

# USER MANUAL



BERNINA 325

**BERNINA**  
*made to create*

## **We take pride in providing you the perfect sewing experience!**



BERNINA has represented exceptional quality since 1893. As a traditional Swiss company, we use high quality materials to manufacture our products and have them extensively tested, ensuring high performance and a long life. Over the years, we have always remained true to our company philosophy - we are personally committed to offering our customers an exceptional sewing experience.

Every BERNINA is characterized by state-of-the-art technology paired with innovations in both hardware and software. This is because we truly want you to enjoy the creative process to the fullest - after all, creativity is turning your ideas into something that makes you and others happy.

With this in mind, I wish you many joyous moments with your BERNINA 325.

A handwritten signature in black ink that reads "H. P. Ueltschi". The signature is written in a cursive style with a large, sweeping flourish at the end.

Sincerely, yours  
Hanspeter Ueltschi  
Owner, BERNINA

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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 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 personal injury, 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 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 an 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.
- ▶ The machine is double-insulated. Only use original spare parts. See instructions for servicing of double-insulated products.

- ▶ To lubricate the machine, only use oil recommended by BERNINA.

### 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.

Furthermore, these persons must be supervised while working with the machine, or they must know the safe operation of the machine and be aware of resulting hazards.


- ▶ Children are not allowed to 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.  
USA and Canada only: Do not connect power plug NEMA 1-15 to circuits exceeding 150 volt-to-ground.  
If the machine is to be used in a country other than the country of origin, obtain a power cable suitable for this country from a BERNINA dealer.

- ▶ Only use this machine with the supplied foot control of type RR1.
- ▶ 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.
- ▶ Only lift the machine by the handle.

- ▶ 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.

## SAFE THESE INSTRUCTIONS

### Safety Signs on the Machine

Sign	Purpose
	<p>Attention: Close the doors, lids and covers before operating the machine.</p> <p>Caution; moving parts. To reduce the risk of injury, switch off the machine before maintenance work. Attach the covers.</p>

## Availability of the Instruction Manual

The short manual is part of the machine.



- Keep the short manual of the machine in a suitable place near the machine and have it ready for reference.
- The latest version of the detailed instruction manual can be downloaded at [www.bernina.com/325-support](http://www.bernina.com/325-support).
- When passing on the machine to a third party, enclose the short manual of the machine.

## 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 instructions for the purposes of illustration. The machines and the accessories shown in the images therefore do not always match the actual items included with your machine. The supplied accessory can vary depending on the country of delivery. Accessories mentioned or shown, which are not included in the scope of delivery, can be purchased as optional accessories from a BERNINA dealer. Further accessories can be found at [www.bernina.com/325#!accessories](http://www.bernina.com/325#!accessories).

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.

## 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.

## Servicing of Double-insulated Products

In a double-insulated product two systems of insulation are provided instead of grounding. No grounding means is provided on a double-insulated product nor should a means for grounded 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. Replacement parts for a double-insulated product must be identical to the original parts in the product. A double-insulated product is marked with the words: *Double-Insulation* or *double-insulated*.

- ☐ The symbol may also be marked on the product.

## Environmental Protection

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



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 electrical waste and electronic equipment or to a collection point for the reuse of the machine. Information on 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.

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## Explanation of Symbols

### **DANGER**

Designates a danger with a high risk which can lead to serious injuries or even death unless it is avoided.

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### **WARNING**

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

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### **CAUTION**

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

---

### **NOTICE**

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

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### **TIP**

Tips from the BERNINA sewing experts.

The purposes of your BERNINA 325 are sewing and quilting. Fine silk or satin fabrics as well as heavy linen, fleece and denim fabrics can be sewn on this machine with no problem at all. A wide range of practical stitches, decorative stitches and buttonholes are at your disposal.

### Further Information



In addition to your BERNINA 325, further information products are also enclosed.

The current version of your manual as well as further information about the machine and the accessories can be found on our website.

[bernina.com](http://bernina.com)

"Made to Create" is the BERNINA slogan. Not only do our machines support you as you make your ideas a reality, we offer additional suggestions and instructions for projects and the opportunity to exchange ideas with other sewing, quilting and embroidery enthusiasts. We hope you have a great pleasure in doing so.

### 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 of presser feet and accessories that make your projects successful.

[youtube.com/BerninaInternational](https://youtube.com/BerninaInternational)

Available in English and German.

### "inspiration" – the Creative Sewing Magazine and Online Store with Sewing Patterns



Are you looking for ideas, sewing patterns and instructions for great sewing projects? If so, the BERNINA magazine "inspiration" is just the right thing for you. Three times a year, "inspiration" offers you great 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 patterns to discover! Why not take a look at:

[inspiration.bernina.com](http://inspiration.bernina.com)

And follow us on Instagram (@inspiration.sewing.magazine).

### BERNINA Blog



Sophisticated instructions, free sewing patterns and embroidery designs as well as many new ideas can be found weekly on our BERNINA Blog. Our experts give useful tips and step by step instructions to achieve your desired results. In the community you can upload your own projects and exchange experiences and ideas with other sewing and embroidering enthusiasts.

[bernina.com/blog](http://bernina.com/blog)

Available in English, German, Dutch and French.

### BERNINA Social Media



Follow on social networks to learn more about events, exciting projects and tips and tricks all about sewing, quilting and embroidering. We will keep you informed and are looking forward to sharing highlights from the world of BERNINA.

[bernina.com/social-media](http://bernina.com/social-media)

### BERNINA World App



Download the BERNINA App to your smartphone and enjoy direct access to all product information. The accessory organizer gives you an overview of your accessories and those you would like to have. Furthermore, you have direct access to the customer portal, the blog and the "inspiration" online store, and you can always find a BERNINA dealer near you. The app is available in the Apple App Store and the Google Play Store.

[bernina.com/app](http://bernina.com/app)



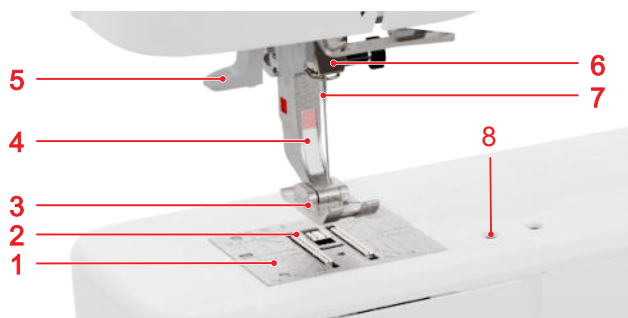
## 2.1 Machine

### Front



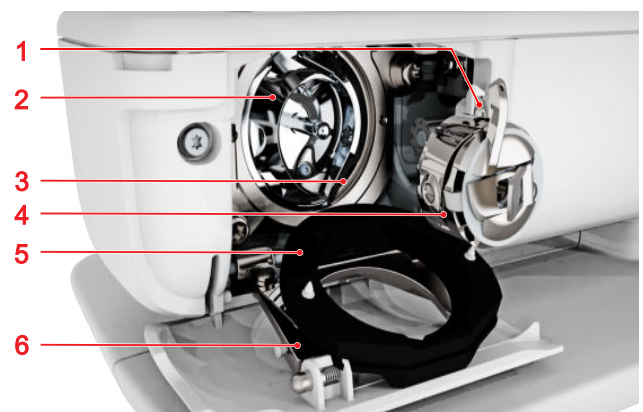
1 Bobbin Cover 2 Thread Cutter 3 Thread Take-up Lever 4 Thread Guide, Winder 5 Thread Tensions Discs  
6 Spool Holder Vertical 7 Bobbin Winding Unit with Thread Cutter 8 USB Port 9 Feed Dog Up/Down

### Needle Area



1 Stitch Plate 2 Feed Dog 3 Presser Foot Sole  
4 Presser Foot Shaft 5 Needle Threader 6 Needle Holder 7 Needle 8 Accessories Connector

### Bobbin Area



1 Thread Cutter 2 Hook 3 Hook Race 4 Bobbin Case 5 Bobbin Cover 6 Locking Clip

## Back



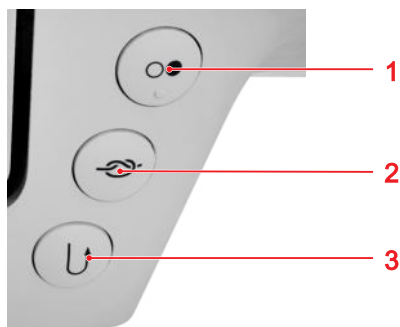
1 Connection for Foot Control 2 Power Switch 3 Air Vents 4 Handwheel 5 Spool Pin, Horizontal 6 Thread Guide Eyelet 7 Thread Guide, Rear 8 Carry Handle 9 Presser Foot Lifter 10 Power Cable Connection

## Controls



1 External Buttons above the Needle 2 Left Controls 3 Screen 4 Right Controls

### Function Buttons above the Needle




1 Start/Stop 2 Securing Stitches 3 Quick Reverse Sewing

#### Start/Stop

You can use the **Start/Stop**  button to start or stop the machine.

#### Securing Stitches

By pressing the button **Securing Stitches** , you can automatically sew the specified number of securing stitches.

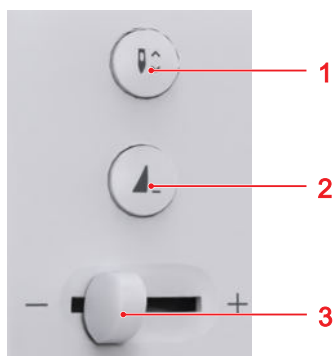
If you press the button before sewing, securing stitches will be sewn at the beginning of the seam.

If you press the button during sewing, securing stitches will be sewn immediately and the machine will stop.

#### Quick Reverse Sewing

You can use the **Quick Reverse Sewing**  button to sew in reverse while the button is pressed.

### Left Controls




1 Needle position Up/Down 2 Pattern End 3 Speed Control

#### Speed Control

You can regulate the sewing speed via the speed control.

For a better monitoring while sewing, you can adjust the maximum sewing speed in the settings.

### Pattern End

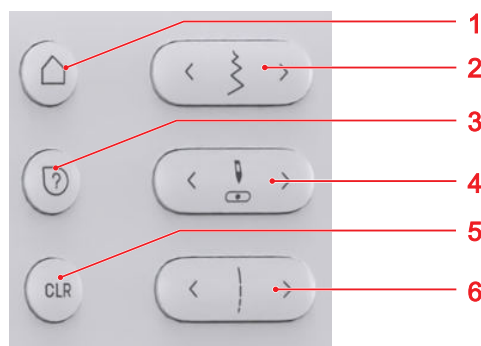
You can use the **Pattern End**  button to stop the machine automatically at the end of a stitch pattern or a stitch pattern combination.

### Needle position Up/Down

You can use the **Needle position Up/Down**  button to raise or lower the needle.


Depending on the starting position, the needle will be raised or lowered.

### Right Controls



1 Home Screen 2 Stitch Width 3 Quick Help  
4 Needle Position Left/Right 5 Reset 6 Stitch Length


#### Home Screen

By pressing the button **Home Screen** , you can call up the start page. [▶ see page 14]


#### Stitch Width

By pressing the button **Stitch Width**, you can set the stitch width and the values of a function.

#### Quick Help

By pressing the button **Quick Help** , you can tap any screen element and will receive help on it. [▶ see page 15]

#### Needle Position Left/Right

You can use the **Needle Position Left/Right**  buttons to move the needle to the left or to the right. The needle position is shown on the sewing screen. Negative values indicate a movement to the left, positive values a move to the right.

#### Stitch Length

By pressing the button **Stitch Length**, you can set the stitch length and the values of a function.

**Clear**

By pressing the button **Clear** CLR, you can reset the following settings to the default values:









**Sewing Mode**

- Stitch Length and Stitch Width of the Selected Stitch
- Mirroring
- Pattern Repeat
- Balance
- Programmed Buttonhole Length
- Darning Program Settings
- Continuous Reverse

**2.2 Accessories**

Further information and application notes on the supplied and optional accessories can be found under: [www.bernina.com/325#!accessories](http://www.bernina.com/325#!accessories)

**Included Accessories**

Accessories	Purpose
Dust Cover 	To protect the machine from dust and contamination.
Accessory Bag 	To store supplied and optional accessories.
Power Cable 	To connect the machine with the power supply.
Foot Control 	To start and stop the machine. To control the sewing speed.
1× Foam Pad 	The foam pad prevents the thread from slipping, tangling or breaking on the spool pin.
3× Bobbin for CB Hook 	To wind the bobbin thread.
Height Compensation Tool 	To level an angled position of the presser foot sole when sewing over thick seams.
Seam Ripper 	To undo seams and to cut buttonholes open.

**Accessories**

**Purpose**

Needle Assortment For the most common sewing applications.



Brush

To clean the feed dog and the bobbin area.



Sewing Machine Oil

To oil the machine.



Slide-on Table

To increase the sewing surface.



**Included Presser Feet Soles**

**Presser Foot**

**Purpose**

Snap-On Shank #78

For securing the interchangeable snap-on soles.



**Presser Foot**

**Purpose**

Reverse Pattern Sole #1

For practical and decorative stitches. To sew forward and in reverse. For materials such as corduroy, denim or wool.



Overlock Sole #2

For visible seams on stretch fabrics. For overlock and overcasting seams.



Buttonhole Sole #3

For manual sewing of buttonholes with or without cording. For gathering using thread or elastic thread (smocking).



Zipper Sole #4

For sewing in zippers, topstitching next to raised seams. For sewing on braids, keder and hook-and-loop fastener.



Blindstitch Sole #5

For sewing blindstitch hems, edgestitching and topstitching on either side of the foot.





## 2.3 User Interface Overview


### Manipulation

The user interface can be operated via the touch-sensitive screen using a finger or stylus.

### Operation with Touch Gestures



Gestures with One Finger	Application
 Tap	<ul style="list-style-type: none"> <li>Selecting Functions or Stitch Patterns</li> </ul>
 Drag	<ul style="list-style-type: none"> <li>Scrolling in Menus, Windows and Bars</li> </ul>

### Navigation

In the **Sewing** mode, in the settings and in the consultant, the navigation path  to the current content is displayed, which you can use to go back to a specific level in the path.




### Activating/Deactivating Functions

You can switch functions on and off as follows:

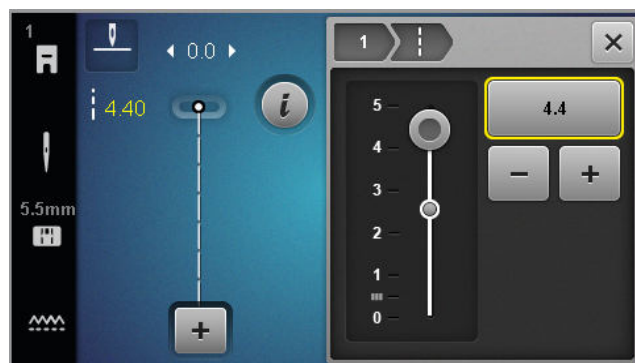
- Tap the Switch
  -  
    - Green: Function is switched on.
    - Red: Function is switched off.
- Tap Icons
  - Outlined in white: Function is switched on.
  - Gray: Function is not available.
  - Outlined in yellow: Function or value deviates from the default value.

### Setting Values

You can set values as follows:

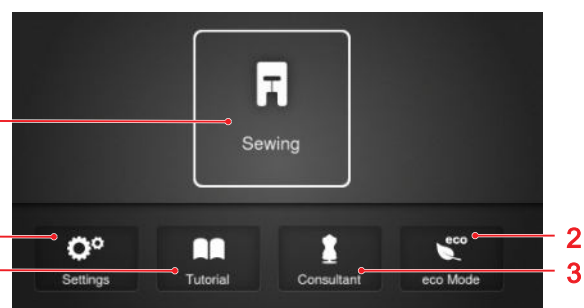
- Slider
  - 
  - Set the value with the slider control or reset the value to the default by tapping the small bullet.
- Plus and Minus Icons
  -  

Modified values are marked in yellow. You can reset a modified value to the default value by tapping the field outlined in yellow.



