

# INSTRUCTION MANUAL



Model Memory Craft 9900



# IMPORTANT SAFETY INSTRUCTIONS

Whenever you use this machine, take certain basic safety precautions: The sewing machine has been designed and manufactured for domestic use only. Read all instructions before using this machine.

**DANGER:** To reduce the risk of electric shock:

1. Never leave the machine unattended whilst it is plugged in. Always unplug the machine from the mains socket when you have finished using it and before cleaning it.

**WARNING:** To reduce the risk of burns, fire, electric shock or personal injury:

1. Do not allow anyone to use the machine as a toy. Take special care when the sewing machine is being used by or near children.
2. Use the machine only for the purposes described in this manual.  
Use only the accessories recommended by the manufacturer and listed in this instruction manual.
3. Never use this sewing machine if the plug or cable is damaged, if it is not working properly, if it has been knocked or damaged, or if it has been dropped into water. Send this machine to your nearest shop or service centre if it needs to be inspected, repaired or subjected to electrical or mechanical adjustments.
4. Never use the machine if any of the ventilation openings are blocked. Keep the ventilation openings on this machine and the foot control free from lint, dust and fabric scraps.
5. Do not drop or insert any objects into any openings.
6. Do not use the machine outdoors.
7. Do not use the machine where aerosol products are being used or where oxygen is being administered.
8. To switch off, set all controls to the OFF ("O") position and unplug the machine.
9. Do not pull on the cable to unplug the machine. To unplug the machine, hold the plug, not the cable.
10. Keep your fingers away from all moving parts. Take particular care around the needle area.
11. Always use the correct needle plate. An incorrect plate may cause the needle to break.
12. Do not use bent needles.
13. Do not pull or push the fabric whilst stitching. The needle may veer off course and break.
14. Switch off this sewing machine ("O") whenever you need to make adjustments in the needle area, such as threading the needle, changing the needle, threading the bobbin, changing the presser foot and similar operations.
15. Unplug the machine whenever you need to remove a cover, lubricate it, or carry out any other repairs mentioned in this instruction manual.

## KEEP THESE INSTRUCTIONS

### **For Europe only:**

This appliance may be used by children aged 8 years and over and by persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge, provided they have been supervised or have received instructions on how to use the appliance safely and understand the hazards involved. The appliance must not be used as a toy. Children must not clean or maintain the appliance without supervision.

### **For regions outside Europe (excluding the USA and Canada):**

This machine is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they are supervised or have received instructions regarding the use of the machine from a person responsible for their safety. Children must be supervised to ensure that they do not play with the machine.



Please note that when you wish to dispose of this product, you must recycle it safely in accordance with national legislation relating to electrical and electronic products. If you have any questions, please contact the distributor (applicable only within the European Union).

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## CUSTOMISING THE MACHINE SETTINGS

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## CARE AND MAINTENANCE

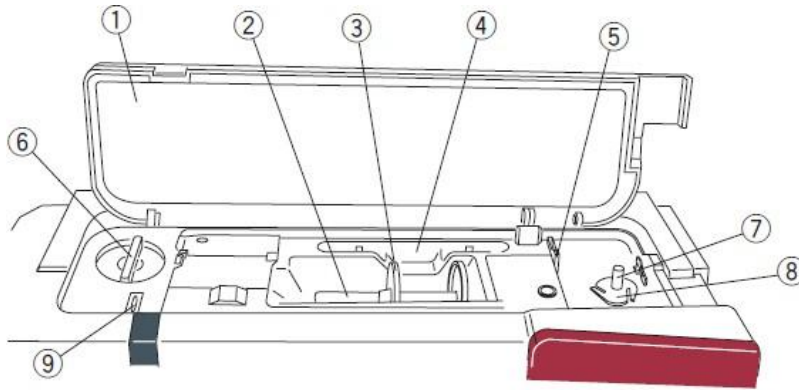
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## STITCH TABLE

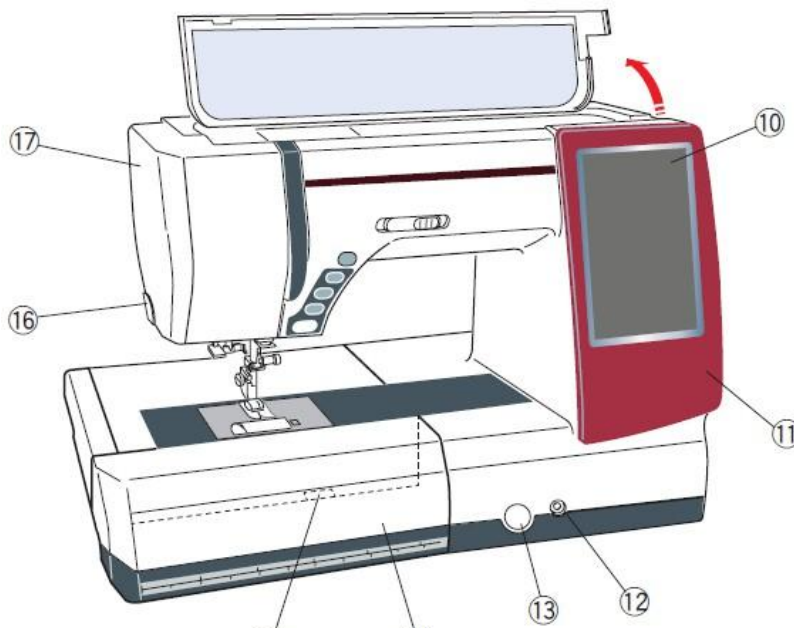
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## PREPARATIONS BEFORE SEWING

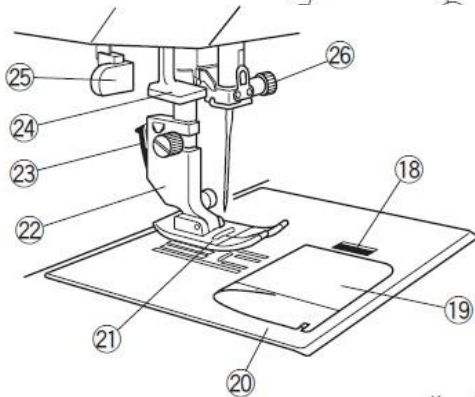
### Names of the parts



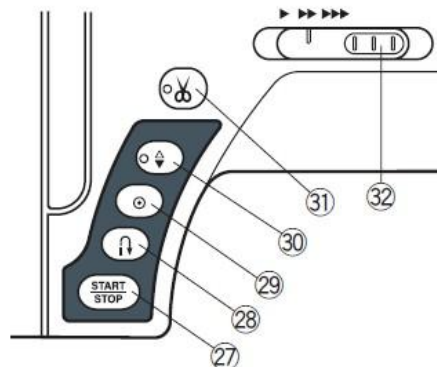
- 1 Top cover
- 2 Spool holder
- 3 Spool holder (large)
- 4 Touch panel stylus holder
- 5. Thread cutter for bobbin B
- 6 Presser foot pressure indicator
- 7 Bobbin winder
- 8 Thread cutter for bobbin A
- 9 Thread take-up lever

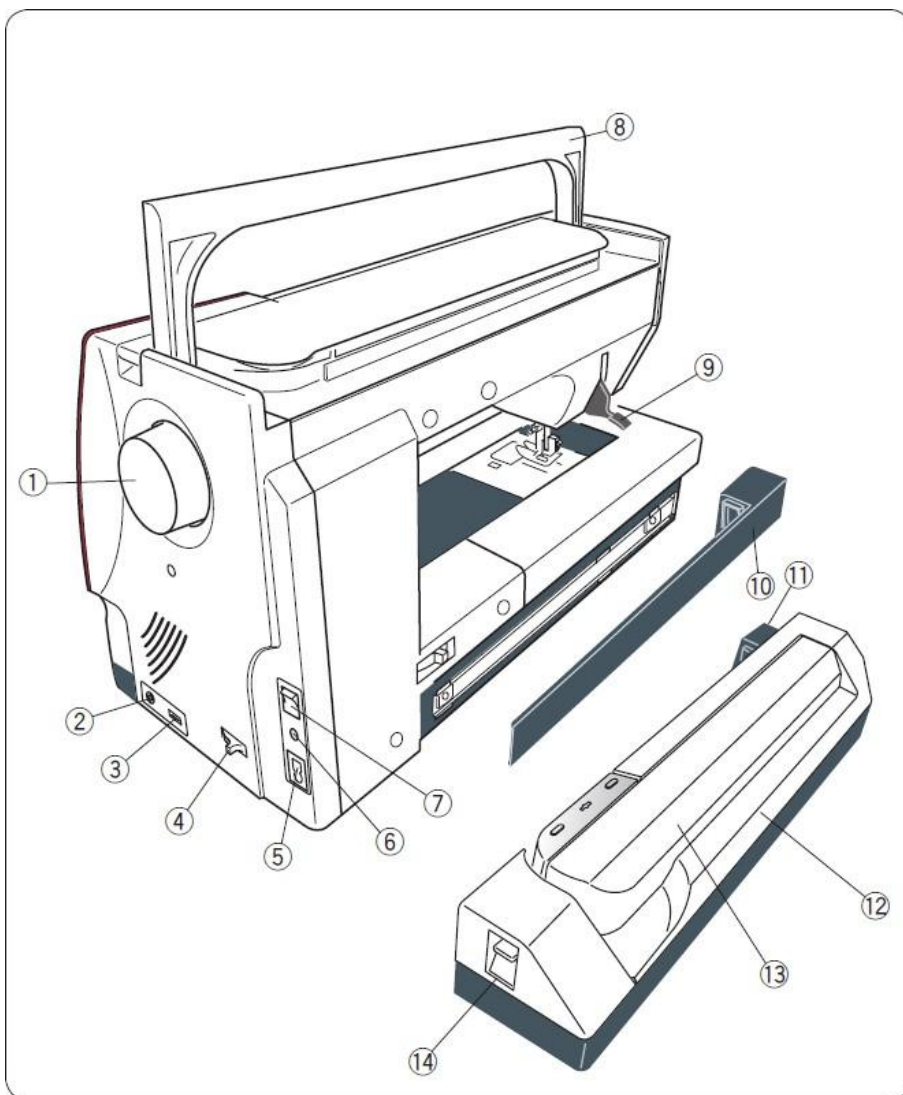


- 10 Touchscreen
- 11 Interchangeable frame
- 12 Knee lift... connector
- 13 Fabric shift balance selector cover
- 14 Extension table (accessory storage)
- 15 Needle plate release lever
- 16 Thread cutter
- 17 Front plate

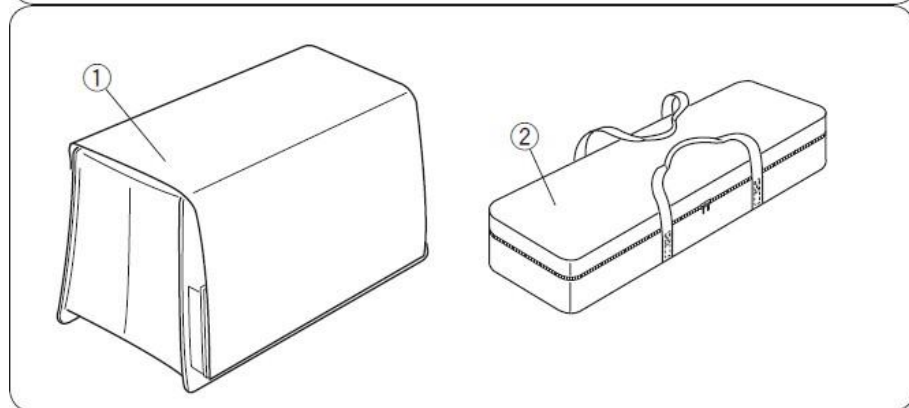


- 18 Spool holder cover release button
- 19 Bobbin holder cover
- 20 Needle plate
- 21 Zigzag foot A
- 22 Presser foot holder
- 23 Presser foot screw
- 24 Needle threader
- 25 Buttonhole lever
- 26 Needle clamp screw
- 27 Start/stop button
- 28 Reverse button
- 29 Auto-lock button
- 30 Needle up/down button
- 31 Thread cutter button
- 32 Speed control dial

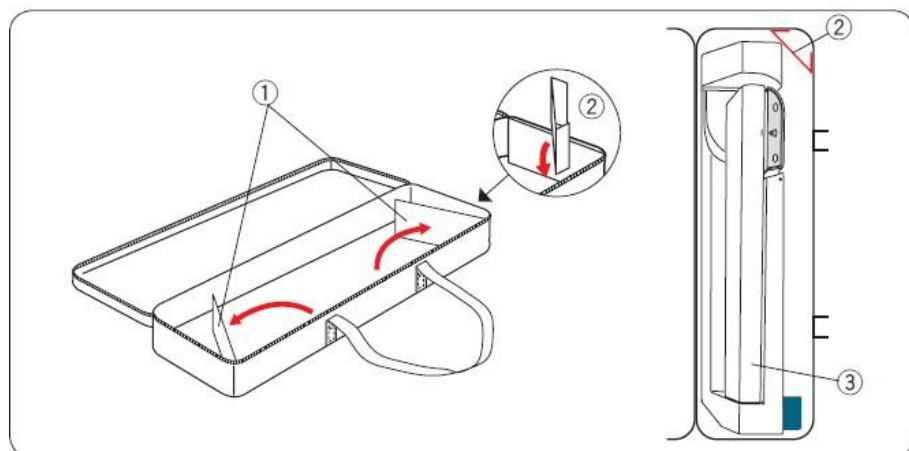




- 1 Handwheel
- 2 Connector for external thread cutter switch
- 3 USB ports
- 4 Lever for lowering the feed dogs
- 5 Power inlet socket
- 6 Connector for foot control
- 7 Power switch
- 8 Carrying handle
- 9 Presser foot lifter
- 10 Cover
- 11 Embroidery unit connector
- 12 Embroidery unit
- 13 Carriage arm
- 14 Carriage arm release lever



- 1 Semi-hard fabric cover
- 2 Carry case

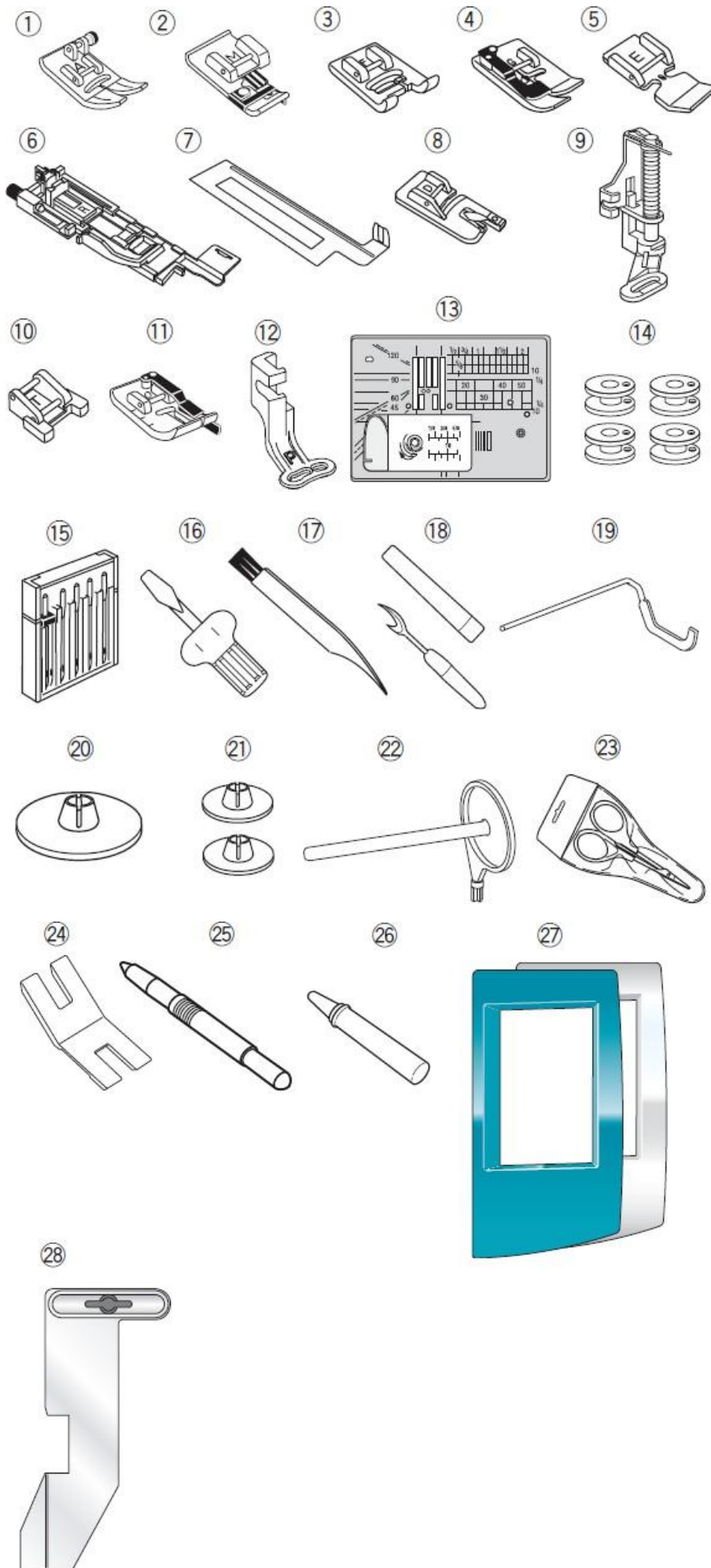


### Carry case

**To use:**

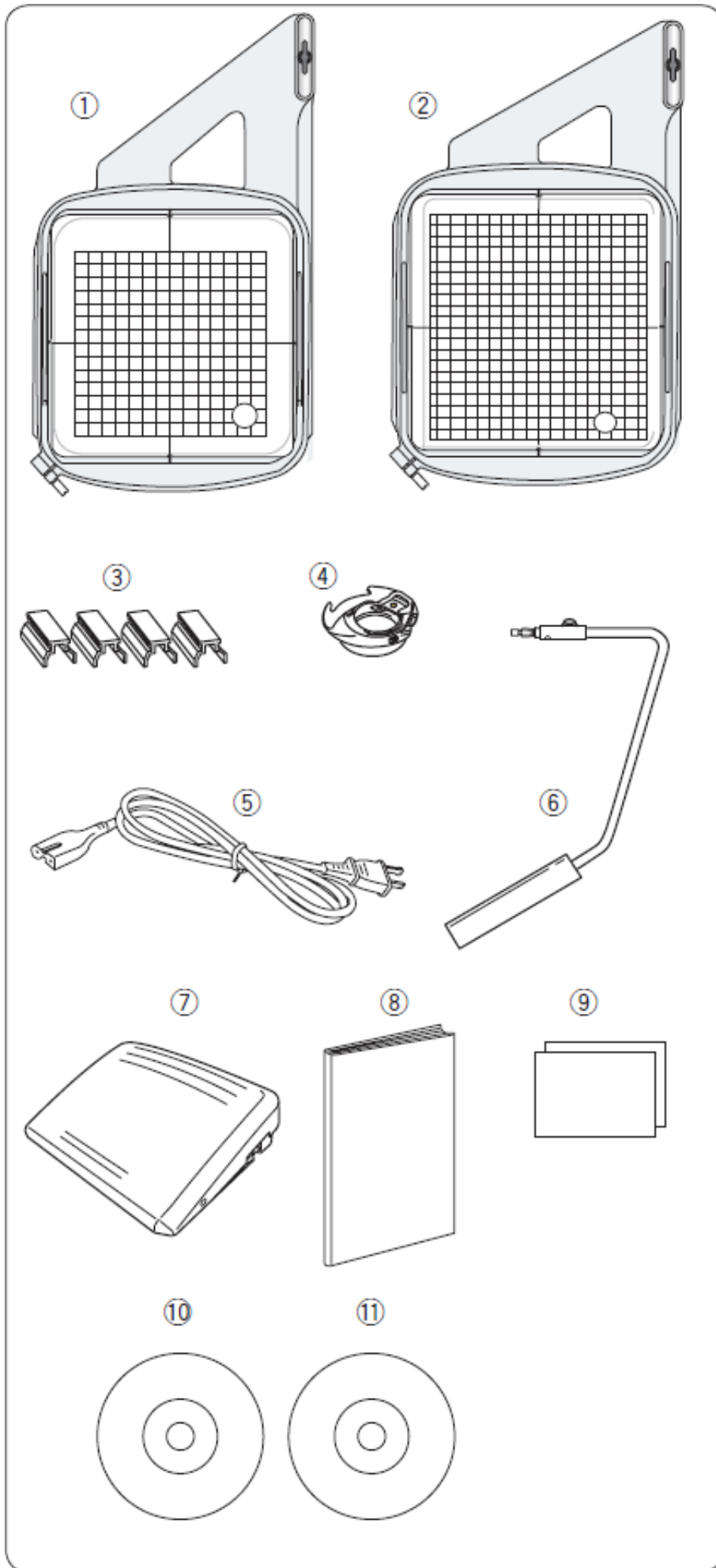
Open the lids. Position the support as shown. Place the embroidery unit as shown so that the support prevents the embroidery unit from swaying during transport.

- 1 Lids
- 2 Support
- 3 Embroidery unit

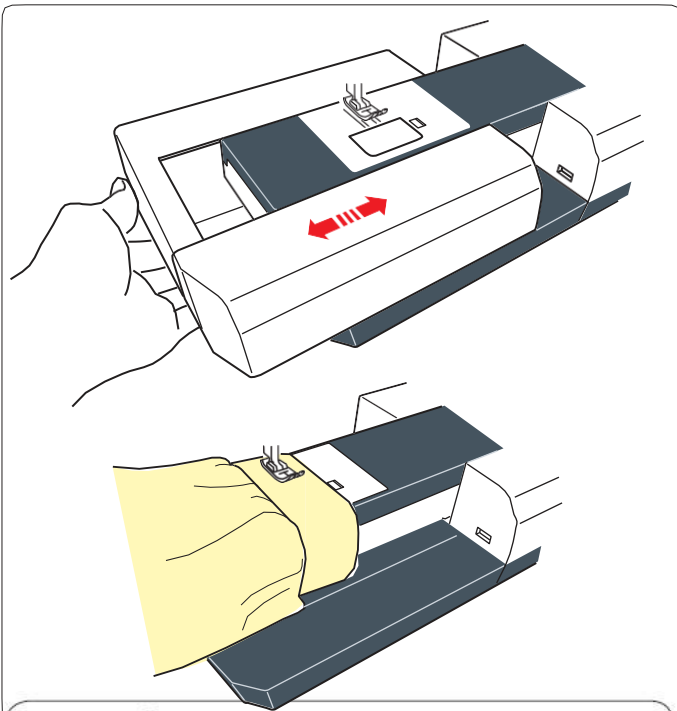


## Standard accessories

- 1 Zigzag foot A (fitted to the machine)
- 2 Overlock foot M
- 3 Filling stitch foot F
- 4 Blind hem foot G
- 5 Zipper foot E
- 6 Automatic buttonhole foot R
- 7 Stabiliser plate
- 8 Rolled hem foot D
- 9 Darning foot PD-H
- 10 Button sewing foot T
- 11 0.6 cm seam foot O
- 12 Embroidery foot P
- 13 Straight stitch needle plate
- 14 Bobbins (5 pieces) (1 in the machine)
- 15 Set of needles
- 16 Screwdriver
- 17 Lint brush
- 18 Seam ripper (buttonhole opener)
- 19 Quilting guide bar
- 20 Bobbin holder (Large)
- 21 Bobbin holder (small)
- 22 Second bobbin holder
- 23 Scissors
- 24 Button plate
- 25 Touchscreen stylus
- 26 Oil
- 27 Interchangeable frame x2 (Metallic green, Pearl white)
- 28 Fabric guide



- 1 SQ14a embroidery hoop (with template)
- 2 SQ20a embroidery hoop (with template)
- 3 Magnetic holders (4)
- 4 Embroidery spool holder
- 5 Power cable
- 6 Knee lift
- 7 Foot control
- 8 Instruction manual
- 9 Key icon reference chart
- 10 Instruction DVD
- 11 Templates CD



### Extension table

The extension table provides an additional sewing surface that can be easily removed for free-arm sewing.

#### Removal:

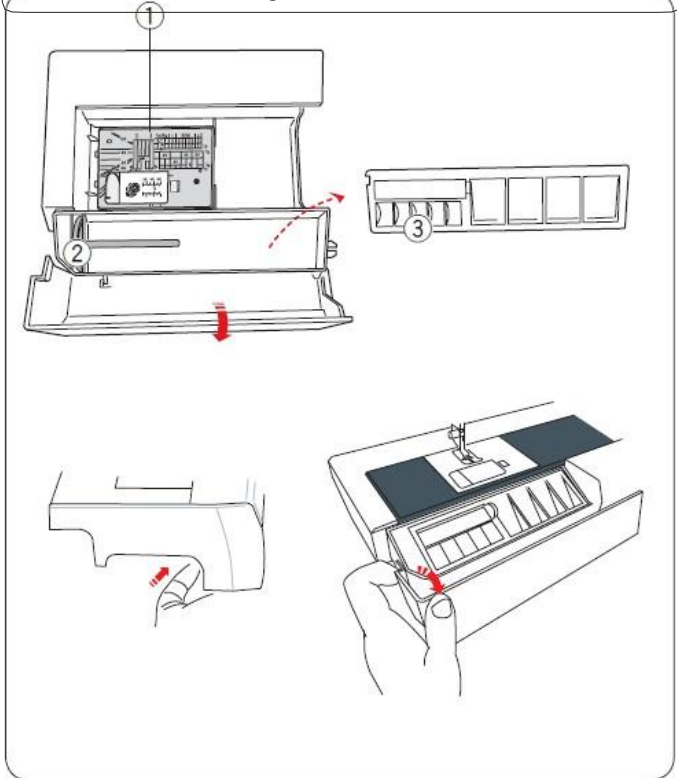
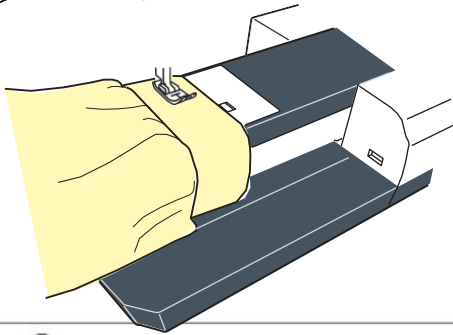
Remove the table by pulling it to the left.

#### Fitting:

Slide the table onto the base and push it to the right.

#### Free-arm sewing

Free-arm sewing is used for sewing sleeves, waistbands, leg openings or the tubular parts of any garment. It is also used for darning socks or elbow patches.



### Storing accessories

Accessories can be conveniently stored in the compartment inside the extension table.

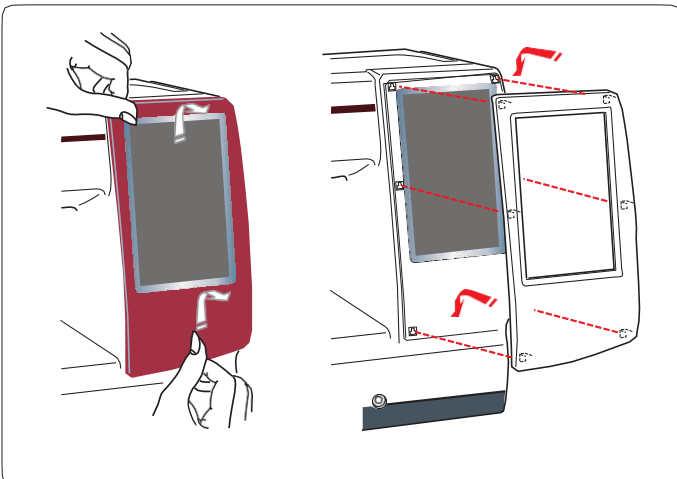
Pull the lid towards you to open the accessory compartment.

1 Straight stitch needle plate

2 Second bobbin holder

3 Bobbins

Other accessories can be stored in the compartment under the cover.



### Interchangeable frame

The interchangeable frame can be replaced with the interchangeable frames provided (Pearl White and Metallic Green).

#### To remove:

Hold the interchangeable frame with your hand and slide it upwards.

Remove the clips from the holes to remove the frame.

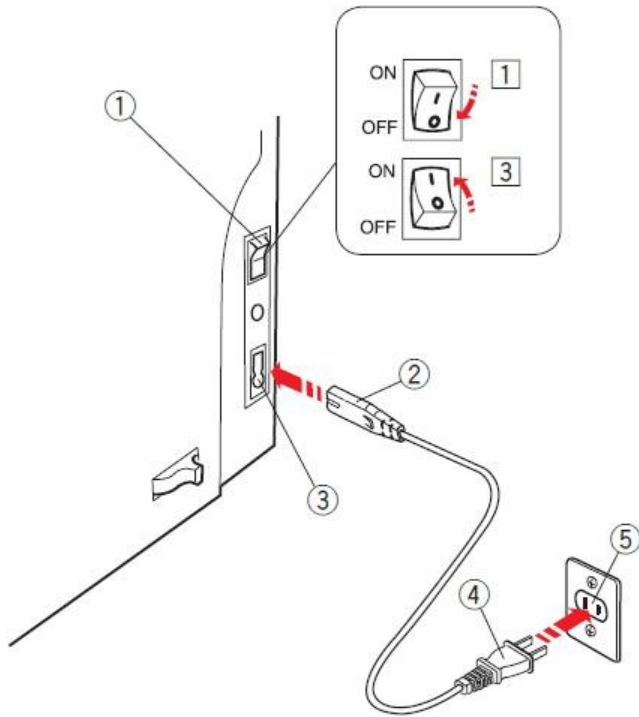
#### To fit:

Align the hooks with the holes.

Press the frame against the machine and slide it downwards, following the line of the machine, until it clicks into place.

## Connecting to the power supply

- 1 First, make sure that switch 1 is in the off position.
- 2 Connect one end of the power cable 3 to the machine's socket 2.
- 3 Insert the power plug 4 into the mains socket 5, and set the power switch 1 to the on position.
  - 1 Power switch
  - 2 Machine socket
  - 3 Machine socket
  - 4 Power plug
  - 5 Mains plug



### NOTES:

Use only the power cable supplied with the machine.  
If you switch off the power switch, wait 5 seconds before switching it back on.

### ⚠ CAUTION:

While the machine is in operation, keep an eye on the sewing area and do not touch any moving parts, such as the thread take-up lever, the handwheel or the needle. Always switch off the power switch and unplug the machine from the mains:

- When leaving the machine unattended.
- When you are going to attach or remove a part.
- When cleaning the machine. Do not place any objects on the foot control.

If you wish to use the foot control, remove the foot control cable and insert the plug into the machine's socket.

- 1 First, ensure that switch 1 is in the off position.
- 2 Connect one end of the power cable 3 to the machine's socket 2.
- 3 Remove the pedal cable and insert the plug connector 4 into the machine's connector 5.
- 4 Insert the power plug 6 into the mains socket 7, and set the power switch to the on position 1.

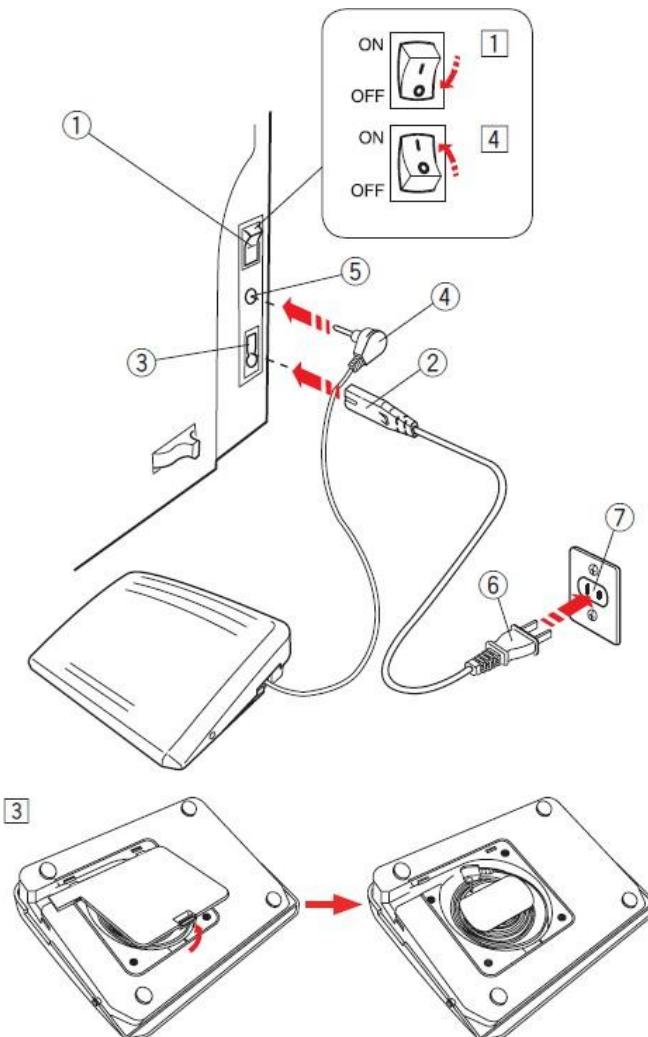
- 1 Power switch
- 2 Machine plug
- 3 Machine socket
- 4 Pedal connector
- 5 Connector
- 6 Power plug
- 7 Wall socket

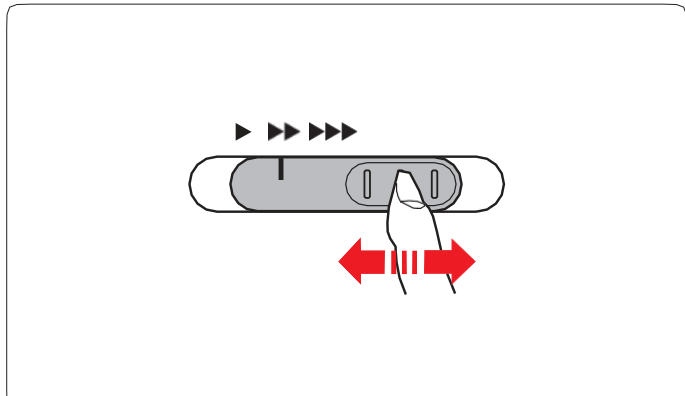
### NOTE:

The start/stop button does not work when the pedal is connected.

### Instructions for use:

The "O" symbol on a switch indicates the "off" position of the switch.





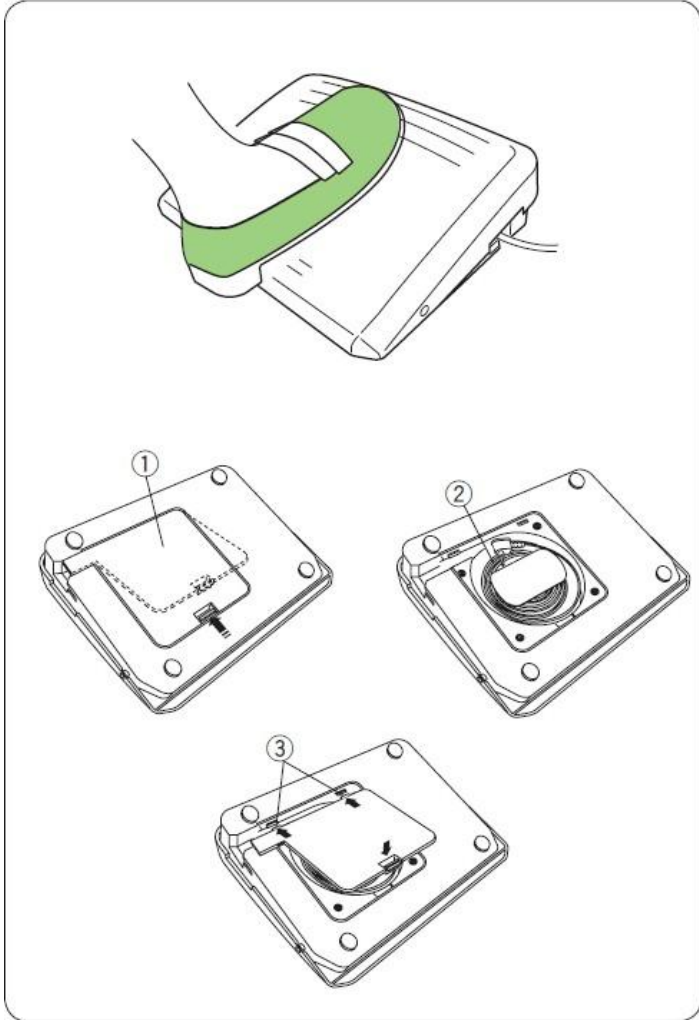
## Sewing speed control

### Speed control dial

You can adjust the maximum sewing speed for normal sewing and embroidery modes using the speed control dial to suit your needs.

To increase the sewing speed, turn the control dial to the right.  
To reduce the sewing speed, turn the dial to the left.

You can change the sewing speed whilst sewing.



### Foot control

You can vary the sewing speed by pressing the foot control. The more you press the foot control, the faster the machine will run.

#### NOTES:

The machine runs at the maximum speed set with the speed control dial when the pedal is pressed fully down. This sewing machine is equipped with an automatic shut-off function to prevent overheating. Follow the safety instructions displayed on the touchscreen

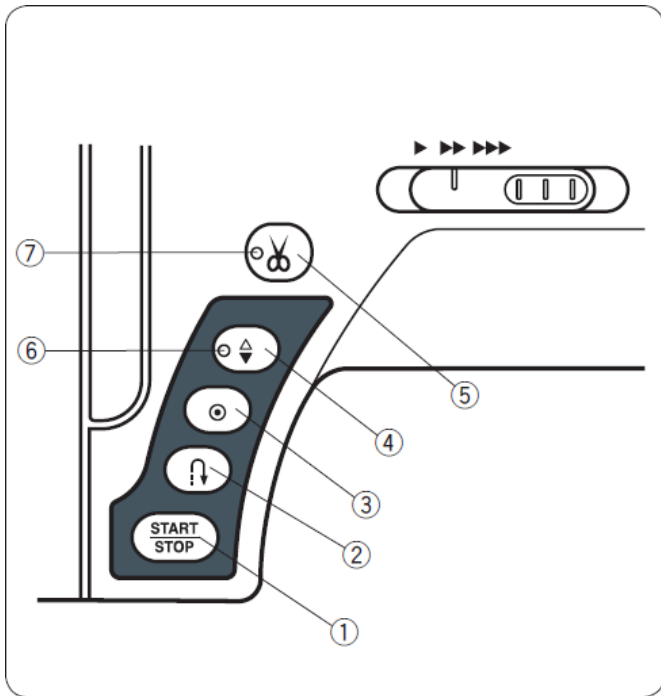
### Cable storage

The foot control cable can be conveniently stored in the cable storage compartment under the foot control base cover.

- 1 Table cover
- 2 Cable
- 3 Threading device

### Instructions for use:

The Model 21380 foot control is used with this sewing machine.



## Machine buttons

### 1 Start/stop button

Press this button to start or stop the machine.

The machine will sew the first few stitches slowly and then accelerate to the speed set with the speed control dial. The machine will continue to run at low speed whilst the button is held down.

The button will be red whilst the machine is running, and will turn green when it stops. Hold this button down whilst sewing to reduce the sewing speed and stop the machine once you release the button.

#### NOTES:

- The start/stop button cannot be used whilst the foot control is connected to the machine.
- You can select the desired start speed from low, normal or high (see page 79).

### 2 Reverse button

When sewing stitch patterns U1, U4, U9, U10, Q1-3 or BR1-5, the machine will sew in reverse whilst the reverse button is pressed.

If stitch pattern U1, U4, U9, U10, Q1-3 or BR1-10 has been selected and the foot control is not connected, the machine will sew in reverse whilst the reverse button is pressed.

If you press the reverse button whilst another pattern is selected, the machine will immediately sew a few locking stitches and stop automatically.

### 3 Automatic stop button

When sewing stitch patterns U1, U4, U9, U10, Q1-3 or BR1-5, the machine will sew a few locking stitches and stop automatically when the automatic locking button is pressed.

If any other patterns are being sewn, the machine will sew to the end of the current pattern, add a few locking stitches and stop automatically.

The machine will automatically trim the threads after securing the stitch when the "Cut Thread after Auto-Lock" option is turned on (see page 81).

### 4 Needle Up/Down button

Press this button to lower and raise the needle bar. The machine will stop with the needle in the down position.

However, you can change the needle stop position in setup mode (see page 79).

#### NOTE:

The LED indicator lights up when the down position is selected, and vice versa.

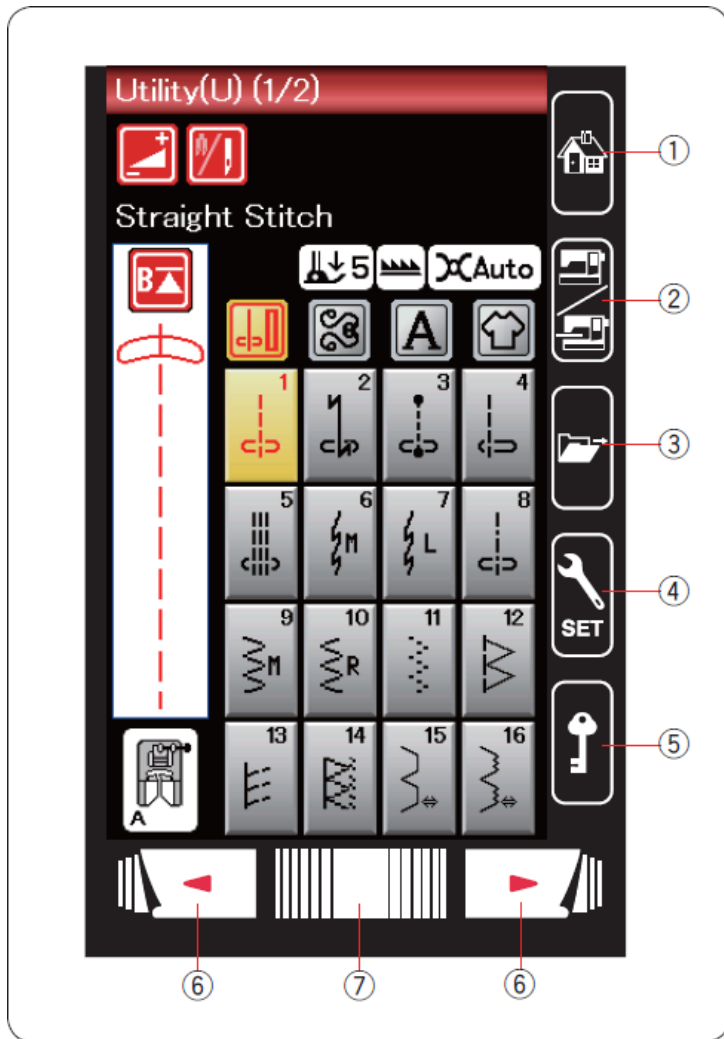
### 5 Thread cutter button

Press this button when you have finished sewing to cut the threads. The needle bar and presser foot rise automatically after the threads are cut.

See page (see page 28).

#### NOTES:

- The u LED flashes when the machine trims the threads.
- The u LED indicator lights up when the "Cut thread after Auto-Stop" option is set to ON in setup mode (see page 81).
- Use the thread cutter on the front cover if the thread gauge is #30 or thicker.



## Touchscreen buttons

### CAUTION:

Do not press the panel surface or touch screen with hard or sharp objects such as pens, screwdrivers or similar items. Use the touch screen stylus included with the standard accessories.

#### 1 Home key

Press this button to return to the home screen in normal sewing or embroidery mode.

#### 2 Mode switch button

Press this key to enter embroidery mode or return to normal sewing mode.

#### 3 File Open button

Press this key to open the file selection window. You can open pattern combinations saved in the machine's internal memory and on USB drives.

#### 4 Settings mode key

Press this key to enter setup mode. You can customise the machine settings to suit your preferences. The machine settings relating to general settings, normal sewing, embroidery and language selection can be accessed in this mode (see pages 75–81 and 114–116).

#### 5 Lock key

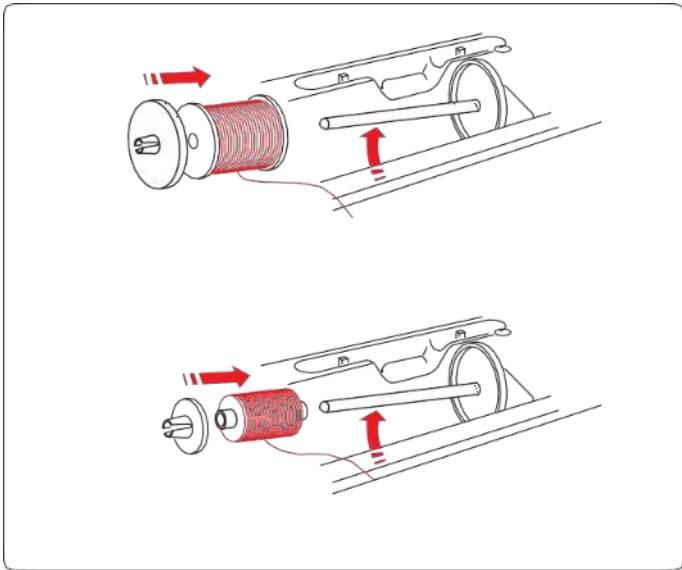
Press this key to lock the machine when you need to thread the machine, change accessories, etc. To reduce the risk of injury, all buttons and keys, except the presser foot lifter button, are disabled. To unlock the machine, press this key again.

