread

Feed-dog: 

● Stitch: -----

Straight stitch

Stitch length as required.

Needle position:

Left for outer edges

Needle position:

Right for turned in edges

Presser foot:

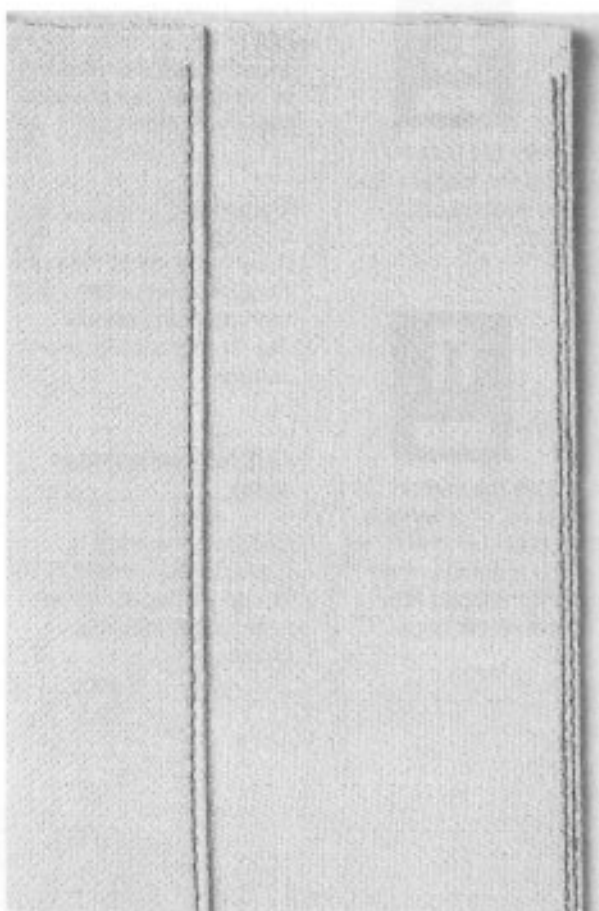
No. 5 Blind Stitch foot



▲ 1

## Outer edges

From the left, place the edge of the fabric against the guide on the Blind Stitch foot, set needle position left to the required distance from the edge (fig. 1).



▲ 2

## Turned edges


From the right, place the turned edge against the guide on the foot and select needle position right (fig. 2).

## Wide edge stitching

For all edges

Needle: 80-90

Thread: Sewing thread

Feed-dog: 

● Stitch: -----

Straight stitch

Needle position:

any position

Guide the fabric edge along the presser foot (fig. 3) or one of the lines on the stitch plate. The needles positions can be used for sewing intermediate widths.

Widths:

Presser foot width = 7.5 mm / ¼"

Stitch plate lines:

1st line = 1 cm

2nd line = 1.5 cm

3rd line = 2 cm

4th line = 2.5 cm

5th line = 3 cm

USA stitch plate only:

1st line = ¼"

2nd line = ⅜"

3rd line = ½"

4th line = ⅝"

5th line = ¾"

6th line = ⅞"

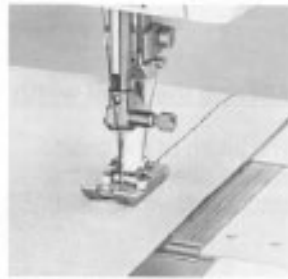
7th line = 1"



▲ 3



▲ 4



▲ 5

# Four-step standard buttonhole

# with gimp cord

## Standard buttonhole

Needle: 80–70

Thread: Darning thread, sewing thread

Feed-dog: 

● Stitch: 

No. 14

Presser foot: No. 3

## Preparation

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



## Sewing test

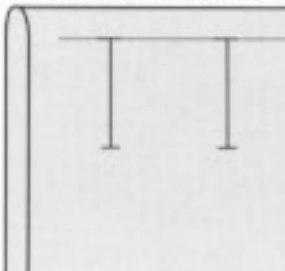
If necessary adjust the stitch length to suit the fabric:

- Forward bead with the stitch length knob.
- Reverse bead with the Balance buttons
- Bead too dense = - button
- Bead too open = + button

## Altering the bead width

The width of the bead can be altered with the stitch width knob (test).

## Marking buttonholes



## Sewing buttonholes

Press button 14. Lower the needle into the fabric where the buttonhole starts and lower the presser foot.



1. Sew the first bead forwards. Stop at end of the buttonhole marking.



2. Press the button. The machine sews straight stitch in reserve. Stop at the buttonhole begin.



3. Press the button. Sew the bartack and the second bead. Stop.



4. Press the button. Sew the second bartack and securing stitches. The machine stops automatically at buttonhole begin.

## Buttonholes with gimp cord

Gimp cord strengthens buttonholes. Suitable cords are perle yarn No. 8, buttonhole thread, fine crochet cord. The loop should lie at the end of the buttonhole most subject to wear, so place the fabric under the foot so that the loop comes at the appropriate end.