### Home Screen

Home Screen 




1 Sewing 2 eco Mode 3 Consultant 4 Tutorial 5 Settings


### Modes

The main modes give you quick access to the most important functions of your machine.


### Sewing

In **Sewing**  mode, you will find the functions you need for practical and creative sewing.


### Settings

With the function **Settings**  you can change the sewing settings, carry out maintenance work and update the firmware.

### Tutorial

You can use the function **Tutorial**  to obtain information and explanations on various sewing techniques, aspects of the machine and troubleshooting.

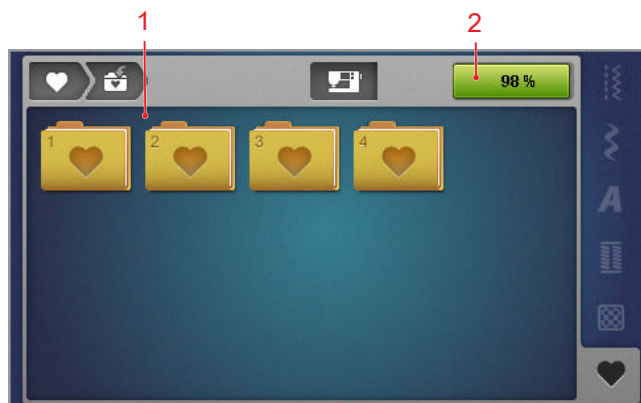
### Consultant

You can use the function **Consultant**  to obtain recommendations on how to prepare and set the machine for various sewing and quilting techniques.


### eco Mode

With the function **eco Mode** , you can lock the screen and the sewing functions.

### File Management



1 Folder Overview 2 USB Storage Space

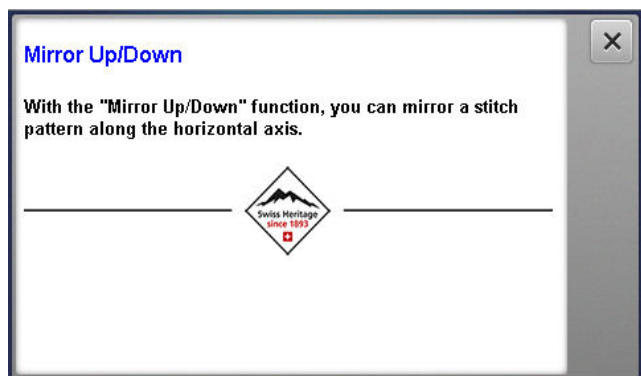
In the folder **Personal Folder**  you can administer your own stitch patterns. You can save, load or delete your own stitch patterns. You can administer the stitch patterns in predefined folders.


### USB Storage Space


The display **USB Storage Space** shows how much free memory capacity is available.

## 2.4 Help and Consultant

### Quick Help

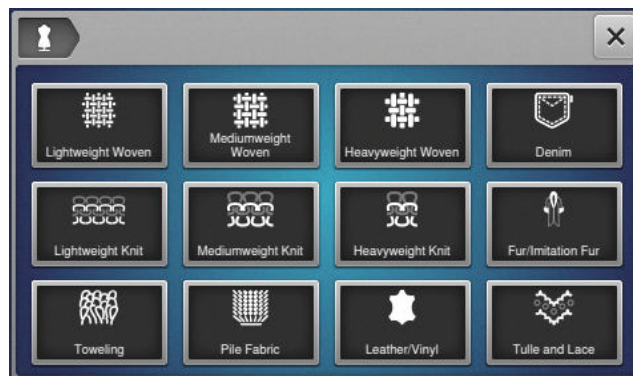



By pressing the button **Quick Help** , you can call up brief help for many screen elements, such as icons, buttons or entire screen areas.

1. Tap the icon **Quick Help** .
2. Tap the screen element for which help is required.
  - ⇒ The Quick Help for the screen element appears.

### Consultant


Home Screen  ► **Consultant** 



You can use the function **Consultant**  to obtain recommendations on how to prepare and set the machine for various sewing and quilting techniques. Depending on the selected technology, different recommendations are displayed.



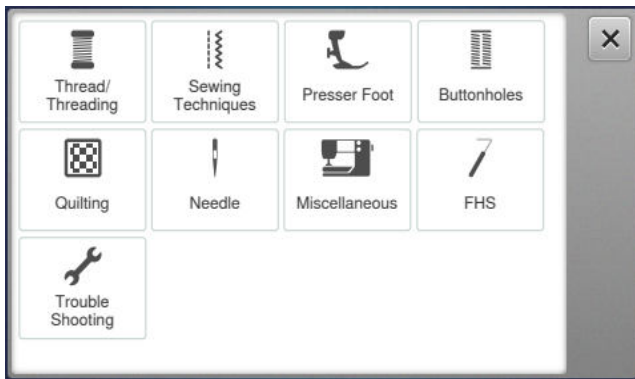
- 1 Recommended Needle
- 2 Recommended Thread
- 3 Recommended Upper Thread Tension
- 4 Recommended Stitch Pattern
- 5 Recommended Presser Foot
- 6 Recommended Stabilizer
- 7 Further Information

The following settings can be applied via the icon **Apply Settings**  :

- Recommended Stitch Pattern

## Tutorial

Home Screen  ► Tutorial 



You can use the function **Tutorial** to obtain information and explanations on various sewing techniques, aspects of the machine and troubleshooting.



### 3.1 Prior to Machine's First Use

#### TIP

BERNINA recommends lubricating the hook before using the machine for the first time or after a longer period of non-use. [▶ see page 50]

Lubricating the hook keeps the machine running smoothly and quietly.

### 3.2 Working Area

A stable table with a secure stand is a good prerequisite for optimal sewing results. Ergonomics of the sewing table is important to protect the muscles and joints of the back, shoulder, arms and hands. The recommendation for optimal ergonomics includes matching the table height with the body posture. Avoid remaining in the same position for long periods.

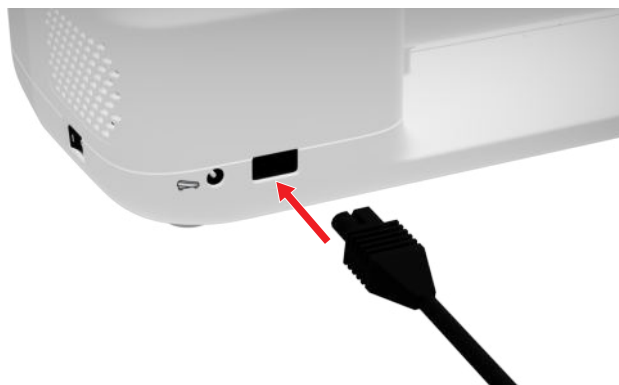
The machine can also be operated when standing.

#### Correct Sitting Position

With the arms bent (90°), the fingertips can touch the stitch plate in a comfortable sitting position.

### 3.3 Connecting the Machine and Switching it On

1. Insert the cable into the machine.



2. Insert the power plug of the power cable into the socket.
3. Switch on the machine using the power switch.

### 3.4 Preparing the Machine for Sewing

For your sewing project, you must prepare and set the machine accordingly.

Prerequisite:

- The machine is switched on.
- The sewing settings have been made. [▶ see page 30]
- The foot control is connected. [▶ see page 17]

1. Attach the Slide-on Table if required. [▶ see page 18]
2. Select the sewing mode via the start page. [▶ see page 14]
  - ⇒ The Sewing Screen appears.
3. Use a suitable stitch plate. [▶ see page 19]
4. Use a suitable sewing needle. [▶ see page 22]
5. Fit the appropriate presser foot. [▶ see page 29]
6. Prepare and edit stitch pattern. [▶ see page 39]
7. Thread a suitable bobbin thread. [▶ see page 27]
8. Thread a suitable upper thread. [▶ see page 23]

#### TIP

The consultant will recommend a presser foot, needles, materials and sewing settings for special sewing techniques and fabrics. [▶ see page 15]

### 3.5 Foot Control

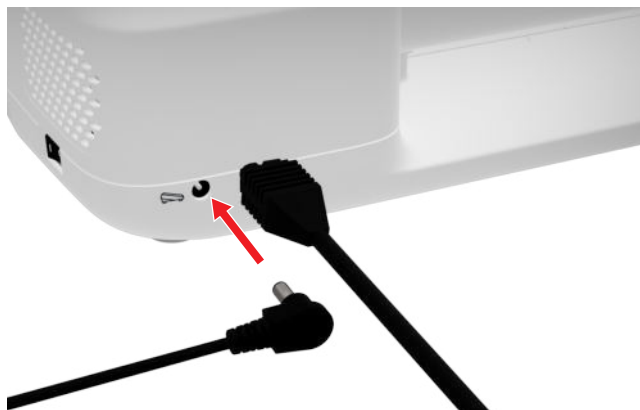
You can operate the foot control at the front with the ball of your foot. By pressing with the ball of your foot, you can start and stop the machine and control the speed with the amount of force applied to the control.

#### Connecting the Foot Control

1. Unwind the cable of the foot control to the desired length.

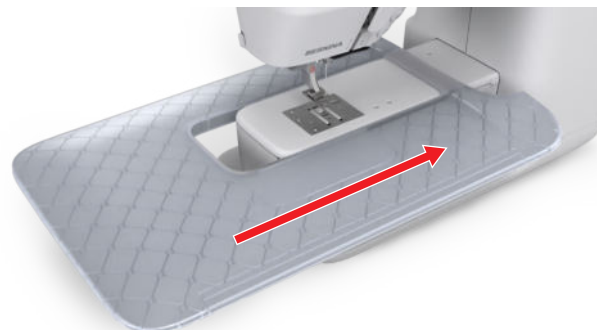
## 3 Set Up the machine

2. Insert the plug of the cable into the foot control socket of the machine.

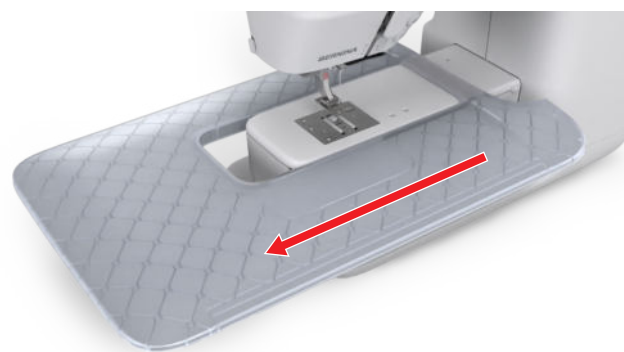


3. Place the Foot Control on the floor in a comfortable position for sewing.
4. If the cable is too long, roll up excess length.

3. Push the Slide-on Frearm Extension Table from the left to the right over the frearm until it engages.

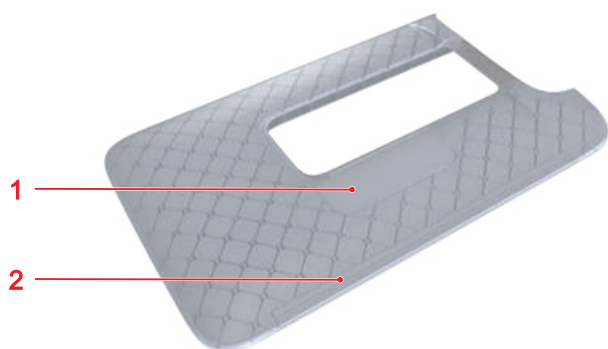


4. To remove the slide-on table, pull the slide-on table over the frearm to the left.



### 3.6 Slide-on Table

The slide-on table allows you to enlarge the sewing area. This makes it easier to position and work on your sewing project. The viewing window allows for visual access to the bobbin area while changing the bobbin without having to remove the table. The table has a printed ruler in both centimeters and inches to aide in aligning various projects. The zero center is aligned with the center needle position when attached.



1 Viewing Window 2 Ruler

#### Using the Slide-on Table

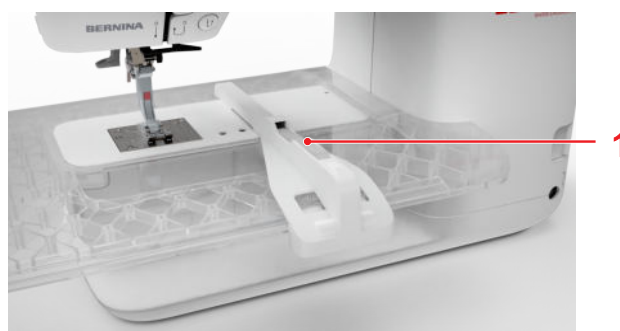
The Slide-on Frearm Extension Table, attached to the frearm, enables the available sewing area to be extended.

Prerequisite:

1. Raise the needle.
2. Raise the presser foot.

#### Using the Seam Guide

The Seam Guide for the Slide-on Table allows you to sew along the guide for uniform seams.



1 Release Button

Prerequisite:

- The Slide-on Table is attached.
1. To attach the Seam Guide, press the release button and engage the Seam Guide from the front to the back on the Slide-on Table.
  2. Press the release button down once attached and position in place as desired.
  3. To remove the Seam Guide, press the release button and pull the Seam Guide away to the front.

## 3 Set Up the machine

### 3.7 Stitch Plate

The supplied 5.5 mm stitch plate is suitable for most sewing tasks. For specific applications, e.g. PunchWork, special stitch plates are used. The specific stitch plates are marked with a color code.

- Without color code: 5.5 mm stitch plate
- Orange/yellow: Straight, Punch and CutWork stitch plate

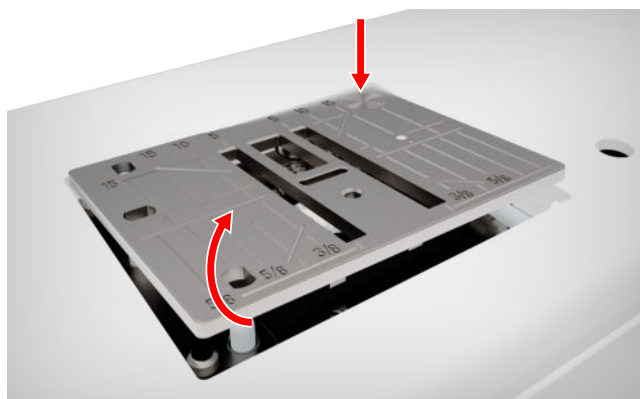
Vertical lines are engraved on each stitch plate, which you can use as a ruler for guiding the fabric in a straight line. You can use the diagonal lines to align the fabric at a precise 45° angle. You can use the horizontal lines to lay the fabric at the specified distance from the needle.

### Changing the Stitch Plate

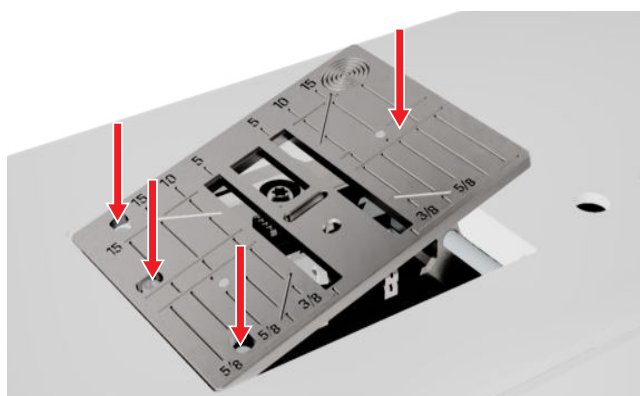
Prerequisite:

- The needle and the presser foot are raised.

1. Lock the screen.
2. Remove the needle and the presser foot.
3. Press the stitch plate down at the pressure point for release on the right until it tips.



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



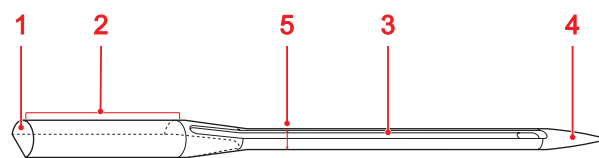
6. Unlock the screen.