#### 6 Page keys

Press the page key to display the next or previous page. Hold down the page key to scroll continuously through the pages.

#### 7 Touch bar

Press the left or right end of the bar to display the next or previous page.



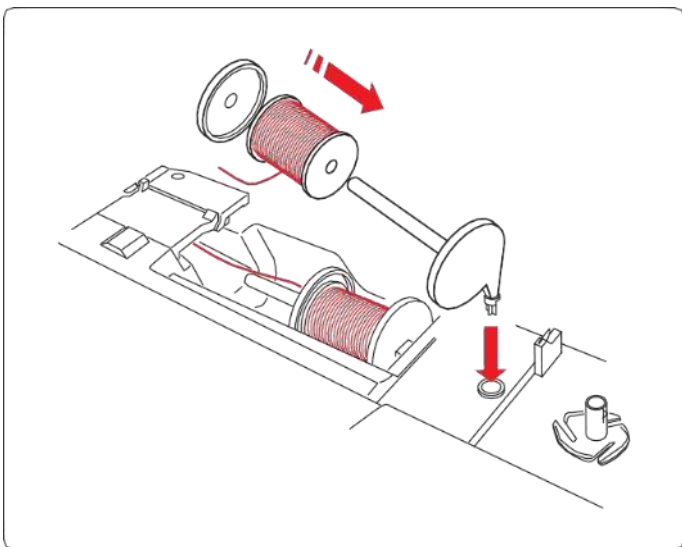
### Inserting the thread spool

Open the top cover.

Lift the spool pin. Place the thread spool in the spool holder. Place the large spool cap on top and press it firmly against the thread spool.

**NOTE:**

Use the small spool cap for narrow or small spools.



### Second spool holder

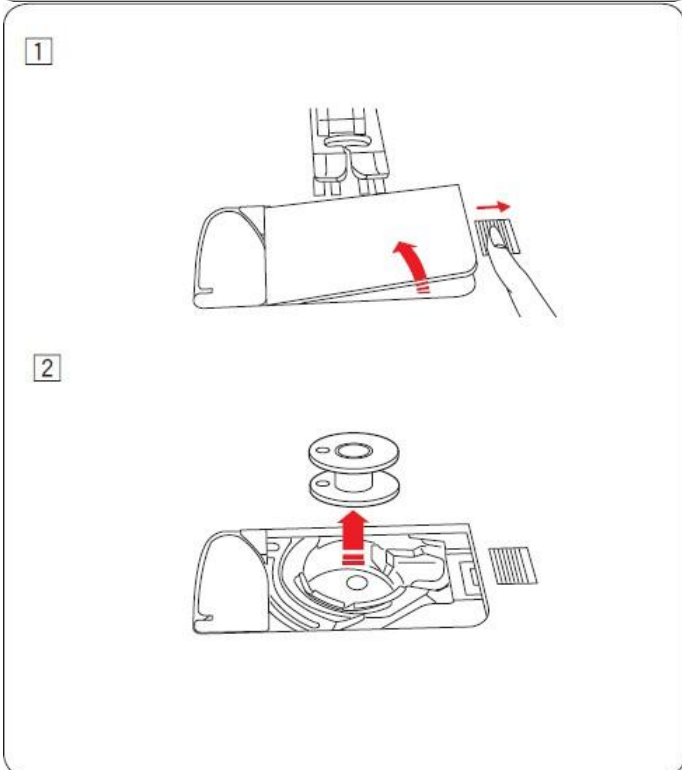
Use the bobbin holder if you need to wind a bobbin without unthreading the machine whilst you are working.

Insert the second bobbin holder into the hole in the presser foot storage compartment as shown.

Place a spool of thread in the second spool holder and secure the spool with the spool cap.

**NOTE:**

The second bobbin holder is also used for twin-needle sewing.



### Winding the bobbin

#### Removing the bobbin

**CAUTION:**

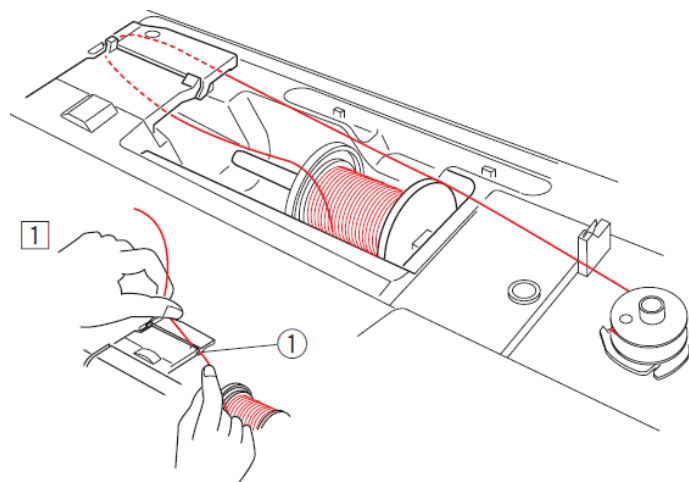
Press the lock button or set the power switch to the off position.

1 Move the spool holder cover release button to the right and remove the cover.

2 Remove the spool from the spool holder.

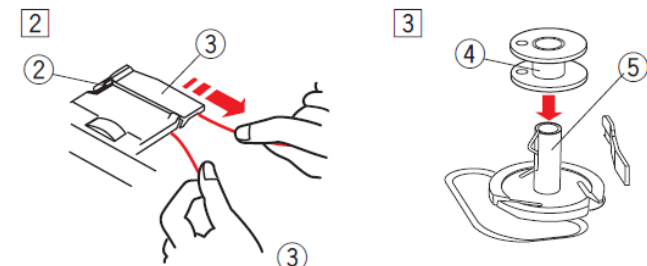
**NOTE:**

Use Janome plastic bobbins for the horizontal bobbin case (marked with a "J"). Using other bobbins, such as pre-wound paper bobbins, may cause stitching problems and/or damage the bobbin case.

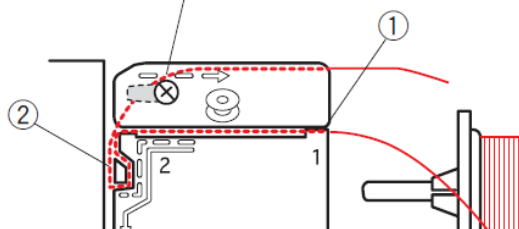


## Winding the bobbin

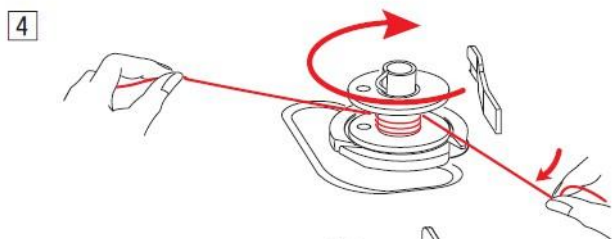
1 Pull thread from the spool.  
 Hold the thread with both hands and pass it through guide slot 1.  
 1 Guide slot



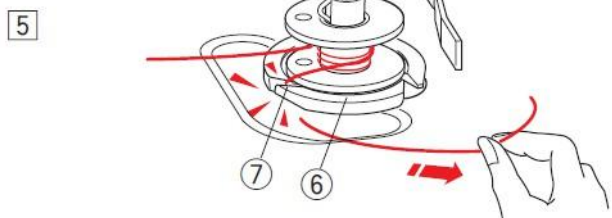
2 Bring the thread out on the left-hand side and pass it round the front, around the thread guide 2.  
 Pull the thread out from the back and pass it through the right-hand side, underneath the guide plate 3.  
 Pull the thread firmly to the right whilst holding it with both hands.  
 2 Thread guide  
 3 Guide plate



3 Place the bobbin on the bobbin winder.  
 4 Spool  
 5 Bobbin winder



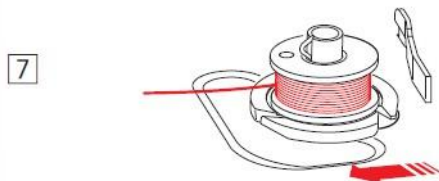
4 Thread the thread through the bobbin.  
 Hold the thread with both hands and wind it repeatedly around the bobbin in a clockwise direction.



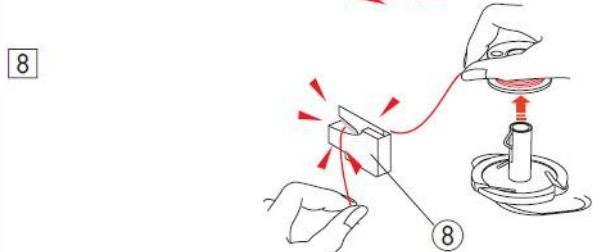
5 Insert the thread into one of the slots 7 on the support plate 6 and pull the thread to cut.  
 6 Support plate  
 7 Slot



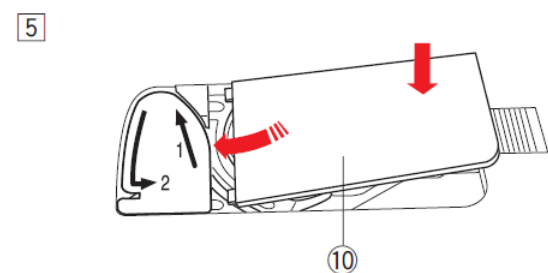
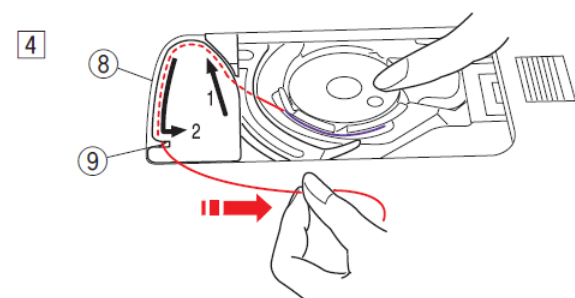
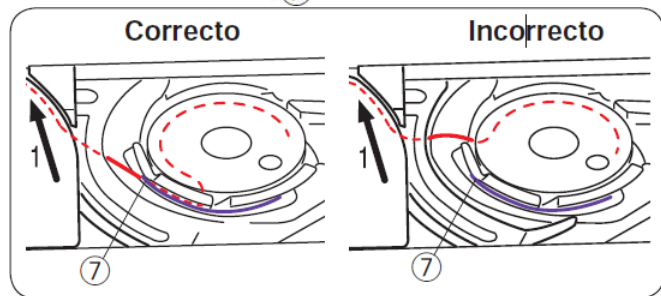
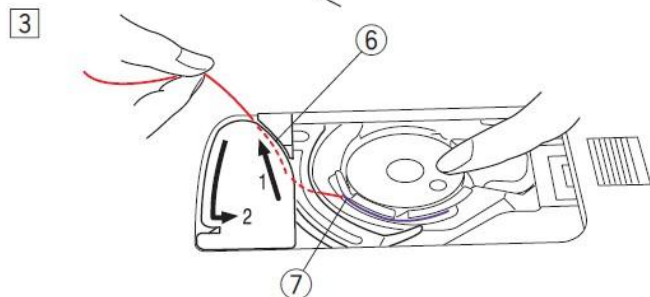
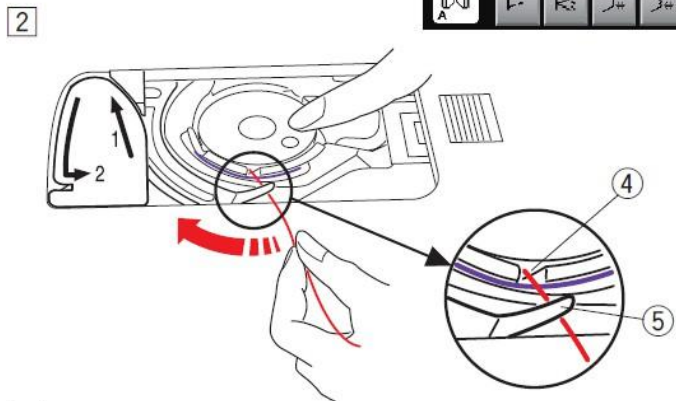
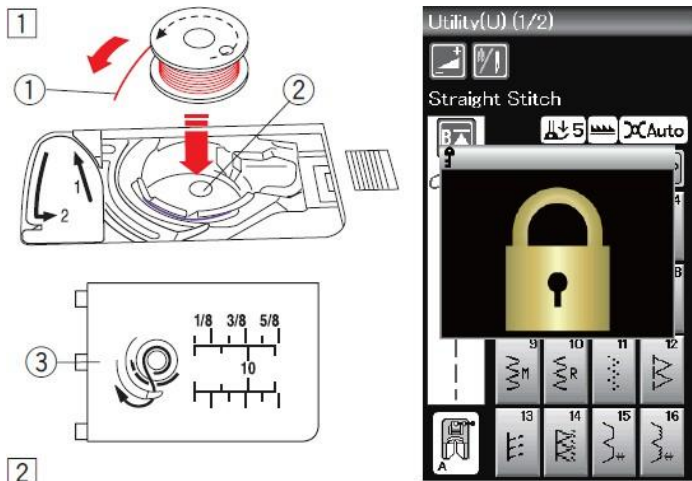
6 Press the spool to the right. The LCD screen will display the spool winding signal.



7 Start the machine. When the spool is fully wound, it will stop rotating automatically.  
 Stop the machine and return the bobbin winder to its original position by moving the winder to the left.



8 Remove the bobbin. Cut the thread using the thread cutter B.  
 8 Thread cutter B



## Inserting the bobbin

1 Press the lock button.

Place a spool in the spool holder with the thread coming out in an anti-clockwise direction, as shown on the spool holder cover.

- 1 End of thread
- 2 Spool holder
- 3 Spool holder cover

2 Hold the spool between your fingertips to stop it from spinning.

Guide the line through the front hole of the spool holder.

Pull the line to the left to pass it under the guide.

- 4 Front hole
- 5 Guide

3 Guide the line to the left to pass it through the guide along the path marked "1".

Make sure the line comes out the other side of the spool holder hole.

- 6 Guide path 1
- 7 Side hole

### NOTE:

If the thread does not come out of the side hole, start again from step 1.

4 Continue feeding the thread along the guide path marked "2" and pull the thread to the left through the slot. The thread will be cut to the correct length and held in place.

- 8 Guide path 2
- 9 Slot (Thread cutter)

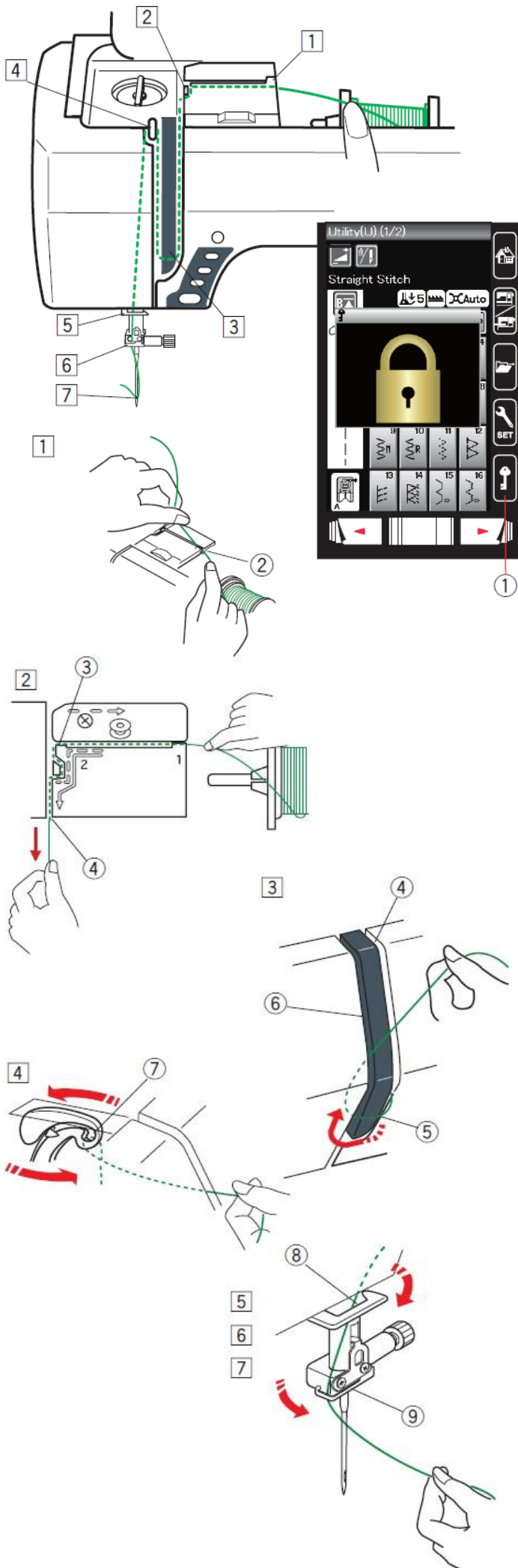
5 Place the left edge of the bobbin cover into the opening. Press the bobbin case down so that it clicks into place.

- 10 Spool holder cover

### NOTE:

Unless otherwise stated, you can start sewing without bringing the thread up from the bobbin.

See page 15 for instructions on how to bring the bobbin thread up.



## Threading the machine

Press the needle up/down button to raise the thread take-up lever to its highest position.

Press the lock button to lock the machine. The presser foot lowers and the upper thread tension discs open.

1 Lock button

Thread the machine in the order shown in steps 1 to 7.

1 Hold the thread with both hands and pass it through the guide slot.

2 Guide slot

2 Pull the thread out from the left-hand side and thread it through the corner of the guide towards you.

Pull the thread firmly, guiding it towards you, through the right-hand channel until the thread makes a clicking sound.

3 Guide corner

4 Right channel

3 Pass the thread through the right-hand channel and around the underside of the thread guide plate.

Pull the thread upwards along the left channel.

4 Right channel

5 Thread guide plate

6 Left channel

4 While holding the thread on the spool, pull the thread firmly upwards and pass it through the back of the thread pull lever. Pull the thread out through the front and insert it into the eye of the thread pull lever.

7 Eye of the thread pull lever

5 Next, pull the thread down through the left-hand channel and the lower thread guide.

8 Lower thread guide

6 Pass the thread through the needle bar thread guide on the left.

9 Needle bar thread guide

7 Thread the needle using the needle threader (see next page).

## Needle threader

### NOTE:

The needle threader can be used with needles from size 11 to size 16.

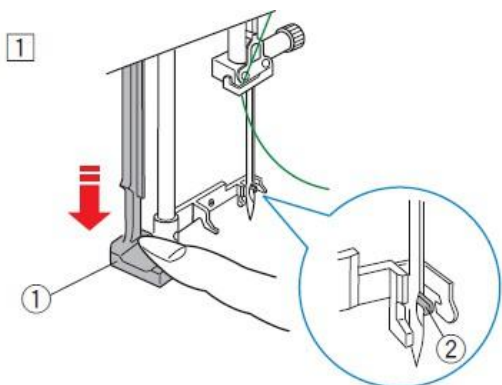
We recommend using thread sizes between 50 and 90.

Make sure the machine is locked. Lower the presser foot.

1 Press the needle threader knob fully in. The threader hook comes out through the eye of the needle from the back.

1 Needle threader knob

2 Threading hook

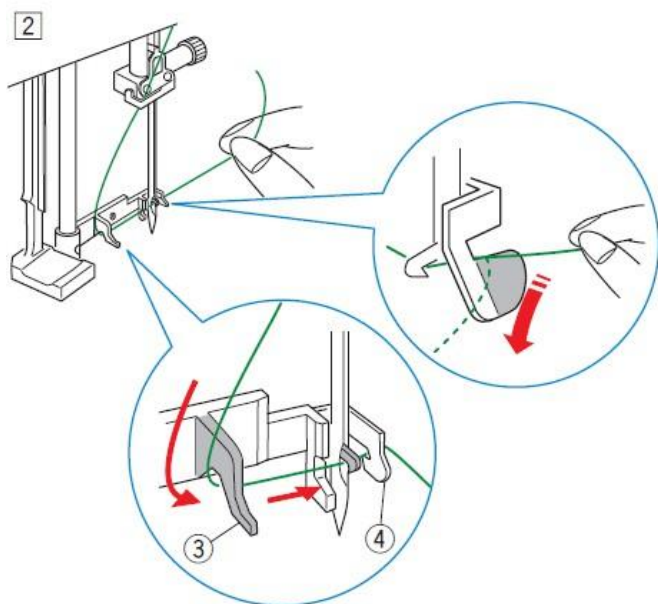


2 Pass the thread from the left side to the right side, under the left guide, the threader hook and the right guide.

Pass the thread around the right guide in its direction.

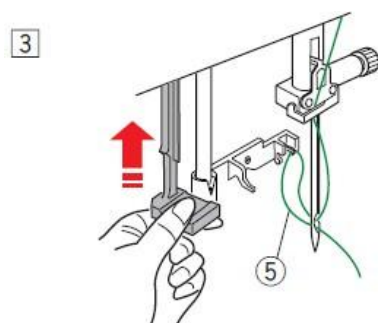
3 Left guide

4 Right guide



3 Slowly raise the threader so that the thread loop comes out through the eye of the needle.

5 Thread loop

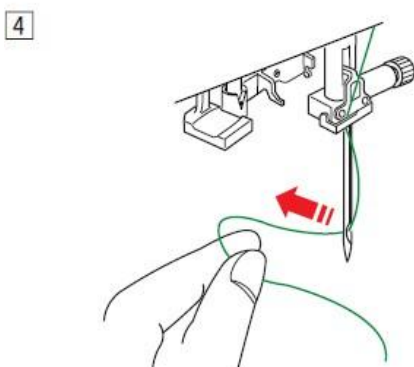


4 Pull the end of the thread out through the back of the needle eye.

Press the lock button to lock.

### NOTE:

The needle threader cannot be used with the twin needle.



## Bringing the bobbin thread up

After using the automatic thread cutter or threading the bobbin, you can start sewing without bringing the bobbin thread up.

However, you will need to bring the bobbin thread up when making gathering stitches, etc.

1 Remove the bobbin. Reinsert the bobbin into the bobbin holder and rethread the bobbin holder following the instructions on page 12, but leave a 10 cm (4") length of bobbin thread as shown.

1 Bobbin thread

### NOTE:

Do not cut the line from the spool with the line cutter. 2 Line cutter

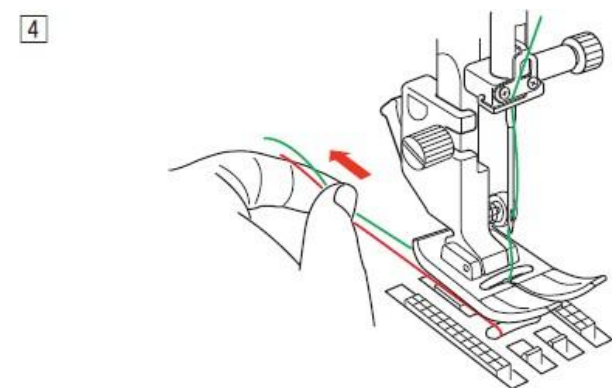
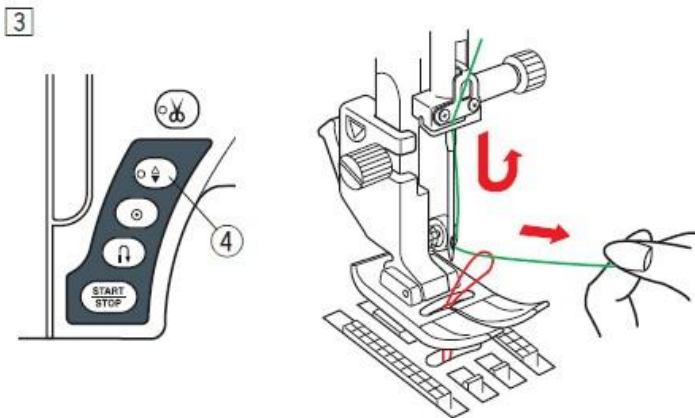
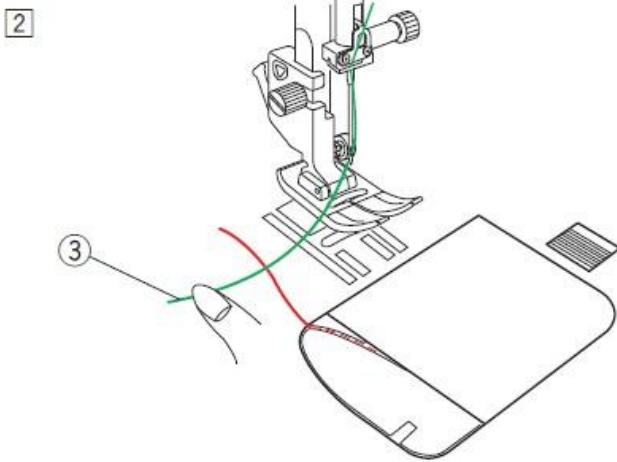
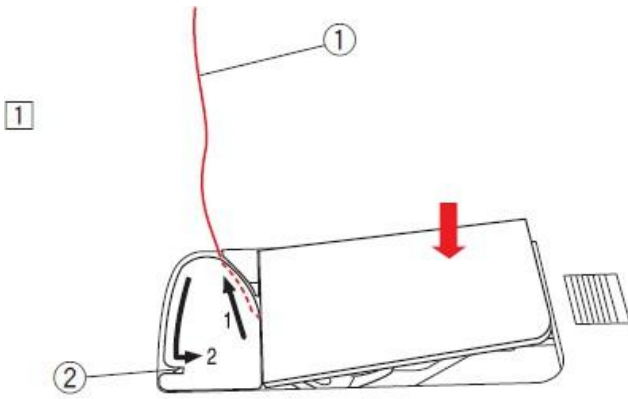
2 Raise the presser foot. Hold the needle lightly with your left hand.

3 Thread needle

3 Press the needle up/down button twice to lower and raise the needle so that it hooks the bobbin thread.

4 Needle up/down button

4 Pull both threads 10 cm (4") down and back from the presser foot.



## Changing the needles

### CAUTION:

Always ensure you press the lock button to lock the machine or turn the power switch to the off position before changing the needle.

Raise the needle by pressing the needle up/down button. Press the lock button.

1 Lock button

Loosen the needle clamping screw by turning it anti-clockwise.

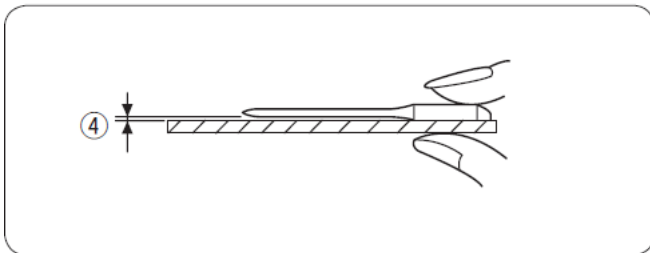
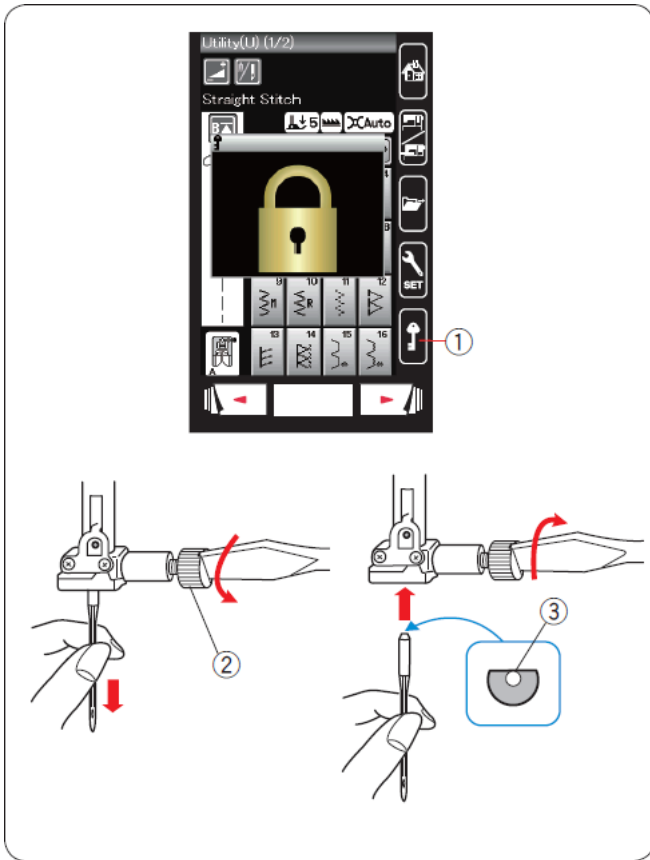
Remove the needle from its holder. 2

Needle clamping screw

Insert a new needle into the holder, with the flat side of the needle facing backwards.

3 Flat side

When inserting the needle into the holder, push it upwards until it reaches the stop pin and tighten the fixing screw firmly with a screwdriver.



To check that the needle is not bent, place the flat side of the needle on a flat horizontal surface (needle plate, glass, etc.). The gap between the needle and the flat surface must remain constant.

4 Clearance

Do not use worn needles.

Fabric		Thread	Needle
Lightweight fabric	Linen Georgette Crepe Knit	Silk #80-100 Cotton #80-100 Synthetic #80-100	#9/65–11/75 Blue needle
Knee-high	Sheet fabric Jersey Wool Knitted fabrics	Silk #50 Cotton #50-80 Synthetic #50-80	#11/75–14/90 Red needle
Heavyweight fabrics	Denim Wool fabrics Linings Quilting	Silk #30-50 Cotton #40-50 Synthetic #40-50	#14/90–16/100 Purple needle

### Fabric and needle chart

- In general, use needle size #11/75 or #14/90.
- Thin threads and needles should be used for sewing thin fabrics.
- Generally, use the same type of thread for the needle and the bobbin.
- Use the blue needle for sewing thin fabrics, stretch fabrics and buttonholes to prevent skipped stitches.
- Use the purple-tipped needle for sewing heavy fabrics, denim, quilt batting and from one end of the hem to the other to prevent skipped stitches.
- Use a stabiliser or interfacing when sewing stretch fabrics or thin fabrics to prevent puckered seams.
- Always test the thread and needle size on a small piece of the same fabric you are going to sew.

### NOTE:

The needle box includes: 1 x double needle, 2 x blue needles (#11/75), 1 x red needle (#14/90) and 1 x purple needle (#14/90).

### For embroidery:

- Generally speaking, use a blue needle.
- Use a red needle for dense stitching.

## Changing the presser foot

### **CAUTION:**

Always ensure you press the lock button to lock the machine or turn the power switch to the off position before changing the presser foot.

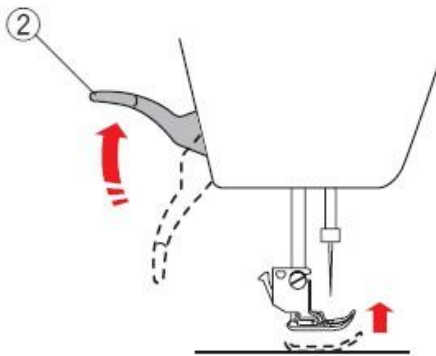
Raise the needle by pressing the needle up/down button.  
Press the lock button.

1 Lock button



Raise the presser foot lifter. 2

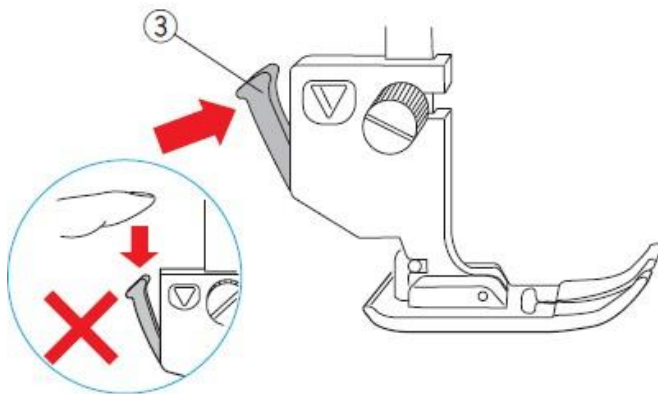
Presser foot lifter



Press the black lever located at the back of the presser foot holder.

The presser foot is released.

3 Lever



### **CAUTION:**

To avoid damaging the lever, do not push it down.

Place the desired foot under the foot holder so that the foot pin is positioned under the slot in the holder.

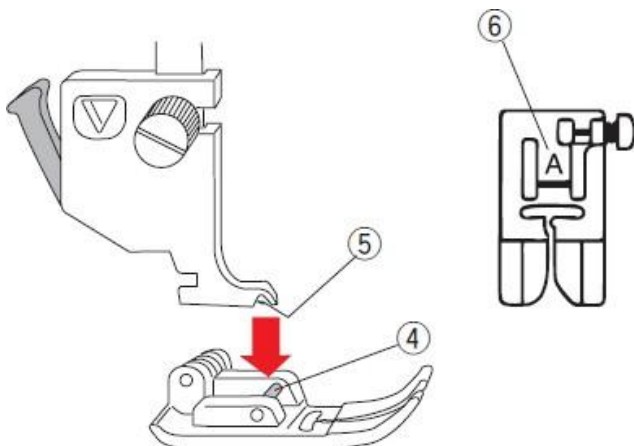
Lower the presser foot lifter to secure the foot in place.

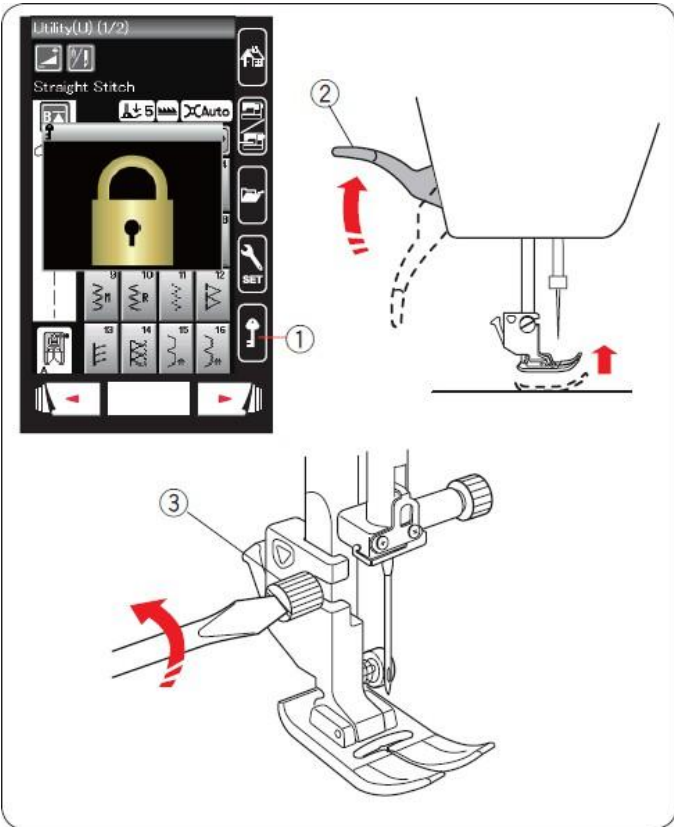
4 Pin

5 Slot

Each foot is marked with an identification letter.

6 Identification letter





## Changing the foot holder

Change the presser foot if you are using the dual feed foot, the darning foot or the embroidery foot.

### **CAUTION:**

Press the lock button to lock the machine before changing the presser foot.

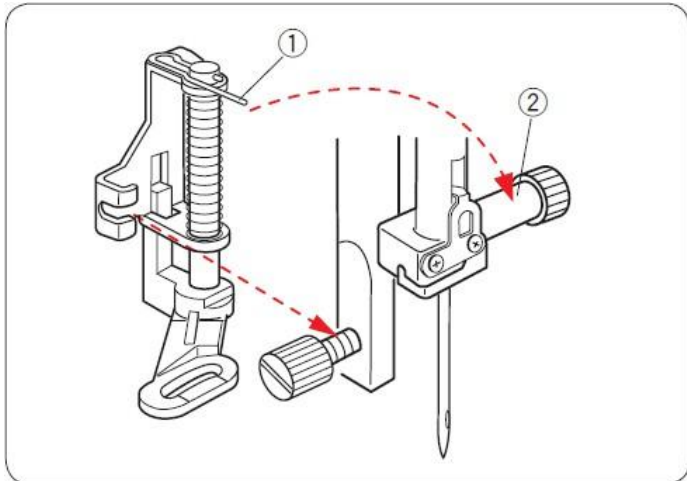
#### Removing the presser foot holder

Raise the needle by pressing the needle up/down button. Press the lock button and raise the presser foot using the presser foot lifter.

- 1 Lock button
- 2 Presser foot lifter

Loosen the wing nut and remove the presser foot holder.

- 3 Wing nut

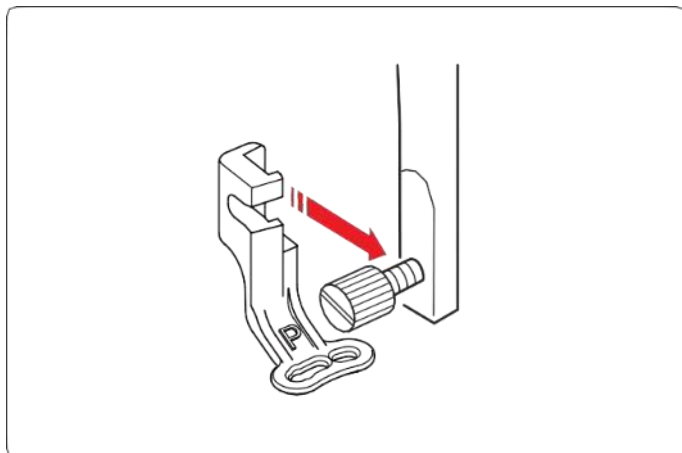


#### Fitting the PD-H darning foot

Fit the PD-H darning foot onto the presser foot bar, inserting the pin into the needle clamp screw.

- 1 Pin
- 2 Needle clamping screw

Tighten the wing nut firmly with the screwdriver.



#### Fitting the P embroidery foot

Fit the P embroidery foot onto the presser foot bar from the rear.

Tighten the wing screw firmly with the screwdriver.



## Changing the needle plate

Use the straight stitch needle plate when sewing with the dual feed foot and for embroidery.

### CAUTION:

Press the lock button to lock the machine before changing the needle plate.

Raise the needle and press the lock button.  
Raise the presser foot lifter.

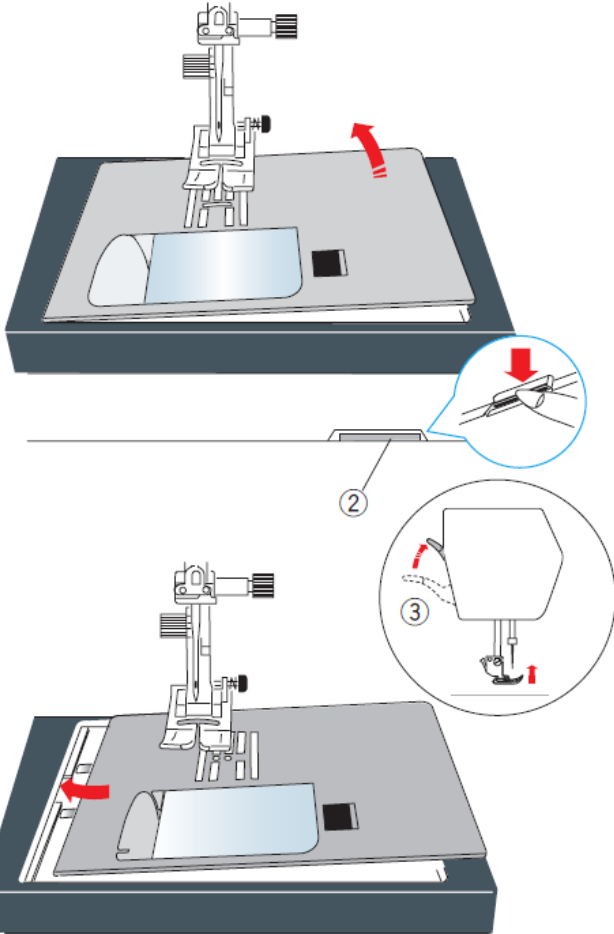
1 Lock button

Slide the extension table to the left to remove it. Press the needle plate release lever to release the plate.

2 Needle plate release lever

If the needle plate is not secured, a warning message appears. Raise the presser foot to the extra-high position. Remove the needle plate from the right-hand side.

3 Extra lift position



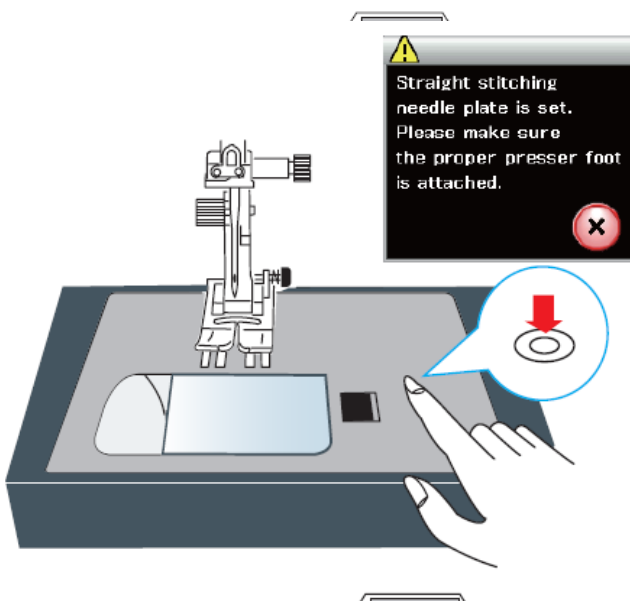
Raise the presser foot lifter to the extra lift position. Place the straight stitch needle plate into the machine. Place the left edge of the needle plate into the opening.

Press down on the mark on the needle plate until it is secured in place.

A confirmation message appears. Press the X key and the straight stitch will be selected automatically.

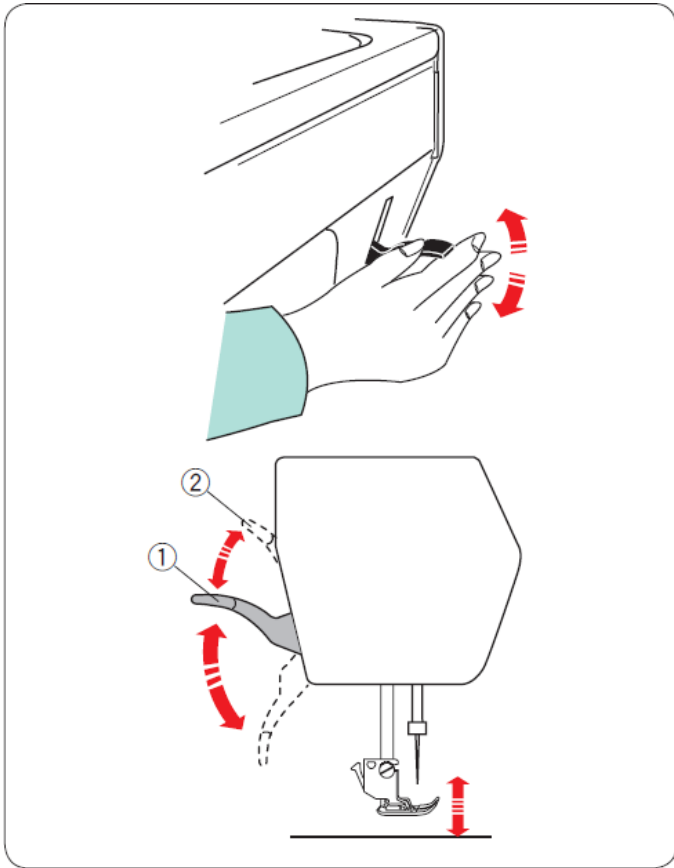
Turn the handwheel slowly and ensure that the needle does not hit the needle plate.

Press the lock key to lock.



### CAUTION:

Never press the needle plate release lever whilst the machine is running.

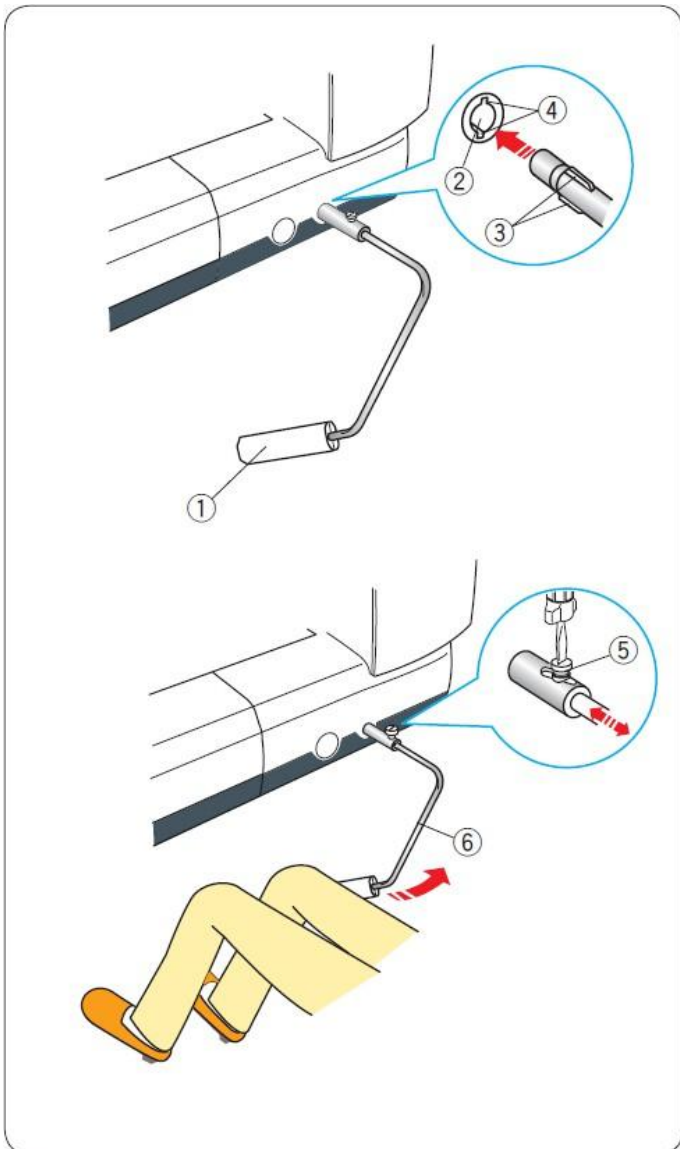


### Raising and lowering the presser foot

The presser foot lifter raises and lowers the presser foot. 1 Presser foot lifter

You can raise the presser foot above its normal position. This allows you to change the needle plate and also helps you to position thick layers of fabric under the foot.

