



Embroidery

SPEED

STOP
RUN
STOP

Embroidery Card

OPERATING MANUAL

1+ HUSQVARNA 1250

IMPORTANT SAFETY INSTRUCTIONS

When using an electrical appliance, basic safety precautions should always be followed, including the following:
Read all instructions before using this household sewing machine.

DANGER

- To reduce the risk of electric shock:
- Do not leave sewing machine when plugged in. Turn off the switch and unplug from electric outlet the electric cord when not in use or before servicing.

WARNING

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

- Do not use outdoors or on wet surfaces.
- Do not allow to be used as a toy. Close attention is necessary when used by or near children.
- Use only as described in this manual. Use only manufacturer's recommended attachments.
- Do not use with damaged cord or plug. If sewing machine is not working as it should, has been dropped or damaged, left outdoors, or dropped in water, return it to the nearest authorized dealer or service center before using.
- Never operate the sewing machine with any air openings blocked. Keep ventilation openings of sewing machine and foot controller free from the accumulation of lint, dust, and loose cloth.
- Never drop or insert any objects into any opening.
- To disconnect, turn the switch off, then remove plug from outlet.
- Do not unplug by pulling on cord. To unplug, grasp the plug, not the cord.
- Do not operate where aerosol (spray) products are being used or where oxygen is being administered.
- Keep fingers away from all moving parts. Special care is required around the sewing machine needle.
- Always use the proper needle plate. The wrong plate can cause the needle to break.
- Do not use bent needles.
- Do not pull or push the fabric while stitching. It may deflect the needle causing to break.
- 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.
- Always unplug the sewing machine from electrical outlet when removing covers, or when making other user servicing adjustments mentioned in the instruction manual. No lubrication by customer is recommended.
- Hold plug when rewinding into cord reel. Do not allow plug to whip when rewinding.
- Keep your work area well lighted.
- Always unplug before relamping. Replace bulb with Same Type Rated 5 Watts.

SAVE THESE INSTRUCTIONS
HOUSEHOLD SEWING MACHINE

For you and your new sewing machine

With your new sewing machine you are provided with this book of instructions as well as a book full of ideas and tips about sewing to make your sewing easier and more creative.

The instructions show how your machine operates and how to use the machine to its full capacity. We recommend that you read these instructions before you begin to sew.

For you who also has the Embroidery Unit together with your sewing machine, the instructions show how to operate and how to sew embroideries.

The Sewing Book provides you with information about the actual job of sewing, fabrics, materials, etc.

We are convinced you will be rewarded with many satisfying and inspiring hours of sewing with your new sewing machine.

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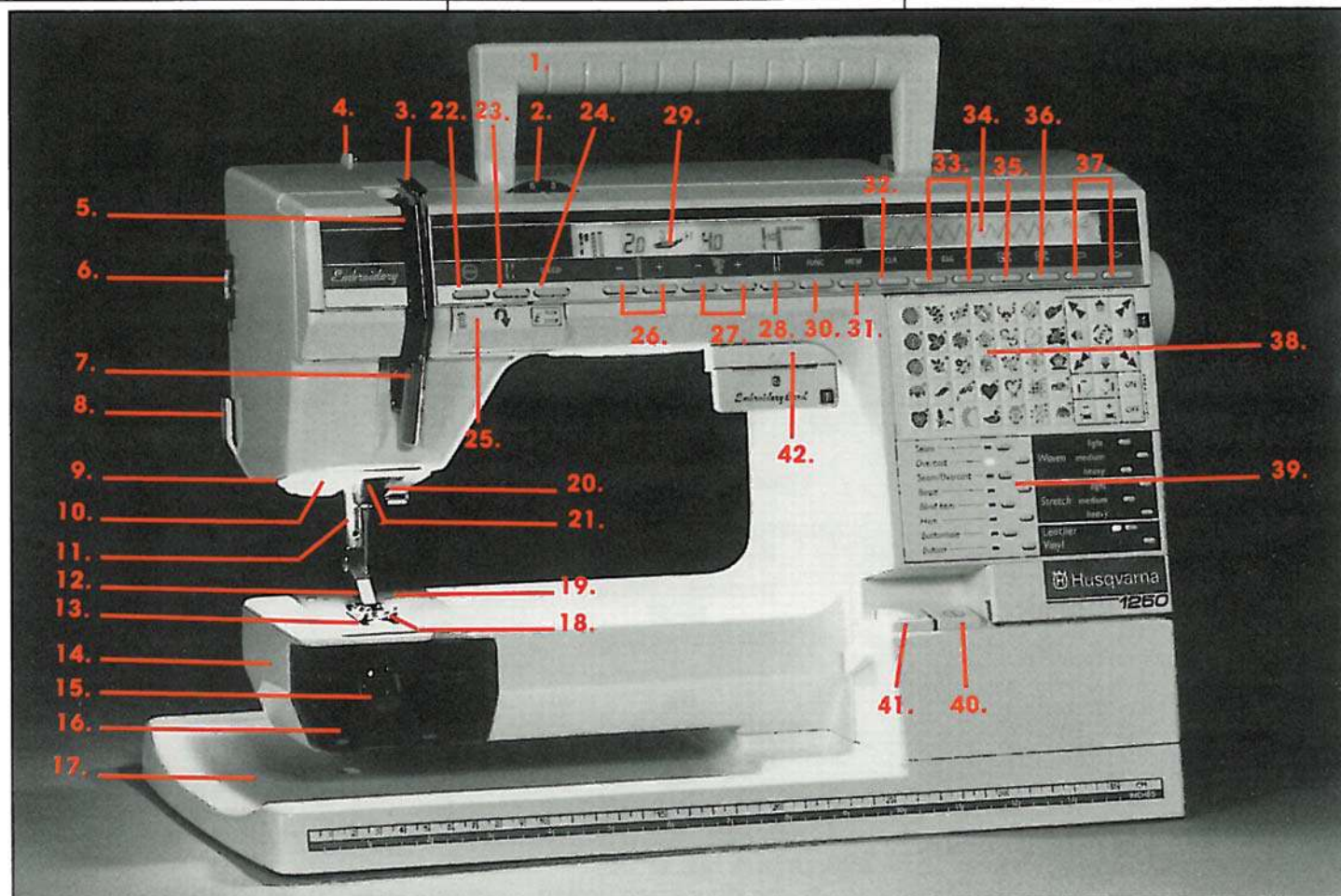
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Summary

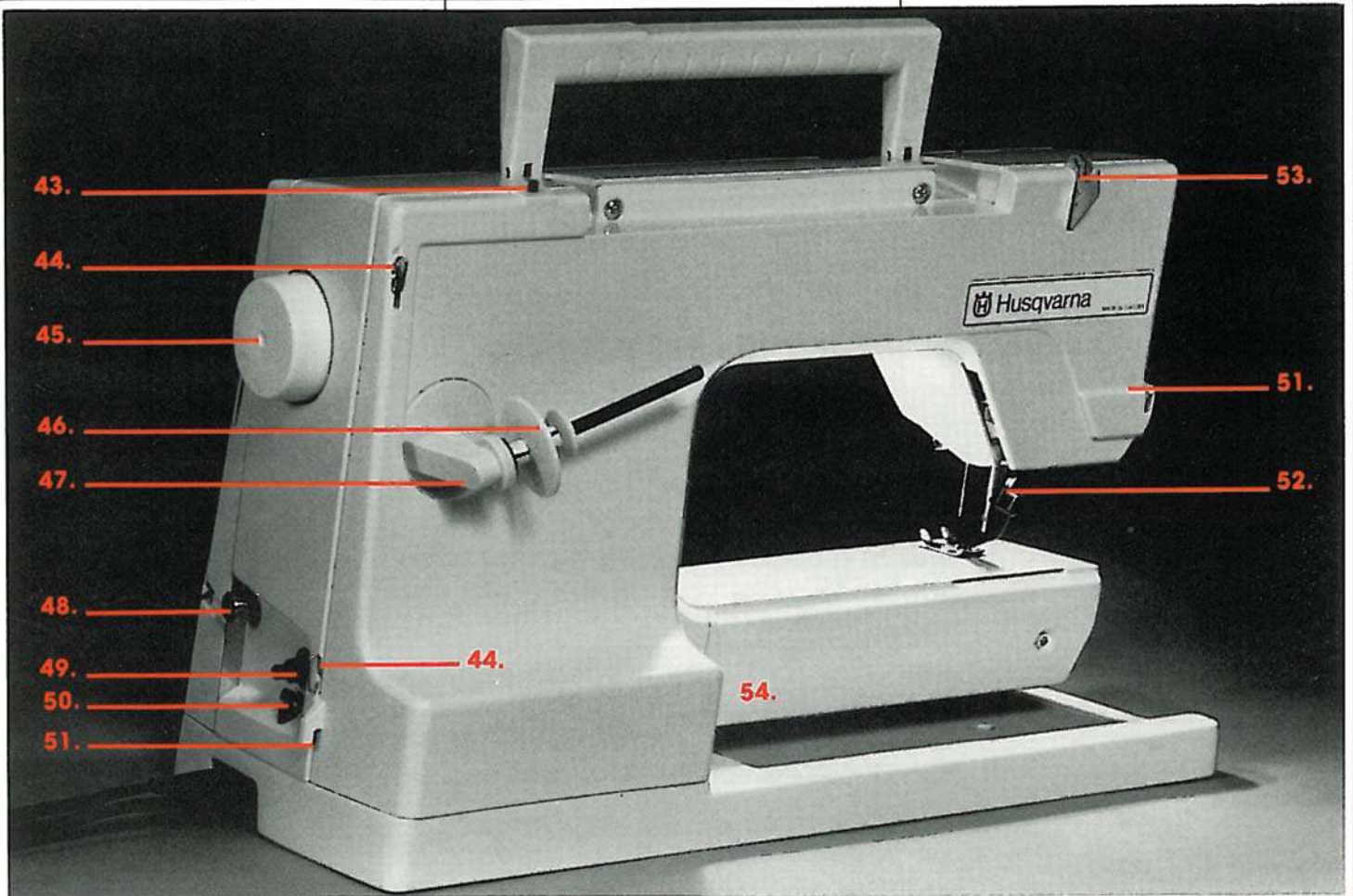


1. Handle
2. Thread tension dial
3. Thread tension discs
4. Thread guide
5. Thread take-up lever
6. Presser foot pressure dial
7. Thread guide
8. Thread cutter
9. Buttonhole sensor socket
10. Light
11. Presser bar
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14. Free arm
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Summary



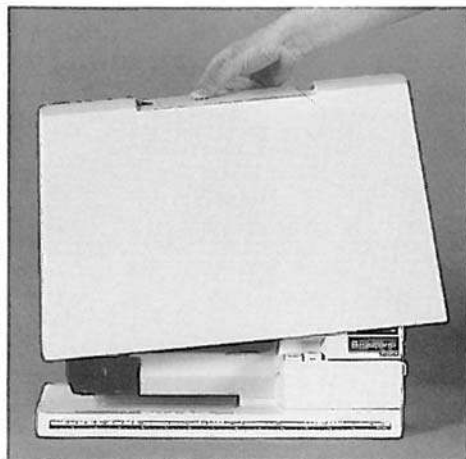
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Unpacking/Connecting

Unpacking

1. Remove the packaging.
2. Place the machine on the table or cabinet, fold down the handle and lift off the cover.
3. Remove the foot control. The cord is equipped with a cord reel.
4. Wipe the machine, particularly around the needle and stitch plate.

Your machine is provided with a number of presser feet and accessories. These are packed in plastic bags in the package which also contains the main cord for the machine.



Connecting the foot control

1. Pull out the cord from the foot control.
2. Plug it into the front socket at the bottom right side of the machine.

N.B. Before plugging in, check to ensure that the foot controls is of "type FR1".

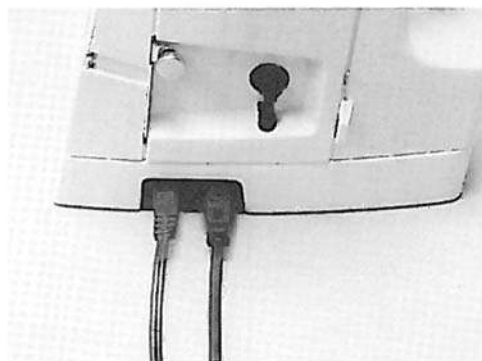
Connecting to the power supply

Connect the main cord to the back socket on the bottom right side of the machine.

On the underside of the machine you will find information about the power supply (V) and the frequency (Hz). Check the power supply setting in the machine to ensure that this agrees with the main supply before you connect the machine.

For the USA and Canada

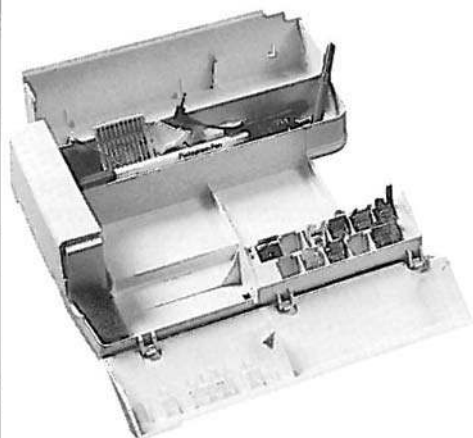
This Sewing Machine has a polarized plug (one blade wider than the other). To reduce the risk of electric shock, this plug is intended to fit in a polarized outlet only one way. If the plug does not fit fully in the outlet, reverse the plug. If it still does not fit, contact a qualified electrician to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




Connecting/Packing away

Accessory Tray

In the Accessory Tray, which slides onto the free arm to provide a larger sewing surface, there are special pockets for presser feet and bobbins plus space for other accessories. Store the accessories in the tray from the beginning so they are always easily accessible (refer to the figure).



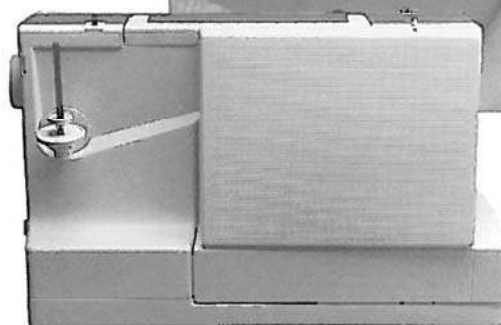
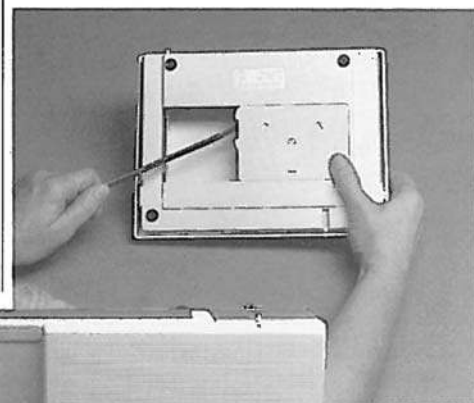
Power switch

When you press the power switch, both the machine and the light are switched on. If the presser foot is in lower position, the symbol  is shown on the Programdisplay™. When raising the presser foot, the machine carries out a self test. If the needle is in its down position, it will automatically go to its up position. The machine is then ready for sewing. It always selects a straight stitch, each time the machine is turned on.



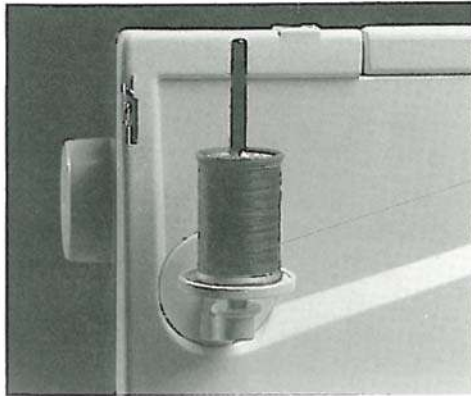
Packing away after sewing

1. After having finished your sewing press the main switch to turn off the machine.
2. Unplug the foot control cord from the machine. Pull the cord for the foot control gently and release – the cord will be wound into the foot control.
3. Unplug the cords from the wall socket and the machine.
4. Wind the main cord around your hand and place the cord in the foot control storage space.
5. Check to ensure that all accessories are in the accessory tray. Slide it onto the machine.
6. Lower the presser foot.
7. Hang the foot control, underside toward you, on the guide at the back of the machine. Fold down the handle and replace the cover.



Threading upper thread

Spool pin

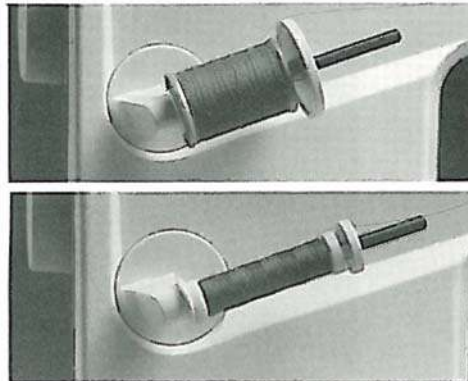


The machine has a spool pin suitable for all types of thread. The spool pin is adjustable and can be used in a vertical or horizontal position. In the vertical position the thread spool rotates. In the horizontal position the thread reels off the stationary spool. Use the method that suits your thread type best. There are two spool holders on the spool pin.

For the vertical spool pin, the large spool holder is placed under the thread.

When you use small spools of thread, slide the large spool holder half way up on the spool pin so that the top of the thread spool and spool pin are even.

When you use the horizontal spool pin, slide the spool holder against the thread to hold it in place, see the illustration.

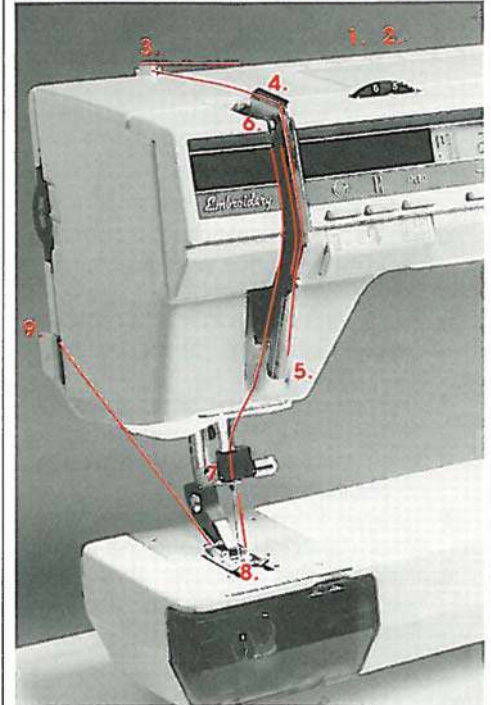


With narrow thread spools, the small holder is placed in front of the thread reel. If you use large thread spools, the large holder is placed in front of the thread.

Threading the upper thread

Make sure the presser foot is raised and the needle is in the up position.

1. Place the thread on the adjustable spool pin at the back of the machine.
2. Place the spool holder on the spool pin as described above.
3. Place the thread in the thread guide and pull the thread upwards.
4. Bring the thread forward and place it between the thread tension discs.
5. Lay thread into thread guide.
6. Continue threading by drawing the thread from the right into the slot on the take-up lever.
7. Thread last guide.



8. The needle is threaded from front to back. The white on the presser foot ankle makes it easy to see the eye of the needle.
9. Place thread under the presser foot and into the thread knife where it is cut and held in position.