### 3.8 Needle

Only use needles from the 130/705 system for your machine. Select a needle thickness that is suitable for the selected fabric: Fine needles for fine fabrics, thick needles for heavy fabrics.

- Needle sizes 70, 75: Lightweight fabrics
- Needle sizes 80, 90: Medium fabrics
- Needle sizes 100, 110 and 120: Heavyweight fabrics

There are different needle types for different sewing projects. You can identify the needle type and needle size by the needle name, e.g. **130/705 H-S/70**:



**1 705** = shank    **2 130** = shank length    **3 H** = groove  
**4 S** = Point Type    **5 70** = Needle Size

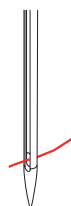
Detailed information on needles and their applications can be found in the BERNINA Needle Brochure.

Needles become worn over time. Needles should be replaced regularly, as a clean stitch can only be made with a sharp tip.

#### Needle/Thread Combination



The needle/thread combination is correct if the thread is guided exactly into the long groove and through the eye of the needle.




If the thread is too thin for the needle, it will have too much room to move in the long groove and in the eye of the needle. This can result in the thread breaking or skipping stitches.

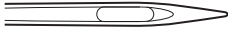



If the thread is too thick for the needle, it will be difficult to guide it through the eye of the needle and it may rub along the edge of the long groove. This can result in the thread breaking and sticking in the needle.


## Needle Overview

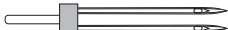
Needle	Purpose	Needle	Purpose
<b>Universal Needle</b> 130/705 H 60/8 – 120/19  <input checked="" type="checkbox"/> With a slightly rounded point.	For woven fabrics (light, medium, heavy-weight), knitwear, leather, vinyl, jeans/denim. For natural and synthetic fabrics.  For general sewing, sewing on buttons and buttonholes, zippers, hems and topstitching, decorative sewing, embroidery, patchwork, quilting.	<b>Sharp Microtex Needle</b> 130/705 H-M 60/8 – 110/18  <input type="checkbox"/> With a very slim sharp point.	For woven fabrics (light, medium, heavy), plastics, materials that are difficult to glide such as silk, microfiber fabrics, vinyl, coated materials.  For general sewing, sewing on buttons and buttonholes, zips, hems and topstitching and decorative sewing. For straight stitches when topstitching edges.
<b>Stretch Needle</b> 130/705 H-S 75/11 – 90/14  <input type="checkbox"/> With a medium ball point.	For knitwear (jersey, tricot, knit and stretch material).  For general sewing, sewing on buttons and buttonholes, zippers, hems and topstitching, decorative sewing, embroidery.	<b>Quilting Needle</b> 130/705 H-Q 75/11 – 90/14  <input type="checkbox"/> With a very slim, slightly rounded point.	For woven fabrics (light, medium and heavy-weight).  Decorative sewing, patchwork, quilting. For stitching/topstitching tasks, such as quilting and patchwork.
<b>Jersey/ Embroidery Needle</b> 130/705 H SUK 80/12  <input type="checkbox"/> With a medium ball point.	For woven fabrics (light, medium, heavy-weight), knitwear, vinyl.  For general sewing, sewing on buttons and buttonholes, zippers, hems and topstitching, decorative sewing, embroidery.	<b>Embroidery Needle</b> 130/705 H-E 75/11 – 90/14  <input type="checkbox"/> With a light ball point and a particularly wide eye and wide groove.	For woven fabrics (light, medium, heavy-weight), knitwear. For thicker threads.  For general sewing, sewing on buttons and buttonholes, zippers, hems and topstitching, decorative sewing, embroidery.
<b>Jeans Needle</b> 130/705 H-J 80/12 – 110/18  <input type="checkbox"/> With a slim sharp point.	Woven fabrics (light, medium, heavy-weight), leather, jeans/denim.  For general sewing, sewing on buttons and buttonholes, zippers, hems and topstitching, decorative sewing, embroidery, patchwork, quilting.	<b>Fine Fabrics Needle</b> 130/705 H SES 70/10 – 90/14  <input checked="" type="checkbox"/> With a light ball point.	For fine, delicate materials, such as velvet.  For general sewing, sewing on buttons and buttonholes, zippers, hems and topstitching, decorative sewing, embroidery, patchwork, quilting.
<b>Leather Needle</b> 130/705 H LR 90/14, 100/16  <input type="checkbox"/> With cutting tip.	For leather, imitation leather and similar materials.  For zippers, hems and topstitching, materials that tend to stick.	<b>Metafil Needle</b> 130/705 H METAFI L 80/12  <input type="checkbox"/> With medium ball point and long eye (2 mm).	For woven fabrics (light, medium, heavy-weight), knitwear. For sewing with special effects and fancy threads, especially metallic threads.  For embroidery with metallic thread. For hems and topstitching, decorative sewing and embroidery.


## 3 Set Up the machine


Needle	Purpose
<b>Topstitch Needle</b> 130/705 H-N 80/12 – 100/16 	For woven fabrics (light, medium and heavy-weight). For hems and topstitching, decorative sewing and embroidery. For decorative and quilting work with several sewing threads and also for embroidery.
<input type="checkbox"/> <p>With medium ball point and long eye (2 mm).</p>	

<b>Hemstitch Needle</b> 130/705 H WING 100/16, 120/20 	For woven fabrics (light, medium and heavy-weight). For special effects in decorative sewing and embroidery with hemstitching.
<input type="checkbox"/> <p>With a "wing" on each side of the needle.</p>	

<b>Universal Twin Needle</b> 130/705 H ZWI 70-100 	For visible hems in stretch fabrics, pintucks, decorative sewing.
<input type="checkbox"/> <p>Needle distance:            1.0/ 1.6/ 2.0/ 2.5/            3.0/ 4.0/ 6.0/ 8.0</p>	

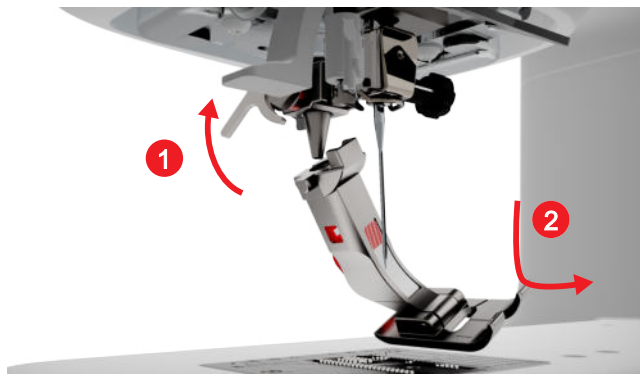
<b>Stretch Twin Needle</b> 130/705 H-S ZWI 75 	For visible hems in stretch fabrics, pintucks, decorative sewing.
<input type="checkbox"/> <p>Needle distance:            2.5/ 4.0</p>	

<b>Hemstitch Twin Needle</b> 130/705 H ZWIHO 100 	For special effects with hemstitch embroidery.
<input type="checkbox"/> <p>Needle distance:            2.5</p>	

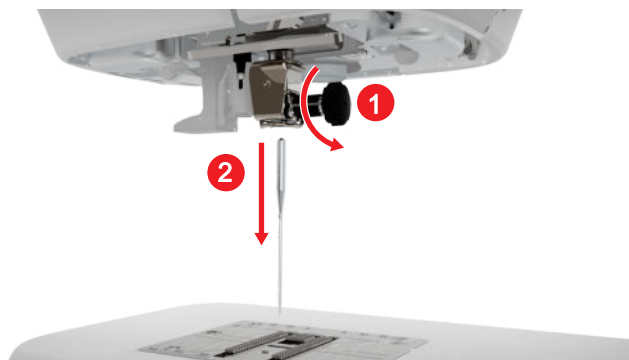
Needle	Purpose
<b>Universal Triple Needle</b> 130/705 H DRI 80 	For visible hems in stretch fabrics, decorative sewing.
<input type="checkbox"/> <p>Needle distance:            3.0</p>	

## Changing the Needle

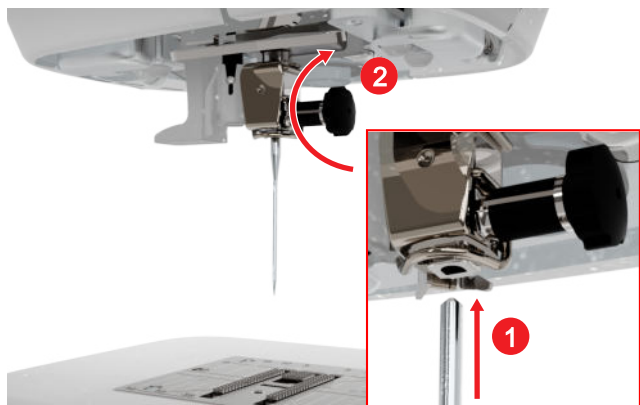
1. Lock the screen.
2. Removing the Presser Foot



3. Raise the needle.
4. Loosen the screw on the needle and pull the needle downwards.



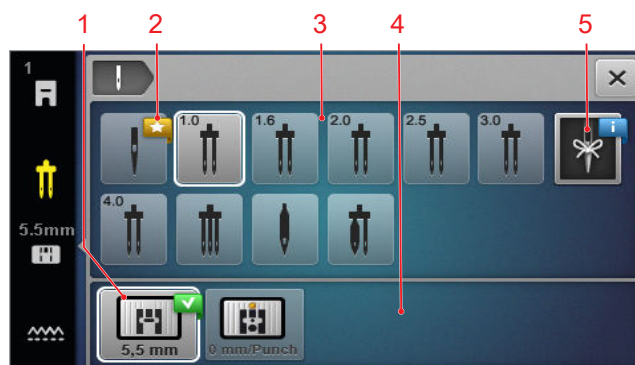
5. Insert and push the new needle with the flat side to the back as far up as it will go into the needle holder and hold it in place.
6. Tighten the screw.



7. Unlock the screen.
8. In the Status Bar, tap **Stitch Plate and Sewing Needle**  and select the fitted needle in the **Needle Overview** section. [▶ see page 22]

## Stitch Plate and Sewing Needle

Sewing  ▶ **Stitch Plate and Sewing Needle** 



1 Selected Stitch Plate 2 Recommended 3 Needle Overview 4 Stitch Plate Overview 5 Needle Minder


The stitch plates and needles compatible with the machine are displayed in the **Stitch Plate Overview** and **Needle Overview** sections.

Recommended stitch plates and needles are shown with the **Recommended** ★ icon.

To enable the machine to check the compatibility of the stitch, needle and stitch plate, you must select the fitted needle and stitch plate in the **Needle Overview** and **Stitch Plate Overview**. The selected needle is outlined in white in the area **Needle Overview** and displayed in the status bar. The selected stitch plate is outlined in white in the area **Stitch Plate Overview**.




If the selected needle can no longer be used with the stitch plate or the presser foot, an error message is displayed.

### Needle Minder

With the **Needle Minder**  function you can note the needle type and needle size of the attached needle. If you have forgotten which needle is attached, you can look it up at any time.

### Needle Position

You can adjust the position of the needle in various ways:

- Button **Needle position Up/Down** : To raise or lower the needle.
- Buttons **Needle Position Left/Right** : To move the needle 5 positions to the left or to the right of the center.
- Icon **Needle Stop** : To set the needle position up or down when stopping the machine in sewing mode.

## 3 Set Up the machine

### 3.9 Upper Thread

The quality, thickness and material of the thread must be suitable for the selected fabric. BERNINA recommends purchasing high-quality threads to achieve optimum sewing results.

- Cotton threads are particularly suitable for sewing decorative projects on cotton fabric, such as quilts. As cotton threads are not particularly tear-resistant, they can also be used for basted seams that are later undone. They should not, however, be used for seams that need to be particularly hard-wearing.
- Mercerized cotton threads have a slight sheen that remains even after washing.
- Polyester threads have a high tensile strength and are particularly colorfast. Polyester threads are more flexible and are recommended where a strong and elastic seam is required.
- Rayon/viscose threads are characterized by their bright sheen. Rayon threads are suitable for decorative stitches and create a more beautiful effect.

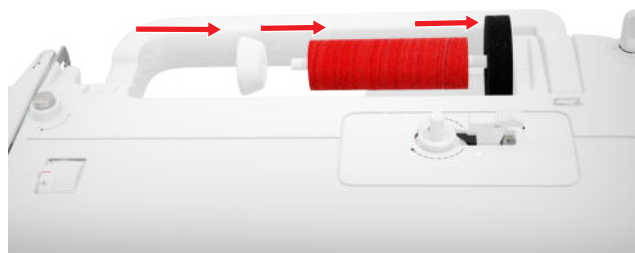
### Threading the Single Needle

For a proper seam and to avoid “thread tangles”, you must thread the upper thread correctly.

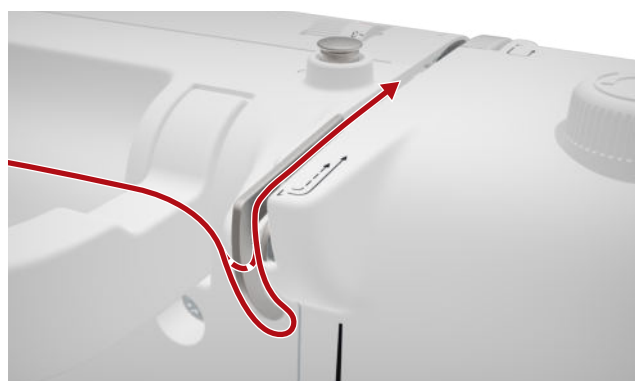
The direction in which the thread should be threaded is marked on the machine with solid arrows and is numbered according to the correct sequence.

1. Place a foam pad on the horizontal spool pin.
2. Raise the presser foot so that the thread tension discs are open and the thread can slide easily between them.
3. Raise the needle so that the thread can be easily inserted into the thread take-up lever.
4. Lock the screen.
5. Place the thread spool on the spool pin.

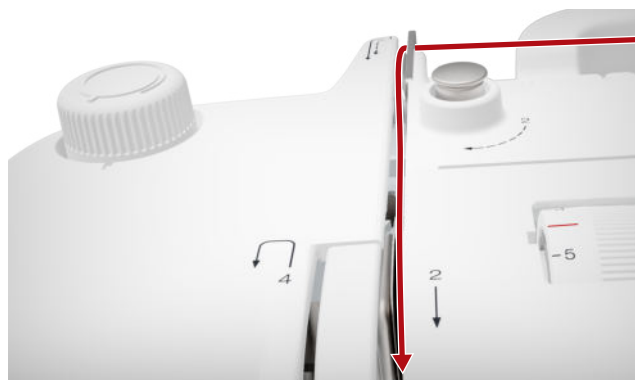
6. Select a spool cap with the same diameter as the spool and place it on the spool pin. The spool should not rotate. The thread should unwind properly.



7. For slippery threads put a spool net over the spool as an additional measure.
8. Guide the thread directly to the rear thread guide.
9. Hold the thread with your right hand and, with your left hand, pull the thread taut under and through the thread guide to the front of the machine.



10. Guide the thread on the right downward past the thread tension disc.



### 3 Set Up the machine

- 11.** Guide the lower thread upward around the thread take-up lever cover.



- 12.** Guide the thread through the thread take-up lever and guide it downward. Make sure that the thread is guided under the left side panel.



- 13.** Guide the thread from the right to the left behind the first thread guide in the needle area.



- 14.** Guide the thread from the right to the left behind the second thread guide in the needle area.