2 Extra lift position



### Knee lifter

The knee lifter is very useful for patching, quilting and similar tasks, as it allows you to move the fabric whilst controlling the presser foot with your knee.

#### Fitting the knee lift

Align the tabs on the knee lift with the slots on its connector and insert the knee lift.

- 1 Knee lift
- 2 Knee lift connector
- 3 Tab
- 4 Slot

#### Adjusting the knee lift

You can adjust the angle of the knee lift to suit your needs. Loosen the clamping screw and slide the angle bar inwards or outwards to adjust the angle of the knee lift.

Tighten the fixing screw to secure the angle bar.

- 5 Fixing screw
- 6 Angle bar

#### Using the knee lift

Press the knee lift with your knee to raise and lower the presser foot.

You can control the height of the presser foot by applying more or less pressure with your knee.

#### NOTE:

Do not touch the knee lift whilst sewing, as this may prevent the fabric from feeding smoothly.

## Adjusting the presser foot pressure

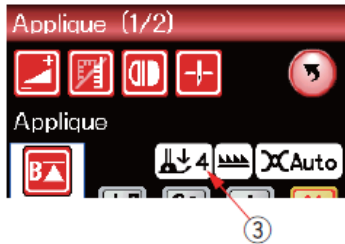
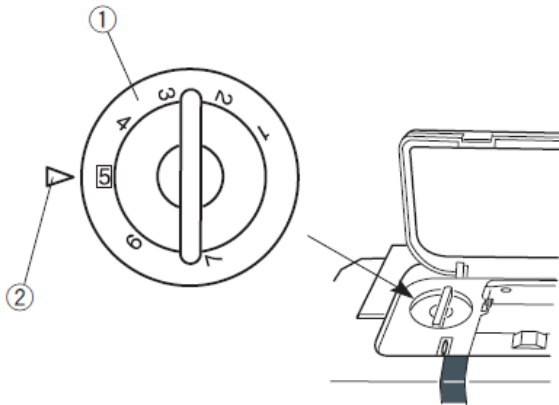
The presser foot pressure can be adjusted using the presser foot pressure dial located under the top cover.

The dial has 7 settings, from 1 to 7.

For ordinary sewing, set it to 5 at the reference mark.

- 1 Presser foot pressure dial
- 2 Reference mark
- 3 Recommended setting

Reduce the pressure when sewing fine or stretchy synthetic fabrics. To reduce the pressure, set the dial to a lower number.



## Lowering the feed dogs

The feed dog can be lowered for basting, buttonhole stitching, free-motion quilting, etc.

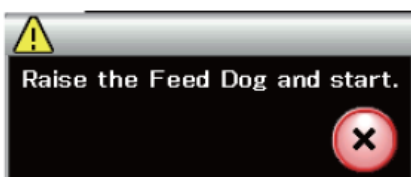
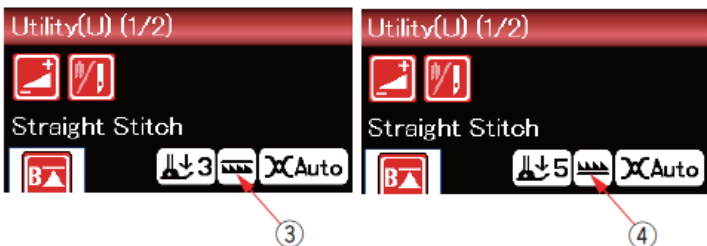
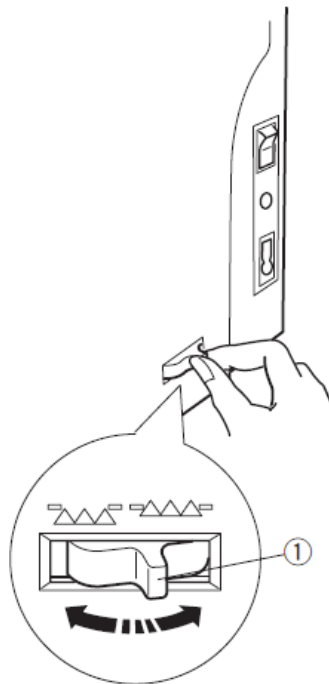
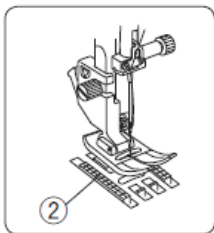
Move the lever towards you to lower the feed dog.

- 1 Lower the feed dog lever
- 2 Feed dogs

Move the lever to the right to raise the feed dog; it will return to the raised position when you start the machine.

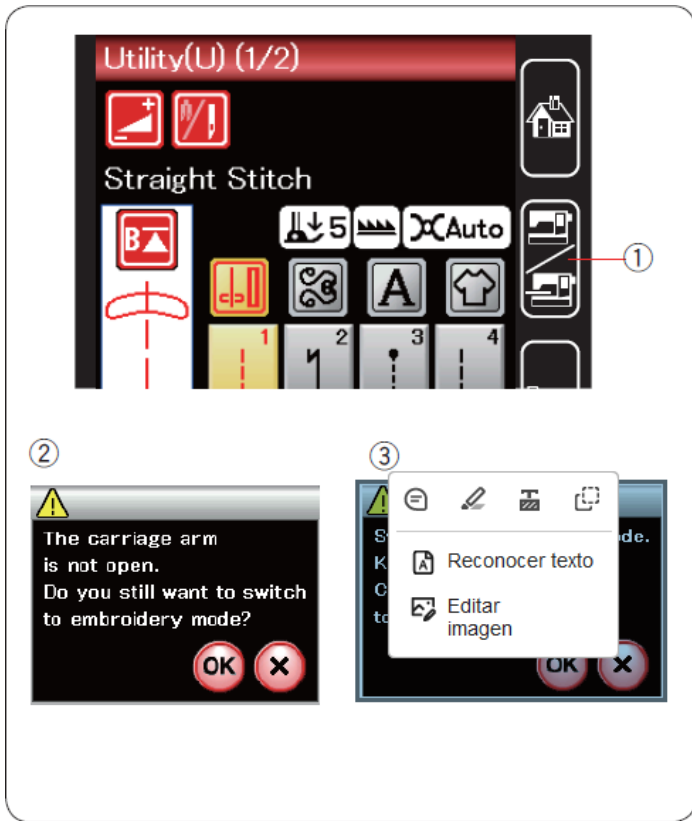
The feed dog position will be shown on the LCD screen.

- 3 Lowered position
- 4 Raise position



### NOTE:

If you start the machine with the scraper blade in the lowered position, a message will appear on the LCD screen.



### Mode selection

When you switch on the machine, the touchscreen displays normal sewing mode after a few seconds. The machine is set to straight stitch sewing.

**NOTE:**

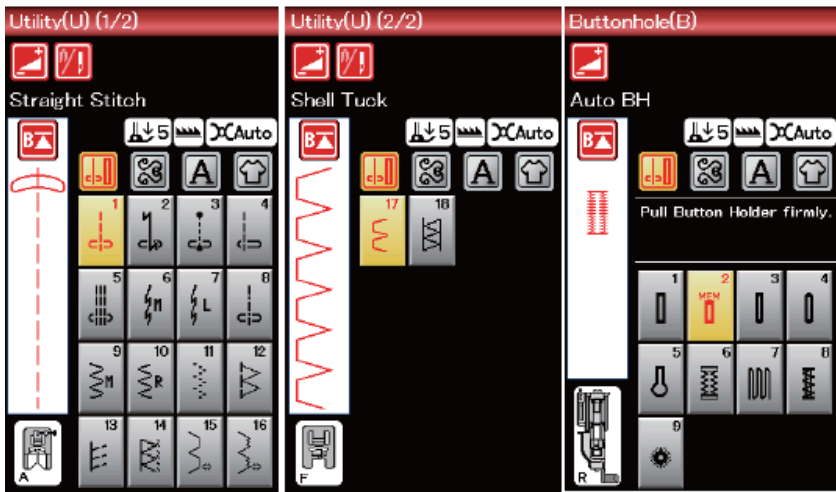
After switching on the machine, it takes a few seconds for the start-up window to appear. (This is the time required to complete the start-up procedure.)

To switch to embroidery mode, first switch off the machine and fit the embroidery unit (see pages 83–85).

Switch on the machine and press the mode switch key. 1  
Mode switch key

A confirmation message appears 2 Do not press the OK key or the X key. Open the carriage arm and a warning message appears 3. Press the OK key to switch to embroidery mode and the carriage moves to the home position.

To return to normal sewing mode, press the mode switch key and follow the instructions in the confirmation message. For embroidery, please refer to the embroidery instructions on page 83.



## NORMAL SEWING MODE

### Normal stitch patterns

In normal sewing mode, there are 4 categories.

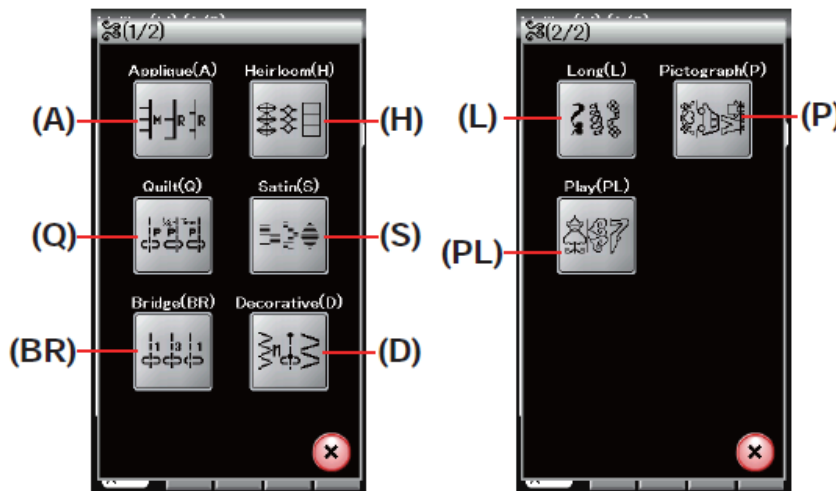
1. Utility stitches and buttonholes
  2. Decorative stitches and quilting
  3. Monograms
  4. Sewing applications
- Press one of the icon keys to select the category.

#### NOTE:

In this manual, the pattern number refers to the initial number of each group or category. For example, pattern #3 in the buttonhole and special stitches group refers to pattern B3.

### 1 Practical Stitches, Buttonholes and Special Stitches

You can select utility stitches (U), buttonholes and special stitches (B) in this category.



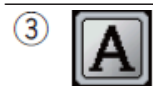
### 2 Decorative and quilting stitches

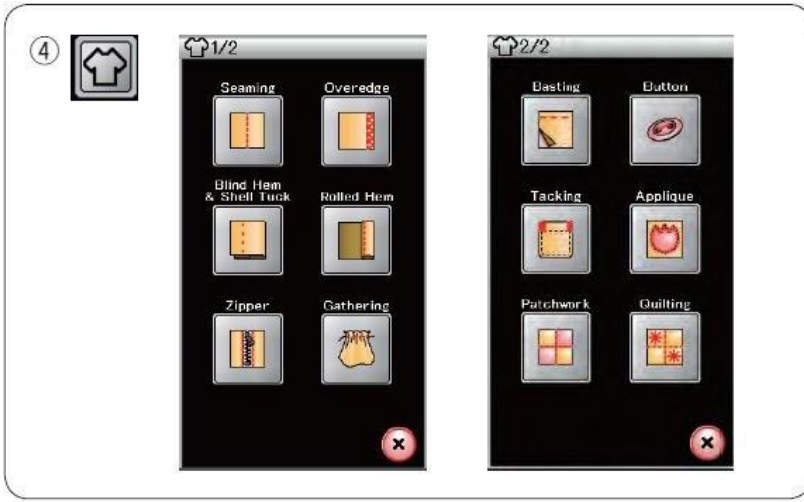
This category comprises the following 9 groups.

- Applique stitches (A)
- Classic stitches (H)
- Quilting stitches (Q)
- Embroidery stitches (S)
- Bridge stitches (BR)
- Decorative stitches (D)
- Long stitches (L)
- Pictogram stitches (P)
- Fun stitches (PL)

### 3 Monograms

You can program captions and combine character and symbol patterns.





#### 4 Sewing applications

You can select the appropriate stitch for a specific sewing project and fabric type from the applications listed in this category.



## Normal sewing mode function keys

### 1 Adjustment key

Press this key to open the manual adjustment window. You can adjust the stitch width, stitch length, thread tension and fabric guide position settings. (See pages 33–35.)

### 2 Twin needle key

Press this key to set the stitch width for sewing with the twin needle (see page 51).

The key will be greyed out if the selected pattern is not suitable for sewing with a twin needle.

### 3 Programming key

Press this key to program a combination of patterns.

When this key is pressed, the cursor keys, the clear key, the memory check key and the save file key are highlighted.

### 4 Vertical mirror key

Press this key to sew a vertical mirror image of the selected pattern (see pages 52).

### 5 Horizontal mirror key

Press this key to sew a horizontal mirror image of the selected pattern.

The key is greyed out if mirroring cannot be used with the selected pattern (see pages 52).

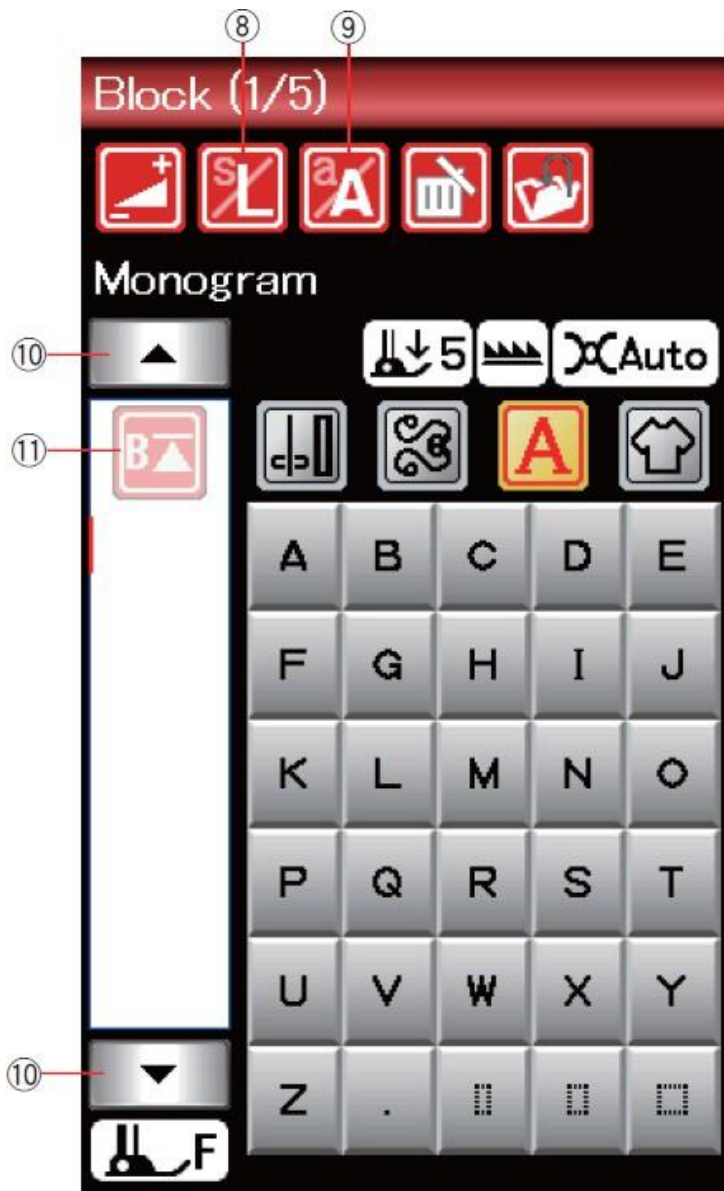
### 6 Clear key

Press this key to delete the pattern from the pattern combination.

### 7 Save File Key

Press this key to save the pattern combination as a file.





**8 Font size key**

Press this key to select the font size for the monograms.

**9 Uppercase and lowercase key**

Press this key to select upper or lower case for the monograms.

**10 Cursor key**

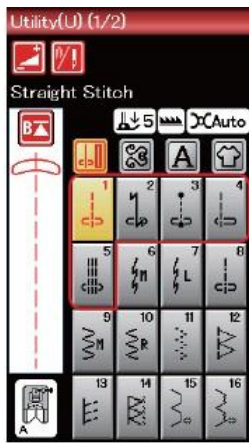
Press one of the cursor keys to move the cursor up or down.

**11 Reset key**

This key appears when you stop sewing.

You can sew a monogram or a combination of patterns from the start after having sewn half of it.

Press this key once to start from the beginning of the current pattern, or press it twice to start from the beginning of the first pattern in the combination (see page 54).



## Practical Stitches

### Straight Stitches

Patterns U1 to U5 are straight stitches for seams. Press the pattern selection key to choose your preferred stitch.

#### NOTE:

When sewing fine fabrics with straight stitches, select patterns U1, U2 or U3 and use the straight stitch needle plate for best sewing results (see page 19).

#### Starting to sew

Place the fabric next to the sewing guide line on the needle plate. Lower the needle to the point on the fabric where you wish to start.

Bring the needle threads to the back and lower the presser foot.

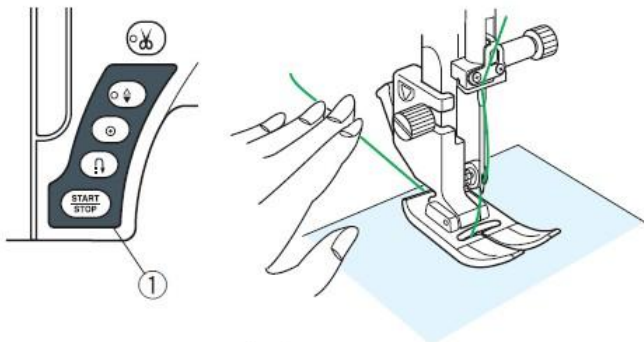
Press the start/stop button or press the foot control to start sewing.

Gently guide the fabric along the sewing guide line, allowing it to flow naturally.

1 Start/stop button

#### NOTES:

- Pull the needle thread to the left when using the satin stitch foot F or automatic buttonhole foot R.
- After using the automatic thread cutter or threading the bobbin, you can start sewing without pulling the bobbin thread up. However, you must pull the needle thread to the back.



#### Sewing from the edge of a thick fabric

The black button on the zigzag foot locks the presser foot in a horizontal position.

This is very useful when starting to sew from the edge of a thick fabric or when sewing hems.

Lower the needle onto the fabric at the point where you want to start sewing.

Lower the presser foot whilst pressing the black button. The foot locks into the horizontal position to prevent slipping.

After a few stitches, the black button is released automatically.

2 Black button

#### Changing the sewing direction

Stop the machine and press the presser foot lift button to raise the presser foot.

Wrap the fabric around the needle to change the direction of the stitching as required.

Start sewing in a new direction.

#### Right-angled corners

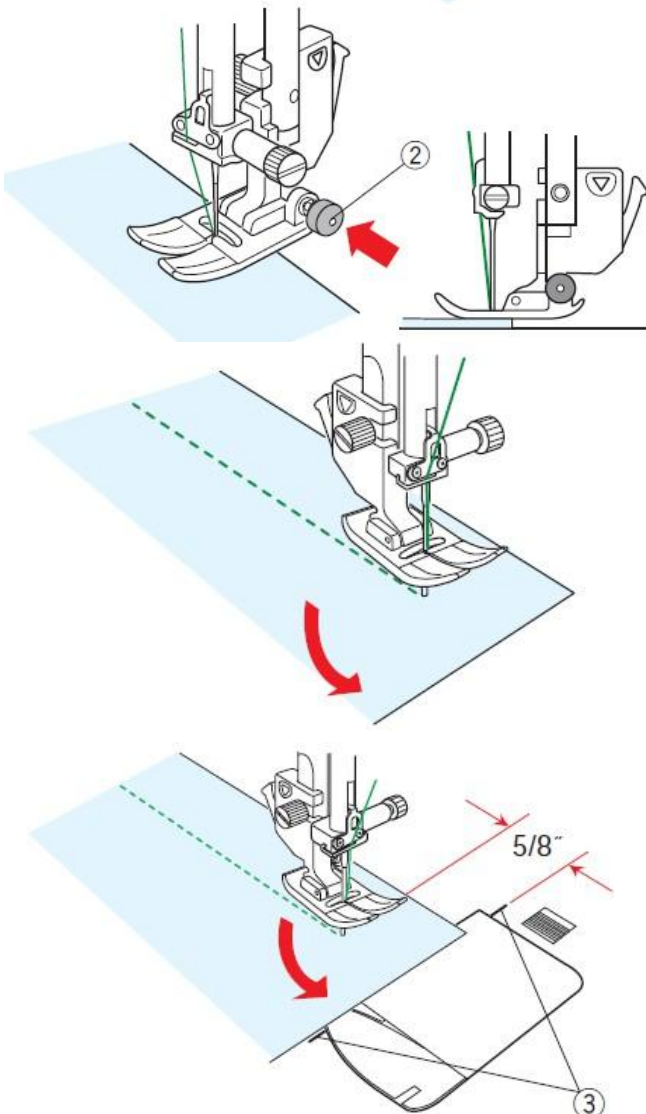
To maintain a 15 mm seam allowance after turning at a right angle, use the corner guide on the needle plate.

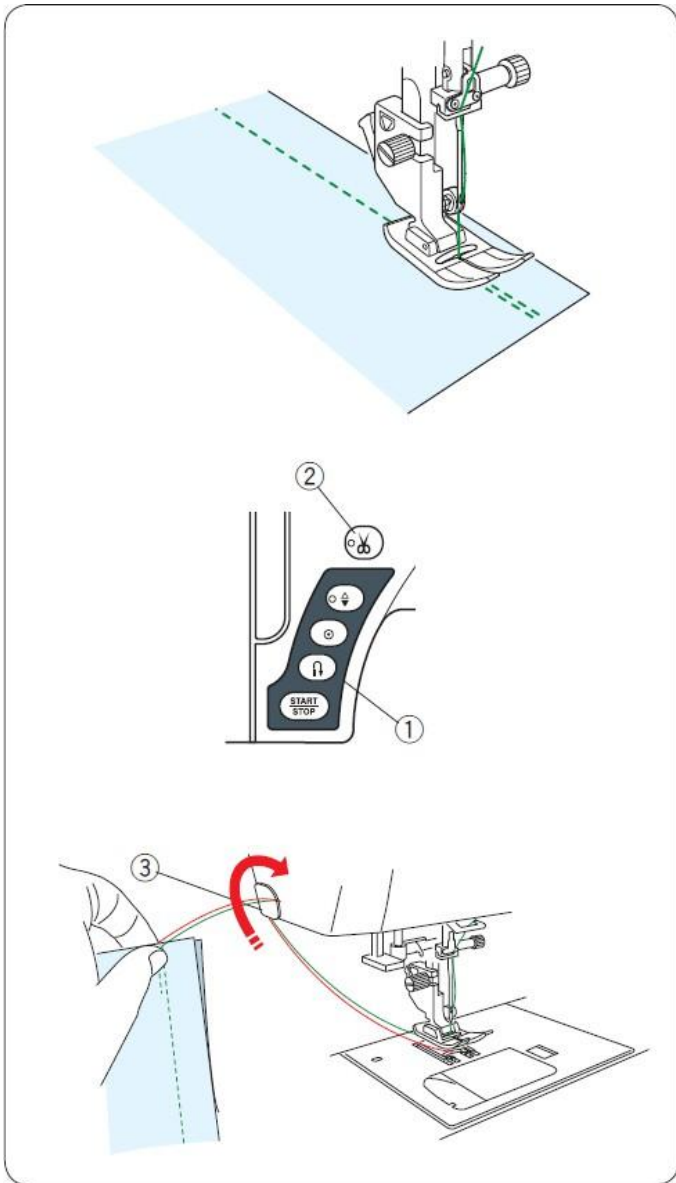
Stop sewing when the leading edge of the fabric reaches the lines on the corner guide.

Raise the presser foot and turn the fabric 90 degrees.

Lower the presser foot and start sewing in the new direction.

3 Corner guide





### Bar tacking

To secure the ends of the seams, press the reverse button and sew several stitches backwards.

The machine will sew in reverse as long as you hold this button down.

1 Reverse button

Press the reverse button once to sew "Lock-A-Matic" stitches (pattern U2) and finishing stitches (pattern U3), and the machine will lock the stitches and stop automatically.

### Thread cutting

After finishing sewing, press the thread cutter button to cut the threads. The needle bar and presser foot will raise automatically after cutting the threads.

2 Thread cutter button

#### NOTES:

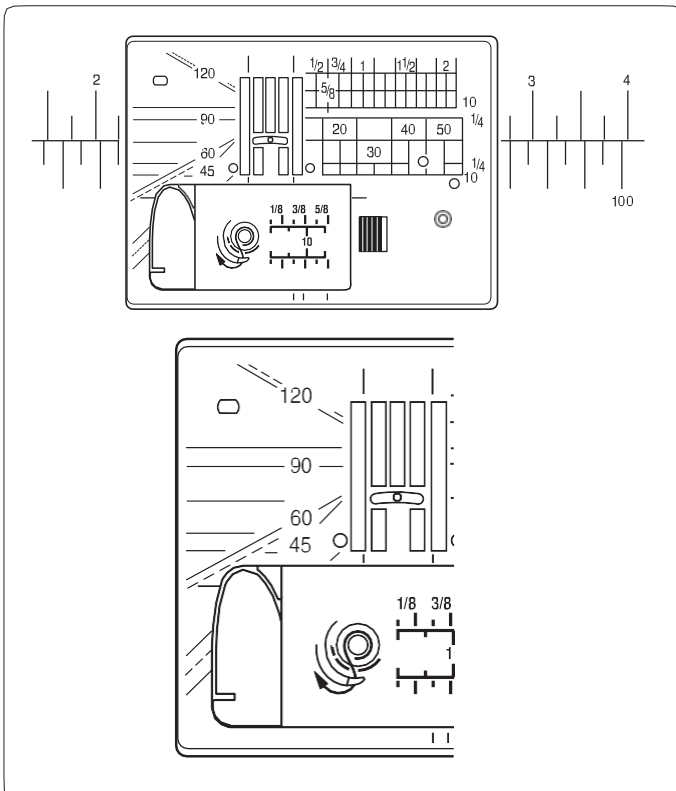
The thread cutter button does not work if the presser foot is in the raised position.

Use the thread cutter on the front panel to cut thicker or special threads when the automatic thread cutter is not working properly.

To use the thread cutter on the front plate, pull the fabric back.

Pass the threads between the thread cutter and the front plate from behind. Pull the threads towards you to cut them.

3 Thread cutter



### Using the sewing guide lines

The sewing guides on the needle plate and the bobbin case cover help you measure the margin between the edge of the fabric and the seam.

#### NOTE:

The numbers on the needle plate indicate the distance in millimetres and inches from the centre of the needle.

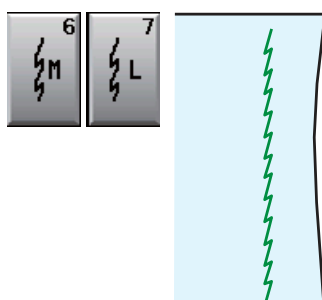
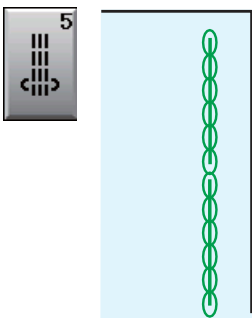
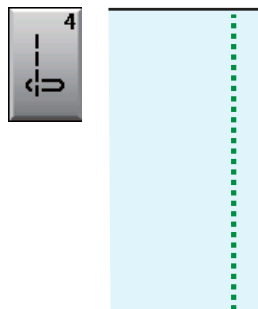
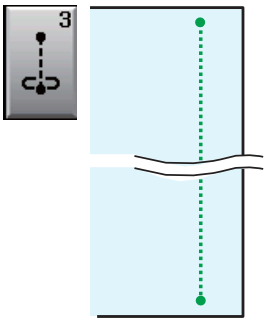
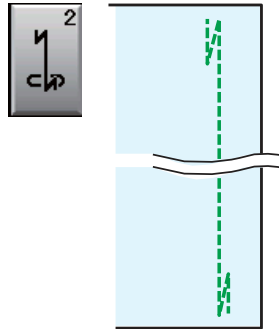
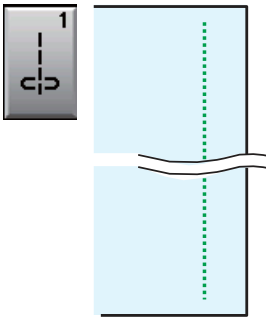
### Square on the needle plate

The marked angles are 45, 60, 90 and 120 degrees.

Use the dotted lines to join patchwork pieces with the 0.6 cm (O) presser foot.

## Different types of straight stitches

**U1 Straight stitch in the centre position of the needle** Use this stitch for seams, rolled hems, etc.



**U2 "Lock-a-matic" locking stitch**

Use this stitch to secure the start and end of a seam with a bar tack.

When you reach the end of the seam, press the reverse button once.

The machine will sew four stitches backwards, four forwards and then stop automatically.

**U3 Bar tack**

This special stitch is used when an invisible finishing stitch is required.

The machine will sew several bar tacks at the start and continue sewing.

If you press the reverse button at the end of the seam, the machine will sew several stitches in place and stop automatically.

**U4 Straight stitch in the left needle position**

Use this stitch to sew fabrics close to the edge.

**U5 Triple stretch stitch**

This strong, durable stitch is practical for areas where elasticity and strength are needed to ensure comfort and durability.

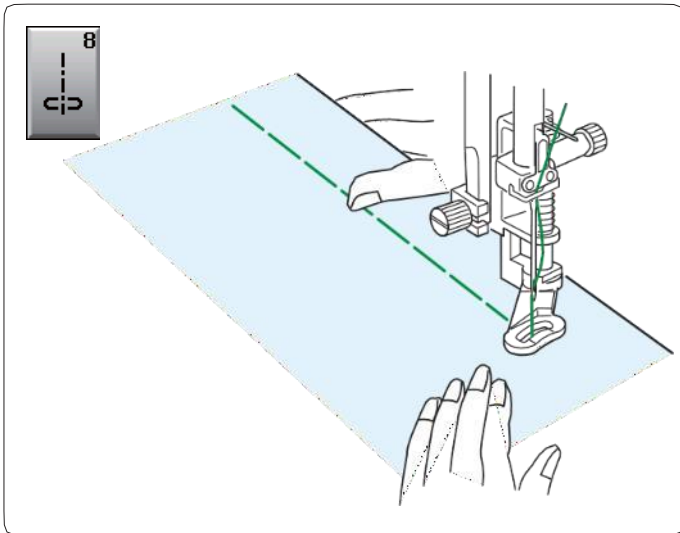
Use it to reinforce areas such as the seams in the crotch or underarms.

Also use it when sewing items such as rucksacks, which require great strength.

**U6, U7 Stretch stitches**

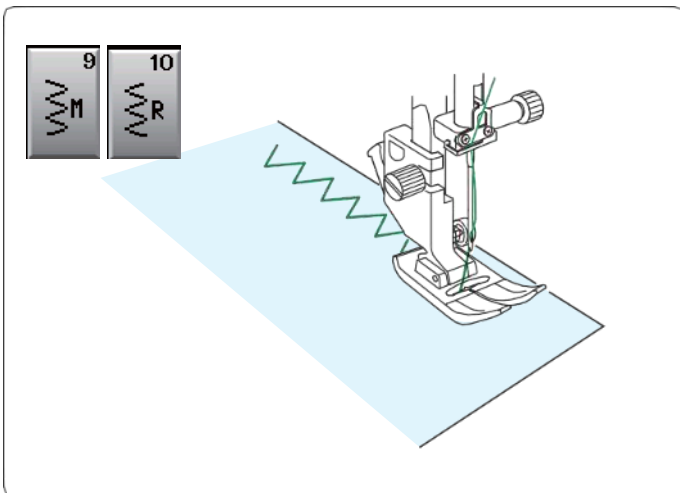
These are narrow elastic stitches that prevent puckering in knitted fabrics and bias seams, whilst allowing the seam to open fully.

Use the U7 stitch for sewing fine or stretch fabrics.



### U8 Basting

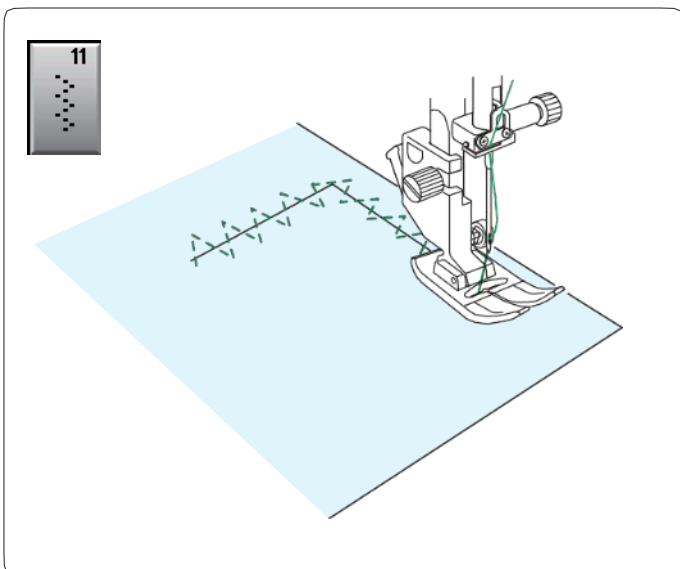
See page 67 for sewing instructions.



### Zigzag stitches

#### U9, U10 Zigzag stitches

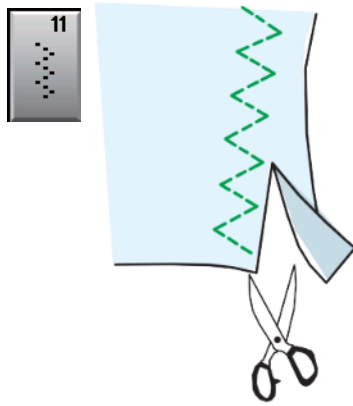
Zigzag stitches are used for various types of seams, including overcasting. They can be used with most woven fabrics. The dense zigzag stitch can also be used for attaching appliqués.



#### U11, U12 Multiple zigzag stitches

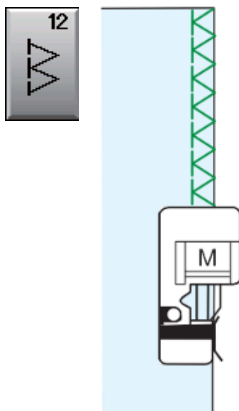
These stitches are used to repair tears.

## Different types of overlock stitches



### U11 Multiple zigzag stitch: Zigzag foot A

This stitch is used to finish the raw edges of synthetic fabrics and other stretch fabrics that tend to fray. Sew along the edge of the fabric, leaving a sufficient margin between the edge of the fabric and the seam. After sewing, trim the margin between the fabric edge and the seam close to the stitches.

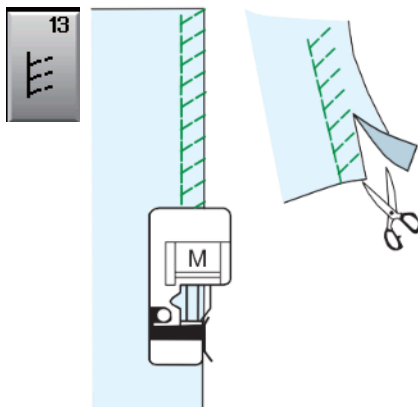


**U12 Overlock stitch:** Overlock foot M This stitch can be used to sew and overlock the edges of the fabric at the same time.

Use this stitch when you do not need to open the seams afterwards.

Place the edge of the fabric against the guide on the presser foot and sew.

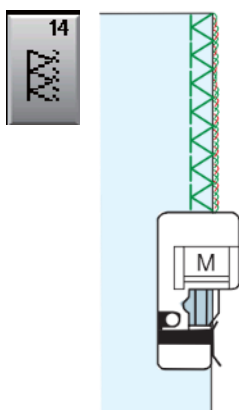
The stitch width cannot be adjusted.



**U13 Double overlock stitch:** Overlock foot M This stitch is ideal for fabrics prone to fraying, such as linen or gabardine.

Place the edge of the fabric against the presser foot guide and sew.

Two rows of zigzag stitches are sewn simultaneously along the edge of the fabric, preventing fraying.



### U14 Overlock stitch: Overlock foot M

This stitch finishes the fabric edge just like a professional overlock machine.

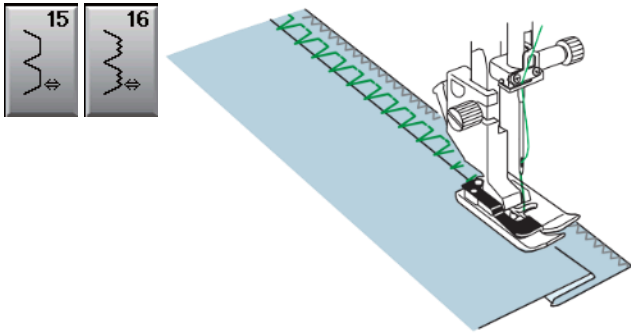
Place the edge of the fabric against the presser foot guide and sew.

The stitch width cannot be adjusted.

## Other practical stitches

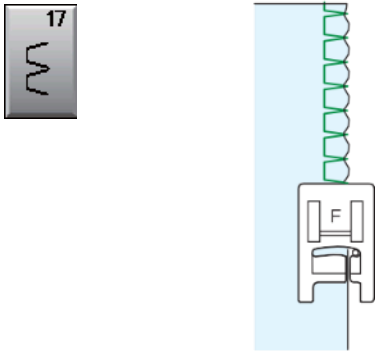
### U15, U16 Blind hem

See pages 61 and 62 for sewing instructions.



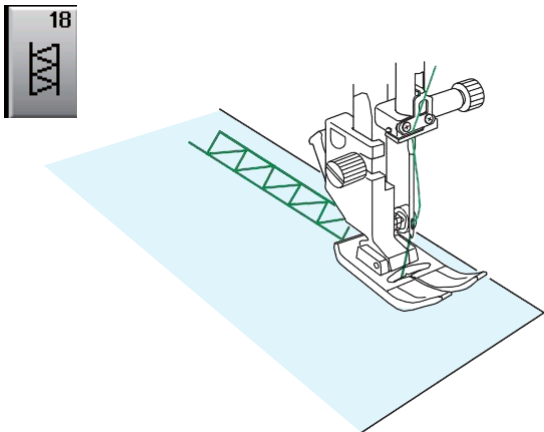
### U17 Pleats

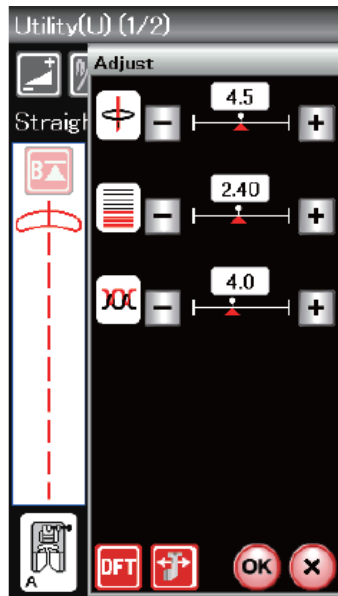
See page 62 for sewing instructions.



### U18 Hemstitch

Use this stitch for reverse sewing or decorative stitches.



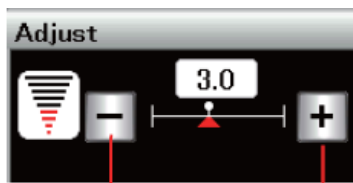
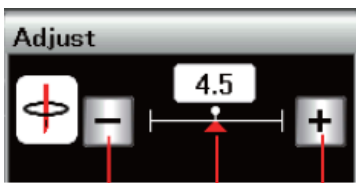


**Manual stitch settings** When you press the adjustment button, the display will show the manual settings screen.

1 Adjustment button

You can adjust the stitch width (or the needle drop position for straight stitches), the stitch length and the needle thread tension.

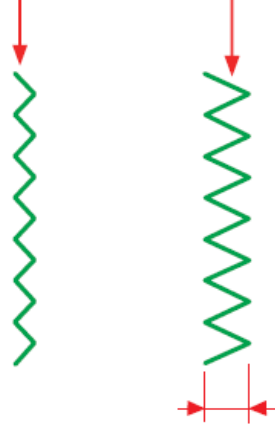
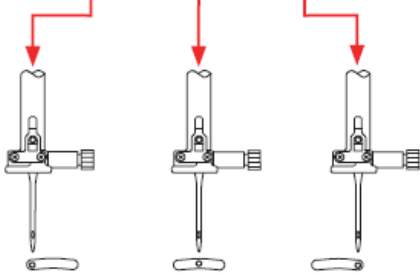
Press the “+” or “-” key below the value you wish to change.



**Changing the needle drop position (straight stitches)**

Press the “+” key to move the needle drop position to the right.

Press the “-” key to move the needle drop position to the left.



**Changing the stitch width**

Press the “+” key to increase the stitch width.

Press the “-” key to reduce the stitch width.

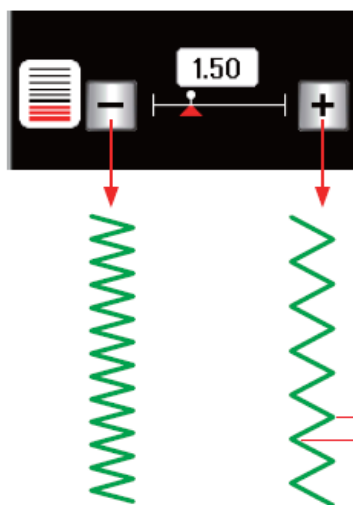
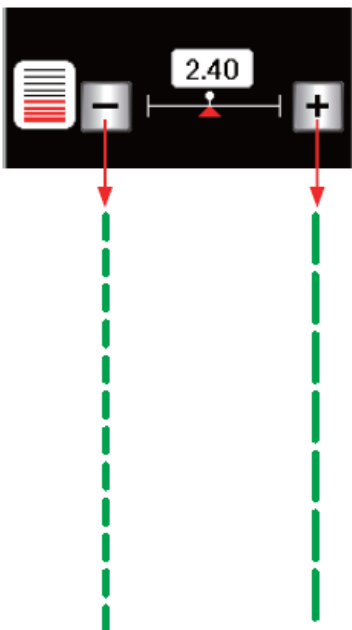
**NOTE:**

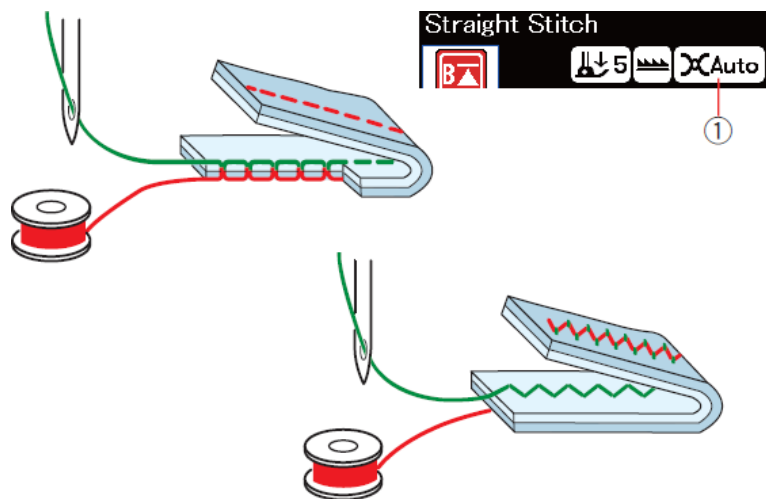
The adjustment range for patterns U6, U7, U9, U10 and U11 is 0.0 to 7.0.

**Changing the stitch length**

Press the “+” key to increase the stitch length.

Press the “-” key to shorten the stitch length.





### Adjusting the thread tension

This machine is equipped with automatic thread tension control that optimises the tension balance for the selected stitch pattern.