## Positioning the cord

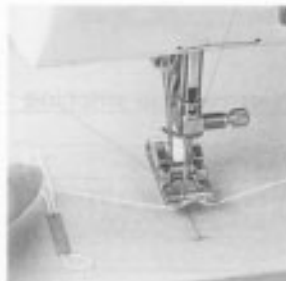
It is easier to position the cord when the needle is in the fabric. Bring the needle to centre of the foot and lower it into the fabric at the exact start of the buttonhole. Do not lower the foot yet. Hook the gimp cord over the centre prong of the foot (fig. 1) and take both ends under the foot to the back (fig. 2). Lower the foot and check that the cord slides easily. Sew the buttonhole. Do not hold the cord but let it slide freely. When sewing is complete, pull the loop into the buttonhole.

## Securing

Take the ends of the cord through to the wrong side with a sewing needle (fig. 3) and knot or sew in securely.

## Cutting buttonholes open

Cut from the ends towards the centre (fig. 4) or use a special buttonhole cutter with wood block.



▲ 1



▲ 2



▲ 3



▲ 4

# Three-step keyhole buttonhole

## Keyhole buttonhole

The keyhole buttonhole is suitable for jackets, coats, trousers, overalls etc.

Needle: 80

Thread: sewing thread

Feed-dog: 

● Stitch: 

No. 13

Presser foot: No. 3

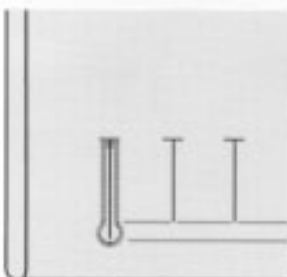
## Preparation

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



## Marking buttonholes

Mark the bead length. The eye must be included when calculating the total length of the buttonhole.



## Sewing test

If necessary, adjust the stitch length and width to suit the fabric:

- bead density with the stitch length dial
- bead width with the stitch width dial

Tip:

Always test sew buttonholes on the fabric (and interfacing) to be sewn!

## Sewing buttonholes

Select the button No. 13 for keyhole buttonholes. The machine is ready to sew the first bead forwards. Lower the needle into the fabric exactly at the start of the buttonhole, lower the presser foot.



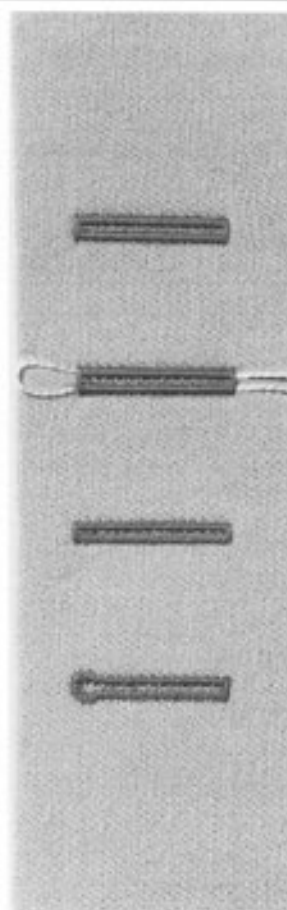
1. The machine sews the first bead forward. Stop the machine at the marked length.



2. Press the buttonhole steps button. The machine sews the eye and the second bead. Stop the machine when the second bead is level with the first.



3. Press the buttonhole steps button. The machine sews the bar tack and securing stitches. The machine stops automatically at buttonhole begin.



5


Cutting the buttonholes


See page 36

## Fully automatic standard buttonhole

Needle: 80–90

Thread: Darning/sewing thread

Feed-dog: 

● Stitch:   
No. 14

Presser foot: 3A

### Preparation

Thread the lower thread through the finger of the bobbin case.



### Sewing test

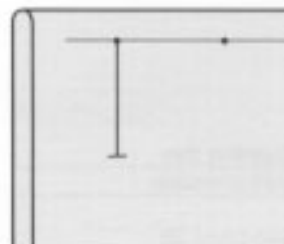
If necessary adjust the stitch width and length to suit the fabric.

- Bead density with the stitch length dial.
- Bead (buttonhole) width with the stitch width dial.

Tip: Always test sew on the fabric and interlining you intend to use.

### Marking buttonholes:

Mark just one buttonhole. The length is programmed automatically after sewing the first buttonhole. Simply mark the beginning point of all subsequent buttonholes.



## Sewing the buttonholes



1. Select the buttonhole type. The machine is ready to sew the first bead. Insert the needle into the buttonhole begin and lower the presser foot. Sew the first bead forwards and stop at the end of the bead marking.



2. Press the button. The machine switches to auto mode and completes the first buttonhole automatically. To sew the subsequent buttonholes just insert the needle into the buttonhole begin and the machine will sew them automatically.