Upper thread signal

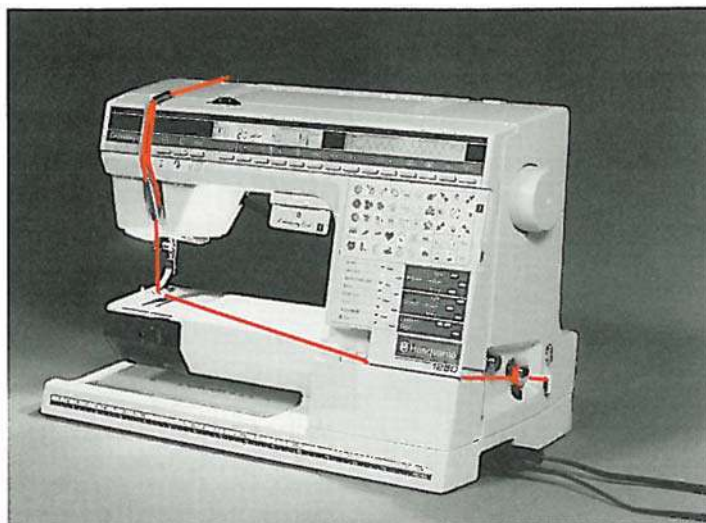
In case the upper thread runs out or breaks when sewing, the machine stops automatically and provides a "beep". The symbol [] will flash on the Programdisplay™. Re-thread the machine and start to sew. The symbol will disappear. If the stop was caused by thread coming to an end, remove the bobbin case and your work before re-threading the machine.

Bobbin winding

Needle threader

Use your needle threader in the following manner:

1. Lower the presser foot.
2. Place the needle threader straight onto the needle clamp screw from the right.
3. The needle threader has a movable adjustment (a). Adjust it to your machine.
4. The tiny hook (b) should easily move through the needle eye. The needle threader is now set to your machine.
5. Thread from the left under the hook (b) and pull up to the right.
6. Thread the needle threader through the eye of the needle. Grasp thread and pull it through.



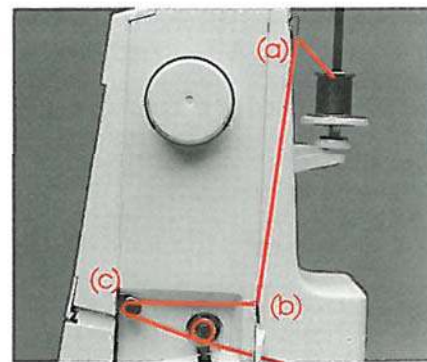
Bobbin winding

1. Place your empty bobbin with the small mark outwards on the bobbin spindle on the right side of the machine.
2. Pull the thread from the needle under a metal presser foot and to the right into the thread guide under the name plate. Start from underneath and wind a few turns of thread around the bobbin.
3. Pull the thread tail into the thread cutter behind the bobbin spindle so it is cut off and held in position.
4. Press the foot control. The machine will stop automatically when the bobbin is full.

We do not recommend winding specialty threads such as clear nylon or other stretchy threads through the needle. Instead see "Bobbin winding – vertical spool pin" below.

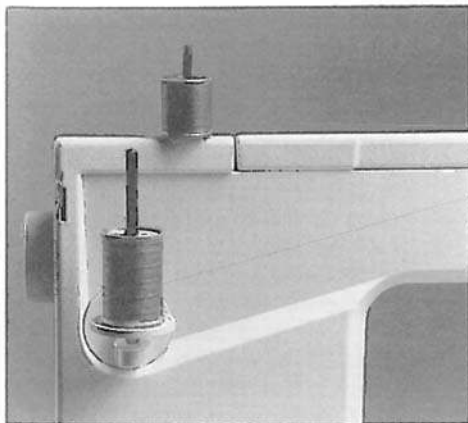
Bobbin winding – vertical spool pin

1. Place the thread spool on the auxiliary thread spool holder or on the adjustable spool pin in upright position; place an empty bobbin with the mark outwards on the bobbin spindle.
2. Place the thread in the thread guide (a) and (b), forward and around the tension disc (c). Wind the thread from below a few turns around the the bobbin and into the thread cutter.
3. Press the foot control. The machine will stop automatically when the bobbin is full.

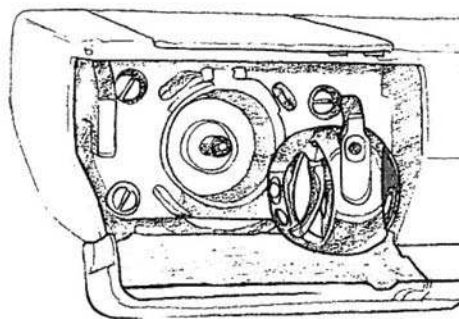
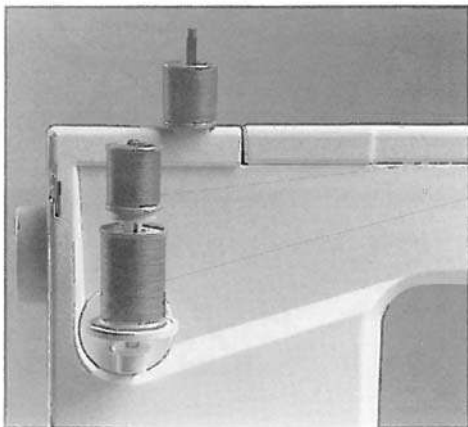


Threading lower thread

Threading for twin needles



Threading for triple needles

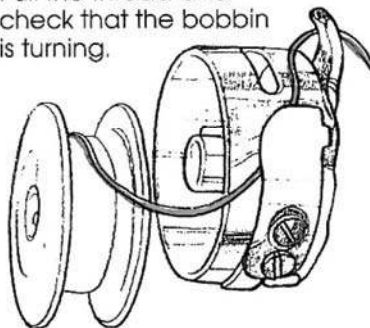


Remove the bobbin case

1. Open the cover.
2. Grasp the bobbin case with your thumb and index finger so the spring is pressed in.
3. Remove the bobbin case. The bobbin will remain in the case as long as the spring is pressed.

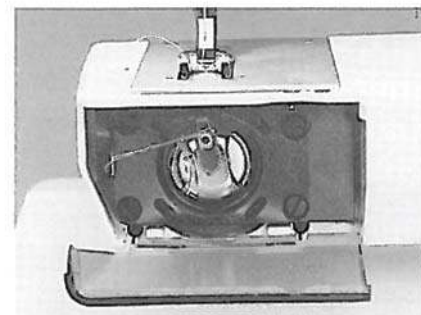
Threading the bobbin

1. Place the bobbin in the bobbin case with the mark facing outward.
2. Draw the thread into the slot on the bobbin case and under the tension spring. **Do not thread through the hole of the finger when threading for normal sewing.**
3. Pull the thread and check that the bobbin is turning.



Replace the bobbin case

1. From behind, place the thread behind the "finger" on the bobbin case. Replace the bobbin case so the finger points upwards.
2. Press the bobbin case so it clicks into proper position.
3. Pull the thread to the left below and up into the thread cutter. The thread is cut off and kept in position. Close the cover.



The bobbin thread will come up automatically when you start to sew.

When the bobbin thread is about to end, the machine indicates this by giving a warning "beep" signal and a bobbin flashes on the Info-display™.

Continue sewing if you have only a short seam left.

Thread tension

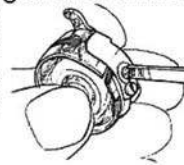
Thread tension

The thread tension is adjusted automatically when you select the type of stitch or material on the Sewing Advisor™ or on a cassette. This is indicated by the thread tension dial being reset. You can also adjust the thread tension by turning the dial which is numbered. Normal thread tension is between 5–6.



Tension of the lower thread

For most sewing it is sufficient to adjust only the upper thread tension. Rarely do you need to adjust the lower thread tension. If it is necessary to adjust the tension of the lower thread, take the small screwdriver, fit it in the larger screw on the thread tension spring and turn it not more than 1/10th of a turn to the left if the thread is too tight, to the right if it is too loose.

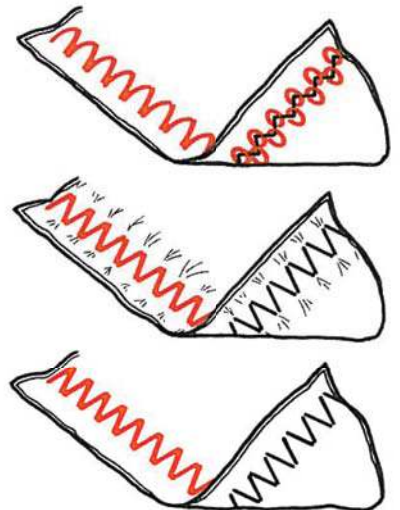


Correct and incorrect thread tension

To understand the correct thread tension, sew a few sample stitches at different settings.

1. Begin with a tension that is too loose, i.e. the dial set at "1". The lower thread will lie straight and the upper thread will be drawn down on the underside.
2. If you set the dial at the highest number, the opposite will occur, and the seam may pucker.
3. The correct thread tension is provided when the threads interlock in the middle of both layers of material or, in the case of decorative stitches, on the underside.

Make a few tests on a spare piece of the material you are going to use and check the tension.



Function

Presser foot lift

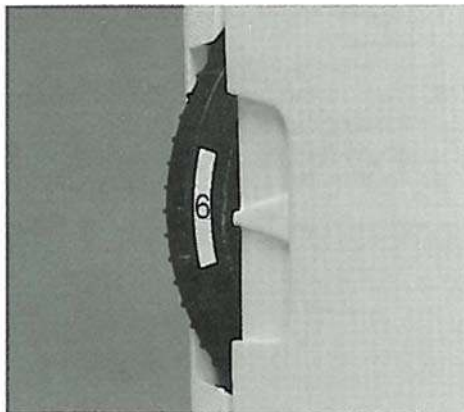
The presser foot is raised and lowered with the presser foot lift. The presser foot must be lowered when sewing.

The machine will not start if the presser foot is in the raised position. A warning "beep" signal is given and the presser foot symbol flashes on the Infodisplay™.

By raising the presser foot lift as far as it goes and holding it there, the lift height can be increased by several millimeters. This is useful when sewing heavy materials.




Presser foot pressure




A recommendation is given on the Infodisplay™ for each stitch or material you select.

The presser foot pressure is adjusted with the dial on the left side of the machine. The higher the number the more pressure on the fabric, i.e. high pressure on soft fabric results in a wavy and extended seam.

When setting the symbol  the presser foot pressure is totally released. This setting is used with the darning foot (accessory).

Lowering the feed teeth

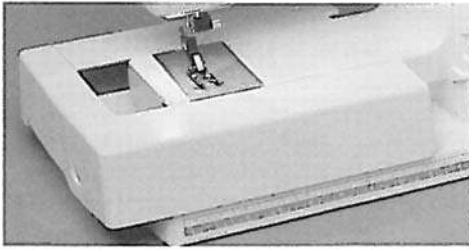
The feed teeth are lowered when you press the button . Press the button again if you wish to raise the feed teeth. The feed teeth will not come up until you begin to sew.

The feed teeth must be lowered when sewing buttons and for free-hand work.

Recommendations are given on the Infodisplay™ to suggest when to lower the feed teeth. You can also lower the feed teeth to facilitate placing thick materials under the presser foot. Do not forget to raise the feed teeth before beginning to sew.



Sewing surface/Needle/Presser foot



Extended sewing surface

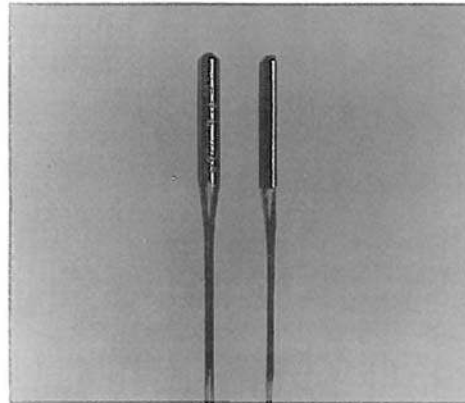
Slide the Accessory Tray onto the machine to provide a larger work surface. Extension table for even larger working surface is available as an accessory.

Slide the Accessory Tray to the left when you wish to remove it and use the free arm. To facilitate sewing trouser legs and sleeve hems use the free arm. The free arm also allows you to darn socks.



Changing the needle

1. Loosen the screw in the needle clamp.
2. Remove the needle.
3. Push up the new needle with the flat side away from you until it will go no further.
4. Tighten the screw properly.



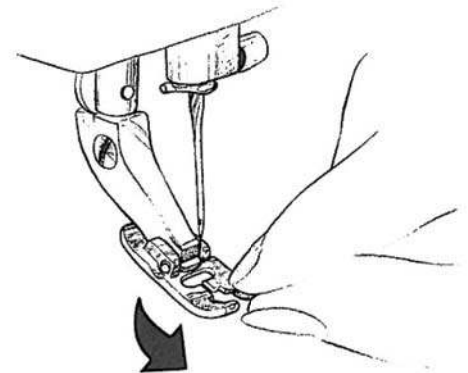
Needles

The needle case contains needles of the most used sizes for sewing non-elastic materials and elastic materials. Stretch needles, marked yellow, have a rounded point. The case also contains jeans needles, marked blue, which have an extremely sharp point.

Always use needles of system 130/705 H.

Changing the presser foot

1. Make sure that the needle is in the highest position.
2. Draw the presser foot down and towards you.
3. Line up the cross pin on the foot between the spring and the presser foot ankle.
4. Press down and back until the foot snaps into place.



Sewing Advisor™

Seam ————— ☐ ☐

Overcast ————— ☐ ☐

Seam/Overcast — ☐ ☐

Baste ————— ☐ ☐

Blind hem ————— ☐ ☐

Hem ————— ☐ ☐

Buttonhole ————— ☐ ☐

Button ————— ☐ ☐

light ☐ ☐

Woven medium ☐ ☐

heavy ☐ ☐

light ☐ ☐

Stretch medium ☐ ☐

heavy ☐ ☐

Leather ☐ ☐

Vinyl ☐ ☐

Sewing Advisor™

The Sewing Advisor™ selects from 8 different fabrics and 8 different sewing techniques. The setting is indicated by red lights.

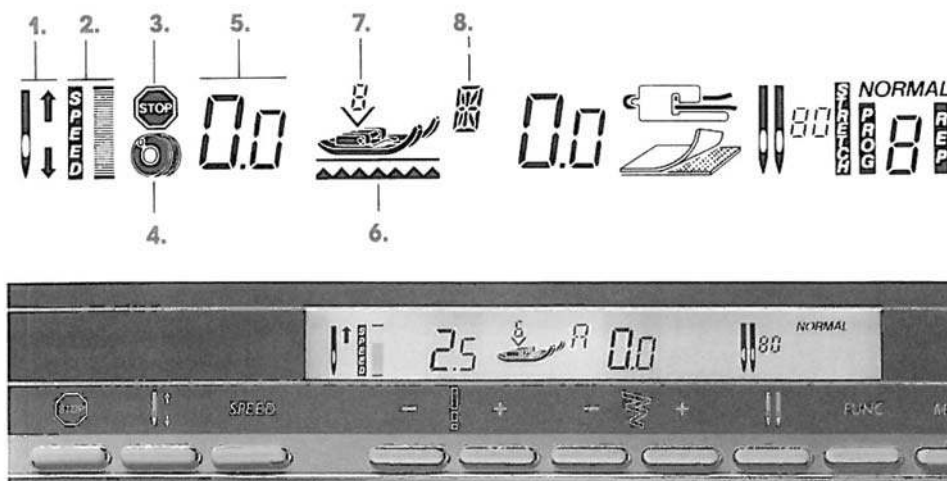
The Sewing Advisor™ is active whether you make your selection from the Sewing Advisor™ or from a cassette (see page 20). The Sewing Advisor™ is not active when Embroidery Unit is connected.

You can select the material first and then the sewing technique or vice versa. The machine selects the best stitch which is shown in the Programdisplay™ (see pages 18–19). Follow the advice shown in the Infodisplay™.


Important: Always set the material you wish to sew before you select a pattern from a cassette.

When you select the **PROG** function, you can only use buttonhole or button on the Sewing Advisor™.

Some sewing techniques are not suitable for all materials, e.g. blind hem in lightweight material. The machine indicates this via a "beep" and a flashing light when you make the selection. However, it still provides you with the best stitch selection.

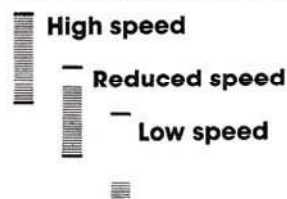


1. Needle stop display

This button  sets whether the needle stops up or down in the material when you lift your foot from the foot control and stop sewing. Point the arrow upwards – the needle will stop in the up position when you lift your foot from the foot control. When you touch the button so that the arrow points downward, the machine will stop with the needle in the material. You can also regulate the needle stop position with the foot control. To raise or lower the needle after stopping, lightly tap the foot control.

2. Sewing speed display

Use the **SPEED** button to set the three different maximum speeds. The ma-




chine will sew at different maximum speeds when the foot control is fully

depressed. For slower speeds within the range simply depress the foot control less. All stitches in the machine have a pre-set maximum speed at which they can be sewn. When you select a stitch the machine automatically sets the correct maximum speed.

3. STOP display

The **STOP** button is used to conclude a pattern, i.e. the machine fastens the thread and stops automatically when the sewing of the pattern picture has been completed. **STOP** is cancelled when you press the button again or by selecting a new stitch.

4. Display to show empty bobbin



When the bobbin thread has almost come to an end, the machine will provide a "beep" warning and the  symbol will flash on the display.

5. Display to show the pre-set stitch length

When you select a stitch, the machine will automatically set the best stitch length which will be indicated

by numbers on the display. You can change the stitch length by pressing either the (+) or (-) button. Certain stitches have a limited stitch length. The machine indicates this with a "beep" if you attempt to exceed the limits.

6. Recommended feed teeth lowering

The feed teeth must be lowered when the  symbol is displayed and flashes. This is done by pressing down the feed teeth lowering button  next to the power switch.

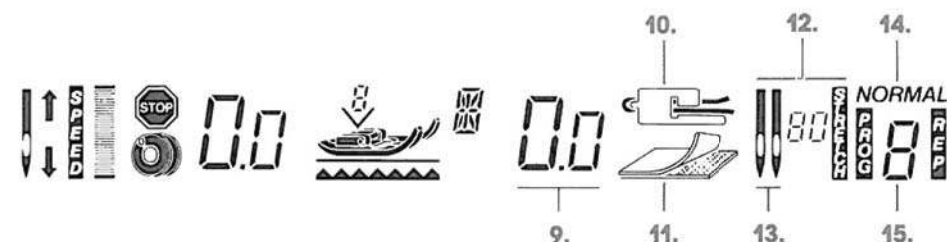
7. Recommended presser foot pressure

The figure above the presser foot indicates whether the pressure is suitable. The presser foot pressure is adjusted with the dial on the left hand side of the machine.

8. Recommended presser foot

The letter shows which presser foot is correct for the stitch or the pattern you have selected. The corresponding letter is on the presser foot.

Infodisplay™



9. Display to show the pre-set stitch width

When you select a stitch, the machine automatically sets the best stitch width which is displayed with numbers on the display. You can change the stitch width by pressing the (+) or (-) button. The width can be adjusted between 0 and 6 mm. The stitch width can also be adjusted for changing the needle position in steps when sewing a straight stitch. 0 is the center position. Width 6 is left needle and width 6 mirror imaged is right needle position. Widths 1-5 give you precise needle positions in between.

10. Recommended cording thread

When you select buttonholes for stretch materials, the symbol for corded buttonhole starts to flash. Place the cord around the C presser foot's "finger" as shown in the illustration.

11. Stabilizer advice

The symbol flashes when you select certain stitches and when

sewing lightweight stretch fabrics. Place tear away stabilizer or paper under your fabric before sewing.

12. Needle advice

The machine recommends the proper type and size of needle, e.g. a stretch needle.

13. Twin needle

Touch the twin needle safety button || If you are going to sew with a twin needle. This limits the stitch width to 3 mm and the twin needle symbol || is displayed. If you increase the stitch width, the machine will beep to indicate that this is not permitted. Touch the button for the twin needle again when you wish to cancel the limitation and sew with a single needle.