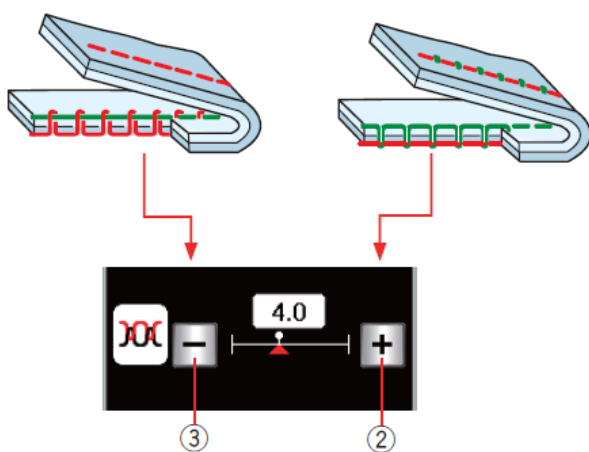
“Auto” will be displayed in the thread tension window when automatic thread tension control is applied to the selected stitch pattern.

1 Thread tension window

### Balanced thread tension

**Straight stitch:** The needle and bobbin threads interlace between the layers of fabric.

**Zigzag stitch:** The needle thread shows slightly on the reverse side of the fabric.



However, it may be necessary to adjust the tension balance depending on the sewing conditions, or you can fine-tune the thread tension as you prefer.

2 Press the “+” button if the thread is too loose.

3 Press the “-” button if the thread is too tight.

When manual thread tension control is applied, “Manual” will be displayed in the thread tension window.



## Fabric guide

### CAUTION:

Always leave sufficient space to the left of the machine when using the fabric guide.  
Do not use the fabric guide when the buttonhole foot R is attached.  
The extension table cannot be opened when the fabric guide is in use.

### Fitting the fabric guide

Position the embroidery unit (see page 83). Insert the fabric guide pin into the hole in the carriage.

Turn the fixing knob clockwise to secure the fabric guide.

- 1 Pin
- 2 Fabric guide
- 3 Carriage hole
- 4 Fixing knob

### Adjusting the position of the fabric guide



Press the adjustment key to open the manual settings window.

Press the fabric guide button.

- 5 Fabric guide key

The touch screen will display a warning message.  
Press the **OK** button.

The fabric guide adjustment window will open.

Press the  or  to move the guide of the fabric to the desired position.

The fabric guide moves the distance indicated on the key. The position of the fabric guide is shown on the scale bar and the distance from the centre of the needle drop is indicated in millimetres or inches.

### NOTE:

The machine will not operate if the fabric guide adjustment window is open.

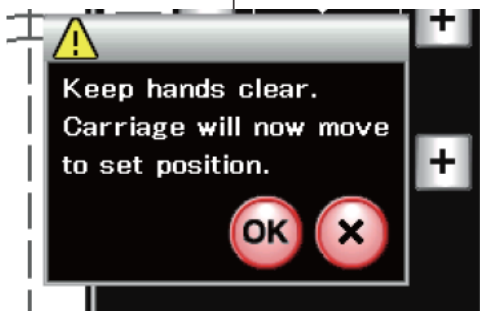
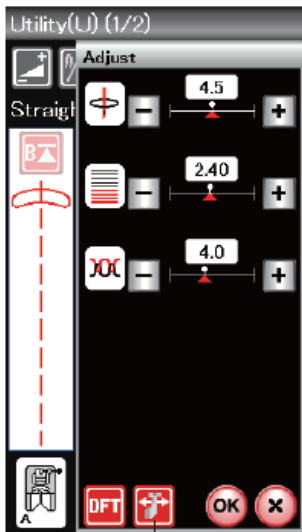
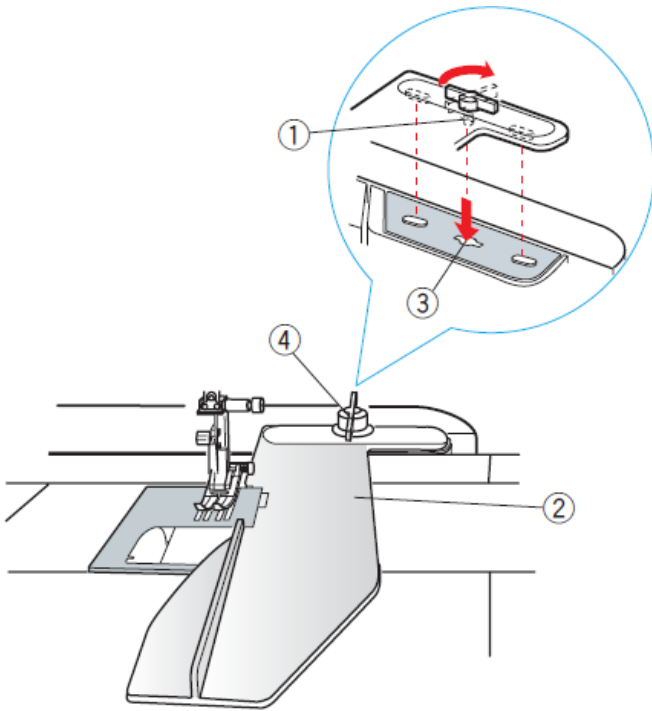
Press the default key to return the fabric guide to the default position (15 mm).

- 6 Default key

Ensure the carriage returns to the stow position by pressing the fabric guide stow key and removing the fabric guide once sewing is complete.

- 7 Fabric guide storage key

Press the **OK** key to save the setting and close the fabric guide setting window.



- 7
- 6

## Buttonholes and special stitches

### Different types of buttonholes



#### **B1 Sensor buttonhole (square)**

This square buttonhole is used for medium to heavy-weight fabrics.

The buttonhole size is determined automatically when a button is placed in the presser foot.

#### **B2 Automatic buttonhole (square)**

This other square buttonhole is similar to the previous one, but the buttonhole size can be set manually and stored in memory for sewing other buttonholes of the same size.

#### **B3 Rounded buttonhole**

This buttonhole is used on thin and medium-weight fabrics, particularly for blouses and children's garments.

#### **B4 Buttonhole for thin fabrics**

This buttonhole is rounded at the ends and is used with thin, delicate fabrics, such as fine silk.

#### **B5 Keyhole buttonhole**

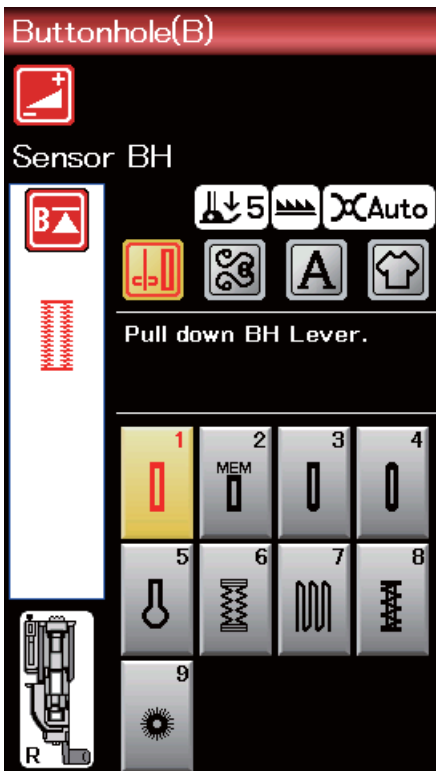
This keyhole buttonhole is used for thick and medium-weight fabrics. It is also useful with larger, thicker buttons.

#### **B6 Stretch buttonhole**

This buttonhole is suitable for stretch fabrics. It can also be used as a decorative buttonhole.

#### **NOTE:**

B3-B6 are sensor buttonholes and the procedure is the same as for B1.



## B1 Sensor buttonhole (square)

1 Pull to open the button holder on the automatic buttonhole foot R and place the button in the button holder. Fit it firmly onto the button.

1 Button holder

### NOTE:

Use the blue needle for sewing buttonholes in thin and medium-weight fabrics.

2 Fit the buttonhole foot. Raise the presser foot.

### NOTES:

The buttonhole size is set automatically by placing a button in the button holder on the foot.

The button holder on the foot accommodates buttons with diameters of up to 2.5 cm (1 inch).

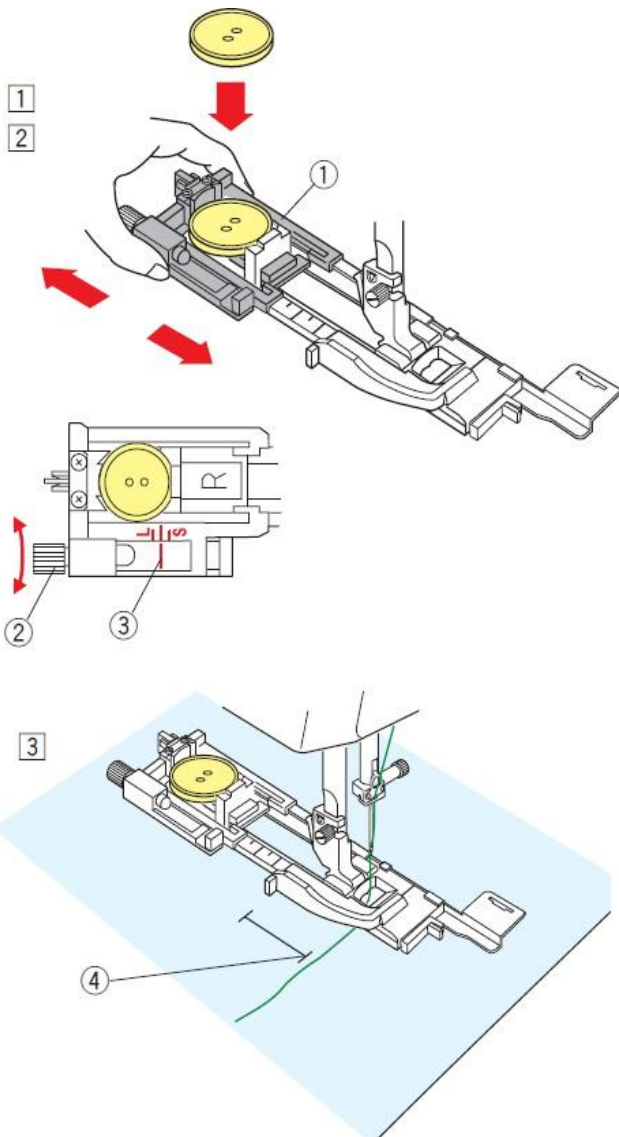
Make a test buttonhole on a spare piece of fabric. Check the length of the test buttonhole and, if necessary, adjust the buttonhole length by turning the adjustment screw on the buttonhole foot.

To increase the buttonhole length, turn the adjustment screw to move the marker towards "L".

To reduce the buttonhole length, turn the adjustment screw to move the marker towards the "S".

2 Adjustment screw

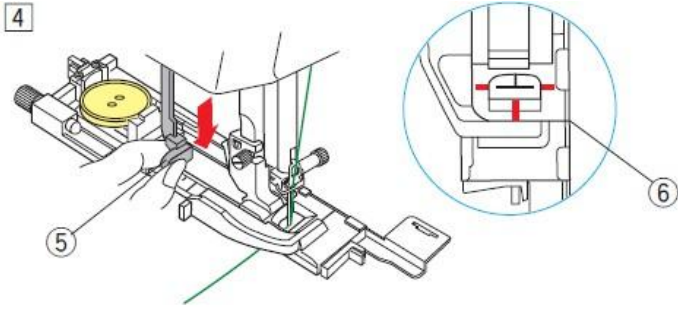
3 Marker



3 Mark the position of the buttonhole on the fabric and place it under the buttonhole foot. Turn the handwheel to lower the needle to the starting point.

Guide the thread needle to the left through the hole in the foot.

4 Starting point



4 Lower the buttonhole foot and lower the buttonhole lever as far as possible.

Start sewing whilst gently pulling the needle thread to the left. After sewing a few stitches, release the thread and continue sewing.

5 Buttonhole lever

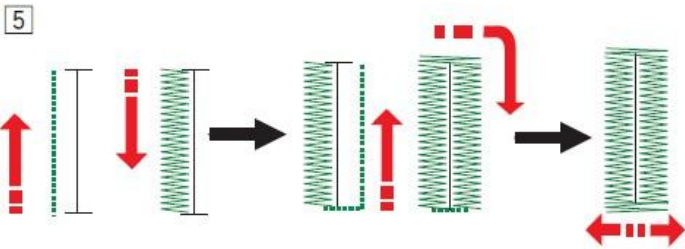
**NOTE:**

If you start sewing a buttonhole without lowering the buttonhole lever, a warning message will appear and the machine will stop automatically.

Press the X key, lower the buttonhole lever and start again.

Make sure there is no gap between the slider and the front stop, otherwise the buttonhole will be out of position or the length of the right and left sides will be different.

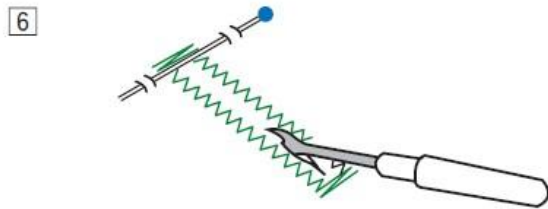
6 No gap



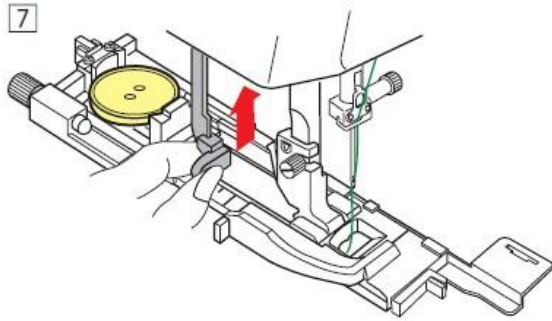
5 The buttonhole will be sewn automatically in the sequence shown. When the buttonhole is finished, the machine stops automatically with the needle in the raised position.

Press the thread cutter button and remove the fabric.

6 Place a pin just below the bar tack at each end to prevent accidentally cutting the threads. Cut the opening with a seam ripper. Use a punch to open a keyhole-shaped buttonhole.



7 When you have finished sewing the buttonhole, push the buttonhole lever up as far as possible.



Patterns B3 to B6 are sensor buttonholes and the sewing procedure is the same as that used for buttonhole B1.

However, the sewing sequence varies depending on the type of buttonhole.

**NOTE:**

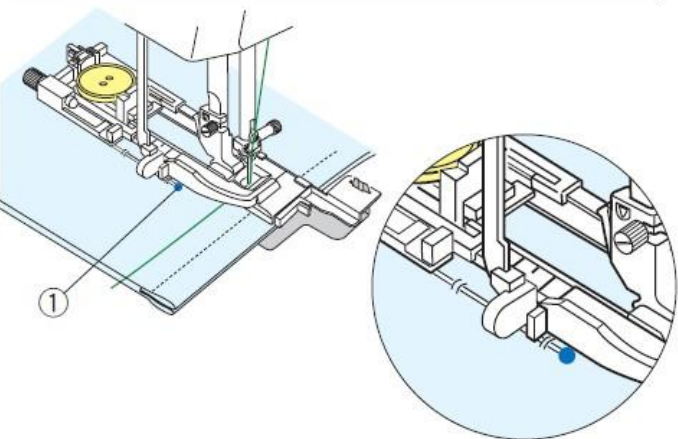
Use the stabiliser plate when sewing on knitted fabrics, stretch fabrics or other unstable fabrics (see page 40).

**NOTE:**

When sewing a buttonhole in thick fabric with a bulky texture, such as wool, the fabric may move against the BH lever and cause the buttonhole to become misshapen.

Use a pin 1 to secure the fabric and prevent it from wrinkling during feeding.

Make sure the fabric does not move the lever whilst sewing.

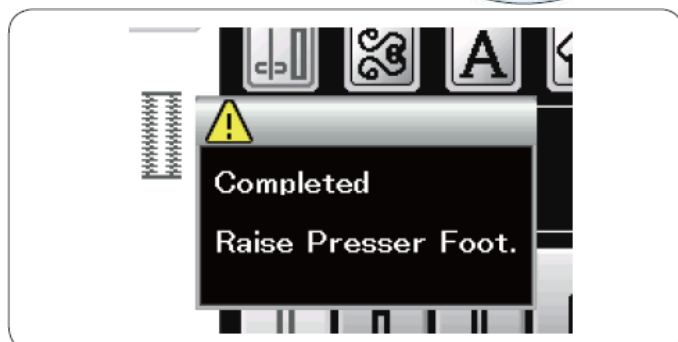


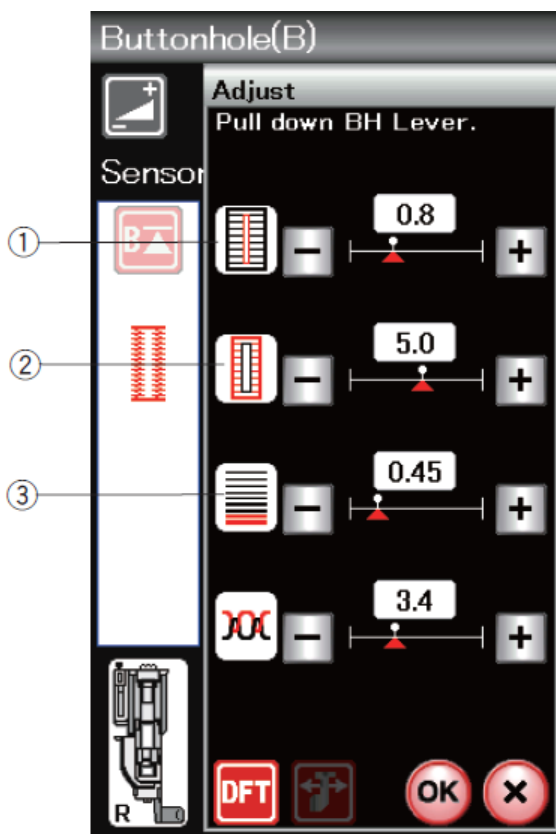
**Double-layer buttonhole**

To create a strong, durable buttonhole, sew another layer over the previous stitches.

Once the buttonhole is finished, do not cut the thread.

Simply start the machine again.





## Manual settings

Press the adjustment button to open the manual settings window.

**1 Changing the buttonhole opening width** Press the "+" key to increase the buttonhole opening. Press the "-" key to reduce the buttonhole opening.

**2 Changing the buttonhole width** Press the "+" key to increase the buttonhole width. Press the "-" key to reduce the buttonhole width.

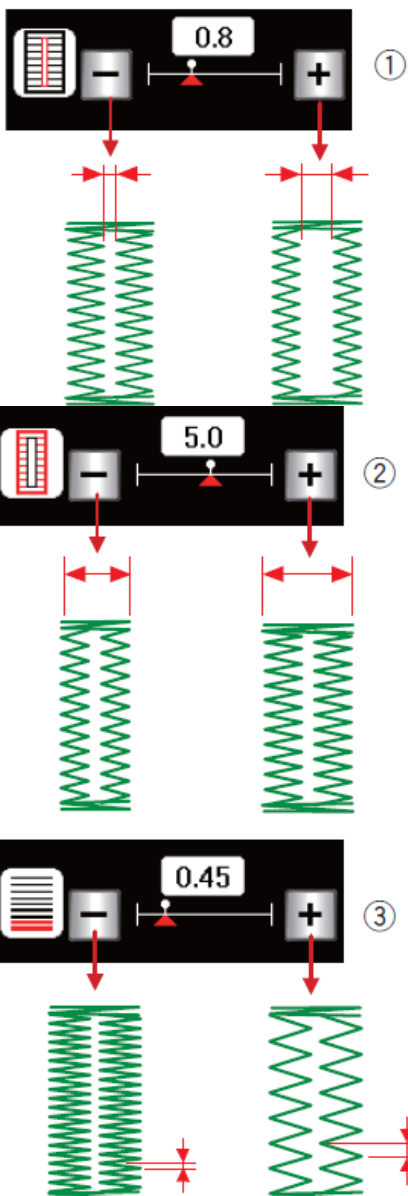
**3 Changing the buttonhole stitch density** Press the "+" key to reduce the buttonhole stitch density. Press the "-" key to increase the buttonhole stitch density.

Press the OK key to save the settings.

### NOTE:

The buttonhole width can be adjusted to a value between 0.2 and 2.0.

The buttonhole width can be adjusted to a value between 2.6 and 7.0. The stitch density can be adjusted to a value between 0.30 and 1.00.



## Using the stabiliser plate

The stabiliser plate secures and holds the fabric in place, making it easier to sew buttonholes on the hem of thick fabrics.

- 1 Insert the tab on the stabiliser plate 1 into the slot 2 of the buttonhole foot.

1 Stabiliser plate  
2 Slot

- 2 Place the button in the button holder on the foot.

Fit the buttonhole foot to the machine.

Insert the fabric between the buttonhole foot and the stabiliser plate.

Guide the thread needle to the left between the foot and the stabiliser plate.

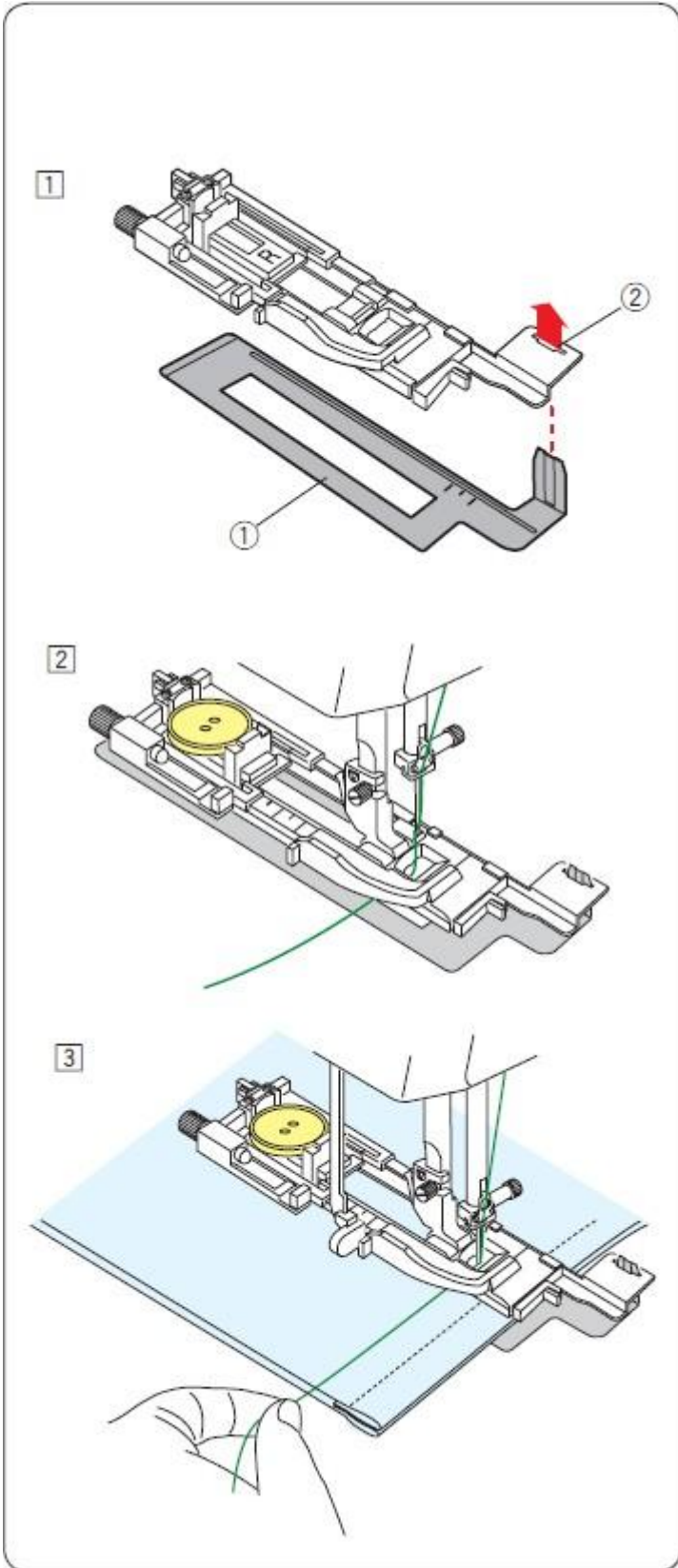
- 3 Place the fabric between the buttonhole foot and the stabiliser plate. Lower the needle at the starting point by turning the handwheel.

Lower the presser foot and the buttonhole lever.

Start the machine and at the same time pull the needle slightly to the left.

### NOTE:

The sewing procedure is exactly the same as that used for B1 (square) sensor buttonholes.



## B2 Automatic buttonhole (square)

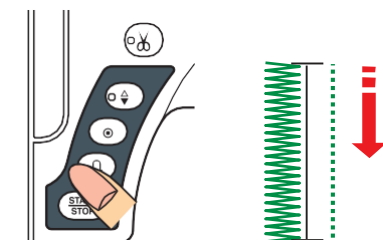
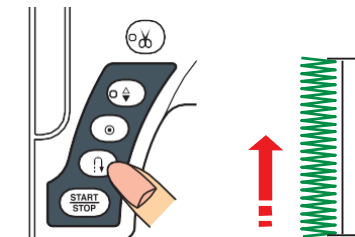
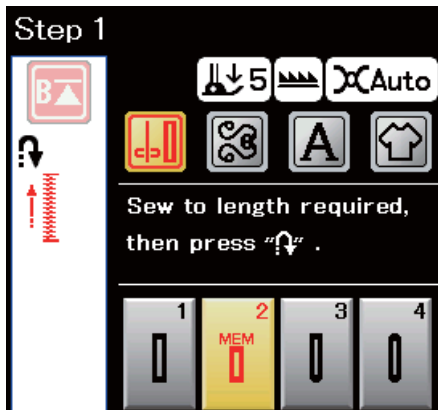
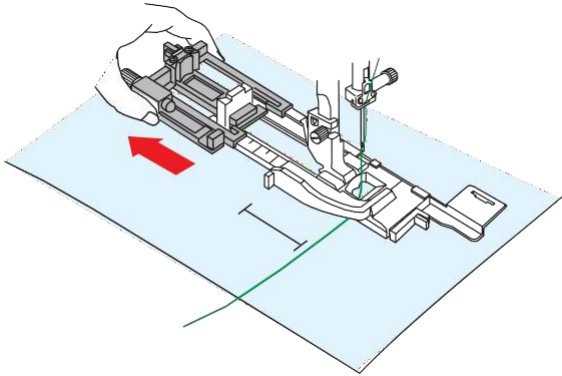
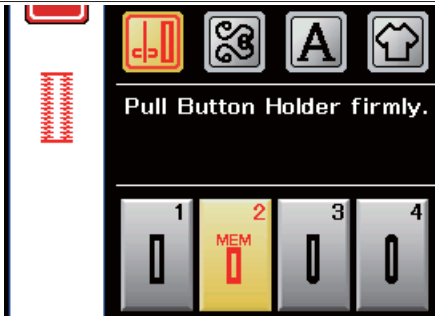
Pull the button holder out completely. Mark the position of the buttonhole on the fabric.  
Place the fabric under the presser foot and lower the needle to the starting point.  
Lower the presser foot and start sewing.

### NOTE:

There is no need to lower the buttonhole lever.  
If you wish to sew a buttonhole longer than the length allowed by the automatic buttonhole foot R, use the decorative stitch foot F.

### NOTE:

The width can be adjusted to a value between 0.2 and 2.0.  
The buttonhole width can be adjusted to a value between 2.6 and 7.0. The stitch density can be adjusted to a value between 0.30 and 1.00.

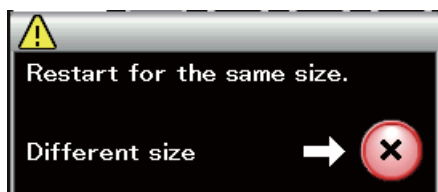
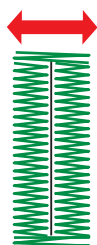
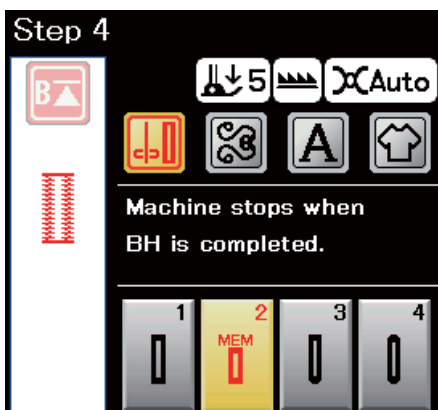
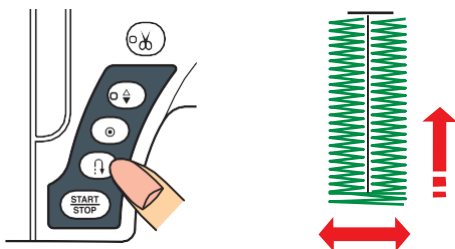
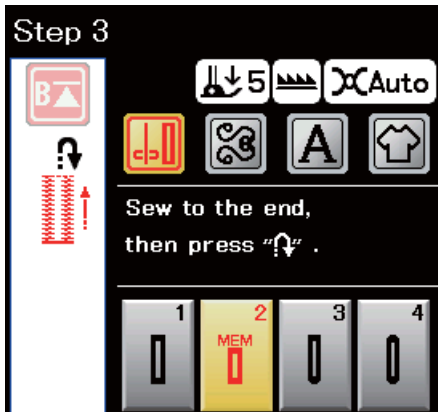


### Step 1

Sew the left side to the required length for the buttonhole and stop the machine. Then, press the reverse button.

### Step 2

Start sewing again and the machine will sew backwards with a straight stitch.  
Stop the machine when it reaches the starting point.  
Then press the reverse button.



### Step 3

Start sewing again and the machine will sew the front edge and the right side of the buttonhole.  
Stop the machine when you reach the end point. Then press the reverse button.

### Step 4

Start sewing again and the machine will sew the back bar tack, the closing stitches and then stop automatically with the needle in the raised position.

Once the stitching is complete, a message will appear.

To make the next buttonhole, position the fabric and start sewing again. The message will disappear and the machine will sew another buttonhole identical to the first, then stop automatically.

To sew another buttonhole of a different size, press the X key.

### NOTE:

To cut the buttonhole opening, refer to the instructions on page 38.  
The stored length can be cancelled if the reset key is pressed before the buttonhole is completed or if another stitch pattern is selected.

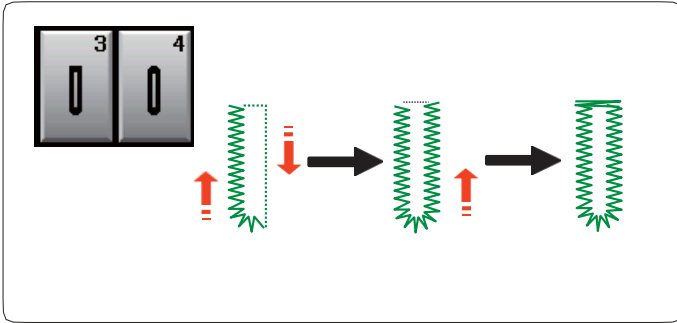
## Other buttonholes

### B3 Round-ended buttonholes and B4 for lightweight fabrics

The sewing procedure is the same as for the sensor (square) buttonhole B1 (see page 37).

**NOTE:**

The buttonhole width can be adjusted to a value between 0.2 and 2.0.  
The buttonhole width can be adjusted to a value between 2.6 and 5.4. The stitch density can be adjusted to a value between 0.30 and 1.00.

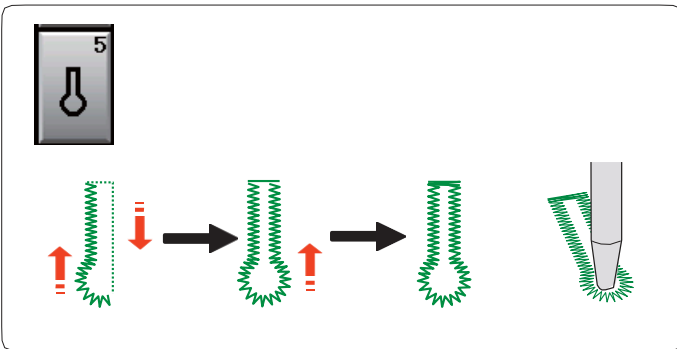


### B5 Keyhole-shaped buttonholes

The sewing procedure is the same as for the sensor (square) buttonhole B1 (see page 37).  
Use a buttonhole pointer to open the keyhole-shaped buttonhole.

**NOTE:**

The width can be adjusted to a value between 0.2 and 2.0.  
The buttonhole width can be adjusted to a value between 5.6 and 7.0. The stitch density can be adjusted to a value between 0.30 and 1.00.

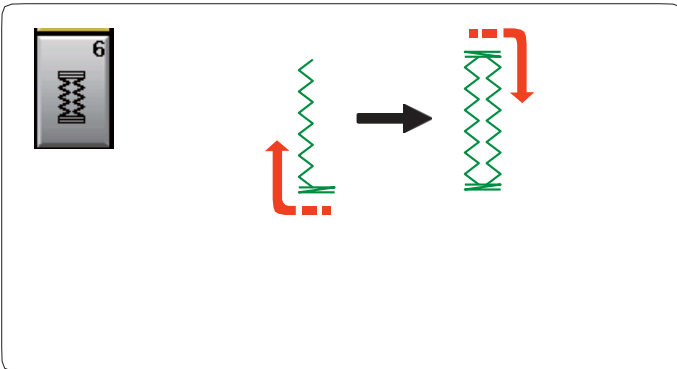


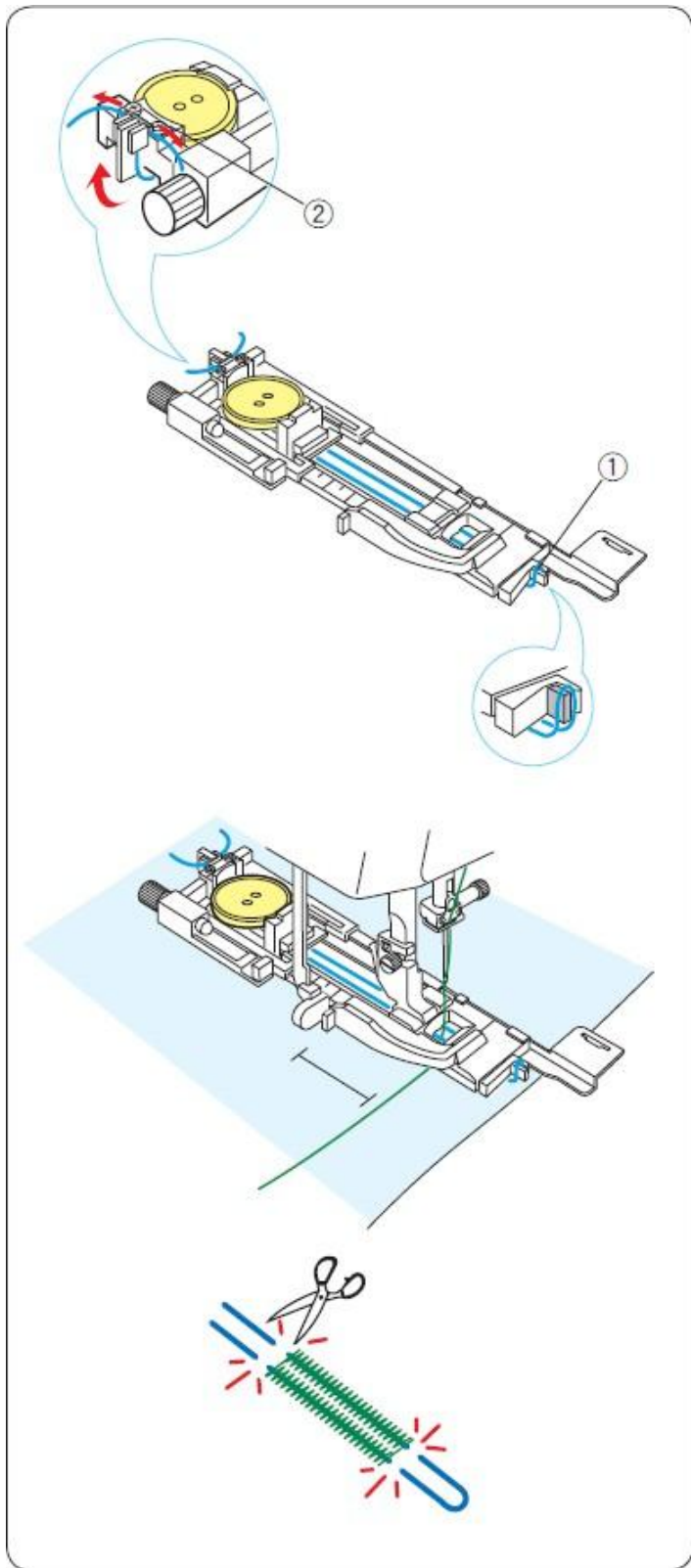
### B6 Classic buttonholes

The sewing procedure is the same as for sensor (square) buttonhole B1 (see page 37).  
The steps for sewing this type of buttonhole are as follows.

**NOTE:**

The buttonhole width can be adjusted to a value between 0.2 and 2.0.  
The buttonhole width can be adjusted to a value between 2.6 and 7.0. The stitch density can be adjusted to a value between 0.50 and 1.00.





### Laced buttonhole

To sew corded buttonholes, follow the same procedure as for sensor (square) buttonhole B1.

Select pattern B1.

Place the button in the button holder of the buttonhole foot. Hook a filler cord onto the front bar of the foot. Bring the two ends of the cord back and pass them under the foot. Lift the ends of the cord and insert them into the slots on the back of the foot to secure them firmly.

- 1 Stitch
- 2 Slots

Adjust the stabiliser plate as required and attach the buttonhole foot.

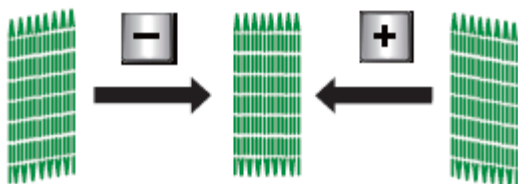
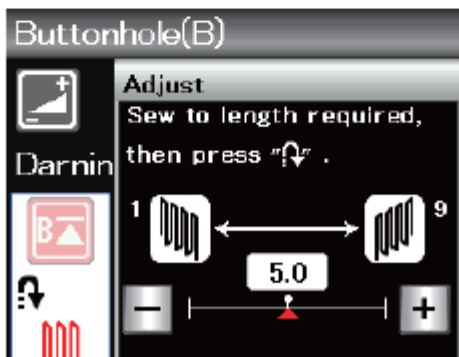
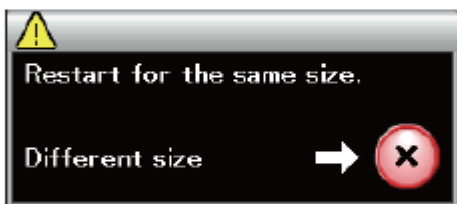
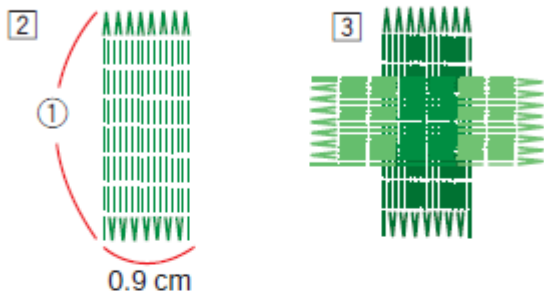
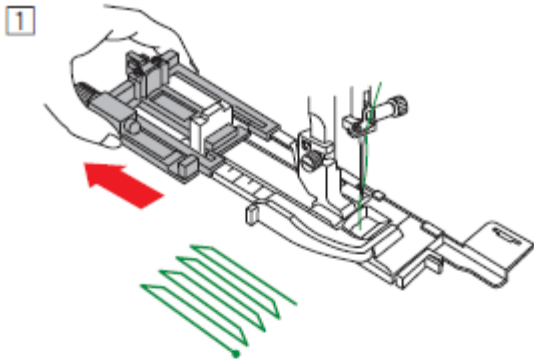
Lower the needle to the point on the fabric where the buttonhole begins. Lower the foot and the buttonhole lever. Start the machine and sew the buttonhole over the cord. The machine stops automatically when finished.

Remove the fabric from the machine and cut only the sewing thread.

Cut the filling cord at both ends as close as possible to the eyelet.

#### NOTES:

Do not set the opening width to a value greater than 0.8.  
 Set the stitch width according to the thickness of the cord you are using.  
 To cut the buttonhole opening, refer to the instructions on page 38.



## B7 Darning

1 Fit the automatic buttonhole foot R and pull the button holder all the way back.

2 Start the machine and sew the required length, then press the reverse button. This sets the darning length.

Continue sewing until the machine stops automatically.

1 Required length

3 Sew another layer of darning over the first, at a right angle to it.

### NOTE:

The maximum length of the darning stitch is 2 cm and the maximum width is 0.9 cm.

### Sewing patches of the same size

Once the stitching is complete, a confirmation message appears.

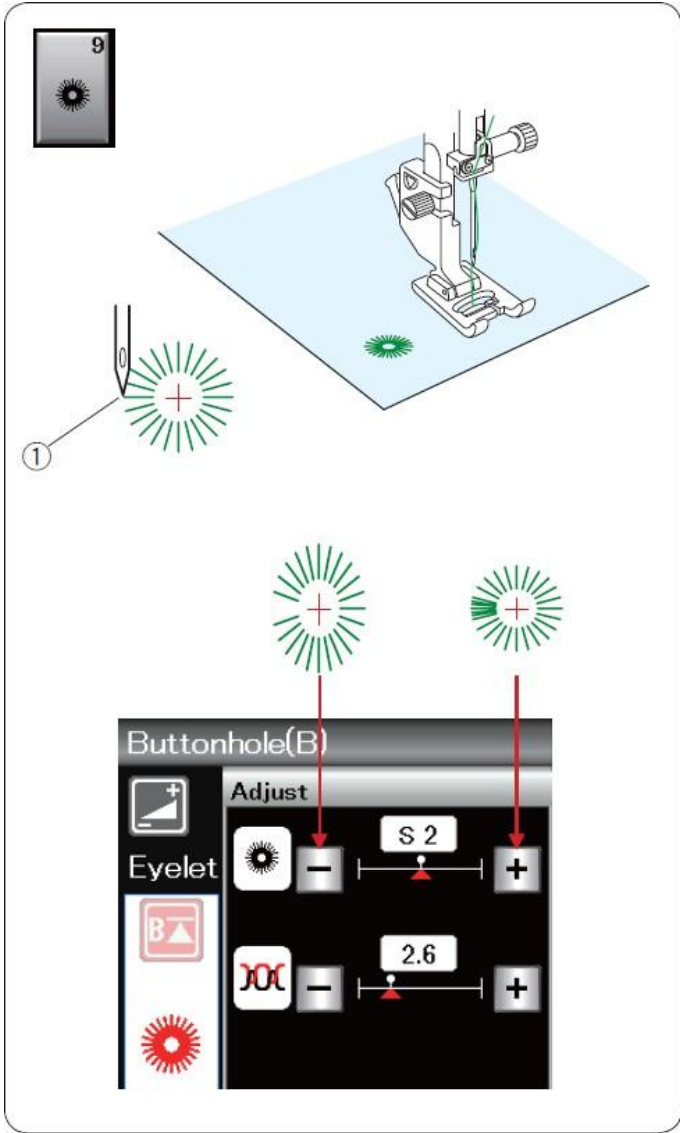
Simply start the machine to sew another darning stitch of the same size.

To sew another darning stitch of a different size, press the X key.

**Adjusting the evenness of the darning stitches:** You can correct any unevenness in the darning stitches by pressing the “-” or “+” key in the adjustment window. If the left corner is lower than the right, press the “-” key to correct; if the right is lower, press the corresponding key.

### NOTE:

See page 69 for instructions on sewing B8 basting stitches.



## B9 Eyelets

The eyelet stitch is used for belt loops, etc. Fit the F decorative stitch foot.

Place the garment under the foot and lower the needle to the starting point.

Sew until the machine stops automatically.

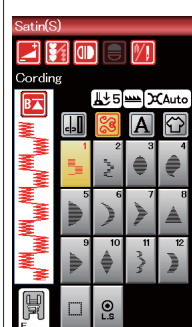
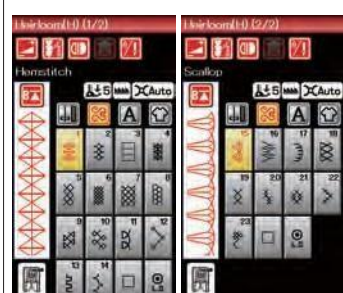
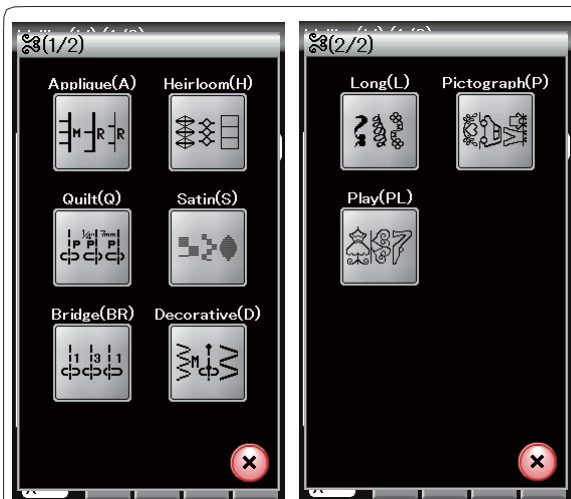
1 Starting point

Open the buttonhole with an awl, punch or sharp scissors.

To correct the shape of the buttonhole:

If the buttonhole opens, press the “-” button.

If the buttonhole overlaps, press the “+” button.



### Decorative stitches

The patterns in this section are divided into 9 groups. These patterns are programmable and can be combined.

