



# BERNINA 740

User Manual



## Dear BERNINA customer



Congratulations! You have decided on BERNINA and therefore on a product which will delight you for years. For more than 100 years our family company has attached greatest importance to satisfied customers. As for me, it is a matter of personal concern to offer you Swiss development and precision at the height of perfection, future-orientated sewing technology and a comprehensive customer service.

The BERNINA 7-series consists of various ultramodern machines, whose development not only focused the highest demands on technique and the ease of use but also considered the design of the product. After all we sell our products to creative people like you, who do not only appreciate high quality but also form and design.

Enjoy the creative sewing, embroidering and quilting on your new BERNINA 740 and keep informed about the various accessories at [www.bernina.com](http://www.bernina.com). On our homepage you will also find a lot of inspiring sewing instructions, to be downloaded for free.

Our highly trained BERNINA dealers will provide you with more information on service and maintenance offers.

I wish you lots of pleasure and many creative hours with your new BERNINA.

A handwritten signature in black ink that reads "H.P. Ueltschi". The signature is written in a cursive, flowing style.

H.P. Ueltschi

Owner

BERNINA International AG

CH-8266 Steckborn



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## IMPORTANT SAFETY INSTRUCTIONS

Please be aware of the following basic safety instructions when using your machine. Before using this machine, read instruction manual carefully.

### DANGER

To protect against electric shock, the following instructions must be observed.

- Never leave the machine unattended when it is connected to the power supply.
- Immediately after use and before cleaning, switch off the machine and disconnect the power cable from the outlet.

In order to protect against injury, the following instructions must be adhered to.

- Do not look directly into the LED lamp with optical instruments (e. g. magnifying glass).
- If the LED lamp is damaged or defective, have the LED lamp checked or repaired at your local authorized BERNINA dealer.
- Switch off the machine before working in the needle area.
- Before starting the machine, close all covers.

### WARNING

To reduce the risk of burns, fire, electric shock or injury to persons, the following instructions must be observed.

#### General facts

- This machine may only be used for the purpose described in this instruction manual.

#### Working environment

- Do not use the machine outdoors.
- Only use the machine in dry rooms.
- Do not use the machine in a humid area.
- Do not use the machine in rooms where aerosol products (sprays) are being used.
- Do not use the machine in rooms where oxygen is dispensed.

#### Technical condition

- Never use the machine when it is damp.
- Do not use the machine if it is not working properly.





- Do not use the machine if a cable or the plug is damaged.
- Do not use the machine if it has been dropped, damaged or has fallen into water.
- If the machine is damaged or does not work properly, have the machine checked or repaired by your local authorized BERNINA dealer.
- Keep all ventilation openings of the machine and the foot control free of lint, dust and loose cloth.
- Do not use the machine if the ventilation openings are blocked.

### **Accessories and Supplies**

- Only use the accessories recommended by the manufacturer.
- Always use the original BERNINA Stitch Plate.  
An incorrect stitch plate can result in needle breakage.
- Use only straight needles of good quality.  
Bent or damaged needles can cause needle breakage.
- This machine is double-insulated (except for USA, Canada and Japan).  
Use only identical replacement parts. See instructions for servicing of double-insulated products.
- To lubricate the machine, only use oil recommended by BERNINA.

### **Safety instructions**

- While operating the machine, all protective inserts must be in place and all covers must be closed.

### **Appropriate use**

- The machine may be used, cleaned and maintained by children older than eight or by people with reduced physical, sensory or mental capabilities or if there is a lack of experience and knowledge as long as they have been given instructions.
- Furthermore, these persons must be supervised while working with the machine, and/or they must know the safe operation of the machine and be aware of the resulting hazards.
- Children must not play with the machine.
- Special care should be taken when the machine is operated by or in the presence of children.
- Only use the machine with the supplied power cable.
- The power cable for USA and Canada (power plug NEMA 1-15) may only be used for a maximum supply voltage of 150 volt-to-ground.
- Only use this machine with the supplied foot control of type LV-1.
- Do not insert any objects into the openings of the machine.

- Do not place any objects on the foot control.
- While sewing, guide the fabric gently. Pulling and pushing the fabric can cause needle breakage.
- Keep fingers away from all moving parts.
- Special care is required in the needle area.
- For activities in the needle area - such as threading the needle, changing the needle, threading the looper or changing the presser foot - switch off the machine.
- To switch off, set the power switch to «0».
- When protective covers are removed, when the machine is oiled or when other cleaning and maintenance operations mentioned in this instruction manual are carried out, switch off the machine and disconnect the power plug from the outlet.
- Pull the plug out of the outlet by pulling on the plug. Do not pull on the cable.



## Important information

### Availability of the instruction manual

The instruction manual is supplied with the machine.

- Keep the instruction manual safe at a suitable place near the machine to have it at hand in case that you need to look up something.
- If you pass the machine to a third party, always include the instruction manual.
- The latest version of the instruction manual can be downloaded at [www.bernina.com](http://www.bernina.com)

### Proper use

Your BERNINA machine is conceived and designed for private household use. It is intended for sewing fabrics and other materials as described in this instruction manual. Any other use is not considered proper. BERNINA assumes no liability for consequences resulting from improper use.


### Equipment and scope of delivery

Example images are used in these operating instructions for the purposes of illustration. The machines shown in the images and the accessories shown therefore do not always match the actual items included with your machine. The supplied accessory can vary depending on the country of delivery. You can acquire any accessories mentioned or shown that are not included in the scope of delivery as optional accessories from a specialist BERNINA dealer. Further accessories can be found at [www.bernina.com](http://www.bernina.com).

For technical reasons and in order to improve the product, changes may be made to the equipment of the machine and the scope of delivery at any time and without prior notice.

### Maintenance of double-insulated products

In a double-insulated product, two systems of insulation are provided instead of grounding. No grounding means is provided on a double-insulated product nor should a means for grounding be added to the product. Servicing a double-insulated product requires extreme care and knowledge of the system and should only be done by qualified service personnel. Only original spare parts should be used for service and repairs. A double-insulated product is marked with the words: «Double-Insulation »or «double-insulated».

 The symbol may also be marked on the product.

### Environmental Protection

BERNINA is committed to the protection of the environment. We strive to minimize the environmental impact of our products by continuously improving product design and our technology of manufacturing.



The machine is labeled with the symbol of the crossed-out wastebin. This means that the machine should not be disposed of in household waste when it is no longer needed. Improper disposal can result in dangerous substances getting into the groundwater and thus into our food chain, damaging our health.

The machine must be returned free of charge to a nearby collection point for waste electrical and electronic equipment or to a collection point for the reuse of the machine. Information on the collection points can be obtained from your local administration. When purchasing a new machine, the dealer is obliged to take back the old machine free of charge and dispose of it properly.

If the machine contains personal data, you are responsible for deleting the data yourself before returning the machine.

## Explanation of symbols



Designates a high-risk hazard which can lead to serious injuries or potentially even death if not avoided.



Designates a medium-risk hazard which can lead to serious injuries if not avoided.



Designates a low-risk hazard which can lead to minor or moderate injuries if not avoided.



Designates a hazard which can lead to material damage if not avoided.



**Tips** from BERNINA **sewing experts** are found next to this symbol.

# 1 My BERNINA

## 1.1 Introduction

With your BERNINA 740 you can sew, embroider and quilt. Delicate silk or satin fabrics as well as heavy-weight linen, fleece and denim can be sewn without any problems with this machine. Numerous practical as well as decorative stitches, buttonholes and embroidery motifs are at your disposal.

Additional to this instruction manual, following help programs are provided, giving you useful advice and support at any time how to operate you BERNINA 740.

The **Tutorial** provides information and explanations on different sections concerning sewing and the various stitches.

The **Creative Consultant** informs you about decision support for sewing projects. After entering the kind of fabric and the desired sewing project, suggestions concerning the suitable needle or the appropriate presser foot are displayed.

The **Help Program** provides information about individual stitch patterns, functions and operations in the display.

### Further information

In addition to this instruction manual of your BERNINA 740 further information products are enclosed.

The latest version of your instruction manual as well as additional information in connection with the machine and accessories can be found on our website <http://www.bernina.com>

## 1.2 BERNINA Quality control

All BERNINA machines are assembled with utmost care and are subjected to an extensive functionality test. The integrated stitch counter therefore indicates that the machine has already sewn stitches, which were performed exclusively for test purposes and quality control. The subsequent thorough cleaning does not exclude the possibility that thread remnants may still be found in the machine.

## 1.3 Welcome to the world of BERNINA

Made to create, this is the slogan of BERNINA. Not only with our machines do we support you in the implementation of your ideas. In addition to the offers listed below, we offer you lots of suggestions and instructions for your future projects as well as the opportunity to exchange ideas with other sewing, quilting and embroidery enthusiasts. I wish you lots of pleasure.

### BERNINA YouTube Channel

On YouTube we offer a wide range of how-to videos and support concerning the most important functions of our machines. You can also find detailed explanations many presser feet, meaning that your projects will be a complete success.

<https://www.youtube.com/BerninaInternational>

Available in English and German.

### inspiration – the sewing magazine in the online shop

Are you looking for ideas, sewing patterns and instructions for great sewing projects? In this case, the BERNINA magazine «inspiration» is exactly what you need. Three times a year, inspiration offers fantastic sewing and embroidery ideas. From seasonal fashion trends to trendy accessories and practical tips to original decorations for your home or cute sewing ideas for children.

The magazine is available in English, German, Dutch, and French.

In our online shop you can purchase "inspiration" as an e-magazine or as a print version, either as individual issues or as a subscription. Furthermore, there are many individual downloadable cutting patterns to discover! Please have a look at <https://www.bernina.com/inspiration>

### **BERNINA Blog**

Subtle instructions, free sewing patterns and embroidery motifs as well as many new ideas: All this you can find in the weekly blog of BERNINA. Our experts give useful tips and explain step by step how you can achieve the desired result. In the community you can upload your own projects and exchange experiences and ideas with other sewing and embroidering enthusiasts.

<https://www.bernina.com/blog>

Provided in English, German and Dutch.

### **BERNINA Social Media**

Follow on social networks to learn more about events, thrilling projects as well as tips and tricks all about sewing, quilting and embroidering. We keep updated and we are happy to show you one or two highlights from the world of BERNINA.

<https://www.bernina.com/social-media>



## 1.4 Overview Machine

### Overview front controls



- |   |                        |   |                             |
|---|------------------------|---|-----------------------------|
| 1 | «Quick Reverse»        | 6 | «Needle Up/Down»            |
| 2 | «Thread Cutter»        | 7 | «Upper Multi-function knob» |
| 3 | «Presser Foot Up/Down» | 8 | «Lower Multi-function knob» |
| 4 | «Start/Stop»           | 9 | «Needle Left/Right»         |
| 5 | «Pattern End»          |   |                             |



### Overview front



- |   |   |    |                                   |
|---|---|----|-----------------------------------|
| 1 | Bobbin cover                                  | 7  | Thread take-up lever cover        |
| 2 | Connection for accessory (optional accessory) | 8  | Thread take-up lever              |
| 3 | Presser foot                                  | 9  | Fixing screw                      |
| 4 | Needle threader                               | 10 | Connection for the slide-on table |
| 5 | Sewing light                                  | 11 | Connection for Free Hand System   |
| 6 | Speed control                                 |    |                                   |



## Overview sideways



- |   |                                 |    |                                   |
|---|---------------------------------|----|-----------------------------------|
| 1 | Connection for foot control     | 7  | Power switch                      |
| 2 | PC-connection                   | 8  | Connection for power cable        |
| 3 | Spool pin                       | 9  | Magnet holder for touchscreen pen |
| 4 | Winding unit with thread cutter | 10 | Air vents                         |
| 5 | Swiveling spool pin             | 11 | USB port                          |
| 6 | Handwheel                       | 12 | Feed dog up/down                  |

## Overview - Back panel



- 1 Connection for Slide-on Table
- 2 Connection for Darning Hoop
- 3 BSR connection
- 4 Connection for accessory
- 5 Air Vents
- 6 Thread Guide
- 7 Bobbin Winding Unit

- 8 Carry Handle
- 9 Bobbin Winder Pretension
- 10 Thread Guide
- 11 BDF BERNINA Dual Feed
- 12 Thread Cutter
- 13 Feed Dog
- 14 Stitch Plate

## 1.5 Supplied accessories

### Overview accessories machine






























Illustration	Name	Purpose
	Dust cover	To protect the machine from dust and contamination.
	BERNINA Accessory Box	To store the supplied accessories as well as the optional accessories.
	Free Hand System (FHS)	To raise and lower the presser foot.
	Slide-on Table	To increase the sewing surface.
	Spool disc	To support the regular unwinding of the thread from the spool.
	Bobbin for B9 hook Set of 5	To wind the bobbin thread.
	Foam pad 2 pieces	The foam pad prevents the thread from slipping, tangling or breaking on the spool pin.
	Touchscreen pen	For precise operation of the touch display.
	Seam ripper	To undo seams and to cut buttonholes open.

Illustration	Name	Purpose
	Height compensating tool	To level an angled position of the presser foot sole when sliding over thick seams.
	Selection of needles	For any common applications.
	Seam guide, right	To align regular seam distances.
	Screwdriver Torx, gray	To change the needle.
	Screwdriver red (slot)	To loosen and tighten slotted screws.
	Angular Torx wrench Torx	To open the headframe.
	Brush/Needle Inserter	To clean the feed dog and the looper area.
	Sewing machine oil	To oil the machine.
	Power cable	To connect the machine with the power supply system.
	Foot control	To start and stop the machine. To control the sewing speed.

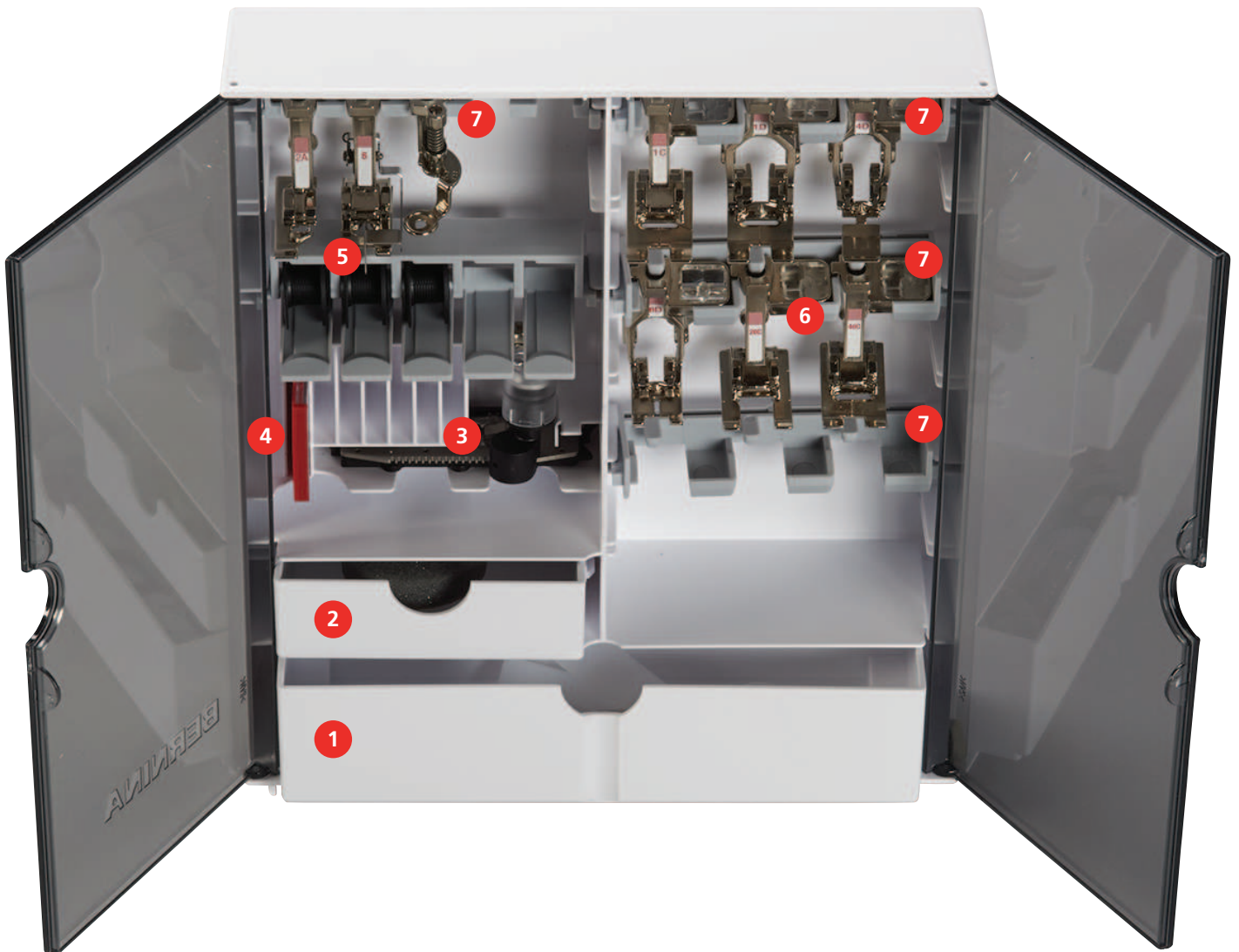
## Overview presser feet

Supplied standard presser feet

Illustration	Number	Name	Purpose	Example
	#1C	Reverse Pattern Foot	To sew various practical and decorative stitches.  To sew forward and in reverse.	
	#1D	Reverse Pattern Foot	To sew various practical and decorative stitches with Dual Feed.  To sew forward and in reverse.	
	#3A	Buttonhole foot with slide	To sew buttonholes automatically.	
	#4D	Zipper Foot	To sew in zippers with Dual Feed.	
	#20C	Open Embroidery Foot	To sew appliqués and decorative patterns.	

## Accessory box

In the accessory box, accessories can be neatly stored in compartments and matching holders.



- |   |                            |   |   |
|---|----------------------------|---|---|
| 1 | Big drawer                 | 5 | Spool Pin                                       |
| 2 | Small drawer               | 6 | Presser Feet                                    |
| 3 | Buttonhole foot with slide | 7 | Presser Foot Holders for 5.5 mm and 9.0 mm feet |
| 4 | Selection of needles       |   |   |

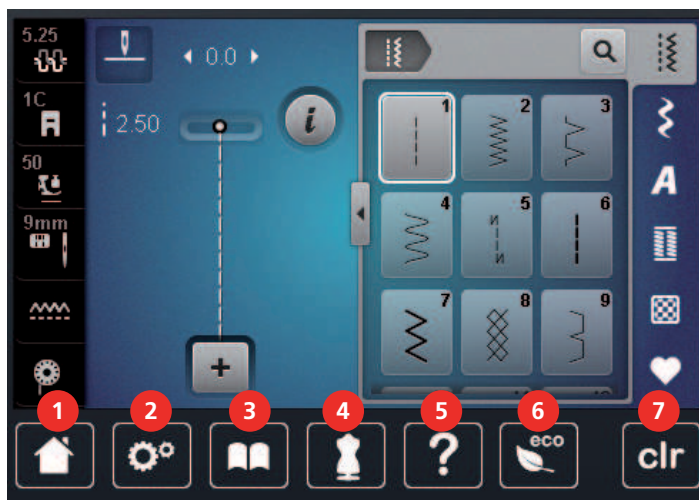
## 1.6 Overview User Interface

### Overview functions/visual information



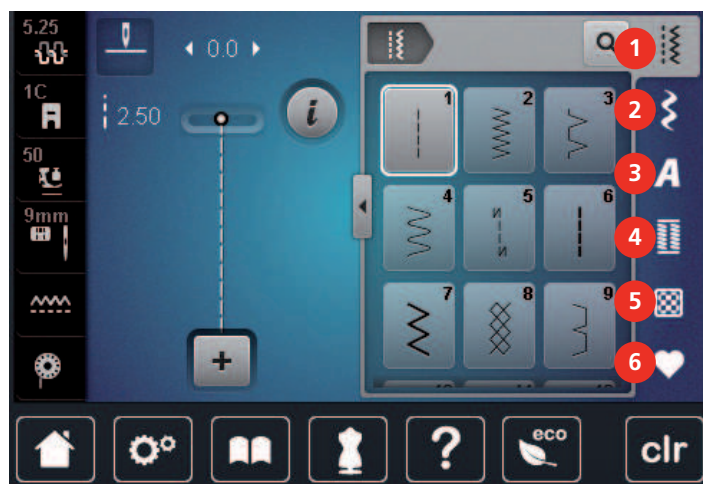
- |   |   |   |                                 |
|---|---|---|---------------------------------|
| 1 | «Upper Thread Tension»                            | 4 | «Stitch Plate/Needle Selection» |
| 2 | «Presser foot indicator / presser foot selection» | 5 | «Feed Dog Up/Down»              |
| 3 | «Presser Foot Pressure»                           | 6 | «Bobbin Thread»                 |

### Overview System settings



- |   |                       |   |                  |
|---|-----------------------|---|------------------|
| 1 | «Home»                | 5 | «Help»           |
| 2 | «Setup Program»       | 6 | «eco Mode»       |
| 3 | «Tutorial»            | 7 | «Clear Settings» |
| 4 | «Creative Consultant» |   |                  |

## Overview selection menu sewing



- |   |                       |   |                   |
|---|-----------------------|---|-------------------|
| 1 | «Practical Stitches»  | 4 | «Buttonholes»     |
| 2 | «Decorative Stitches» | 5 | «Quilt Stitches»  |
| 3 | «Alphabets»           | 6 | «Personal Memory» |

## Software operation

The touch-sensitive screen can be operated with the finger or stylus.

**Tap:** Short tap of an element.

**Swipe:** Tap an element and swipe quickly on the screen.





**Draw:** Tap the screen and slowly move in one direction, eg. for scrolling up and down.

## Navigation


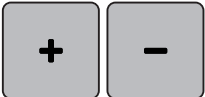

Illustration	Name	Purpose
	«Home»	Switch between «Home screen» and «Sewing screen».
	Navigation path	Show a previous menu level.
	«Close»	Close the window.
	More	Show more features or information.
	Continue	Scroll to next display.
	Back	Scroll to previous display.



### Activate/deactivate functions

Figure	Element	Status
	Switch	Function is activated.
		Function is deactivated.
	Icon	Function ist deactivated.
		Function ist activated.

### Adjust values

Illustration	Name	Purpose
	Slider control	Set the value with the slider control. Reset the value to the default value by tapping the small bullet.
	Field «Plus» / «Minus»	«Plus» increase, «Minus» reduce the value.
	Yellow frame	Indication that the set value differs from the default value. Reset the value to the default value by tapping.