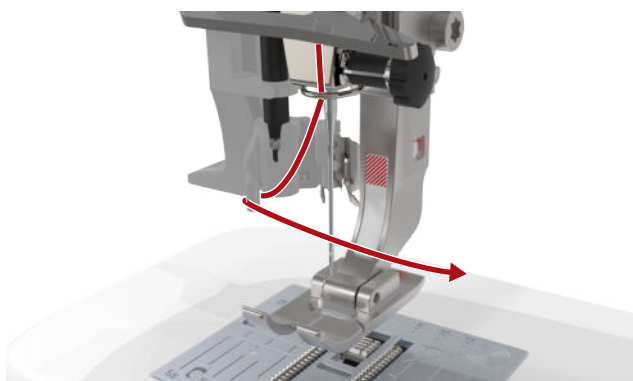


- 15.** Pull the thread to the left and slightly backwards.



- 16.** Press the threading lever halfway down. Guide the thread so that it is hooked behind the threading finger.

- 17.** Guide the thread from the left to the right in front of the threading finger.

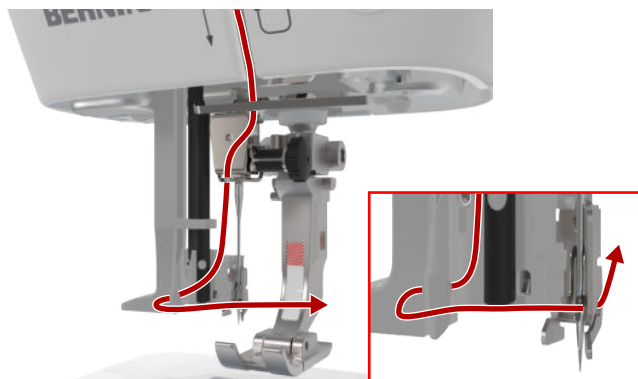


- 18.** Press the threading lever down as far as it will go.  
 ⇒ The threading hook of the threader is pushed through the eye of the needle.

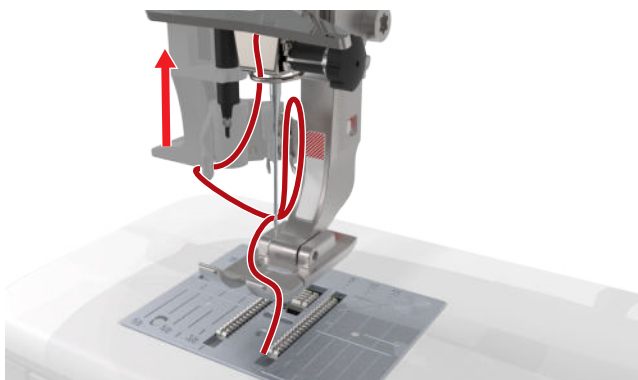


## 3 Set Up the machine

19. Pull the thread from the left to the right and then tightly backwards through the threading slot until it hooks into the threading hook.

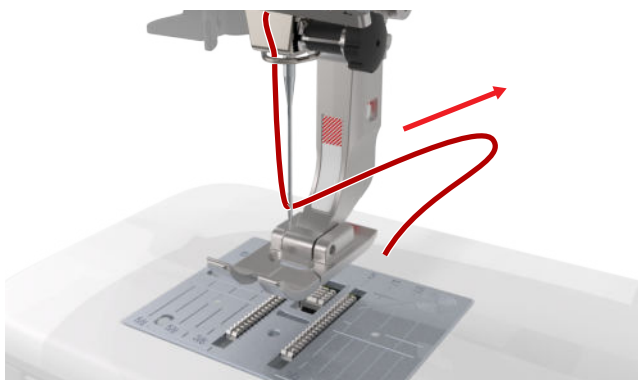


20. Hold the thread loosely and release the threading lever.



⇒ The thread is pushed through the needle eye.

21. Pull the loop of thread to the rear until the end of the thread is pulled through the needle.



22. Pull the thread under the presser foot to the thread cutter and cut the thread.

### Threading the Twin Needle

To thread a twin needle, thread both threads one after the other according to the instructions for the single needle. Start with the left needle. [▶ see page 23]



Note the following differences:

1. Place one foam pad each on the vertical and the horizontal spool pin.
2. Place the spool for the left needle on the vertical spool pin and the spool for the right needle on the horizontal spool pin.
3. Guide the thread of the vertical spool pin from right to left through the thread guide eyelet.
4. Guide both upper threads up to the thread tension disc in the same way as threading the single needle.
5. At the thread tension disc, guide the thread for the left needle down the left and the thread for the right needle down the right of the thread tension disc.
6. Guide the threads up to the needle in the same way as threading the single needle.
7. Thread both needles by hand.

### Threading the Triple Needle

To thread a triple needle, thread the three threads one after the other according to the instructions for the single needle. Start with the left needle. [▶ see page 23]

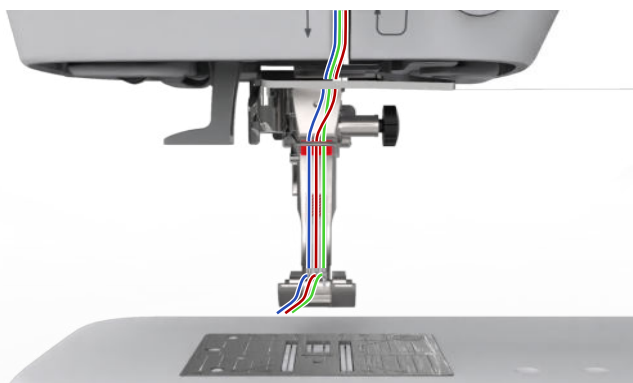


Note the following differences:

1. Place a foam plate, a spool and a matching spool disc on the horizontal spool pin.

## 3 Set Up the machine

2. Place a foam pad, a filled bobbin and a spool on the vertical spool pin in the opposite direction to the bobbin.
3. Guide the threads of the vertical spool pin from right to left through the thread guide eyelet.
4. Guide all upper threads up to the thread tension disc in the same way as threading the single needle.
5. Guide the threads of the vertical spool pin on the left-hand side past the thread tension disc and the thread of the horizontal spool pin on the right-hand side past the thread tension disc down.
6. Guide the threads up to the needle in the same way as threading the single needle.
7. Thread each a thread of the vertical spool pin into the left and right needle by hand.
8. Thread the thread of the horizontal spool pin into the center needle by hand.



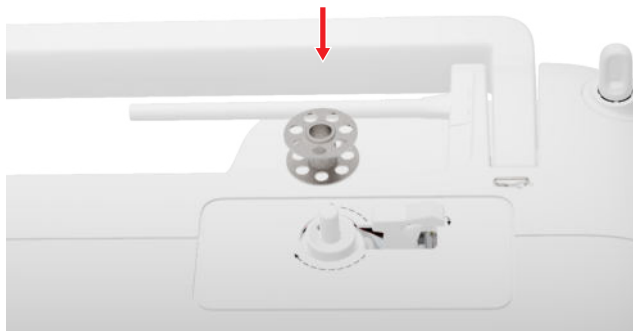
### 3.10 Bobbin Thread

For general sewing, we recommend using the same thread for the upper thread and the lower thread. Consult the Creative Consultant for thread recommendations with various applications and fabrics.

#### Bobbin Winding

The direction in which the bobbin thread should be spooled is indicated on the machine with broken lines and numbered accordingly.

1. Place the empty bobbin on the bobbin winding unit.



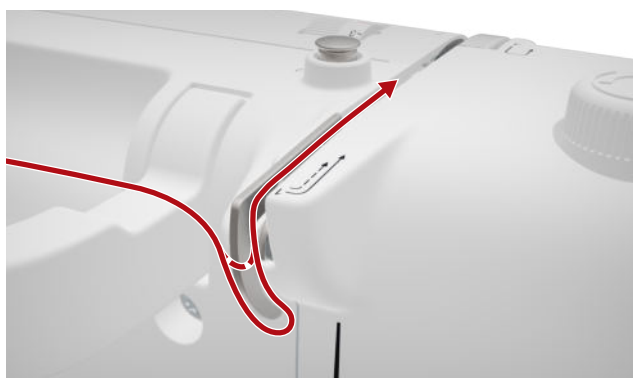
2. Remove the spool pin and insert it the other way round.



3. Place a foam pad and the spool on the vertical spool pin.

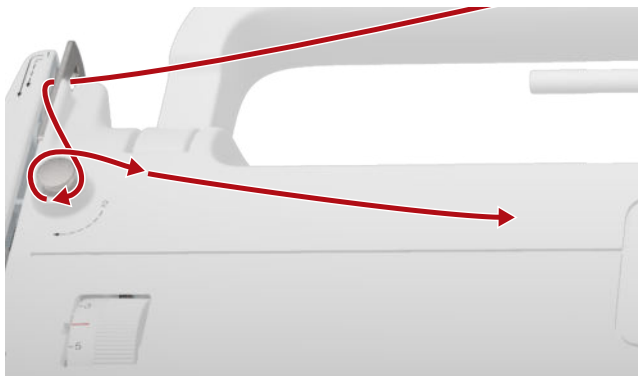


4. Guide the thread to the left into the rear thread guide.

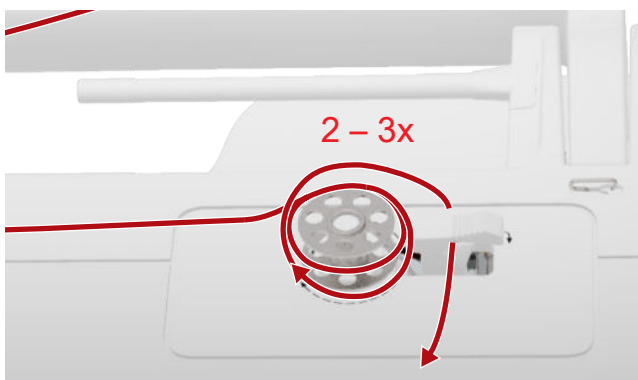


## 3 Set Up the machine

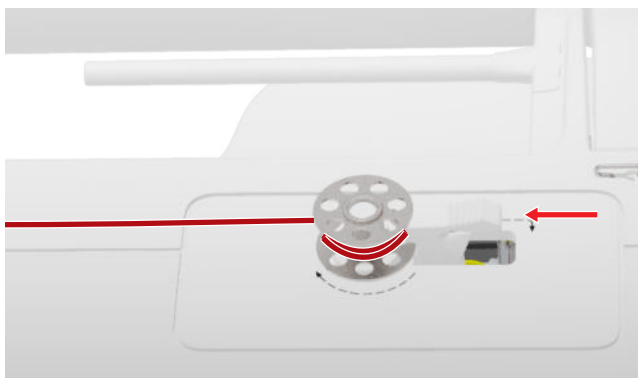
5. Guide the thread around the bobbin winder pre-tension in the direction of the arrow.



6. Wind the thread 2 – 3 times around the bobbin in the direction of the arrow and cut it using the thread cutter on the engaging lever.



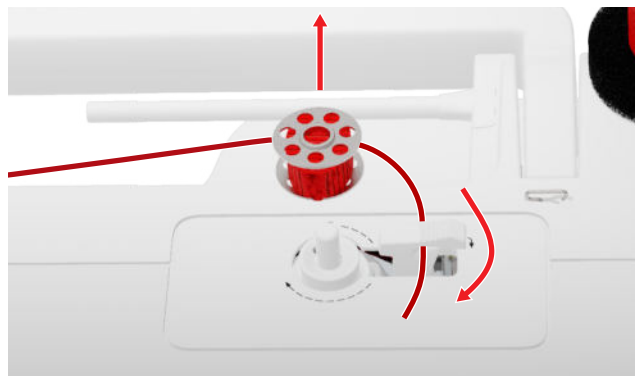
7. Push the engaging lever toward the bobbin.



⇒ The winding will stop automatically when the bobbin is full.

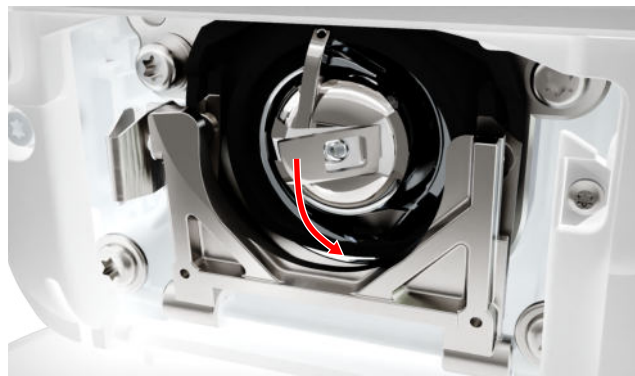
8. To interrupt the winding process before it is complete, push the switch-on lever to the right.

9. Remove the bobbin and cut the thread using the thread cutter.

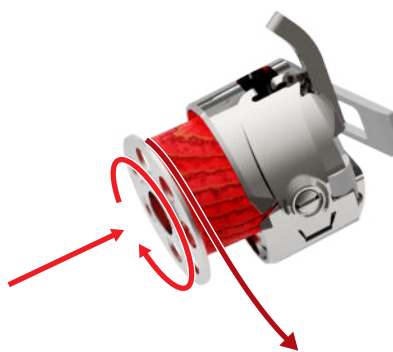


### Threading the Bobbin Thread

1. Raise the needle.
2. Raise the presser foot.
3. Lock the screen.
4. Open the bobbin cover.
5. Remove the bobbin case from the machine by holding the lug.

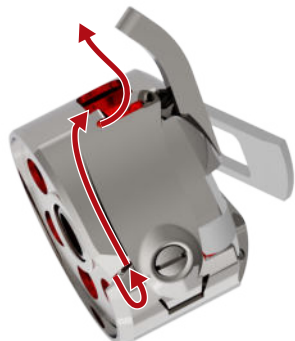


6. Remove the bobbin from the bobbin case.
7. Insert the new bobbin so that it rotates clockwise.
8. Guide the thread through the slot to the left.



## 3 Set Up the machine

9. Pull the thread underneath the spring and underneath the thread guide.

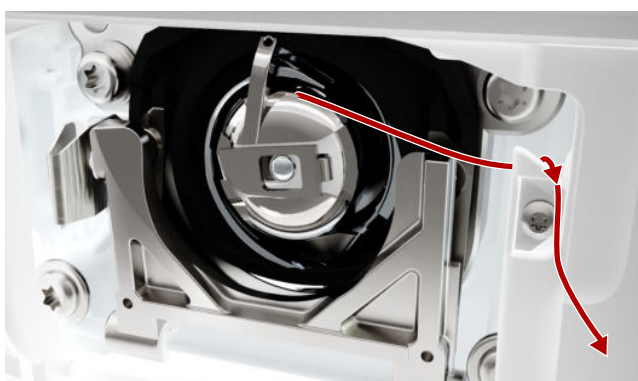


10. Insert the bobbin case. Hold the bobbin case by the tab so that the thread guide is pointing upwards.



11. Press the center of the bobbin case until it clicks into place.

12. Pull the thread over the thread cutter and cut.

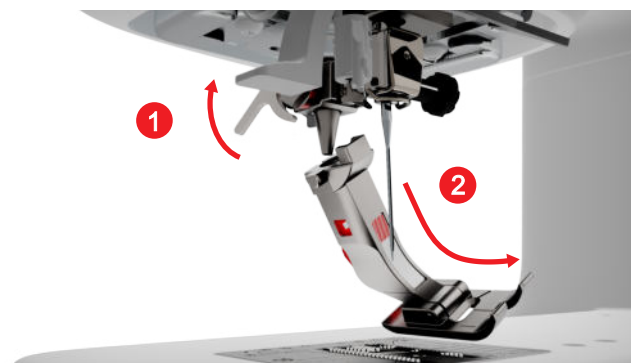


13. Close the bobbin cover.

### 3.11 Presser Foot

#### Changing the Presser Foot

1. Raise the needle.
2. Raise the presser foot.
3. Lock the screen.
4. Press the clamping lever up and pull the presser foot downward to the side.