#### Appliqué stitches (A): 1 page

The stitches in this group are used for sewing appliques. (See page 70.)

#### Classic stitches (H): 2 pages

This group includes classic and cross-stitch stitches used in handicrafts and home décor.

#### Quilting stitches (Q): 4 pages

The stitches in this group are used for joining patchwork pieces and making quilts. (See pages 71–74.)

#### Embellishment stitches (S): 1 page

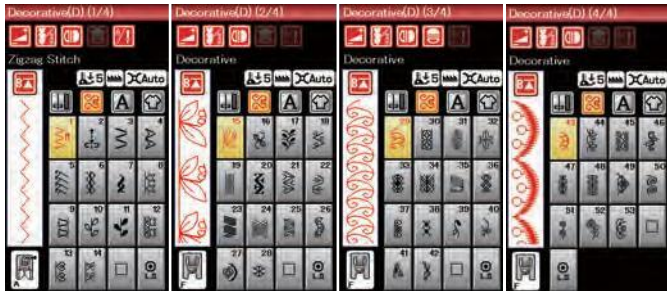
The stitches in this group can be lengthened up to 5 times their original length without changing the stitch density. (See page 50.)



**Bridge stitches (BR): 1 page**

Bridge stitches are used to insert straight stitches after a stitch pattern.

The number next to the stitch image on the straight stitch key indicates the number of stitches in a programmable unit. The BR5 and BR7 patterns use the same needle drop position and the same stitch length as the previous pattern in the programmed pattern combination.



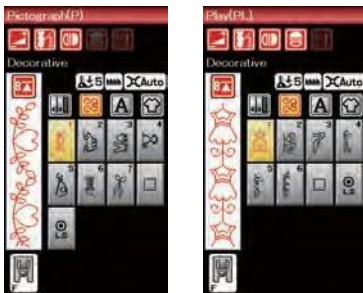
**Decorative stitches (D): 4 pages**

This group contains over 50 eye-catching patterns.



**Elongated stitches (L): 1 page**

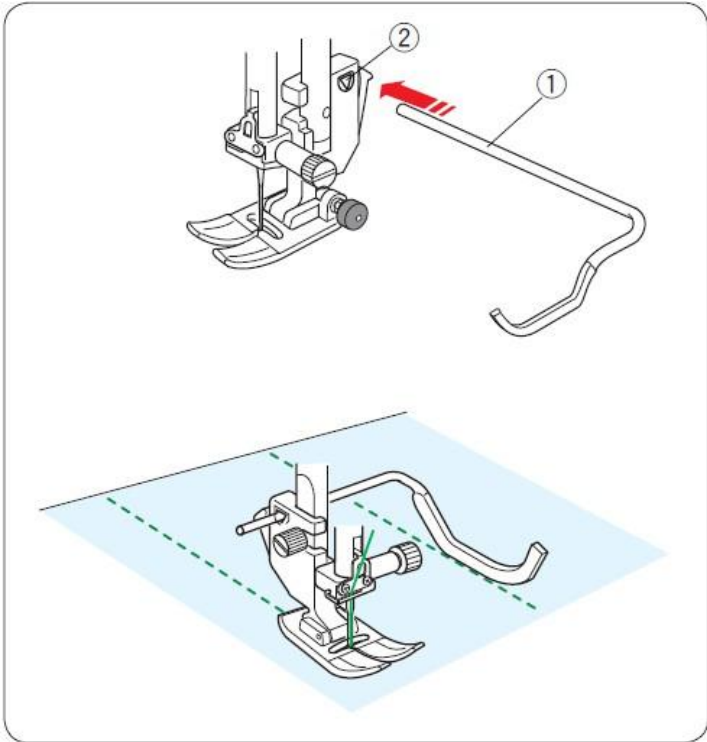
The patterns in this group are ideal for decorating garments and adding embellishments to edges.



**Pictogram stitches (P): 1 page**

**Fun stitches (PL): 1 page**

These groups contain many eye-catching designs, decorative motifs and calligraphic elements.



## Quilting (Q)

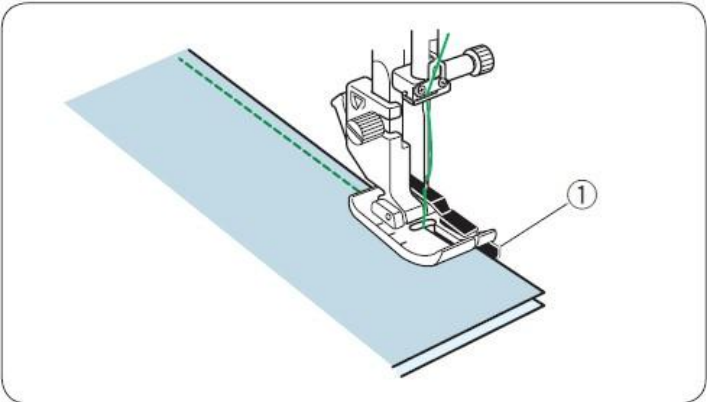
### Using the quilting guide bar

The quilting guide bar is useful for sewing stitches in parallel, in evenly spaced rows.

Insert the quilting guide bar into the hole on the back of the presser foot holder. Slide the quilting guide bar and adjust it to the desired spacing.

- 1 Quilting guide bar
- 2 Hole

Sew rows of stitches whilst following the previous row of stitches with the quilting guide bar.



### Q1-Q3 Joining patchwork pieces

Patterns Q1 to Q3 are special stitches for joining patchwork pieces.

Patterns Q2 and Q3 are used to join patchwork pieces with seam allowances of 0.6 cm and 7 mm respectively. Use the 0.6 cm O sewing foot.

Place the patchwork pieces with the right sides together. Sew by guiding the edge of the fabric along the guide.

- 1 Guide

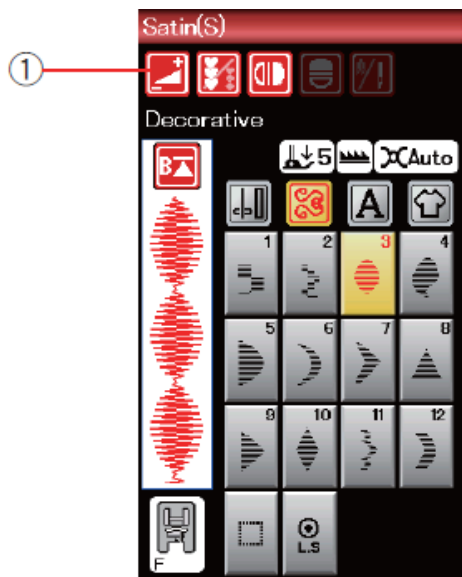


### Q43-Q46 Stitches for quilting with a hand-stitched look

Patterns Q43 to Q46 are special stitches for quilting with a hand-stitch look.

Use clear nylon thread in the needle and standard sewing thread in the bobbin.

The bobbin thread comes out through the front of the fabric and the stitches look as if they were made by hand.

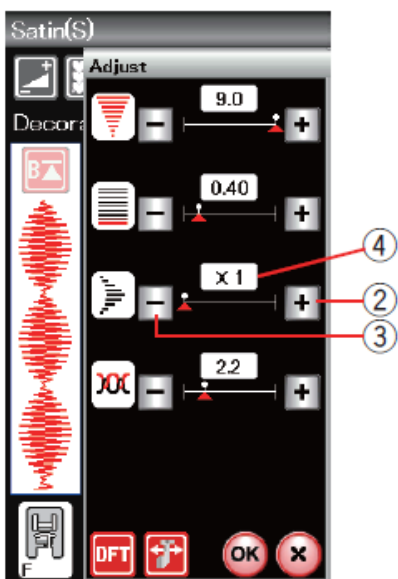


### S1-S12 Decorative topstitching stitches

Patterns S1 to S12 are decorative topstitching stitches whose pattern length can be extended without changing the stitch density.

Press the adjustment key to open the manual settings window.

1 Adjustment key



Press the "+" key to lengthen the stitch pattern.

2 "+" key (lengthening)

To reduce the lengthening ratio, press the "-" key.

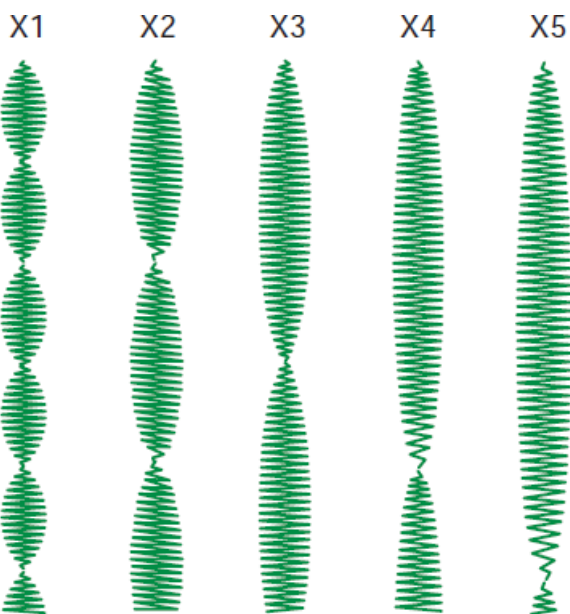
3 "-" key (elongation)

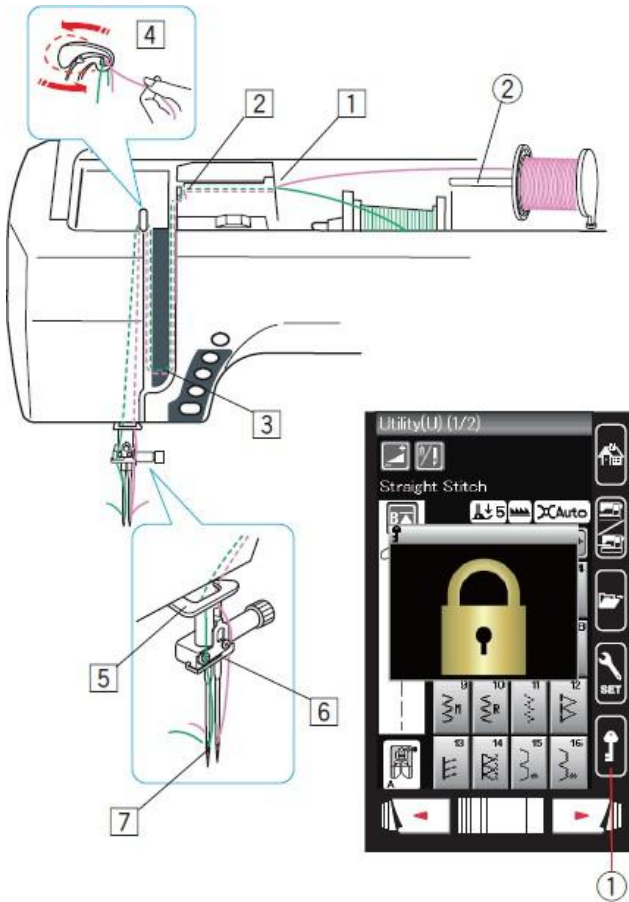
Press the OK key to save the new lengthening ratio.

The original stitch length can be lengthened up to 5 times. The lengthening ratio is shown in the display.

4 Stretch ratio

You can also adjust the stitch density and width.





## Sewing with twin needles

Some practical and decorative stitches can be sewn with a twin needle.

Replace the needle with the twin needle supplied with the standard accessories.

### CAUTION:

Switch off the machine or press the lock button to change the needle.

Do not use double needles other than the one included in the standard accessories, otherwise the needle may strike the needle plate, presser foot or bobbin holder and break.

1 Lock button

Insert the pin into the hole (see page 10). Place a spool of thread on the second spool pin and secure the spool with the spool holder.

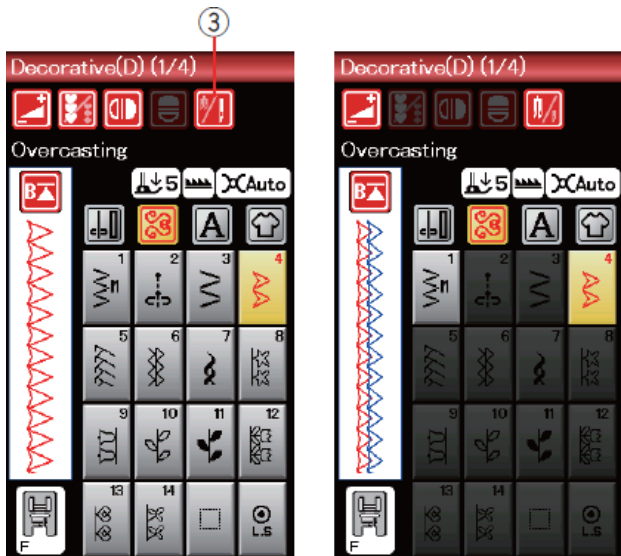
2 Second bobbin holder

Pull the threads from the bobbins and pass them through threading points 1 to 7.

Make sure the two threads from the bobbins do not get tangled.

### NOTE:

Threading steps 1 to 5 are the same as for a single needle (see page 13).



Slide one of the threads through the thread guide on the left needle bar, and the other through the one on the right. Thread the needles from front to back.

### NOTE:

The needle threader cannot be used with the twin needle.

Press the twin needle button and select the desired pattern.

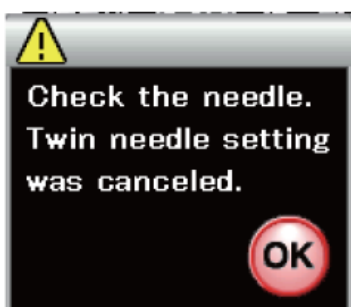
Patterns that are not suitable for sewing with a twin needle cannot be selected (the pattern selection buttons are greyed out).

Patterns for buttonholes and special stitches, monograms and appliqué sewing cannot be selected.

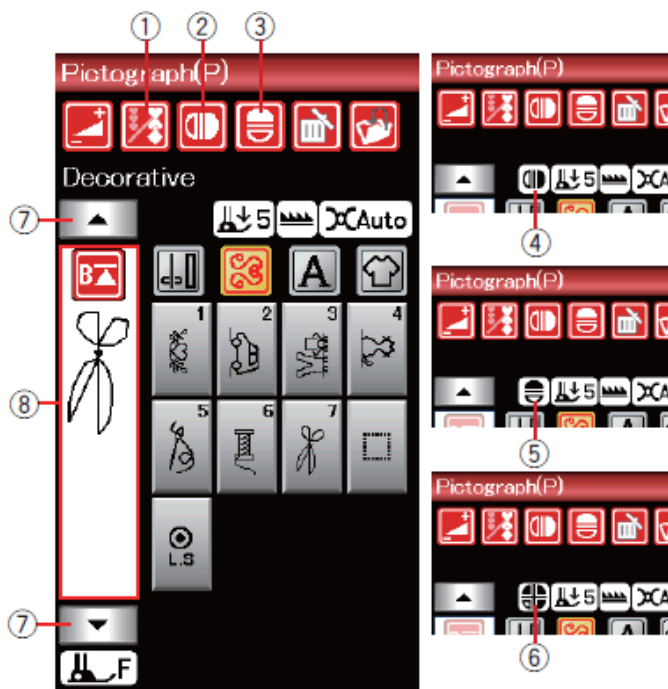
3 Twin needle button

### NOTES:

- When sewing patterns with the twin needle, test the stitches first before sewing on the garment.
- Use presser foot A for zigzag or presser foot F for decorative stitches when sewing with the twin needle.
- Use thread #60 or finer.
- When changing the sewing direction, raise the needle and presser foot, then turn the fabric.
- Use the thread cutter on the top cover when cutting threads.



When you have finished sewing with the twin needle, press the twin needle key and the warning message will appear. Press the OK key and replace the twin needle with a normal needle.



### Programming pattern combinations

Patterns in the decorative stitch and monogram categories can be programmed to create a pattern combination.

Press the programming key and select the patterns you wish to program.

Images of the programmed patterns are displayed on the left-hand side of the LCD screen.

1 Programming key

### Mirrored pattern images

To sew or program the pattern as a mirror image, press the vertical mirror or horizontal mirror key.

The mirror icon appears on the screen and the mirror function is activated.

Select the desired patterns to create the mirrored image.

Press the vertical mirror key again to cancel the mirror function.

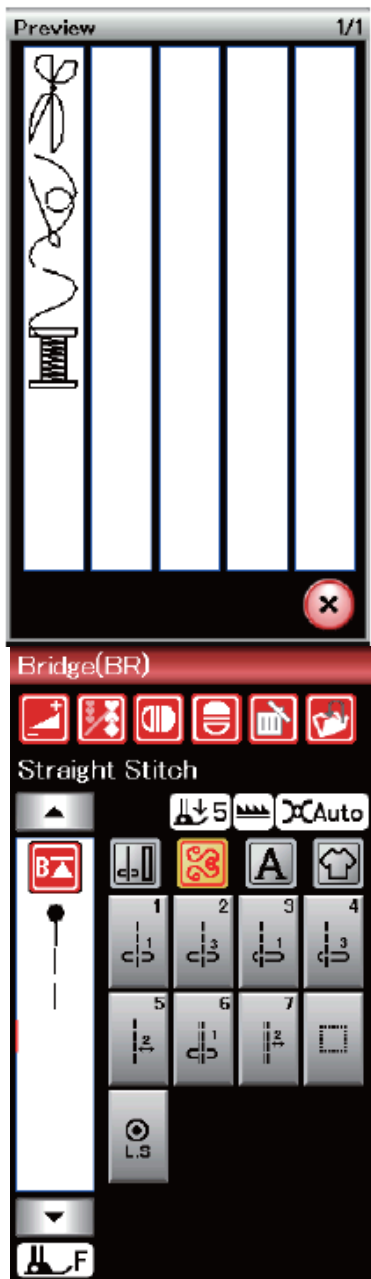
2 Vertical mirror key

3 Horizontal flip key

4 Vertical mirror image icon

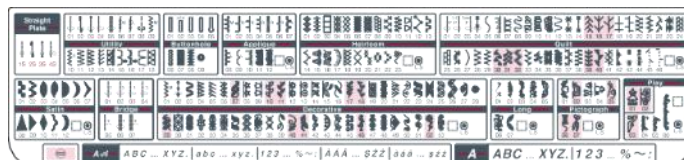
5 Horizontal mirror image icon

6 Vertical and horizontal mirror image icon



### NOTE:

- Horizontal mirroring is only available with certain patterns. To make them easier to identify, these patterns are marked in pink in the reference table on the inside of the top cover.



- The mirroring function will be cancelled and the mirroring icon will disappear if the selected pattern is not suitable for mirroring.

To view the full pattern combination, press the cursor key to scroll through the of patterns or press the edit box to view the entire pattern combination.

7 Cursor key

8 Edit box

### Bridge stitches

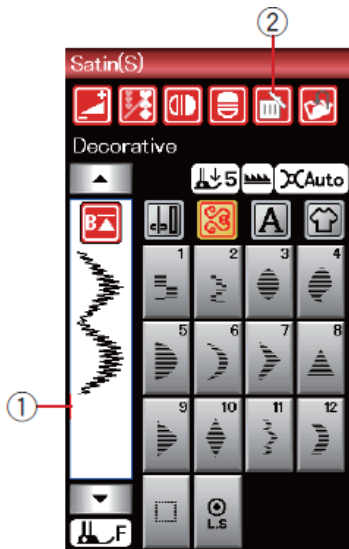
Bridge stitches are used to insert straight stitches after a stitch pattern.

If you want more space between French knots (D2), for example, insert pattern BR5 after pattern D2.

Two straight stitches are added to the D2 pattern.

### NOTE:

The BR5 and BR7 patterns use the same stitch length and the same needle drop position as the previous pattern in the pattern combination.

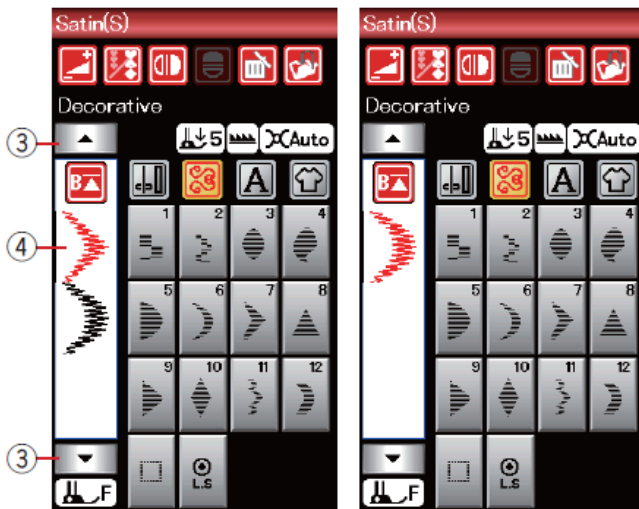


## Editing the pattern combination

### Deleting patterns

The pattern preceding the cursor or highlighted in red is deleted after pressing the delete key.

- 1 Cursor
- 2 Delete key



To delete a pattern in the middle of a combination, press the cursor key to select the pattern you wish to delete. The stitch image of the selected pattern turns red. Press the delete key to delete the selected pattern.

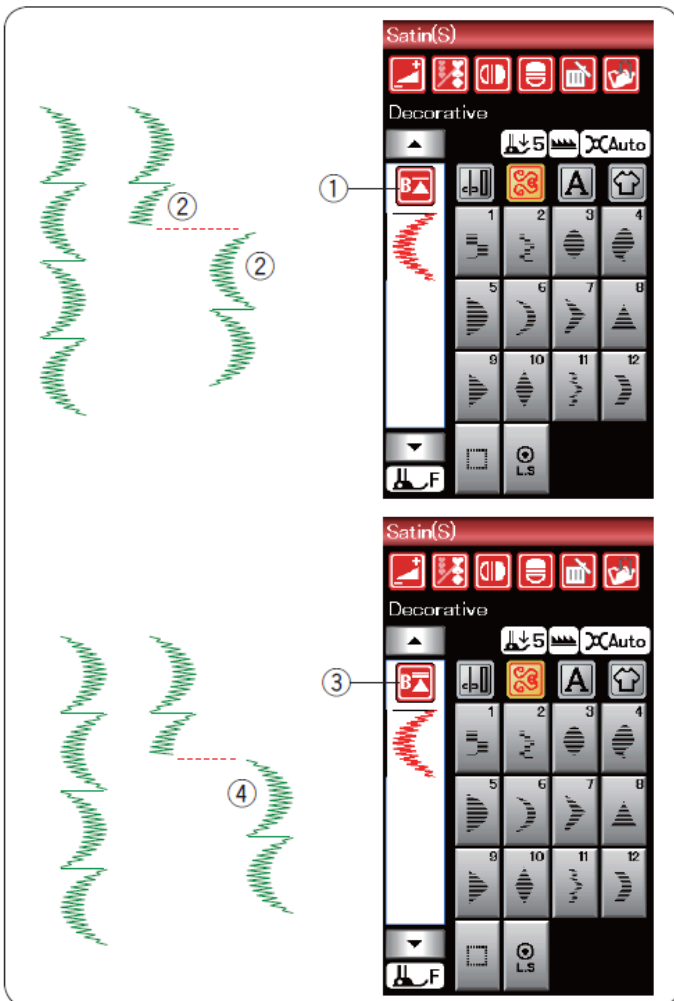
- 3 Cursor key
- 4 Selected pattern



### Inserting a pattern

Press the cursor key to select the pattern that comes after the one you wish to insert. Enter the pattern you wish to insert before the selected pattern.

- 5 Inserted pattern



### Reset key

This is a key that functions in two ways to start sewing a pattern combination from the beginning.

When you stop sewing a pattern combination, the reset key is activated.

The key displays a triangle and a single bar, indicating that the machine will restart from the current pattern.

When the reset key is pressed, the key changes and displays a triangle and a double bar, indicating that the machine will restart from the first pattern in the combination.

### Restart from the current pattern

If you wish to start sewing from the beginning of the current pattern, press the reset key once and start the machine.

- 1 Reset key (current pattern)
- 2 Current pattern

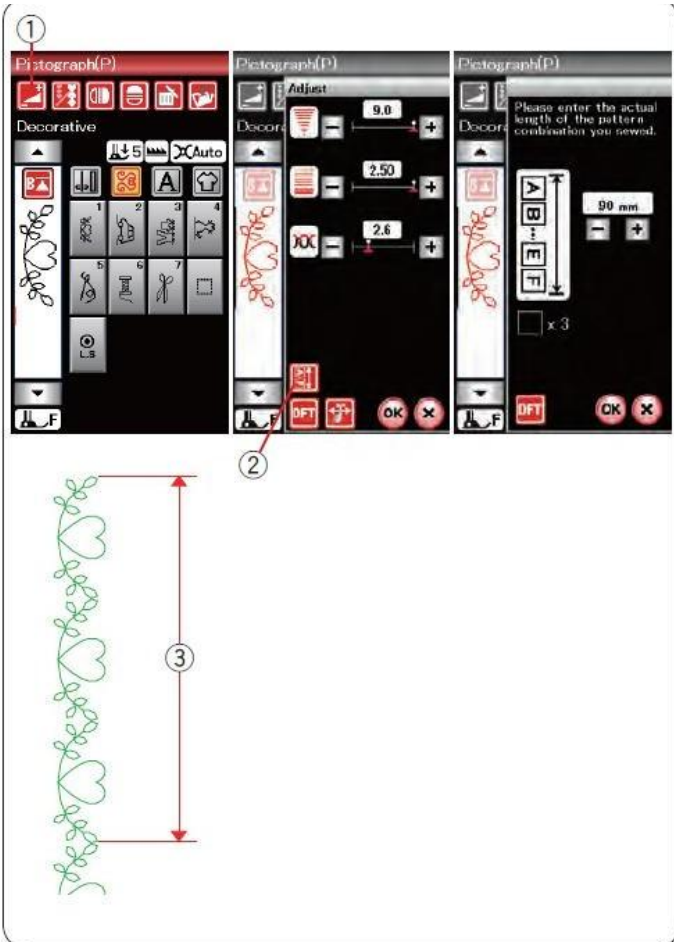
### Restart from the first pattern

If you wish to start sewing from the beginning of the first pattern in the combination, press the reset button twice and start the machine.

- 3 Reset button (first pattern)
- 4 First pattern

### NOTE:

When the thread is cut, the machine restarts from the first pattern.



### Checking the length of the pattern combination

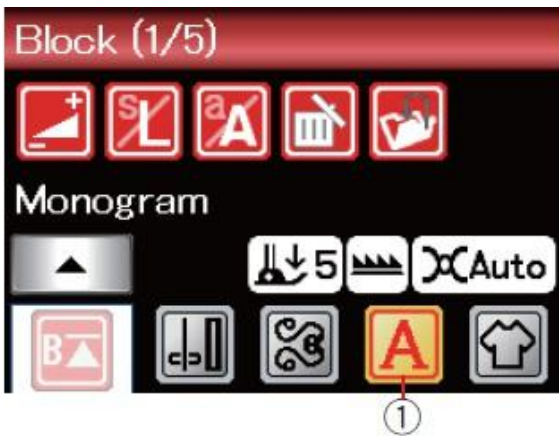
You can check the total length of the pattern combination by pressing the pattern combination 2 key shown in the manual adjustment window. To enter the manual adjustment window, press the adjustment 1 key. The total length reading is a theoretical value and the actual length may vary depending on sewing conditions.

For example, program pattern 1 three times and sew a pattern combination.

If the actual length differs significantly from the reading, measure the actual length and enter the closest value by pressing the "+" or "-" key.

- 3 Actual length

When calculating the length of other pattern combinations (for example, the combination of patterns P1XP3), the length is adjusted automatically.



## Monograms

You can programme letter and symbol designs to create monograms.

Press the monogram key and the font selection window will open.

1 Monogram key

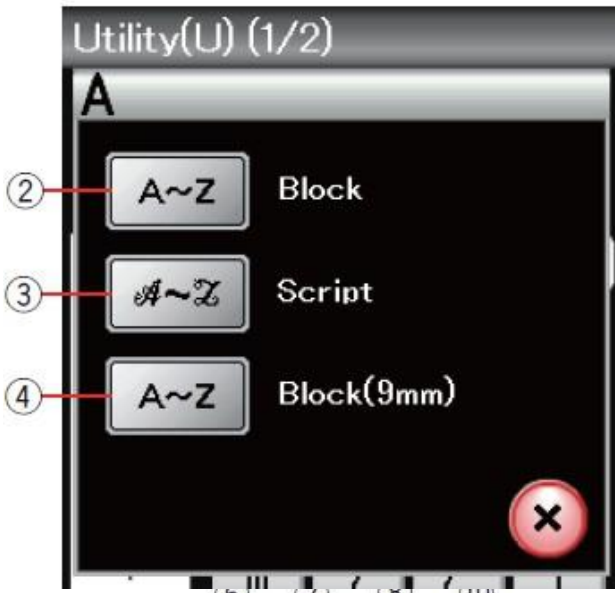
You can select one of the 3 font and symbol designs. Select the desired font or symbol by pressing the corresponding key.

2 Block font key

3 Handwritten font key

4 Block font key (9 mm)

The monogram mode window will open.



## Function keys

### 5 Cursor key

Press the cursor key to move the cursor up or down.

### 6 Font size key

Press this key to select normal size (L) or small size (S).

### 7 Shift key

Press this key to select upper or lower case.

### 8 Delete key

Press this key to delete the selected character or symbol.

### 9 Edit box

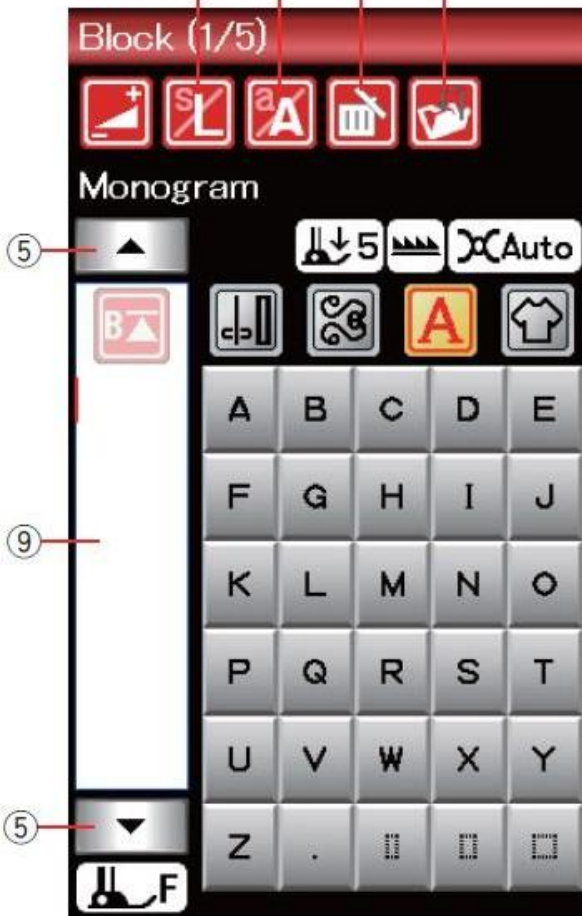
Press this Edit box to save the monogram as a data file.

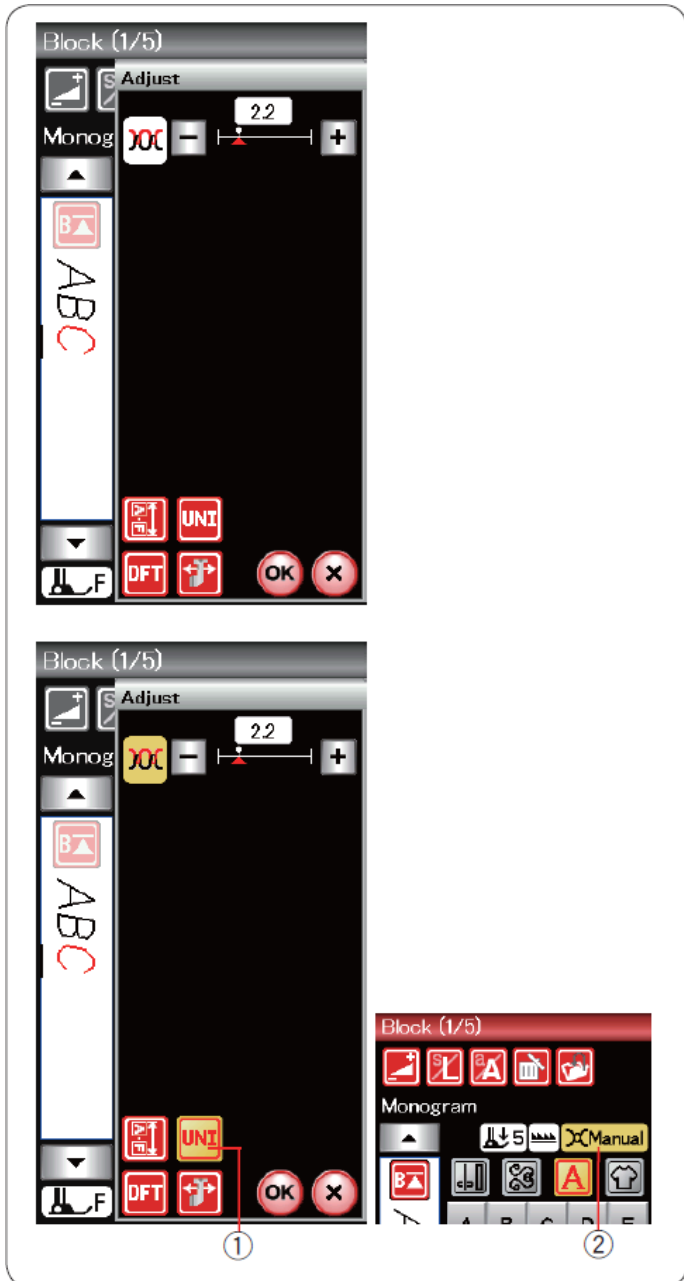
### 10 Save button

Press this key to save the monogram as a data file.

### NOTE:

Numbers, symbols and letters from European alphabets can be found on pages 2/5 to 5/5.





### Thread Tension Manual

This machine is equipped with automatic thread tension control. However, you may need to manually adjust the tension balance depending on the sewing conditions.

To adjust the thread tension, press the adjustment key to open the manual adjustment window.

### Individual thread tension adjustment

To apply the thread tension setting individually to each character, select the character with the cursor.

Press “+” or “-” to adjust the thread tension of the selected letter. The selected thread tension will be applied to the selected letter.

### Unified thread tension adjustment

To apply the thread tension setting to all letters simultaneously, you do not need to select the letter.

Press the unified thread tension key 1. The key turns orange when activated.

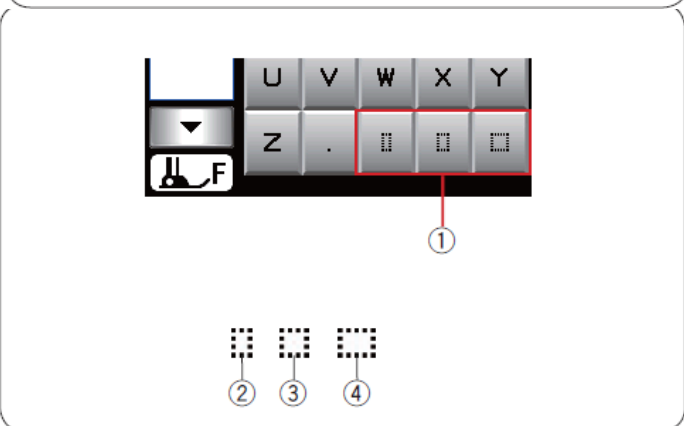
Press “+” or “-” to adjust the thread tension.

Press the OK key. The selected thread tension will be applied to all entered letters.

When the unified thread tension control is applied, the thread tension window turns orange 2.

### NOTE:

The unified thread tension setting can only be applied to monogram patterns.



### Spacing

To insert a space in the monogram, click one of the three space icons in the bottom right-hand corner of the monogram selection window.

- 1 Spacing icons
- 2 Small spacing
- 3 Medium spacing
- 4 Large space



### Monogram size

To reduce the height of a character to approximately two-thirds of its original size, select the character and press the font size 1 key.



## Programming a monogram

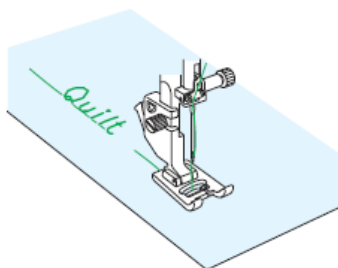
To program a monogram, simply enter the characters by pressing the corresponding keys.

**Example 1: "Quilt"** in block letters

Select the block font. Enter "Q".

Press the upper- and lower-case key to select lower-case.  
1 Shift key

Enter "u", "i", "l" or "t".



**Example 2: "Coffee"** in Broadway font

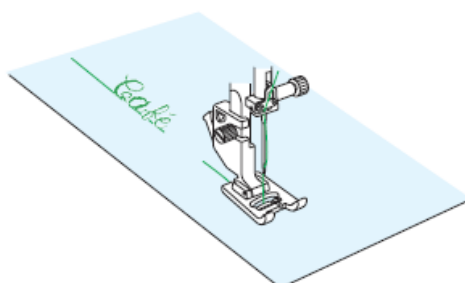
Press the monogram key and select the Script font.  
Enter "C".

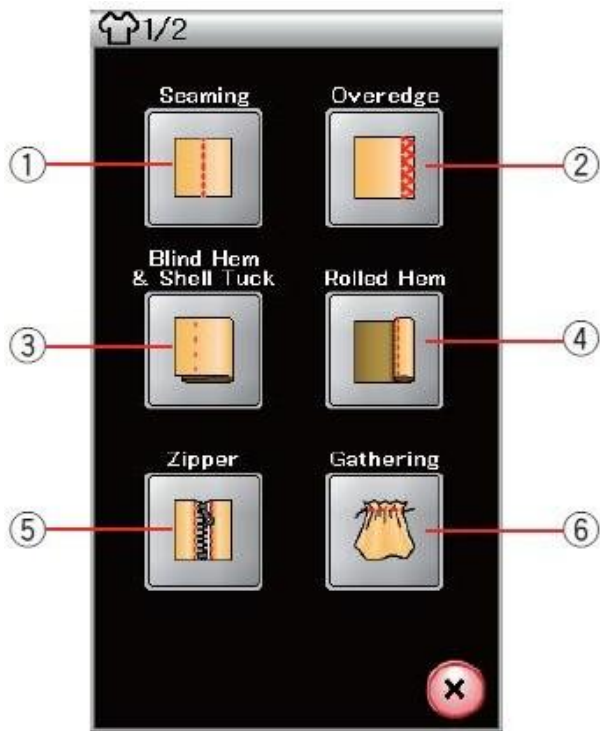
Press the Shift key and select lower case.  
Enter "a" and "f".

Press the next page key to go to page 4 of 5.  
Enter "é".

### NOTES:

Use a blue-tipped needle for sewing monograms. Place a piece of removable backing fabric when sewing on thin or stretchy fabrics.  
Do a test stitch to check the result.





## Sewing app

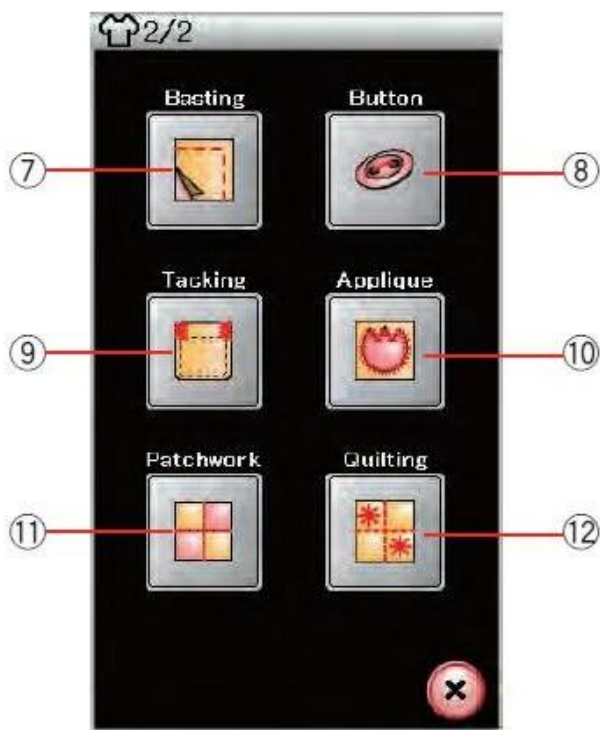
The Stitch Application is a unique feature offering 12 useful sewing applications.

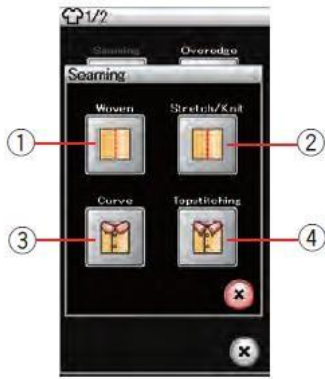
Press the sewing application key to open the sewing application menu. Press the next page key to access the second page of the menu.

The following are the 12 sewing applications:

- 1 Stitching
- 2 Overlock
- 3 Blind hem and pleats
- 4 Rolled hem
- 5 Zip sewing
- 6 Gathering

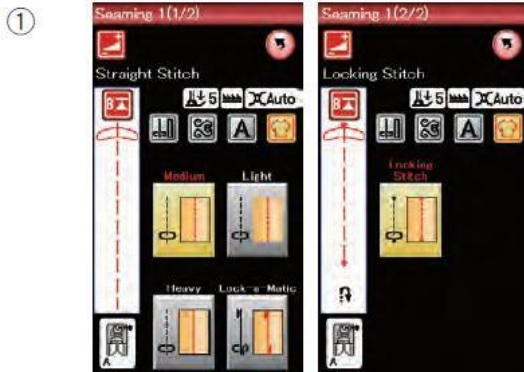
- 7 Basting
- 8 Button sewing
- 9 Basting
- 10 Appliqué
- 11 Patching
- 12 Quilting





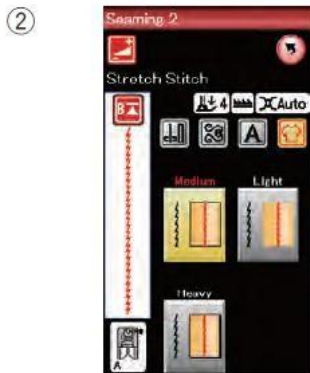
## Sewing

In this group there are 4 types of sewing stitches.



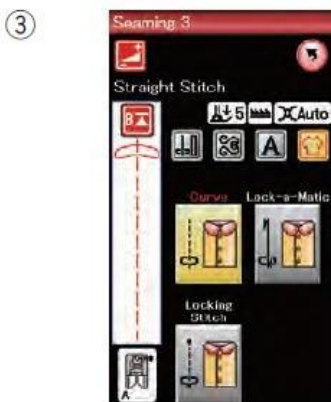
### 1 Woven fabric

Straight stitches for sewing on standard woven fabrics.



### 2 Stretch/Knit

Narrow stretch stitches for sewing on stretch or knitted fabrics.



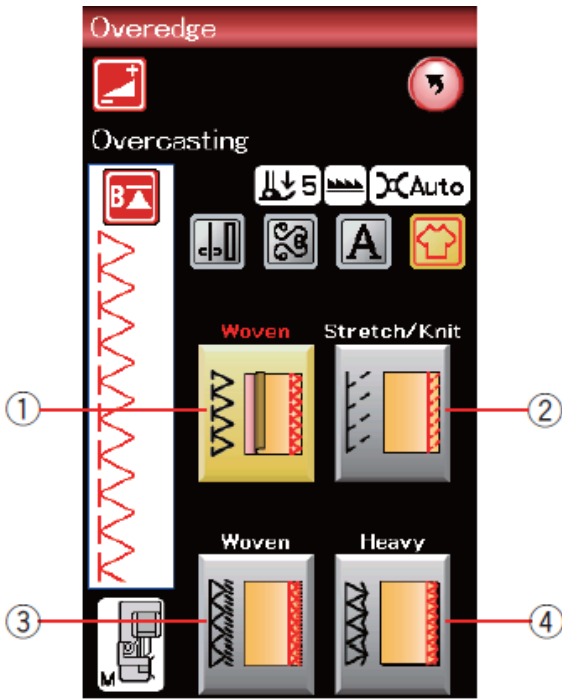
### 3 Curves

Straight stretch stitches for sewing curved lines.



### 4 Contours

Long stretch stitch for sewing contours with thick threads.



## Overlock

### 1 Woven fabric

Overlock stitch for sewing on standard woven fabrics.