### Enter text and numbers

To enter numerical values or text, a corresponding keyboard is shown.











Illustration	Name	Purpose
	Entry field	Display of the entry. Delete all characters entered with a single tap.

Illustration	Name	Purpose
	«Delete»	Delete the last character.
	«Lower Case Characters»	Show the available letters in lower case letters.
	«Upper Case Characters»	Show the available letters in upper case letters.
	«Numbers and Mathematical Characters»	Show the available numbers and mathematical characters.
	«Special Characters»	Show the available special characters.
	«Confirm»	Confirm the entry and leave the submenu.
	«Cancel»	Cancel the entry and the view closes.

## 1.7 Needle, Thread, Fabric

In the course of time a needle wears out. Therefore it should be replaced regularly. Only a perfect point results in a good stitching result. In general it can be said: the thinner the thread, the finer the needle. The illustrated needles are either standard or optional accessory, depending on the machine.

- Needle sizes 70, 75: for thin fabrics.
- Needle sizes 80, 90: for medium fabrics.
- Needle sizes 100, 110 and 120: for heavy fabrics.

### Overview Needles

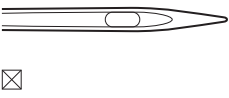
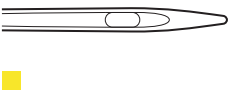
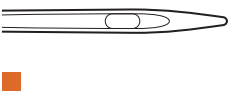
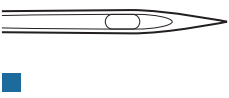
Illustration	Needle name	Needle description	Purpose
	<b>Universal needle</b> 130/705 H 60-120	Slightly rounded point	For nearly all natural and synthetic fabrics (woven and knitted).
	<b>Stretch needle</b> 130/705 H-S 75, 90	Mid-sized ball point, special eye shape and needle scarf	For jersey, tricot, knit and stretch fabrics.
	<b>Jersey/Embroidery needle</b> 130/705 H SUK 60-100	Mid-sized ball point	For knitware, knitted good. For embroidering.
	<b>Jeans needle</b> 130/705 H-J 80-110	Point, narrow point, reinforced shaft	For heavy-weight fabrics such as jeans or canvas.

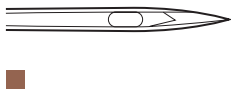
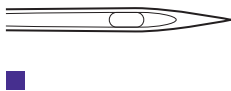
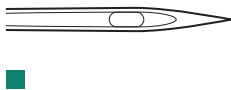
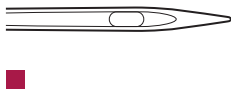
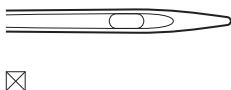
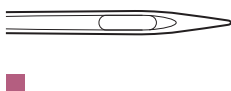
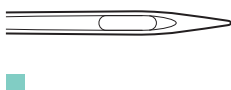

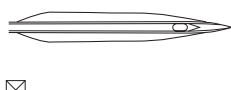
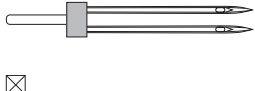
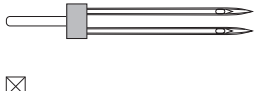


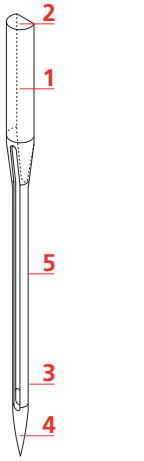
Illustration	Needle name	Needle description	Purpose
	<b>Leather needle</b> 130/705 H LR 90, 100	With cutting point (LR = special point to sew leather)	For all types of leather, synthetic leather, plastic, sheeting.
	<b>Microtex needle</b> 130/705 H-M 60-110	Especially sharp, narrow point	For micro fiber fabrics and silk.
	<b>Quilting needle</b> 130/705 H-Q 75, 90	Slightly rounded fine point	For straight and topstitching.
	<b>Embroidery needle</b> 130/705 H-E 75, 90	Small ball point, especially wide needle eye and wide thread groove	For embroidery on all natural and synthetic fabrics.
	<b>Fine-material needle</b> 130/705 H SES 70, 90	Small ball point	For fine knitware and knitted materials.  For embroidery on fine, delicate fabrics.
	<b>Metafil needle</b> 130/705 H METAFIL 80	Long needle eye (2 mm) in all needle sizes	For sewing or embroidering with metallic threads.
	<b>Cordonnet needle (to patch embroidery)</b> 130/705 H-N 70-100	Long needle eye (2 mm) in all needle sizes	Topstitching with thick thread.
	<b>Felt needle</b> PUNCH	Needle with barbed hook	For felt work.
	<b>Hemstitch needle</b> 130/705 H WING 100-120	Wing-like widened needle shaft (wing)	To sew blind stitches.
	<b>Universal double needle</b> 130/705 H ZWI 70-100	Needle distance: 1.0/1.6/2.0/2.5/3.0/4.0/6.0/8.0	For visible hems in stretch fabrics, pintucks, decorative sewing.
	<b>Stretch double needle</b> 130/705 H-S ZWI 75	Needle distance: 2.5/4.0	For visible hems in stretch fabrics, pintucks, decorative sewing.

Illustration	Needle name	Needle description	Purpose
 ☒	<b>Hemstitch double needle</b>  130/705 H ZWIHO 100	Needle distance: 2.5	For special effects with hemstitch embroidery.
 ☒	<b>Universal triple needle</b>  130/705 H DRI 80	Needle distance: 3.0	For visible hems in stretch fabrics, decorative sewing.

### Example for needle description

The 130/705 system, which is the most common for household machines, is explained by the following picture of a Jersey/Stretch needle.

	<p><b>130/705 H-S/70</b></p> <p><b>130</b> = Shank length (1)</p> <p><b>705</b> = Flat shank (2)</p> <p><b>H</b> = Needle scarf (3)</p> <p><b>S</b> = Needle point (here medium ball point) (4)</p> <p><b>70</b> = Needle size 0.7 mm (5)</p>
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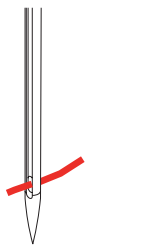
### Thread selection

For a perfect sewing result, thread and fabric quality play an important role.

We recommend purchasing quality threads to achieve good sewing results.

- Cotton threads have the advantage of being a natural fiber and therefore are especially suitable for sewing cotton fabrics.
- Mercerized cotton threads have a slight sheen that is not lost with washing.
- Polyester threads have a high tensile strength and is particularly colorfast.
- Polyester threads are more flexible and are recommended where a strong and elastic seam is required.
- Rayon threads are made of natural fibers and have a brilliant sheen.
- Rayon threads are suitable for decorative stitches and achieve a more beautiful effect.

### Needle/thread combination

	The needle/thread combination is correct, when the thread fits perfectly into the long groove and goes easily through the needle eye. The thread can be optimally secured.
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## 2 Sewing preparation

### 2.1 Before using the machine for the first time



BERNINA recommends lubricating the hook before using the machine for the first time or after a longer period of non-use. (see page 116)

By oiling the hook, the occurrence of unwanted noises in the hook area can be avoided.

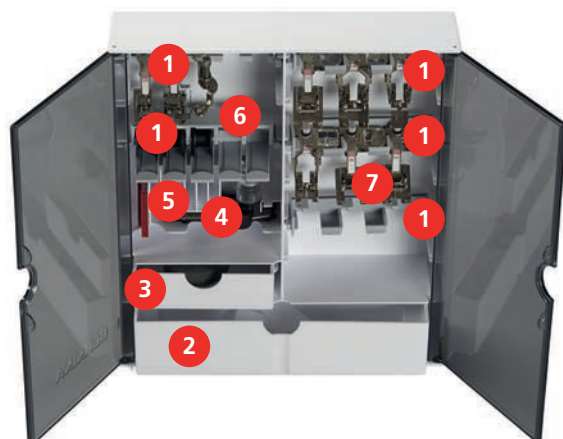
### 2.2 Accessory box

#### Accessory box free standing

> On the back of the box, pull both extensions out until they click into place.



#### Storing accessory



- > Insert the holders (1) for bobbins, presser feet and needles into the accessory box.
- > Store the presser feet in the holders (7) (5.5 mm or 9.0 mm).
- > Store the small parts, e.g. thread discs etc., in the drawers (2) and (3).
- > Buttonhole foot with slide #3A in compartment (4).
- > Store the provided needle package in the special compartment (5).
- > Position the bobbins in the bobbin holder (6) with the silver sensor surface to the right.
- > To remove a bobbin, press the compartment holder down.

## 2.3 Connection and Switching on

### Connecting the foot control

The cable of the foot control is rolled up on its underside.

- > Unroll the cable of the foot control to the desired length and fix it in the cable holders of the foot control..



- > Insert the plug of the cable into the foot control socket of the machine.



- > Place the foot control under the table.
- > If the cable is too long, roll up the excess length and fix it in the cable holders of the foot control.

### Connecting the machine

To ensure safe operation of the machine, only the supplied mains cable may be used. The supplied power cable is designed for the voltage range applicable in the country of use. If the machine is to be used in a country other than the country of origin, the power cable suitable for that country must be obtained from the Authorized BERNINA dealer.

The power cable for USA and Canada has a polarized plug (one blade wider than the other). To reduce the risk of electrical shock, this plug is intended to fit in a polarized outlet only one way. If the plug does not fit into the outlet, turn the plug upside down and plug it in. If it still does not fit, contact a qualified electrician to install the proper outlet. Do not modify the plug in any way.

- > Insert the device connector of the power cable into the machine's power cable connection.



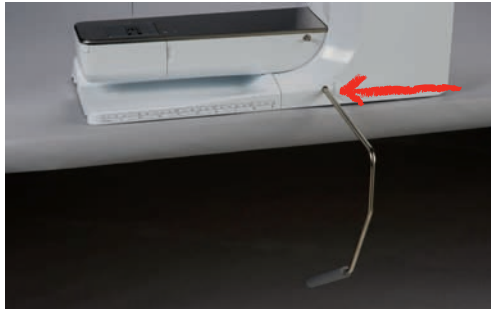
- > Insert the power plug of the power cable into the socket.

## Attaching the knee lifter of the Free Hand System



The lateral position of the knee lifter can be adjusted by your local BERNINA Dealer if required.

- > Insert the knee lifter into the opening at the front side of the machine.
- > Adjust the sitting height so that the knee lifter can be operated with the knee.



## Fixing the touchscreen pen

- > Store the touchscreen pen at the magnet holder.



## Switching the machine on

- > Set the Power Switch to «I».



## 2.4 Foot control

### Regulating the speed via the foot control

Via the foot control the speed can be adjusted infinitely variable.

- > Press the foot control down carefully to start the machine.
- > To sew faster, press the foot control harder.





- > Release the foot control to stop the machine.



### Raising/Lowering the needle

- > Sink the heel back on the foot control to raise/lower the needle.



## 2.5 Spool pin

### Swiveling spool pin

Installing the spool holder



With metallic or other special threads, it is recommend to use the swiveling spool pin.

The swiveling spool holder is necessary when several threads are sewn and it can also be used for bobbin winding while sewing.

- > Swivel the spool holder up as far as it will go.



Inserting foam pad and thread spool

The foam pad prevents the thread from getting hooked at the swiveling spool holder.

- > Place the foam pad on the swiveling spool holder.
- > Place the thread spool on the spool holder.



### Horizontal spool pin

Placing the foam pad, the thread spool and the spool disc

The spool disc provides an even unwinding of the thread from the thread spool. The spool disc is only used with the horizontal spool pin.

- > Place the foam pad on the spool pin.
- > Place the thread spool on the spool pin.
- > Position the appropriate spool disc on the spool pin so that there is no space between the spool disc and the thread spool.



Using a spool net

The spool net provides an even unwinding of the thread from the thread spool and prevents the thread from knotting and breaking. The spool net is only used with the horizontal spool holder.

- > Pull the spool net over the thread spool.

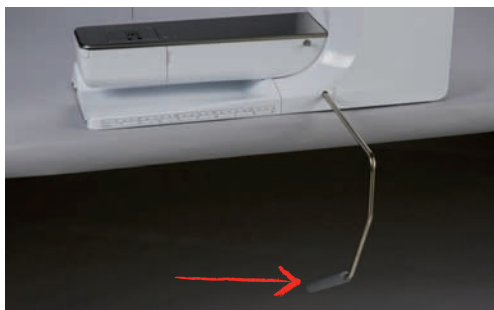




## 2.8 Presser foot

### Adjusting the presser foot position via the knee lifter of the Free Hand System

- > Adjust the sitting height so that the knee lifter can be operated with the knee.
- > Push the knee lifter with the knee to the right to raise the presser foot.



- Simultaneously the feed dog is lowered and the thread tension is released.
- > Release the knee lifter slowly to lower the presser foot.

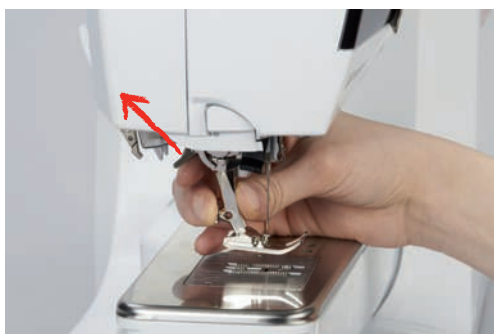
### Adjusting the presser foot position via the button «Presser foot up/down»



- > To raise the presser foot, push the button «Presser Foot Up/Down».
- > To lower the presser foot, push the button «Presser Foot Up/Down» again.

### Changing the presser foot

- > Raise the needle.
- > Raise the presser foot.
- > Switch the machine off and disconnect it from the power supply system.
- > Push the clamping lever up.



- > Remove the presser foot.
- > Guide the new presser foot upwards over the cone.
- > Press the clamping lever down.

### Having the presser foot displayed in the User Interface

For each selected stitch, the machine displays the recommended and any other alternative presser feet.

Prerequisite:

- The machine is switched on.
- > Select a stitch pattern.
  - In the icon «Presser foot indicator / presser foot selection» the recommended presser foot is indicated with a number.



- > Tap «Presser foot indicator / presser foot selection».
- > Wipe up in the area of the presser feet to have more presser feet displayed.
- > When a presser foot is tapped, the description and use for that presser foot appears.



### Adjusting the presser foot pressure



The presser foot pressure is designed to adjust the pressure of the presser foot optimally to the fabric thickness. When working with thick fabrics, it is recommended to reduce the presser foot pressure. This provides the advantage that the presser foot is slightly lifted so that the fabric can be moved more easily. When working with thin fabrics, it is recommended to increase the presser foot pressure. This provides the advantage that the fabric cannot be moved too easily under the presser foot.



- > Tap «Presser Foot Pressure».
- > Adjust the Presser Foot Pressure.

## 2.9 Instruction for adjusting the feed dog



- > Tap «Feed Dog Up/Down».
- > Raise or lower the feed dog according to the animation.

## 2.10 Instruction how to thread the bobbin thread



- > Tap «Bobbin Thread».
- > Thread the bobbin thread according to the animation.

## 2.11 Needle and stitch plate

### Changing the needle

- > Raise the needle.
- > Switch the machine off and disconnect it from the power supply system.
- > Remove the presser foot.

- > Loosen the fixing screw of the needle using the screwdriver gray Torx.



- > Pull the needle down.
- > Hold the new needle with the flat side to the back.
- > Insert the needle as far as it will go.
- > Tighten the fixing screw of the needle using the screwdriver gray Torx.

### Selecting the needle in the User Interface

After changing the needle, you can check whether this can be used with the selected stitch plate.

- > Tap «Stitch Plate/Needle Selection».



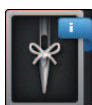
- > Select the fitted needle.

### Selecting the needle type and the needle size

Useful reminder function: So that no information is lost, the needle type and needle thickness can also be saved on the machine. This means that the saved needle type and needle thickness can be checked at any time.



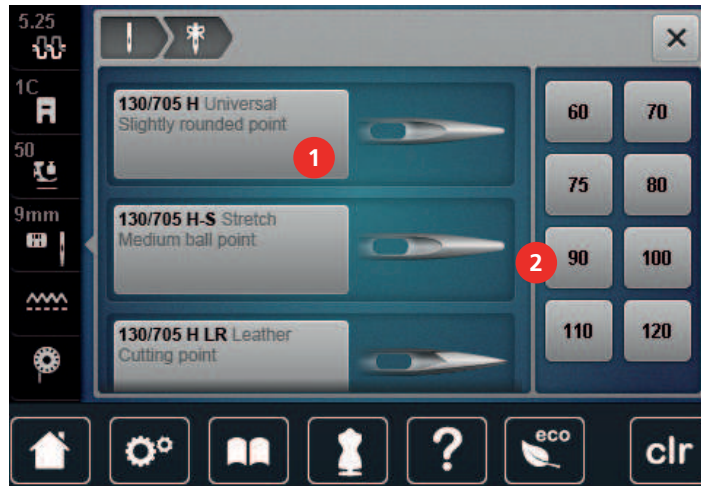
- > Tap «Stitch Plate/Needle Selection».



- > Tap «Needle Selection».
- > Select the needle type (1) of the fitted needle.



- > Select the needle thickness (2) of the fitted needle.



### Adjusting the needle position up/down

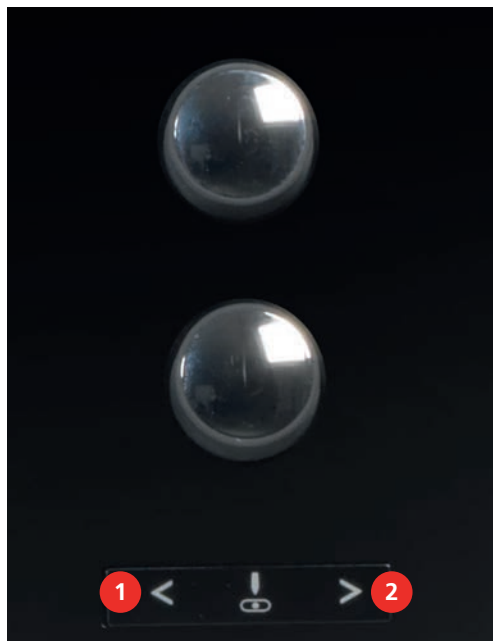


- > To lower the needle, push the button «Needle Up/Down».
- > To raise the needle, push the button «Needle Up/Down» again.

### Adjusting the needle position left/right

There is a total of 11 needle positions. The needle position is indicated by the needle position number in the display.

- > To position the needle position to the left, push the button «Needle left» (1).
- > To position the needle position to the right, push the button «Needle right» (2).



### Needle stop up/down (permanent)



- > To set the needle stop position permanently, tap «Needle Stop Up/Down».
  - The machine stops with needle position down as soon as the foot control is released or the button «Start/Stop» has been pushed.

- > Tap «Needle Stop Up/Down» again.
  - The machine stops with needle position up as soon as the foot control is released or the button «Start/Stop» has been pushed.

### Changing the stitch plate

The stitch plate is marked with vertical, horizontal and diagonal lines in millimeters (mm) and inches (inch). These markings are helpful for sewing or precise top-stitching.

Prerequisite:

- The feed dog is lowered.
  - The machine is switched off and disconnected from the power supply.
  - The needle and presser foot are removed.
- > At the marking on the rear of the stitch plate, push the stitch plate downwards until it tips.



- > Remove the stitch plate.
- > Place the openings of the new stitch plate above the corresponding guide pins and press down until it clicks into place.

### Selecting the stitch plate in the User Interface

After changing the stitch plate, you can check whether this can be used with the selected needle.



- > Tap «Stitch Plate/Needle Selection».
- > Select the previously attached the stitch plate.



- If the selected stitch plate is suitable to be used in combination with the needle, sewing can begin.
- If the selected stitch plate is not suitable to be used in combination with the needle, an error message is displayed and the machine is automatically prevented from starting.



## 2.12 Threading

### Threading the upper thread

Prerequisite:

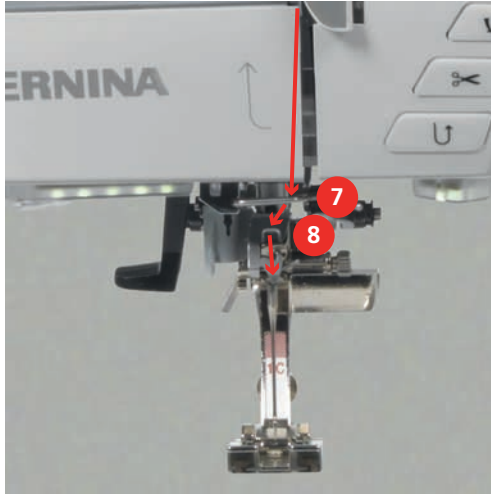
- The needle and the presser foot are raised.
  - The machine is switched off and disconnected from the power supply system.
- > Place the foam pad on the spool holder.
  - > Place the thread spool on the spool holder so that the thread unwinds clockwise.
  - > Add the appropriate spool disc.
  - > Guide the thread in direction of the arrow through the rear thread guide (1) and hold the thread with the hands so that it is taut and can be inserted into the thread tension.
  - > Guide the thread in direction of the arrow through the thread tension (2).



- > Guide the thread downwards (3) around the thread take-up lever cover (4).
- > Guide the thread upwards and insert into the thread take-up lever (5).
- > Guide the thread downwards again (6).



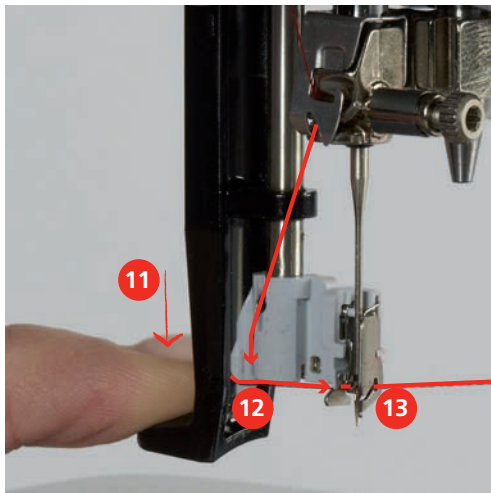
- > Guide the thread through the guides (7/8) above the presser foot.