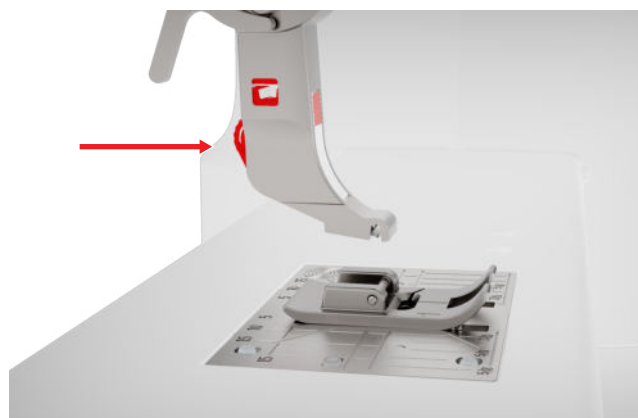


5. Guide the new presser foot into the holder from below and press the clamping lever down.
6. Unlock the sewing functions.

#### Changing the Presser Foot

##### Removing the Presser Foot Sole

1. Raise the needle.
2. Raise the presser foot.
3. Lock the screen.
4. Press the button on the snap-on shank.



⇒ The presser foot sole is detached.

## 3 Set Up the machine

### Fitting the Presser Foot Sole

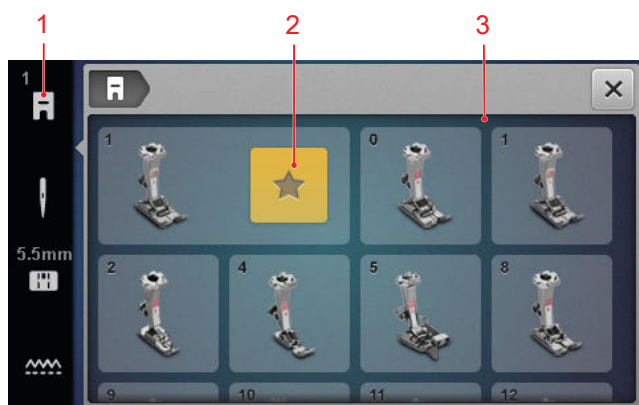
1. Place the presser foot sole under the snap-on shank so that the cross pin is under the opening of the shank.
2. Lower the snap-on shank with the presser foot lifter lever.



⇒ The presser foot sole clicks into place.

### Presser Foot Library

Sewing ► Presser Foot



**1** Recommended Presser Foot **3** Presser Foot Overview

The presser foot recommended for the selected stitch pattern is displayed in the status bar.

The presser feet compatible with the machine are displayed in the **Presser Foot Overview** section.

Recommended presser feet are marked with the **Recommended** ★ icon.

### Foot pressure

The presser foot pressure has a default setting for working with medium fabrics.

When working with thick fabrics, a reduced presser foot pressure enables the fabric to be moved more easily beneath the presser foot. When working with thin fabrics, a higher presser foot pressure prevents the fabric from slipping easily.

We recommend testing the setting before you start. In the case that the fabric is only fed with resistance, you can reduce the presser foot pressure. If the fabric slips easily beneath the presser foot, you can increase the presser foot pressure.

Recommendations for setting the presser foot pressure for different types of fabric and sewing techniques can be found in the consultant. [► see page 15]



1. To reduce the presser foot pressure, turn the rotary knob **Presser Foot Pressure** counterclockwise.
2. To increase the presser foot pressure, turn the rotary knob **Presser Foot Pressure** clockwise.
3. To set the default presser foot pressure, turn the rotary knob **Presser Foot Pressure** until the mark on the rotary knob and the mark on the machine are aligned.



## 3.12 Fabric Feed

### Feed Dog

Sewing  ► Feed Dog 

The feed dog moves the fabric under the presser foot. To ensure that the fabric is fed evenly, the presser foot must be positioned horizontally. To compensate for the seam height, you can place one or more height compensation plates behind or in front of the needle under the presser foot as required.

The feed dog can be lowered for applications in which the fabric is to be guided freely.

1. To lower the feed dog, press the button **Feed Dog Up/Down**.




2. To raise the feed dog, unlock the button **Feed Dog Up/Down**.

⇒ The feed dog is fully raised after sewing the first stitch.



#### TIP

Tapping the Icon **Feed Dog**  displays instructions on how to lower or raise the feed dog.

## 3.13 Machine Settings

### Language

Settings  ► Machine  ► Language 

With the **Language** setting, you can set the language of the user interface.

### Lighting

Settings  ► Machine  ► Lighting   
► Lighting 

With the **Lighting** setting, you can switch the sewing light on and off.

### My Dealer Information

Settings  ► Machine  ► Information   
► Dealer Data 

With the **My Dealer Information** setting, you can enter the address of your BERNINA dealer for quick reference at any time.

## 3.14 Personal Settings

### Welcome Message

Settings  ► Personal  ► Welcome Message

With the **Welcome Message** setting, you can enter a text to be displayed when the machine is switched on.

### Background Color

Settings  ► Personal  ► Background Color

With the **Background Color** setting, you can select a color scheme for your screen.

### Background Pattern

Settings  ► Personal  ► Background Pattern

With the setting **Background Pattern** you can select a color scheme for your screen.

## 3.15 Sewing Settings

### Upper Thread Tension

The upper thread tension is optimally set in the BERNINA factory. Mettler Metrosene/Serlon thread size 100/2 is used for the upper and bobbin thread.

## 3 Set Up the machine

The higher the upper thread tension, the more the upper thread is tensioned and the bobbin thread is pulled more strongly into the fabric. The lower the upper thread tension, the less the upper thread is tensioned and the bobbin thread is pulled less strongly into the fabric.



### Perfect Stitch Formation

The thread knotting is in the center of the fabric.



### Upper thread tension too tight

This pulls the bobbin thread more strongly into the fabric.



### Upper thread tension too loose

This pulls the upper thread more strongly into the fabric.



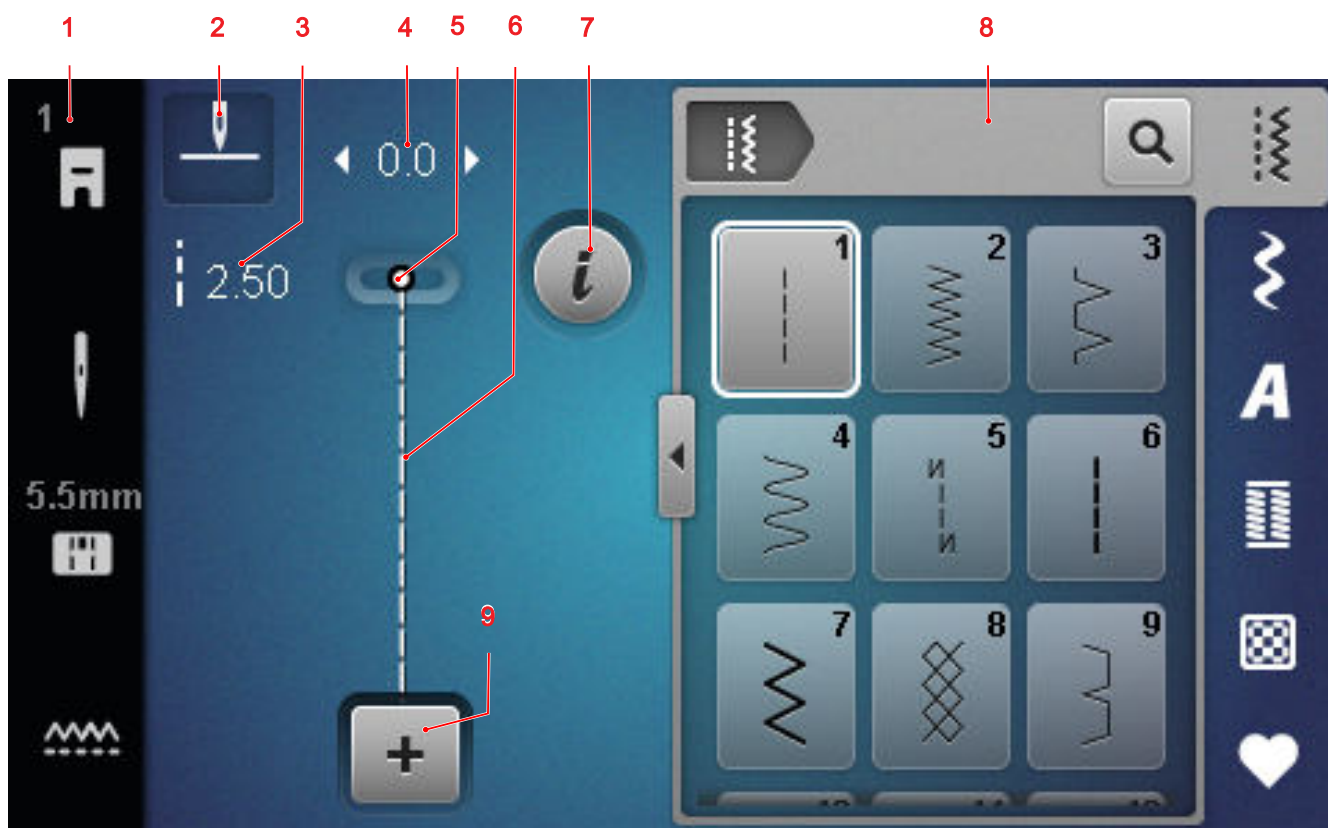
1. To change the upper thread tension, turn the rotary knob **Upper Thread Tension** in the desired direction.
2. To set the default upper thread tension, turn the rotary knob **Upper Thread Tension** until the mark on the rotary knob and the mark on the machine are aligned.

## Sewing Speed

Settings  ► Sewing  ► Sewing Speed 


With the **Sewing Speed** function, you can limit the maximum sewing speed. The setting is saved when the machine is switched off.



The sewing speed is specified in stitches per minute. The maximum sewing speed is 900 stitches per minute.

Sewing 

1 Status Bar 2 Needle Stop 3 Stitch Length 4 Stitch Width 5 Needle Position 6 Stitch Preview 7 Edit 8 Stitch Selection 9 Combi Mode

### Needle Stop

The **Needle Stop**  icon shows the needle position when the machine is stopped.

-  : Needle Stop Up.
-  : Needle Stop Down.

You can set the needle position to stop up or down by toggling the icon.


### Stitch Length

With the **Stitch Length** function, you can adjust the length of the current stitch. [▶ see page 39]

### Stitch Width

With the **Stitch Width** function, you can adjust the width of the current stitch. [▶ see page 39]


### Needle Position

If the needle has been moved to the left or right, the value of the needle position is displayed. You can move the needle position back to the middle position by tapping the icon **Needle Position** .


### Stitch Preview

A preview of the current stitch or stitch pattern combination is displayed in the stitch preview. In combination mode, you can select the individual stitches in the stitch preview.

### Edit

With the **Edit**  function, you can open the stitch pattern editing functions. [▶ see page 39]

### Combi Mode

With the **Combi Mode**  you can switch the Combi-mode on and off. [▶ see page 43]



## 4.1 Status Bar

The Status Bar displays the state of various functions. The color of the icon shows the current state of the function.


- White: Default setting and recommended setting
- Yellow: Modified setting

### Presser Foot

The icon **Presser Foot**  indicates the recommended presser foot.

By tapping the icon, you can call up the presser foot overview and display details about the presser foot. [▶ see page 29]


### Stitch Plate and Sewing Needle

The icon **Stitch Plate and Sewing Needle**  indicates the selected needle and the selected stitch plate.

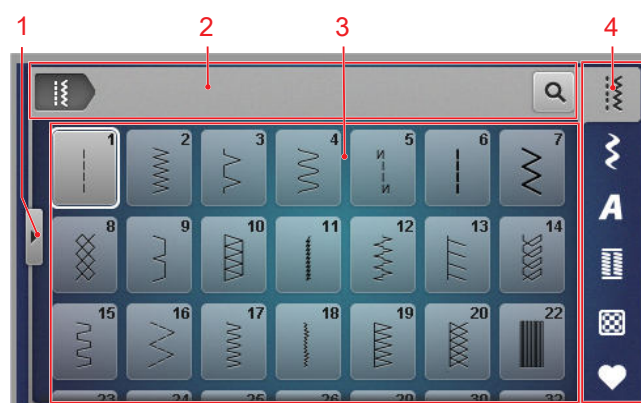
You can open the needle and stitchplate overview and select the attached needle and stitch plate by tapping the icon.

If the selected throat plate is unsuitable for use with the needle, a red exclamation mark appears.

### Feed Dog

Tapping the icon **Feed Dog**  displays instructions on how to lower or raise the feed dog.

## 4.2 Stitch Selection




- 1 Fullscreen 2 Navigation Bar 3 Selection Area  
4 Quick Access Bar

### Navigation Bar

The Navigation Bar shows the path to the selected stitch pattern.

### Search


With the **Search**  function, you can search for stitch patterns by stitch number.

### Selection Area

In the Selection Area, you can navigate through the folders and load a stitch pattern. Each stitch pattern is displayed with a preview image.

When you tap the desired stitch pattern in the preview, it is loaded.

### Fullscreen

You can use this function **Fullscreen**  to enlarge the selection area to the full screen width.

### Quick Access Bar

You can use the quick access bar to directly access the various folders in the stitch categories and your personal folder.


### Practical Stitches

In the **Practical Stitches**  folder, you will find all practical stitches. [▶ see page 34]


### Decorative Stitches

In the **Decorative Stitches**  folder, you will find all decorative stitches collated into folders by categories. [▶ see page 36]


### Alphabets

In the **Alphabets**  folder, you will find all sewing alphabets. [▶ see page 36]


### Buttonholes

In the **Buttonholes**  folder, you will find all buttonholes, eyelets and the Button Sew-on Program. [▶ see page 37]

### Quilt Stitches

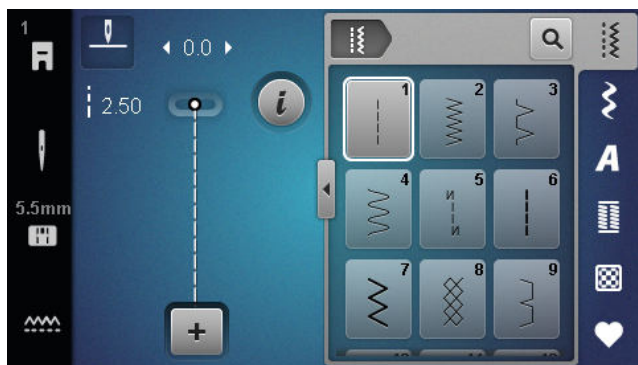
In the **Quilt Stitches**  folder, you will find all quilt stitches. [▶ see page 38]

### Personal Folder

















In the folder **Personal Folder** , you can save and load your own stitch pattern. You can organize the stitch patterns in folders.


## 5.1 Practical Stitches

Sewing  ► Practical Stitches 



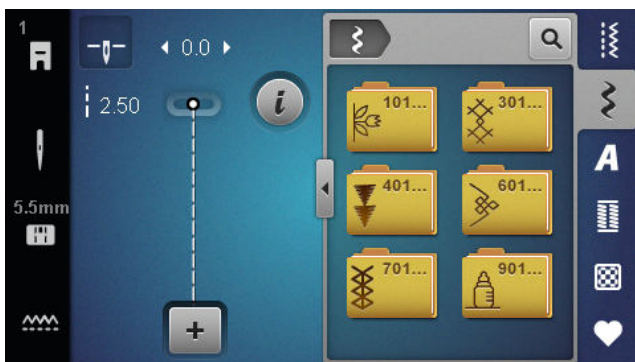
Stitch patterns	Stitch number	Name	Purpose
	1	Straight Stitch	For joining seams, for topstitching and basting.
	2	Zigzag	For finishing, sewing knit seams, sewing on lace inserts and elastic bands.
	3	Vari-Overlock	For finishing edges, sewing together and finishing knit fabrics.
	4	Running Stitch	For darning and reinforcing fabric edges or attaching lace or elastic 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, topstitching and decorative effects.
	7	Triple Zigzag	For durable seams on strong fabrics, visible hems and decorative seams.
	8	Honeycomb Stitch	For visible and decorative seams on knits and wovens.
	9	Blind Stitch	For blind hems on most fabric types and for shell edging on soft jerseys and fine fabric.
	10	Double Overlock	For sewing together and finishing knit fabrics.
	11	Superstretch Stitch	For very stretchy open seams.
	12	Gathering Stitch	For gathering with heavier threads and for flat joining seams on medium-weight fabrics.