## Fully automatic standard buttonhole with gimp cord

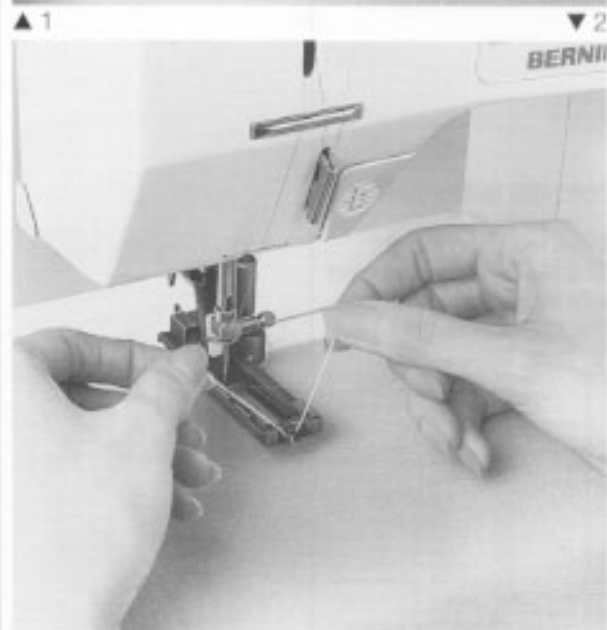
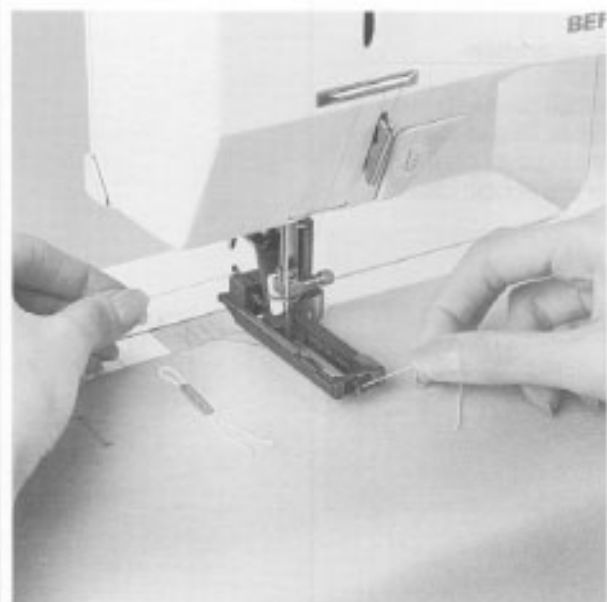
Gimp cord strengthens the buttonhole and gives a perfect finish. Use perle yarn no. 8, strong hand-sewing thread or fine crochet thread.

The loop of the cord should be at the end of the buttonhole most subject to wear. Place fabric under the foot.

## Positioning the cord

It is easier to position the cord once the needle is inserted in the fabric. Insert the needle into the beginning of the buttonhole. Do not lower the presser foot yet.

Guide the cord to the right under the buttonhole foot and hook it over the prong at the back (fig. 1). From the left bring it round the front and under the foot. Pull the cord ends into the retaining slots (fig. 2).





## Fully automatic keyhole buttonhole

The keyhole buttonhole is suitable for jackets, coats, trousers, overalls etc.

Needle: 80

Thread: Sewing thread

Feed-dog: 

● Stitch: 

No. 13

Presser foot: No. 3A

### Preparation

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



### Sewing test

If necessary adjust the stitch length to suit the fabric:

- Forward bead with stitch length knob
- Reverse bead with the Balance buttons
- Bead too dense = - button
- Bead too open = + button

### Marking buttonholes

Mark the bead length. The eye must be included when calculating the total length of the buttonhole. Mark **only** the first buttonhole, from that the buttonhole will be programmed. The keyhole buttonhole should be positioned on the garment so that the eye is at the end where the button will rest. ▶

### Sewing the buttonholes

Select the button No. 13 for keyhole buttonholes. The machine is ready to sew the first bead forwards. Lower the needle into the fabric exactly at the start of the buttonhole, lower the presser foot.



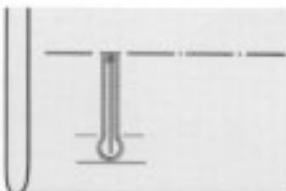
1. The machine sews the first bead forward. Stop the machine when the bead as to the marked length.



2. Press the buttonhole steps button. The machine is now switched to AUTOMATIC. The buttonhole is programmed. From now on do not press the buttonhole steps button again. The machine will complete the buttonhole and stop automatically. For further buttonholes, place the needle in the fabric at the beginning of the buttonhole and sew, the machine makes the complete buttonhole automatically.

### Caution

If the thread breaks or runs out, sew the buttonhole through to the end with the needle unthreaded. The machine will then be ready to sew the first bead of the next buttonhole.



## reinforced

### Fully automatic reinforced keyhole buttonhole

For thick fabrics and increased durability it is advisable to reinforce a keyhole buttonhole by sewing it twice.