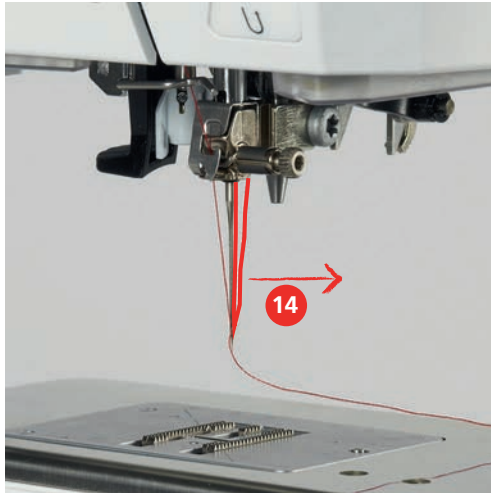
- > Switch the machine on.
- > Press the semi-automatic threader lever (9) slightly down, keep pressed and pull the thread to the left beneath the gray threader hook (10).



- > Guide the thread around the gray threader hook from the left to the right (12).
- > Press the threader lever down as far as it will go (11) and then pull the thread from the left to the right (12) through the threader slot (13) until it hooks into the small wire hook.



- > Release the lever and the thread simultaneously to thread.
- > Pull the thread loop (14) to the back.



- > Pull the thread beneath the presser foot from back to front over the thread cutter (15) and cut.



### Threading the double needle

Prerequisite:

- The double needle is inserted.
- > Guide the first thread in direction of the arrow on the right side of the tension disc (1).
- > Guide the second thread in direction of the arrow on the left side of the tension disc (1).



- > Guide the first and the second thread to the thread guide above the needle.
- > Thread the first thread manually into the right needle.

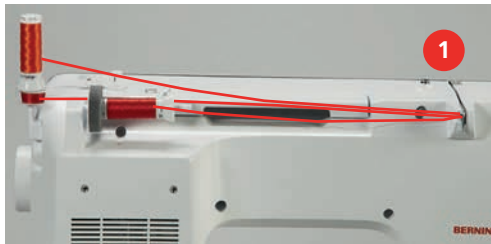
- > Thread the second thread manually into the left needle.



### Threading the triple needle

Prerequisite:

- The triple needle is inserted.
- > Place the foam pad, the thread spool and the appropriate spool disc on the spool holder.
- > Place the filled bobbin on the swiveling spool holder.
- > Fit the appropriate thread disc.
- > Place the thread spool.
- > Thread the 3 threads up to the upper thread guide.



- > Guide 2 threads past the thread tension discs (1) on the left and to the thread guide above the needle.
- > Guide 1 thread past the thread tension discs (1) on the right and to the thread guide above the needle.
- > Thread the first thread into the left needle manually.
- > Thread the second thread into the center needle manually.
- > Thread the third thread into the right needle manually.

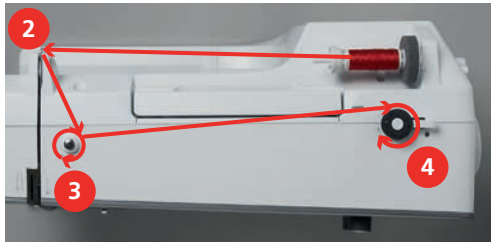
### Winding the bobbin thread

Prerequisite:

- The foam pad, the thread spool and the appropriate spool disc are fitted.
- > Attach the empty bobbin on the winding unit (1) so that the silvery sensor surface is down.



- > Guide the thread to the left into the rear thread guide (2).
- > Guide the thread around the bobbin winder pretension clockwise (3).
- > Wind the thread clockwise 2 – 3 times around the empty bobbin (4).



- > Pull the excess thread over the thread cutter at the engaging lever (5) and cut.



- > Push the engaging lever (6) towards the bobbin.



- The machine winds and the display to wind the bobbin appears.
- > Set winding speed.
- > To stop the winding process, the engaging lever must be pushed to the right.
- > Push the engaging lever towards the bobbin again to continue the winding process.
  - As soon as the bobbin is full, the machine stops the winding process automatically.
- > Remove the bobbin and cut the thread using the thread cutter at the engaging lever.

## Threading the bobbin thread

Prerequisite:

- The needle is raised.
- The machine is switched off and the bobbin cover is opened.

- > Press the bobbin case release at the bobbin case (1).



- > Remove the bobbin case.
- > Remove the bobbin from the bobbin case.
- > Insert the new bobbin so that the silvery sensor surface is facing the back of the bobbin case.



- > Pull the thread into the slot (2) from the left.



- > Pull the thread to the right under the spring (3), then lead the thread under the two thread guides (4) and pull upwards.



- > When inserting into the machine, hold the bobbin case so the thread guide (5) points upwards.



- > Insert the bobbin case.
- > Press onto the center of the bobbin case until it engages.
- > Pull the thread through the thread cutter (6) and cut.



- > Close the bobbin cover.



### 3 Setup Program

#### 3.1 Sewing settings

##### Adjusting the upper thread tension

Alterations of the upper thread tension in the Setup Program affect all stitch patterns. Individual alteration of the upper thread tension can also be made for currently selected stitches.



> Tap «Setup Program».



> Tap «Sewing settings».



> Tap «Upper Thread Tension».  
> Adjust the upper thread tension.

##### Adjusting the maximum sewing speed

You can use this function to reduce the maximum speed.



> Tap «Setup Program».



> Tap «Sewing settings».



> Tap «Maximum Sewing Speed».  
> Set the maximum sewing speed.

##### Programming the securing stitches

If the function is switched on, at the start of the pattern, 4 securing stitches are automatically sewn after the thread cut.



> Tap «Setup Program».



> Tap «Sewing settings».



> Tap the switch again to deactivate the securing stitches.  
> Tap the switch again to activate the securing stitches.

##### Adjusting the hovering height of the presser foot

The hovering height of the presser foot can be adjusted according to the fabric thickness from 0 to maximal 7 mm.







> Tap «Setup Program».



> Tap «Sewing settings».



> Tap «Programming buttons and icons».



> Tap «Programming the Hovering Height of the presser foot».  
> To adjust the distance between the fabric and the presser foot.

### Programming the button «Pattern end»

The presser foot can be positioned, the thread cut and the automatic securing can be programmed.



> Tap «Setup Program».



> Tap «Sewing settings».



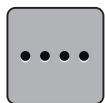
> Tap «Programming buttons and icons».



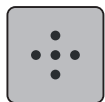
> Tap «Programming the button Pattern end».



> To sew 4 securing stitches in place, tap «Securing Stitches».



> To program subsequent securing stitches, tap «Securing stitches in close succession».  
> To program the number of subsequent securing stitches, tap «Plus» or «Minus».



> To program 4 securing stitches in place, tap «Securing stitches in place».



> To deactivate the automatic thread cut after securing, tap «Automatic Thread Cutter».  
> To activate the automatic thread cut after securing, tap «Automatic Thread Cutter» again.



> To keep the presser foot in lowered position, tap «Lift the presser foot».  
> To raise the presser foot after securing, tap «Lift the presser foot» again.



> To deactivate the automatic securing, tap «Securing Stitches».  
> To activate the automatic securing, tap «Securing Stitches» again.



## Programming the button «Thread cutter»

The automatic securing can be programmed before the thread cut takes place.



> Tap «Setup Program».



> Tap «Sewing settings».



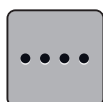
> Tap «Programming buttons and icons».



> Tap «Programming the button Thread cutter».

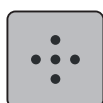


> To sew 4 securing stitches in place, tap «Securing Stitches».



> To program subsequent securing stitches, tap «Securing stitches in close succession».

> To program the number of securing stitches, tap «Minus» or «Plus».



> To program 4 securing stitches in place, tap «Securing stitches in place».



> To deactivate the automatic securing, tap «Securing Stitches».

> To activate the automatic securing, tap «Securing Stitches» again.

## Adjusting the presser foot position with needle stop down

With lowered needle, 3 different presser foot position can be selected: the presser foot lowered, the presser foot is raised to hovering position and the presser foot is raised to its maximum height.



> Tap «Setup Program».



> Tap «Sewing settings».



> Tap «Programming buttons and icons».



> Tap «Pressure foot position with Needle Stop Down».



> Select the desired presser foot position.

### Programming the button «Quick reverse»

You can choose between «Reverse sewing» and «Stitch-specific reverse sewing».



> Tap «Setup Program».



> Tap «Sewing settings».



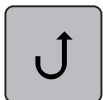
> Tap «Programming buttons and icons».



> Tap «Programming the button Quick reverse».



> To set the stitch-precise reverse sewing, tap «Backstepping».



> To set the stitch-precise reverse sewing, tap «Permanent Quick Reverse».

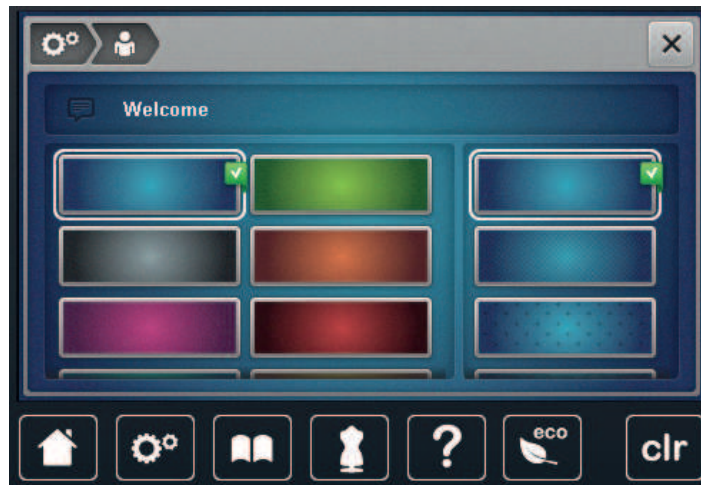
### 3.2 Selecting personal settings



> Tap «Setup Program».



> Tap «Personal Settings».  
 > Select the required display color and background.  
 > Tap the text box above the color settings.




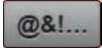


> Enter the welcome message.



> To use upper-case letters, tap «Upper Case Characters» (standard setting).






> To use lower-case letters, tap «Lower Case Characters».

-  > To use figures and mathematical symbols, tap «Numbers and Mathematical Characters».
-  > To use special characters, tap «Special Characters».
- > Tap the text box above the keyboard to delete the entered text completely.
-  > To delete single syllables of the entered text, tap «Delete».
-  > Tap «Confirm».





### 3.3 Monitoring functions

#### Activating the upper thread indicator

-  > Tap «Setup Program».
-  > Tap «Monitoring Functions».
-  > Touch the switch to deactivate the upper thread indicator.
- > Tap the switch again to activate the upper thread indicator.

### 3.4 Activating the audio signals



-  > Tap «Setup Program».
-  > Tap «Set Sound».
- > To switch all audio signals on or off, tap (1).
-  > To switch off the sound when selecting a stitch pattern, tap the corresponding «Switch Sounds On/Off» in area (2).
- > To switch on the sound when selecting a stitch pattern, tap the corresponding in area\_(2) «1 – 4».
-  > To switch off the sound for selecting functions, tap the corresponding «Switch Sounds On/Off» in area (3).
- > To switch on the sound for selecting functions, tap the corresponding in area\_(3) «1 – 4».



- > To deactivate the sound of the beeper when using the BSR Modes, tap «Switch Sounds On/Off» in the sector (4).

## 3.5 Machine settings

### Selecting a language

The User Interface can be programmed in different languages according to the customer's wish because BERNINA provides a wide range of international languages for the customers. Via firmware updates additional languages for the User Interface can be provided.



- > Tap «Setup Program».



- > Tap «Machine Settings».



- > Tap «Language Selection».
- > Select a language.

### Adjusting the brightness of the display

The brightness of the display can be set to meet your individual needs.



- > Tap «Setup Program».



- > Tap «Machine Settings».



- > Tap «Screen Settings».
- > Adjust the brightness of the display in the upper section of the screen.

### Adjusting the sewing light

You can set the brightness of the sewing light to meet your individual needs.



- > Tap «Setup Program».



- > Tap «Machine Settings».



- > Tap «Screen Settings».
- > Adjust the brightness of the sewing light in the lower section of the screen.



- > Tap the switch to switch the sewing light off.
- > Tap the switch again to switch the sewing light on.

## Calibrating the display

Please find further information on this topic in the chapter attachment below troubleshooting at the end of the instruction manual.



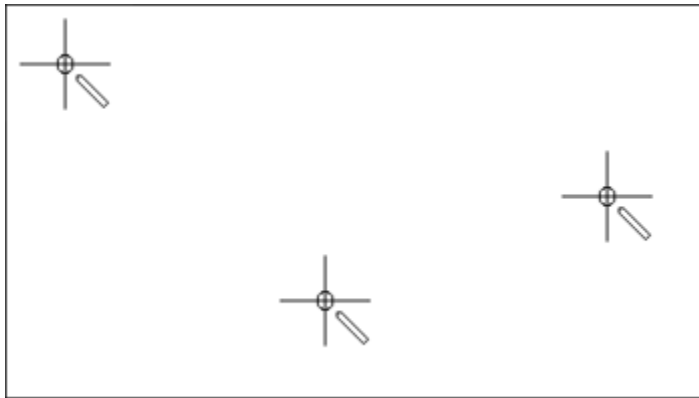
> Tap «Setup Program».



> Tap «Machine Settings».



> Tap «Calibrate Screen».  
> Touch the crosses in sequence using the touchscreen pen.



## Back to basic settings

**ATTENTION:** Using this function will delete all individually made settings.



> Tap «Setup Program».



> Tap «Machine Settings».



> Tap «Factory Setting».



> Tap the «Default setting machine», confirm and start the machine again.

## Deleting user data

Patterns which are not needed anymore can be deleted to create space for new motifs.



> Tap «Setup Program».



> Tap «Machine Settings».



> Tap «Factory Setting».



> To delete all data from the Personal Memory, tap «Delete data from own storage medium» and confirm.

### Calibrating the Buttonhole foot No. 3A

The Buttonhole foot with slide #3A is calibrated to the machine and they should only be used both together.

Prerequisite:

- The Buttonhole foot with slide #3A is fitted.
- The needle is not threaded.



> Tap «Setup Program».



> Tap «Machine Settings».



> Tap «Maintenance/Updates».



> Tap «Calibrating the Buttonhole foot #3A».



> To start the calibration, push the «Start/Stop» button.

### Reviewing the total number of stitches

The total number of stitches by the machine and the number of stitches since the last maintenance carried out by a specialist BERNINA dealer are displayed.



> Tap «Setup Program».



> Tap «Machine Settings».



> Tap «Information».



> Tap «Machine Data».

## Registering details of the dealer

The contact details for your specialized BERNINA dealer can be entered.



> Tap «Setup Program».



> Tap «Machine Settings».



> Tap «Information».



> To enter the dealer data, tap «Dealer Data».



> To enter the name of your specialized BERNINA dealer, tap «Name».



> To enter the address of the specialized BERNINA dealer, tap «Address».



> To enter the telephone number of the specialized BERNINA dealer, tap «Phone Number».



> To enter the website or e-mail address of the specialized BERNINA dealer, tap «E-mail Address».

## Saving Service data

The service data regarding the current status of the machine can be saved on a USB stick and consequently provided to the specialized BERNINA dealer.

> Insert a USB stick which provides enough free capacity into the USB port of the machine.

> Tap «Setup Program».



> Tap «Machine Settings».



> Tap «Information».



> Tap «Service Data».

> Tap «Export the service data».

– The icon «Export the service data» is outlined in white.

> If the white frame is no longer displayed, remove the USB stick.



## 4 System settings

### 4.1 Calling up the Tutorial

The tutorial provides information and explanations on different areas of sewing and the various stitches.



- > Tap «Tutorial».
- > Select the desired topic in order to view information.

### 4.2 Calling up the Creative Consultant

The Creative Consultant provides information about decision support concerning sewing projects. After entering the fabric and the desired sewing project, suggestions for suitable needles, presser feet etc. are displayed.



- > Tap «Creative Consultant».
- > Select the fabric on which you want to sew.
- > Select the sewing project.

### 4.3 Calling up the Help

- > Touch the window in the display where help is needed.
- > To start the Help Mode, tap «Help» twice.
- > Tap the icon in the display where help is needed.



### 4.4 Using eco mode

During a longer interruption of work the machine can be set into a power save mode. The power save mode also serves as a child safety feature. Nothing can be selected in the display and the machine cannot be started.



- > To activate the power save mode, tap «eco Mode».
  - The display goes to sleep. The power consumption is reduced and the sewing light is off.
- > To deactivate the power save mode, tap «eco Mode» again.

### 4.5 Cancelling any alterations with «clr»

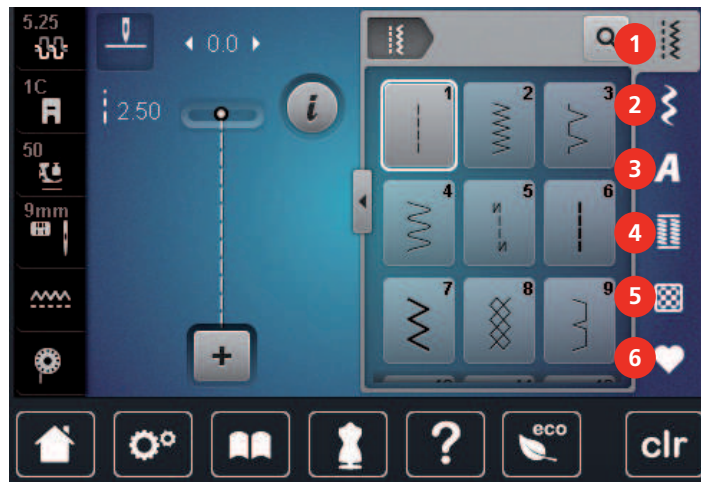
Any alterations to motifs can be reset to basic setting. Exceptions are saved motifs which have been filed in the personal memory and monitoring functions.



- > Tap «Clear Settings».

## 5 Creative sewing

### 5.1 Overview selection menu sewing



- |   |                       |   |                   |
|---|-----------------------|---|-------------------|
| 1 | «Practical Stitches»  | 4 | «Buttonholes»     |
| 2 | «Decorative Stitches» | 5 | «Quilt Stitches»  |
| 3 | «Alphabets»           | 6 | «Personal Memory» |

#### Selecting a stitch pattern

- > Select a stitch pattern, alphabet or buttonhole.
- > Wipe up in the area of the practical stitches, alphabets or buttonholes to have more stitch patterns displayed.
- > To increase the view, tap «Increasing/Decreasing the display size» (1).



- > To decrease the view, tap «Increasing/Decreasing the display size» again.
- > To select the stitch pattern via the stitch number entry, tap «Stitch Pattern Selection via Number».



## 5.2 BERNINA Dual Feed



It is recommended to match the presser foot pressure with the fabric. The thicker the fabric, the lower the presser foot pressure.

The BERNINA Dual Feed feeds the fabric from above and from beneath simultaneously. This provides an even and careful feed forward even for smooth and thin materials. Striped and checkered patterns can be matched perfectly by even feeding.

In general, the BERNINA Dual Feed is used for the following sewing projects:

- Sewing: All sewing applications with difficult fabrics such as for seams, zippers.
- Patchwork: With accurate stripes, blocks and with decorative stitches up to a stitch width of 9 mm.
- Appliqués: sewing appliques, ribbons and bias binding.

Difficult-to-work-with fabrics are:

- Velvet, normally sewn with the grain.
- Toweling.
- Jersey, especially when sewing it crosswise to knit.
- Fake fur or coated fake fur.
- Fleece-types of fabrics.
- Batted fabrics.
- Stripes and checks.
- Curtain fabrics with pattern repeats.

«Sticky» fabrics are:

- Imitation leather, coated fabrics (optimally with optional accessory Zigzag Foot with Non-Stick Sole #52D).

### Application of the BERNINA Dual Feed



Only use presser feet with a cut-out at the center back and the labeling «D». Additional presser feet with the labeling «D» are listed in the enclosed accessory catalog.

#### Activate Dual Feed

- > Raise the presser foot.
- > Attach a presser foot with the designation «D».
- > Pull the dual feed down until it engages.



### Deactivate Dual Feed

- > Raise the presser foot.
- > Hold the dual feed by the handle with two fingers, pull it down and then push it away from you and let it slide slowly upwards.



### 5.3 Regulating the speed

The sewing speed can be adjusted infinitely variable with the slide.

- > Move the slide to the left to reduce the sewing speed.
- > Move the slide to the right to increase the sewing speed.

### 5.4 Adjusting the upper thread tension

The default setting of the upper thread tension is determined automatically after stitch pattern is selected.

The upper thread tension is set optimally at the BERNINA factory and the machine has been tested.

Metrosene-/Seralon thread size 100/2 (Company Mettler, Switzerland) is used for upper and bobbin thread.

When of using other types of sewing threads, the optimal upper thread tension may vary. Therefore it may be necessary to adjust the upper thread tension individually according to the sewing project as well as the desired stitch pattern.

The higher the upper thread tension, the tighter the upper thread which means that the bobbin thread is pulled up to the top of the fabric. When the upper thread tension is low, the upper thread is less tightened which means that the bobbin thread is pulled up less.

Alterations of the upper thread tension affect the currently selected stitch pattern. Permanent alterations of the upper thread tension can be made in the Setup Program (see page 46).

Prerequisite:

- In the Setup Program the upper thread tension has been altered.
- > Touch the icon «Upper thread tension».



- > Move the slide with the touchscreen pen or the finger to increase or reduce the upper thread tension.



- > Touch the yellow-framed icon to reset any alterations to default setting.
- > Touch the yellow-framed icon on the left side to reset the alteration to default setting in the **Setup Program**.

## 5.5 Editing stitch patterns

### Changing the stitch width

- > Turn the «Upper Multi-function knob» to the left to narrow the stitch width.
- > Turn the «Upper Multi-function knob» to the right to widen the stitch width.
- > To call up further setting options, tap the icon «Stitch width» (1).



## Changing the stitch length

- > Turn the «Lower Multi-function knob» to the left to shorten the stitch length.
- > Turn the «Lower Multi-function knob» to the right to elongate the stitch length.
- > To call up other setting options, tap «Stitch length» (1).



## Correcting the balance

Different fabrics, threads and stabilizers can affect the programmed stitch patterns so that they cannot be sewn out correctly. The electronic balance can correct these deviation and the stitch pattern can be adjusted optimally to the selected fabric.

- > Select a stitch pattern or alphabet.
- > Sewing stitch pattern.
- > Tap «i-Dialog».



- > Tap «Balance».
- A preview of the stitch pattern is displayed.