Stitch patterns	Stitch number	Name	Purpose
	13	Stretch Overlock	For sewing together and finishing knit 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 heavy fabrics such as felt and leather and for attaching elastic tape.
	16	Stitched Zigzag	For finishing and reinforcing fabric edges, for sewing on elastic tape and for decorative seams.
	17	Lycra Stitch	For flat joining seams, visible hems on lycra fabric and for stitching over seams in undergarments.
	18	Stretch Stitch	For stretchy seams and hems in woven and knit fabrics.
	19	Reinforced Overlock	For overlock seams or flat joining seams on medium-weight knit fabrics and toweling.
	20	Knit Overlock	For stretchy seams and hems in woven and knit fabrics.
	22	Simple Darning Program	For automatic darning in fine to heavy fabrics.
	23	Reinforced Darning Program	For automatic darning in heavy materials.
	24	Bartack Program	For reinforcing pocket openings, buttonholes and sewing belt loops.
	25	Bartack Program	For reinforcing pocket openings and securing seam ends.
	26	Large Fly Stitch	For reinforcing pocket openings, zippers and slits in medium-weight to heavy fabrics.
	29	Narrow Blind Stitch	For blind hems and shell edging in 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 of one straight stitch.

Stitch patterns	Stitch number	Name	Purpose
	33	Three Single Straight Stitches	As connecting stitches in a combination of three individual straight stitches.

## 5.2 Decorative Stitches

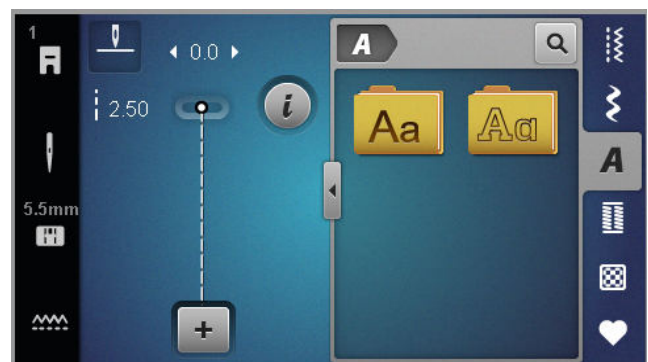
Sewing  ► Decorative Stitches 



Category	Name
100 	Nature
300 	Cross Stitches
400 	Satin
600 	Geometric
700 	Heirloom
900 	Children

## 5.3 Alphabets

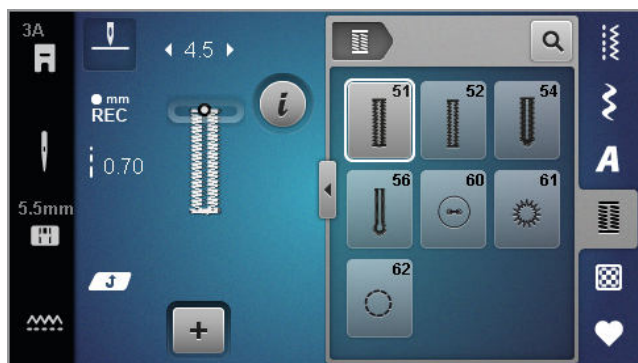
Sewing  ► Alphabets **A**



Stitch Patterns	Name
<b>ABCabc</b>	Block
<b>ABCabc</b>	Double Block

## 5.4 Buttonholes

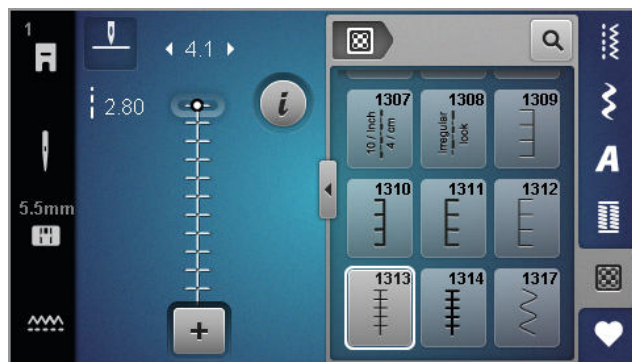
Sewing  ► Buttonholes 










Stitch patterns	Stitch number	Name	Purpose
	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.
	54	Round Buttonhole with Normal Bartack	For medium-weight to heavy fabrics. e.g. dresses, jackets, coats and rainwear.
	56	Keyhole Buttonhole	For heavy woven fabrics, e.g. jackets, coats and leisure wear.
	60	Button Sew-on Program	Sews buttons with 2 or 4 holes.
	61	Small Zigzag Eyelet	Openings for cords or narrow ribbons and for decorative work.
	62	Straight Stitch Eyelet	Openings for cords or narrow ribbons and for decorative work.

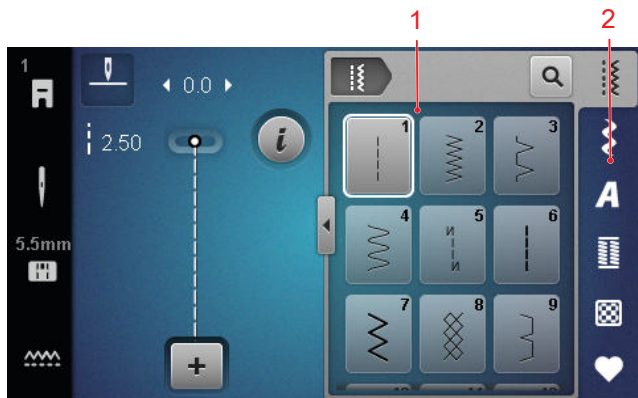
## 5.5 Quilt Stitches

Sewing  ► Quilt Stitches 



Stitch	Number	Name	Purpose
	No. 1301	Quilting, Securing Program	To secure at the sewing start and end with short stitches forward.
	No. 1302	Quilting, Straight Stitch	For machine quilting using a straight stitch with a 3 mm stitch length.
	No. 1303	Piecing Stitch/Straight Stitch	For piecing quilt blocks together using a straight stitch with a 2 mm stitch length.
	No. 1304 – 1307	Hand-look Quilt Stitches	For imitating the look of hand quilting with monofilament thread.
	No. 1309 – 1312	Blanket Stitch	For appliqué.
	No. 1313 – 1314	Blanket Stitch	For sewing on the edge between two areas in crazy patchwork.
	No. 1317	Decorative Quilting Stitches	For quilting, crazy patchwork, embellishing and finishing.

## 6.1 Load Stitch Pattern



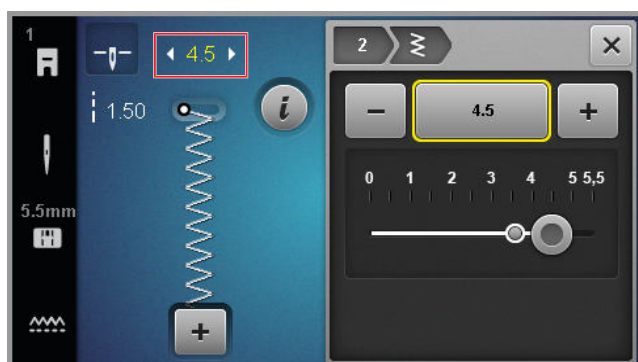
1 Selection Area 2 Quick Access Bar

1. Tap the stitch category in the Quick Access Bar.
2. Find and select the desired stitch pattern in the selection area.
  - ⇒ The stitch pattern is displayed in the stitch preview.

Further information on the selection area can be found in the stitch selection. ▶ see page 33

## 6.2 Stitch Pattern Editing

### Stitch Width



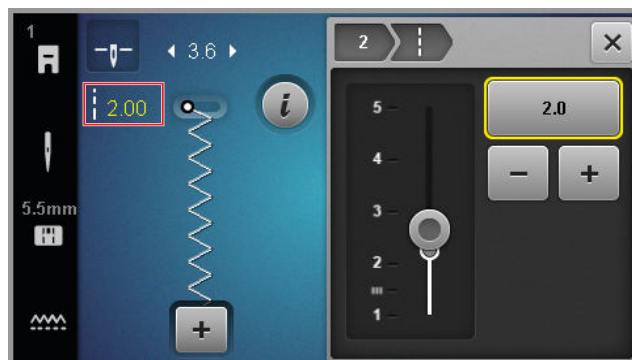
The recommended stitch width is indicated for each stitch. You can modify the stitch width for most stitches, alphabets and buttonholes. The stitch width depends on the needle used, the presser foot and the stitch plate.

The machine checks the compatibility between the needle, stitch plate and stitch. To do this, the attached stitch plate and needle must be selected in the Status Bar with the **Stitch Plate and Sewing Needle** icon. If the stitch cannot be sewn with the attached needle and the attached stitch plate, the stitch is shown in red.

### TIP

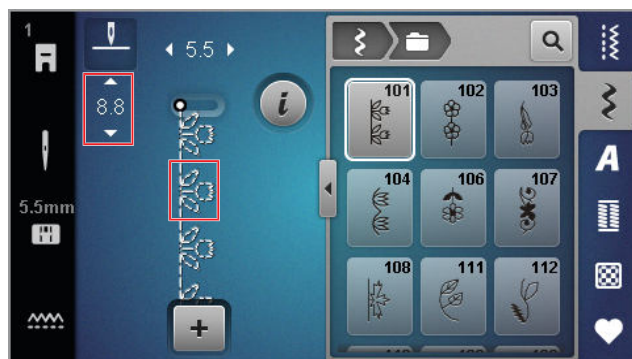
You can also modify the stitch width during sewing with the **Stitch Width** button.

### Stitch Length



The recommended stitch length is indicated for each stitch. You can modify the stitch length for most stitches, alphabets and buttonholes.

In the case of decorative stitches and alphabets, the pattern length is shown instead of the stitch length.



### TIP

You can also modify the stitch length during sewing with the **Stitch Length** button.

### Editing Functions

Sewing ▶ Edit *i*



With the **Edit *i*** function, you can view the editing functions for the selected stitch.

### Repeat

Sewing ► Edit *i* ► Repeat

With the **Repeat**  function, you can set the number of repeats of a stitch pattern after which the machine should stop. You can set up to 9 repeats. The number of repeats still to be sewn is displayed on the Sewing Screen.

### Mirror Left/Right

Sewing ► Edit *i* ► Mirror Left/Right

With the **Mirror Left/Right**  function, you can mirror a stitch pattern along the vertical axis.

### Mirror Up/Down

Sewing ► Edit *i* ► Mirror Up/Down

With the **Mirror Up/Down**  function, you can mirror a stitch pattern along the horizontal axis.

### Stitch Counter

Sewing ► Edit *i* ► Stitch Counter

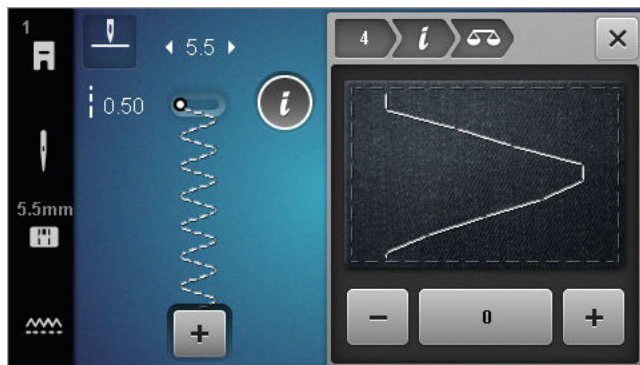
With the **Stitch Counter**  function, you can save the length of a seam for some stitch patterns based on the count of stitches sewn. The number of stitches counted is displayed on the Sewing Screen and saved until the machine is switched off. [► see page 40]

### Balance

Sewing ► Edit *i* ► Balance

With the **Balance**  function, you can fine tune any stitch patterns that are not sewn correctly due to the selected fabric.

Compare a sewn sample with the display in the **Stitch Preview** section and adjust the balance so that the preview corresponds to the incorrectly sewn stitch pattern.



### Reverse

Sewing ► Edit *i* ► Reverse

With the **Reverse**  function, you can sew in reverse without pressing and holding the **Quick Reverse Sewing**  button.

### Using the Stitch Counter

Sewing ► Edit *i* ► Stitch Counter

Prerequisite:

- A stitch pattern is selected.

1. Tap the **Stitch Counter**  icon.
  - ⇒ In the info bar the **Stitch Counter**  and **Repeat**  icons are shown and the **Quick Reverse Sewing**  icon flashes.



2. Sew the desired length.
3. Press the button **Quick Reverse Sewing** .
  - ⇒ The **Stitch Counter**  display changes to **AUTO** and shows the length of the saved seam.
  - ⇒ As soon as the stitch pattern is sewn again, the machine stops after the saved stitch number.
  - ⇒ The stitch count is saved until it is overwritten or cleared.
4. To access the saved stitch count after deactivating the function, tap the **Stitch Counter**  icon twice, until **AUTO** appears.





## 6.3 Buttonholes

For buttonholes, you can set the buttonhole length. As soon as a buttonhole stitch is selected, the modes for the buttonhole length are displayed in the editing menu.

The selected mode is displayed on the sewing screen.



### Buttonhole Length

Sewing ► Edit *i*

To set the buttonhole length, the following modes are available:

- **Record mm** : Program the buttonhole length in mm. [► see page 41]
- **Auto Length** : Adjust the buttonhole length to the button size. [► see page 41]
- **Stitch Counter** : Program the buttonhole length with the stitch counter. [► see page 41]
- **Sew Manually** : Sew the buttonhole manually. [► see page 42]

### Record the Buttonhole Length in mm

Sewing ► Edit *i* ► Record mm

In the mode **Record mm** , the machine measures the sewn length of the first bead and saves it. The machine finishes the buttonhole automatically.

Prerequisite:

- A buttonhole is loaded.
- Buttonhole Foot #3A is attached.

1. Tap the **Record mm** icon.
  - ⇒ The **Reverse** icon flashes on the Sewing Screen.

2. Sew the first bead and press the **Quick Reverse Sewing** button at the desired length.
  - ⇒ The machine will complete the buttonhole.
  - ⇒ The machine switches to **Button Size** mode and all additional buttonholes are automatically sewn to the displayed length in mm.
  - ⇒ The buttonhole length remains saved until it is overwritten, cleared or the machine is switched off.

### Adjusting the Buttonhole Length to the Button Size

Sewing ► Edit *i* ► Auto Length

In the mode **Auto Length** , you can measure the diameter of the button. The machine automatically adjusts the length of the buttonhole to the size of the button.



Prerequisite:

- A buttonhole is loaded.
- Buttonhole Foot #3A is attached.

1. Tap the **Auto Length** icon.
2. Place the button in the measuring circle on the screen and adjust the size of the measuring circle to the size of the button by using the **Stitch Width** key.
  - ⇒ The measured buttonhole length is displayed in the Sewing Screen.
3. Sew the buttonhole.
  - ⇒ The buttonhole length remains saved until it is overwritten, cleared or the machine is switched off.






### Programming the Buttonhole Length with the Stitch Counter

Sewing ► Edit *i* ► Stitch Counter

Using the Buttonhole Foot #3, you can program the buttonhole length in mode **Stitch Counter** . The machine sews the left bead forward, the lower bartack, the right bead in reverse and finally the upper bartack.



The length of the right bead is not automatically adjusted to the length of the left bead, but must be separately programmed.