### 2 Stretch/Knit

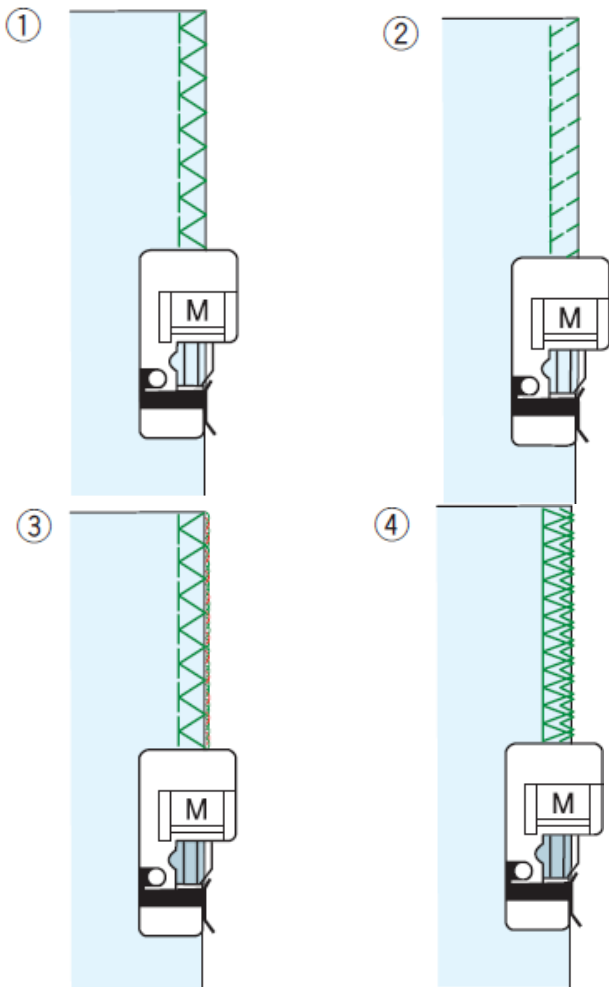
Knit stitch for finishing raw edges on stretch or knitted fabrics.

### 3 Woven fabric

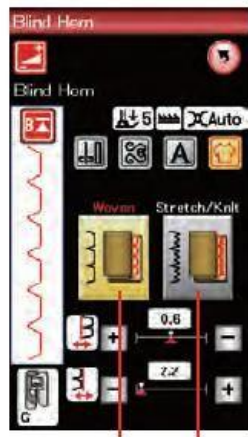
Overlock stitch similar to that of a professional overlock machine.

### 4 Heavyweight fabric

Double overlock stitch to prevent fraying of the edges of sheet and gabardine fabrics.



See page 31 for information on how to sew.



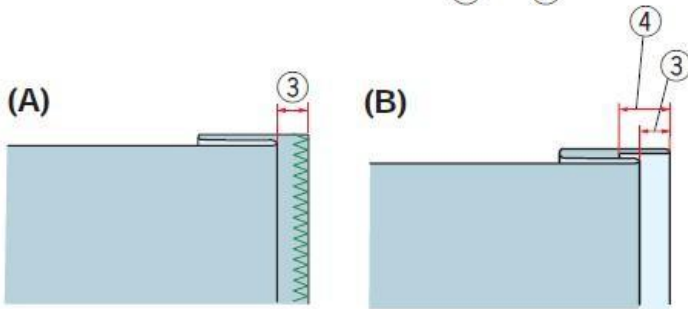
① ②

## Blind hem

Select "Blind hem".  
The following 2 options can be used.

1 Woven fabric  
For making blind hems on standard woven fabrics.

2 Stretch/Knit  
For making blind hems on stretch or knitted fabrics.



### To sew:

Fit the G blind hem foot.

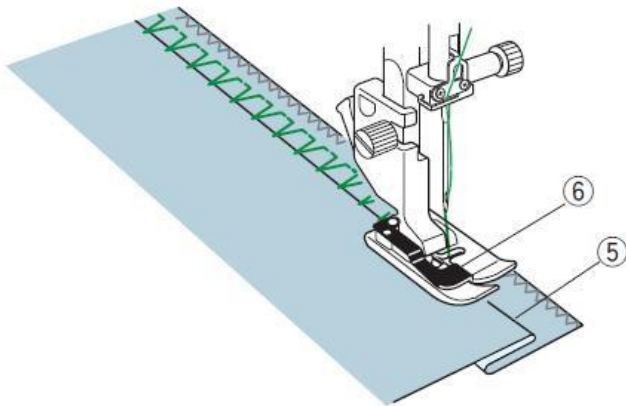
Fold the fabric to form a hem, leaving a 0.5 cm allowance, as shown.

3 0.5 cm (1/4")

(A) Medium to heavy fabrics: The raw edge must be overlapped.

(B) Lightweight fabrics: Make a 1 cm fold in the raw edge (1/2").

4 1 cm (1/2")



Position the fabric so that the fold is to the left of the presser foot guide. Lower the presser foot.

The needle should pierce the folded edge as it moves to the left.

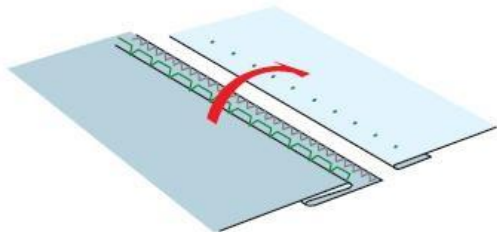
If necessary, adjust the needle drop position. Sew by guiding the fold along the guide.

5 Fold

6 Guide

When you have finished sewing, open the fabric.

The seam on the right side of the fabric will be virtually invisible.



**Adjusting the needle drop position** Press the adjustment key to open the manual settings window.

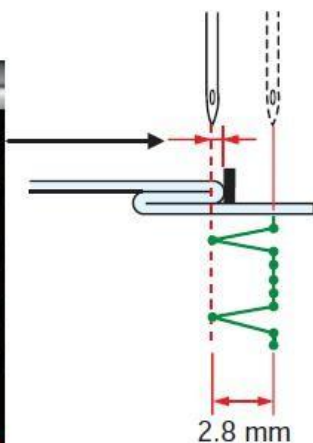
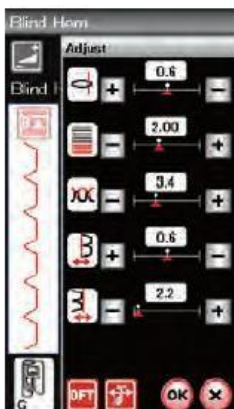
Press the "+" key in the top row to move the needle drop position to the left.

Press the "-" key in the top row to move the needle drop position to the right.

Press the OK key to save the setting.

The needle drop position will change, but the stitch width (2.8 mm) will remain constant.

The distance between the left needle drop position and the presser foot guide is indicated in millimetres.



### NOTE:

You can change the stitch width by moving the needle drop position to the right.

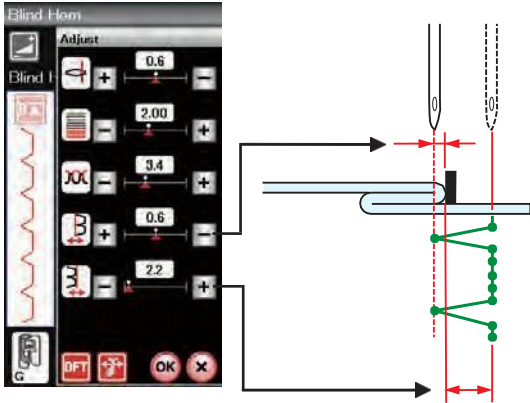
## Changing the blind hem stitch width

Press the “+” key on the bottom row to increase the stitch width.

Press the “-” key on the bottom row to reduce the stitch width.

### NOTE:

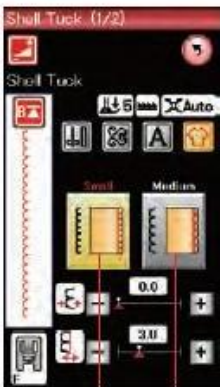
The left needle drop position can be adjusted using the “+” or “-” keys on the top row.



## Pleats

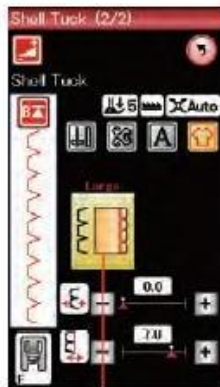
Select “Pleats”.

The following 3 options are available.



①

②



③

1 Small

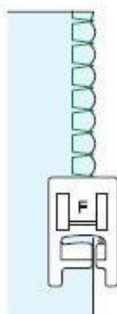
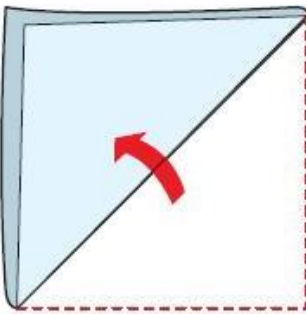
Stitch for narrow pleats

2 Medium

Stitch for medium-width pleats

3 Large

Stitch for standard pleats



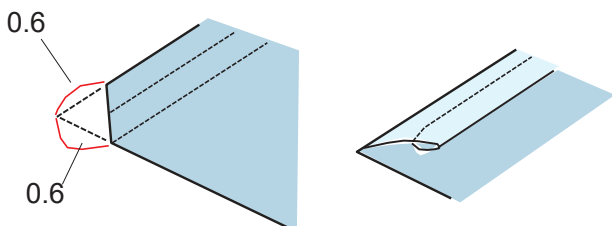
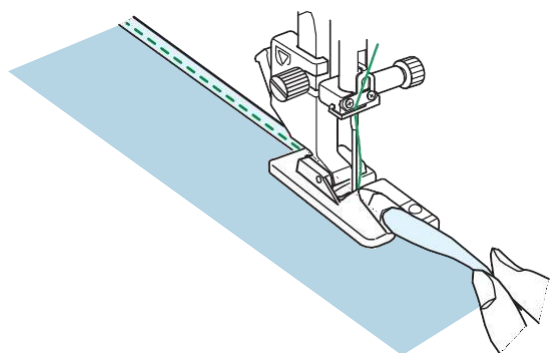
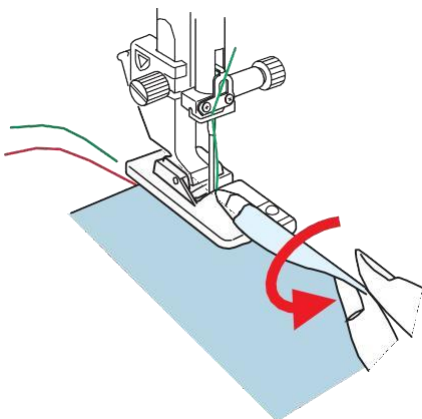
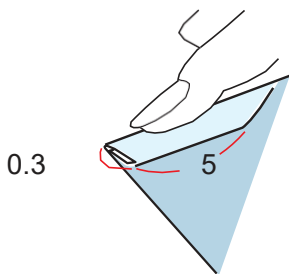
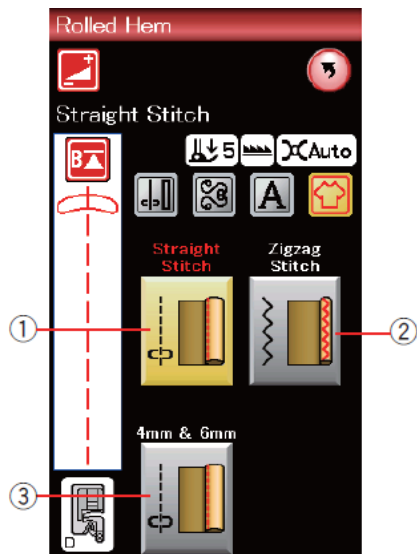
### To sew:

Use a thin fabric (jersey, for example).

Fold the fabric on the bias as shown in the diagram and sew a few stitches along the fold.

Make sure the needle falls just next to the edge to create a pleated edge.

If sewing several pleats, leave a minimum gap of 1.5 cm between the rows.



## Rolled hem

1 Straight stitch

Rolled hem with straight stitch

2 Zigzag stitch

Rolled hem with narrow zigzag stitch

3 4 mm and 6 mm

Rolled hem with the optional rolled hem foot D1 and D2

### To sew:

Fit the rolled hem foot D.

Fold the fabric edge twice to form a hem 0.3 cm wide and 5 cm long, then press.

Position the fabric so that the edge of the hem is aligned with the guide on the presser foot. Turn the handwheel to lower the needle to the starting point.

Lower the presser foot and sew several stitches slowly whilst pulling the threads to help guide the fabric.

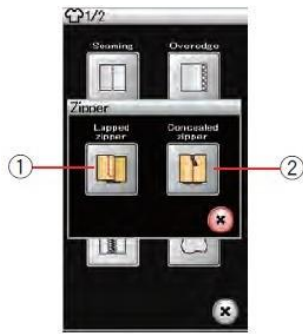
Stop the machine and lower the needle onto the fabric.

Raise the presser foot and insert the folded part of the fabric into the groove of the foot.

Lower the presser foot and sew, lifting the edge of the fabric so that it feeds in evenly and smoothly.

### NOTE:

Trim about 0.6 cm from the corners to reduce the thickness.



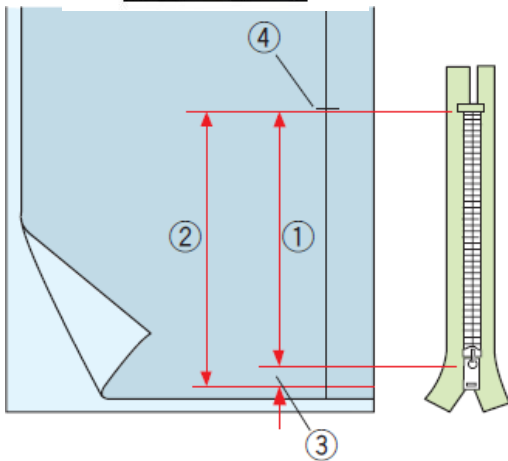
## Sewing zips

### 1 Folded zip

Fitting folded zips with the E zip foot

### 2 Concealed zip (optional)

Inserting a concealed zip using the Z-foot for concealed zips.



### Sewing folded zips

Press the folded zip icon to open the corresponding window. Click the stitch step icon so that the machine is automatically set up for each stitch step.

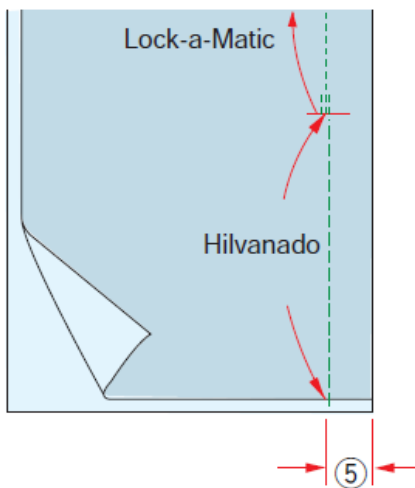
### Preparing the fabric

Add 1 cm to the size of the zip. This is the total size of the opening.

Mark the end of the opening.

- 1 Zipper size
- 2 Opening size
- 3 1 cm
- 4 End of the opening Fit

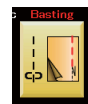
the zigzag foot A.



### Lock-a-Matic

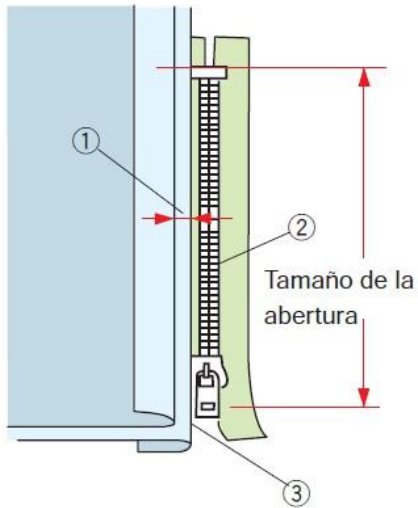
Join the right sides of the fabric and sew up to the end of the opening, leaving a 2 cm seam allowance.

- 5 2 cm



### Basting

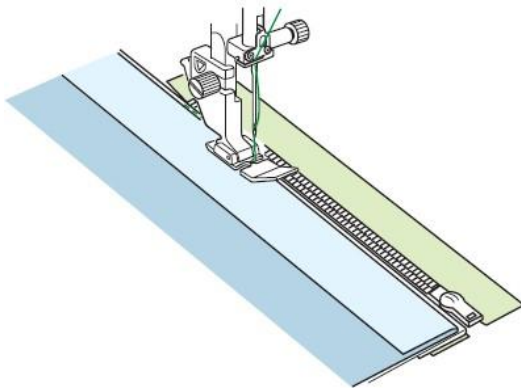
Baste the opening of the zip.



### Left side of the seam

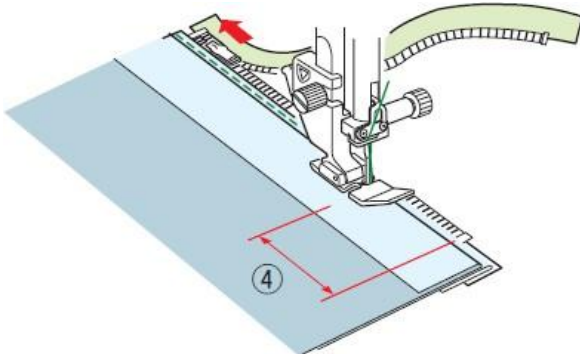
Fit the E zip foot.  
 Fold the left edge back. Tuck the right seam allowance underneath to form a fold of 0.2 to 0.3 cm.  
 Place the teeth of the zip next to the fold and pin in place.

- 1 0.2–0.3 cm
- 2 Zipper teeth
- 3 Fold



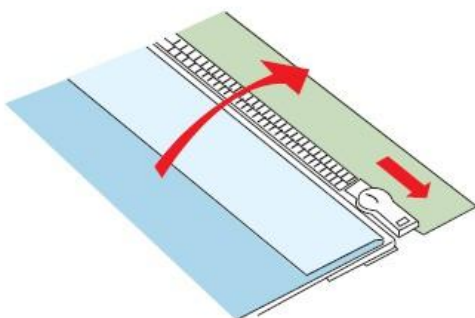
Lower the presser foot onto the top of the zip base so that the needle passes through the fabric next to the fold and the zip tape.  
 Sew along the length of the zip, guiding the zip teeth along the lower edge of the presser foot.

Sew all the layers next to the fold.



Stop 5 cm before the E-zipper foot reaches the slider on the zip tape.  
 4 5 cm (2")

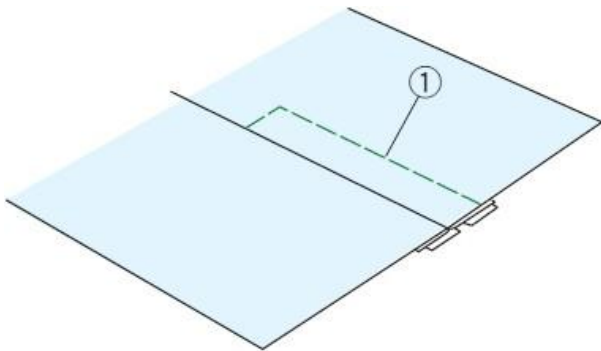
Raise the foot and open the zip. Lower the foot and sew the rest of the seam.



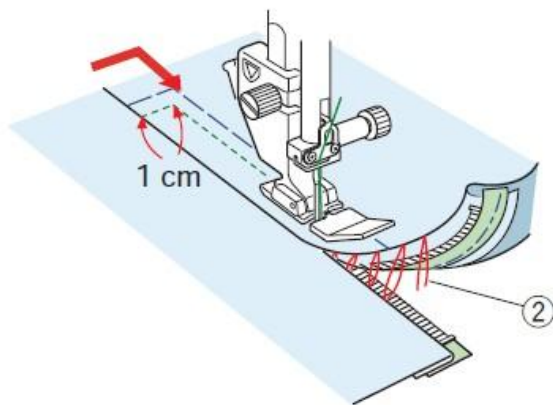
Close the zip and open the fabric, with the right side of the fabric facing up.

## Basting

Change the presser foot to the zigzag foot A.  
Baste the open fabric and the zip tape together.  
1 Basting

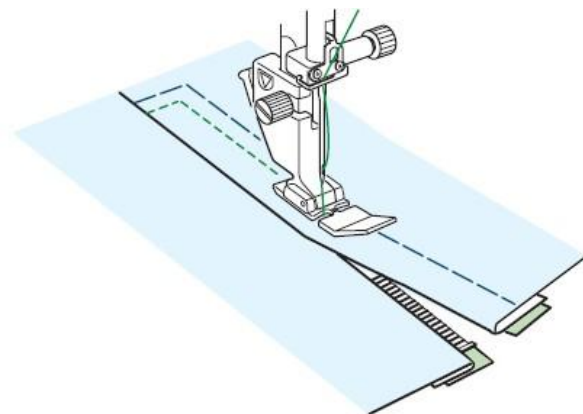


**Right side of the seam** Replace the presser foot with the E zip foot. Stitch the end of the opening 1 cm from the edge. Join the fabric and the zip tape, guiding the teeth of the zip along the bottom edge of the presser foot. Stop about 5 cm from the top of the zip. Lower the needle into the fabric, raise the presser foot, and remove the basting stitches.

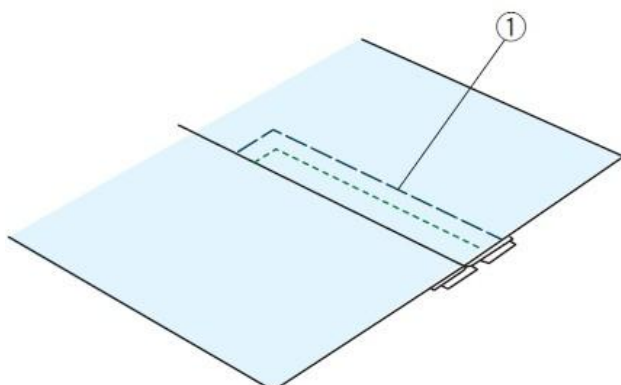


2 Basting stitches

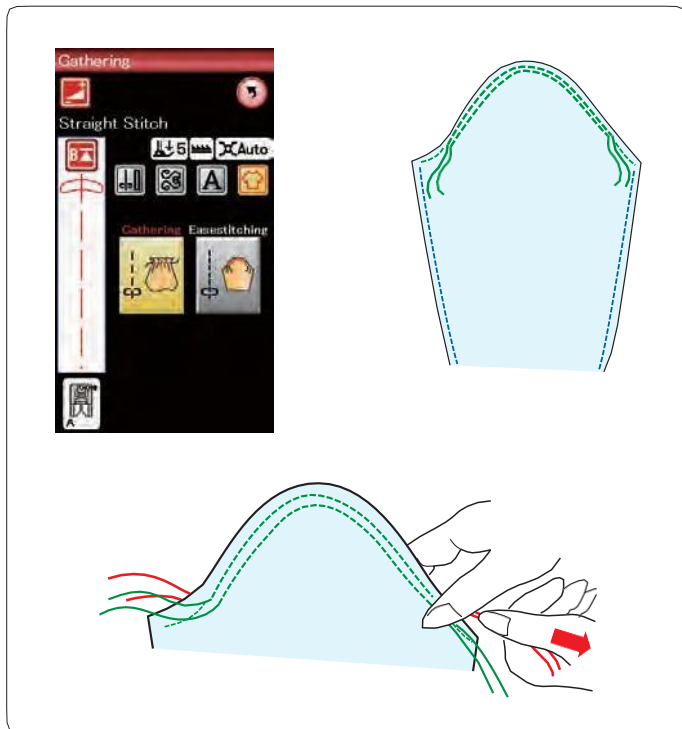
Open the zip and move the slider towards the back of the presser foot.



Lower the presser foot and sew the rest of the seam, leaving an even fold.



Unpick the basting stitches.



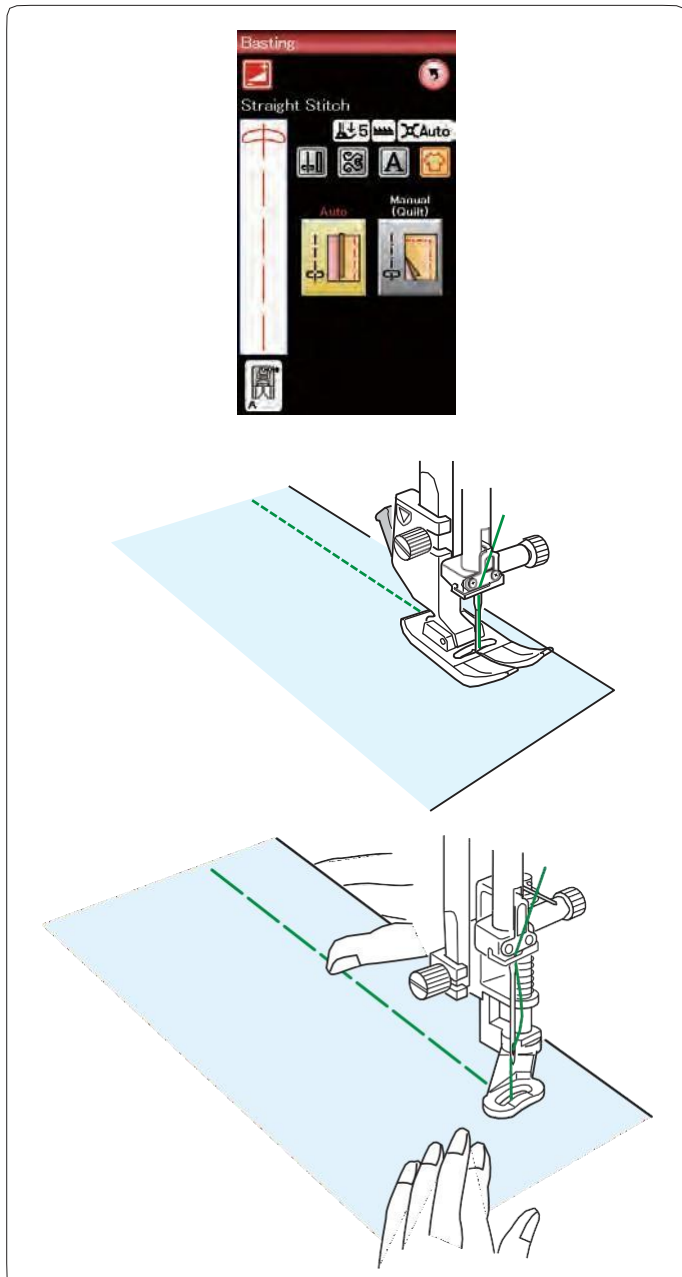
## Gathering

In addition to the standard gathering stitch, this section includes a special stitch for loosening the top of sleeves.

### Loosening the top of a sleeve

Bring the bobbin thread up.  
Sew two lines 3 mm apart along the edge of the top of the sleeve.

Carefully pull the bobbin threads to gather the top of the sleeve and adjust it to the size of the armhole. Do not gather the top of the sleeve.



## Basting

There are 2 basting stitches in this section.

### Basting (automatic)

This stitch is used for basting zip tapes or garment samples. Sew in the same way as a straight stitch.

### Basting (manual/quilting)

Fit the PD-H darning foot. Lower the feed dog.

#### NOTE:

See page 18 for instructions on how to attach the PD-H darning foot.

#### To sew

Keep the fabric taut and press the foot control. The machine will sew one stitch and stop automatically. Slide the fabric back to sew the next stitch.



## Sewing on buttons

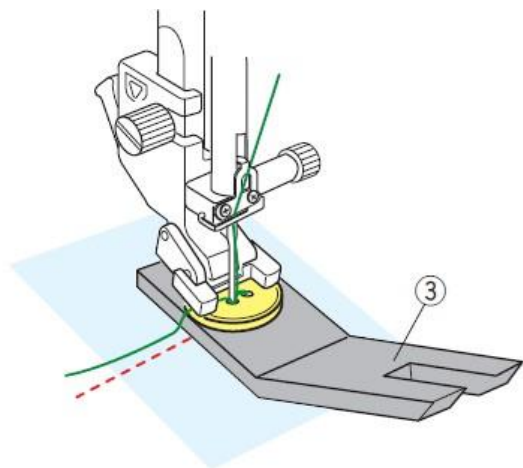
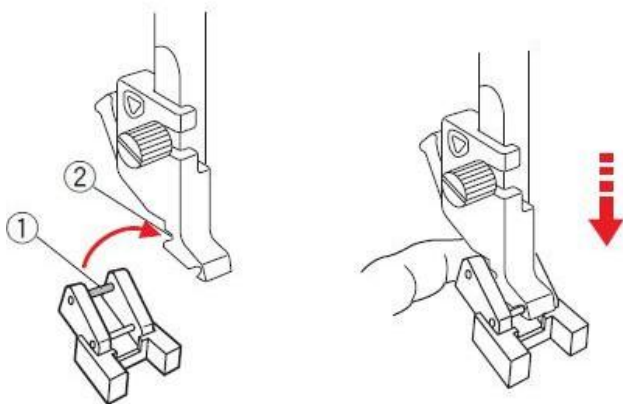
If you are sewing a button onto thick fabric, you will need to form a bar tack with the button plate.  
Lower the feed dog.

### Fitting the T-foot for sewing on buttons

Press the lock button to lock the machine. Insert the rear pin of the foot into the rear slot of the foot holder.

- 1 Rear pin
- 2 Rear slot

Gently lower the presser foot lifter, holding the foot with your fingers to fit the foot into place. Press the lock button to unlock the machine.



Place the button on the fabric and lower the needle into the left-hand hole of the button by turning the handwheel.  
Insert the button plate under the button.  
Lower the presser foot to secure the button, aligning it with the direction of the button.

- 3 Button plate

Raise the needle by turning the handwheel until the needle bar moves to the right.  
Press the "+" and "-" buttons to make the needle enter through the right-hand hole of the button.

Start sewing and continue until the machine stops automatically.

Remove the fabric from the machine.

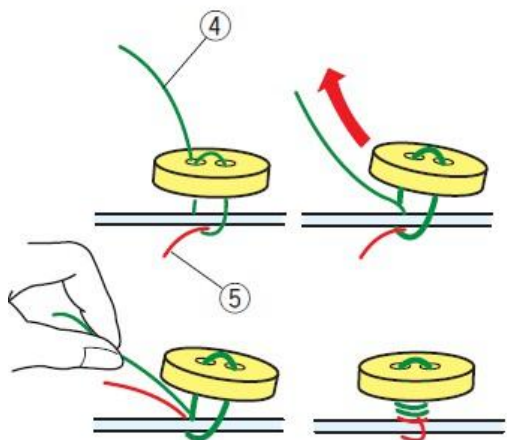
Cut all the threads, leaving at least 10 cm of thread.  
Cut the starting threads close to the fabric.

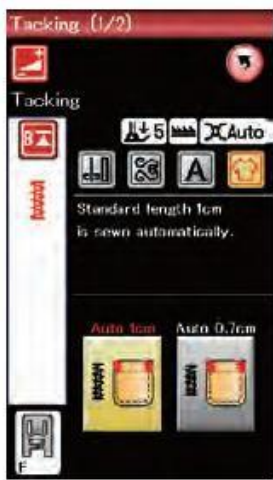
Pass the needle thread at the end of the seam through the left-hand hole of the button, between the button and the fabric.

Pull the needle thread to bring the bobbin thread through to the right side of the fabric.

- 4 Needle thread at the end
- 5 Bobbin thread

Wrap the threads to form a bar tack and tie a knot with them.

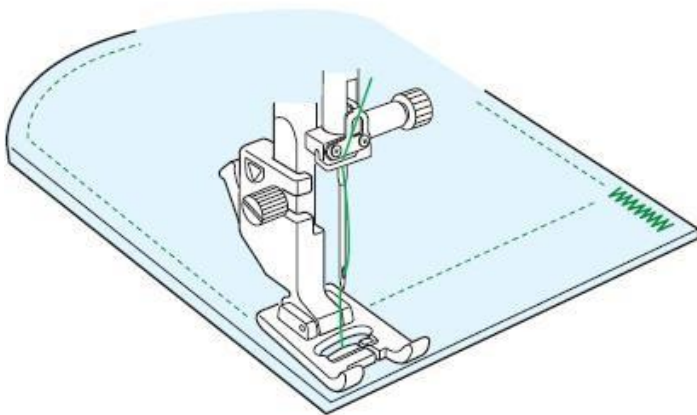




## Basting

Basting is used to reinforce pockets, the crotch area and waistbands, which need to be particularly strong.

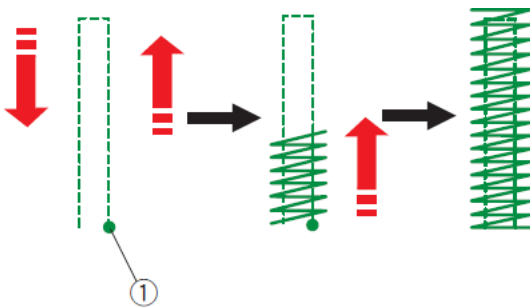
There are 3 sizes of automatic bar tacking and one manual bar tacking. Fit the F bar tacking foot.



## Automatic basting

Lower the needle at the starting point and start sewing. The machine sews the selected size of basting stitch and stops automatically when finished.

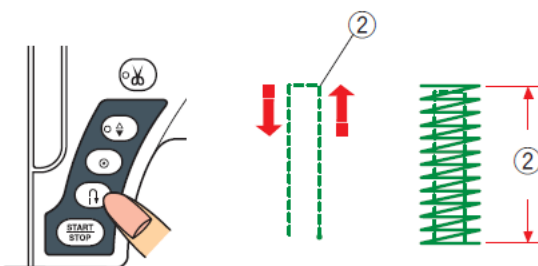
1 Starting point



## Manual basting

Start the machine and sew the required length, then press the reverse button. This sets the basting length. Continue sewing until the machine stops automatically.

2 Required length



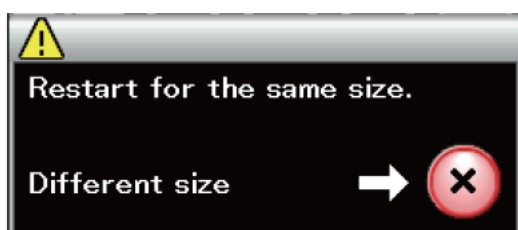
## NOTE:

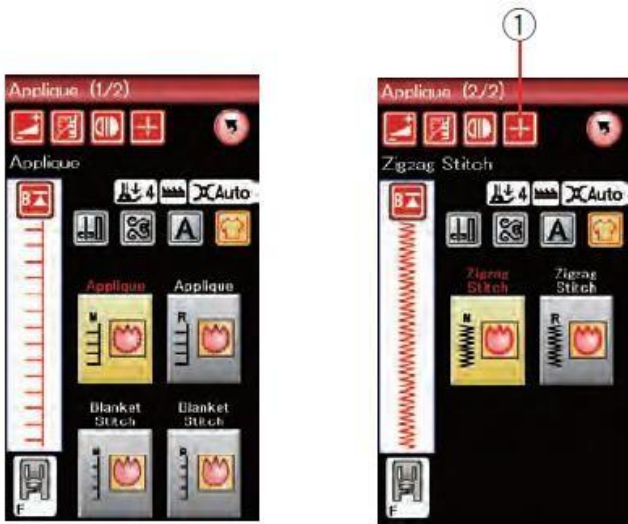
The maximum basting length is 1.5 cm.

## To sew basting stitches of the same size

To sew another basting stitch of the same size, simply start the machine and sew until it stops automatically.

To sew the next basting stitch of a different size, press the X button.





## Appliques

This section contains 6 types of appliqué stitches.

Press the needle stop position key to select the stop position, either up or down.

1 Needle stop position button

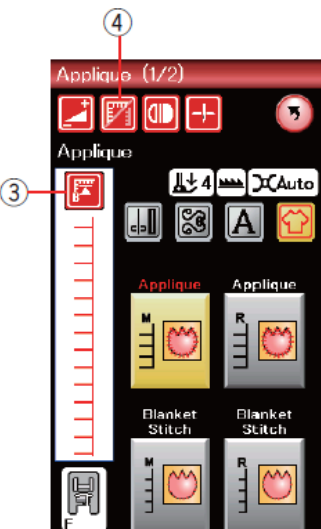
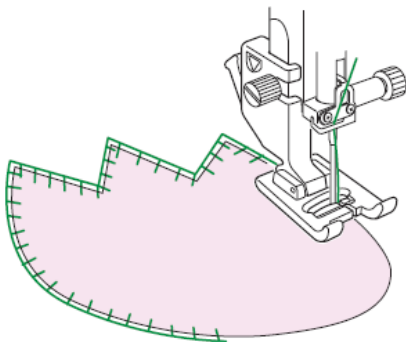
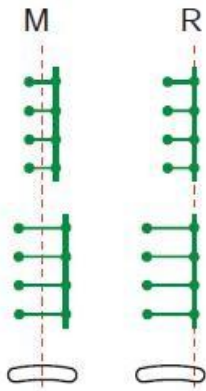
The letter above the stitch image corresponds to the baseline of the needle drop position.

M: Middle  
(centre) R: Right

The baseline can be adjusted without changing the stitch width by pressing the “+” or “-” button on the bottom row.

### NOTE:

Make sure to stop the machine so that the needle falls on the outer edge of the appliqué.



## Starting from the corner

Press the reset key before starting to sew in the new direction to sew from the start of the pattern.

3 Reset key

Appliqué stitches have two reset options. Press the corner key to select the normal reset or corner reset option.

The key icon changes to indicate the selected option when the key is pressed.

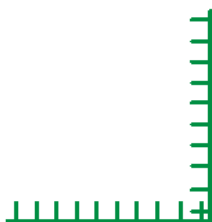
4 Corner key

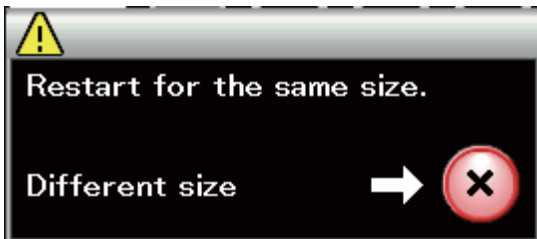
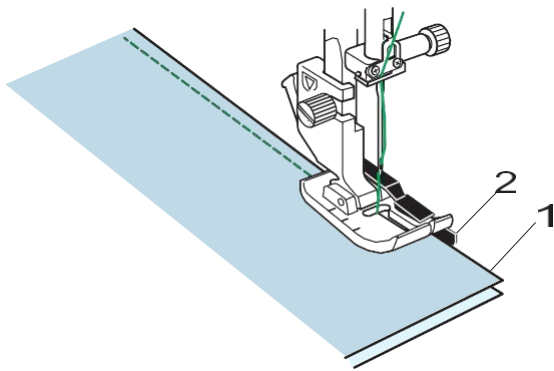
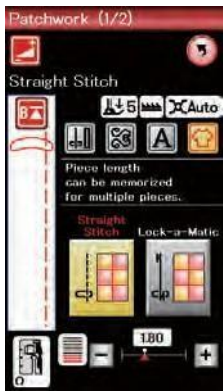
### Normal reset:

Sew a backtack and start sewing from the beginning of the pattern.

### Corner restart:

Start sewing from the start of the pattern without the closing stitch.





## Patching

### Joining patchwork pieces

In this section, there are 3 stitches for sewing patchwork pieces.

The default stitch length is 1.8 mm, ideal for patchwork pieces, although it can be adjusted using the “+” or “-” buttons.

Fit the 6 mm O-foot, which will help you maintain a consistent 6 mm seam allowance.

Place two pieces of fabric right sides together.

Place the patchwork pieces under the presser foot so that the edge of the fabric aligns with the foot guide.

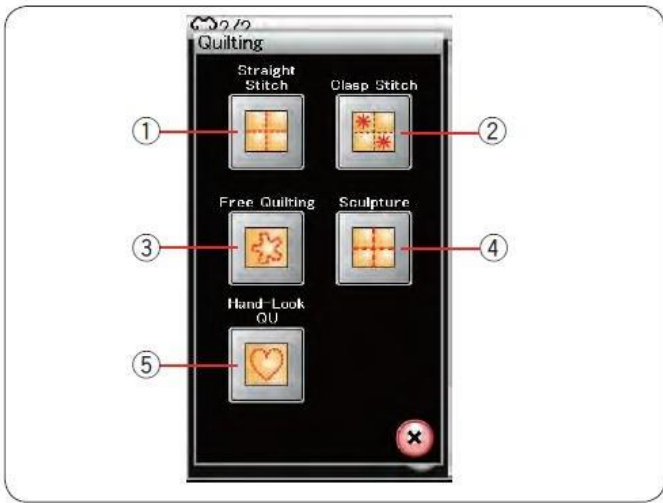
- 1 Fabric edges
- 2 0.6 cm (O) sewing foot guide

When you stop the machine, a message will appear. Press the OK button and the machine will memorise the stitch length to sew another piece of the same length. Press the X key to sew a piece of a different size.

Once the stitching of the length stored in memory is complete, a message appears.

To sew the same length, start the machine and it will stop immediately after sewing the length stored in the memory.

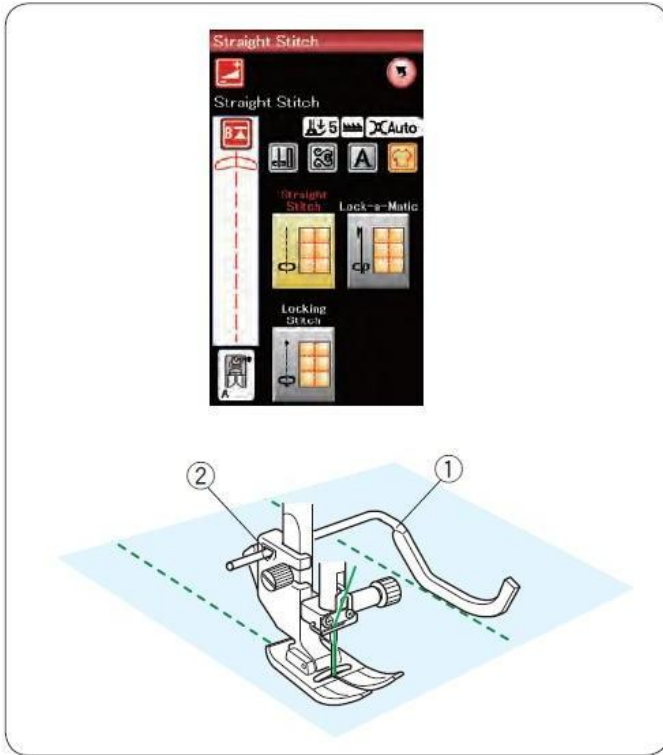
Press the X key to sew a piece of a different size.



## Quilting

In this section, there are 5 types of stitches used for quilting.

- 1 Straight stitches
- 2 Bar tacks
- 3 Free-motion quilting stitches
- 4 Basting stitches
- 5 Hand-stitch-look quilting stitches



## Straight stitches

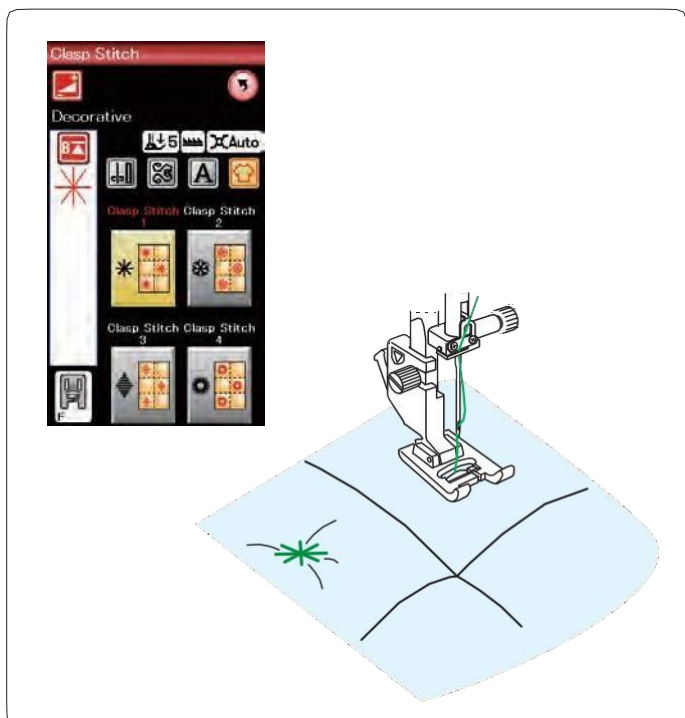
The quilting guide bar is useful for sewing parallel stitches in evenly spaced rows.

Insert the quilting guide bar into the hole at the back of the presser foot holder.

Set the quilting guide bar to the desired distance.

- 1 Quilting guide bar
- 2 Hole

Sew rows of stitches whilst following the previous row of stitches with the quilting guide bar.

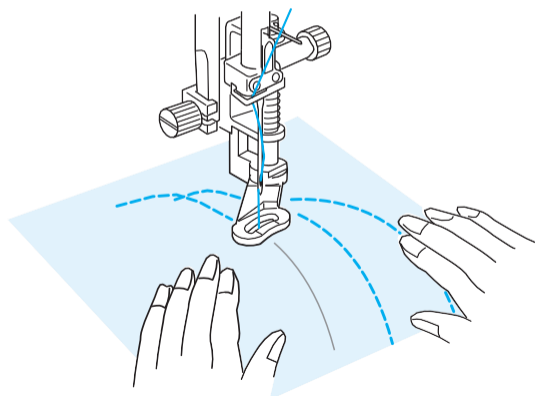
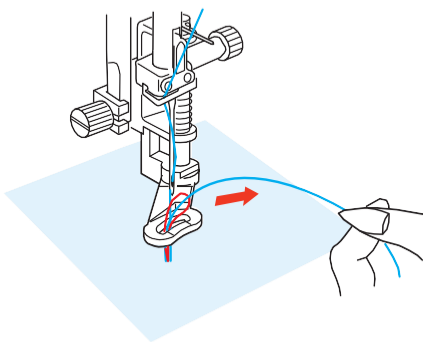
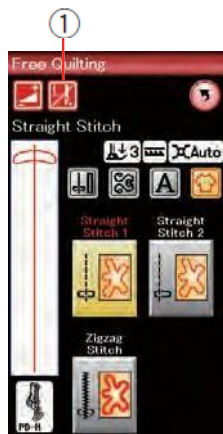


## Basting stitch

You can join the layers of quilted fabric and wadding using the bar tack stitch.