- > To correct the longitudinal direction of the stitch pattern, turn the «Lower Multi-function knob» until the preview of the stitch pattern matches the stitch pattern sewn on the fabric.
- > Altered Balance settings can be saved for each stitch in the «Personal Memory» .
- > Altered Balance settings only remain valid until the «Clear Settings» is pushed or the machine is switched off.



## Programming pattern repeat

Stitch patterns as well as stitch pattern combinations can be repeated up to 9 times.

- > Select a stitch pattern or alphabet.
- > Tap «i-Dialog».



- > To sew the stitch pattern 1x, tap «Pattern Repeat» 1x.
- > To repeat the stitch pattern up to 9 times, tap «Pattern Repeat» 2 up to 9x.
- > To deactivate the pattern repeat, tap and hold «Pattern Repeat».

## Mirror image of stitch patterns

- > Select a stitch pattern or alphabet.
- > Tap «i-Dialog».



- > To mirror the stitch pattern from left to right, tap «Mirror Image Left/Right».



- > To mirror the stitch pattern contrary to the sewing direction, tap «Mirror Image Up/Down».

## Editing stitch pattern length

The stitch patterns can be lengthwise extended or shortened.

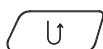
- > Select a stitch pattern or alphabet.
- > Tap «i-Dialog».



- > Tap «Edit Stitch Pattern Length».
- > Adjust the stitch pattern length.

## Quick reverse

- > Select a stitch pattern or alphabet.
- > To switch immediately to sewing in reverse when pushing the button «Quick Reverse», select Needle Stop Down (permanent).
- > Program needle stop up (permanent) to sew another stitch forward before the machine switches to reverse sewing.

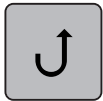


- > Push and hold the button «Quick Reverse».

## Permanent Quick reverse

- > Select a stitch pattern or alphabet.
- > Tap «i-Dialog».





- > To sew permanently in reverse, tap «Permanent Quick Reverse».
  - The machine sews permanently in reverse until the icon «Permanent Quick Reverse» is tapped again.

### Backstepping



- > Select a stitch pattern or alphabet.
- > Tap «i-Dialog».



- > To backstep the last 200 stitches, tap «Backstepping».

## 5.6 Combining stitch patterns

### Overview Combi mode



- |   |                 |   |  |
|---|-----------------|---|--|
| 1 | «Stitch Width»  | 3 | «Combination Mode/Single Mode»                   |
| 2 | «Stitch length» | 4 | Individual stitch pattern within the combination |

### Creating Stitch pattern combinations

In the Combi-mode stitch patterns and alphabets can be combined according to your wish. By combining any alphabet letters, the logo BERNINA can be created.




- > Tap «Combination Mode/Single Mode».





- > Select the desired stitch patterns.




-  > To get back to the Single Mode, tap «Combination Mode/Single Mode» again.

### Saving a stitch pattern combination

To use an individually created stitch pattern combinations again, they can be saved in the folder «Personal Memory».


- > Create a stitch pattern combination.
- > Tap «Personal Memory».




-  > Tap «Save stitch pattern».

-  > To save the stitch pattern combination, tap «Confirm».

### Loading a stitch pattern combination

-  > Tap «Combination Mode/Single Mode».



-  > Tap «Personal Memory».

-  > Tap «Loading a stitch pattern combination».
- > Select a stitch pattern combination.

### Overwriting a stitch pattern combination

- > Create a stitch pattern combination.
- > Tap «Personal Memory».



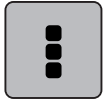
-  > Tap «Save stitch pattern».
- > Select the stitch pattern combination which is to be overwritten.
-  > To overwrite the stitch pattern combination, tap «Confirm».

### Deleting a stitch pattern combination

- > Create a stitch pattern combination.
- > Tap «i-Dialog».



- > Tap «Edit Entire Combination».



- > Tap «Delete».



- > Tap «Confirm».



### Editing a single stitch pattern

- > Create a stitch pattern combination.
- > To select a single stitch pattern, tap the desired position (1) within the stitch pattern combination.



- > To edit the single stitch pattern, tap «i-Dialog».



### Deleting a single stitch pattern

Prerequisite:

- A stitch pattern combination has been created.

- > Tap the desired stitch pattern (1) within the stitch pattern combination.



- > Tap «i-Dialog».



- > Tap «Delete».

### Adding a single stitch pattern

The new stitch pattern is always inserted **after** the selected stitch pattern.

- > Create a stitch pattern combination.
- > To select a single stitch pattern, tap the desired position (1) within the stitch pattern combination.



- > Select a new stitch pattern.

### Mirroring a stitch pattern combination

- > Create a stitch pattern combination.
- > Tap «i-Dialog».





> Tap «Edit Entire Combination».

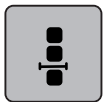


> To mirror the whole stitch pattern combination from left to right, tap, «Mirror Image Left/Right».  
 > To reset the changes and revert to the default settings, tap «Mirror Image Left/Right».

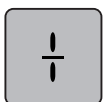
### Stitch pattern combination Subdivider 1

A stitch pattern combination can be subdivided into several sections. The subdivision is placed **beneath** the cursor. Only this section is sewn where the cursor is placed. To sew the next section, the cursor must be placed in the next section.

> Create a stitch pattern combination.  
 > Select the desired position within the stitch pattern combination where the stitch pattern combination is to be subdivided.  
 > Tap «i-Dialog».



> Tap «Edit Combination at Cursor Position».

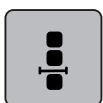


> Tap «Combination Subdivider (1)».

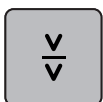
### Stitch pattern combination Subdivider 2

A stitch pattern combination can be interrupted at various sections. The interruption is placed **beneath** the cursor.

> Create a stitch pattern combination.  
 > Select the desired position within the stitch pattern combination where the stitch pattern combination is to be interrupted.  
 > Tap «i-Dialog».



> Tap «Edit Combination at Cursor Position».

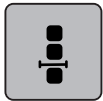


> Tap «Combination Subdivider (2)».  
 > Sew the first section and then reposition the fabric.

### Securing a stitch pattern combination

> Create a stitch pattern combination.  
 > Select the desired position within the stitch pattern combination where the stitch pattern combination is to be secured.  
 > Tap «i-Dialog».





- > Tap «Edit Combination at Cursor Position».



- > Tap «Securing Stitches».
  - Every single pattern of the stitch pattern combination can be secured at the start or at the end.

### Programming pattern repeat



- > Create a stitch pattern combination.
- > Tap «i-Dialog».



- > Tap «Edit Entire Combination».



- > To repeat the stitch pattern combination, tap «Pattern Repeat» 1x.
- > To repeat the stitch pattern combination up to 9x, tap «Pattern Repeat» again.
- > To deactivate the pattern repeat, tap and hold «Pattern Repeat» or tap «Clear Settings».

## 5.7 Administering stitch patterns

### Saving settings of stitch patterns



- > Select a stitch pattern, alphabet or buttonhole.
- > Tap «i-Dialog».
- > Edit the stitch, alphabet or buttonhole.



- > To save all alterations permanently, tap «Save Stitch Pattern Settings».



- > To cancel all alterations, tap «Reset Stitch Pattern».

### Saving stitch patterns in personal memory

In the folder «Personal Memory» any stitch patterns, also those which have been individually edited, can be saved.

- > Select a stitch pattern, alphabet or buttonhole.
- > Edit the stitch pattern.
- > Tap «Personal Memory».



- > Tap «Save stitch pattern».
- > Select the file where the pattern is to be saved.



- > Tap «Confirm».

## Overwriting stitch patterns from the personal memory

Prerequisite:

- The stitch pattern is saved in the personal memory.

- > Select a stitch pattern, alphabet or buttonhole.
- > Edit the stitch pattern.
- > Tap «Personal Memory».



- > Tap «Save stitch pattern».
- > Select the file where the stitch pattern to be overwritten has been saved.
- > Select the stitch pattern which should be overwritten.



- > Tap «Confirm».

## Loading stitch patterns from the personal memory

Prerequisite:

- The stitch pattern is saved in the personal memory.

- > Tap «Personal Memory».



- > Tap «Load embroidery motif».
- > Select the file where the stitch pattern has been saved.
- > Select a stitch pattern.

## Deleting stitch patterns from the personal memory

Prerequisite:

- The stitch pattern is saved in the personal memory.

- > Tap «Personal Memory».



- > Tap «Delete».
- > Select the file where the stitch pattern has been saved.
- > Select a stitch pattern.



- > To delete the stitch pattern, tap «Confirm».

## Saving stitch patterns on the BERNINA USB stick

On the BERNINA USB stick stitch patterns, also those which have been individually edited, can be saved.

- > Select a stitch pattern or alphabet.
- > Editing stitch patterns.
- > Tap «Personal Memory».



- > Tap «Save stitch pattern».
- > Insert the BERNINA USB stick into the USB port of the machine.



- > Tap «USB Stick».



- > Tap «Confirm».

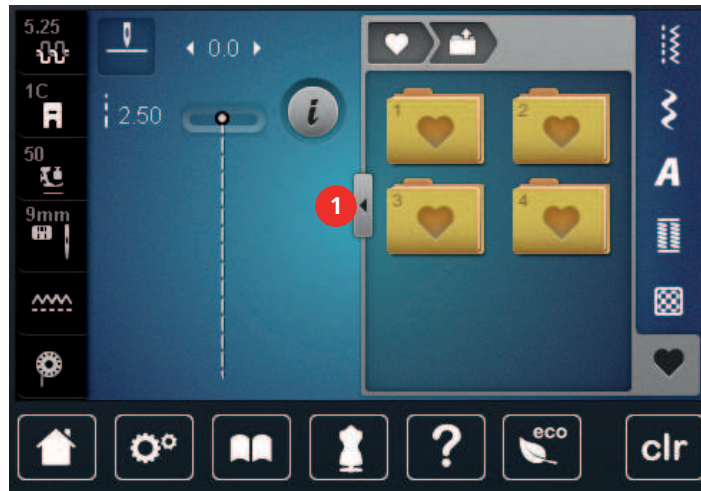
## Uploading a stitch pattern from the BERNINA USB stick



- > Tap «Personal Memory».



- > Tap «Load embroidery motif».
- > Tap «Increasing/Decreasing the display size» (1).



- > Insert the BERNINA USB stick into the USB port of the machine.
- > Tap «USB Stick».
- > Select the desired stitch pattern.

## Deleting stitch patterns from the BERNINA USB stick



- > Tap «Personal Memory».



- > Tap «Delete».
- > Insert the BERNINA USB stick into the USB port of the machine.
- > Select the stitch pattern which is to be deleted.



- > Tap «Confirm».

## 5.8 Securing

### Securing with the button «Pattern end»

The «Pattern End» button can be programmed with various securing stitches.



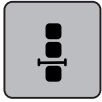
- > Push the button «Pattern End» before sewing is started or while sewing.
  - While sewing, a stop icon indicates that the function is activated and the stitch pattern or the current combination of a stitch pattern will be secured at the end with the programmed number of stitches.

### Securing via the icon «Securing»

Every single pattern of the stitch pattern combination can be secured at the start or at the end.



- > Tap «i-Dialog».



- > Tap «Edit Combination at Cursor Position».

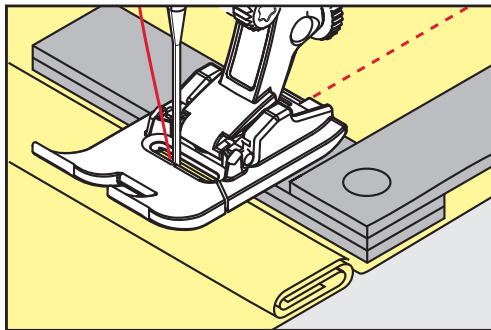


- > Tap «Securing Stitches» before sewing is started.
  - The stitch pattern/stitch pattern combination is secured with 4 stitches at the beginning.
- > Tap «Securing Stitches» while sewing.
  - The stitch pattern or the active stitch pattern of the stitch pattern combination is secured with 4 stitches at the end.

## 5.9 Height Compensation of uneven layers

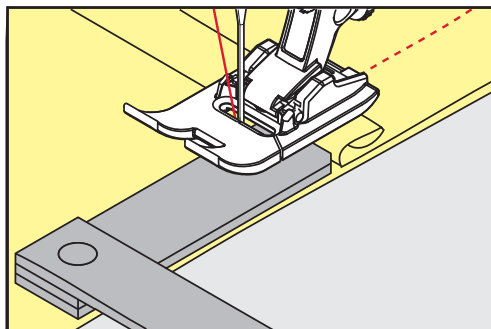
If the presser foot is at an angle when sewing over a thick seam, the feed dog cannot grip the fabric and the sewing project cannot be sewn out properly.

- > Place 1 – 3 compensating plates as required from the back of the presser foot close to the needle to level the fabric layer.



- The presser foot is leveled with the sewing project.

- > Place 1 – 3 compensating plates as required from the front of the presser foot close to the needle to level the fabric layer.



- The presser foot is leveled with the sewing project.

- > Sew until the complete presser foot has passed the thick seam.
- > Remove the plates of the height compensation.

## 5.10 Sewing Corners

When sewing corners, only a small section of the fabric is actually on the feed dog. Therefore it cannot grip the fabric well. By means of the height compensation tool the fabric can be fed evenly.

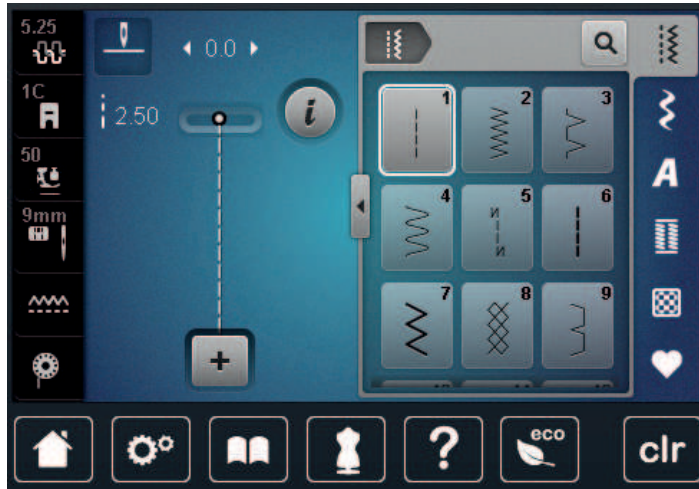
- > When the fabric edge is reached, stop the sewing process with needle position down.
- > Raise the presser foot.
- > Turn the fabric and place in desired position.
- > Place 1 – 3 compensating plates as required on the right of the presser foot close to the sewing project.

























## 6 Practical stitches

### 6.1 Overview Practical Stitches

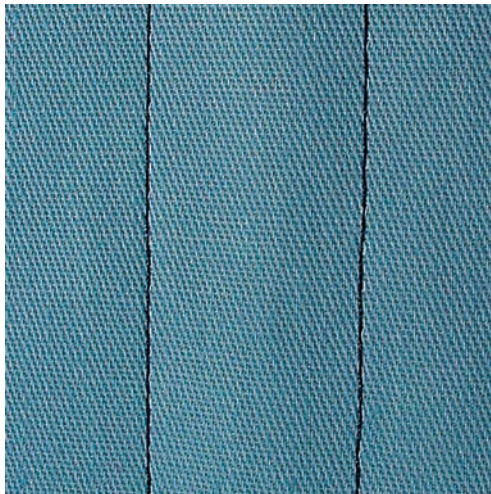


Stitch patterns	Stitch number	Name	Description
---	1	Straight stitch	To join seams, for topstitching and basting.
W	2	Zigzag	To finish edges, to sew elastic seams, to sew on lace inserts and elastics.
V	3	Vari-overlock	For finishing edges, sewing together and simultaneously finishing elastic fabrics.
W	4	Running stitch	For darning and reinforcing fabric edges or attaching lace or rubber tape.
↕	5	Securing program	For automatic securing at the start of the seam with forward and reverse stitches.
---	6	Triple straight stitch	For reinforced seams on heavy fabrics and decorative effects.
W	7	Triple zigzag	For durable seams on strong fabrics, visible hems and decorative seams.
⊗	8	Honeycomb stitch	For stretch fabrics and hems, including with rubber threads.
W	9	Blind stitch	For blind hems on most fabric types and for shell edging on soft jerseys and fine fabric.

	10	Double overlock	For simultaneously sewing together and finishing elastic fabrics.
	11	Super stretch stitch	For highly stretch open seams.
	12	Gathering stitch	For gathering with rubber threads and for flat joining seams on medium-weight fabrics.
	13	Stretch overlock	For simultaneously sewing together and finishing elastic fabrics, as well as for flat joining seams.
	14	Tricot stitch	For visible hems and seams in lingerie and sweaters and for mending tricot fabric.
	15	Universal stitch	For flat joining seams, visible hems and decorative seams in strong fabrics such as felt and leather and for attaching rubber tape.
	16	Sewn-out zigzag	For finishing and reinforcing fabric edges, for sewing on rubber tape and for decorative seams.
	17	Lycra stitch	For flat joining seams, visible hems on Lycra fabric and for stitching over seams in foundation garments.
	18	Stretch stitch	For stretchable seams and hems in woven and knitted fabrics.
	19	Reinforced overlock	For overlock seams or flat joining seams on medium-weight knit fabrics and toweling.
	20	Knit overlock	For stretchable seams and hems in woven and knitted fabric, for sewing and finishing.
	22	Simple darning program	For automatic darning in fine to strong fabrics.
	23	Reinforced darning program	For automatic darning in strong materials.
	24	Bartack program	For reinforcing pocket openings, buttonhole bars and for sewing belt loops.

	25	Bartack program	For reinforcing pocket openings, sewing belt loops and securing seam ends.
	26	Large fly stitch	For reinforcing pocket openings, zippers and slits in medium-weight to thick fabrics.
	29	Narrow blind stitch	For blind hems and shell edging in light, fine and soft fabrics.
	30	Manual basting stitch	For work where a very long stitch length is required.
	32	Single straight stitch	As a connecting stitch in a combination for one straight stitch.
	33	Three single straight stitches	As connecting stitches in a combination for three individual straight stitches.

## 6.2 Sewing straight stitch



Match the stitch length with the sewing project, such as for denim fabrics use long stitches (ca. 3 – 4 mm), for delicate fabrics use short stitches (ca. 2 – 2.5 mm). Match the stitch length with the thread size, e. g. when edgestitching with Cordonnet, use long stitches (ca. 3 – 5 mm).

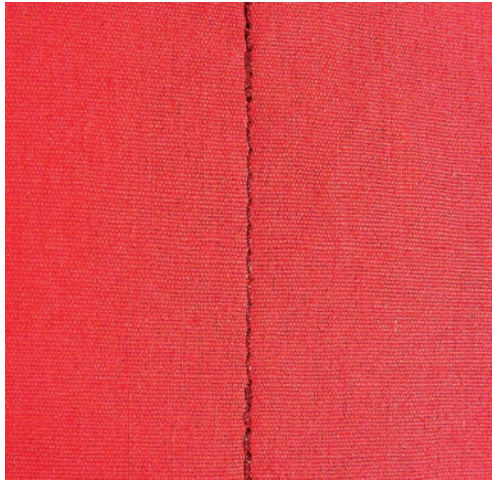
Prerequisite:

- The Reverse Pattern Foot #1C/1D is fitted.



- > Tap «Practical Stitches».
- > Select Straight stitch No. 1.

### 6.3 Securing with the automatic Securing Program



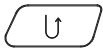
Due to a determined number of 6 stitches sewn forward and 6 stitches sewn backward, the securing is regular.

Prerequisite:

- The Reverse Pattern Foot #1C is fitted.

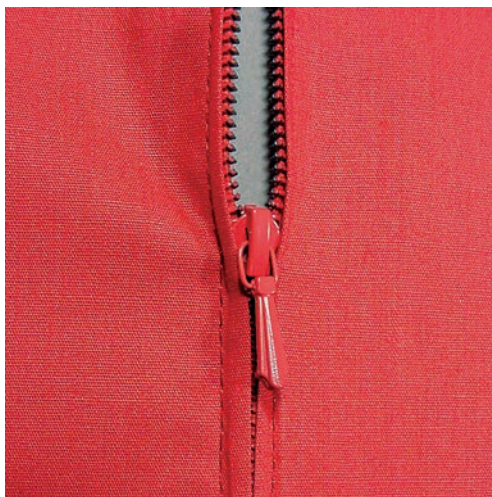


- > Tap «Practical Stitches».
- > Select Securing program No. 5.
- > Press the foot control.
  - The machine secures automatically.



- > Sew the required length of seam.
- > Push the button «Quick Reverse».
  - The machine secures automatically and stops at the end of the securing program.

### 6.4 Sewing in the zipper

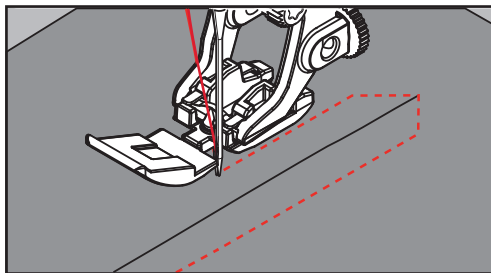


As the fabric feed can be difficult when starting to sew, it is recommended to hold the threads firmly or to pull the fabric slightly to the back for a few stitches or to sew 1 – 2 cm reverse first.

- > Fit the Reverse Pattern Foot #1C.



- > Tap «Practical Stitches».
- > Select Straight stitch No. 1.
- > Sew the seam up to where the zipper starts.
- > Sew the securing stitches.
- > Close the zipper length with long stitches.
- > Finish the seam allowances.
- > Iron the seam.
- > Open the zipper length.
- > Baste the zipper under the fabric so that the fabric folded edges meet over the center of the zipper.
- > Open the zipper a few centimeters.
- > Fit the Zipper Foot #4D.
- > Move the needle position to the right.
- > Use the Free Hand System to raise the presser foot and to position the sewing project.
- > Start sewing from top left.
- > Guide the foot so that the needle stitches along the zipper coils.
- > Stop in front of the zipper pull with needle position down.
- > Raise the presser foot.
- > Close the zipper.
- > Continue to sew and stop in front of the base of the zipper with needle position down.
- > Raise the presser foot and turn the sewing project.
- > Sew across the other side of the zipper and stop with needle position down.
- > Raise the presser foot and turn the sewing project.
- > Sew the second side from bottom to top.



## 6.5 Sewing both sides of the zipper from bottom to top

For fabrics with pile, such as velvet, it is recommended to sew in the zipper on both sides from bottom to top.