Prerequisite:

- A buttonhole is loaded.
  - Buttonhole Foot #3 is attached.
1. Tap the **Stitch Counter**  icon.
  2. Sew the left bead and stop at the desired length.
    - ⇒ The **Reverse**  icon flashes on the Sewing Screen.
  3. Press the **Quick Reverse Sewing**  button.
    - ⇒ The machine sews the lower bartack and starts to sew the right bead in reverse.
    - ⇒ The **Reverse**  icon flashes on the Sewing Screen.
  4. Stop the left bead at the height of the first stitch and press the **Quick Reverse Sewing**  button.
    - ⇒ The machine sews the upper bartack.
    - ⇒ The lengths of the beads are saved.
    - ⇒ All additional buttonholes are sewn with the saved count of stitches.
    - ⇒ The buttonhole length remains saved until it is overwritten, cleared or the machine is switched off.

### Sewing a Buttonhole Manually

Sewing  ► Edit  ► Sew Manually 



In the mode **Sew Manually**  , you can sew buttonholes segment by segment. The individual segments of the buttonhole are displayed in the Buttonhole bar. Every time you have sewn a segment, you can move to the next segment by pressing the **Quick Reverse Sewing**  button.



1 Buttonhole Bar

Prerequisite:

- A buttonhole is loaded.
- Buttonhole Foot #3 is attached.

1. Tap the **Sew Manually**  icon.
  - ⇒ The individual segments are displayed in the Buttonhole bar.
  - ⇒ Segment 1 is active.
2. Sew the left buttonhole bead and stop the machine at the desired length.
  - ⇒ Segment 2 is active during sewing.
3. To switch to the next segment, tap the **Quick Reverse Sewing**  button or stop the machine and select the next segment in the buttonhole bar.
4. Finish sewing the buttonhole segment by segment.

## 6.4 Darning Program

You can set the darning length in the darning program. As soon as a darning stitch is selected, the modes for the darning length are displayed in the editing menu. The selected mode is displayed on the sewing screen.




### Darning Length



Sewing  ► Edit 

To set the darning length, the following modes are available:

For Simple Darning Program No. 22:


- **Stitch Counter**  : Program the darning length with the stitch counter. [► see page 42]

For Reinforced Darning Program No. 23:




- **Record mm**  : Program the darning length in mm. [► see page 43]
- **Auto Length**  : Set the auto darning length. [► see page 43]

### Sewing the Darning Length with the Stitch Counter

Sewing  ► Edit  ► **Stitch Counter** 


In the mode **Stitch Counter**  , the machine counts the stitches of the first-sewn length and saves it. The machine finishes the darning program automatically.

Prerequisite:




- The Darning Program No. 22 is loaded.
  - Presser foot #1 is attached.
1. Tap the **Stitch Counter**  icon.
    - ⇒ The **Reverse**  icon flashes on the Sewing Screen.
  2. Sew the first row and press the **Quick Reverse Sewing**  button at the desired length.
    - ⇒ The machine will complete the darning program.
    - ⇒ The darning length remains saved until it is overwritten, cleared or the machine is switched off.

### Record the Darning Length in mm

Sewing  ► **Edit**  ► **Record mm** 


In the mode **Record mm** , the machine measures the sewn length and saves it. The machine finishes the darning program automatically.

Prerequisite:



- The Darning Program No. 23 is loaded.
  - Buttonhole Foot #3A is attached.
1. Tap the **Record mm**  icon.
    - ⇒ The **Reverse**  icon flashes on the Sewing Screen.
  2. Sew the first row and press the **Quick Reverse Sewing**  button at the desired length.
    - ⇒ The machine will complete the darning program.
    - ⇒ The darning length remains saved until it is overwritten, cleared or the machine is switched off.


### Sew the Darning Length Automatically

Sewing  ► **Edit**  ► **Auto Length** 

In the mode **Auto Length** , you can set the darning length in millimeters. The machine automatically finishes the darning program with the set darning length.




Prerequisite:


- The Darning Program No. 23 is loaded.
  - Buttonhole Foot #3A is attached.
1. Tap the **Auto Length**  icon.
    - ⇒ The **Reverse**  icon flashes on the Sewing Screen.

2. Sew the first row and press the **Quick Reverse Sewing**  button at the desired length.
  - ⇒ The machine will complete the darning program.
  - ⇒ The darning length remains saved until it is overwritten, cleared or the machine is switched off.




## 6.5 Stitch Pattern Management


### Load Stitch Pattern

Sewing  ► **Personal Folder**  ► **Load Stitch Pattern** 

With the function **Load Stitch Pattern**  you can upload your own stitch patterns from the folder **Personal Folder** .


### Save Stitch Pattern

Sewing  ► **Personal Folder**  ► **Save Stitch Pattern** 

With the function **Save Stitch Pattern** , you can save modified stitch patterns as your own stitch patterns in the folder **Personal Folder** . To do this, you must select the folder in which the stitch pattern is to be saved.

### Delete Stitch Pattern

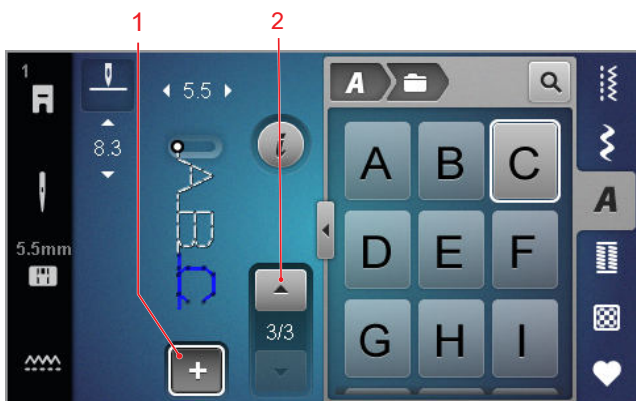
Sewing  ► **Personal Folder**  ► **Delete Stitch Pattern** 

With the function **Delete Stitch Pattern** , you can delete stitch patterns in the folder **Personal Folder** .

## 6.6 Stitch Pattern Combination

### Combi Mode

In combination mode, you can combine stitch patterns and letters to create stitch pattern combinations or lettering. Stitch pattern combinations can be saved and sewn out as one stitch pattern.



1 Combi Mode 2 Stitch Pattern Navigation

The stitch pattern combinations can also be created in full-screen mode. In the full-screen view, you can call up the alphabet stitches using the icons (upper and lower case letters and special characters), navigate between the individual stitch patterns and delete them directly.



## Creating Stitch Pattern Combinations

Sewing ► Combi Mode

1. Tap the **Combi Mode**  icon in the Sewing Screen.
2. Combining the desired stitch patterns or letters from the file manager in sequence to form a combination
  - ⇒ The stitch patterns are inserted in the combination bar, after the stitch selected, and displayed in the Stitch Preview.
  - ⇒ The combination can be sewn and/or saved.

## Editing Functions

Sewing ► Combi Mode ► Edit



You can use this function **Edit**  to edit individual stitch patterns or whole stitch pattern combinations.

### Mirror Left/Right

You can use this function **Mirror Left/Right**  to mirror the selected stitch pattern of a stitch pattern combination on the vertical axis.

Sewing ► Combi Mode ► Edit ► Mirror Left/Right

### Mirror Up/Down

You can use this function **Mirror Up/Down**  to mirror the selected stitch pattern of a stitch pattern combination on the horizontal axis.

You can use this function **Mirror Up/Down**  to mirror the selected stitch pattern of a stitch pattern combination on the horizontal axis.

### Delete

Sewing ► Combi Mode ► Edit ► Delete

You can use the function **Delete**  to remove the selected stitch pattern from the combination.

### Editing a Stitch Pattern Combination

Sewing ► Combi Mode ► Edit ► Editing a Stitch Pattern Combination

The submenu **Editing a Stitch Pattern Combination** in the editing menu provides additional functions to edit the complete stitch pattern combination.

### Edit Combination at Cursor Position

Sewing ► Combi Mode ► Edit ► Edit Combination at Cursor Position

The submenu **Edit Combination at Cursor Position**  in the editing menu provides additional functions. You can use the position of the cursor to determine after which stitch pattern section a function is to be inserted.

### Editing a Stitch Pattern Combination



#### Repeat

Sewing ▶ Combi Mode ▶ Edit ▶ Editing a Stitch Pattern Combination ▶ Repeat

With the function **Repeat** , you can set the number of repeats of a stitch pattern combination after which the machine should stop. You can set up to 9 repeats. The number of repeats still to be sewn is displayed on the Sewing Screen.

#### Mirror Left/Right

Sewing ▶ Combi Mode ▶ Edit ▶ Editing a Stitch Pattern Combination ▶ Mirror Left/Right

You can use the function **Mirror Left/Right** to mirror a stitch pattern combination along the vertical axis.

#### Delete

Sewing ▶ Combi Mode ▶ Edit ▶ Editing a Stitch Pattern Combination ▶ Delete

You can use the function **Delete** to delete the complete stitch pattern combination.

### Edit Combination at Cursor Position



#### Tie-Off

Sewing ▶ Combi Mode ▶ Edit ▶ Edit Combination at Cursor Position ▶ Tie-Off

With the **Tie-Off** function, you can automatically insert securing stitches after any stitch pattern in the combination.

### Deleting a Stitch Pattern Combination

Sewing ▶ Personal Folder ▶ Deleting a Stitch Pattern Combination

With the function **Deleting a Stitch Pattern Combination** you can delete a stitch pattern combination in the folder **Personal Folder** .

### Loading a Stitch Pattern Combination

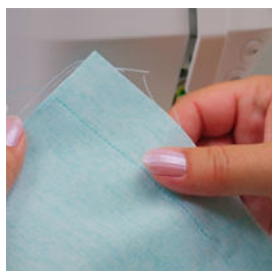
Sewing ▶ Personal Folder ▶ Loading a Stitch Pattern Combination

With the function **Loading a Stitch Pattern Combination** you can upload a stitch pattern combination from the folder **Personal Folder** .

### Saving a Stitch Pattern Combination

Sewing ▶ Personal Folder ▶ Saving a Stitch Pattern Combination

With the function **Saving a Stitch Pattern Combination** you can save a stitch pattern combination in the folder **Personal Folder** .



### Sewing Fabrics Together

A seam is formed when two fabrics are joined together with a single line of stitching. Seams are an essential element to every garment and sewn projects.



<https://www.bernina.com/foot-1-sole>



### Finishing Simple Seams

Finishing a fabric edge is mostly used as preparation for open seams to prevent the fabric edge from fraying.



<https://www.bernina.com/foot-2-snap-on>

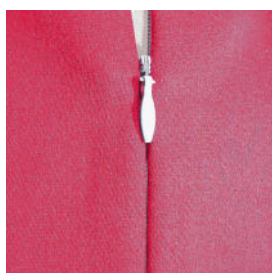


### Sewing a Buttonhole

With the buttonhole sole #3, beautiful buttonholes can be sewn in any desired length with or without an extra yarn inlay.



<https://www.bernina.com/foot-3-snap-on>



### Sewing in Zippers

A centered zipper is one in which the slit edges of the opening meet over the middle of the zipper and hide it.



<https://www.bernina.com/foot-4-snap-on>

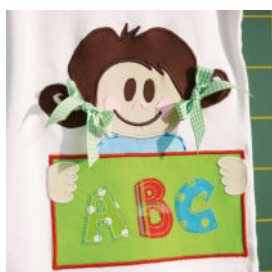


### Finishing with Blind Hem

Blind hem is an invisible hem finish appropriate for most garments and draperies.



<https://www.bernina.com/foot-5-snap-on>



### Appliqué

Appliqué is an embellishment made by sewing fabric shapes onto a background fabric. Use a satin or decorative stitch to cover the raw edges.



<https://www.bernina.com/foot-20-snap-on>

## 8.1 Software


### Update Firmware

Settings  ▶ Machine  ▶ Maintenance   
▶ Firmware Update  ▶ Update 

You can use the **Update Firmware** function to install the latest version of the firmware on your machine.


You can update the current firmware of the machine and download detailed step-by-step instructions for the update process at [www.bernina.com/325-support](http://www.bernina.com/325-support).

Prerequisite:

- The latest firmware data has been downloaded and copied to the USB stick according to the update instructions.
1. Insert the USB stick with the current firmware data.
  2. Tap the **Update**  icon.
    - ⇒ The firmware update is installed.



### Deleting Personal Stitch Patterns

Settings  ▶ Machine  ▶ Factory Setting   
▶ Delete Own Stitch Patterns 

You can use the function **Delete Own Stitch Patterns**  to delete all personal stitch patterns saved on the machine.



### Reset Sewing Settings

Settings  ▶ Machine  ▶ Factory Setting   
▶ Reset Sewing Settings  

You can use the function **Reset Sewing Settings**   to reset all personal sewing settings saved on the machine to the factory settings.

### Reset Settings

Settings  ▶ Machine  ▶ Factory Setting   
▶ Reset Settings  

You can use the function **Reset Settings**   to reset all settings to the factory settings.

### Save and Transfer Data

Settings  ▶ Machine  ▶ Maintenance   
▶ Firmware Update  ▶ Save and Transfer Data

You can use the functions **Save and Transfer Data** to save your personal data, e.g. settings and your personal stitch patterns on a USB stick and transfer them back to the machine.



## 8.2 Machine

### Buttonhole Foot Calibration

Settings  ▶ Machine  ▶ Maintenance   
▶ Buttonhole Foot Calibration  <sup>3A</sup>

The Buttonhole Foot with Slide #3A is calibrated to the machine and they should always be used together. A new buttonhole foot must be calibrated with the machine in the sewing settings before its first use.

Prerequisite:

- The needle is not threaded.
1. Open the **Buttonhole Foot Calibration**  <sup>3A</sup> setting.
  2. Attach and lower the Buttonhole Foot with Slide #3A.
  3. Push the **Start/Stop**  button.
    - ⇒ The machine moves the buttonhole foot with slide forward and backward and displays successful calibration.

### Maintenance Intervals

To ensure that your machine remains in proper working order for many years to come, BERNINA recommends regular maintenance and care of your machine.

The maintenance intervals depend largely on the following factors:

- Frequency of use of the machine
- Nature of the fabric used
- Number of stitches
- Nature of the thread used

BERNINA recommends maintaining the machine after every 3 – 4 full bobbins have been used.

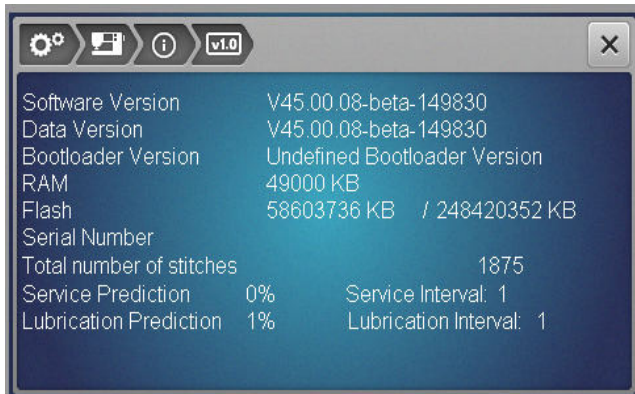
## 8 Care and maintenance

Task	Maintenance Interval	Measures
Cleaning the Machine	Regularly, depending on usage of the machine.	▶ Wipe down the surface of the machine and screen with a soft, slightly damp microfiber cloth.
Checking the Machine	Regularly, depending on usage of the machine.	<ol style="list-style-type: none"> <li>1. Check the machine for external damage.</li> <li>2. In case of damage, contact your BERNINA dealer.</li> </ol>
Cleaning the Feed Dog and the Stitch Plate	Regularly, depending on usage of the machine.	▶ Clean the feed dog. [▶ see page 49]
Cleaning the Hook	Regularly, depending on usage of the machine.	▶ Clean the hook.
Replacing the Needle	Regularly, depending on usage of the machine.	▶ Replace the needle. [▶ see page 22]
Updating Firmware	As soon as a new version is available.	▶ Updating Firmware. [▶ see page 47]
Lubricating the Hook	<ul style="list-style-type: none"> <li>■ Before using the machine for the first time.</li> <li>■ After a longer downtime of the machine.</li> <li>■ Before every new project. Now and then during a project, depending on the scope of the project.</li> <li>■ Regularly, depending on usage of the machine.</li> <li>■ If the relevant message is displayed.</li> <li>■ In case of unusual noises in the bobbin area.</li> </ul>	▶ Lubricate the hook. [▶ see page 50]
Adjusting, cleaning and lubricating machine components inside the machine	<ul style="list-style-type: none"> <li>■ With intensive use: annually</li> <li>■ With normal use: 2-yearly</li> <li>■ If the relevant message is displayed.</li> </ul>	▶ Contact your BERNINA dealer.