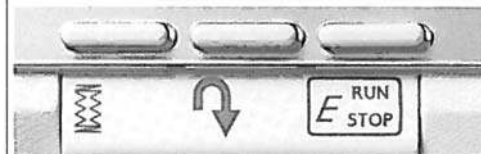
14. FUNC – Function

When you turn on the machine, the function displays **NORMAL**. Touch the **FUNC** button to **PROG** for programming. If you touch the button again, **REP**=repeat will be displayed.

15. MEM – Memory

The number displayed indicates which memory program has been selected. The machine has 9 different memories. Use the **MEM** button to advance to the desired memory.

Reverse



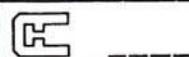
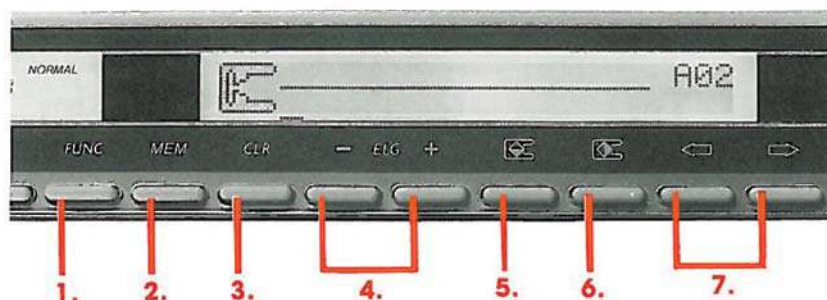
Your machine sews backwards when this button ↶ is pressed. The machine sews forward when the button is released.

For permanent reverse, press the button twice in quick succession before starting to sew.

To sew forward again, press the button once more. An arrow ↶ to the top right on the Programdisplay™ indicates reverse sewing.

The reverse button is also used when sewing buttonholes (see page 36) and when starting and stopping the Embroidery unit, (see page 30-35).

Programdisplay™/Selection Panel



The Programdisplay™ shows the stitch or pattern which has been selected. To the left you can see a presser foot indicating the direction of the seam. To the right of the presser foot you can see a cursor ---, which marks a pattern picture. At the top right hand corner is a number indicating the cassette and number of the stitch. When you change the stitch length or stitch width, mirror, program etc., the display will indicate your changes and display the stitch with your changes.

Selection Panel

1. FUNC – Function

This button is used to select the required function. The machine is always set to the **NORMAL** function when it is turned on. This is shown on the Infodisplay™. Touch the button and **PROG**= programming is displayed. Press the button once more and **REP**= repeat is displayed.

NORMAL is used for standard stitches which have been selected either from the Sewing Advisor™ or from a cassette.

PROG is used to program pattern such as Pictograms™, letters, buttonholes, etc. into the machine's memory.

REP is used to sew the program.

2. MEM – Memory

The machine has 9 different program memories. Each memory can contain 63 stitches or letters. The button is used to advance to the memory required. The number is shown on the Infodisplay™.

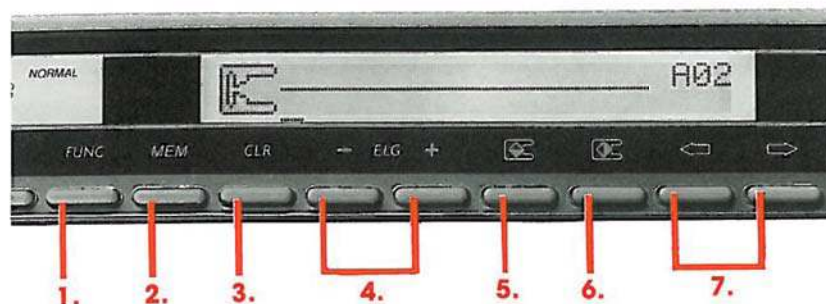
3. CLR – Deleting programs

This button is only used while in **PROG**. When you touch the **CLR** button, the pattern above the cursor is deleted from the memory as is everything to the right of it.

You can hold this part of the program while correcting the single stitch or inserting additional stitches. Simply touch **CLR** to bring back the balance of your program as long as you have not turned off the machine while programming.

When the program memory is empty only the cursor is shown on the Programdisplay™ and the stitch length and width being shown as 0/0 on the Infodisplay™.

Programdisplay™/Selection Panel



4. ELG (Elongation) – Pattern elongation

Pattern elongation means that you can elongate the stitch without affecting the stitch length (density). The pattern can also be made shorter.

Pattern elongation can also be applied to Pictograms™ which are on D cassette, and to stitch A17.

At the bottom right hand corner of the Programdisplay™ there will be a number if you have selected any of these patterns. The number shows the basic length of the pattern.

Touch **ELG (+)** to elongate a pattern – the number will increase in steps.

Touch **ELG (-)** to shorten a pattern – the number will decrease in steps.

The machine will “beep” at the longest or shortest possible settings. The normal setting is 3.

Pattern elongation can be carried out in all three functions – **NORMAL – PROG – REP**. The entire pattern is affected in **NORMAL** and **REP** whereas only the pattern picture that is above the cursor is affected when in **PROG**.

Mirror image

You can Mirror Image stitches in width and/or length.

The ◀ (width) or ▶ (length) symbols will be displayed at the bottom right hand corner of the Programdisplay™. When using the L cassette only ◀ (width) will be displayed.

The L cassette, see pages 24–25.

5. Side to side Mirror Images

This Mirror Images width.

In **NORMAL**, the entire pattern is mirrored whereas in **PROG** only the stitch pictured above the cursor is mirrored. The entire program is mirrored in **REP**.

You can also mirror the width when you wish to change the needle's position, e.g. from left to right.

6. End to end Mirror Images

End to end Mirror Image mirrors the stitch lengthwise.

In **NORMAL**, the entire pattern is mirrored whereas in **PROG** only the stitch pictured above the cursor is mirrored. The entire program is mirrored in **REP**.

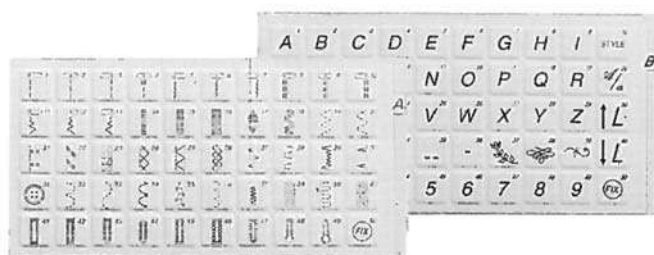
7. Moving the cursor

Use the ⇨ button to move the cursor to the right and the ⇩ button to move the cursor to the left.

The cursor cannot be moved while in **NORMAL** but is used in **PROG** when programming and in **REP** if you wish to start sewing a few stitches into the program. Move the cursor to the stitch on the Programdisplay™ you want to start sewing.

Interchangeable cassettes

Four interchangeable cassettes are supplied with the machine.



A Cassette

Utility stitches and buttonholes

B Cassette

Four letter styles – block letters, outline block letters and script letters 6 mm high, script letters in both upper and lower case up to 20 mm high.

Numbers with every style.
See page 28.

Stitch selection

Insert the cassette.
Touch the desired stitch directly on the cassette. The stitch will be displayed on the Programdisplay™.

D Cassette

Decorative stitches and Pictograms™. See the Sewing Book.

FIX

At the bottom right of each cassette you will see the **FIX** button. This can be used in **PROG** to tie off a single stitch in a programmed stitch design. Refer also to the Sewing Book.

In **NORMAL**, **FIX** allows you to tie off a stitch and stop.

L Cassette

Four way mending stitches, Omnimotion™/eight direction straight stitches, edge stitches and Omni-grams™.

See page 24–25.

Contrast


Behind the cassette to the right is a dial to adjust the light and contrast of the Programdisplay™.

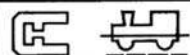
Changing the cassettes

Press the cassette from right to left and lift toward you to remove. Insert the next cassette to the left and press back until it snaps into place.

Programming

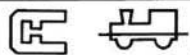
Programming


Touch **FUNC** so that **PROG** is shown on the Infodisplay™.
Touch **MEM** and advance to the desired memory, e.g. 1 .

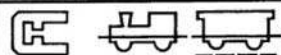


D 11

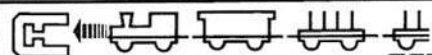
The cursor  will light up on the Programdisplay™ next to the presser foot. Select a stitch e.g. . The stitch is displayed above the cursor.






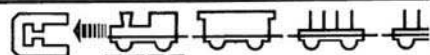
Touch  to move the cursor one step to the right. The stitch is now entered in the memory.




D 13



Select another stitch, e.g. . Move the cursor with . Select the next stitch  three times, for example, in succession. Do not forget to move the cursor between each stitch selection to enter the stitch. In this way you can combine different patterns according to your own taste and imagination.

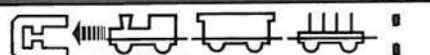



You can program up to 63 stitches/letters in each memory.

Touch **FUNC** so that **REP** is shown on the Infodisplay™ .


The cursor will be positioned under the first programmed stitch and advances as you sew.

The programmed pattern will be repeated until you stop sewing.



After having completed your programming touch **STOP**. The symbol  is displayed to show where the pattern ends. You can continue your programming even after having pressed **STOP**. Then, when sewing, the machine stops automatically and fastens the thread in every position where you have programmed **STOP**.

If you program further stitches/letters after **STOP**, just press the foot control again and the machine will sew the rest of what you have programmed.



You can touch **STOP** also in **REP**. The symbol  is displayed after the pattern combination.

When the programmed pattern has been sewn, the machine will stop automatically and tie off the thread. Letters from the letter cassette are programmed in the same way.


Programming stitches from different cassettes

Touch **FUNC** to **PROG**.

Select a pattern from cassette D for example.

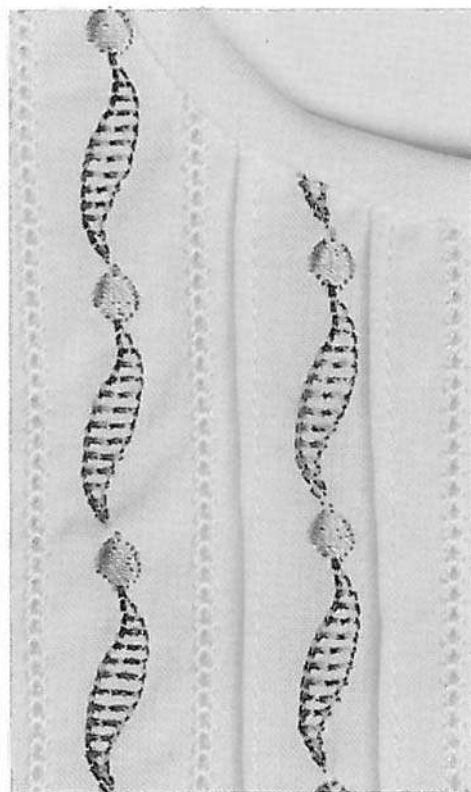
Touch  so that the cursor  is moved to the right to enter.

Change cassette.

Select the pattern, touch  to move the cursor to enter.

Change the cassette again and continue until you have the pattern combination you desire.

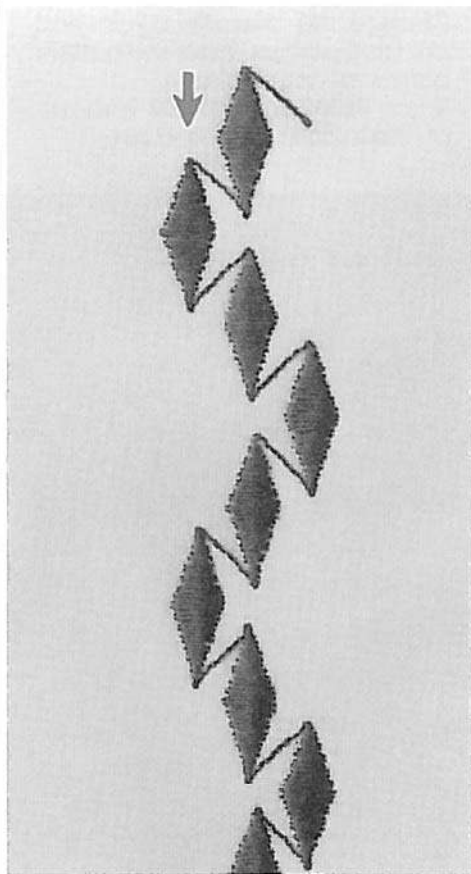
Touch **FUNC** so that **REP** is shown on the Infodisplay™ and sew.



Programming

Program with Omni-motion™

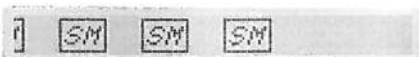
Create new decorative Omni-grams™ any width combining the eight direction feed stitches (see page 24) with built-in decorative stitches or Pictogram™ Satin Elements.



Touch **FUNC** to **PROG**. Select an empty memory.
D32 ⇨, D32 ⇩ ⇨



L23 ⇨ (5 times)



Repeat this once.

D32 ⇨, D32 ⇩ ⇨



L21 ⇨ (5 times)



Repeat this once.

Each time you enter L23, **SM** appears on the Programdisplay™ to indicate you have programmed 2 directional straight stitches. To create the above program, **SM** should appear 5 times between each stitch pattern indicating you have programmed 10 directional stitches (total length 8 mm).

Following this example you can create new Omni-grams™ as wide as you desire using any of your built-in stitches or Pictogram™ shapes as a base.

If you have forgotten...

Proceed as follows if you notice that you have forgotten to insert a stitch or a letter in the pattern combination:

Select **PROG** with the **FUNC** button. Place the pattern cursor under the stitch/letter where you wish to insert.

Touch **CLR**, enter the new stitch/letter.

Move the cursor one step to the right to enter the new stitch/letter.

Touch **CLR** again. The pattern(s) inserted earlier will then appear on the Programdisplay™ once more.

CAUTION: In **PROG** you can sew the following directly – buttonholes, buttons, and pattern no. 17, 31 and 38–40 on cassette A. Other patterns and combinations are sewn in **REP**.

Programming

Look through the programs

If you have programmed several of the memories, you can press **FUNC** for **PROG** or **REP** and you can use the **MEM** button to look through the programs until you find the pattern you wish to sew.

When you have advanced through one of the memories and then go over to another function, or switch off the machine, the memory that you used last will appear on the display again when you switch on the machine and select **PROG** or **REP**.

Maintain the memory

Your machine will hold what you have programmed into memory even when it is switched off.

To maintain the memory, turn your machine on now and then if you are not sewing often.

Should your machine's **FUNC** Function flash "**PROG**" and "**REP**" alternately and beep, you will then program new stitches into the memories.

Programming with pattern changes

The stitch on the cassettes have pre-set stitch length and width. These can be changed when you program. As to L cassette, see pages 24–25.

Touch **FUNC** so that **PROG** is shown on the Infodisplay™. Select a stitch.

Use the stitch length or stitch width buttons to change the settings. Some of the stitches can be elongated or made shorter by using the **ELG**-buttons. See page 19. You can also mirror the stitches – side to side or end to end. See page 19. You can see on the Programdisplay™ how the stitch is changed. A "beep" is heard if you change to something that the machine cannot accept.

When you have made the changes you desire, touch the ⇨ button. The cursor is moved to the right and the changed stitch is entered into the memory.

Then make the changes you desire to the rest of the stitches you program in the same way.

CAUTION: Make all the necessary changes in the stitches before you touch the ⇨ button otherwise they will not be entered into the memory.

Touch **FUNC** so that **REP** is shown on the Infodisplay™ and sew.

You can also change the stitch width or the stitch length for an entire programmed pattern combination. Select **REP**. When you change the stitch length or width, the entire pattern combination will be changed. This is particularly useful in Pictogram™ sewing (see the Sewing Book).

Changes made in **REP** are not saved in the memory and will disappear when you select a different stitch or you switch off the machine.

Only one stitch is changed in **PROG** – the one that is displayed above the cursor.

The entire pattern combination is changed in **REP**.

Change

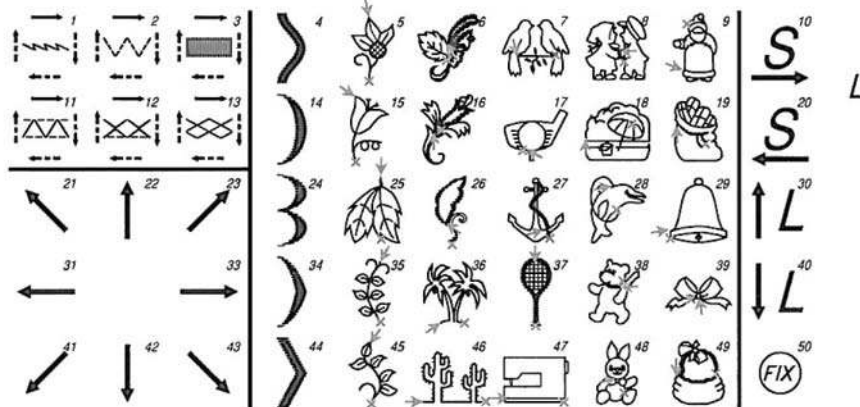
If you wish to change a pattern or a letter in your program:

Touch **FUNC** to **PROG**. Touch **MEM** and advance to the desired memory.

Move the cursor until it is placed under the pattern/letter you wish to change. Select the new pattern/letter.

Touch **FUNC** to **REP** and sew.

L Cassette/Omni-motion™



L Cassette

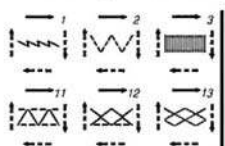
The L cassette includes a variety of 4 way mending stitches, creative Omnigrams™ and 8 way directional feed stitches.

The starting point of each stitch is indicated by a red arrow. Use the plastic templet included with your machine to mark placement.

The finishing point of each stitch is indicated by a red cross.

Omni-motion switches sew in slow speed $\frac{1}{2}$.

Mending stitches

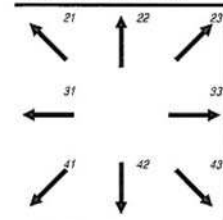


The 4 way mending stitches are programmed at a fixed length and

width. When the stitch is selected $\overline{SM} \uparrow$ and the stitch number appear on the Programdisplay™. The arrow indicates the sewing direction of the stitch. Touch \uparrow , $\overline{SM} \downarrow$ appears on the Programdisplay™ to indicate the new sewing direction.

The presser foot symbol to the left on the Programdisplay™ indicates the position of the fabric under the presser foot as it relates to the sewing direction arrows.

Omni-motion™ / eight direction feed

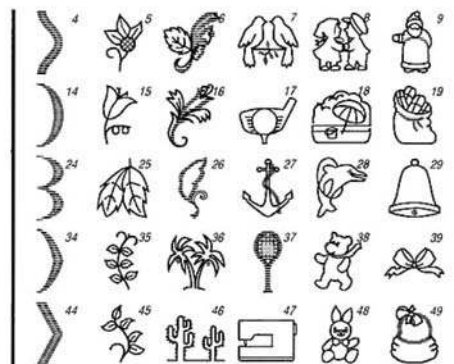


When **FUNC** Function is in **NORMAL** touch the eight direction feed buttons to straight stitch

at 0.8 stitch length in the direction indicated by the arrow on the button. $\ll \overline{SIDE} \overline{MOTION} \gg$ and the stitch number appear on the Programdisplay™. Use these stitches to straight stitch in many directions. Touch **STOP** to finish sewing in any direction. Read about programming with Omni-motion on page 22.

Omnigrams™

Other stitches found on the L cassette in rows 4-9 create beautiful large stitches and motifs.