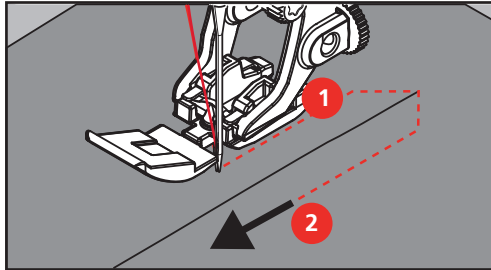
When the fabric is densely woven or hard, it is recommended to use a needle with the size 90 – 100. This results in an even stitch formation.



- > Fit the Reverse Pattern Foot #1C.
- > Tap «Practical Stitches».
- > Select Straight stitch No. 1.
- > Sew the seam up to where the zipper starts.
- > Sew the securing stitches.
- > Close the zipper length with long stitches.
- > Finish the seam allowances.
- > Iron the seam.
- > Open the zipper length.
- > Baste the zipper under the fabric so that the fabric folded edges meet over the center of the zipper.
- > Fit the Zipper Foot #4D.
- > Move the needle position to the right.
- > Use the Free Hand System to raise the presser foot and to position the sewing project.



- > Start sewing in the center of the seam at the end of the zipper.
- > Sew diagonally along the edge of the zipper coils.
- > Sew the first side (1) from bottom to top.
- > Stop in front of the zipper pull with needle position down.
- > Raise the presser foot.
- > Open the zipper as far as behind the presser foot.
- > Lower the presser foot and continue sewing.
- > Move the needle position to the left.
- > Sew the second side (2) in exactly the same way from bottom to top.



## 6.6 Sewing Triple straight stitch

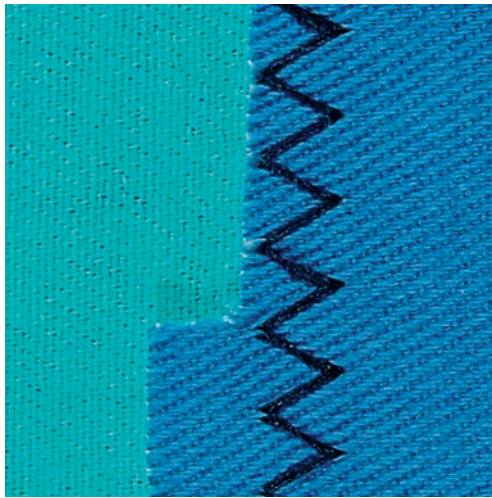


The Triple straight stitch is especially suitable for durable seams and for firm, densely woven fabrics such as denim and corduroy. For firm or densely woven materials it is recommended to fit the Jeans Foot #8. This facilitates sewing denim or canvas. For decorative topstitching the stitch length can be elongated.

- > Fit the Reverse Pattern Foot #1C/1D.
- > Tap «Practical Stitches».
- > Select Triple straight stitch No. 6.



## 6.7 Sewing Triple Zigzag

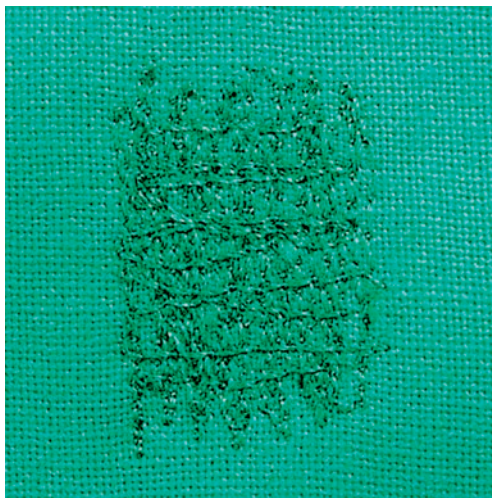


For firm materials such as denim, deckchair covers, awnings or frequently washed items. Finish raw edges first.



- > Fit the Reverse Pattern Foot #1C/1D.
- > Tap «Practical Stitches».
- > Select Triple zigzag No. 7.

## 6.8 Manual darning



Used for darning holes or worn areas in all fabric types.

If the thread is lying on top and a poor stitch formation results, slow down the movement of the sewing project. If there are knots on the wrong side of the fabric, move the sewing project faster. When the thread breaks, guide the sewing project more consistently.

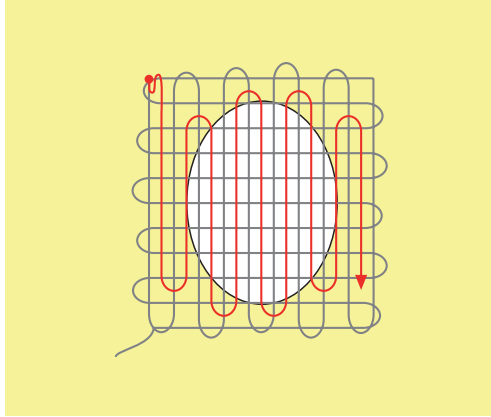


- > Fit the Darning Foot #9.
- > Tap «Practical Stitches».
- > Select Straight stitch No. 1.
- > Lower the feed dog.
- > Attach the Slide-on Freearm Extension Table.
- > Hoop the sewing project in the round embroidery hoop (optional accessory).
  - The darning area stays evenly taut and cannot be distorted.





- > Sew another loose row.

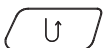


## 6.9 Automatic darning

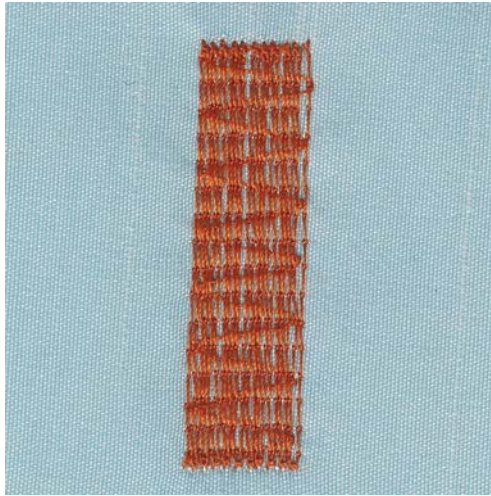


Simple darning program No. 22 is particularly suitable for quick darning of worn areas or tears. It is recommended to use fine material as a backing for the worn and damaged areas or to stick on an adhesive interlining. The Simple darning program No. 22 replaces the longitudinal threads in all fabrics. If the fabric becomes distorted, correct with the Balance.

- > Fit the Reverse Pattern Foot #1C or Buttonhole foot with slide #3A.
- > Tap «Practical Stitches».
- > Select Simple darning program No. 22.
- > Hoop light-weight materials in the round embroidery hoop (optional accessory).
  - The darning area stays evenly taut and cannot be distorted.
- > Start sewing top left.
- > Sew the first row.
- > Stop the machine.
- > Push the button «Quick Reverse».
  - The length is programmed.
- > Finish sewing the Darning Program.
  - The machine stops automatically.



## 6.10 Reinforced darning, automatic



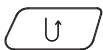
The Reinforced darning program No. 23 is particularly suitable for quick darning of worn areas or tears. The Reinforced darning program No. 23 replaces the longitudinal threads in all fabrics.



If the Darning Program does not cover the whole worn or damaged area, it is recommended to reposition the work and sew the Darning Program again. The length is programmed and can be repeated as often as desired.

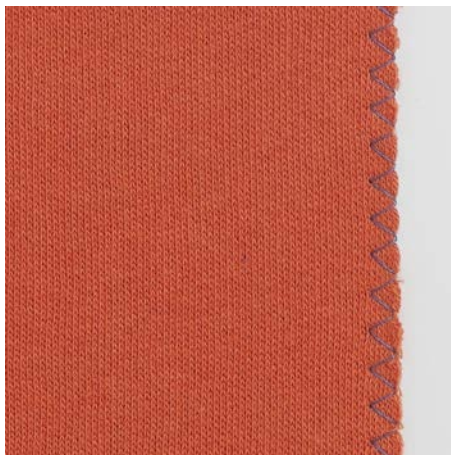


- > Fit the Buttonhole foot with slide #3A.
- > Tap «Practical Stitches».
- > Select Reinforced darning program No. 23.
- > Hoop light-weight materials in the round embroidery hoop (optional accessory).
  - The darning area stays evenly taut and cannot be distorted.
- > Start sewing top left.
- > Sew the first row.
- > Stop the machine.



- > Push the button «Quick Reverse».
  - The darning length is programmed.
- > Finish sewing the Darning Program.
  - The machine stops automatically.

## 6.11 Finishing edges



Zigzag No. 2 is suitable for all fabrics. It can also be used for elastic seams as well as for decorative work. Use darning thread for fine materials. When sewing satin stitch it is recommended to select a dense, short the zig zag with a stitch length of 0.3 – 0.7 mm. The satin stitch can be used for appliqué and for embroidering.

Prerequisite:

- The edge of the fabric should lie flat and not roll.
- > Fit the Reverse Pattern Foot #1C.
- > Tap «Practical Stitches».
- > Select Zigzag No. 2 or Satin stitch No. 1354.
- > Neither select too wide a stitch nor too long a stitch.
- > Guide the edge of the fabric into the center of the presser foot, so that the needle goes into the fabric on one side and over the edge into the air on the other side.



## 6.12 Sewing Double overlock



A double overlock seam is suitable for loose knits and cross seams in knits. When working with jersey, a jersey needle should be used to prevent damaging the knit fabric. When sewing stretch materials, use a stretch needle.

- > Fit the Reverse Pattern Foot #1C or Overlock Foot #2.
- > Tap «Practical Stitches».
- > Select Double overlock No. 10.

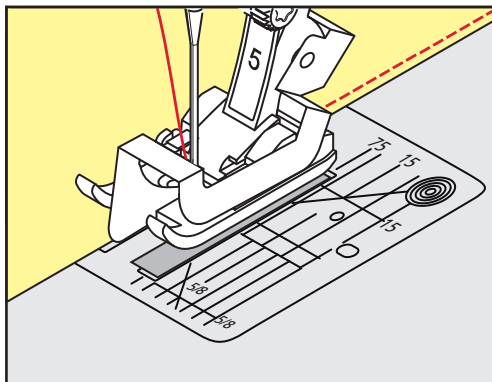


## 6.13 Narrow edgestitching

- > Fit the Blindstitch Foot #5 or Edgestitch Foot #10/10C/10D.
- > Tap «Practical Stitches».
- > Select Straight stitch No. 1.
- > Place the left-hand edge against the guide of the Blindstitch foot.

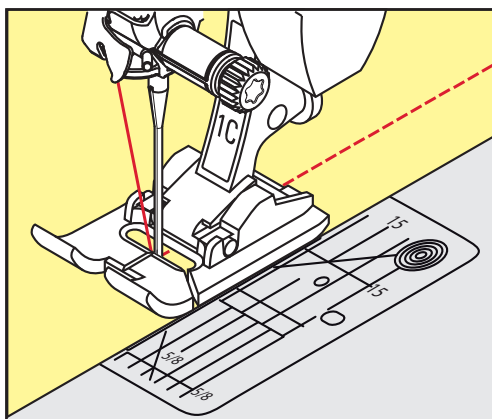


- > Select the left-hand needle position at the desired distance to the edge.



### 6.14 Wide edgestitching

- > Fit the Reverse Pattern Foot #1C.
- > Tap «Practical Stitches».
- > Select Straight stitch No. 1.
- > Guide the edge along the presser foot or at a distance of 1–2.5 cm along the marks on the stitch plate.
- > Select the needle position at the desired distance to the edge.



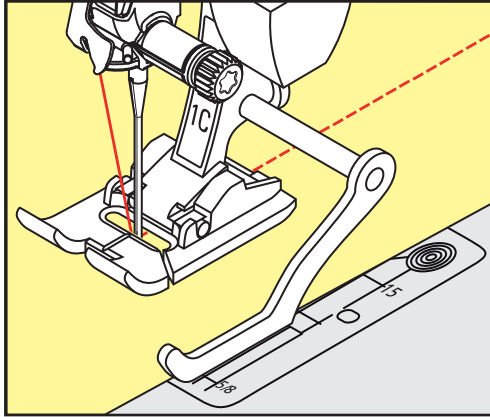
### 6.15 Edgestitching using the seam guide

When sewing parallel wider lines, it is recommended to guide the seam guide along the sewn of lines.

- > Fit the Reverse Pattern Foot #1C.
- > Tap «Practical Stitches».
- > Select Straight stitch No. 1.
- > Loosen the screw on the back of the presser foot.
- > Insert the seam guide into the hole in the presser foot.
- > Adjust the width as required.
- > Tighten the screw.



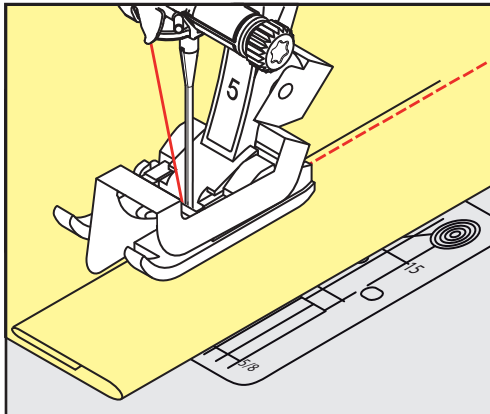
- > Guide the folded edge along the seam guide.



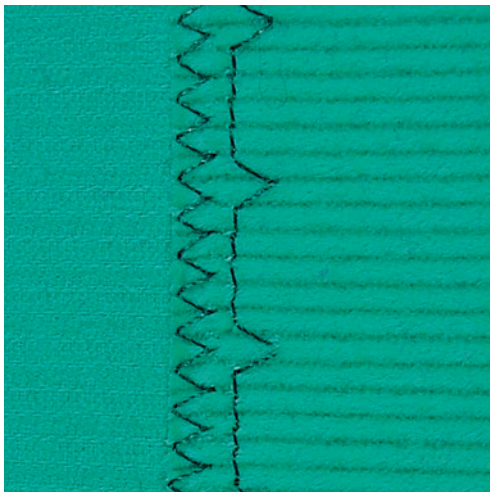
## 6.16 Sewing hem edges

When using the Blindstitch Foot #5, it is recommended to set the needle position far left or far right. With the Reverse Pattern Foot #1C and the Edgestitch Foot #10/10C/10D, all needle positions are possible.

- > Fit the Blindstitch Foot #5 or the Reverse Pattern Foot #1C or the Edgestitch Foot #10/10C/10D.
- > Tap «Practical Stitches».
- > Select Straight stitch No. 1.
- > Place the inside upper edge right against the guide for the Blindstitch foot.
- > Select the needle position to the far right in order to sew along the upper edge.



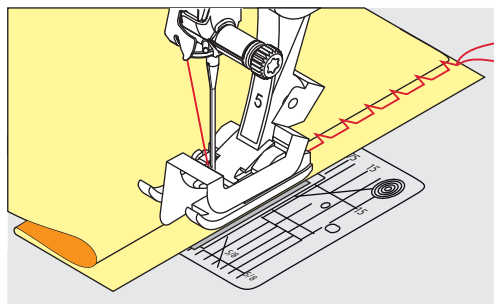
## 6.17 Sewing blind hems



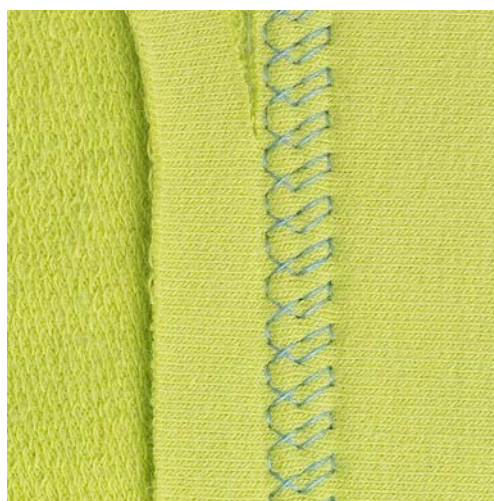
For invisible hems in medium to heavy weight cotton, wool and blended materials.

Prerequisite:

- The fabric edges are finished.
- > Fit the Blindstitch Foot #5.
- > Tap «Practical Stitches».
- > Select Blind stitch No. 9.
- > Fold the fabric back over the right side of the fabric to expose the overcast edge.
- > Place the fabric under the presser foot and move the folded edge against the metal guide on the presser foot.
- > Guide the folded edge evenly along the metal guide of the presser foot to sew the stitches evenly deep.
  - Make sure that the needle only pierces the edge of the fold.
- > After sewing about 10 cm, check both sides of the fabric and adjust the width again if necessary.



## 6.18 Sewing visible hems

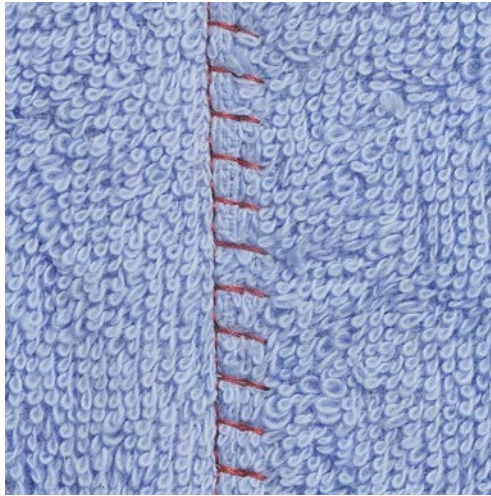


The visible hem is particularly suitable for elastic seams in tricot made of cotton, wool, synthetic and mixed fibers.

- > Fit the Reverse Pattern Foot #1C/1D.
- > Tap «Practical Stitches».
- > Select Tricot stitch No. 14.
- > Iron the hem and baste if necessary.
- > Reduce the Presser Foot Pressure if necessary.
- > Sew the hem in the desired depth on the right side.
- > Trim off the remaining fabric on the reverse side.



## 6.19 Sewing flat joining seams

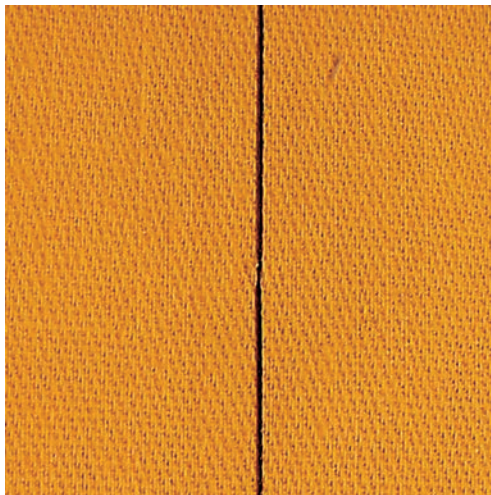


The flat joining seam is especially suitable for long-pile or thick materials such as terry cloth, felt or leather.



- > Fit the Reverse Pattern Foot #1C.
- > Tap «Practical Stitches».
- > Select Stretch overlock No. 13.
- > Overlap the fabric edges.
- > Sew along the fabric edge.
- > To get a very flat, durable seam, make sure the needle stitches right over the top edge of the fabric into the bottom fabric.

## 6.20 Sewing basting stitches



When sewing basting stitches, it is recommended to use a fine darning thread. This is easier to remove. The basting stitch is suitable for sewing projects where a very long stitch length is required.



- > Fit the Darning Foot #9 (optional accessory).
- > Lower the feed dog.
- > Tap «Practical Stitches».
- > Select Manual basting stitch No. 30.
- > Pin the fabric layers at a right angle to basting direction to prevent the layers from slipping.
- > Hold the threads and sew 3 – 4 securing stitches at the beginning.
- > Sew a stitch and pull the fabric back at the desired stitch length.
- > Sew a stitch.
- > At the end sew 3 – 4 securing stitches.



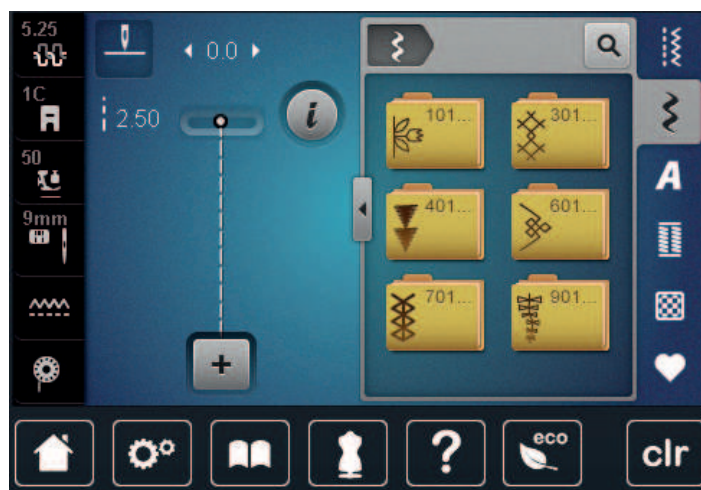
## 7 Decorative stitches

### 7.1 Overview Decorative Stitches

Easier or more difficult decorative stitches come into their own depending on the type of fabric.

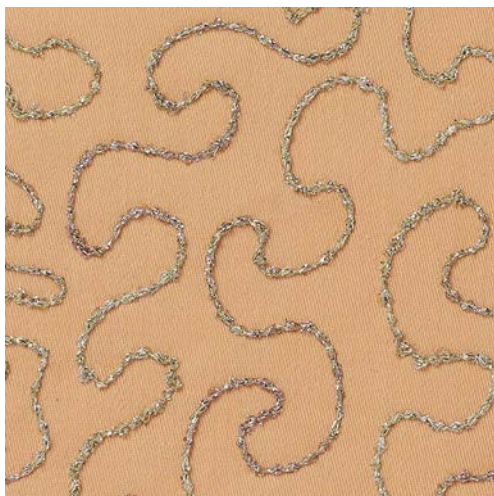
- Decorative stitches which are programmed with simple straight stitches are particularly appropriate for lightweight materials, e. g. Decorative stitch No. 101.
- Decorative stitches which are programmed with triple straight stitches or with a few satin stitches are particularly appropriate for medium-weight materials, e. g. Decorative stitch No. 107.
- Decorative stitches which are programmed with satin stitches are particularly appropriate for heavyweight materials, e. g. Decorative stitch No. 401.

For a perfect stitch formation it is of advantage to use the same thread color for upper and bobbin thread and a stabilizer. With pile or longfiber materials, it is recommended to use an additional water-soluble stabilizer on the right side, which can be easily removed after sewing.



Decorative stitch	Category	Name
	Category 100	Natural stitches
	Category 300	Cross stitches
	Category 400	Satin stitches
	Category 600	Geometric stitches
	Category 700	Heirloom stitches
	Category 900	Novelty stitches

## 7.2 Bobbin-Play



The bobbin can be filled with different thread material. For free-motion stitching to add texture. This method is similar to "normal" free-motion sewing, but is done on the **wrong** side of the fabric.