## Maintenance Information

Settings  ► Machine  ► Information   
► Machine Data 



### Number of Stitches

The notification **Total Number of Stitches** shows the number of stitches sewn with the machine.

### Service Prediction / Service Interval

The notification **Service Prediction / Service Interval** shows which part of the maintenance interval has elapsed. If the maintenance forecast reaches 100 %, a corresponding message is displayed when the machine is started and the machine must be serviced.

### Lubrication Prediction / Lubrication Interval

The notification **Lubrication Prediction / Lubrication Interval** shows how much of the lubrication interval has elapsed. If the maintenance forecast reaches 100 %, a corresponding message is displayed when the machine is started and the machine must be lubricated.

## Cleaning the Screen

1. Lock the screen.
2. Wipe down the screen with a soft, slightly damp microfiber cloth.

## Cleaning the Feed Dog

Thread residue accumulates under the stitch plate over time. Remove the thread residue on a regular basis.

1. Raise the needle and presser foot.
2. Lower feed dog.

### CAUTION

#### Electronically Driven Components

Risk of injury near the needle and the hook.

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

3. Remove the needle and presser foot.
4. Remove the stitch plate.

### NOTICE

#### Dust and thread remnants inside the machine

Damage to mechanical and electronic components.

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

5. Clean the feed dog with the brush.

## Cleaning the Hook

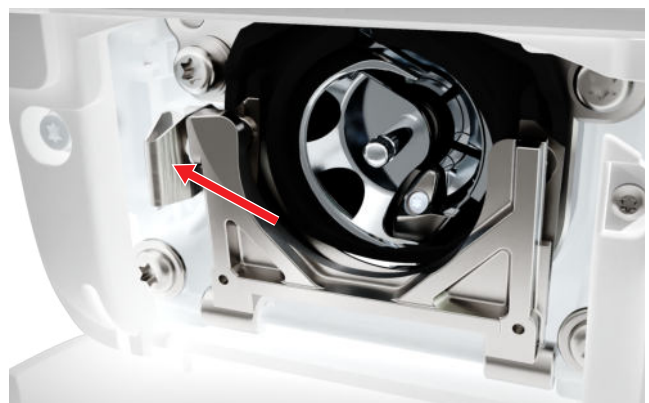
### CAUTION

#### Electronically Driven Components

Risk of injury near the needle and the hook.

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

1. Open the bobbin cover.
2. Remove the bobbin case.
3. Push the release lever to the left.



4. Fold down the fastening bracket with the black hook race cover.
5. Remove the hook.

### NOTICE

#### Dust and thread remnants inside the machine

Damage to mechanical and electronic components.

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

## 8 Care and maintenance

6. Clean the hook race area with a brush and a soft cloth. Never use any sharp instruments.
7. Hold the hook at the pin in the center with two fingers.



8. Insert the hook, if necessary turn the handwheel until the hook driver is on the left.
9. Close the bobbin cover and the fastening bracket until the release bracket engages.
10. Turn the handwheel to check.  
⇒ The hook will rotate.
11. Insert a bobbin case and close the bobbin cover.

### Lubricating the Hook

Lubricating the hook keeps the machine running smoothly and quietly.

#### CAUTION

#### Electronically Driven Components

Risk of injury near the needle and the hook.

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

1. Open the bobbin cover.
2. Remove the bobbin case.
3. Push the release lever to the left.
4. Fold down the fastening bracket with the black hook race cover.

5. Remove the hook.



6. Clean the hook race area with a brush and a soft cloth. Never use any sharp instruments.
7. Add one drop of BERNINA oil down into the hook race.



8. Hold the hook at the pin in the center with two fingers.



9. Insert the hook, if necessary turn the handwheel until the hook driver is on the left.
10. Close the bobbin cover and the fastening bracket until the release bracket engages.
11. Turn the handwheel to check.  
⇒ The hook will rotate.
12. Insert a bobbin case and close the bobbin cover.
13. Sew on a test fabric to absorb any excess oil.

---

## Export the Log File

Settings  ▶ Machine  ▶ Information   
▶ Service Data 

Log files help service personnel to find errors in the firmware. If you are requested to do so by BERNINA Service, you can export a log file.

1. Insert the USB stick into the machine.
2. Confirm saving the log file and wait until the export is complete.
3. Close the window.

**The screen does not respond**

- |   |  |
|---|--|
| The screen is locked.                           | ▶ Unlock the screen. [▶ see page 15]   |
| Screen is defective or not connected correctly. | ▶ Contact your BERNINA dealer.         |
| Wrong touchscreen pen.                          | ▶ Use other touchscreen pen or finger. |

**Skipped Stitches**

- |                                      |  |
|--------------------------------------|--|
| 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.   |
| Incorrect needle/thread combination. | ▶ Use a needle with a suitable needle size. [▶ see page 19]  |

**Speed Too Low**

- |   |  |
|---|--|
| Room temperature is too warm or too cold. | ▶ Place the machine in a warm room one hour before use.  |
| Reduced maximum speed.                    | ▶ Move the speed control to the right.<br>▶ Modify the maximum sewing speed in the Settings. [▶ see page 31] |

**The Machine doesn't start**

- |   |  |
|---|--|
| The machine is not connected to the power supply. | ▶ Insert the mains plug into the socket and into the machine.<br>▶ Check the socket for power.     |
| Room temperature is too warm or too cold.         | ▶ Place the machine in a warm room one hour before use.<br>▶ Connect the machine and switch it on. |
| The machine is damaged.                           | ▶ Contact your BERNINA dealer.   |

**Needle Breaks**

- |                                     |  |
|-------------------------------------|--|
| 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 was pulled.                  | ▶ Feed the fabric evenly.  |
| Thick fabric has been pushed.       | ▶ Use a suitable presser foot for thick fabric, e.g. Jeans Foot #8.<br>▶ Use the height compensation tool when sewing over a thick seam. |
| Knotted thread.                     | ▶ Use quality thread.  |

**The Sewing Light Does Not Light Up**

- |                                      |   |
|--------------------------------------|---|
| The sewing light is not switched on. | ▶ Switch on the sewing light in the settings. [▶ see page 30] |
| The sewing light is defect.          | ▶ Contact your BERNINA dealer.                                |

**Faulty Stitching**

- |   |   |
|---|---|
| Thread remnants between the thread tension discs. | ▶ Fold a piece of thin fabric (don't use outer edges) and pull it through the thread tension discs several times. |
| Incorrectly threaded.                             | ▶ Rethread the upper and lower thread.  |

**Upper thread is not threaded**

- |                                     |  |
|-------------------------------------|--|
| 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. |
| Threader head is defective.         | ▶ Contact your BERNINA dealer.   |

**Upper Thread Breaks**

- |                                      |  |
|--------------------------------------|--|
| Incorrect needle/thread combination. | ▶ Match the needle with the thread size. |
| Upper thread is too tight.           | ▶ Reduce the upper thread tension.       |
| Incorrectly threaded.                | ▶ Rethread the upper thread.             |
| Poor quality thread.                 | ▶ Use quality thread.                    |

**Upper Thread Breaks**

The stitch plate or the hook tip is damaged.

- ▶ Contact your BERNINA dealer to have the damages repaired.
- ▶ Replace the stitch plate.

**Stitch Width Not Adjustable**

The selected needle and stitch plate cannot be used in combination.

- ▶ Replace the needle.
- ▶ Replace the stitch plate.

**Uneven Stitch Formation**

Upper thread too tight or too loose.

- ▶ Adjust the upper thread tension.
- ▶ Check the thread feed from the thread spool.

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 the upper thread.
- ▶ Rehtread the bobbin thread.

Fabric was pulled.

- ▶ Feed the fabric evenly.

Incorrect bobbin case is used.

- ▶ Use supplied bobbin case.

Lower thread too tight or too loose.

- ▶ Contact your BERNINA dealer.

**Lower Thread Breaks**

The bobbin case is damaged.

- ▶ Replace the bobbin case.

The stitch hole in the stitch plate is damaged.

- ▶ Contact your BERNINA dealer to have the damages repaired.
- ▶ Replace the stitch plate.

Needle blunt or bent.

- ▶ Replace the needle.

Message	Cause	Solution
Insufficient free space on the BERNINA USB stick (optional accessory).	Not enough free space on the USB stick.	▶ Delete data from the USB stick.
No personal data on the BERNINA USB stick (optional accessory).	No personal data for recovery available on the USB stick.	▶ Make sure that the data and settings have been saved on the USB stick.
The recovery of personal data has failed.	The firmware update has been successful but the personal data could not be recovered.	<ol style="list-style-type: none"> <li>1. Make sure that the data and settings have been saved on the USB stick.</li> <li>2. Transfer saved data to the machine.</li> </ol>
No BERNINA USB stick is inserted. Make sure that the same BERNINA USB stick remains connected during the entire automatic update process.	USB stick is not inserted.	▶ Use a BERNINA USB stick with enough free memory.
The firmware update has failed.	The latest firmware version cannot be found on the USB stick.	<ol style="list-style-type: none"> <li>1. Make sure that the compressed zip file has been unzipped for the firmware update.</li> <li>2. 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>3. Updating Firmware.</li> </ol>
Service interval reached: To ensure that your machine remains in proper working order in the long term, it is needed to service the machine by your BERNINA dealer.	The machine needs maintenance. The message appears once the programmed service interval has been reached.	<ol style="list-style-type: none"> <li>1. Close the message.</li> <li>2. Contact your BERNINA dealer.</li> </ol> <p>After the third closing, the message is not displayed until the next service interval has been reached.</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. In case of non-compliance, the service life may be negatively affected and the warranty service may possibly become limited. The cost allocation for maintenance work is regulated nationally. Consult your authorized BERNINA dealer or your service center for more details.</p>
#1002	The button Needle position Up/Down is stuck or defective.	<ol style="list-style-type: none"> <li>1. Make sure that the button can be operated without restriction.</li> <li>2. If the error still occurs, contact your BERNINA dealer.</li> </ol>

Message	Cause	Solution
#1003	The button Start/Stop is stuck or defective.	<ol style="list-style-type: none"><li>1. Make sure that the button can be operated without restriction.</li><li>2. If the error still occurs, contact your BERNINA dealer.</li></ol>
#1004 #1005 #1010	The exact cause of the malfunction cannot be determined.	<ol style="list-style-type: none"><li>1. Restart the machine.</li><li>2. If the error still occurs, contact your BERNINA dealer.</li></ol>



---

## 11.1 Storing the Machine

BERNINA recommends that you store the machine in its original packaging. If the machine is stored in a cold room, place the machine in a warm room for one hour before use.

1. Switch off the machine and disconnect it from the power supply.
2. Clean the machine.
3. Don't store the machine outdoors.
4. Protect the machine against climatic influences.

---

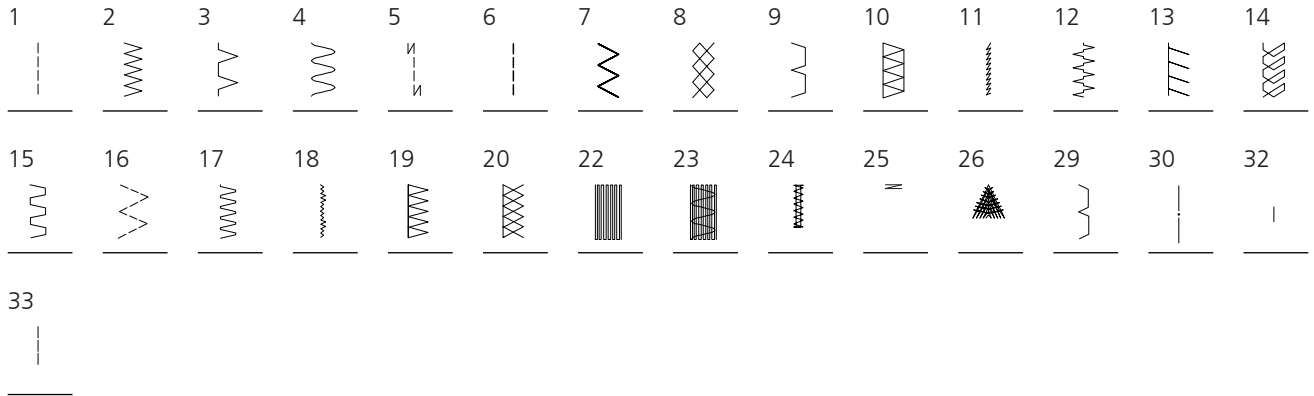
## 11.2 Dispose of the Machine

1. Delete personal data on the machine.
2. Sort components by material and dispose of in accordance with local laws and regulations.

Term	Value	Unit
Maximum Speed	900	Stitches per Minute
Needle System	130/705	
Measurements without the Spool Pin (W × D × H)	385 × 323 × 177 (15.2 × 12.7 × 7.0)	mm (inch)
Weight of the Machine	8.0 (17.6)	kg (lb)
Energy Consumption	100	W
Input Voltage	100 – 240 50/60	V Hz
Protection Class (Electrical Engineering)	II	

# 13 Stitch Patterns

## 13.1 Practical Stitches

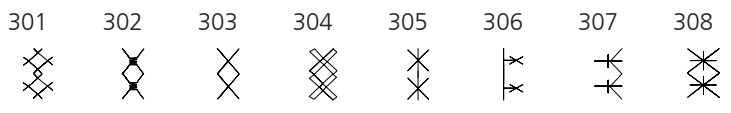


## 13.2 Decorative Stitches

### Nature



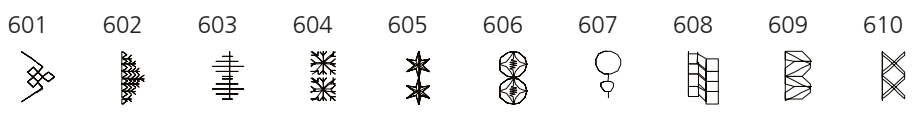
### Cross Stitches



### Satin

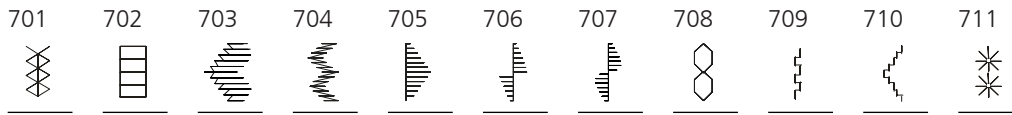


### Geometric

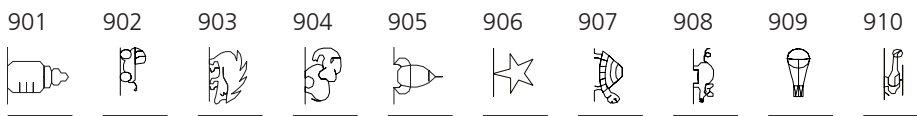


# 13 Stitch Patterns

## Heirloom



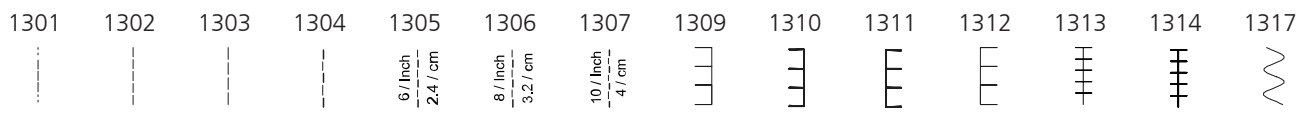
## Children



## 13.3 Buttonholes



## 13.4 Quilting Stitches



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