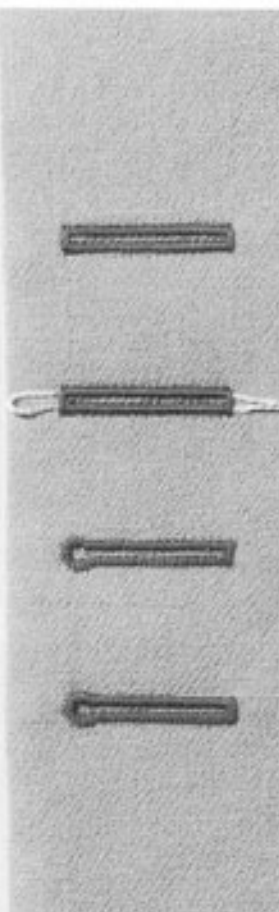
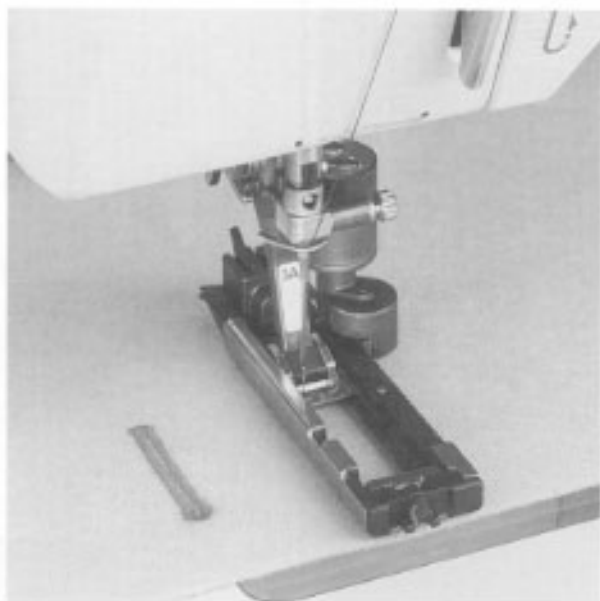
Important: After finishing the first buttonhole, leave the work in position, press the foot control and sew the complete buttonhole a second time.

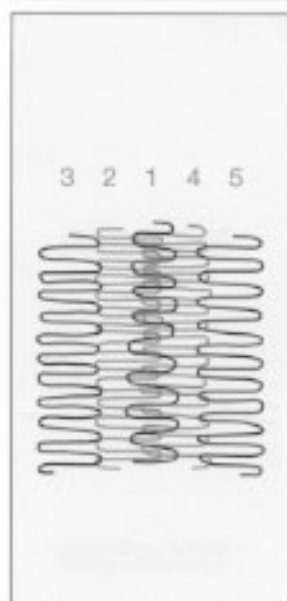
### Important:

If you make a mistake, complete the buttonhole sequence without needle thread, leaving the work in position, then rethread the needle and sew the buttonhole again.

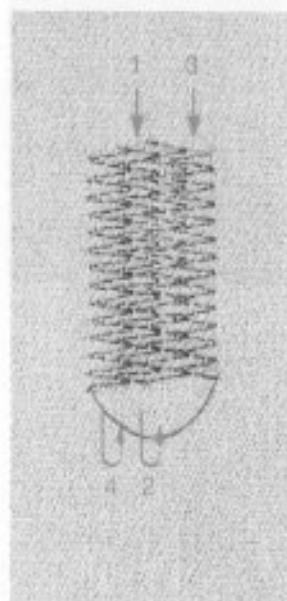
### Cutting the buttonhole

See page 36

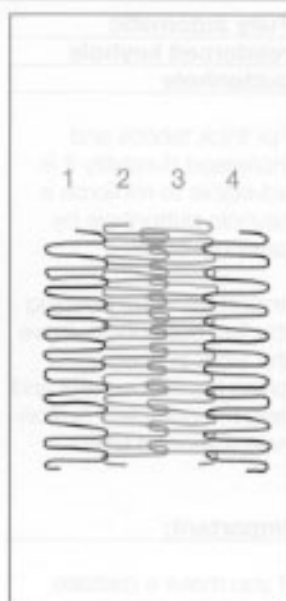
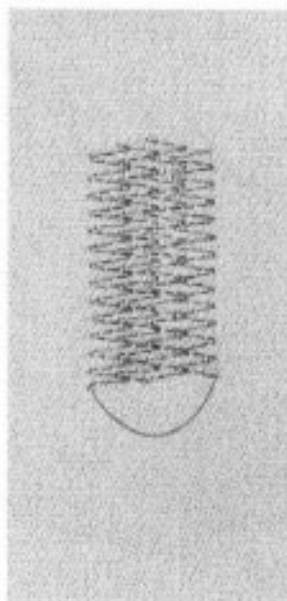




▲ 1



▲ 3



▲ 2

## Mending tears using Running stitch

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

Needle: 80–70


Thread: Darning thread

● Stitch: 

Running stitch

Feed-dog: 

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 (fig. 2).

### 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 + 2). 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. 3).

## Patching using Honeycomb stitch or Running stitch (according to fabric)


For outerwear and especially jeans.