Edge stitches - Row 4


Row 4 sews extra wide scallops and borders. You may adjust the stitch length and mirror these stitches side to side. These edge stitches sew continuously. Touch **STOP** to finish at the end of a stitch pattern.



When sewing row 4 stitches, $\ll \overline{SIDE} \overline{MOTION} \gg$ and the stitch number will appear on the Programdisplay™. Program the row 4 stitches alternating the side to side mirror stitch to create new edge patterns. When programming, \overline{SM} and the stitch number will appear on the Programdisplay™ plus the mirror image symbol.

Flowers and leaves - Row 5

Row 5 sews lovely flower and leaf patterns continuously at a fixed length and width. For one pattern only, touch **STOP** before the pattern is completely sewn. Row 5 stitches can be mirrored side to side and entered into program. When a stitch on row 5 is selected, $\ll \overline{SIDE} \overline{MOTION} \gg$ and the stitch number appear on the Programdisplay™.

L Cassette Omni-motion™

When side to side mirror image is touched, the  symbol appears under the stitch number.

In program row 5 stitches appear as  on the Programdisplay™. Again  appears under the stitch number when the stitch is mirrored.



Omnigrams™ – Rows 6–9

Rows 6–9 stitch beautiful large motifs called Omnigrams™ at a fixed length and width which stop automatically at the finishing point.




They can be mirrored side to side and combined with one another for additional design possibilities. Decorative stitches and Pictogram™ details can be added to a sewn Omnigram™ for more creative embellishment.

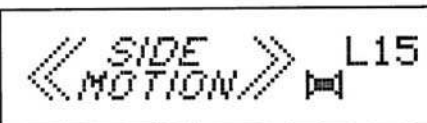
To sew, simply touch the desired stitch and sew. Stabilize fabric as needed.

When the Omnigram™ is selected,  and the stitch number appear on the Programdisplay™. The  under the stitch number indicates the side to side mirror image has been selected.

Use the plastic templet to mark the starting point of your Omnigrams™.

Automatic STOP to change thread color for two color Omnigrams

After selecting one of your Omnigrams No. 5, 15, 7, 27 or 49, touch **STOP** before you begin to sew. Your machine will automatically stop when it is time to change thread color. The machine will provide a "beep" warning and the Programdisplay™ will show a flashing thread spool .



The stopping points are marked with small arrows on the plastic templet.



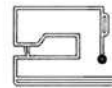
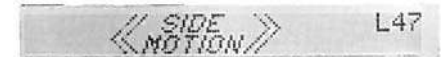
Balancing Omnigrams



Row 10 on the L cassette has 4 buttons to balance the Omnigrams™ if needed on specialty fabrics.

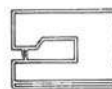
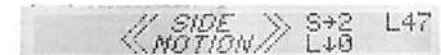
These balancing buttons adjust the **FINISHING POINT**, indicated by a red cross, of the stitch creating a balanced Omnigram™.

The finishing point is the point where the machine stops sewing to complete the stitch. Always sew a sample Omnigram™ on a scrap of the same fabric you will embellish and make balance adjustments before stitching on your finished garment.



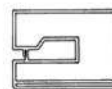
Stitch **L47** has been selected.

Stitch **L47** sewn, the finishing point is too high and too far left.



Touch **S →** twice to move the finishing point to the right.


The side balance is corrected.



Touch **L ↓** twice to move the finishing point downward.

L47, the sewing machine, is balanced.

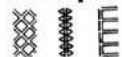
Remember: the balance buttons **L ↑**, **L ↓**, **S →** and **S ←** adjust the **FINISHING POINT** of the Omnigram™. To adjust the finishing point up as you look at the finished Omnigram™, touch **L ↑**. To adjust the **FINISHING POINT** down touch **L ↓**. To adjust the **FINISHING POINT** to the right touch **S →** or to the left touch **S ←**.

Your balancing adjustments will appear on the Programdisplay™ next to .

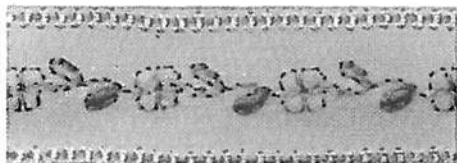
Decorative stitches

Decorative stitches

Examples



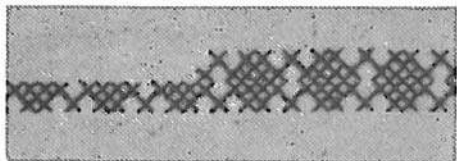
These stitches on D cassette produce Point du Paris hemstitch together with a wing needle (accessory).



You can combine and program different patterns one after another.



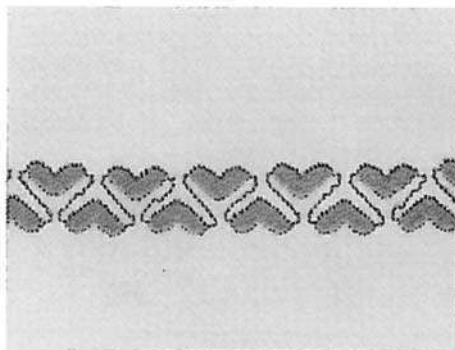
You can program stitches and sew the original way and mirrored every other time.



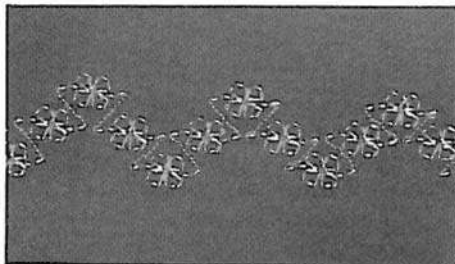
The single cross-stitch D1 is programmed once the original way, once mirrored and the original way once more, followed by two double cross-stitches D2.

The rest is attained if you mirror the first rows of stitching and then sew the program once more to the right, matching the first rows.

The following examples show stitches from D cassette combined with the eight direction feed stitches on L cassette.



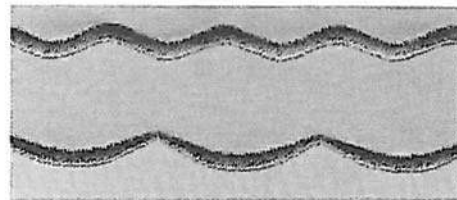
D24 ⇨, L21 ⇨ (3 times)
D24 ⇨, L23 ⇨ (3 times)



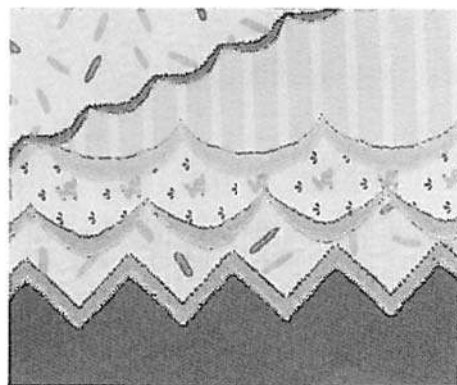
D14 ⇨, L23 ⇨ (5 times)
Repeat this once.
D14 ⇨, L21 ⇨ (5 times)
Repeat this once.

Edging

An effective edging can be produced using the stitches on D cassette as well as on L cassette. Sew a bit from the edge and trim close to the stitching.



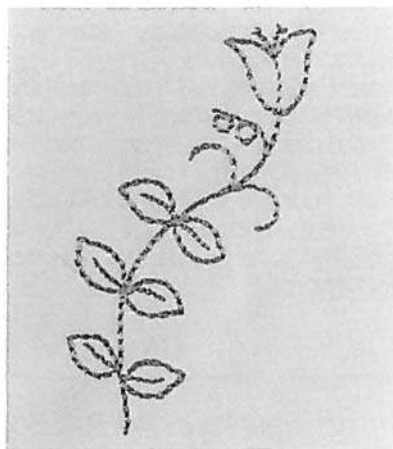
These stitches on D cassette can also be elongated.



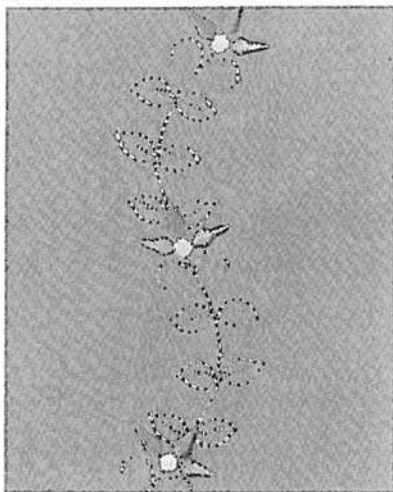
Row 4 on L cassette sews extra wide scallops and borders.

Decorative Stitches

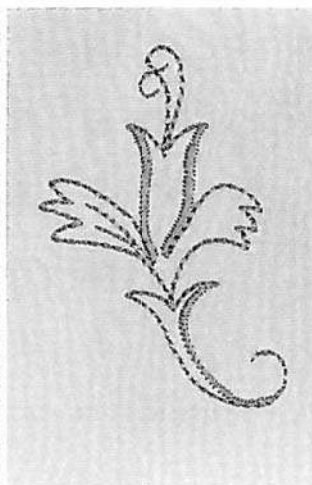
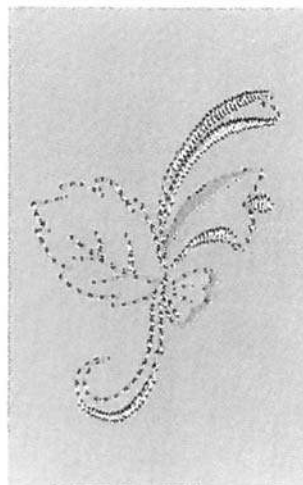
Flowers and leaves – Row 5



You can select a flower and program together with a leaf – the flower mirrored.

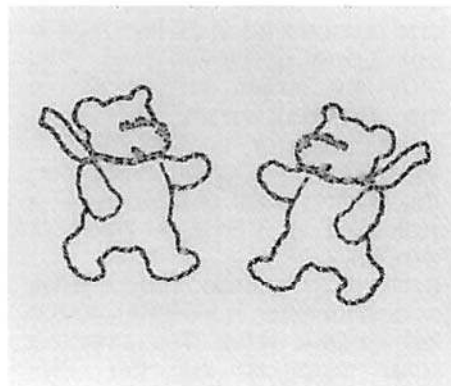


A leaf combined with Pictogram™
Satin Elements.



Omnigrams™ – Row 6–9

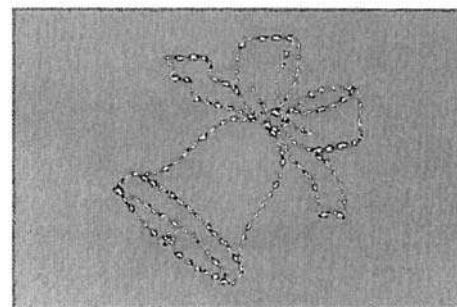
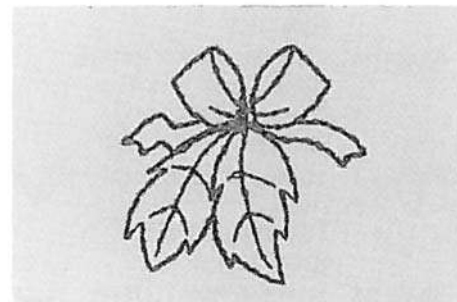
Omnigrams™ are perfect for decorating for example children's clothes and blouses, or for making Christmas embroideries. Just touch the desired pattern on L cassette and sew. The Omnigrams™ can be mirrored side to side.



One teddy bear original, one mirrored.

Combining

Two different Omnigrams™ combined. In this way you can create beautiful Christmas embroideries.





B Cassette – Letters





The B Cassette has 45 buttons with letters and numbers for direct selection and 5 function buttons.


Function buttons:

 Use this button to set the desired letter style. Each style is shown on the Programdisplay™ with cassette marking and type face.


Style B1 block letters 6 mm high
Sewing direction forward 


Style B2 outlined block letters 6 mm high
Sewing direction forward 


Style B3 script letters 6 mm high
Sewing direction forward 

Style B4 script letters 20 mm high
Sewing direction to the right 

When sewing letters using the Embroidery unit, all styles sew to the right.

 Use this button to select a lower case letter on style B4.

 Use these buttons to move the finishing point related to the starting point lengthwise. Only on style B4.

 Touch this button and the machine sews a few tie off stitches and stops.

The letters and numbers are programmed in the same way as other stitches, see page 21–23. Style B4 can not be combined with other stitches or styles.

Style B4 creates beautiful letters and numbers up to 20 mm high in both upper and lower case. They may be sewn individually in the **NORMAL** mode for large monograms or programmed in series for names, labels, and dates. The starting point of each letter is indicated by a hole on the letter templet.

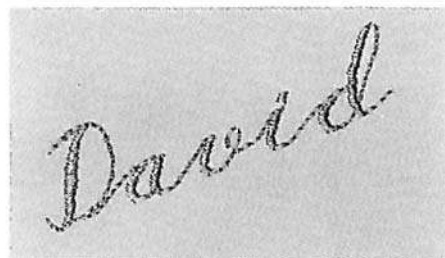
To stitch an individual upper case or capital letter in **NORMAL**, touch the desired letter. The selected letter appears on the Programdisplay™. The letter sews, one at a time, with the side motion so

the bottom of the letter is toward the front of the presser foot. The machine stitches to the side.

To stitch a lower case letter, touch the desired letter, touch the **A/a** button. Notice your letter appears on the Programdisplay™ as <a> in the square for style.

The B Cassette also includes three beautiful Omnigrams™ especially suitable for sewing in combination with monograms and lettering. When you are sewing the B1, B2 or B3 style the patterns will be 6 mm high. The style B4 will sew them as Omnigrams™.

Program style B4

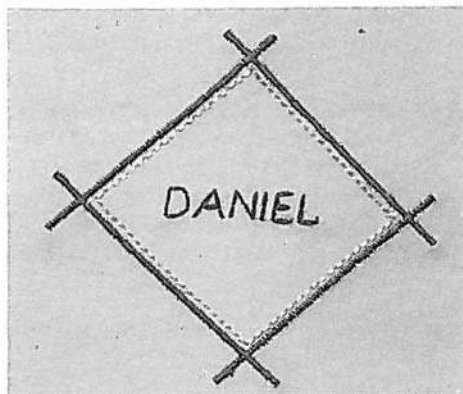


To program the word "David" in style B4 using both upper and lower case letters, touch **FUNC** to **PROG** and select an empty memory. Touch **D**, ⇌, **A**, touch **A/a** to call up lower case ⇌, **V**, ⇌, **I**, ⇌, **D**, **STOP**. Touch **FUNC** to **REP** to sew "David".

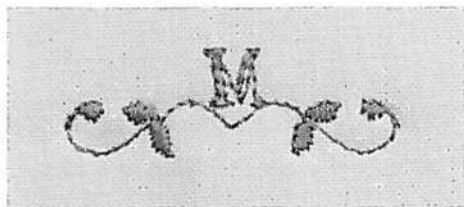
Numbers are programmed in the same manner.

Decorative Stitches – Monograms

Block letters



B1 style

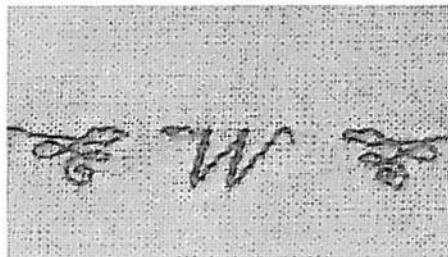


B2 style



Letters in B2 style combined with embroidery N° 26, cassette 1.

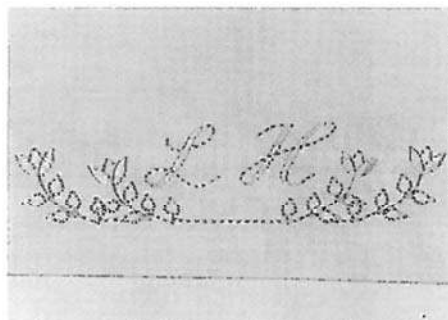
Monogram



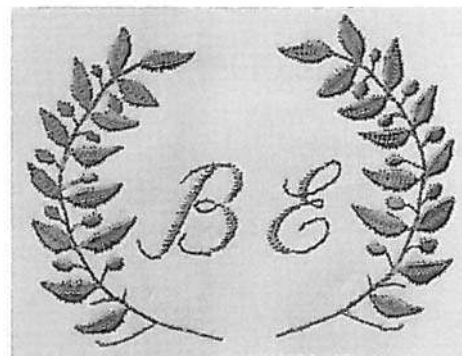
Monogram in B3 style, 6 mm height.



Monograms using upper and lower case letters in B4 style, 20 mm height.




Monogram in style B4 combined with Omnigram

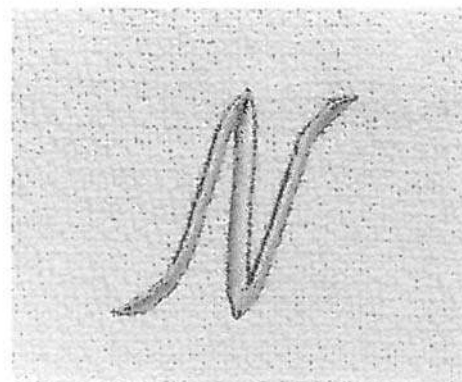


Monogram in style B4 combined with embroidery N° 31, cassette 1.

Free-hand monogram

The monogram stitch  on A cassette, is a tapered zigzag which makes it suitable for sewing monograms and other embellishments. Trace the monogram on the fabric and sew over the lines. Touch **FUNC** to **NORMAL** position and select .

Sew until the desired length is reached. Touch the reverse button  to taper to the end.



Embroidery unit

To open the embroidery case, press the latches toward the outside. To close the case, push the latches back.

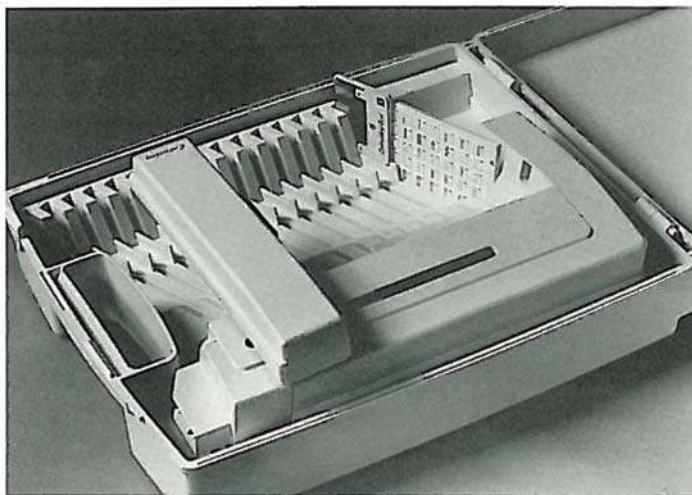
Storing

The embroidery case contains embroidery unit, embroidery hoop, embroidery booklet, embroidery templet, embroidery card

and companion cassette, two types of embroidery presser feet, and one presser foot screw, two thread nets a test kit.

To prevent misplacing your embroidery accessories, store them in the case after sewing.

Place the cassette with its companion embroidery card accord-



ing to the picture. Store other cassettes in the same way. Additional cassettes and embroidery cards can be purchased from your authorized sewing machine dealer.

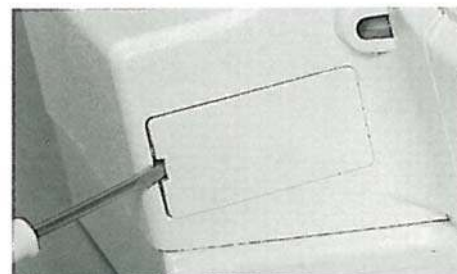
If the embroidery card is not stored in the case, place it in the enclosed small plastic bag to prevent damage.