Reinforce the area to be sewn with embroidery stabilizer. The design can be drawn on the wrong side of the fabric. You can also draw the design on the front side of the fabric. The lines can be followed with a freely guided straight stitch using polyester, cotton or rayon thread. The rows of stitching are visible on the wrong side of the fabric, and they serve as guidelines for the bobbin-thread sewing.

The BSR function can be used for bobbin-thread sewing. We recommend guiding your project evenly under the needle at a consistent speed, following the lines of the design. The stabilizer must be removed after sewing.

Sew a sample first to check what the result looks like on the wrong side of the fabric.

Not all decorative stitches are suitable for this technique. Simple decorative stitches provide best results. Avoid compact stitch types and satin stitches.

### NOTICE

Inappropriate bobbin case is used

Damage to the bobbin case.

> Use the Bobbinwork bobbin case (optional accessory).



> Fit the Open Embroidery Foot #20C/20D.

> Tap «Decorative Stitches».

> Select an appropriate decorative stitch.





> Turn the «Upper Multifunction Knob» and the «Lower multifunction knob» to set the stitch length and stitch width so that a beautiful stitch formation can be achieved even when sewing with thick thread.




> To adjust the upper thread tension, tap «Upper Thread Tension».



### Overview Pintuck Feet

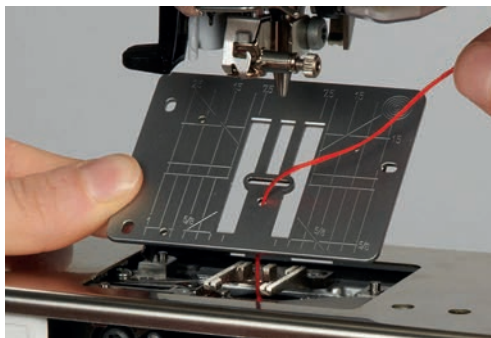
Pintuck foot	Number	Description
	# 30 (optional accessory)	3 grooves For heavy-weight fabrics. In combination with the 4 mm double needle
	# 31 (optional accessory)	5 grooves For heavy to medium-weight fabrics. In combination with the 3 mm double needle
	# 32 (optional accessory)	7 grooves For light to medium-weight fabrics. In combination with the 2 mm double needle
	# 33 (optional accessory)	9 grooves For very light fabrics (without extra cord). In combination with the 1 or 1.6 mm twin needle

Pintuck foot	Number	Description
	# 46C (optional accessory)	5 grooves In combination with the 1.6 – 2.5 mm double needle For very light to medium-weight fabrics.

### Working with cord

A more distinctive and relief-like effect can be achieved when the pintucks are corded, which means that they are sewn with an additional pintuck cord. Choose a pintuck cord that fits well into the grooves of the selected pintuck foot. The cord must be colorfast and shrinkproof.

- > Switch off the machine and disconnect it from the power supply.
- > Remove the needle.
- > Remove the presser foot.
- > Remove the stitch plate.
- > Open the hook cover.
- > Pull the cord through the hook opening from the bottom and through the opening of the stitch plate.
- > Replace the stitch plate.
- > Close the Loper cover.
- > Make sure that the cord slides through the thread slot of the bobbin cover.



- > Place the spool on the spool holder.



- > Check that the cord runs smoothly.

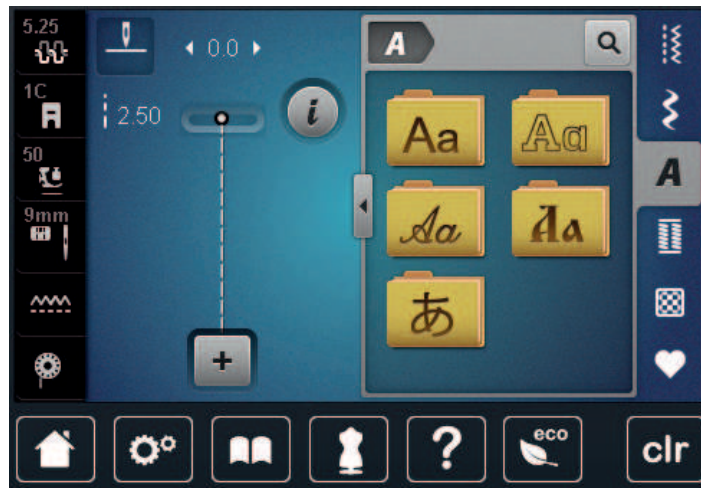


## 8 Alphabets

### 8.1 Overview Alphabet

Block, Double block, Script and Quilt alphabets as well as Cyrillic can be sewn in two different sizes. Block, Double block, Script and Quilt alphabets as well as Cyrillic can also be sewn in lower case letters.

For a perfect stitch formation, it is recommended to use the same thread color for upper and bobbin threads. The fabric can be reinforced with embroidery stabilizer on the wrong side. Use an additional water-soluble stabilizer on the right side of pile or napped fabrics e. g. terrycloth.



Stitch pattern	Name
ABCabc	Block alphabet
ABCabc	Double-Block
<i>ABCabc</i>	Script (Italics)
АБВабв	Cyrillic
あいう	Hiragana

### 8.2 Creating lettering



It is recommend to sew a test sample using the desired thread, the original fabric and the original stabilizer. Please make sure that the fabric is fed evenly and lightly without colloding and being caught. Do not pull, push or hold the fabric while sewing.



- > Tap «Alphabets».
- > Select the font.




- > To create a combination, tap «Combination Mode/Single Mode».

- > To open the extended Enter Mode, tap «Increasing/Decreasing the display size» (1).



- > Select the letter.
- ABC** > To use upper-case letters, tap «Upper Case Characters» (standard setting).
- abc** > To use lower-case letters, tap «Lower Case Characters».
- 123** > To use figures and mathematical symbols, tap «Numbers and Mathematical Characters».
- @&!...** > To use special characters, tap «Special Characters».



-  > To delete individual syllables of the entered text, tap «Delete».
- > To close the extended Enter Mode, tap «Increasing/Decreasing the display size» again.



### 8.3 Altering font size

Block, Double block, Script and Comic alphabets as well as Cyrillic can also be downsized.



- > Tap «Alphabets».
- > Select the font.
- > Select the letters.



- > Tap «i-Dialog».

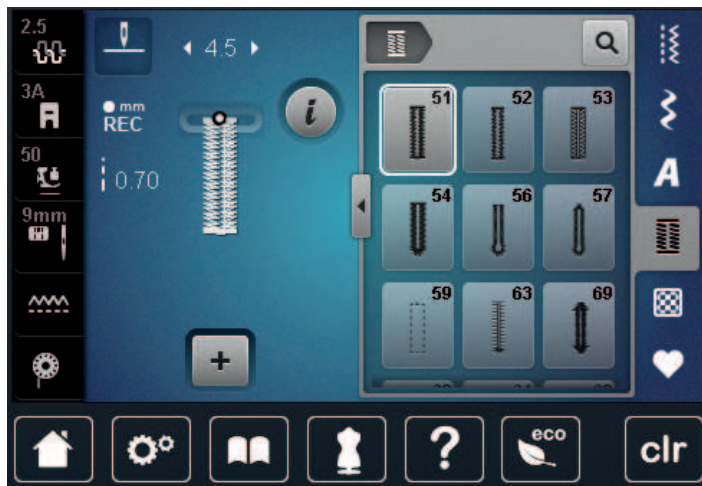










- > To reduce the font size, tap «Alter Font Size».
- > To scale up the font size to 9 mm, tap «Alter Font Size» again.





## 9 Buttonholes

### 9.1 Overview Buttonholes

To create the correct buttonhole for every button, every purpose and for every garment, your BERNINA 740 provides a considerable collection of buttonholes. The corresponding button can be sewn on automatically. Eyelets can also be sewn.



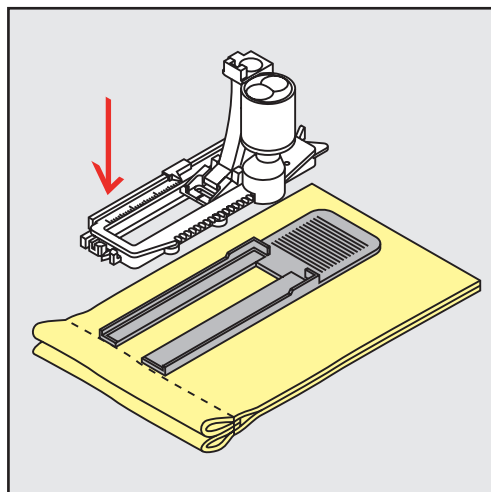
Stitch patterns	Stitch number	Name	Description
	51	Standard buttonhole	For light to medium-weight fabrics. e.g. blouses, dresses and bed linen.
	52	Narrow standard buttonhole	For light to medium-weight fabrics, e.g. blouses, dresses, children's and baby clothes, crafts.
	53	Stretch buttonhole	For all elastic fabrics.
	54	Round buttonhole with normal bartack	For medium-weight to heavy fabrics. e.g. dresses, jackets, coats and rainwear.
	56	Keyhole buttonhole	For heavy, non-stretch fabrics, e.g. jackets, coats and leisurewear.
	57	Keyhole buttonhole with pointed bartack	For stronger, non-stretch fabrics, e.g. jackets, coats, jeans and leisurewear.
	59	Straight stitch buttonhole	For staystitching and reinforcing buttonholes and as button hole edging, especially for buttonholes in leather and imitation leather.
	60	Button sew-on program	Sews buttons with 2 or 4 holes.

	61	Eyelet with small zigzag	Openings for cords or narrow ribbons and for decorative work.
	62	Eyelet with straight stitch	Openings for cords or narrow ribbons and for decorative work.
	63	Heirloom buttonhole	For handlook stitching effects on clothes and handicrafts on light to medium-weight fabrics.
	69	Decorative buttonhole with double pointed bartack	For decorative buttonholes in firmer, non-elastic fabrics.

## 9.2 Making use of the height compensation tool

When a buttonhole is to be sewn at right angles to the project edge, it is recommended to use the height compensation plates (optional accessory).

- > Place the plates from the back between the sewing project and the bottom of the slide to the thick part of the sewing project.

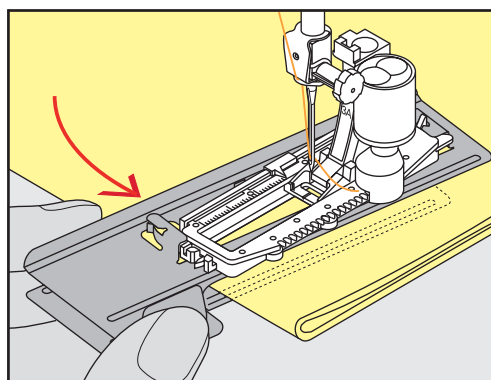


- > Lower the presser foot.

## 9.3 Using the compensation plate

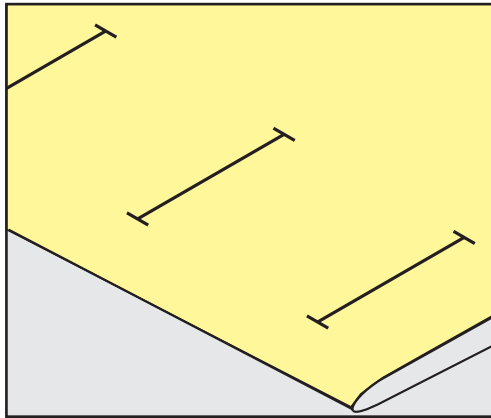
When sewing a buttonhole in difficult materials, it is recommended to use the Height Compensation Plate (optional accessory). It can be used in combination with the Buttonhole foot with slide #3A.

- > Insert the compensation plate carefully from the side.

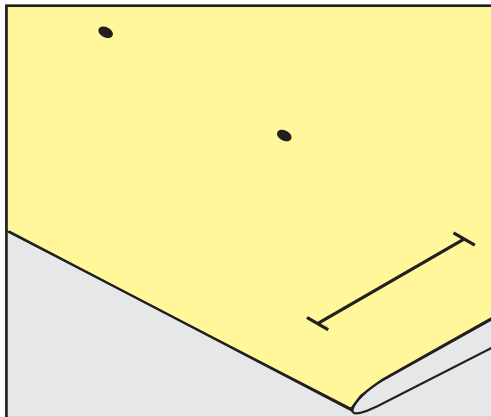


### 9.4 Marking buttonholes

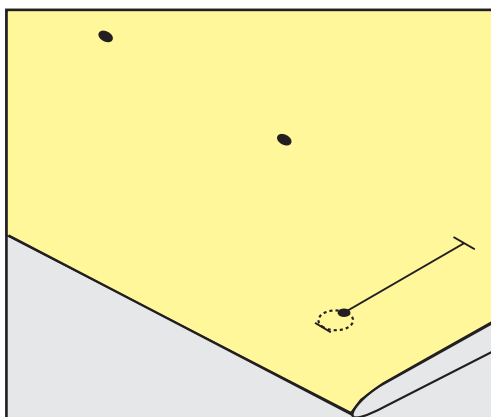
- > For the buttonholes to be sewn manually, mark the position and the length on the fabric using chalk or a water-soluble pen.



- > For the buttonholes to be sewn automatically, mark the complete length of 1 buttonhole on the fabric using chalk or a water-soluble pen. For any subsequent buttonholes mark the starting point.



- > For keyhole and round buttonholes mark the length of the bead with chalk or a water-soluble pen on the fabric. For any subsequent buttonholes mark the starting point. The length of the keyhole is sewn additionally.



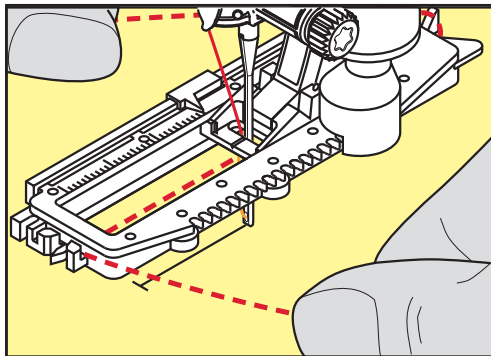
## 9.5 Cord

### Using cord with the Buttonhole Foot with Slide #3A

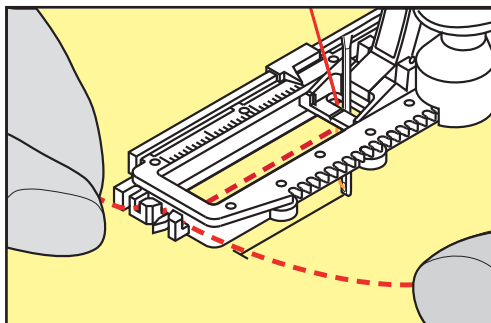
The cord reinforces and enhances the buttonhole and is particularly suitable for the Standard buttonhole No. 51. Optimal cord is Perle cotton No. 8, strong hand-sewing thread and fine crochet yarn. It is recommended not to hold the cord when sewing.

Prerequisite:

- The Buttonhole foot with slide #3A is fitted and raised.
- > Insert the needle at the beginning of the buttonhole.
- > Guide the cord on the right side under the buttonhole foot with slide.
- > Hook the cord over the pin at the back of the buttonhole foot with slide.

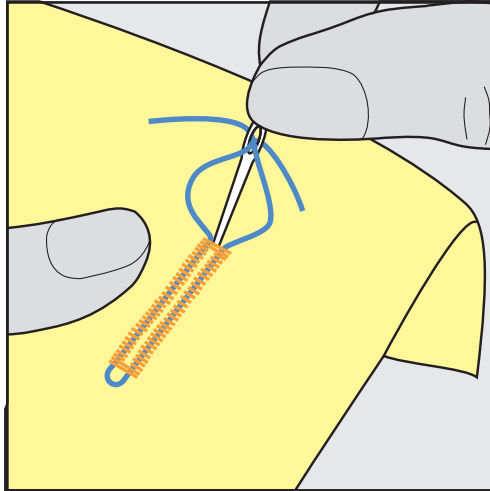


- > Pull the cord on the left side under the buttonhole foot to the front with slide.



- > Pull the cord ends into the slits.
- > Lower the buttonhole foot with slide.
- > Sew the buttonhole in the usual manner.
- > Pull the cord loop until the loop disappears in the bartack.

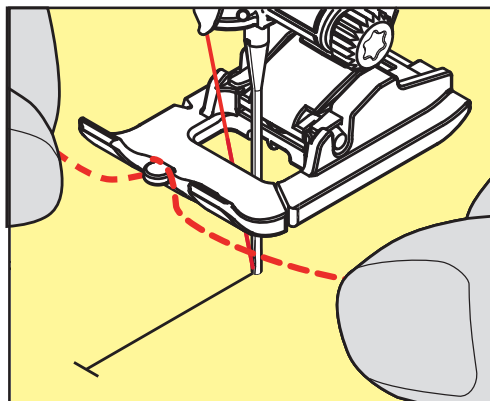
- > Pull the ends of the cord through to the wrong side of the fabric (using a hand stitching-needle), knot or secure with stitches.



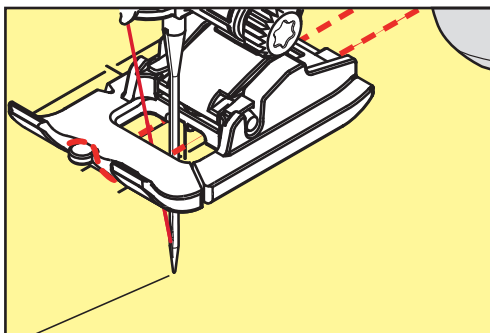
### Using cord with the Buttonhole Foot #3

Prerequisite:

- The Buttonhole Foot #3C is fitted and raised.
- > Insert the needle at the beginning of the buttonhole.
- > Hook the cord over the pin at the back of the buttonhole foot.



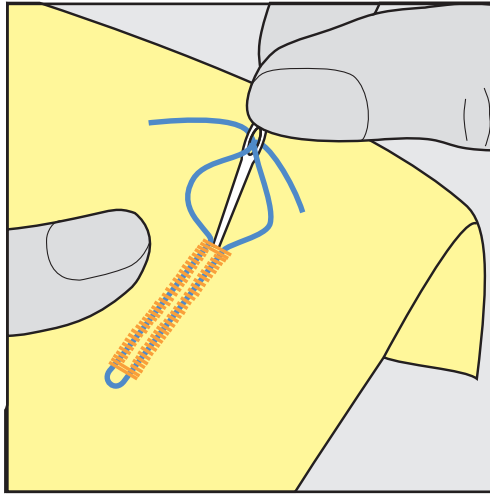
- > Pull both cords ends under the buttonhole foot to the back and place each a cord into a groove of the sole.



- > Lower the buttonhole foot.
- > Sew the buttonhole in the usual manner.
- > Pull the cord loop until the loop disappears in the bartack.



- > Pull the cord ends with the hand sewing needle to the back and knot or secure them.



## 9.6 Sewing a test sample

Always sew a test sample of the buttonhole on the same fabric: It is recommended to use the same stabilizer and to select the same buttonhole. The test sample should also be sewn in the respective direction. By sewing a test sample the settings can be adjusted until the sewing result is satisfying.

It is worth underlaying the buttonholes with the Straight stitch buttonhole No. 59 when working with soft loosely woven materials or for buttonholes which are highly stressed. This is also recommended to reinforce buttonholes in leather, vinyl or felt.

Alterations to the Balance when sewing a manual standard buttonhole as well as the keyhole and the round buttonhole with length measurement affect both beads in the same way. With the manual keyhole or round buttonhole the alterations affect both sides differently.

If the stitch counter function is used and alterations are made concerning the Balance, the alterations affect both buttonhole beads differently.



- > Tap «Buttonholes».
- > Select the buttonhole.
- > Select and fit the desired presser foot.
- > Place the fabric under the presser foot and lower the presser foot.
- > Press the foot control carefully and start sewing. Guide the fabric slightly.
- > Check the Balance while sewing and adjust if necessary.
- > Check the test sample and make further amendments if necessary.

## 9.7 Determining the buttonhole slit width

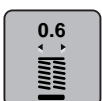
The width of the buttonhole slit can be adjusted between 0.1 – 2.0 mm before sewing.



- > Tap «Buttonholes».
- > Select the buttonhole.



- > Tap «i-Dialog».



- > Tap «Buttonhole Slit Width».
- > To adjust the desired width of the buttonhole slit, turn the Upper Multi-function knob or the «Lower Multi-function knob».

## 9.8 Determining the buttonhole length with the Buttonhole Foot with Slide #3A



The button can be placed in the yellow circle in the left section of the display. The yellow circle can be enlarged or downsized by turning the «Upper/Lower Multifunction knobs» and the diameter of the button can be determined in this way.

Additionally to the diameter of the button, 2 mm are added automatically for the buttonhole length. If the diameter of the button is 14 mm, the buttonhole length is calculated 16 mm.

Prerequisite:

- The Buttonhole foot with slide #3A is fitted.



- > Tap «Buttonholes».
- > Select the buttonhole.



- > Tap «i-Dialog».



- > Tap «Direct Entry Buttonhole Length».
- > Turn the «Upper Multi-function knob» or the «Lower Multi-function knob» to adjust the buttonhole length.

## 9.9 Determining the buttonhole length with Buttonhole Foot #3C

When the Buttonhole Foot #3C is used, the buttonhole length must be determined via the function Stitch Counter. The Stitch Counter function is suitable for all types of buttonholes. The left buttonhole bead is sewn forward, the right buttonhole bead is sewn in reverse. If alterations are made to the Balance, the Stitch Counter function has to be saved for every buttonhole separately.

Prerequisite:

- The Buttonhole Foot #3C is fitted.



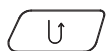
- > Tap «Buttonholes».
- > Select the buttonhole.



- > Tap «i-Dialog».