Needle: 80

Thread: Darning thread

Feed-dog: 

### 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

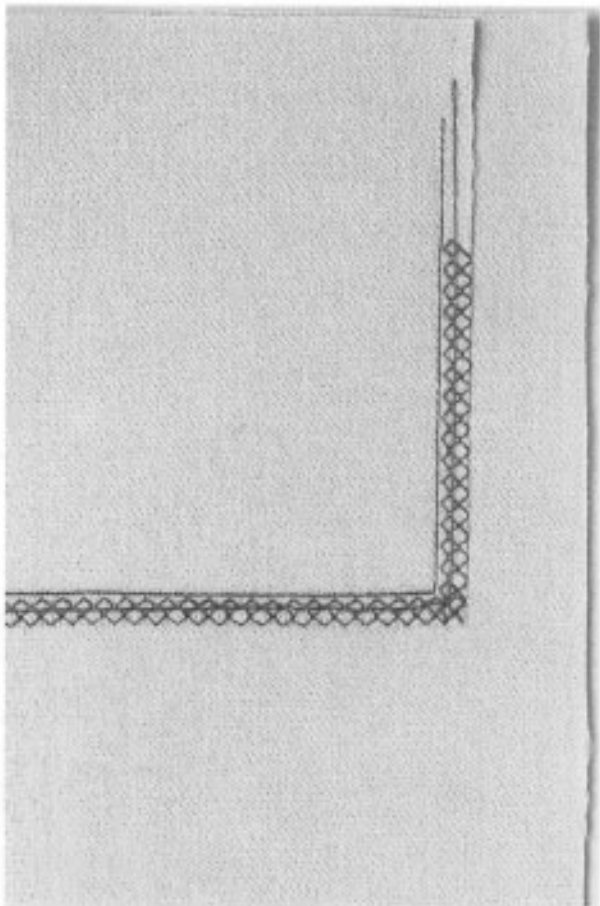
● Stitch:  Honeycomb stitch

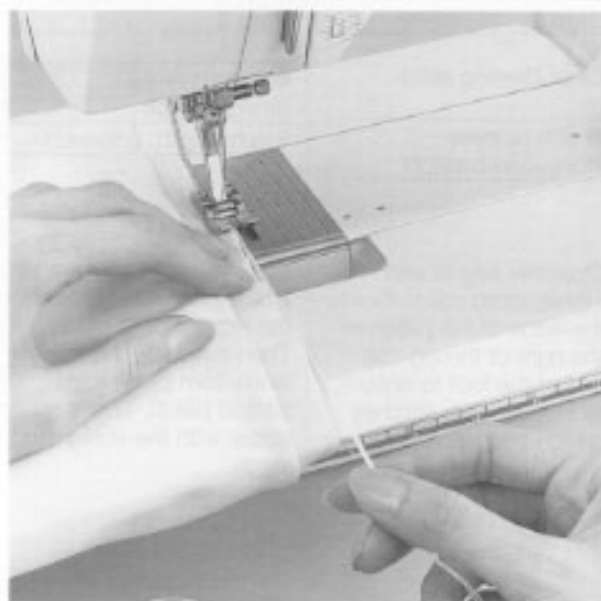
Oversew edges with Honeycomb stitch. Guide the edge of the patch to the right of the zig-zag of the foot to ensure all Honeycomb stitches are on the patch.

### 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.






### Patching using Jersey stitch

Primarily for mending interlock underwear.

Needle: 80-70

Thread: Darning thread

Feed-dog: 

● Stitch:   
Jersey stitch

This method of mending is particularly suitable for large worn areas as the garment retains its elasticity.

#### Method:

To maintain stretch in all directions, round off the corners of the patch. Place the patch over the worn area and sew on with 1-2 rows of Jersey stitch. Then cut away the worn section from behind.


### Edging with elastic thread

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

Needle: 80-70

Thread: Darning thread

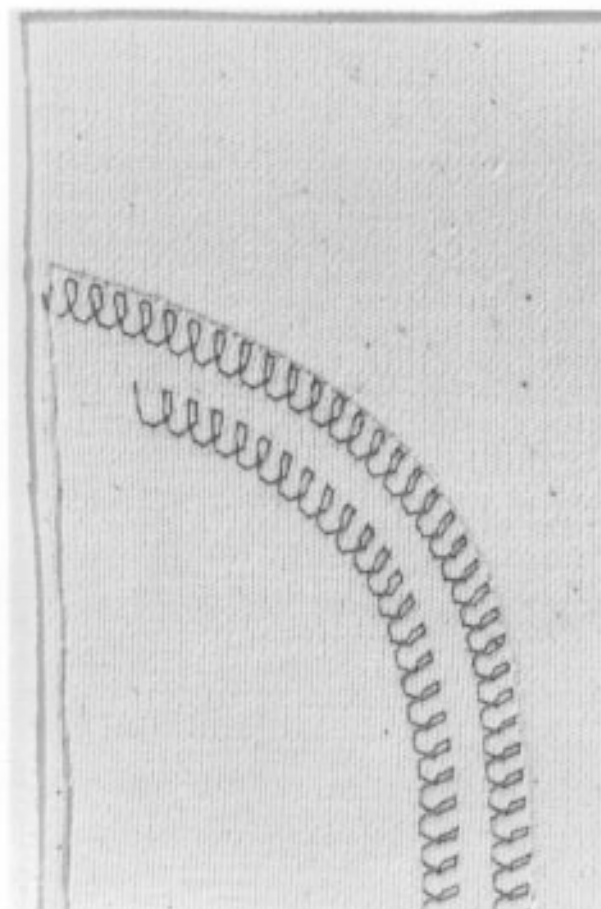
Feed-dog: 

● Stitch:   
Zig-zag stitch

Stitch width: approx. 3  
Stitch length: 1½

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

5





### Main faults:

Thread breaks frequently:

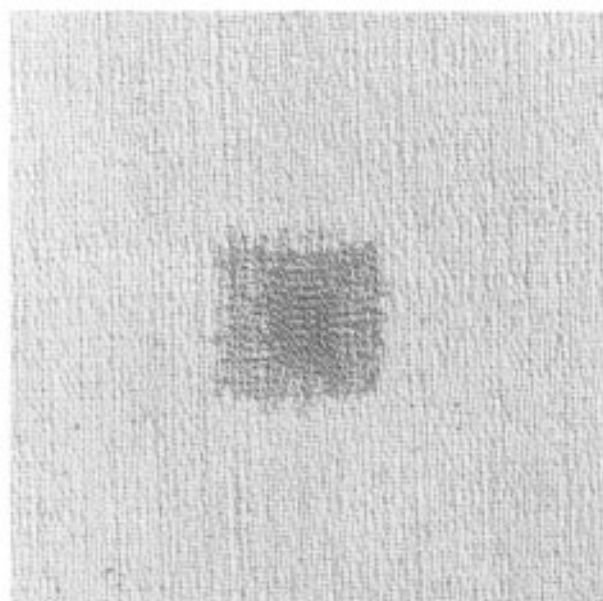
- work not moved evenly.

Stitching uneven and obtrusive:

- fabric moved too quickly in relation to the sewing speed.

Small knots on the underside:

- fabric moved too slowly in relation to the sewing speed.



### Basic darning principles

The feed-dog must always be lowered for darning. The work is moved to and fro by hand and not by the machine. It is important to move the work evenly and this requires a little practice.

Recommendation:


Whenever possible, use the darning ring to keep the darning area taut. Move the ring backwards and forwards smoothly; jerky movements result in torn threads.

Always work from left to right, moving up and down over the hole, not from side to side. Use the sewing table and support your elbows on the work table. Position the machine slightly back from the edge of the table.

### Darning

Needle: 80-70

Thread: Darning thread

Feed-dog: 

● Stitch: -----

Straight stitch

Stitch length: 0

Presser foot:

Darning foot No. 9

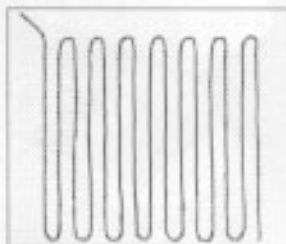
### Important

At the end of rows, change direction in curves and not points otherwise the fabric is likely to tear.

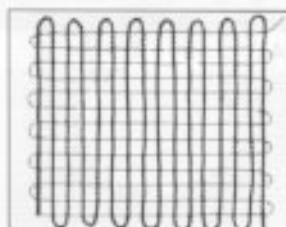


### The three steps

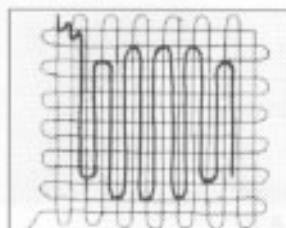
1. Darn from top left to top right of hole. Turn by 90 degrees.



2. Work from left to right, filling in the hole but not too densely. Turn by 180 degrees.



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



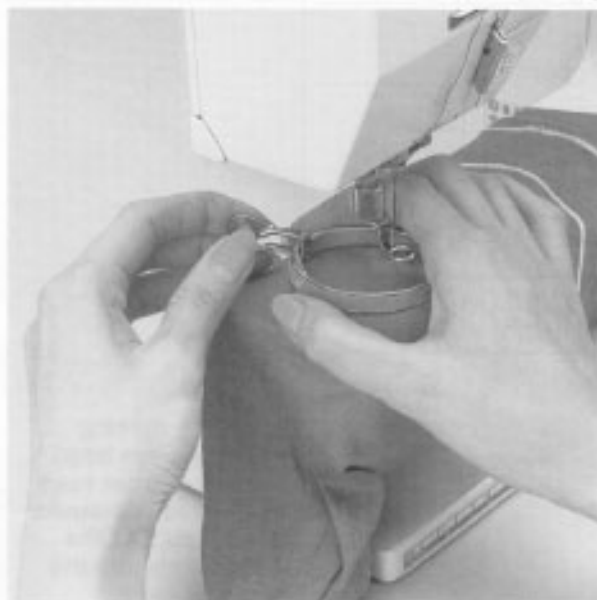
**When the darning technique has been mastered, work rows of stitches in irregular lengths so that the darn blends into the fabric.**



▲ 1



▲ 2



▼ 3

## 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.

## 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 the 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. 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

Socks, sleeves and trouser legs are usually stitched up and down and then side to side as it is not possible to turn the work.