Use the F topstitching foot.

The machine sews one unit of the pattern and stops automatically, with the needle remaining in the raised position upon completion of the seam.



## Free-motion quilting

For free-motion quilting, use the darning foot PD-H (see page 18 for how to attach the darning foot). Lower the feed dogs before starting to sew.

### A single stitch

The machine stops automatically after sewing one stitch so that you can lift the bobbin thread and prevent it from piling up on the reverse side of the fabric.

Hold the needle thread and sew one stitch, and the machine will stop automatically.


Pull the needle thread to bring the bobbin thread up.


Hold the needle thread and bobbin thread and sew several stitches to secure the threads.

You can cut the ends of the threads with scissors.

The machine will sew continuously when you resume sewing.

If you wish to start sewing without a “single stitch”, press the single stitch button to cancel this function.

The button icon changes to .

When the “single stitch” option is active, the icon displays .

1 Single-stitch key

### To sew

Sew at medium speed whilst guiding the fabric with your hands. Move the quilting 3 mm or less per stitch.

**Backing stitches**

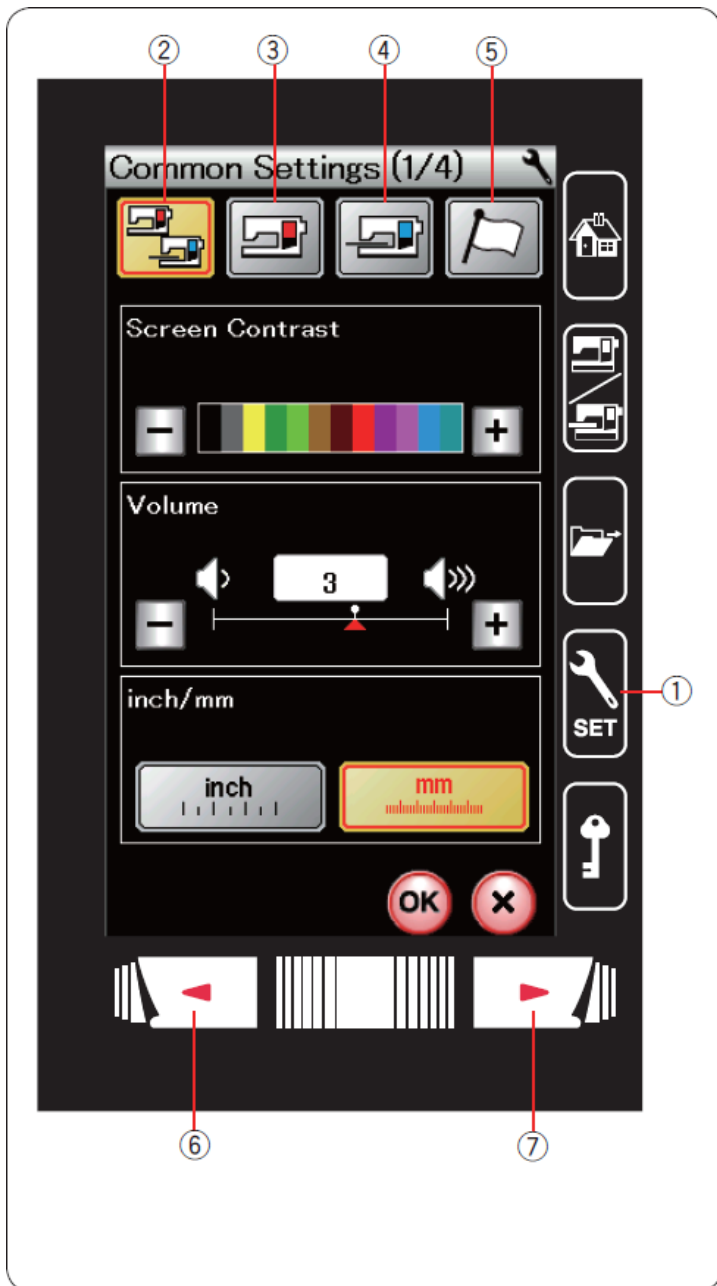
These stitches are used to accentuate the outlines of designs and create a quilt pattern similar to hand-stitching.



**Stitches for hand-stitch-look quilting**

Use clear nylon thread in the needle and standard sewing thread in the bobbin. The bobbin thread comes up from the right side of the fabric and the stitches will look as if they were made by hand.





## CUSTOMISING THE MACHINE SETTINGS

Press the setup mode key to enter the machine setup mode. You can select various options and customise the machine settings to suit your preferences. 1

### Configuration mode key

Press one of the 4 keys to select the mode to be customised.

### 2 Normal setup mode

In this mode, you can customise the machine settings and options for normal sewing and embroidery.

**3 Normal sewing setup mode** In this mode, you can customise the machine settings and options for normal sewing.

### 4 Embroidery setup mode

In this mode, you can customise the machine settings and options for embroidery. (See pages 114 to 116 for details on how to use this mode).

### 5 Language selection mode

In this mode, you can select the desired language for the messages displayed on the screen.

To navigate within each mode, press the next page or previous page key.

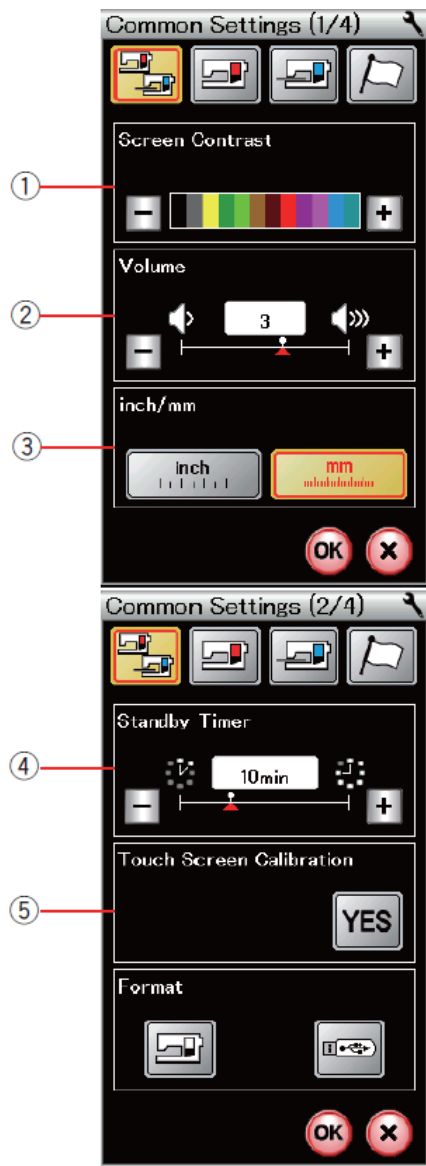
6 Previous page key

7 Next Page Key

### Saving personal settings

After customising the settings, press the OK key to enable the new settings.

If you wish to cancel the changes made to the settings, press the X key and the settings mode window will close.



## Normal settings mode

### 1 Screen contrast

The contrast of the LCD screen can be adjusted by pressing the “+” or “-” key.

### 2 Sound volume

The buzzer volume can be adjusted by pressing the “+” or “-” key.

Select a value of “0” to mute the buzzer.

### 3 Inches/mm option

You can set the machine’s unit of measurement to inches or millimetres by pressing the “inch” or “mm” icon key. The default unit is millimetres.

Press the next page key to view the next setting.

### 4 Standby timer

The sewing lights will turn off, the LCD screen will go blank and the machine will enter standby mode if you stop using it for the time set by this timer. Performing any task will turn the lights back on and activate the screen.

The sleep timer can be set to a value between 1 and 30 minutes.

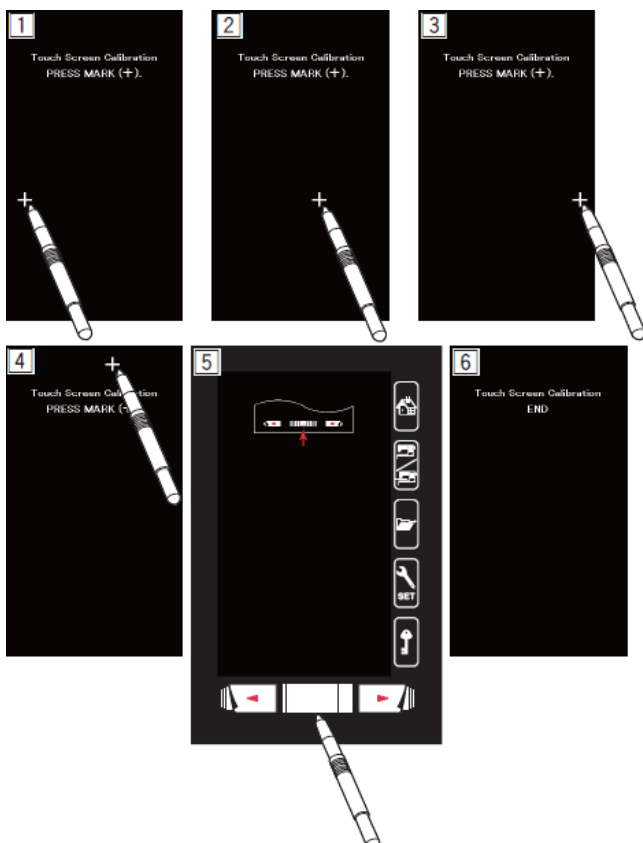
To deactivate the timer, press and hold the “+” key until “OFF” appears in the timer window.

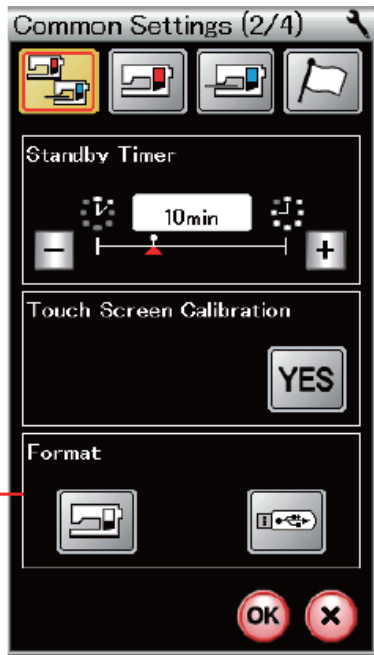
### 5 Touchscreen calibration

You can calibrate the positions of the touchscreen keys if you notice that the touchscreen keys are not responding properly.

Press the YES key to open the calibration window. Press the “+” sign with your fingertip or the touch screen stylus when the sign ( 1 - 5 ) appears.

When you press the last symbol, the screen displays the message “END” 6 and the calibration window closes.





## 6 Formatting the memory

If the machine's internal memory or USB memory is not working due to damage to the memory bank, you will need to reformat the memory to be able to use it again.

To format the machine's internal memory, press the machine icon key and a confirmation message will appear. Press the OK key to format.

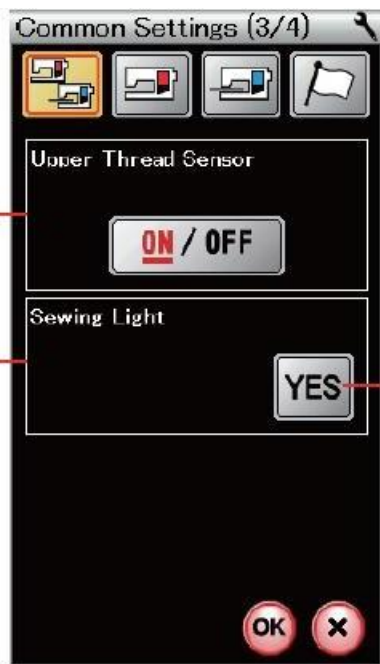
To format a USB memory stick, press the USB icon key and the confirmation window will open.

Press the OK key to format.



### CAUTION:

Do not disconnect the machine or the USB memory stick whilst the warning message is displayed, otherwise the memory bank may be damaged.



## 7 Detect upper thread

If you need to operate the machine without threads, deactivate the upper thread detector.

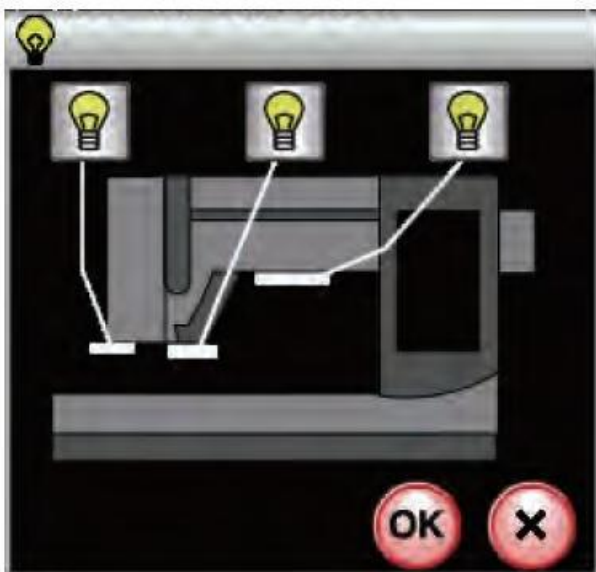
After changing the settings, press the OK button to apply the new settings.

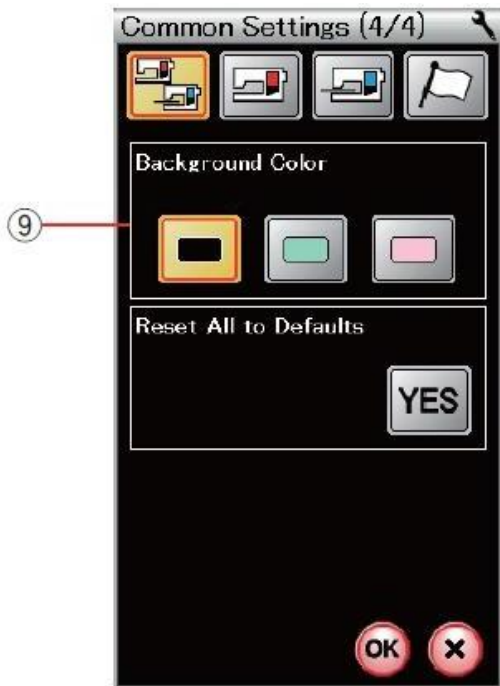
## 8 Sewing light

Press the YES button to open the sewing light options window. Press each of the sewing light icons on the screen to adjust the sewing lights individually.

(A) YES button

Press the Next Page key to view the next setting.





### 9 Background colour

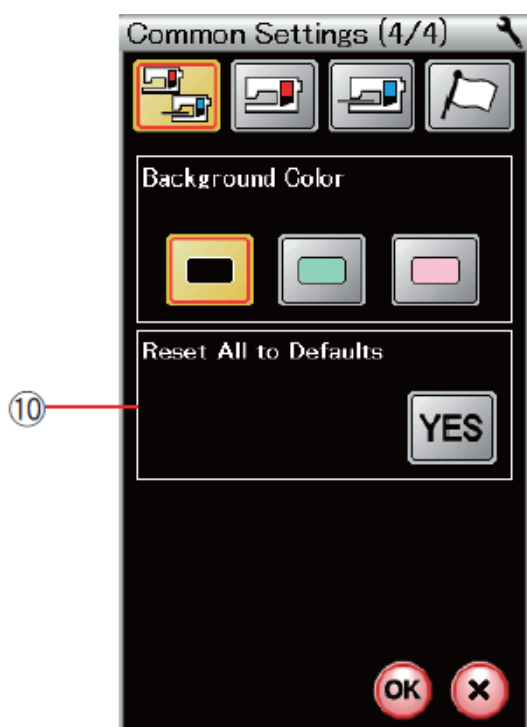
You can select white or black as the background colour for the touch screen by pressing the appropriate icon key. Press the Next Page key to view the next menu.

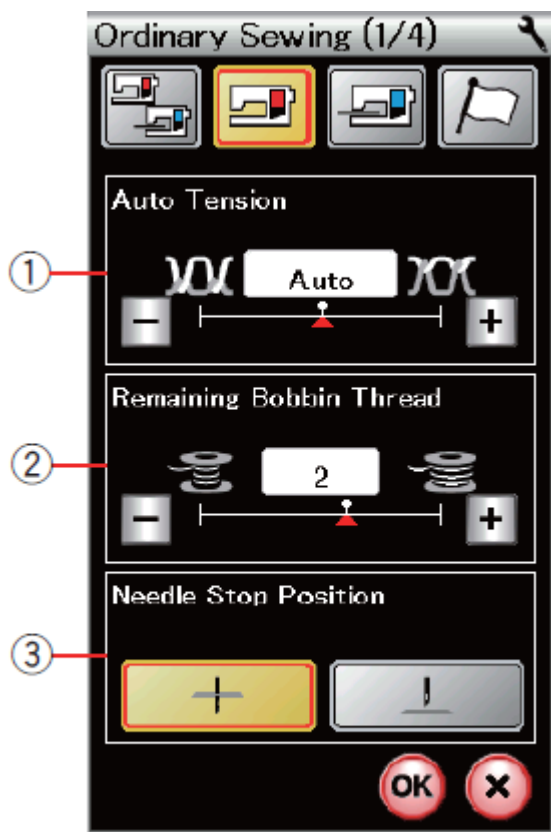


### 10 Restore defaults

Press the "YES" key to restore all parameters to their original values (factory settings).

Press the OK key to save the new settings.





## Setup mode for normal sewing

### 1 Automatic tension

The machine automatically adjusts the thread tension for the selected pattern. You can adjust the automatic tension level by pressing the “+” or “-” key.

### 2 Low bobbin thread warning

The machine has a function that displays a warning before the thread spool runs out.

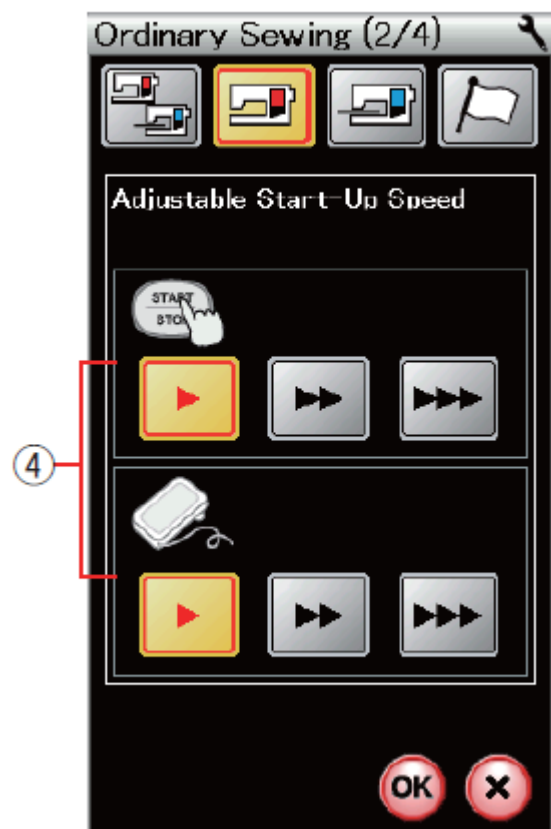
You can adjust the low bobbin thread warning level by pressing the “+” or “-” button.

Set the level to a higher number when using thick thread, and vice versa.

To deactivate the low bobbin thread warning, press and hold the “-” button until “OFF” appears in the display.

### 3 Needle stop position

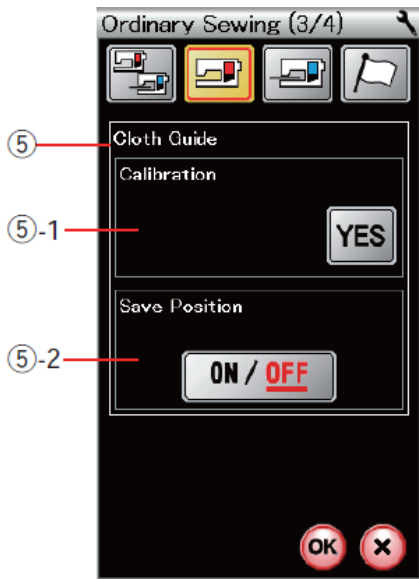
Press the needle up key if you want the needle to remain up when the machine stops. Press the needle down key if you want the needle to remain down when the machine stops.



### 4 Start-up speed

The machine will start sewing slowly and the sewing speed will increase gradually until it reaches the maximum value when the start/stop button is pressed. You can select the desired start-up speed from low, normal or high by pressing the corresponding key.

Press the next page key to view the next setting.



## 5 Fabric guide

### 5-1 Calibration of the default position

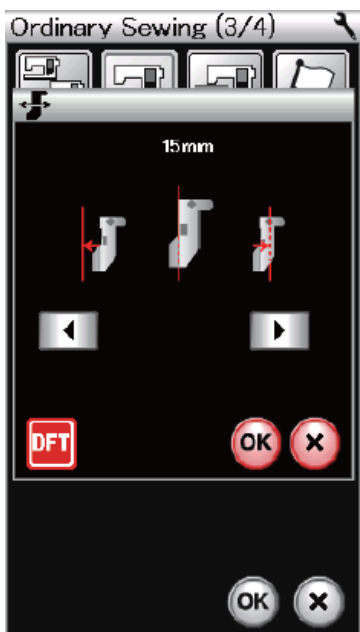
Fit the embroidery unit.

The default position of the fabric guide is 15 mm from the centre of the needle drop position.

However, you can fine-tune the default position of the fabric guide.



Press the YES key and a warning message will appear. Press the OK key and the carriage will move to the normal position.



Press the '◀' or '▶' key to adjust the fabric guide position.

Press the 'DFT' key to return to the default fabric guide position.

Press the OK key and the carriage will return to the home position.

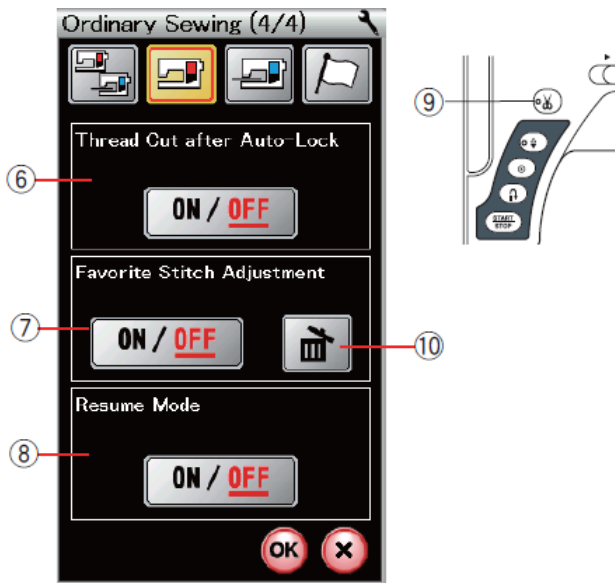
### 5-2 Saving the favourite position

If you need to adjust the fabric guide to your preferred position,

6.4 mm for example, in the manual settings window (see page 36), this position can be saved for future use.

To save the favourite position, press ON/OFF to activate the save position option.

Press the next page key to view the next setting.



### 6 Cut thread after Auto-Lock

The machine automatically cuts the threads after sewing the finishing stitches if this option is enabled. LED 9 lights up when the "Cut thread after Auto-stop" option is enabled.

### 7 Favourite Stitch Setting

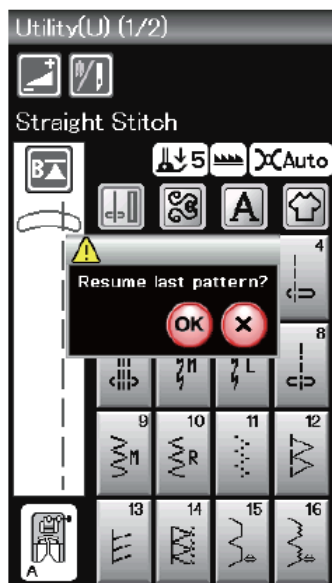
If you wish to save changes made to the manual stitch settings, enable this option by pressing the ON/OFF button. Press the delete icon 10 to clear the manual stitch setting.

#### NOTE:

This option is available for all stitches except monograms in standard sewing mode.

### 8 Resume Mode

If you wish to resume with the last sewing pattern used before switching off the machine, enable this option.



When you switch the machine back on, a confirmation message appears. Press the OK key to resume the last pattern.

After customising the settings, press the OK key to enable the new settings.

### Language selection mode

Select the desired language and press the OK key. The touchscreen displays messages in the selected language.



#### NOTE:

The language selection cannot be changed whilst a monogram is being programmed in embroidery mode.

## Correcting distorted stitch patterns

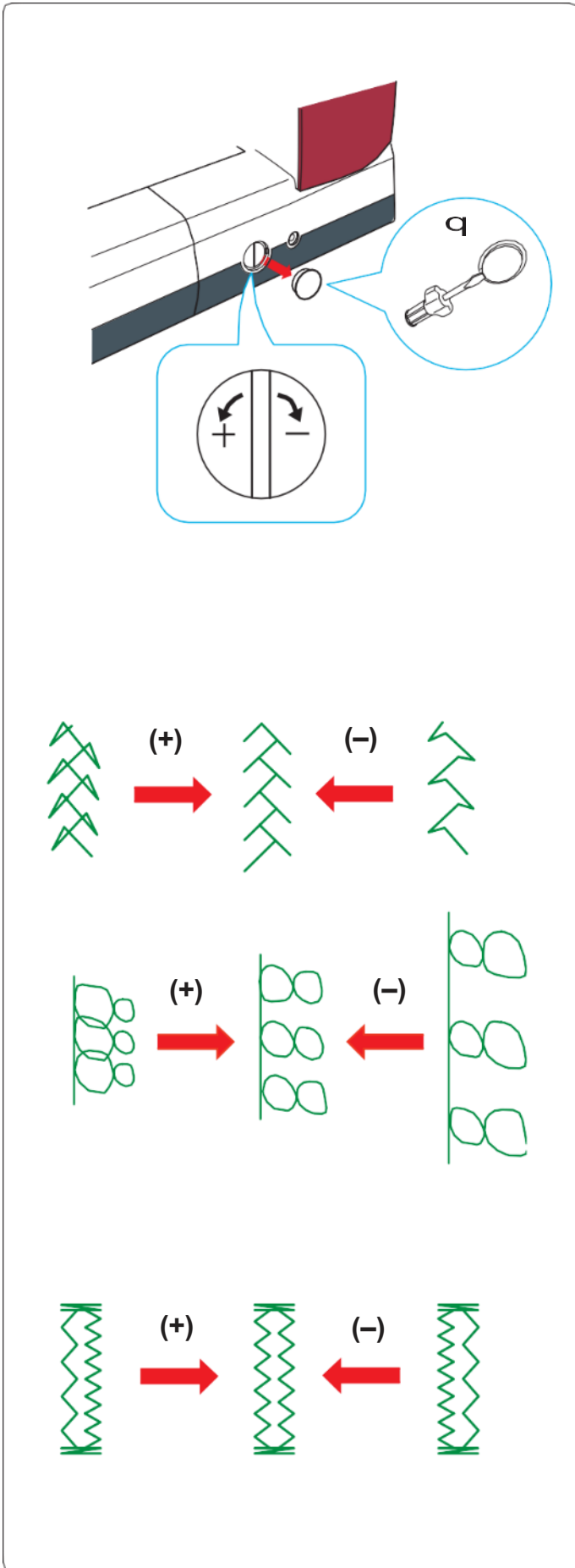
The results of sewing with stretch stitch patterns may vary depending on sewing conditions, such as speed, fabric type, number of layers, etc.

Before sewing, always carry out a test on a scrap of the fabric you intend to use.

If decorative stitch patterns, letters, numbers or the manual buttonhole become distorted, correct them using the fabric feed balance selector.

Remove the cap with a screwdriver. Make sure you do not scratch the machine with the screwdriver.

1 Cap



### Elastic decorative stitch patterns

If the pattern is compressed, turn the selector in the direction of the “+” sign.

If the pattern is too stretched, turn the selector in the direction of the “-” sign.

### Letters and numbers

If the pattern is compressed, turn the selector towards the “+” sign.

If the pattern is too stretched, turn the dial in the direction of the “-” sign.

### Stitch balance for the elastic buttonhole (B6)

The stitch balance of the right and left rows of the elastic buttonhole may vary depending on sewing conditions.

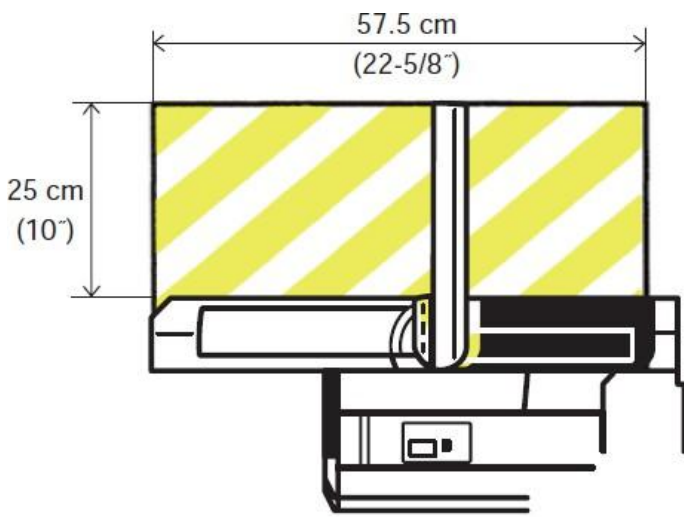
If the stitches are not balanced, correct the imbalance using the fabric shift balance selector.

If the right-hand row is denser, turn the selector towards the “+” sign.

If the left column is denser, turn the dial in the direction of the “-” symbol.

#### NOTE:

Return the fabric shift balance selector to the neutral position when you have finished sewing.

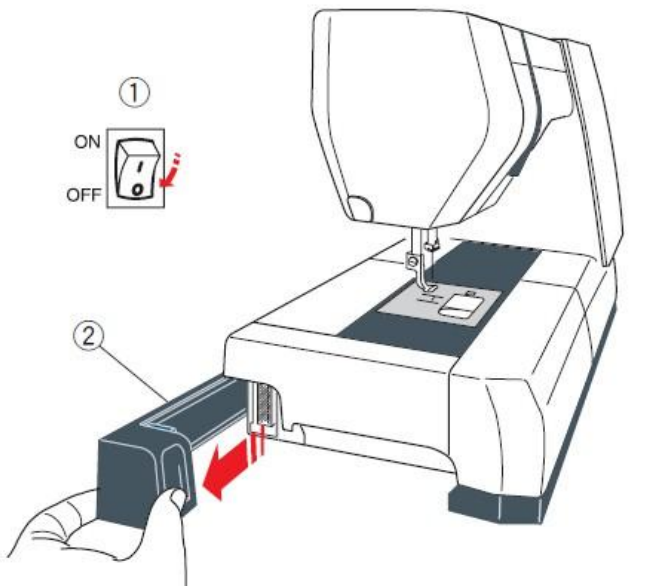


## EMBROIDERY MODE

### Embroidery unit

**NOTE:**

Ensure there is sufficient space around the machine to place the hoop freely.  
Do not place any objects within the area shown on the left.



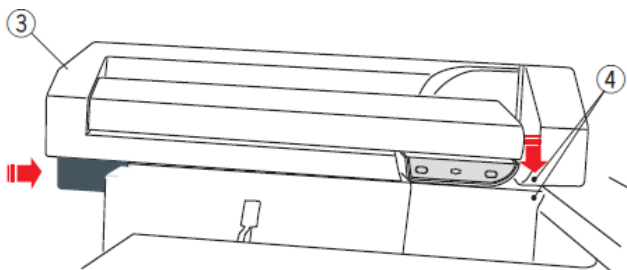
### Assembling the embroidery unit

Switch off the machine.  
Remove the machine cover.

- 1 Power switch
- 2 Cover

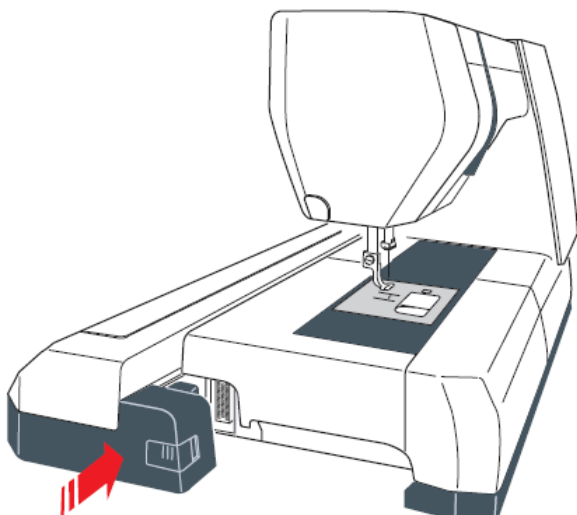
**NOTE:**

Always fit the extension table, except when using the hands-free frame (optional item).

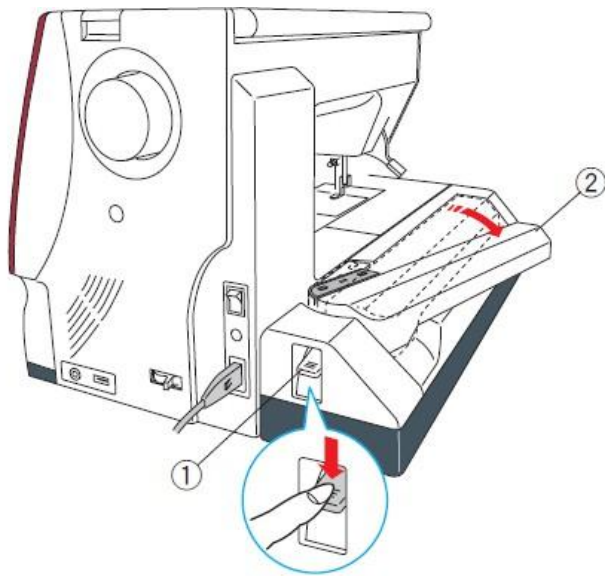


Place the embroidery unit at the rear of the machine base, aligning the small dots as shown.

- 3 Embroidery unit
- 4 Small dots



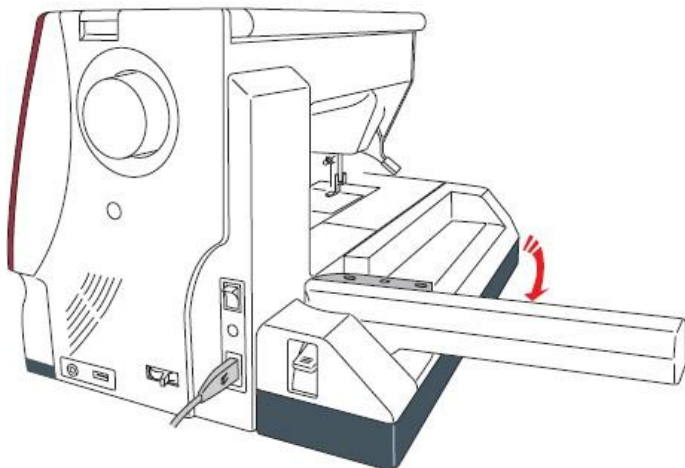
Slide the embroidery unit along the machine to the right and press the embroidery unit firmly until it clicks into place.



### Extending the carriage arm

Press the carriage arm release lever to extend the carriage arm.

- 1 Carriage arm release lever
- 2 Carriage arm

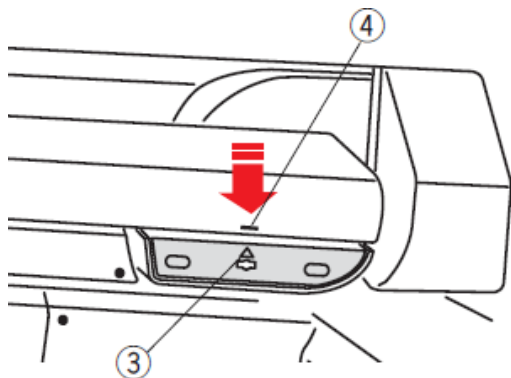


Rotate the carriage arm outwards until it locks into the fully extended position.



#### CAUTION:

Do not press the carriage arm when it is extended. Do not force the carriage or the carriage arm by hand. Do not hold the carriage or the carriage arm whilst it is moving. Doing so may cause damage to the carriage mechanism.



#### CAUTION:

Never move the carriage by hand, regardless of whether the machine is switched on or off, as this may damage the machine when opening the carriage arm. Ensure that the carriage is in the normal position when opening the carriage arm (a triangle mark on the carriage aligns with a bar-shaped mark on the carriage arm).

- 3 Triangle mark
- 4 Bar symbol

## Removing the embroidery unit

### NOTE:

Always remove the embroidery unit whenever you are going to transport or store the machine.

Remove the carriage frame and press the mode switch to return the carriage to its home position.

### NOTES:

If the needle is in the down position, ensure you raise the needle by pressing the needle up/down button. The feed dogs will rise automatically.

Press the lever to release the carriage arm and retract the carriage arm.

- 1 Carriage arm release lever
- 2 Carriage arm



### CAUTION:

Be careful with your finger, as when the carriage returns to its initial position, it may become trapped between the embroidery unit and the machine base with the extension table removed.

Retract the carriage to the storage position.



### CAUTION:

Never move the carriage by hand, regardless of whether the machine is switched on or off, as the machine may be damaged when the carriage arm opens.

Make sure the trolley is in the normal position when you open the trolley arm (a triangle mark on the trolley should line up with a bar-shaped symbol on the trolley arm).

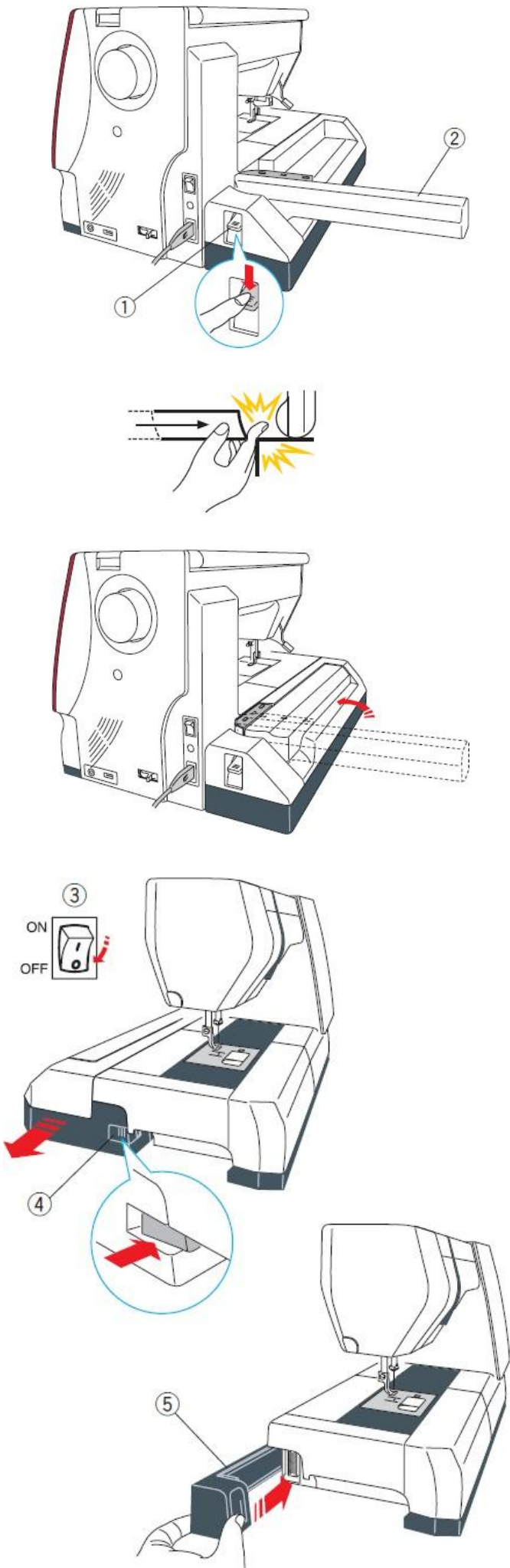
Switch off the machine.

Press the button to release the embroidery unit. Slide the embroidery unit to the left and remove it.

- 3 Power switch
- 4 Button to release the embroidery unit

Place the cover on the machine.

- 5 Cover





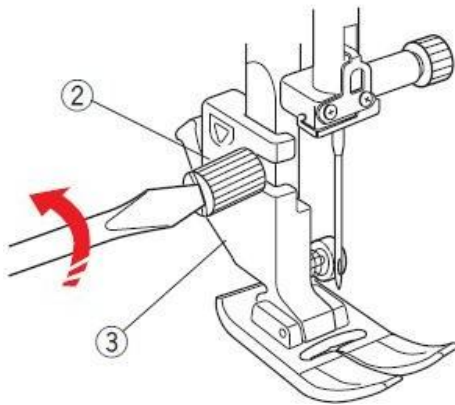
## Fitting the embroidery foot

Use the P foot for embroidery.

Raise the needle and presser foot.

Turn off the power switch or press the lock button.

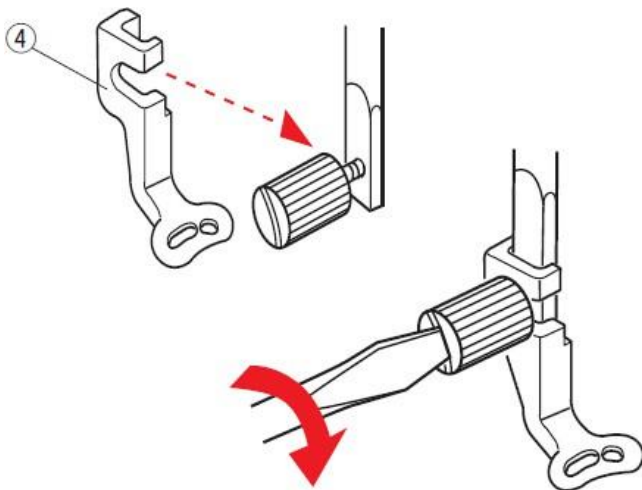
1 Lock button



Loosen the wing nut with the screwdriver and remove the presser foot holder.

2 Wing nut

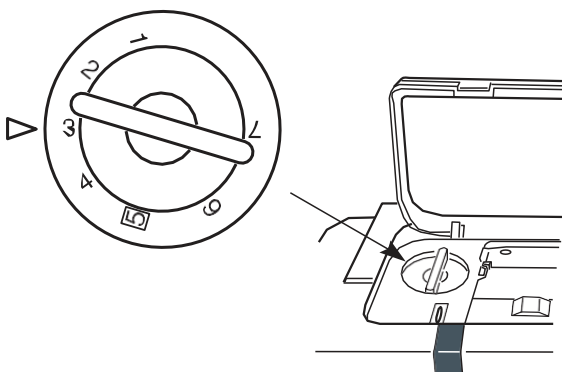
3 Presser foot holder



Fit the P embroidery foot onto the presser foot bar from the rear.

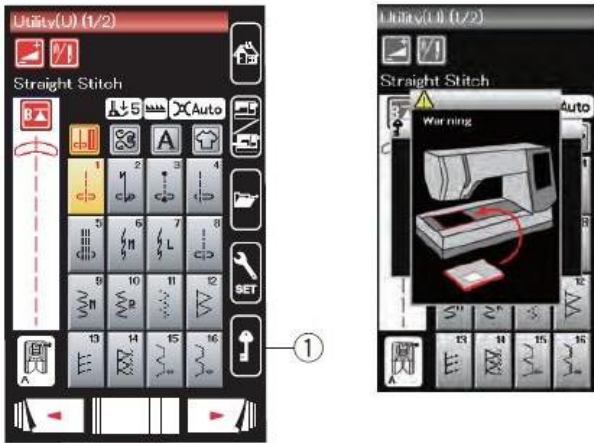
Tighten the adjusting screw securely.

4 P embroidery foot



## Presser foot pressure

Set the presser foot pressure dial to "3" for embroidery.

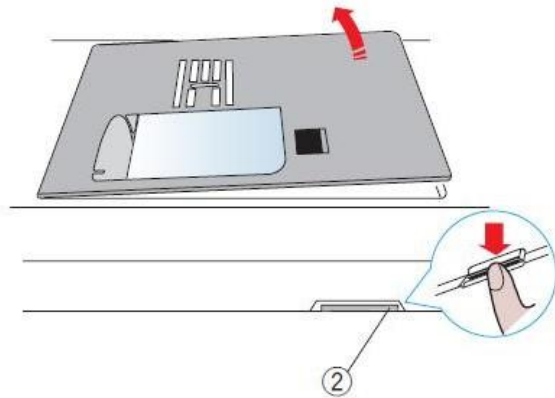


## Changing the needle plate

Use the straight-stitch needle plate when sewing with the dual feed foot and for embroidery.

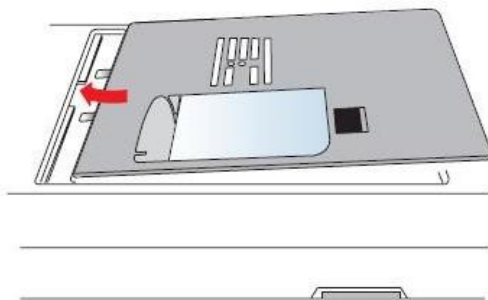
Raise the needle and press the lock button.  
Raise the presser foot lifter.

1 Lock button



Remove the extension table.  
Press the needle plate release lever to release the plate.

2 Needle plate release lever



Place the straight stitch needle plate into the opening in the needle plate.