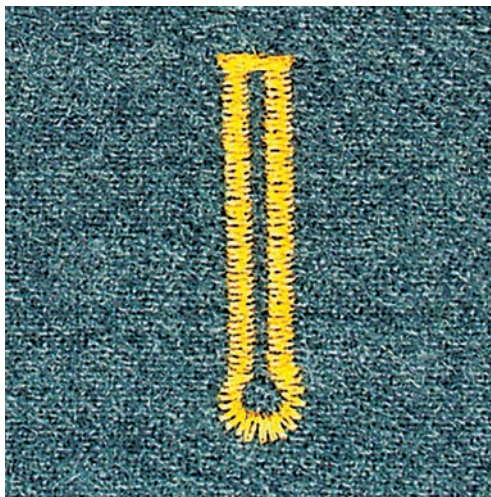
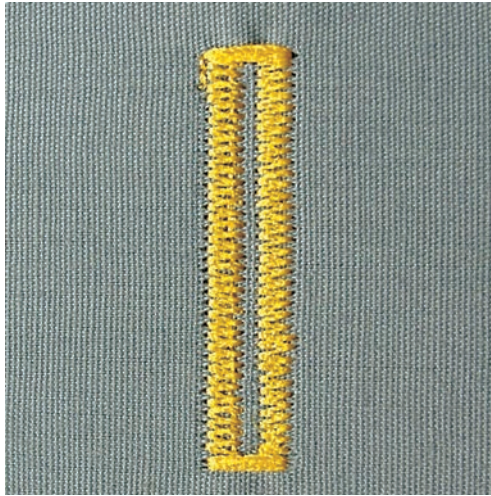
- > Tap «Programming the length via the Stitch Counter».
- > Sew the required length of the buttonhole.
- > Stop the machine.



- > The machine sews the lower bartack and the second bead in reverse when the button «Quick Reverse» is pushed.
- > Stop the machine at the height of the first stitch.
- > The machine sews the upper bartack and the securing stitches when the button «Quick Reverse» is pushed again.
  - The length of the buttonhole remains saved and every subsequent buttonhole is sewn identically until the machine is switched off.



## 9.10 Sewing a buttonhole automatically



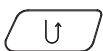
When the Buttonhole foot with slide #3A is used, the length of the buttonhole is measured automatically by the lens on the presser foot. The buttonhole will be exactly duplicated and the machine switches to the next step automatically when the maximum length is reached. The Buttonhole foot with slide #3A is suitable for buttonholes at a length of 4 – 31 mm, depending on the buttonhole type. The Buttonhole foot with slide #3A must lie perfectly flat on the fabric so that the length can be measured accurately. Programmed buttonholes are all at the same length and of the same nice look.

Prerequisite:

- The Buttonhole foot with slide #3A is fitted.



- > Tap «Buttonholes».
- > Select the buttonhole No. 51 – 53 or 54, 56, 57 or No. 69.
- > Sew the required length of the buttonhole.



- > To program the length, push the button «Quick Reverse».



- > Push the button «Start/Stop» or press the foot control.
  - The machine finishes the buttonhole automatically. All subsequent buttonholes are sewn at the same length.

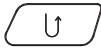
## 9.11 Programming the Heirloom buttonhole

Prerequisite:

- The Buttonhole foot with slide #3A is fitted.



- > Tap «Buttonholes».
- > Select Heirloom buttonhole No. 63.
- > Sew the required length of the buttonhole.



- > To program the length, push the button «Quick Reverse».
  - The machine finishes the buttonhole automatically. All subsequent buttonholes are sewn at the same length.

## 9.12 Sewing the manual 7-step buttonhole with the Buttonhole Foot #3C

The length of the beads is manually determined when sewing. Bartack, eye and securing stitches are preprogrammed. The individual steps can also be selected by scrolling via the arrow icons or by pushing the button. «Quick Reverse»

Prerequisite:

- The Buttonhole Foot #3C is fitted.



- > Tap «Buttonholes».
- > Select Standard buttonhole No. 51.



- > Tap «i-Dialog».



- > Tap «Manual Length Adjustment».
  - Step 1 is activated in the display for the start of the buttonhole.
- > Sew the required length of the buttonhole.
  - Step 2 is activated.



- > Stop when the required length of the buttonhole or length marking is reached.
- > Step 3 appears by tapping «Scroll down».
  - The machine sews straight stitches in reverse.
- > Stop at the height of the first stitch at the start of the buttonhole.
- > Step 4 appears by tapping «Scroll down».
  - The machine sews the upper bartack and stops automatically.

- > Step 5 appears by tapping «Scroll down».
  - The machine sews the second bead.
- > Stop the machine at the level of the last stitch of the first bead.
- > Step 6 appears by tapping «Scroll down».
  - The machine sews the lower bartack and stops automatically.
- > Step 7 appears by tapping «Scroll down».
  - The machine secures and stops automatically.

### 9.13 Sewing the manual 5-step buttonhole with the Buttonhole Foot #3C

The length of the beads is manually determined when sewing. Bartack, eye and securing stitches are preprogrammed. The individual steps can also be selected by scrolling via the arrow icons or by pushing the button. «Quick Reverse»

Prerequisite:

- The Buttonhole Foot #3C is fitted.



- > Tap «Buttonholes».
- > Select Round buttonhole with normal bartack No. 54.



- > Tap «i-Dialog».



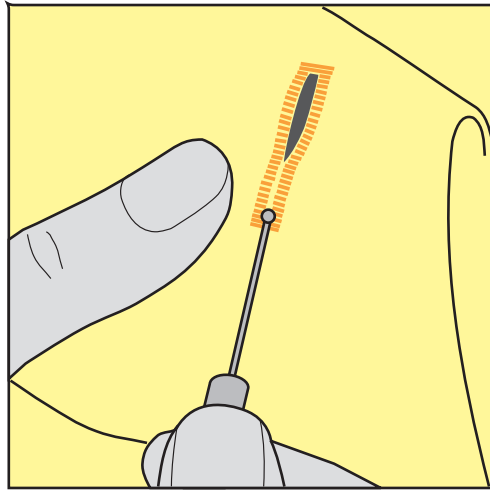
- > Tap «Manual Length Adjustment».
  - Step 1 is activated in the display for the start of the buttonhole.
- > Sew the required length of the buttonhole.
  - Step 2 is activated.



- > Stop when the required length of the bead or length marking is reached.
- > Step 3 appears by tapping «Scroll down».
- > The machine sews the curve or eye and stops automatically.
- > Step 4 appears by tapping «Scroll down».
  - The machine sews the second bead in reverse.
- > Stop the machine at the level of the first stitch at the beginning of the buttonhole.
- > Step 5 appears by tapping «Scroll down».
  - The machine sews the upper bartack and secures automatically.

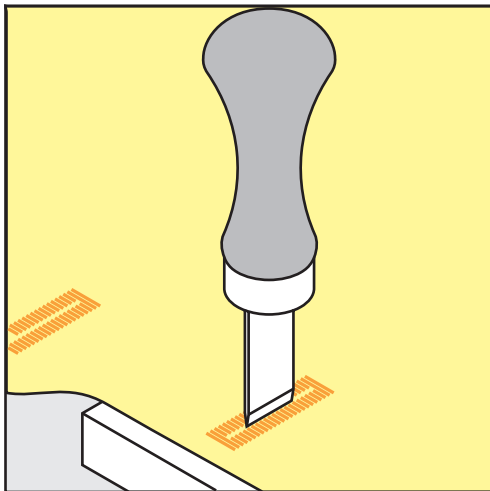
### 9.14 Cutting the buttonhole open with the seam ripper

- > Place a pin in each end of the buttonhole to avoid accidental cutting into ends of buttonhole.
- > Cut the buttonhole from both ends to the middle.



### 9.15 Cutting open buttonholes with the buttonhole cutter (optional accessory)

- > Place the fabric on an appropriate piece of wood.



- > Position the cutter in the center of the buttonhole.
- > Press down on the cutter with your hand.

### 9.16 Sewing on buttons

The Button Sew-on Program can be used to sew on buttons with two or four holes, press studs or snap fasteners.

Recommended Sewing Program:

Button sew-on program No. 60

Recommended Presser Foot:

Button Sew-On Foot #18

Alternative Presser Feet:

- Reverse Pattern Foot #1/1C
- Darning Foot #9
- Reverse Pattern Foot with Clear Sole #34/34C

## Adjusting the thread shank

For buttons on thicker fabrics, increase the thread shank = the distance between the button and the fabric. Buttons sewn on thin fabrics or buttons for decorative purposes only are stitched without a «thread shank».

**NOTICE! The adjustment of the thread shank is only possible when using the Button Sew-on Foot #18.**

- > Loosen the screw on the back of the presser foot.
- > Push the bar upwards according to the thickness of the fabric.
- > Tighten the screw.

## Sewing on a button

Prerequisite:

- The shank length is adjusted according the fabric thickness.
- The Button Sew-On Foot #18 or an alternative presser foot is fitted.
- The fitted presser foot has been selected in the user interface.
- The feed dog is lowered.



- > Tap «Buttonholes».
- > Select Button sew-on program No. 60.
- > Turn the handwheel until the bobbin thread comes up.
- > **NOTICE! The Button sew-on Program always starts above the left hole of the button.** Place the button on the fabric. Position the button and the fabric under the needle so that the needle stitches into the left hole. For buttons with 4 holes, sew on the two front holes first, then the two back holes.
- > Lower the presser foot.
- > Perform the first stitches in the left hole via the handwheel.
- > Keep turning the handwheel until the needle changes the position to the right hole. Make sure that the needle hits the right hole. If required, adjust the stitch width via the Upper Multi-function knob.
- > Hold the threads and push the foot control.
  - The machine sews on the button and stops automatically.
- > For increased stability, sew the Button sew-on program again.
- > Cut the threads on the machine. Alternatively, pull the fabric from the sewing machine and cut the threads by hand. Pull the upper thread down and knot it with the lower thread.

## 9.17 Sewing eyelets



For increased stability sew the eyelet twice. If necessary, adjust the Balance.

Prerequisite:

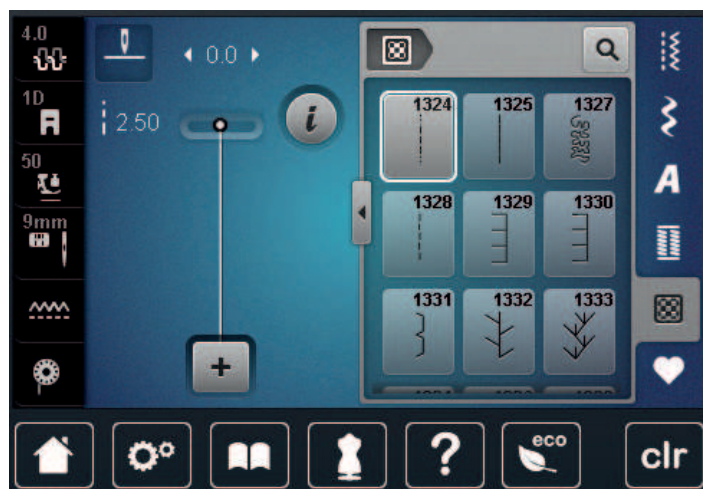
- The Reverse Pattern Foot #1C or the Open Embroidery Foot #20C is fitted.








- > Tap «Buttonholes».
- > Select Eyelet with small zigzag No. 61 or Eyelet with straight stitch No. 62.
- > Turn the «Upper Multi-function knob» or the «Lower Multi-function knob» to alter the size of the eyelet.
- > Sew the Eyelet Program.
  - The machine stops automatically at the end of the Eyelet Program.
- > Use an awl, punch pliers or a hole punch to open the eyelet.

## 10 Quilting

### 10.1 Overview Quilt Stitches



Stitch pattern	Stitch number	Name	Description
	No. 1324	Quilting, securing program	To secure at the sewing start and sewing end with short forward stitches.
	No. 1325	Quilting, straight stitch	For machine quilting using a straight stitch with a 3 mm stitch length.
	No. 1327	Stippling stitch/stippling quilt stitch	For imitations of stippling stitch.
	No. 1328	Hand-look quilt stitch	For attaching an imitation of hand-look stitch with monofilament.
	No. 1329	Blanket stitch	For applications and sewing on ribbons.
	No. 1330	Double blanket stitch	For applications and sewing on ribbons.
	No. 1331	Narrow blind stitch	For hidden sewing of applications
	No. 1332	Feather stitch	For quilting, crazy patchwork, embellishing and finishing.
	No. 1333, No. 1334, No. 1336	Feather stitch	For quilting, crazy patchwork, embellishing and finishing.

Stitch pattern	Stitch number	Name	Description
	No. 1339, No. 1355 – No. 1359, No. 1396	Decorative quilt stitch	For quilting, crazy patchwork, embellishing and finishing.
	No. 1346, No. 1347, No. 1348	Decorative quilt stitch	For quilting, crazy patchwork, embellishing and finishing.
	No. 1352	Dual blanket stitch	For sewing on the edge between two applications – crazy patchwork.
	No. 1353	Dual double blanket stitch	For sewing on the edge between two applications – crazy patchwork.
	No. 1354	Satin stitch	For appliqué.

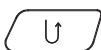
## 10.2 Quilting, Securing Program

Prerequisite:

- The Reverse Pattern Foot #1C is fitted.

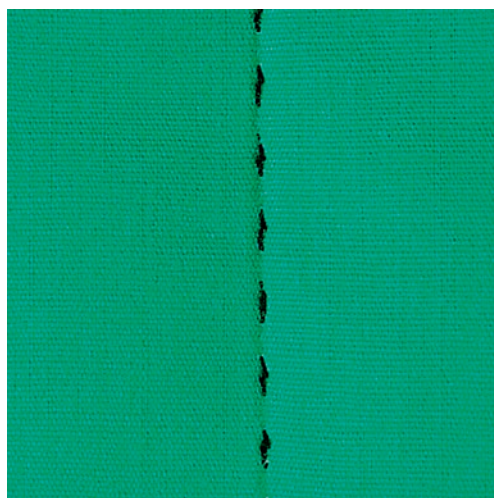


- > Tap «Quilt Stitches».
- > Select Decorative quilt stitch No. 1324.
- > Press the foot control.
  - The machine sews 6 stitches forwards automatically when sewing is started.



- > Sew the required length of seam.
- > Push the button «Quick Reverse».
  - The machine sews 6 stitches forwards automatically and stops automatically at the end of the Securing Program.

## 10.3 Sewing handlook quilt stitches



Handlook quilt stitches are suitable for all fabrics and sewing projects that should look like hand-sewn. It is recommended to use a monofilament thread as upper thread and an embroidery thread as bobbin thread. The sewing speed should be moderate to prevent the monofilament from breaking. If required, the upper thread tension and the balance can be adjusted to the sewing project and the desired quilt stitch.

Prerequisite:

- The Reverse Pattern Foot #1C is fitted.



- > Tap «Quilt Stitches».
- > Select Hand-look quilt stitch No. 1328, No. 1346, No. 1347 or No. 1348.
- > If necessary, adjust the upper thread tension and the balance to suit the sewing project and the desired quilt stitch.
- > To start the machine, press the foot control or push the button «Start/Stop».

## 10.4 Guiding the quilt work freely



Free-motion quilting and darning are based on the same free-motion principles. With stipple quilting, entire areas of the fabric are filled with quilt stitches. The single lines of stitching are rounded and must not cross each other.



- Quilting gloves with rubber nubs make it easier to guide the fabric.
- For the best possible results use the High thread tension bobbin case (optional accessory).
- It is recommended to use the slide-on table and the Free Hand System.
- With free motion quilting, it is of advantage to quilt from the center outwards and to guide the fabric using smooth, round movements to form the design of your choice.

Prerequisite:

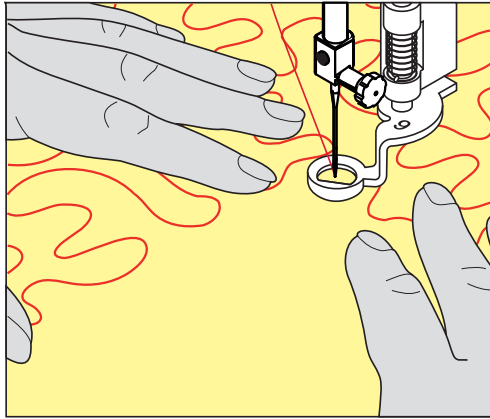
- The top layer, the batting and the backing are pinned together or basted.
- The feed dog is lowered.
- The Darning Foot #9 is fitted.



- > Tap «Practical Stitches».
- > Select Straight stitch No. 1.
- > If required, adjust the upper thread tension.
- > To prevent the fabric from shifting, select the needle position down.
- > To start the machine, press the foot control or push the button «Start/Stop».
- > To guide the fabric as if in a hoop, keep both hands close to the presser foot. Make sure that the needle does not pierce the same place several times in a row.
- > To ensure a minimum stitch distance when quilting corners, reduce the embroidery speed.
- > If the thread is lying on top of the fabric, slow down the movement.



> If there are knots on the wrong side of the fabric, move the fabric more quickly.



## 11 BERNINA Stitch Regulator (BSR)

The BERNINA Stitch regulator equalizes the stitch length which results of the free movement of the fabric while free-motion sewing - a sewing technique which grows more and more popular. When free-motion sewing with the BSR presser foot, every stitch is equally long and the stitch formation is perfectly regular.

As soon as the BSR presser foot is attached and the feed dog is lowered, the selection menu of the desired mode appears in the display of the machine. The BSR presser foot can be used with sewing straight stitch as well as zig zag.

The BSR presser foot reacts on the movement of the fabric and therefore controls the speed of the machine up to the highest possible speed. It can be said: The faster the movement of the material, the higher the speed of the machine.

If the fabric is moved too quickly, an acoustic signal sounds. The beeper can be activated or deactivated in the «BSR» display. The sound of the beeper can also be activated or deactivated in the Setup Program.

### 11.1 BSR mode 1

The BSR function can be controlled via the foot control or with the button «Start/Stop». Start the BSR mode. At the BSR presser foot a red light is on. By moving the fabric the machine accelerates. If the fabric isn't moved, securing in place is possible without pressing an additional button. When working via the foot control or when using the button «Start/Stop», the BSR mode doesn't stop automatically.

### 11.2 BSR mode 2

The BSR function can be controlled via the foot control or the button «Start/Stop». The machine starts only when the foot control or the button «Start/Stop» is pressed and the fabric is moved simultaneously. Without moving the fabric, the BSR2 modus stops after about 7 seconds. The red light goes off (only when working with the button «Start/Stop»). When working via the foot control, the red light doesn't go off.

### 11.3 BSR function with Straight stitch No. 1

This function allows free-motion quilting with straight stitch and a pre-programmed stitch length up to 4 mm. The programmed stitch length is maintained within a certain speed, independent of the fabric movement.

### 11.4 BSR function with Zigzag No. 2

The zig zag can be used e.g. for thread painting. The set stitch length will **not** be maintained when sewing the zig zag stitch, but the BSR function simplifies the application.

### 11.5 Sewing preparations for quilting

#### Attach the BSR presser foot

Prerequisite:

- The machine is switched off.

#### NOTICE

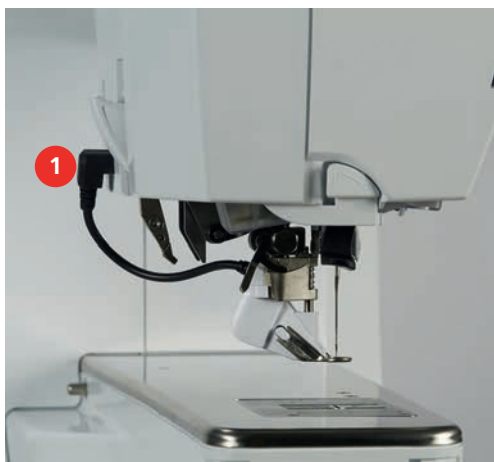
The lens of the BSR presser foot is dirty

The machine doesn't recognize the BSR presser foot.

> Clean the lens with a soft, slightly damp cloth.

> Change the presser foot.

- > Insert the cable of the BSR Foot into the connection (1).



- > Switch the machine on.
  - The BSR display opens and the BSR1 Mode is activated.

### Changing the presser foot sole

#### NOTICE

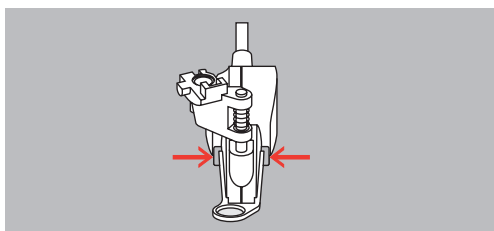
The lens of the BSR presser foot is dirty

The machine doesn't recognize the BSR presser foot.

- > Clean the lens with a soft, slightly damp cloth.

The standard stitch length is 2 mm. When sewing small shapes and stippling it is recommended to shorten the stitch length to 1 – 1.5 mm.

- > Raise the needle.
- > Raise the BSR foot.
- > Switch the machine off and disconnect it from the power supply system.
- > Remove the BSR foot from the machine.
- > Press both push buttons at the BSR foot against each other.



- > Pull the presser foot sole out of the guide downwards.
- > Insert the new presser foot sole into the guide and push upwards until it clicks into place.
- > Attach the BSR presser foot.

### 11.6 Using the BSR mode

The BSR function can either be operated via the foot control or via the button «Start/Stop».

Starting via the foot control: The foot control needs to be pressed while quilting. The machine keeps running in the BSR1 Mode until the foot control is released, even if the fabric isn't moved.

If quilting BSR2 Mode is stopped, the machine sews another stitch depending on the needle position and stops with needle position up.

Prerequisite:

- The Slide-on Freearm Extension Table has been fitted.
- The knee lifter of the Free Hand System is attached.

> Lower the feed dog.

> Select the desired BSR Mode.



> To lower the presser foot, push the button «Start/Stop» or press the foot control.

> To start the BSR Mode, push the button «Start/Stop» again or press and hold the foot control again.

- A red light is lit on the BSR Presser Foot.

> Move the fabric to control the speed of the machine in the BSR Mode.

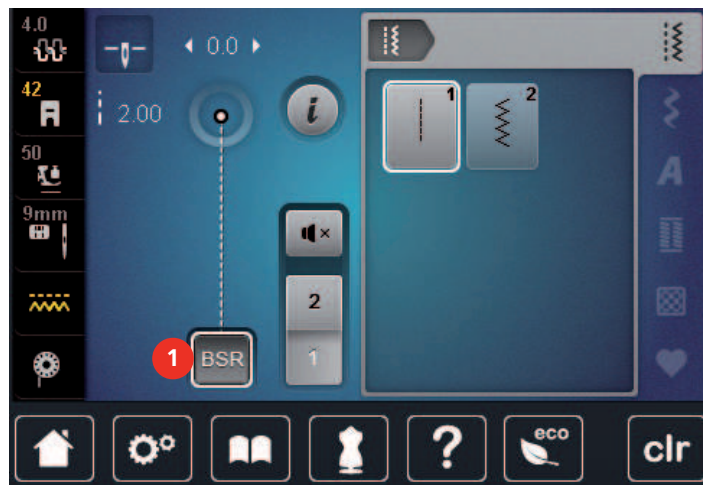


> To stop the BSR Mode, push the button «Start/Stop» again or release the foot control.