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 was 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 (48) 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 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!**





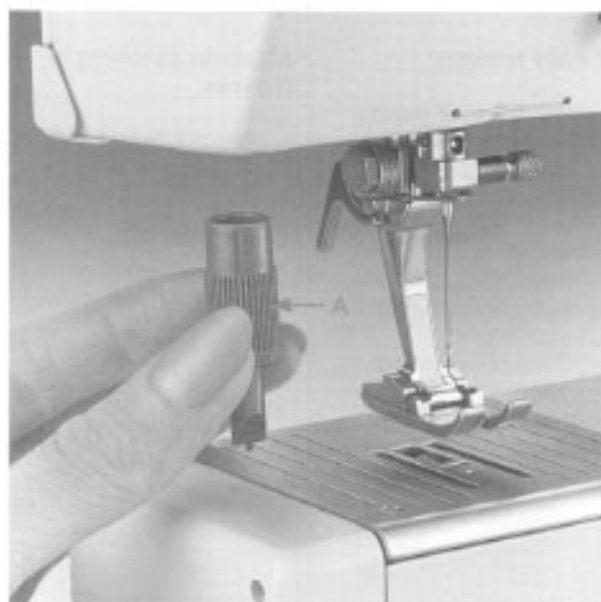
### Fitting the bulbs

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.

**Disconnect the machine from the mains by removing the mains plug from the socket!**

### WARNING:

Please refer to the safety instructions.



### Changing bulbs

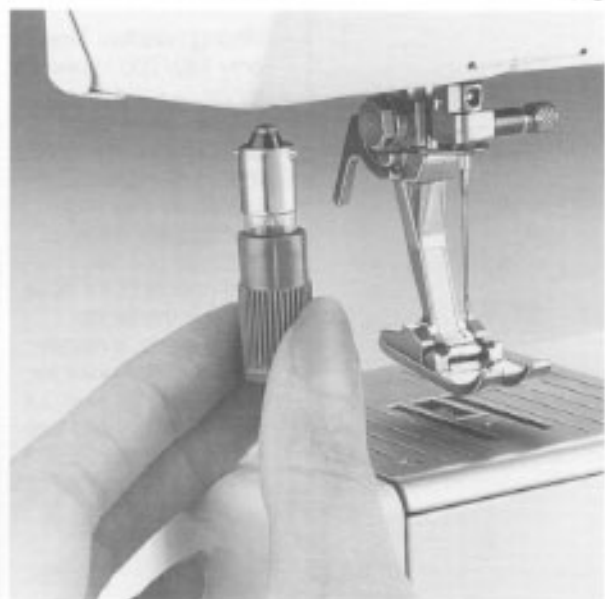
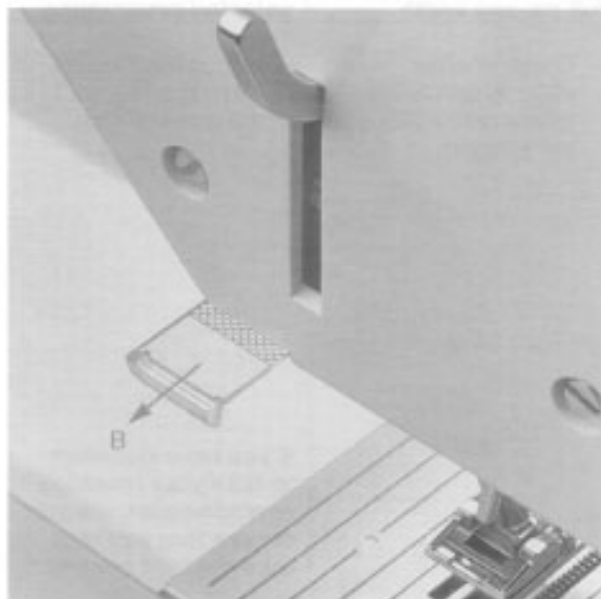
To change the front bulb: (fig. 1) Using special tool «A», press the bulb upwards, twist to the left and withdraw.

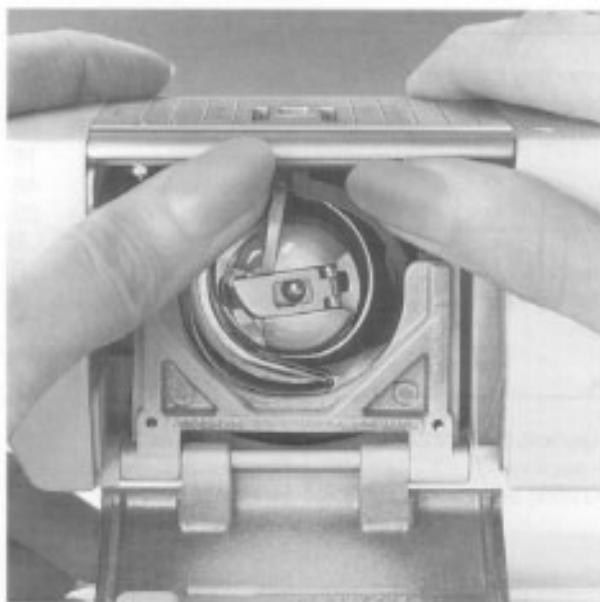
### To change the rear bulb (fig. 2)

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 holder with the bulb, press upwards and twist to the right, to the stop. For the rear bulb, refit diffuser «B».