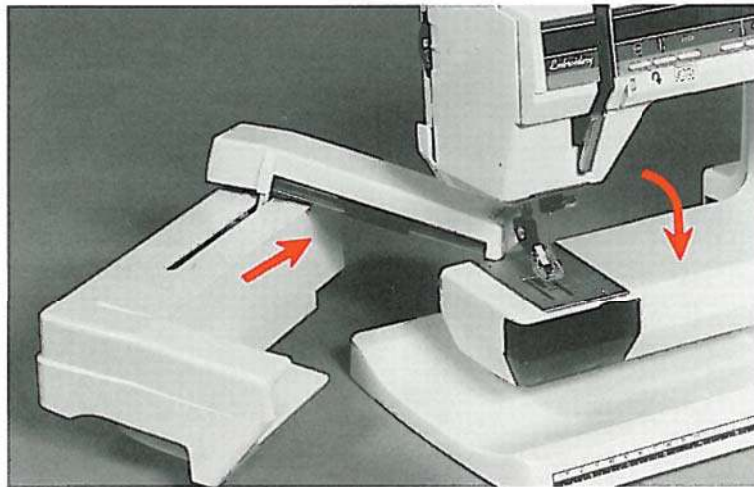
Connecting the Embroidery unit

Be sure the machine is turned off while connecting the embroidery unit.


1. Slide off the accessory tray.
2. There is a covered socket at the back of the machine. The embroidery unit plugs into this socket. To remove the cover, carefully pry it off with the accessory screwdriver.

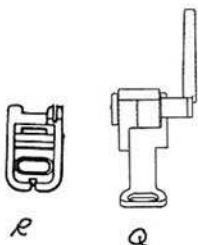


3. Slide the arm of the embroidery unit to the right of the needle and push the unit to the right until it plugs into the socket.




Embroidery unit

4. Snap on embroidery presser foot R (see page 14). Set presser foot pressure to "1" on the symbol . When quilting or sewing terry cloth, use presser foot Q (see below). Set presser foot pressure to 6.



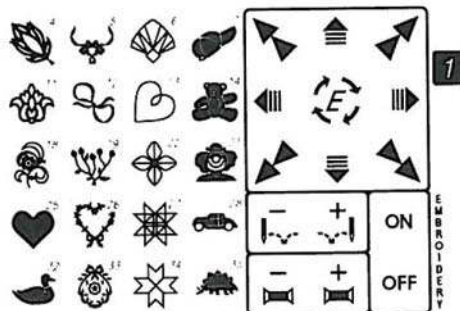
5. Insert the embroidery cassette.
6. Insert the embroidery card that is the companion to the cassette (the card and companion cassette have the same number and color code) by pushing the embroidery card up into the slot just to the left of the cassette. To remove the card, pull it straight down.






7. Press the main **ON/OFF** button. If the presser foot is in lower position the symbol  is shown on the Programdisplay™. When raising the presser foot,

the machine carries out a self test. If the needle is in its down position it will automatically go to up position. The embroidery unit will take its ready position.

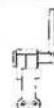
8. Touch **ON** on the embroidery cassette and the embroidery arm takes the embroidery position.



The  Programdisplay™ shows  and the Infodisplay™ indicates that the feed teeth should be lowered . Lower the feed teeth (see page 13).

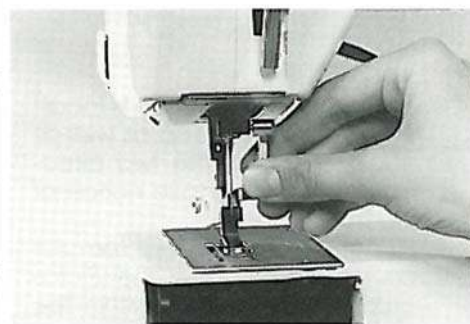
9. When you have finished your embroidery work, touch **OFF** on the cassette. The arm returns into ready position. Turn off the machine using the main **ON/OFF** button. Remove the Embroidery unit. Replace the cover protecting the socket and slide on the accessory tray.

Embroidery presser foot Q

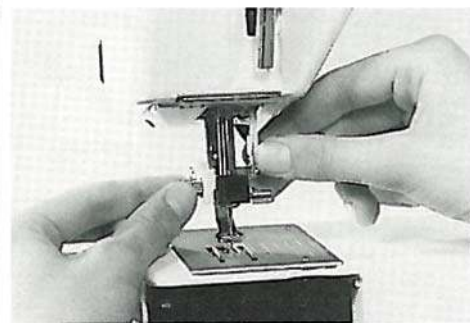


Embroidery foot Q is used when quilting (with batting) or when embroidering heavy terry cloth. Set presser foot pressure to 6.

1. Make sure the machine is turned off.
2. Unscrew the presser foot ankle.
3. Pick up the embroidery foot.
4. Hold the foot with your right hand and place it from the right onto the presser bar. The arm of the foot should be behind needle clamp screw.



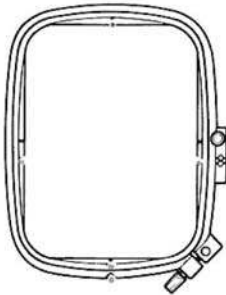
5. Press the ankle of the foot against the presser bar – make sure the holes line up – insert the enclosed screw and tighten the foot.



Sewing embroideries

Embroidery hoop

1. Loosen the screw on the outer hoop, place the hoop so that the screw is down to the right.
2. At the front edge of the hoop there is an arrow.

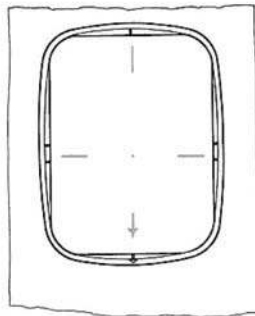


3. A corresponding arrow is located on the inner hoop as well as center marks in the two directions. You should take notice of the front marks.
4. Place the embroidery templet on your fabric. Use the Pictogram™ pen to mark within the grooves and in the center.



5. Place the inner hoop, the marks matching the ones on the fabric. Press hoop and fabric down into the outer hoop and tighten the screw. The arrows of the outer and the internal hoops should match each other.

When sewing embroidery on light to medium weight fabrics, we recommend using a tear-away stabilizer under the hoop.



6. Slide the hoop under the presser foot – raise up the presser foot lever to take advantage of the extra lift of the presser foot. Press hoop from the front onto the embroidery unit.

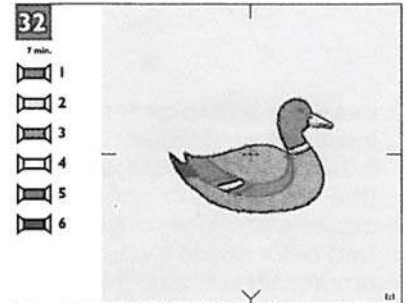
N.B. Always sew a sample embroidery on a scrap of the same fabric you will embroider.

7. Raise the presser foot before removing the embroidery hoop from the machine. Press the button located to the right on the hoop and pull the hoop towards you.

N.B. Always touch **OFF** on the embroidery cassette before you turn off the machine. Otherwise the embroidery arm will not come in the correct position for normal sewing or for packing into the case.

Embroidery booklet

In the embroidery booklet you will find all the embroideries actual size. Each embroidery is placed in a square where center of each side is marked and a cross marks the center point. You will also see how each embroidery is placed related to the center point of your sewing space.



The row of thread spools next to the embroideries shows the number of thread color changes and the order of changes. The sewing time – excluding thread color changing, is also given.

Thread

Use rayon embroidery thread No. 40. When reducing the size of the embroidery we recommend a finer thread, No. 60. When enlarging, we recommend a thicker thread, No. 30.

Use a very fine thread, No. 70/2 as bobbin thread. There is a special bobbin thread called darning cotton or basting thread available for this kind of embroideries.

Sewing embroideries

Embroidery cassette Number 1

The cassette includes 35 embroidery motifs and 15 functions.



Sewing

1. Snap on embroidery presser foot R, see page 14. When quilting or sewing terry cloth, put on embroidery presser foot Q, see page 31.


2. Thread the machine with embroidery thread as upper thread. In this case you need not place thread under the presser foot or in the thread cutter.


Thread the enclosed net over the thread spool.

The bobbin thread is threaded through the hole on the "finger" of the bobbin case. Cut the thread in the thread knife. See page 32, "Thread".

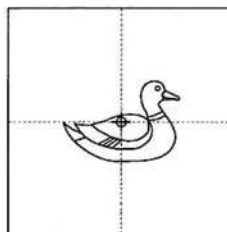


- 3.** Insert the embroidery cassette and the embroidery card, see page 31.


4. Touch **ON** on the cassette to activate the embroidery unit, which goes into embroidery position. The Infodisplay™ indicates that the feed teeth should be lowered, see page 13. The Programdisplay™ shows .

5. Select desired embroidery motif. Start sewing by touching the button  or by pressing the foot control. Hold the thread tails when starting.


The symbol  flashing on the Programdisplay™ indicates if the embroidery card is not inserted.



The machine always starts from center of the sewing space, sews a starting stitch up to the beginning of the embroidery, sews a few stitches more, gives a "beep" and stops. A pair of scissors is flashing on the Programdisplay™ indicating that you can cut the starting thread tail.

6. Touch the button  and the machine sews the rest of the embroidery or up to next thread color changing.



Note: Be careful when working with the needle and presser foot area to avoid touching the start/stop button or the foot control by mistake.


7. When sewing embroideries with several colors, the machine stops automatically when it is time to change thread color. The Programdisplay™ indicates which thread color change you have reached by a flashing number next to the thread spool .

This position is the first stitch of the "new" thread color. The number stops flashing when you begin to sew.

8. Once thread is changed, start sewing again. The machine stops for cutting the thread tail and at next thread color change etc., until the embroidery is completed.

During the sewing the embroidery hoop moves to different places within the embroidery, where jump stitches are sewn. Cut off these stitches as you sew, i.e. when the machine stops for thread color change. In most cases the embroidery is sewn over the jump stitches, but in some cases a part of the thread can be visible and difficult to cut off afterwards.

If the upper thread breaks while sewing, the machine stops and gives a signal. The symbol  is flashing on the Programdisplay™. Re-thread the machine. Go back a few stitches using the  button and re-start. The symbol goes out.

The machine stops also when thread spool runs out. When this occurs, remove the bobbin case and the hoop. Re-thread the machine, replace the bobbin case and the hoop. Go back a few stitches using the  button. Restart and the embroidery will be completed.

When the bobbin thread is about to end, the machine indicates this by giving a warning "beep" signal and a bobbin flashes on the Infodisplay™. Wind the bobbin from a separate spool, replace and cut in the bobbin thread cutter. No need to break the top thread. When re-starting, the symbol will go out.

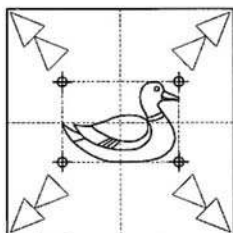
After finishing the embroidery sewing, touch **OFF** on the cassette. The embroidery arm returns into ready position. In this position you can use your machine for all normal sewing (see page 35) as long as you remove the embroidery hoop. See page 32, p. 7. Do not forget to raise the feed teeth, see page 13.

Embroidery unit

Function buttons – embroidery cassette




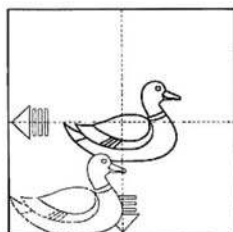
These buttons allow you to step from one corner to another within your embroidery, so that you will know the size of the embroidery and where on your fabric it will be placed.



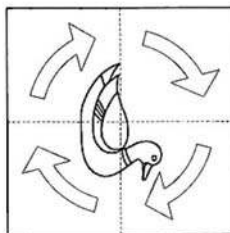
All embroideries begin from the center. The sewing space within the embroidery hoop is 10×10 cm.




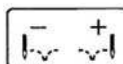
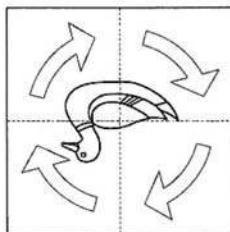
These buttons allow you to move the embroidery in four directions. The limit in each direction is indicated by a “beep” and the symbol  flashing on the display.



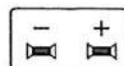
Touch this button once and your embroidery will rotate a quarter of a turn.



Touch the button twice and your embroidery will be sewn upside-down. Watch the Programdisplay™ to see how the symbol  has been rotated after each touch on the button.



These buttons allow you to step stitch by stitch within your embroidery – i.e. if thread has run out or broken, you can step back a few stitches.



Some of the embroideries include several colors. These buttons allow you to step forward + or backward – to the beginning of each thread color change. On the Programdisplay™ the number next to the thread spool will flash to indicate the position of the starting stitch at each thread color change.

ON


The ON and OFF buttons for the embroidery unit

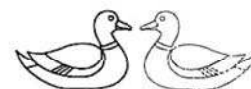
OFF

The button **ON** on the cassette is used to activate the Embroidery unit into embroidery position.

When your embroidery sewing is finished, touch **OFF** on the cassette to return the embroidery unit arm to ready position.

Mirror image embroideries

◆ You can mirror image the embroidery side to side. The symbol  is shown on the Programdisplay™ at the lower right. Read more about Mirror image on page 19.



Embroidery unit

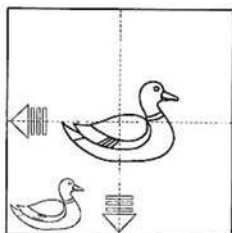
Enlarging and reducing embroideries

You can make the embroidery motifs larger and smaller with the stitch length and stitch width buttons. (+) will make larger, (-) will make smaller. When enlarging or reducing the embroidery we recommend changing the thread thickness for the best result, see "Thread", page 32.

The size changes possible vary for different embroidery motifs. The size limit is indicated by a "beep".

You can change stitch width and stitch length independently.

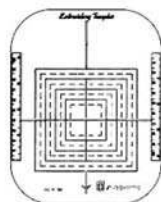
Change the size before moving from the center position. If the embroidery is moved from the center size change is limited.



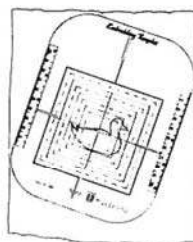
Use the embroidery templet

When you wish to sew the embroidery at a specific place on your fabric or garment, you can take advantage of the embroidery templet to mark where the embroidery is to be sewn. In the embroidery booklet you will find all the embroideries pictured actual size.

1. Place the templet with the arrow pointing downward and the other marks right in front of each other. Draw the outer lines of your selected embroidery on the templet using your Pictogram™ pen.



2. Place the templet on your fabric where you wish to sew the embroidery.



3. Draw marks in the four grooves and in the center with your Pictogram™ pen.

4. Place the embroidery hoop matching the arrow pointing downward to the arrow mark on the fabric. Insert the fabric into the hoop, see "Embroidery hoop", page 32.



Make the final adjustments using the III► buttons until the needle stands over the center.

Use for normal sewing (with embroidery unit in place)

As long as **ON** on the embroidery cassette is depressed you can also sew most other stitches as programmed Pictograms™, Omni-grams™ etc.

Make sure you have pressed **OFF** on the embroidery cassette to turn off the embroidery unit. Remove the embroidery hoop as described on page 32, and raise the feed teeth, see page 13. The machine can now be used for all normal sewing with the embroidery unit in place instead of the accessory tray.

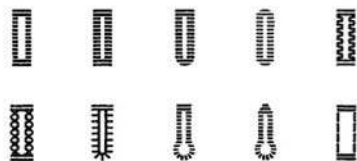
Buttonholes

Buttonholes

On A cassette, select from 9 different buttonhole styles. There is one for every type of fabric and garment.

You can also select buttonholes on the Sewing Advisor™. Follow the advice given on the Infodisplay™.

For better visibility the machine sews buttonholes away from you.




Buttonhole  the bartack buttonhole, suitable in medium and heavy fabrics.

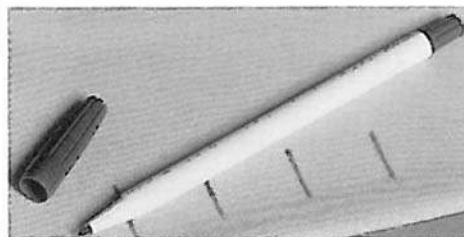
Buttonhole  round end buttonhole, for light fabrics.

Buttonhole  reinforced buttonhole, for heavy fabrics.

Buttonhole  heirloom buttonhole, looks like a hand made buttonhole. For somewhat compact fabrics, e.g. flannel.

Buttonhole  keyhole buttonhole for tailoring, suitable in compact woollen cloth, e.g. flannel.

When entering Buttonhole and leather into the Sewing Advisor™, a  straight stitch buttonhole is selected.




Use presser foot C. Mark the buttonhole location on your fabric. Enter the fabric on the Sewing Advisor™. Select a buttonhole on A cassette or touch "Buttonhole" on the Sewing Advisor™.

If you wish, you can touch "Buttonhole" first and then enter the fabric. The machine will select the most suitable buttonhole and will provide other advice on the Infodisplay™.

The buttonhole foot has guide lines to determine buttonhole length. The middle mark on foot C gives a 1.5 cm buttoning edge. Place the button on the presser foot against the needle and you will be able to see which mark on the foot corresponds to the button.




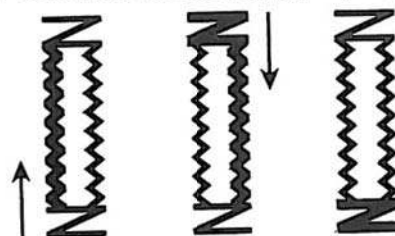
There are self-adhesive glide plates (accessory) available for the C presser foot – these are used when sewing leather and plastic. The Infodisplay™ recommends when to use the glide plate .


There is a small finger at the back of the presser foot. For a corded buttonhole loop your cord around the finger as illustrated. Do not hold the cord while sewing.



Follow the advice given on the Infodisplay™.

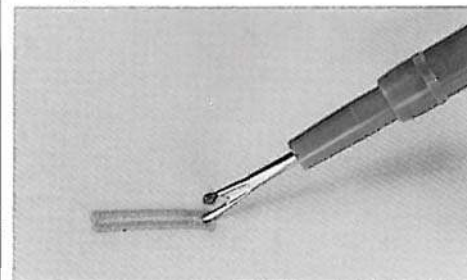
1. Place the material in the machine and begin at the mark.
2. Sew the first column of the buttonhole to the required length, use the markings on presser foot C.
3. Touch the reverse button .



4. Continue to sew the buttonhole until the other column is the same length as the first, touch the  button. The machine will sew the other end, a few tie off stitches in the first column of the buttonhole and will then stop.

Sew the next buttonhole in the same manner.

Always make a test buttonhole first, and as needed, adjust the stitch setting. Use the stitch width and length buttons.



Buttonhole knife

The knife is used to cut buttonholes. It is also useful for removing stitches sewn in error.

Buttonholes/Sewing buttons

Programming/ Repeat buttonholes

Mark the buttonhole location on your fabric. Enter the fabric on the Sewing Advisor™.

1. Touch **FUNC** to **PROG**.
2. Use the **MEM** button to advance to an empty memory.
3. Select a buttonhole from A cassette or the Sewing Advisor™. The buttonhole will be displayed on the Programdisplay™ with the cursor below the first column of the buttonhole.

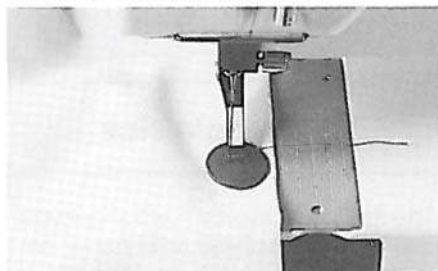


4. Follow the advice given on the Infodisplay™.
5. Sew the first column of the buttonhole to the desired length.
6. Touch the reverse button **↶**, continue to sew the buttonhole.
7. When the second column is the same length as the first, touch the **↶** button. The machine will sew the other end, tie off and stop. This buttonhole is now in the memory.
8. Move to the next mark on the fabric. Touch **FUNC** to **REP**. Now sew the buttonhole, automatically, without making any new settings.