- The BSR Mode stops and the red light at the presser foot goes off.



> To deactivate the BSR Mode and to quilt without automatic stitch lengths, tap «BSR Mode».



## 11.7 Securing

### Securing in BSR1 Mode with the button «Start/Stop»

Prerequisite:

- The BSR Presser Foot is fitted and connected to the machine.
- The BSR display opens and a BSR1 Mode is active.

> Lower the feed dog.

> Lower the presser foot.



> Push the button «Needle Up/Down» 2x.

- The bobbin thread is brought up.

> Hold the upper and the bobbin thread.



> Push the button «Start/Stop».

- Start the BSR Mode.

> Sew 5 – 6 securing stitches.



> Push the button «Start/Stop».

- The BSR Mode stops.

> Cut the thread.

## Securing in BSR2 Mode

Prerequisite:

- The BSR Presser Foot is fitted and connected to the machine.
- The BSR display opens and a BSR2 Mode is active.

- > Lower the presser foot.
- > Tap «i-Dialog».



- > Tap «Securing Stitches».



- > Press the foot control or push the button «Start/Stop».



By moving the fabric some short securing stitches are sewn, then the programmed stitch length is activated and the securing function is deactivated automatically.

## 12 Care and maintenance

### 12.1 Firmware

#### Checking the firmware version

The machine's firmware and hardware versions are displayed.



> Tap «Setup Program».



> Tap «Machine Settings».



> Tap «Information».



> Tap «Machine Data».

#### Checking the firmware version

The firmware and hardware versions of the machine and the connected embroidery module are displayed.



> Tap «Setup Program».



> Tap «Machine Settings».



> Tap «Information».



> Tap «Machine Data».

#### Updating firmware

The latest firmware of the machine and a detailed step-by-step instruction for updating processes can be downloaded at [www.bernina.com](http://www.bernina.com). In general, personal data and settings are automatically transferred during a firmware update. For reasons of safety, it is also recommended to save data and settings on a BERNINA USB stick before the firmware update is started. If personal data and settings should get lost during a firmware update, they can be transferred to the machine again afterwards.

> Insert the USB stick with the new firmware version into the machine.

> Tap «Setup Program».





> Tap «Machine Settings».



> Tap «Maintenance/Updates».



> Tap «Machine Update».



> Tap «Save Data».  
– When the data is saved, a green tick is temporarily displayed.

#### NOTICE

The BERNINA USB stick (optional accessory) has been removed too early

Firmware has not been updated and the machine cannot be used.

> Remove the BERNINA USB stick (optional accessory) only after the update has been completed successfully.

#### Update

> To start the firmware update, tap «Update».

**Note:** The update may take several minutes. Do not switch off the machine or remove the USB stick during the update.

– The machine restarts. When the update is complete, a message appears.

### Recovering saved data

If personal data and settings after a software update are not available anymore, they can be transferred to the machine again afterwards.

> Insert the BERNINA USB stick providing the saved data and settings into the USB port of the machine.

> Tap «Setup Program».



> Tap «Machine Settings».



> Tap «Maintenance/Updates».



> Tap «Machine Update».

#### NOTICE

The BERNINA USB stick (optional accessory) has been removed too early

Saved data cannot be transferred and the machine cannot be used.

> Remove the BERNINA USB stick (optional accessory) only after the saved data has been transferred successfully.



> Tap «Load Data».  
– After the data has been transferred, a green tick is temporarily displayed.

## 12.2 Machine

### Cleaning the display

- > Clean the display in the switched off status with a soft slightly damp microfiber cloth.

### Cleaning the feed dog

Remaining threads under the stitch plate must occasionally be removed.

- > Raise the needle and presser foot.



### Electronically driven components

Risk of injury near the needle and the hook.

- > Switch the machine off and disconnect it from the power supply system.

- > Remove the needle and presser foot.
- > Lower feed dog.



- > Remove the stitch plate.



### Dust and thread residues inside the machine

Damage to mechanical and electronic components.

- > Use a brush or a soft cloth.
- > Do not use compressed air spray.

- > Clean the feed dog with the brush.

### Cleaning the hook



### Electronically driven components

Risk of injury near the needle and the hook.

- > Switch the machine off and disconnect it from the power supply system.

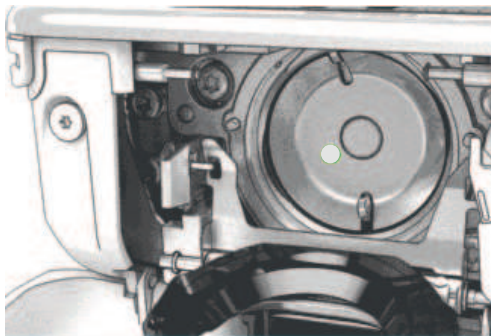
- > Open the hook cover.
- > Remove the bobbin case.



- > Press the release lever to the left.



- > Fold down the fastening bracket along with the black hook race cover.
- > Remove the hook.

**NOTICE****Dust and thread residues inside the machine**

Damage to mechanical and electronic components.

- > Use a brush or a soft cloth.
- > Do not use compressed air spray.

- > Clean the hook race with a brush and a soft cloth. Do not use any sharp objects.
- > Hold the hook at the pin in the center with two fingers.
- > Guide the hook, lower edge first, at an angle from above behind the hook race cover.
- > Position the hook with the two lugs on the hook driver meeting the corresponding openings in the hook; the colored mark on the hook driver should be visible through the hole in the hook.
- > Insert the hook.
  - The hook is magnetic and therefore fastened to the correct position.
- > Close the hook race cover and the fastening bracket until the release bracket engages.
- > As a check, turn the handwheel.
- > Insert the bobbin case.

**Lubricating the hook**

Lubricating the hook can prevent the occurrence of unwanted noises in the hook area. BERNINA recommends lubricating the hook in the following cases:

- Before using the machine for the first time
- After a longer downtime of the machine
- For intensive use: daily before sewing
- When the message " Lubricate the machine " is displayed
- In case of unwanted noises in the hook area



### Electronically driven components

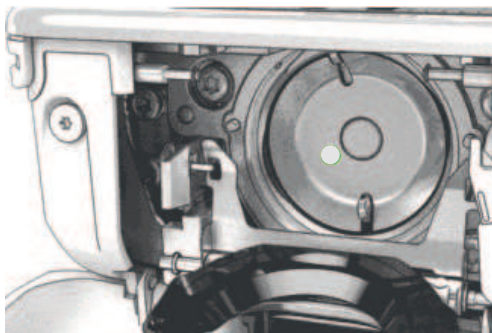
Risk of injury near the needle and the hook.

- > Switch the machine off and disconnect it from the power supply system.

- > Remove the bobbin case.
- > Press the release lever to the left.



- > Fold down the fastening bracket along with the black hook race cover.
- > Remove the hook.



- > Clean the hook race with a brush and a soft cloth. Do not use any sharp objects.
- > Add one drop of BERNINA oil down into the hook race.



- > Add one drop of oil into each of the two oil depots so that the felts are damp, and make sure that the red-marked surface of the hook sleeve remains free of oil.



- > Hold the hook at the pin in the center with two fingers.
- > Guide the hook, lower edge first, at an angle from above behind the hook race cover.
- > Position the hook with the two lugs on the hook driver meeting the corresponding openings in the hook; the colored mark on the hook driver should be visible through the hole in the hook.
- > Insert the hook.
  - The hook is magnetic and therefore fastened to the correct position.
- > Close the hook race cover and the fastening bracket until the release bracket engages.
- > As a check, turn the handwheel.
- > Insert the bobbin case.
- > Sew or embroider on a test fabric.

### **Cleaning the thread catcher**



- > Tap «Setup Program».



- > Tap «Machine Settings».






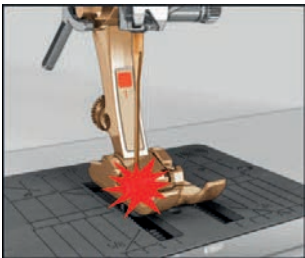


- > Tap «Maintenance/Updates».


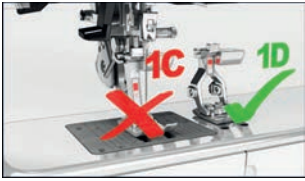
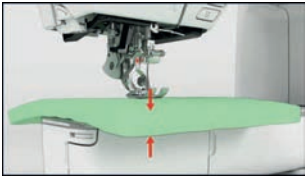



- > Tap «Cleaning the thread catcher».
- > Clean the thread catcher according to the instructions on the display.


## 13 Errors and faults

### 13.1 Error messages

Message on the display	Cause	Solution
	Stitch number unknown.	> Check the entry and enter the new number.
	The stitch pattern cannot be selected in the Combi-mode.	> Combine other stitches.
	The feed dog is not lowered.	> To lower the Feed Dog, push the button «Feed Dog Up/Down».
	The selected needle and stitch plate cannot be used in combination.	> Replace the needle. > Replace the stitch plate.
	The needle is not at its top end.	> Adjust the needle position via the handwheel.
	The upper thread is used up.	> Rethread.
	The upper thread has broken.	> Rethread.

Message on the display	Cause	Solution
	The main motor is not running.	<ul style="list-style-type: none"> <li>&gt; Turn the handwheel clockwise until the needle is at its top position.</li> <li>&gt; Remove the sewing project. Do not pull on the fabric or the thread.</li> <li>&gt; Remove the stitch plate.</li> <li>&gt; Remove the thread remnants.</li> <li>&gt; Clean the hook.</li> <li>&gt; Remove the hook and make sure that there are no pieces of broken needle points on the magnetic back of the hook.</li> </ul>
	Incorrect presser foot for the BERNINA Dual Feed.	<ul style="list-style-type: none"> <li>&gt; Fit a presser foot with the designation «D».</li> </ul>
	The fabric under the presser foot is too thick.	<ul style="list-style-type: none"> <li>&gt; Reduce the fabric thickness.</li> </ul>
Insufficient free space on the BERNINA USB stick (optional accessory).	There is not enough free capacity on the BERNINA USB stick (optional accessory).	<ul style="list-style-type: none"> <li>&gt; Make sure that the BERNINA USB stick (optional accessory) is used.</li> <li>&gt; Delete data from the BERNINA USB stick (optional accessory).</li> </ul>
No personal data on the BERNINA USB stick (optional accessory).	No personal data for recovery available on the BERNINA USB stick (optional accessory).	<ul style="list-style-type: none"> <li>&gt; Make sure that the data and settings have been saved on the BERNINA USB stick (optional accessory).</li> </ul>
The recovery of personal data has failed.	The firmware update has been successful but the personal data could not be recovered.	<ul style="list-style-type: none"> <li>&gt; Make sure that the data and settings have been saved on the BERNINA USB stick (optional accessory).</li> <li>&gt; Transfer saved data to the machine.</li> </ul>
No BERNINA USB stick is inserted. Make sure that, throughout the entire automatic update, the same BERNINA USB stick remains inserted.	The BERNINA USB stick (optional accessory) is not inserted.	<ul style="list-style-type: none"> <li>&gt; Use a BERNINA USB stick (optional accessory) providing enough free capacity.</li> </ul>
The firmware update has failed.	The latest firmware version cannot be found on the USB stick.	<ul style="list-style-type: none"> <li>&gt; Make sure that the compressed zip file has been unzipped for the firmware update.</li> <li>&gt; Check whether the data for the software update is saved directly on the data medium and not in a file on the USB stick.</li> <li>&gt; Updating Firmware.</li> </ul>

Message on the display	Cause	Solution
	<p>The machine needs cleaning/ lubricating.</p>	<ul style="list-style-type: none"> <li>&gt; Clean the machine.</li> <li>&gt; Lubricate the machine.</li> </ul> <p>Important information on lubricating:</p> <ul style="list-style-type: none"> <li>&gt; Too much oil may stain the fabric and the thread.</li> <li>&gt; After lubricating, always embroider on a test piece.</li> </ul>
<p>The automatic thread cutter (at the thread catcher) needs cleaning.</p>	<p>The automatic thread cutter needs cleaning. The message appears every time when the machine is started as soon as 1000 cutting cycles have been carried out.</p>	<ul style="list-style-type: none"> <li>&gt; Tap «Confirm».                             <ul style="list-style-type: none"> <li>– The machine calls up the function «Clean the thread catcher».</li> </ul> </li> <li>&gt; Clean the thread catcher according to the instructions on the display.                             <ul style="list-style-type: none"> <li>– The counter for the cutting cycles is reset.</li> </ul> </li> </ul>
<p>It is time for the regular maintenance. Please contact your authorized BERNINA dealer to make an appointment.</p>	<p>The machine needs maintenance. The message appears after the programmed service interval has expired.</p> <p><b>Important information:</b> When cleaning and maintenance work is carried out as instructed, the functionality and long service life of the machine is ensured. Ignoring the terms can affect the operating life and restrict the guarantee. The cost allocation for maintenance work is regulated nationally. Consult your authorized BERNINA dealer or your service center for more details.</p>	<ul style="list-style-type: none"> <li>&gt; Contact an authorized BERNINA dealer.</li> <li>&gt; Delete the message temporarily by touching the icon «ESC».</li> </ul> <p>After the third deletion, the message is not displayed until the next service interval is reached.</p>

Message on the display	Cause	Solution
	<p>The calibration of the Buttonhole foot with slide #3A has failed.</p>	<ul style="list-style-type: none"> <li>&gt; Check the presser foot for ease of movement. If necessary, remove lint, dust and fabric remnants.</li> <li>&gt; Clean the reflector with a soft, slightly damp microfiber cloth.</li> <li>&gt; Check the position of the reflector. If necessary, correct the position of the reflector or replace the presser foot.</li> <li>&gt; Check the plastic on the underside of the presser foot for signs of wear. If necessary, replace the presser foot.</li> <li>&gt; Clean the feed dog.</li> <li>&gt; If the error still occurs, contact your authorized BERNINA dealer.</li> </ul>


## 13.2 Troubleshooting

Fault	Cause	Solution
<b>Uneven stitch formation</b>	Upper thread too tight or too loose.	<ul style="list-style-type: none"> <li>&gt; Adjust the upper thread tension.</li> <li>&gt; Check the thread feed from the thread spool.</li> </ul>
	Needle blunt or bent.	> Replace the needle, make sure that a new BERNINA quality needle is used.
	Poor quality needle.	> Use a new BERNINA quality needle.
	Poor quality thread.	> Use quality thread.
	Incorrect needle/thread combination.	> Match the needle with the thread size.
	Incorrectly threaded.	> Rethread.
	Fabric has been pulled.	> Feed the fabric evenly.

### Uneven stitch formation



Incorrect bobbin case is used. > Use the supplied bobbin case with triangles.

Fault	Cause	Solution
<b>Skipped stitches</b>	Incorrect needle.	> Use the needle system 130/705H.
	Needle blunt or bent.	> Replace the needle.
	Poor quality needle.	> Use a new BERNINA quality needle.
	The needle is incorrectly inserted.	> Insert the needle with the flat side to the back as far up as it will go into the needle holder and tighten the screw.
	Incorrect needle point.	> Match the needle point to the texture of the material.
<b>Faulty stitching</b>	Thread remnants between the thread tension discs.	> Fold a piece of thin material and slide the folded edge (not the raw edges) between the thread tension discs.
	Incorrectly threaded.	> Rethread.
	Thread remnants below the bobbin case spring.	> Remove the thread remnants under the spring.
<b>Upper thread breaks</b>	Incorrect needle/thread combination.	> Match the needle with the thread size.
	Upper thread is too tight.	> Reduce the upper thread tension.
	Incorrectly threaded.	> Rethread.
	Poor quality thread.	> Use quality thread.
	The stitch plate or the hook tip is damaged.	> Contact the nearest specialized BERNINA dealer to have the damages repaired. > Replace the stitch plate.
	The thread is caught in the area of the thread take-up lever.	> Remove the screw (1) on the headframe with the angular Torx Screwdriver. > Pull the headframe at the bottom slightly forward. > Flip the headframe upwards a bit and remove it. > Remove the thread remnants. > Attach the headframe and tighten the screw.
		
<b>Lower thread breaks</b>	The bobbin case is damaged.	> Replace the bobbin case.
	The stitch hole in the stitch plate is damaged.	> Contact the nearest specialized BERNINA dealer to have the damages repaired. > Replace the stitch plate.
	Needle blunt or bent.	> Replace the needle.



Fault	Cause	Solution
<b>Needle breaks</b>	The needle is incorrectly inserted.	> Insert the needle with the flat side to the back as far up as it will go into the needle holder and tighten the screw.
	Fabric has been pulled.	> Feed the fabric evenly.
	Thick fabric has been pushed.	> Use a suitable presser foot, e. g. Jeans Foot #8, for thick fabric. > Use the height compensating tool when sewing over a thick seam.
	Knotted thread.	> Use quality thread.
<b>Display is inactive</b>	Incorrect calibrating data.	> Recalibrate the display. (see page 52)
	The eco Mode is active.	> Tap «eco Mode».
<b>Stitch width not adjustable</b>	The selected needle and stitch plate cannot be used in combination.	> Replace the needle. > Replace the stitch plate.
	The «Presser foot indicator / presser foot selection» prevents the adjustment of the stitch width.	> Select the fitted presser foot. (see page 34)
<b>Speed too low</b>	Unfavorable room temperature.	> Place the machine in a warm room one hour before use.
	Settings in the Setup Program.	> Adjust the sewing speed in the Setup Program. > Adjust the slide.
<b>The machine doesn't start</b>	Unfavorable room temperature.	> Place the machine in a warm room one hour before use. > Connect the machine and switch it on.
	The machine is damaged.	> Contact an authorized BERNINA dealer.
<b>The light of the button «Start-/Stop» doesn't light up</b>	Light is defect.	> Contact an authorized BERNINA dealer.
<b>Neither the sewing light nor the light on the freearm lights up</b>	Settings in the Setup Program.	> Activate it in the Setup Program.
	The sewing light is defect.	> Contact an authorized BERNINA dealer.
<b>Upper thread indicator doesn't react</b>	Settings in the Setup Program.	> Activate it in the Setup Program.
	The upper thread indicator is defect.	> Contact an authorized BERNINA dealer.

Fault	Cause	Solution
<b>Error during firmware update</b>	USB stick is not recognized.	> Using the BERNINA USB stick.
	The update process is blocked and the hourglass on the display is inactive.	> Remove the USB stick. > Switch off the machine. > Switch the machine on. > Follow the instruction on the display.
	Firmware update files are not found.	> Unzip the update data. > Store data for the firmware update directly on the data medium and not in a folder on the USB stick.
<b>Beads and/or bartacks are repeatedly not sewn properly</b>	The Buttonhole foot with slide #3A is not calibrated with the machine.	> Calibrate Buttonhole foot with slide #3A. (see page 53)

## 14 Storage and disposal

### 14.1 Storing the machine

It is recommended to store the machine in the original packaging. If the machine is stored in a cold room, place it in a warm room one hour before use.

- > Switch the machine off and disconnect it from the power supply system.
- > Don't store the machine outdoor.
- > Protect the machine against climatic influences.

### 14.2 Dispose of the machine

- > Clean the machine.
- > Sort the components by their materials and dispose of them according to the local laws and regulations.



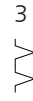
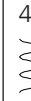
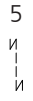

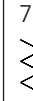

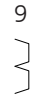


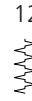
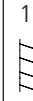
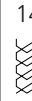



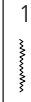











## 15 Technical data

Designation	Value	Unit
Maximum fabric thickness	12.5 (0.49)	mm (in)
Sewing light	30	LED
Maximum speed	1000	Stitches per minute
Measurements without the spool pin (W × H × D)	522 × 358 × 214 (20.55 × 14.09 × 8.43)	mm (in)
Weight	14 (30.86)	kg (lb)
Energy consumption	140	W
Input voltage	100 – 240	V
Protection class (Electrical engineering)	II	







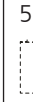





## 16 Overview stitch patterns

### 16.1 Overview Stitch patterns

#### Practical stitches








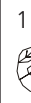
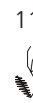
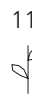



















1 	2 	3 	4 	5 	6 	7 	8 	9 	10 	11 	12 	13 	14 
15 	16 	17 	18 	19 	20 	22 	23 	24 	25 	26 	29 	30 	32 
33 													

#### Buttonholes



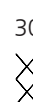
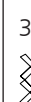
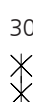
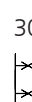
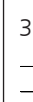

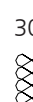

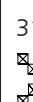
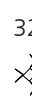
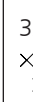

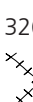
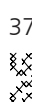
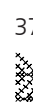

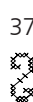
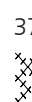
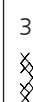
51 	52 	53 	54 	56 	57 	59 	60 	61 	62 	63 	69 
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#### Decorative stitches

##### Natural stitches

101 	102 	103 	104 	107 	108 	110 	111 	112 	113 	114 	115 	117 	119 
120 	121 	122 	123 	124 	125 	128 	129 	134 	136 	137 	143 	146 	147 
152 													

##### Cross stitches

301 	302 	303 	304 	305 	306 	307 	308 	309 	311 	314 	323 	324 	325 
326 	371 	372 	373 	374 	375 	376 							

Satin stitches

401	402	405	406	407	408	412	413	414	415	416	417	419	422
424	425	426	428	429	430	431	437	439	450	457	461	464	471
473													

Geometric stitches

601	602	603	604	605	606	607	610	611	612	613	614	615	616
627	630	631	633	635	639	640	641	642	643	644	645	648	649
651	653	655	656	661	676	677	684	685					






















White embroidery

701	702	705	706	708	709	710	711	712	713	714	717	719	720
721	722	723	724	725	726	728	730	731	732	738	740	741	742
743	746	747	748	749	750	751	772	775	777	779			

Novelty stitches

903	904	906	907	908	911	913	914	916	919	920	921	925	929
930	934	935	938	939	940	942	947						

### Quilt stitches

1324 	1325 	1327 	1328 	1329 	1330 	1331 	1332 	1333 	1334 	1336 	1339 	1346 $\frac{6}{\text{inch}}$ $\frac{2.4}{\text{cm}}$	1347 $\frac{6}{\text{inch}}$ $\frac{3.2}{\text{cm}}$
1348 $\frac{10}{\text{inch}}$ $\frac{4}{\text{cm}}$	1352 	1353 	1354 	1355 	1356 	1357 	1358 	1359 	1396 				

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BERNINA recommends threads from *Mettler*<sup>®</sup>

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