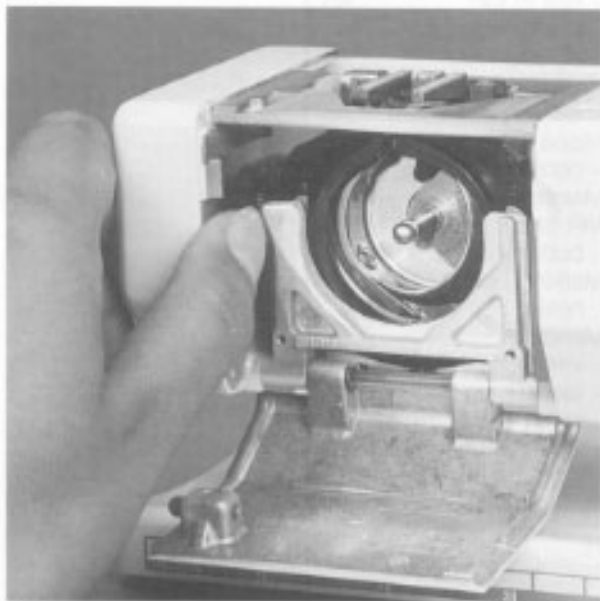




▲ 1



▲ 2



▲ 3




▼ 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.

## 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 sewing machine from the power supply by pulling out the plug from the socket.
- Remove the presser foot and the needle.
- Open the hinged front cover on the free arm.
- Lower the feed-dog. Set knob 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).

## WARNING:

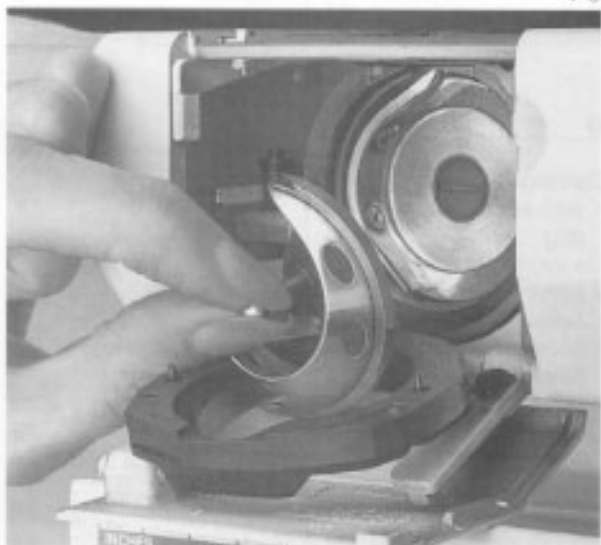
Please refer to the safety instructions.

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

## To clean and oil the hook

- **Disconnect the sewing machine from the power supply by pulling out the plug from the socket.**
- Take out the bobbin case, see page 11.
- 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 with 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



6

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It is not possible to cover more than the basics of sewing in an instruction manual. However, the creative potential of your Bernina sewing machine and Bernina or Bernette overlocker is enormous. To help you use your machines to the full, Bernina regularly publishes sewing literature which covers everything from simple techniques to advanced fashion projects. Your Bernina Dealer will be delighted to give you more information.

## **Sewing Service Leaflets**

Each issue of our Sewing Service Leaflets deals with a particular sewing technique presented in easy to follow steps. Success is guaranteed!

## **Bernina Creative Sewing**

The Bernina Creative Sewing magazine appears twice yearly. Fashion, «Couture Rapide», home decoration, sewing for teens and twens and craft projects are all regular features of the magazine. Special sewing techniques which are featured in the sewing projects are described in detail in words and pictures. Unusual and imaginative ideas are also included from enthusiastic sewers around the world. Read about new

sewing developments and trends in the comfort of your own home. The Creative Sewing magazine is a source of inspiration for all sewers. Ask your Bernina Dealer and learn how to get the most out of your machines.

## **Bernina Collection**

These booklets deal with one particular theme in all its variations. Basic information, pattern suggestions, detailed sewing instructions with coloured illustrations and many tips and tricks of the trade will turn you into a sewing pro in no time at all. They are issued two to three times a year, so be sure to ask your Bernina Dealer when the next one is expected.



## WARNING:

Before using your sewing machine, please read the safety instructions.

The right to make constructional changes differing from text and illustrations is reserved.

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Sollte diese Maschine in ein anderes Sprachgebiet verkauft werden, fordern Sie beim nationalen Importeur oder Bernina-Händler eine Bedienungsanleitung in der entsprechenden Sprache an.

If this machine has been purchased in a foreign country, please request an instruction manual in your own language from the national Importer or a Bernina dealer.

Si cette machine est vendue dans une autre région linguistique, demandez à l'importateur national ou à l'agent Bernina, un manuel d'instructions dans la langue correspondante.

In caso questa macchina fosse venduta in un territorio di lingua diversa si prega di richiedere il libretto d'istruzione nella lingua adeguata presso l'importatore nazionale oppure presso un rivenditore Bernina.

Si esta máquina se vende en otra región lingüística entonces pida Vd. de su importador nacional o del representante Bernina un manual de instrucciones en el idioma correspondiente.

Indien deze machine in een ander taalgebied werd gekocht, kunt u bij de nationale importeur of Bernina vakhandelaar een handleiding in de overeenkomstige taal aanvragen.

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Se esta máquina foi comprada num país estrangeiro, dever-se-à pedir o manual de instruções naquela ao importador nacional ou ao forneoedor da Bernina.

WARNING!  
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Bernina needles and  
presser feet.

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