Sewing buttons

1. Mark the fabric where the button is to be located.
2. Touch **FUNC** to **NORMAL**.
3. Enter the fabric on the Sewing Advisor™.
4. Touch "Button" or **⊕** on A cassette. **⊕** will be shown on the Programdisplay™.

5. The Infodisplay™ will recommend to lower the feed teeth. Lower the feed teeth with the **▲▲▲** button.
6. Snap off the presser foot.

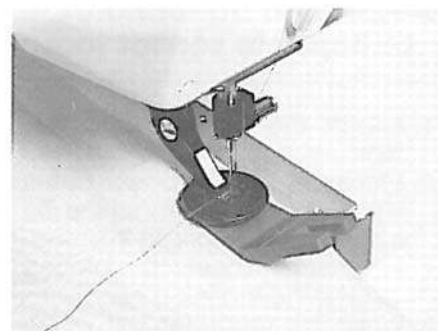


7. Place the material in the machine, place the button on marking and lower the presser bar so that the presser bar ankle is between the holes of the button.
8. Hold the thread ends to one side. Turn the handwheel and check to be sure that the needle goes through the button's left hole. The machine will now be set for a hole spacing which suits most buttons and the material you have selected.
9. If you have a button with a different hole spacing, you can adjust this by pressing one of the stitch width buttons (+) or (-).
10. Sew as many stitches as you consider necessary, press the reverse button **↶**. The machine will then tie off in one of the holes and stop. Move to the next pair of holes or the next button.

Programming button sewing

1. Touch **FUNC** to **PROG**.
2. Select an empty memory by advancing the **MEM** button. Follow the description above.

3. Sew the number of stitches you consider necessary.
4. Touch the **↶** button and the machine will tie off and stop. The machine will now have this in the memory.
5. To repeat, touch **FUNC** to **REP**. The machine will sew as many stitches as you have programmed, then tie off the thread and stop. You can repeat this as many times as you wish.

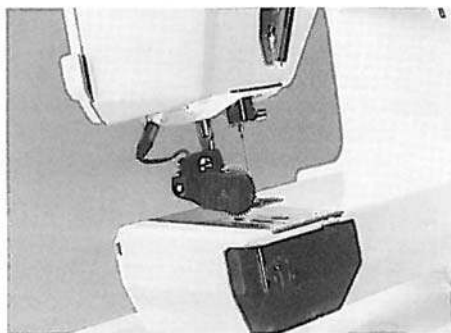


Button with a shank



Use the clearance plate for this purpose. Use the thin end when sewing buttons on light fabrics, the thick end for heavier fabrics.

1. Push in the plate between the button and the fabric. Lower the presser bar and sew on the button.
2. Pull the threads between the button and the fabric.
3. Wind the threads a few times around the shank and tie the ends.

Buttonhole sensor



Automatic buttonholes – buttonhole sensor foot

1. Attach the buttonhole sensor foot.
2. Make sure that the power cable is plugged into the machine. Be sure the white mark on the measurement wheel is placed against the marker.
3. When the measurement wheel is correctly set, the  symbol will show brightly on the Programdisplay™. If the measurement wheel is incorrectly positioned, the  symbol will flash.
4. The measurement wheel can be raised to a stop, which makes it easier to place the fabric under the presser foot.

Normal function

When using the **NORMAL** function, it is possible to select any buttonhole from A cassette or the Sewing Advisor™. Do not forget to enter the fabric into the Sewing Advisor™.

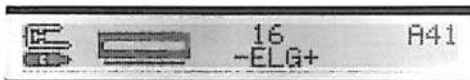
Buttonhole no. 46 on A cassette and the **buttonhole for leather** are not used when sewing with the but-

tonhole sensor. If you attempt to sew these buttonholes with the buttonhole sensor connected, the machine will “beep” and the presser foot symbol on the Infodisplay™ will flash.

Buttonhole size

The Programdisplay™ will show you the size buttonhole you have selected. This will be pre-set for a 16 mm button. The figure 16 is therefore shown on the Programdisplay™.

If you are using a different size button, measure the button and set the correct size with the **ELG** button (+) or (-). The size will change by 2 mm at a time.





The machine will sew the correct length buttonhole for the material and the button size you have selected. You can sew the same buttonhole as many times as you wish.

Programming

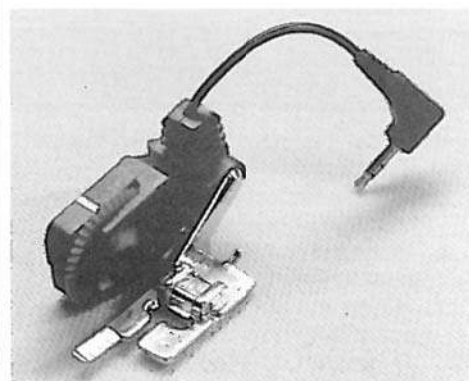
You can program your own buttonholes in **PROG**.

1. Select **PROG**.
2. Advance to an empty memory. Sew the first column of the buttonhole to the required length.




3. Press the reverse button . The machine continues sewing the bar tack and the second column of the buttonhole until it is as long as the first, then the other bar tack, ties off and stops automatically.
4. You need only use the  button once – the machine will do the rest!

The buttonhole is now stored in the memory and will remain for some time even if the machine is turned off.



Repeating

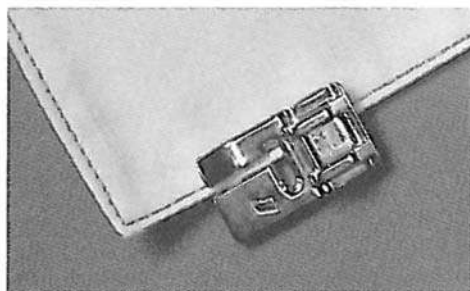
Touch **FUNC** to **REP** and you can repeat the buttonhole automatically. If you have programmed a buttonhole using the buttonhole sensor and attempt to repeat this without having the sensor connected, this will be indicated by a “beep” and a symbol  flashing on the Programdisplay™.

Standard Sewing

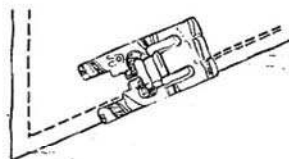
Needle positions



When sewing straight stitch and reinforced straight stitch, the needle position can be adjusted in steps. Use the stitch width button (+), 0 is the center position, width 6 is right out on the left edge, width 6 mirror imaged 6 is out on the right edge. To return to center position, use the stitch width button (-) and step back to 0. To edge stitch, you should take advantage of the possibility to set the needle to the left or the right position. Fit presser foot A when sewing light fabrics and presser foot D for other fabrics.



Place the fabric and sew so that the edge follows the inside right edge of the presser foot D or the first mark of the left edge of the presser foot A.

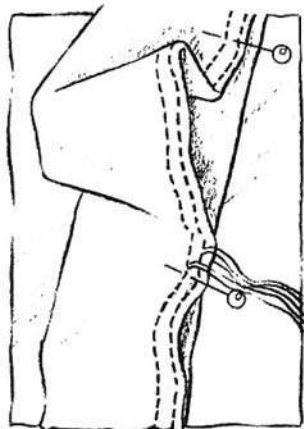


To sew about 5 mm from the edge, use presser foot A and set the needle to the right position. Place the edge of the fabric so that it follows the outside right edge of the presser foot and sew the hem.

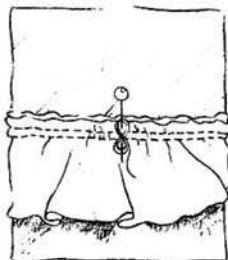
Gathering with straight stitch



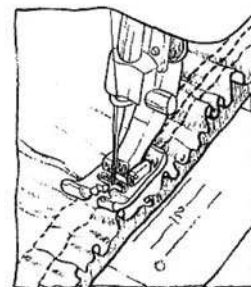
Use a slightly longer stitch than normal straight stitch, 3.5–5.0. Always sew two gathering threads next to each other.



1. Pin the gathered part to the corresponding garment section. Make sure that the marks and the seams correspond to each other, or match notches.



2. Pull both bobbin threads from the same direction and distribute the gathering evenly. When half the distance is gathered, wind the threads around a pin. Then gather the other half from the other direction. Distribute the gathering evenly.



3. Join the pieces with straight stitch, the gathered material facing up. Sew between the straight gathering rows. Hold the gathering with your fingers on both sides of the needle to avoid folds. Remove any gathering thread that is visible.

Reinforced straight stitch

This stitch is stronger than ordinary straight stitch, due to the fact that it is a triple and elastic stitch. The reinforced straight stitch can be used for heavy stretch fabrics, for crotch seams which are subject to considerable strain and for topstitching in heavy fabrics.

Stretch stitch

The stretch stitch makes a pliable, stretchy seam that is suitable for sewing together pieces of light stretch fabric. The stretch stitch is ideal for topstitching in light stretch fabrics.

Standard Sewing

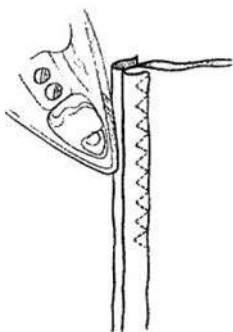
Sewing zippers



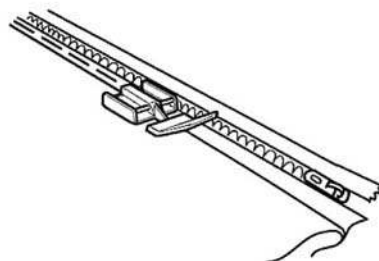
The zipper foot E can be attached so that it is located either to the right or to the left of the needle, making it easy to sew both sides of the zipper. To sew the other side of the zipper, reposition the zipper foot.

Lapped zipper

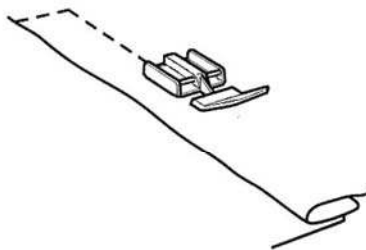
1. Select the fabric weight on the Sewing Advisor™. Touch "Seam". Sew the seam together to the bottom of the zipper placket. Touch "Baste". Baste the rest of the seam. Leave about 2 cm open at the top. Press seam open.



2. Place presser foot E to the left of the needle. **Set the needle to the right position.** From the wrong side fold the fabric to one side so both seam allowances are free. Fold and press the left allowance under approximately 0.5 cm from the basted seam.



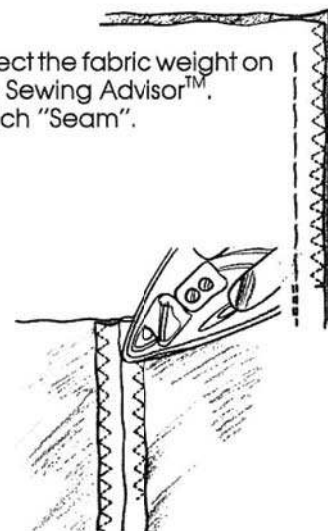
3. Place the zipper under the folded seam allowance with the teeth as near to the fold as possible. Touch "Seam" and stitch zipper to fabric close to fold. Begin sewing at the bottom of the zipper. Before reaching the zipper pull, lift the presser foot and slide the zipper pull down past the zipper foot. Lower the foot and sew to the top of the zipper.
4. Snap on the zipper foot so it is to the right of the needle. **Set the needle to the left position.** Turn the garment to the right side. It is important that the seam on the right side is sewn straight. Before you begin to sew, mark the seam line with your Pictogram™ pen. Sew the other side of the zipper. Begin stitching across the bottom and continue upwards. Remove the basting.



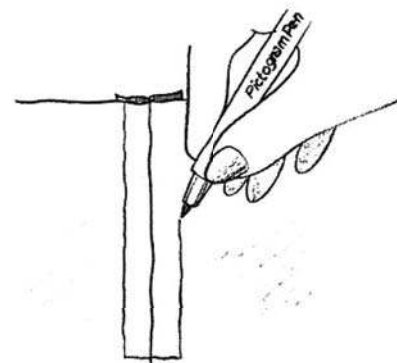
If you want to sew a "gentleman's zipper", follow the instructions but insert in the other direction.

Centered zipper application

1. Select the fabric weight on the Sewing Advisor™. Touch "Seam".

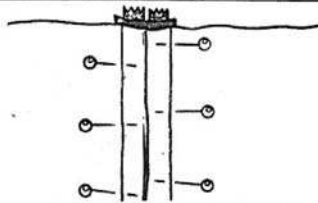


Sew the seam up to the notch for the zipper. Baste the rest of the seam. Press seam allowance open.

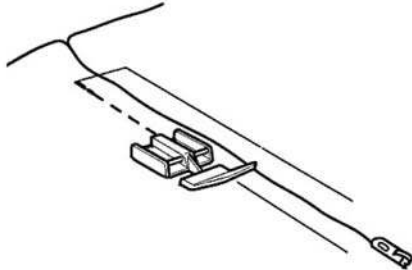


2. To achieve straight and attractive stitching around the zipper, mark the sewing line with your Pictogram™ pen.

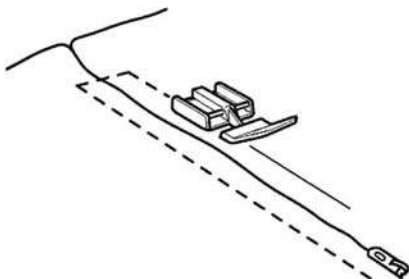
Standard Sewing



3. Pin the zipper just under the seam.



4. Snap on presser foot E to the left of the needle. Touch "Seam". Change the needle position to facilitate getting past the zipper slide by touching the stitch width button to 2.5 and the width mirror image button. Sew the left side of the zipper. Begin by sewing from the bottom.

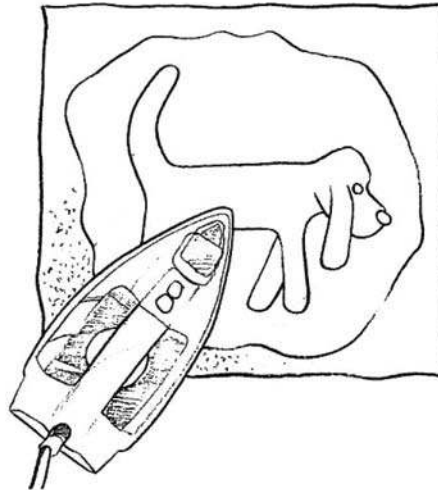


5. Move the presser foot to the right of the needle. Touch mirror image (the needle will change position). Begin by sewing from the bottom. Sew across seam, pivot the material and sew on the other side. Remove the basting thread.

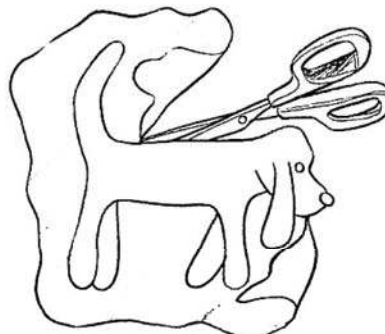
Appliqué from the right side with fusible web



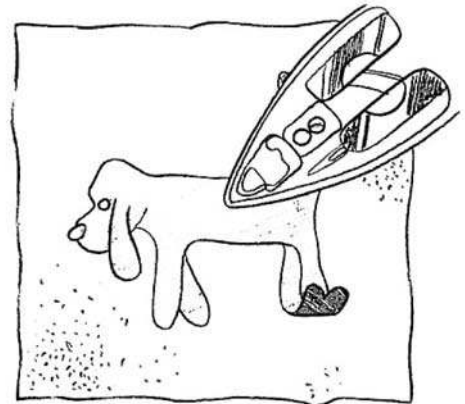
1. Draw a mirror image of your design on the paper side of the fusible web.



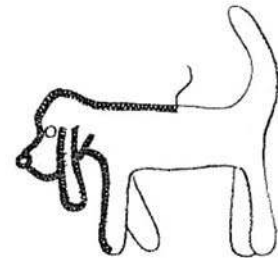
2. Iron the fusible web so that it sticks to the wrong side of the appliqué material.




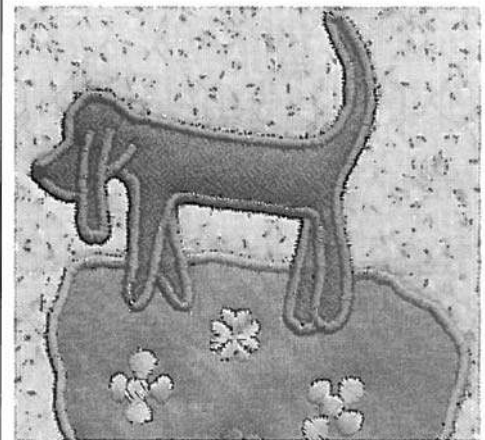
3. Cut out the appliqué. Remove the paper layer from the fusible web.



4. Fuse the appliqué to the background material. Place stabilizer under background fabric.

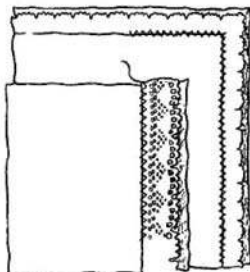



5. Satin stitch  , stitch width 2.0, around the edges. Sew all design lines using the same satin stitches.

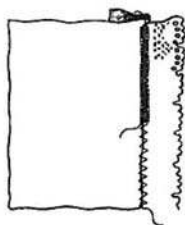



Standard Sewing

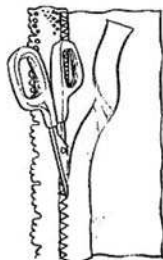
Lace edging



1. Place wrong side of lace to right side of fabric matching edges. Sew along inner edge of lace with zigzag,  stitch length 1.5, stitch width 1.5.





2. Press seam allowance towards fabric. Sew with satin stitch , stitch width 2.0, on the right side over the zigzag seam.



3. Cut off the seam allowance up to the stitching on the wrong side.

Mending and darning




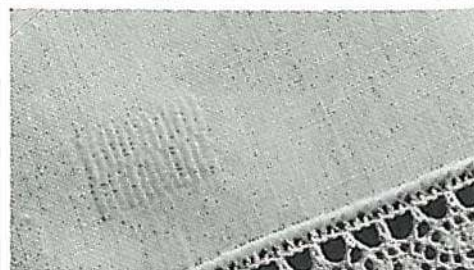
Three-step zig-zag , can be utilized for mending and darning. A threadbare spot is mended by sewing back and forth with three-step zig-zag. Use the reverse feed button . For every row of stitching, guide the fabric slightly to the side. If the fabric is very worn, a piece of fabric or lining may be attached to the reverse side of the material as reinforcement.




 are perfect stitches for mending and darning. Stitches  are programmable.  is good for your old pair of blue jeans that you want to last a little bit longer.

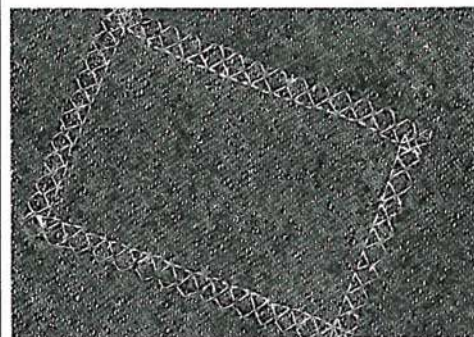


Select **PROG**, sew the first row of stitches as long as you need to cover your tear or worn spot. Touch the reverse button  and the machine continues sewing the remaining stitches at the same length and fastens the thread. Select **REP**. Repeat as many times as you need to cover the hole.










 is a perfect stitch for darning tablecloths and linen towels.

The stitches 1-3 and 11-13 on L cassette sew in four directions (see page 24)    and are perfect stitches for mending and darning. Even narrow and difficult places as trouser legs are easy on the free arm.

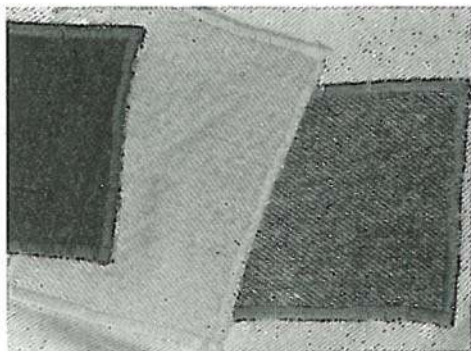


Stitches 11, 12 or 13 for heavier fabrics, denim and canvas.

Pin a scrap of fabric over the worn spot. Select the desired stitch. The symbol  and the stitch number will appear on the Programdisplay™. The stitch is sewn from left to right. Stop just before the corner and change the sewing direction by touching reverse . The machine now continues sewing forward . Next time you touch reverse , it sews from right to left . To sew the last side, touch reverse  and the machine sews in reverse .

Standard Sewing

Because you have a choice of 6 different utility/mending stitches on L cassette, which sew in four directions, you can select the one that's perfect for your fabric weight and garment style.



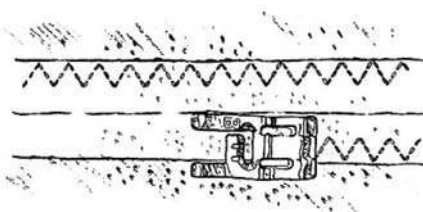
Select stitch No 3 on L cassette to stitch a strong, durable, attractive square perfect for patching or adding design detail or creating the look of appliqué.

Stitch No 1, the tricot or lightening stitch is perfect for lightweight knits and wovens.

Stitch No 2, the three-step zigzag for medium weight fabrics.

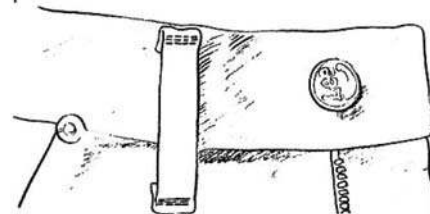
Sewing terry cloth

Sew the garment together with straight stitch. Trim the seams and press the seam allowance flat and sew the edges down against the garment on the wrong side with three-step zig-zag. Even though the stitching goes right through to the "right" side of the garment, it is nearly invisible and even the wrong side looks neat. The stitching will also be considerably stronger. Necklines and armholes are finished in a similar way.



Sewing on belt loops

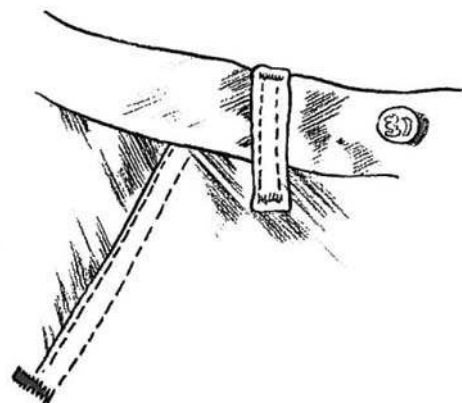
Use presser foot B and lower the feed teeth. Fold in about 1 cm on the short ends. Place the belt loop on the garment and under the presser foot.



Sew a bartack with three-step zig-zag from the outer edge to the center of the loop, move the material and sew a new bartack. Continue to sew along the entire length of the loop's short side.

Sewing bartacks

is a perfect stitch as reinforcement on pockets and at lower end of a zipper.

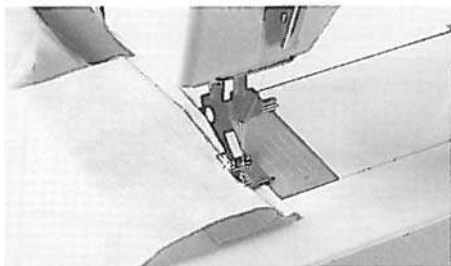


Standard Sewing

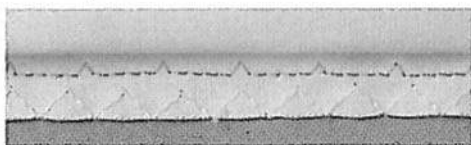
Blind hem



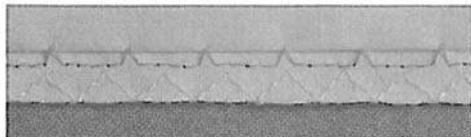
Presser foot D is used for blind hem. Fold the material as shown.



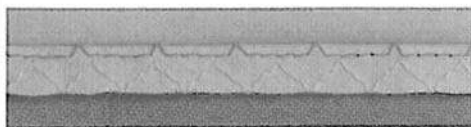
Make sure that the fold line of the fabric rides in the groove under the right side of the presser foot. Practice using a scrap of material and compare with the illustrations.



1. If the stitch does not catch the folded edge, increase the stitch width (+).



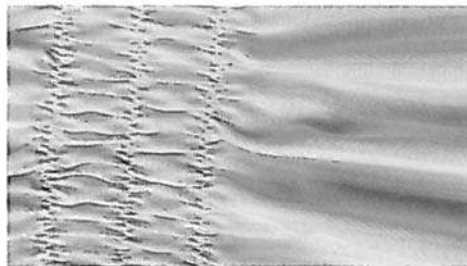
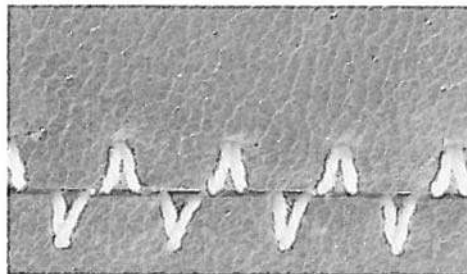
2. If the stitch catches too much of the fold, decrease the stitch width (-).



3. For an invisible hem the needle catches a single thread of the folded edge.

Bridging stitch


The bridging stitch  is suitable for joining two pieces of fabric with folded edges. Leather and vinyl are joined by butting the edges close to each other using the bridging stitch.

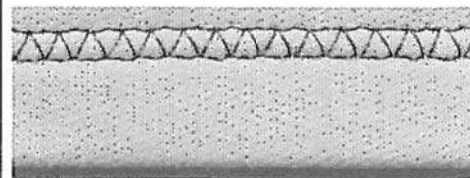


Elastic shirring

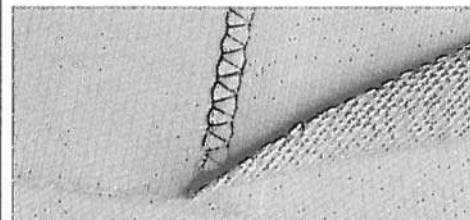
The bridging stitch is also useful for gathered elastic shirring. Use the buttonhole foot C, tighten the upper thread tension. On the wrong side of your fabric draw lines to sew the stitched rows straight. Remember that the elastic will always be stitched double, so take this into account when calculating how much you will need. Place the shirring elastic around the finger of the presser foot. Sew from the wrong side over both lengths of the elastic. Stitch over lines. Gather the shirring by pulling the elastic threads.

Flatlock

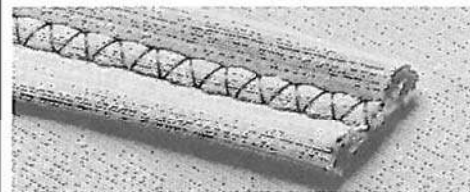
The flatlock , is suitable for sewing overlapping seams and decorative hems.



You can produce a decorative hem by folding a single hem to the wrong side and sewing the flatlock from the right side. Trim excess hem to stitching from the wrong side.



To sew an overlapped seam, lap one piece of fabric 1 cm over the other piece and sew flatlock stitch over the fabric edge on the right side. Trim from the wrong side or sew another seam from the right side.



Narrow belts and bands

Fold the fabric in thirds and sew in the center. Trim excess material from underneath.


Standard Sewing

Seam and overcast


Some stitches can be used for seaming and overcasting directly on the edge where a 5 mm (1/4") seam is allowed.


Place the fabric so that the inside right "toe" of the presser foot follows the edge of the fabric.


Presser foot J is used to overlock and overcast many different fabrics with the exception of heavy, firm fabrics. The pin fitted on the presser foot should follow the edge of the fabric and will in this way prevent the fabric from puckering. Stitch width 5–6 mm. Follow then the recommended settings, given on the display, about needle, presser foot pressure etc.

Overcast stitch , may be used to sew light and medium non-stretch fabric and light stretch fabric. Use presser foot J.

Leather and vinyl, use presser foot H.

Overlock , is chiefly used for sewing heavy stretch fabric. Use presser foot B.

Overlock stitch , is used for sewing medium stretch fabric. Use presser foot B.

Double overlock , is used for sewing heavy non-stretch material. Use presser foot B.

Seam allowance 5–6 mm.



Presser foot H

Presser foot H is the same as presser foot A but the underside is coated with teflon for sewing leather or plastic.

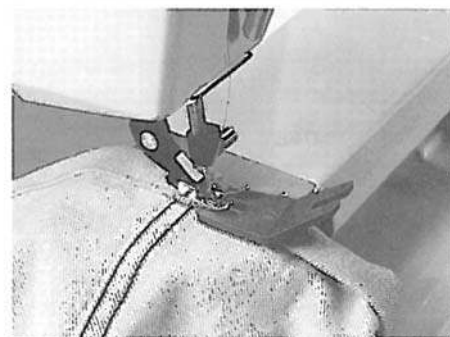


Edge guide

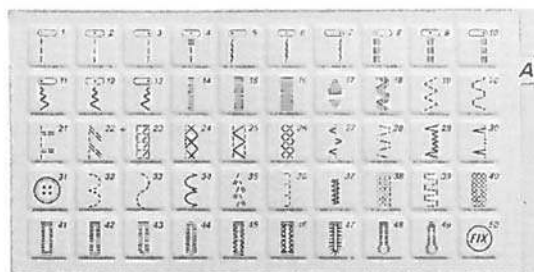
The edge guide is used as a guide for seam allowances wider than 3,5 cm (the stitch plate is graduated up to 3,5 cm), special top-stitching and for channel quilting. Insert the guide using the enclosed screw, slide the guide to the required seam allowance and tighten the screw to hold the guide in place.

Clearance plate

The clearance plate is used when sewing over thick seams. One side of the plate is thicker than the other. Use the side that suits the thickness of the seam best.

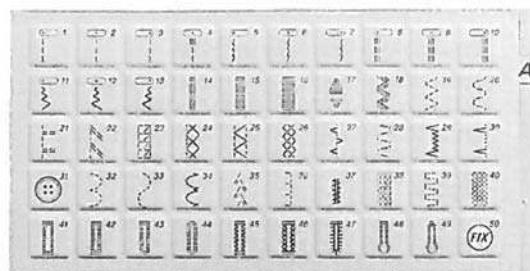


Stitch table – A Cassette



1–3 Straight stitch see page 39	For all kind of sewing in woven fabrics, 25 different needle positions	19 Three-step zigzag see page 42	For overcasting, mending, sewing on patches and elastics
4 Straight stitch with tie off stitches	Begin straight stitch seam with a backstitch to tie off	20 Serpentine stitch	For mending and darning and elastic applications
5–7 Lightning stitch see page 39	For seams in tricot and stretch fabrics	21 Overcast stitch see page 45	Seam and overcast in one step along the edge or trim later. For light stretch and non-stretch fabrics
8–10 Reinforced straight stitch see page 39	For seams which are subject to considerable strain, i.e. for reinforce and topstitch sports wear and working clothes. 25 different needle positions	22 Overlock see page 45	Seam and overcast in one step along the edge or trim later. For medium and heavy stretch fabrics
11–13 Zigzag see page 41–42	For lace edging and sewing on bands	23 Overlock stitch see page 45	Seam and overcast in one step along the edge or trim later. For medium stretch fabrics
14–16 Satin stitch see page 41	For appliqués, rounded edge, sewing on laces and bands	24 Double overlock see page 45	Seam and overcast in one step along the edge or trim later. For heavy stretch fabric
17 Monogram stitch see page 29	Automatic tapering for sewing monograms and other decorations	25 Flatlock see page 44	Decorative hems and overlapped seams, belts and bands
18 Reinforced zigzag	For joining edge to edge or overlapping in leather	26 Elastic stitch	Sew over two rows of elastic thread for shirring

Stitch table – A Cassette



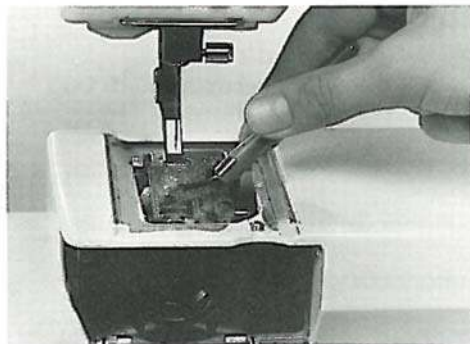
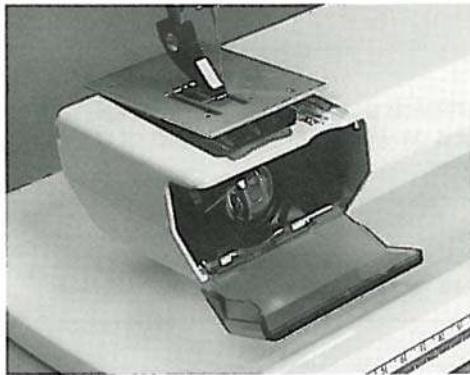
27 Bridging stitch see page 44	For joining two pieces of fabric with finished edges and for elastic shirring	37 Bartack see page 43	Reinforce pockets, shirts openings, belt loops as well as at lower end of a zipper
28 Elastic/Casing stitch	For overlapped seams in tricot. To sew casing over narrow elastic	38–40 Darning stitches see page 42	Darn and mend work clothes, jeans, table cloths and linen towels
29 Elastic blind hem	Invisible hems in stretch and non-stretch medium and heavy fabrics	41–49 Buttonholes see page 36	
30 Woven blind hem see page 44		41–42 Bartack buttonhole	Suitable in medium and heavy fabrics
31 Sewing on button see page 37	Sew on buttons with two or four holes and standard hole spacing	43	Lapel buttonhole Suitable in light fabrics
32, 33 Quilting stitches	Outline quilting through batting and backing	44	Round end buttonhole Suitable in light fabrics
34 Scallop stitch	Scalloped trim, edgings with yarn and to sew on bands	45–46	Reinforced buttonhole for heavy fabrics
35 Feather stitch	Decorative stitching and for quilting	47	Heirloom buttonhole looks like a handmade buttonhole
36 Heirloom Appliqué stitch	Hand look appliqué stitching	48–49	Keyhole buttonholes for tailoring, suitable in compact woollen cloth, e.g. flannel
		50 see page 20	FIX – Tie-off stitches

Maintenance

Care of the machine

To keep your sewing machine operating satisfactorily it requires, like other precision machines, regular cleaning.

It need not, however, be lubricated.



Cleaning under the stitch plate

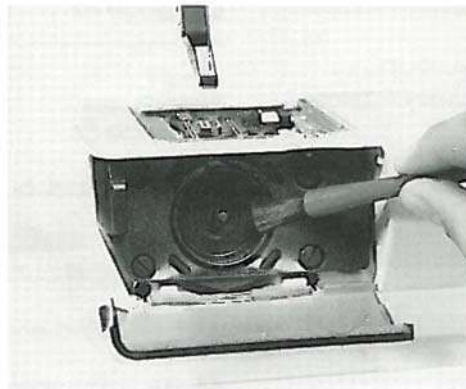
Remove the presser foot and lower the feed teeth. There is a recess in the free arm to the right above the hook cover. Push the stitch plate straight up and backward at the same time until it loosens. Clean between the feed teeth with the brush which you will find in the accessory box.

Replacing the stitch plate

Insert it from behind into the recess in the arm. Ease the front edge up onto the small pin and continue to push it forward until it snaps into place.

Whenever necessary the bobbin case and hook should also be brushed clean. Sizing or finishing compounds from fabric may adhere to the spindle of the hook. If this has happened, the spindle should also be cleaned with the brush.

Remove any pieces of thread which may have become wound around the spindle.



Belts

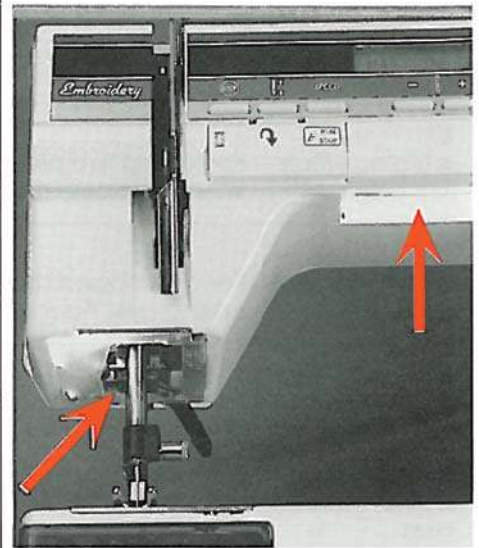
Belt adjustment is not required

Changing the light bulbs

The machine is equipped with two lights to provide the best possible lighting and avoid shadowing from the presser bar and needle bar, as illustrated.

Removing the plastic guard

Insert the small screwdriver at the rear edge of the guard, by the arrows, and applying slight downward leverage.



Changing the bulb

Do not turn the bulb, just pull it downward and fit in a new one.

Replacing the plastic guard

Start by inserting the front edge and press it into the holder.

Use light bulbs designed for 12 V and maximum 5 W as indicated on the light guard.

Fault-finding

Always start by checking the needle

An important part which needs to be changed from time to time is the needle. Always start with a new needle as soon as you discover that a seam is not what you expected. Test sew on a scrap of the fabric you are sewing.

Check that you have chosen the correct needle and see that it is correctly inserted.

Unattractive stitches

The thread tension is not correct. See page 12.

Make sure that the thread is not blocked. Certain thread spools are unsuitable for spooling from the horizontal spool pin. Try instead with the vertical spool pin.

The machine may be incorrectly threaded. The correct threading is shown on page 9.

Wrong bobbin thread. It should be of the same thickness as the upper thread.

Bobbin incorrect inserted into the bobbin case. See page 11.

The needle breaks

You may have helped the machine to feed by pulling the fabric, causing the needle to strike against the stitch plate and break.

The upper thread breaks

Check the thread spool to see that it has not caught in any way.

The needle eye may have sharp edges which cut the thread. If so, change the needle. See page 14.

The upper thread is incorrectly threaded. See page 9.

The upper thread may have too much tension. Refer to page 12.

The thread is knotted.

The hole in the stitch plate may be chipped and have sharp edges.

Slight damage to the stitch plate can possibly be polished or filed but we recommend that you replace it.

Lower thread breaks

The bobbin case is incorrectly inserted. See page 11.

The bobbin thread may be incorrectly threaded. See page 11.

The stitch plate hole is damaged. See above.

The bobbin thread alarm is not working – or sounds the alarm too late

Material residues and fluff have blocked the hook.

Take the machine to your dealer for cleaning.

Irregular bobbin winding

The bobbin is not placed correctly. See page 11.

The machine is not correctly threaded for bobbin winding. See page 10.

The fabric puckers

The upper thread tension is too tight. See page 12 for correct thread tension.

The machine does not feed the fabric

The stitch length is too short. Press the (+)-button.

The feed teeth may be lowered. Raise them by pressing the feed teeth button. See page 13.

The presser foot pressure is disengaged. See page 13.

The feed teeth are full of dust and dirt. Clean with the brush. See page 48.

The seam is too loose – fabric layers not held together

The thread tension is far too loose. Page 12 shows how to adjust the thread tension.

Incorrect pattern

If the machine does not sew the pattern indicated by the display, it is possible that the electronics have been disturbed in some way, perhaps by a short power cut or electrical disturbance. Shut off the main switch, wait a few seconds and try again. If the fault remains, contact your dealer.

Machine runs sluggishly

Dirt or lint has fastened under the stitch plate. Loosen the plate and brush clean between the feed teeth. See page 48.

Dirt or lint has fastened in the hook. Remove the bobbin and bobbin case and clean with the brush. See page 48.

Main motor does not work

The electronic overload protector may have switched off. Shut off the main switch, wait about a minute. Then press the main switch to reset the machine.

Expert assistance

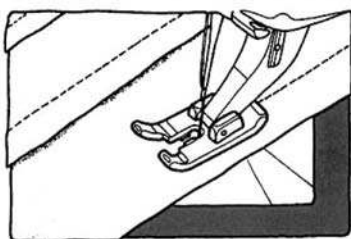
If you have followed the preceding points and still do not get satisfactory results, you should contact the dealer where you bought the machine. The dealer will always be more than willing to give you advice and help as to what measures should be taken.

When the machine is being checked, it is a great help if it can be test sewn under as similar conditions as possible as when you used it.

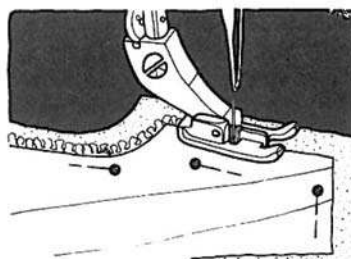
Remember to take a sewing sample along with you, preferably on the fabric and with the thread you intend to use.

A sewing sample will often give much better information than words.

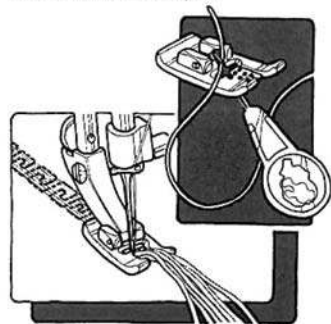
Accessory



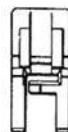
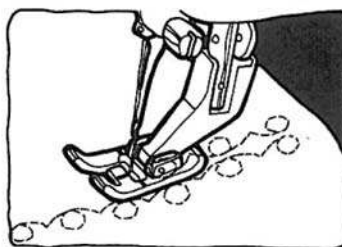
411 85 35-45. Straight stitch presser foot. For straight stitching in fine fabrics. It holds the fabric more firmly to the stitch plate. Use only stitch width 0.



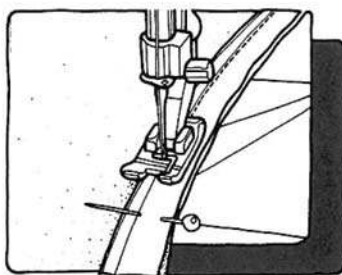
411 85 03-45. Marker presser foot. By using this foot you can transfer markings from paper patterns to fabric. Also used for faggoting and decorative loops.



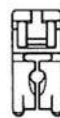
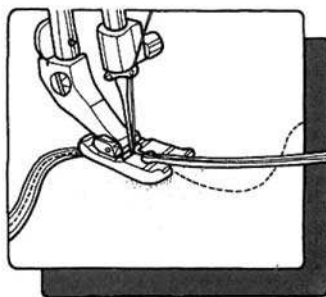
412 01 43-45. Presser foot with seven holes for decorative stitching over yarn or for satin stitching with wide zig-zag. Thread from underneath the presser foot and draw the threads down through the holes with needle threader.



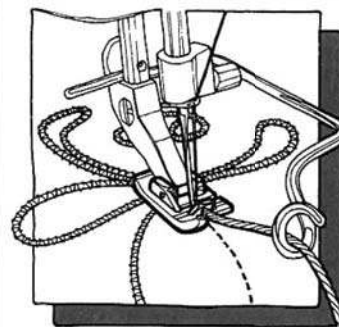
412 00 16-45. Presser foot for decorative stitching. Being completely transparent it is easy to match stitch patterns.



411 85 10-45. Piping presser foot for inserting piping.

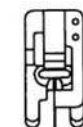
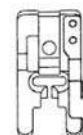
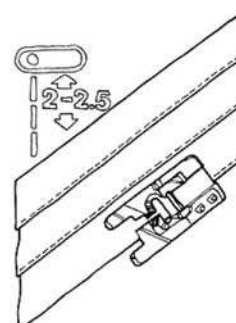


411 85 00-45. Presser foot for attaching braiding, which is inserted through a guide and attached with a straight stitch in the middle of the braiding.



411 85 09-45. Narrow braiding presser foot for embroidery with braid or cord.

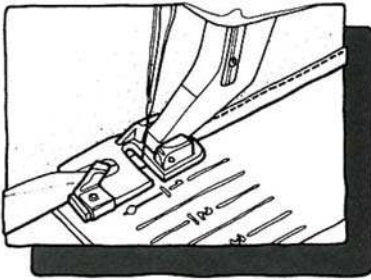
411 85 01-45. Tape guide, facilitates guiding tape, cord etc. into braiding foot.



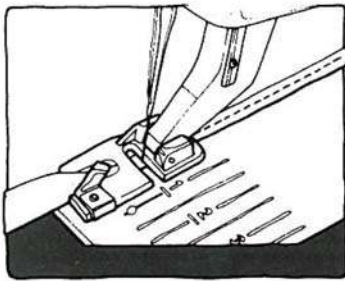
412 28 02-45. Edge/joining presser foot with guide in the center.

412 40 77-45. Edge/joining presser foot with guide to the right. Use the different needle positions of your sewing machine.

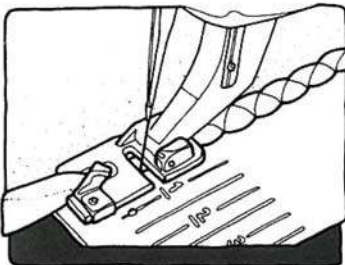
Accessory



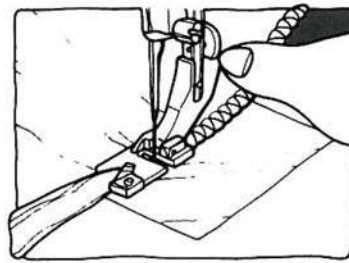
411 85 17-45. Presser foot for 5 mm hemming. For straight stitch, zig-zag or decorative stitching.



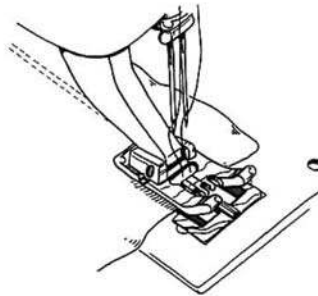
411 85 22-45. Presser foot for 2 mm hemming. For straight stitch or zig-zag. Stitch length 1.5, stitch width 1.



411 85 20-45. Presser foot for 3 mm scalloped hem. For zig-zag, stitch length 4.5, stitch width 4 and tight thread tension. Suitable for soft fabrics.



411 85 24-45. Presser foot for 2 mm rolled hem. For zig-zag, stitch length 3, stitch width 3. Suitable for light fabrics.

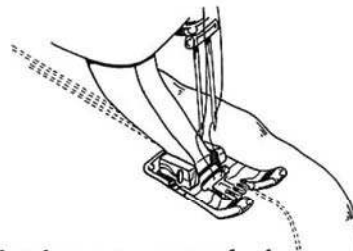


Raised seam presser foot

412 01 42-45. 3 grooves

412 36 99-99. 5 grooves

For parallel raised seams with the twin needle.

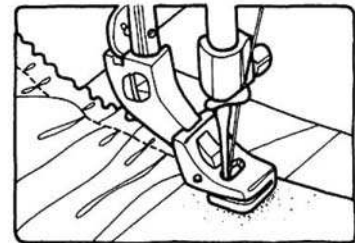


Raised seam presser foot

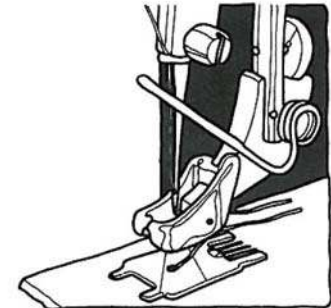
412 36 28-45. 7 grooves

412 37 00-45. 9 grooves

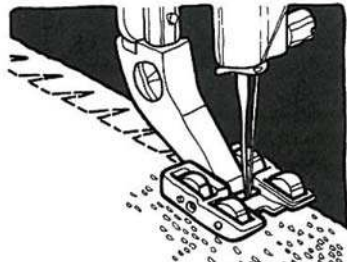
For parallel raised seams with the twin needle.



412 34 73-45. Presser foot for gathering. The fabric is gathered as it is sewn – a tighter tension and longer stitch will produce fuller gathering. The gathered fabric can be sewn simultaneously to another ungathered fabric.

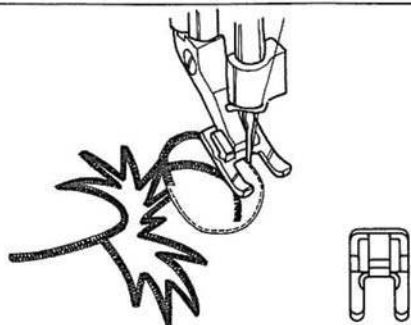


411 73 90-45. Darning foot. For darning with straight stitch the work is stretched in a hoop. For darning socks use zig-zag. The material is guided by hand. Set presser foot pressure at low position.

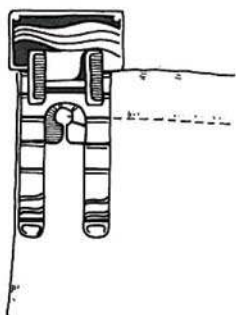


411 85 29-45. Roller presser foot. Suitable for coarse-knitted material, certain knit and stretch fabrics, as well as leather imitations and plastic material.

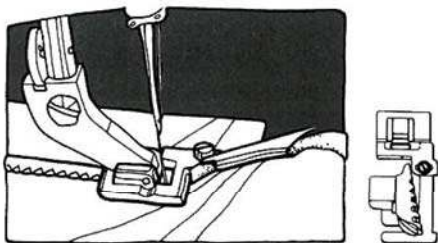
Accessory



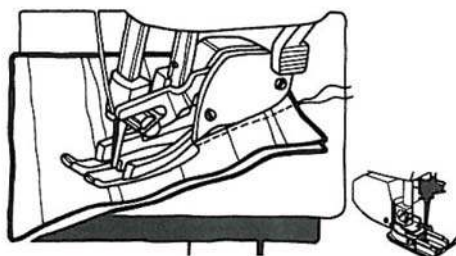
412 27 70-45. Open toe appliqué presser foot. Allows excellent view of your work.



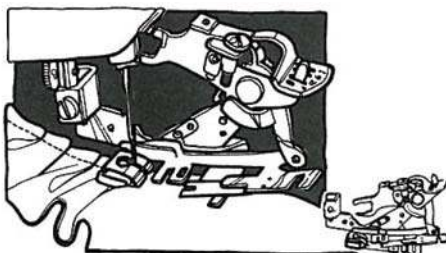
412 37 08-45. Piecing foot for patchwork with distance marks 6 mm (1/4") and 3 mm (1/8").



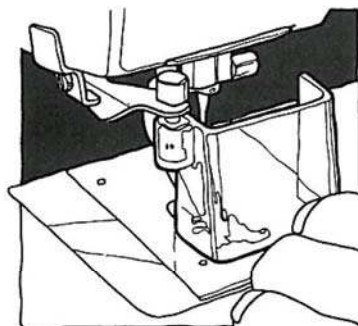
411 85 04-45. Bias binder for edging with bias tape. For use with 24 mm unfolded tape. Sew with straight stitch, zig-zag or decorative stitch.



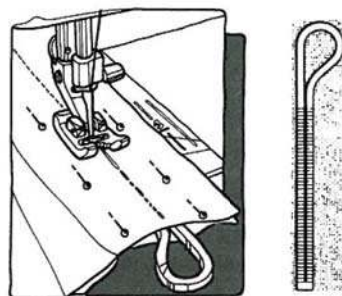
412 28 04-45. Dual feeder. To be used for materials which easily shift, e.g. plastic, velvet. Useful also for checked and striped fabrics.



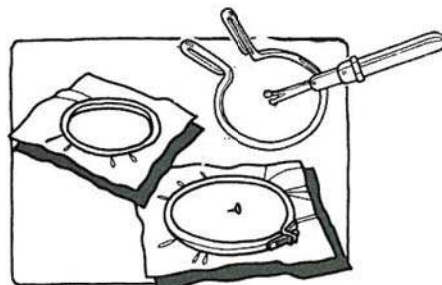
411 85 88-45. Ruffler. Can be set for gathering and pleating at every, every 6th or every 12th stitch.



412 26 26-01. Finger guard, effectively protects your fingers while sewing.

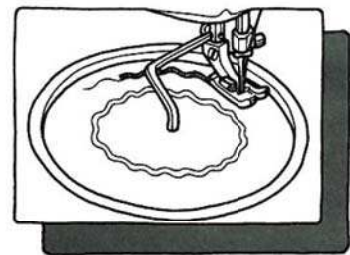


401 53 67-45. Hemstitcher. Put the fork between two layers of material, and sew together with long straight stitches.



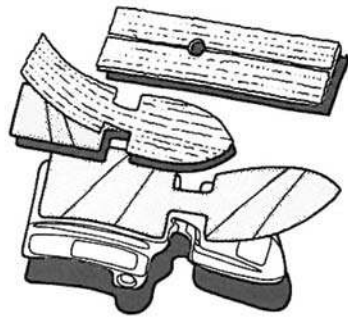
Frames for darning and embroidery.

401 53 98-01	5,5 cm Ø
409 30 28-01	10 cm Ø
409 30 29-01	15 cm Ø
409 30 30-01	20 cm Ø

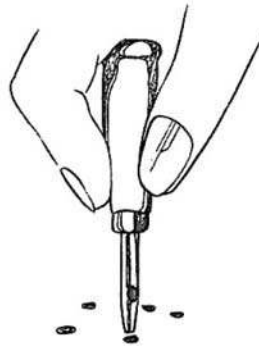


411 85 26-45. Attachment for circular sewing. Stretch the fabric over an embroidery hoop, place a thumbtack in the middle as a pivot point and attach the guide over the pivot thumbtack.

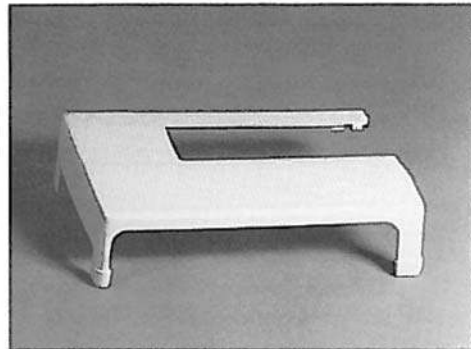
Accessory



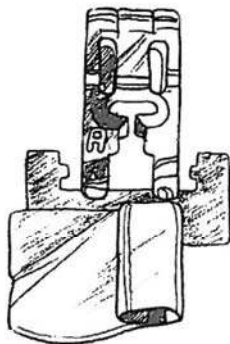
412 34 66-45. Glide plates for sewing plastic-coated fabrics, leather imitations etc.



412 36 53-45. Eyelet cutter. Useful when cutting eyelets and keyhole buttonholes.



412 08 84-01. Extension table for larger working surface.



412 01 76-45. Rolled hem guide for 10 mm hemming.



401 56 00-45. Thread spool pin. To be used when necessary for a third thread spool.

Additional cassettes containing decorative stitches

412 41 77-45 E Cassette.
Stitches 6 mm width.

412 41 78-45 F Cassette.
Stitches 6 mm width.

412 41 79-45 N Cassette.
Omnigram™ stitches.

Accessory Embroidery Unit

There are a number of accessories available for the Embroidery Unit such as cassettes containing a large selection of stitches/motifs.

For you who are interested in further developing the existing motifs or creating your own designs in a personal computer, there is also adequate software available.

Contact your dealer for more information.

Additional cassettes

412 41 69-45 Cassette 2
Letters

412 41 70-45 Cassette 3
Quilt & Country

412 41 71-45 Cassette 4
Holiday

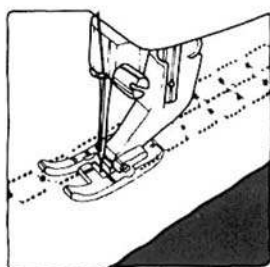
412 43 67-45 Cassette 5
Children & Sport

Accessory/Needles

Needles

Only use needles of System 130/705H.

411 31 39-01. Triple needle, 2xNo 80, 2.5 mm. Maximum stitch width setting 2.



411 31 42-01. Wing needle. Produces a hemstitch effect.

412 03 64-01. Double wing needle. 1xNo 80 standard and 1xNo 100 wing needle. Maximum stitch width setting 2.

Embroidery needles

412 40 22-01 3x No 75,
2x No 90

Quilting needles

412 40 20-01 3x No 75,
2x No 90

Microtex needles

412 40 21-01 2x No 60,
2x No 70
1x No 80

Standard needles

411 31 00-01 5x No 60
411 31 02-01 5x No 70
411 31 04-01 5x No 80
411 31 05-01 10x No 80
401 60 94-01 100x No 80
411 31 06-01 5x No 90
411 31 07-01 10x No 90
401 60 98-01 100x No 90
411 31 08-01 5x No 100
411 31 10-01 5x No 110

Jeans needles

411 31 30-01 2x No 90,
2x No 100,
1x No 110
411 31 29-01 5x No 90
412 03 55-01 5x No 100

Needles with rounded tip

412 03 56-01 5x No 70
412 03 57-01 5x No 80

Stretch needles

411 31 23-01 5x No 75
411 31 24-01 5x No 90

Combi case

412 38 10-01 2x No 70,
3x No 80,
1x No 90,
Stretch needle,
1x No 75,
1x No 90,
Jeans needle,
1x No 90,
1x No 100

411 78 90-01 1x No 70,
1x No 80,
1x No 90,
Stretch needle,
1x No 90,
Jeans needle,
1x No 90

411 31 17-01 2x No 70,
6x No 80,
2x No 90

Twin needles

412 03 66-01 2x No 70, 1,6 mm
412 03 58-01 2x No 80, 1,6 mm
411 31 33-01 2x No 80, 2 mm
412 03 70-01 2x No 80, 2,5 mm
412 03 60-01 2x No 80, 4 mm
412 38 83-01 2x No 90, 3 mm
411 31 35-01 2x No 90, 4 mm
412 38 84-01 2x No 100, 4 mm
412 32 56-01 2x No 100, 6 mm

Double stretch needle

412 03 62-01 2x No 75, 4 mm
412 32 58-01 2x No 75, 2,5 mm

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We reserve the right to change the machine equipment and the assortment of accessories without prior notice, or make modifications to the performance or design. Such modifications however will always be to the benefit of the user and the product.

The instructions in this manual are presented in good faith, however since Husqvarna has no control over the circumstances under which the instructions are applied, Husqvarna will not be held responsible for end result or damaged garments.

Declaration of Conformity to EC-directive

Herewith we confirm that this Sewing Machine in its essential parts, fulfils the **LVD Directive 73/23/EEC**, **EMC directive 89/336/EEC** and the **CE Marking Directive 93/68/EEC**.

This confirmation is based upon Certificate or Technical Construction Files, performed by SEMKO.

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