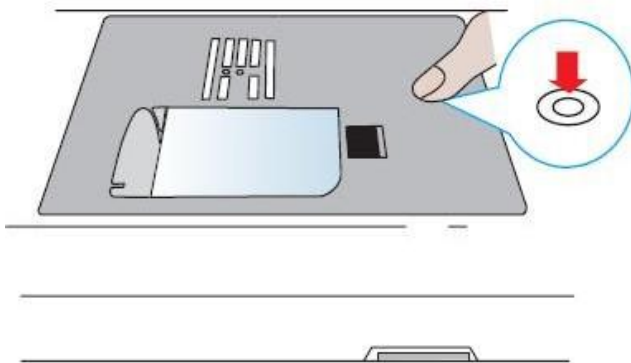
Fit the left edge of the needle plate into the opening.



Press down on the mark on the needle plate until it clicks into place.

The warning message disappears and a confirmation message appears.

Press the X key and the machine automatically selects the straight stitch.





**Special embroidery bobbin holder** Replace the standard bobbin holder with the special embroidery bobbin holder when using non-Janome brand bobbin threads for embroidery.

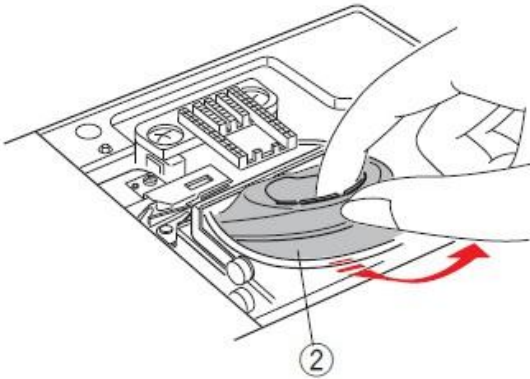
**NOTE:**

The special bobbin holder can be identified by the yellow dot mark.

1 Yellow dot

Remove the needle plate (see previous page). Remove the standard bobbin holder.

2 Standard bobbin holder



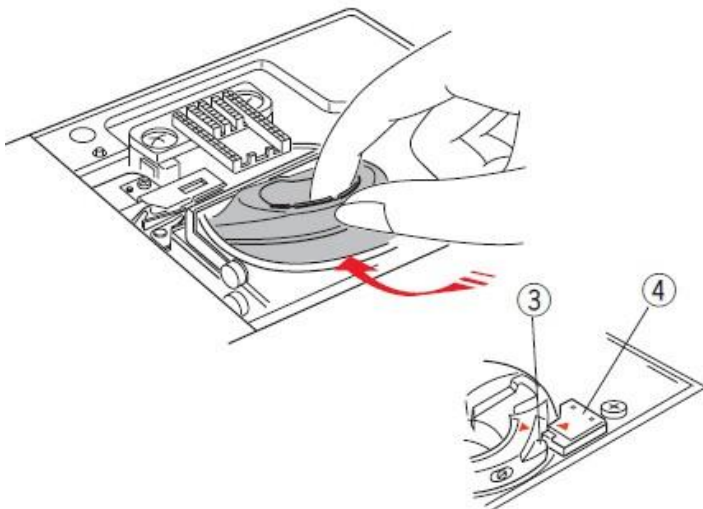
Insert the special bobbin holder into the bobbin holder slot.

Make sure the bobbin holder knob is aligned with the machine's stop.

Fit the needle plate.

3 Knob

4 Stop



**NOTE:**

Use the standard bobbin holder for sewing lace and quilting that use the same thread in the bobbin and the needle.

## Embroidery hoops

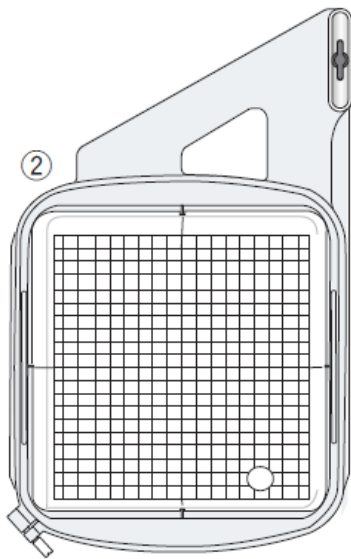
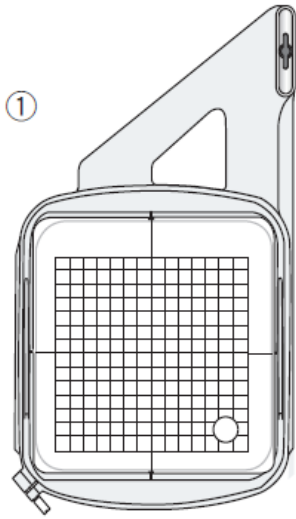
Standard accessories include 2 embroidery hoops.

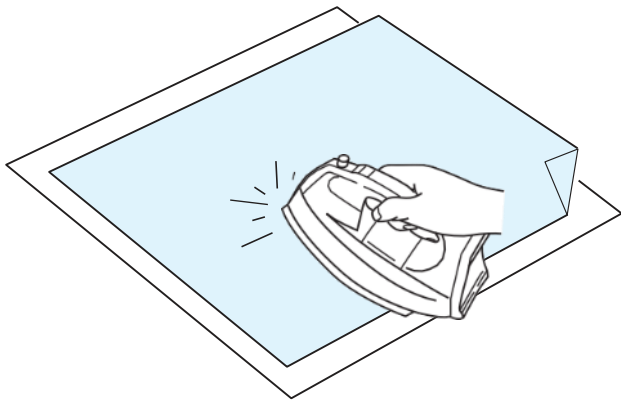
### 1 **SQ14a embroidery hoop**

An oval embroidery hoop with a 14 cm (5.5") square embroidery area

### 2 **RE20a embroidery hoop**

A square embroidery hoop with a square embroidery area measuring 20 cm (7.9") by 17 cm (6.7").





## Stabilisers

To achieve the best quality embroidery, it is very important to use stabilisers.

### How to use:

Place the stabiliser on the reverse side of the fabric. You may need to use several layers of fabric.

For stiffer fabrics, you can place a thin sheet of paper underneath the fabric.

When embroidering fabric that cannot be ironed or that is divided into sections and is difficult to iron, non-adhesive paper should be used.

Cut the stabiliser to a size larger than the embroidery hoop and place it in the hoop so that the entire piece is secured by the hoop, thus preventing it from separating from the fabric.

### Placing the stabiliser

Place the reverse side of the fabric against the shiny side of the stabiliser. Fold one corner of the stabiliser and press it down with an iron.

#### NOTES:

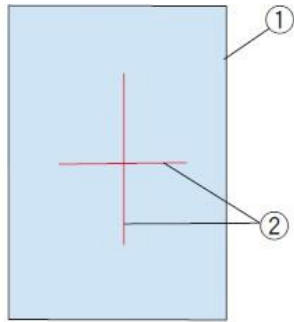
Fold up one corner of the stabiliser to make it easier to remove the excess stabiliser once you have finished embroidering. Ironing temperatures depend on the type of adhesive stabiliser you are using.

## Types of stabilisers

Type	Usage	Properties
Removable	Stable woven fabrics	Made from a fibre that is easy to tear off.
Ironable	Knit fabrics and all types of unstable fabrics	Adhesive type that melts with an iron.
Cut-out	Knit fabrics and all types of non-woven fabrics	Made from a fabric that does not tear.
Water-soluble	Openwork and lace embroidery Backed with terry cloth, for example, towels, to prevent the loops from piercing the embroidery	A thin film that dissolves in water.

#### NOTE:

Self-adhesive stabilisers can only be used to secure a small piece of fabric or for work that cannot be secured in the hoop. Or also to secure certain types of fabric that could be damaged by the pressure of the hoop. Clean the bobbin holder after embroidering as adhesive residue may remain on it.

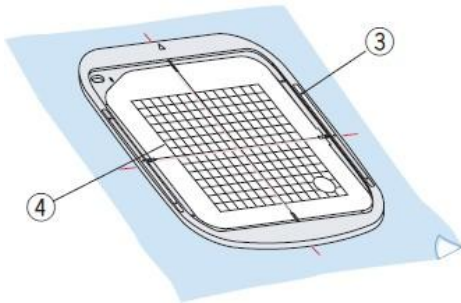


## Placing the fabric in an embroidery hoop

Prepare the fabric and attach the stabiliser to the reverse side of the fabric. The fabric and stabiliser must be larger than the hoop.

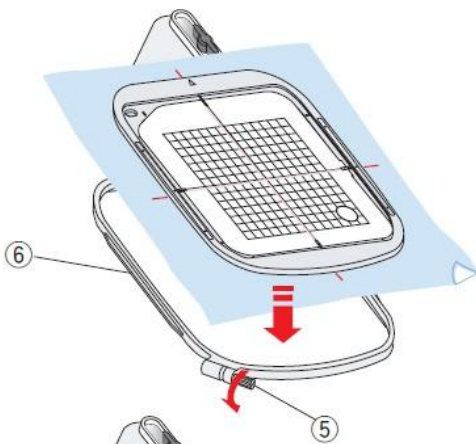
Mark the centre lines on the fabric with chalk.

- 1 Fabric
- 2 Centre lines



Place the inner hoop and the template onto the fabric, aligning the centre lines of the fabric with the template.

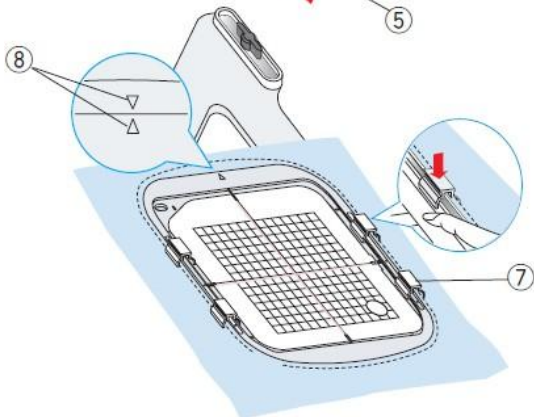
- 3 Inner hoop
- 4 Template



Loosen the clamping screw on the outer frame.

Place the inner frame and the fabric onto the outer frame.

- 5 Frame clamping screw
- 6 Outer frame



Insert the inner frame and the fabric into the outer frame.

Tighten the outer frame screw to tension the fabric.

Make sure the fabric is stretched perfectly taut on the frame, as if it were a drumhead.

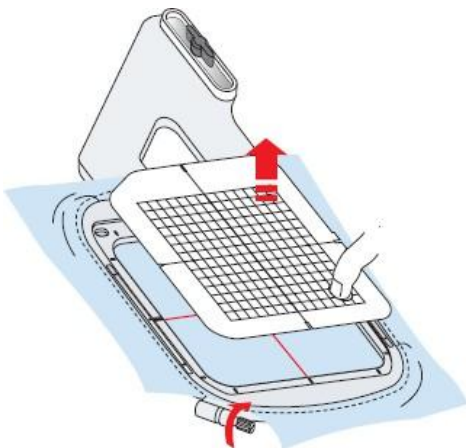
Secure the fabric to the frame using the magnetic fasteners.

- 7 Magnetic fastener

### NOTE:

Make sure to align the alignment marks on the outer and inner frames when tensioning the fabric.

- 8 Alignment marks



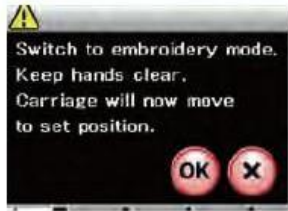
Remove the template.

### NOTE:

When embroidering on thick fabrics such as quilts, check that the fabric does not obstruct the hoop when it moves to the far right.



1

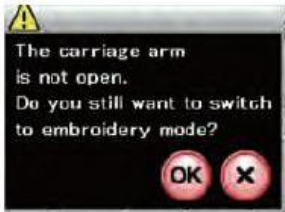


## Fitting the embroidery hoop onto the machine

Switch on the machine and open the carriage arm.  
 Press the mode change key and the warning message will appear.  
 Press the OK key to move the carriage to the start position.  
 The feed dogs will lower automatically.  
 The LCD screen will display the embroidery mode window.  
 1 Mode change key

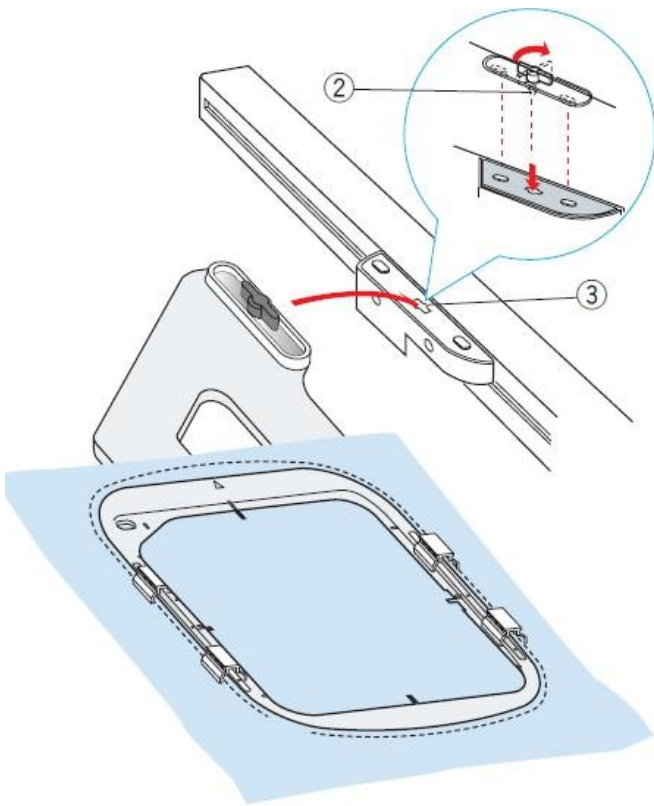
### NOTE:

The feed dog lever will change when the feed dogs are lowered.



### NOTE:

If you press the mode change key whilst the carriage arm is retracted, a confirmation message will appear. Do not press the OK key or the X key. Instead, extend the carriage arm.

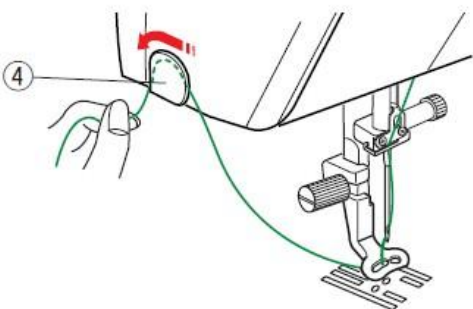


Place the frame on the machine and mount the frame onto the carriage by inserting the frame locking pin into the hole in the carriage.

Turn the knob clockwise to secure the frame.

2 Locking pin

3 Hole



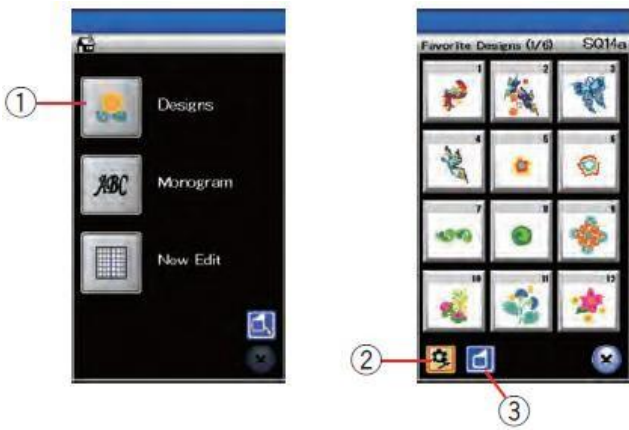
## Thread holder

To avoid sewing with the end of the needle thread, place the end of the thread in the thread holder.

4 Thread holder

Thread the needle through the hole in the embroidery foot and pull it up towards the thread holder.

Secure the thread in the thread holder, from front to back.



**Selecting built-in embroidery designs** Press the built-in designs key and the first page of favourite designs will open.


1 Built-in designs key

Press the design category key to browse the list of designs by design category, or press the hoop size key to browse designs by hoop size.

2 Design categories key  
3 Hoop size key



### Design category

Press the layout category key  to browse layouts by category.

Press the next page or previous page keys to navigate through the list of layouts.

4 Next page key  
5 Previous Page Key

Page 1 of 3

- Favourite designs
- Geometric designs
- Cupboard designs
- Monochrome designs

Page 2 of 3

- Cross-stitch designs
- Quilting designs
- Fringe Designs
- Floral Alphabet Designs

Page 3 of 3

- Calibration pattern (for fabric adjustment)




Click on the desired category to select it and the pattern selection window will open.

Browse the list of patterns using the next page key and select the desired pattern by pressing the pattern icon key. The LCD screen displays the Ready to Sew window.



### Hook size

Press the hoop size key  to open the hoop selection window. Select the same hoop that is mounted on the machine.

Browse the list of designs using the next page key or the touch ring and select the desired pattern by pressing the pattern icon key.

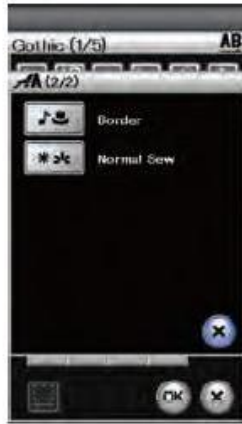
The LCD screen displays the Ready to Sew window.



(1/2)



(2/2)



## Monograms

Press the monogram key to open the monogram window for the Gothic font.

Press the font selection key to open the font selection window.

1 Monogram key

2 Font selection key

You can select one of the 3 fonts for monograms, as well as 2-letter, 3-letter, border and standard stitch patterns.

You can select the following patterns and fonts:

- Gothic font (5 pages)
- Script font (5 pages)
- Cheltenham font (5 pages)
- 2-Letter (one page)
- 3-Letters (one page)
- Border patterns (2 pages)
- Standard stitch patterns (patterns similar to standard stitches)

### NOTE:

If you choose to display the on-screen message in Russian, Russian characters can be selected instead of letters from the Latin alphabet.

Press the key with the desired font icon and the monogram window will open.

Use the page keys to navigate.

You can enter letters of the alphabet, as well as numbers, symbols and letters from European alphabets.

## Function keys

### 1 Font selection key

Press this key to open the font selection window.

### 2 Text orientation key

Press this key to select horizontal or vertical orientation.

### 3 Font size key

By pressing this key, you can select from the following 3 font sizes.

The approximate font sizes for capital letters are as follows:

<b>L (Large):</b>	30 mm (1.2")
<b>M (Medium):</b>	20 mm (0.8")
<b>S (Small):</b>	10 mm (0.4")

### 4 Shift key

Press this key to switch between upper-case and lower-case letters.

### 5 Save key

Press this key to open the save file window and save the text or monogram as a file.

### 6 Delete key

Press this key to delete the character under the cursor.

### 7 Cursor keys

Press these keys to move the cursor left or right.

### 8 OK key

Press this key to confirm your entry and open the embroidery screen.

### 9 Space adjustment key

This key is only active when a space is entered.

If the spaces between characters appear uneven, insert a blank space between the characters and adjust the space width to align them.

Press this key to open the space adjustment window. To increase the space width, press the "+" key. To reduce the space width, press the "-" key.

#### NOTE:

The space width is displayed in millimetres only.



## Programming a monogram

**Example:** Programming “R&B” in Gothic font.

Enter the “R”; the cursor moves to the right and the machine automatically stores the “R”.

Press the font size key and select the small size.

1 Font size key

Enter the character “&”; the cursor moves to the right and the machine automatically stores the character “&”.

Press the font size key and select the medium size.

Enter “B”, the cursor moves to the right and the machine automatically saves the “B”.

Press the OK key and a warning message will appear.

Press the OK key to move the carriage to the start position.

The screen changes to the ready-to-sew window, and a hoop confirmation message will appear.

Press the OK key.

## Changing colour

To sew a multicoloured monogram, change the thread colour for each letter by pressing the colour change key before sewing.

The machine stops automatically at the end of each character.


Change the thread to the next colour and start sewing again.

2 Colour change button

## Monogram positioning

You can select one of three alignments for the monograms: left-aligned, centre-aligned and right-aligned.


### 1 Left-aligned

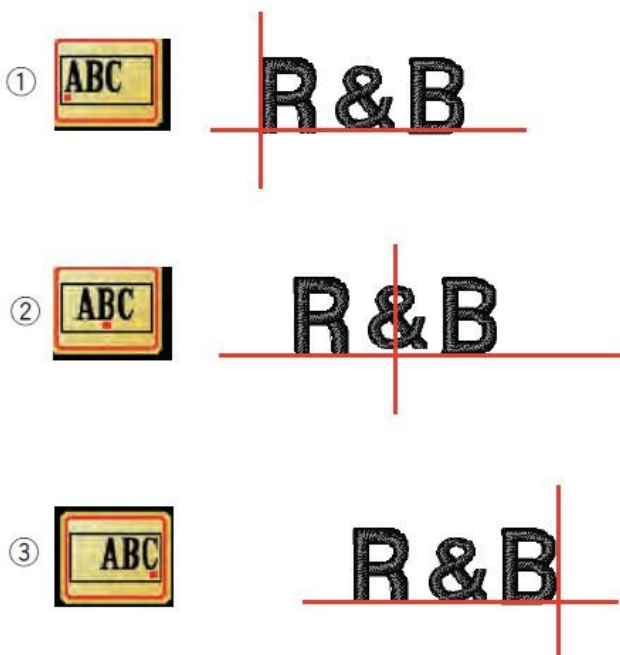
Press the  to start sewing from the left reference line on the template.

### 2 Centre alignment

Press the  to sew in the centre of the hoop.

### 3 Right alignment

Press the key  to sew from the right reference line of the template.





## 2-letter monograms

**Example:** 2 letters in an octagon Press the font selection key.



Select 2 letters.



Select the octagon.



Enter "A" and "B".



Press the OK key and a warning message will appear. Press the OK key to move the carriage to the start position. The screen changes to the ready-to-sew window, and a hoop confirmation message will appear. Press the OK key.

### NOTES:

3-letter monograms are stitched in the same way as 2-letter monograms. The starting position for 2-letter and 3-letter monograms is the centre of the hoop.



①



## Editing a monogram

**Deleting characters:** Delete the “R” from “MART”

Press the cursor key to place the cursor under the “R”.  
1 Cursor key

Press the delete key and the letter “R” will be removed.  
2 Delete key



**Inserting characters:** Insert the “E” into “MAT”

Press the cursor key to move the cursor under the “A”.



Type the “E”.  
The letter “E” is inserted before the “A”.





## Ready to Sew window

The Ready to Sew window displays the function keys used for embroidery and information about the selected pattern.

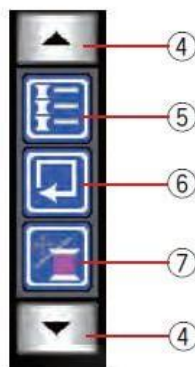
### Forward/Backward Stitch Keys

Press the “-” key to move the hoop to a previous stitch point. Press the “+” key to move the hoop forward.

The hoop advances one stitch each time this key is pressed. Hold down the key to advance more quickly, by 10 or 100 stitches at a time.

You can use these keys to move the hoop to the point where the thread ran out or broke.

- 1 Stitch return key
- 2 Stitch advance key



### Edit mode key

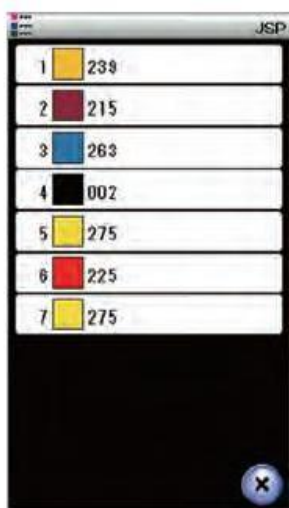
Press this key to enter edit mode (see page 107).

- 3 Edit mode key

### Function keys

The function keys are displayed on the right-hand side of the LCD screen. Press the arrow-shaped key to view the other function keys.

- 4 Arrow keys



### • Colour list key

Press this key to view a list of the thread colours used in the selected design.

- 5 Colour list key

### • Stitch key

You can check the size of the embroidery area by tracing the outline of the pattern without stitches or with basting stitches (see page 101).

Press the tracing key to open the tracing options window.

- 6 Trace key

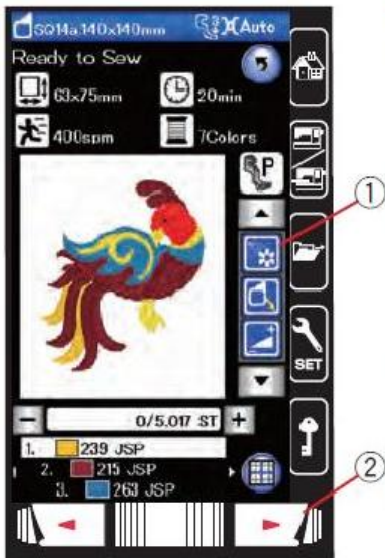
### Slow Adjust/PT key

Press this key to switch between the slow adjustment keys and the forward/reverse stitch keys, or vice versa. Adjust the hoop position using the slow adjustment keys so that the needle drop position is directly over the centre of the fabric guide lines.

To use the slow feed keys once sewing has started, stop the machine and reset the stitch counter to zero by pressing the reverse stitch key.

- 7 Slow adjustment key/PT
- 8 Slow adjustment keys



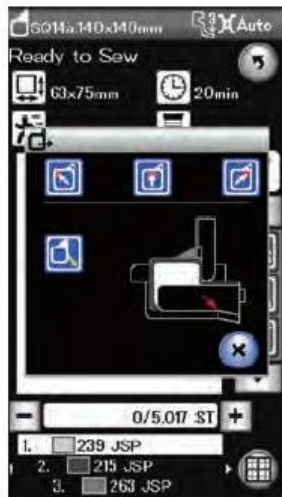


### • Colour section key

Press this key to view the complete image of the selected design or just a partial image of the sections for each colour.

Press the next page key to view the next colour section. You can sew a specific colour section by simply pressing the next page key until the desired section is displayed.

- 1 Colour section key
- 2 Next page key



### • Frame rewind key

Raise the needle by pressing the needle up/down key if the needle is down.

Press the frame rewind key and the frame rewind options window will open.

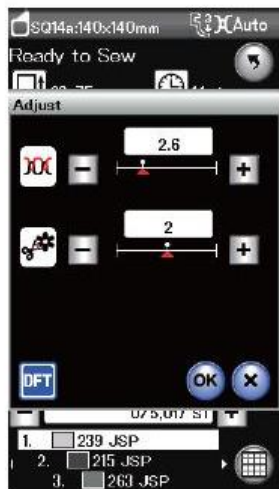
Press one of the '←', '↑', '→' keys to move the carriage to a standby position.

To move the carriage back to its normal position, press the '↩' key and a warning message will appear.

- 3 Frame rewind key

### NOTE:

The drag feet will not be activated automatically.



### • Adjustment button

Press this key to open the manual adjustment window. In this window, you can adjust the following functions.

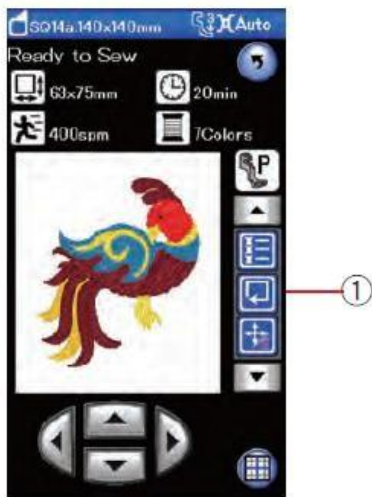
- 4 Adjustment button

### Automatic thread tension level

Press the "+" or "-" buttons to adjust the thread tension as required.

**Loose thread cutting length** This option is only available when the "loose thread cutting length" function is enabled.

Press the "+" or "-" keys to minimise the length of loose thread tails.

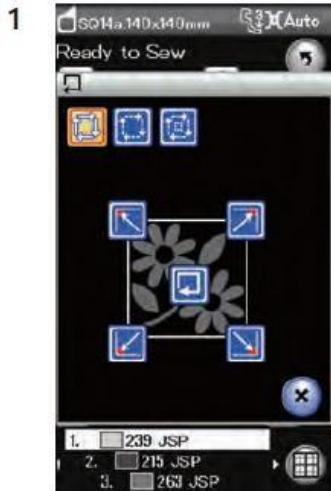


## Pattern tracing



You can check the size of the embroidery area by tracing the outline of the pattern without stitches or with basting stitches.

Press the tracing key to open the tracing options window.  
1 Trace key

The following 3 options are available:




### 1. Trace without stitches

Press the  key to open the 'Trace without stitch' window. Press the  trace key to start tracing, or press one of the keys to position the hoop in a corner.




### 2. Tracing and basting (simple)

Press the  key to open the tracing and basting (simple) window. Press the start/stop button to begin tracing with basting stitches.



### 3. Tracing and basting (double)

Press the  key to open the tracing and basting (double) window. Press the start/stop button to begin tracing with basting stitches. The machine first bastes inside the pattern and then traces the outline of the pattern with basting stitches.

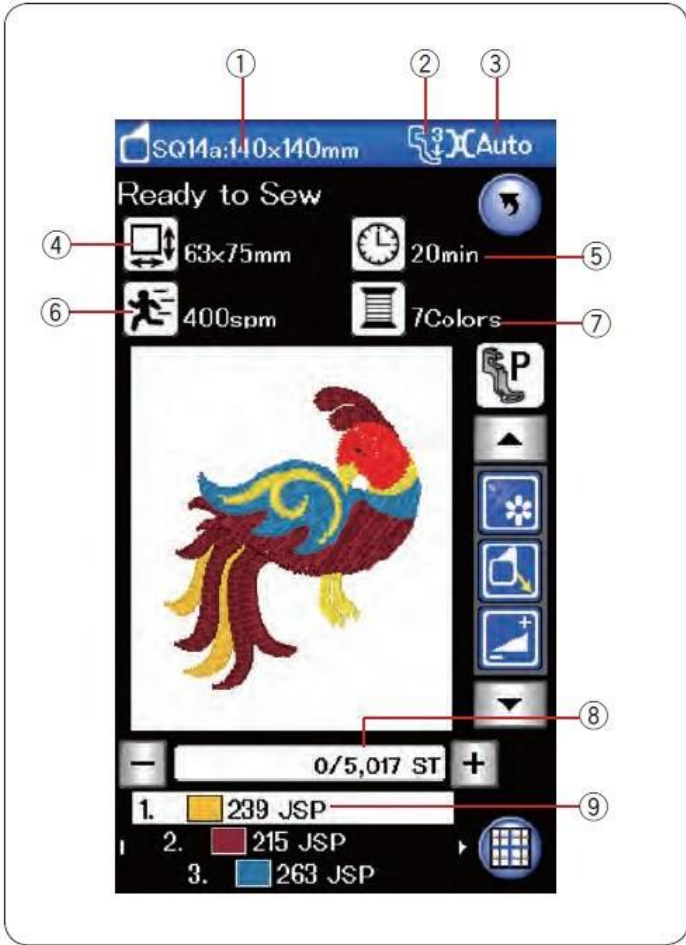
#### NOTES:

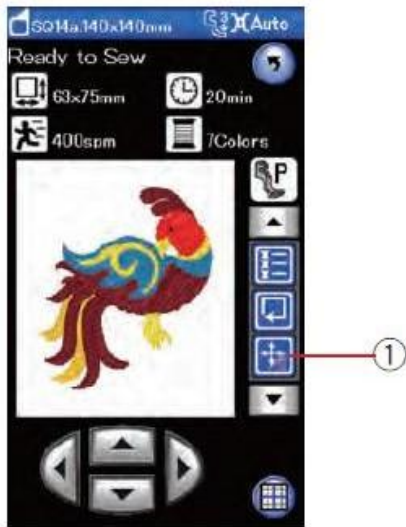
The machine will baste around the embroidery area with a 5 mm margin. However, this margin will be zero if the pattern exceeds the maximum limit of the embroidery area. To close the tracing window, press the X key.

### Pattern Information

The screen displays the following information:

- 1 Hoop size
- 2 Presser foot pressure
- 3 Tension setting
- 4 Design dimensions
- 5 Required sewing time
- 6 Maximum sewing speed
- 7 Number of thread colours (layers)
- 8 Stitch counter
- 9 Thread colour

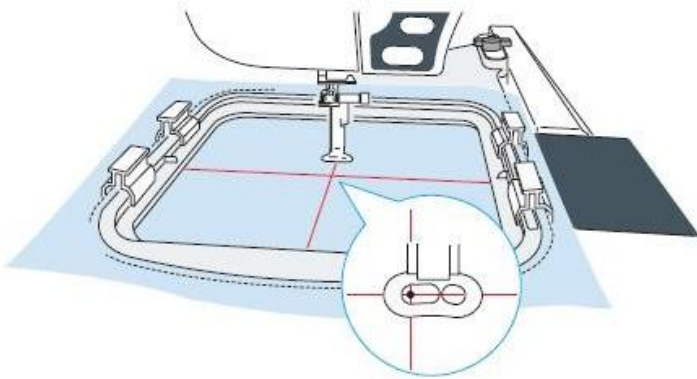




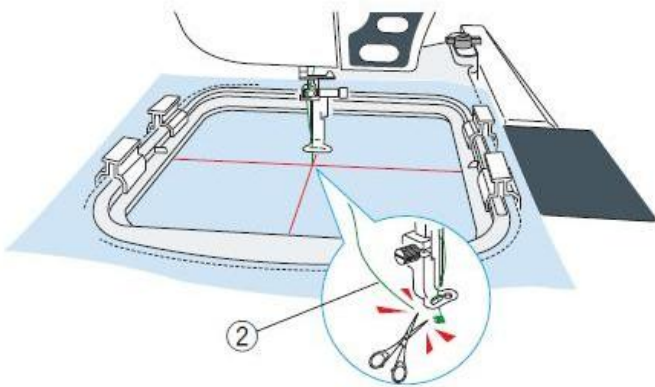
## Starting an embroidery

Select the desired pattern.  
Press the slow adjustment/PT key to display the slow adjustment keys.

1 Slow adjustment key/PT



Adjust the hoop position using the slow adjustment keys so that the needle position is directly over the centre of the centre lines on the fabric.

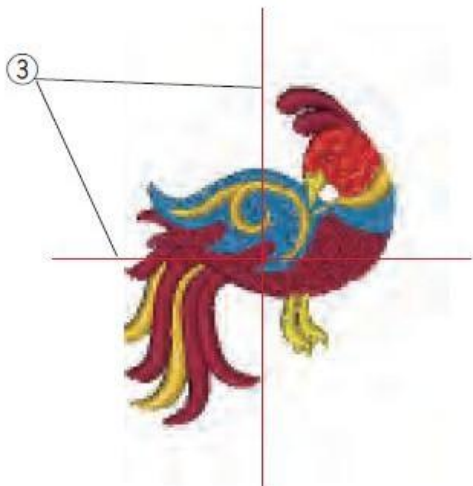


Press the start/stop button and sew 5 or 6 stitches. Press the start/stop button again to stop the machine.

Raise the presser foot by pressing the presser foot button, then cut the loose thread at the start of the starting stitch.

2 Loose thread

Lower the presser foot and press the start/stop button to start sewing again.  
The machine will stop automatically (and cut the threads if the automatic thread cutter is activated) when the first colour section is finished.  
Change the thread to the next colour and sew the next section.



## Sewing results

The embroidery pattern is created, as shown in the image, in the centre of the fabric.

3 Centre lines of the fabric

### NOTE:

See page 115 to set up the automatic thread cutter.

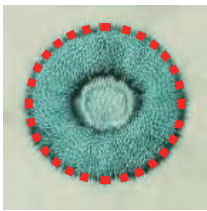
## Fringed flower designs

Favourite designs are special patterns used to create fringed flower designs.

You can easily create attractive fringe designs.

**Example:** Favourite design SQ14a-125

Select the fringe design SQ14a-125 and sew the pattern as if you were sewing a normal embroidery design.



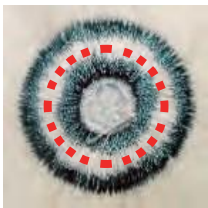
Remove the fabric from the hoop.

Cut the threads from the needle along the red dotted line at the outer edge of the pattern as shown.

Fray the threads to form the fringes.

**Example:** Favourite Design SQ14a-126

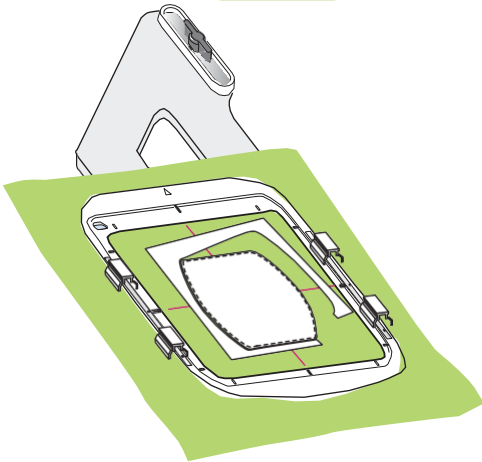
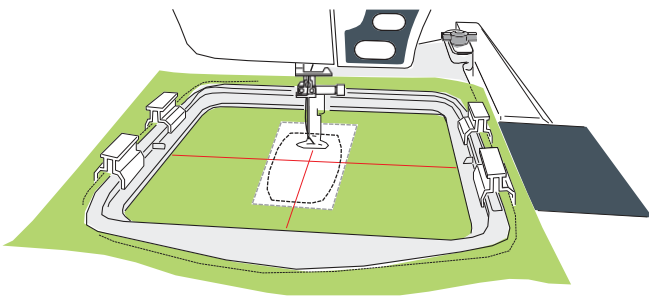
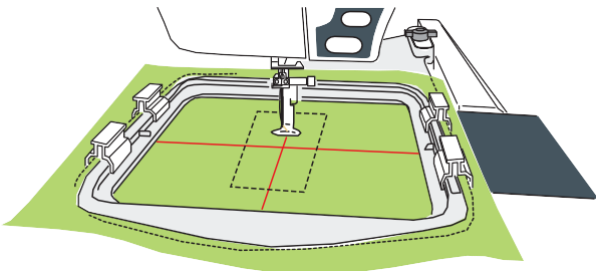
Select the favourite design SQ14a-126 and stitch the pattern in the same way as a normal embroidery design.



Remove the fabric from the hoop.

Cut the bobbin threads on the reverse side of the fabric along the red dotted line as shown.

Pull the threads from the needle and place the ends of the loop on the right side of the fabric to form the fringes.



## Appliqué designs


Patterns SQ14a-75, -76, -77, -127 and -128 are special designs for machine embroidery appliqué. An appliqué piece can be attached to a backing fabric and an embroidered appliqué design at the same time.

**Example:** Appliqué design SQ14a-76

Prepare the background fabric and the

appliqué fabric.

Select appliqué design SQ14a-76 and secure the to the hoop.

Place the hoop on the carriage and press the tracing key. Press the  key to select tracing and basting (single). Start the machine to mark around the embroidery design with basting stitches.

Cut the appliqué fabric to the same size as the marked area. Place the appliqué piece on the marked area and sew the first section (colour).

**NOTE:**

Secure the appliqué piece with pins or use a spray adhesive to hold the appliqué piece in place as required.

Remove the frame from the machine, but do not remove the fabric from the frame. Remove the basting stitches. Trim the excess appliqué fabric as close to the seam line as possible.

Place the frame back onto the machine. Sew the remaining sections (colours) of the appliqué design.

## Alternative method

Prepare the fabric appliqué so that it is larger than the hoop. Place the fabric appliqué in the hoop. Sew only the first section (colour).

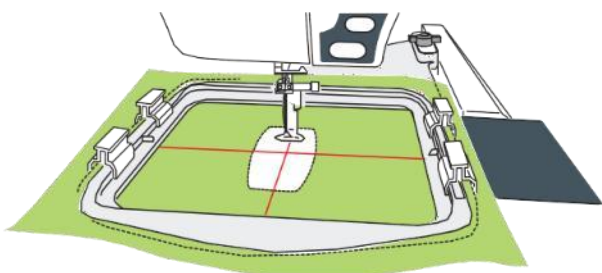
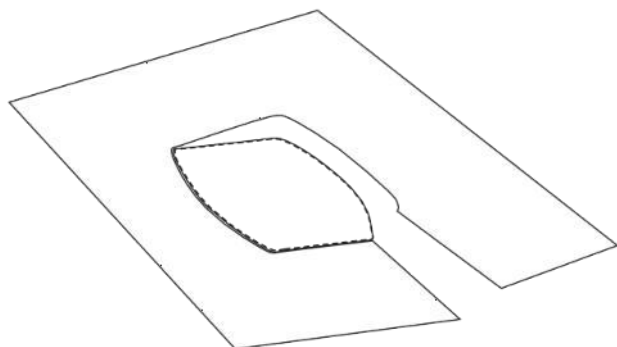
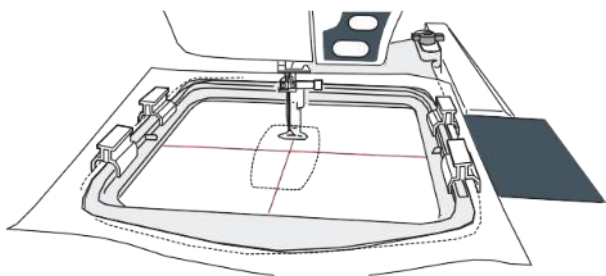
Remove the hoop and take the fabric appliqué out of the hoop. Cut the fabric appliqué around the stitching line to make the appliqué piece.

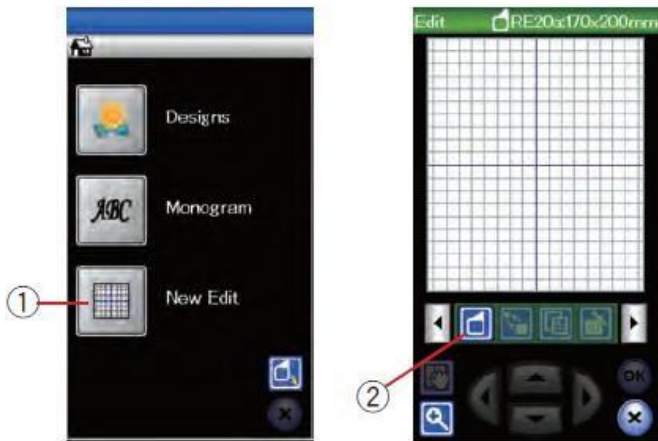
Prepare the backing fabric and place it in the hoop. Place the hoop on the carriage. Press the previous page key to return to the first section (colour) and sew the first section (colour) to mark the position of the appliqué.

1 Stitch return button

Place the appliqué piece on the backing fabric and align the appliqué piece with the position marks. Secure the appliqué piece in place with tape or pins.

Sew the remaining sections (colours) of the appliqué design.





## Edit mode

In edit mode, you can modify and combine designs to create original embroidery designs.

Press the edit mode key to open the RE20a hoop edit window.

1 Edit mode key

You can select a different hoop size.

Press the frame selection key to open the corresponding window.

Press the key with the hoop icon to select the desired hoop.

2 Frame selection key



### NOTE:

The FA 10a free-arm hoop is an optional item.

In edit mode, you cannot select patterns that are larger than the size of the selected frame.

## Opening embroidery designs

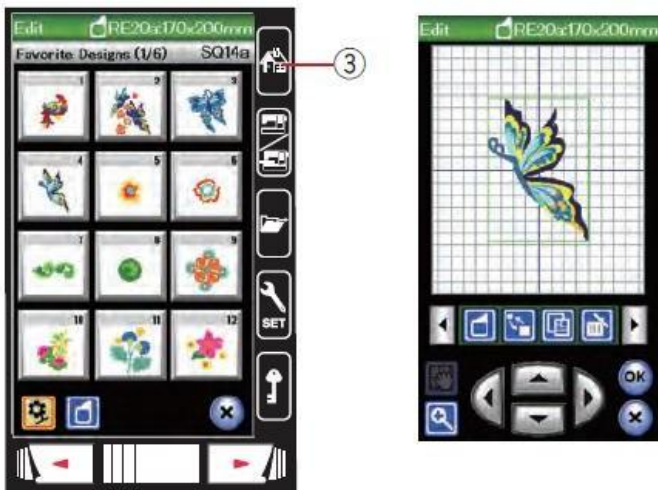
In the edit window, you can open built-in designs, monograms and designs stored on the USB memory stick.

To open pattern designs, press the Start key. Select the desired pattern from the list of designs (see page 93).

The screen will return to the edit window, displaying the selected pattern.

To add more designs or monograms to the editing window, press the Home key again and select the desired design or monogram from the design list (see pages 93–94)

3 Home key



## Selecting the pattern to be edited

To select the pattern you wish to edit, press the pattern image in the edit window.

The selected pattern appears surrounded by a frame.

## Moving patterns

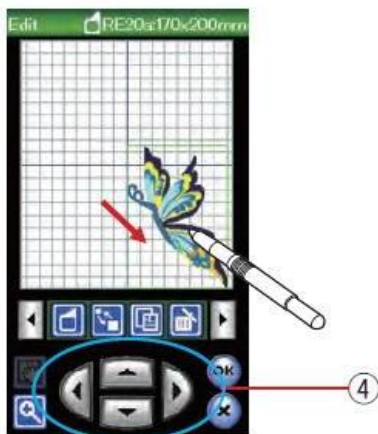
To move the embroidery pattern to the editing window, select and drag the pattern to the desired location using the touchscreen stylus or your fingertip.

### NOTE:

Do not drag the pattern across the screen with a sharp object.

You can also use the arrow keys to move the selected pattern. Press the arrow keys to move the pattern to the desired location in the editing window.

4 Arrow key





### Changing pattern size

Press the resize key to open the resize options window.

1 Resize key

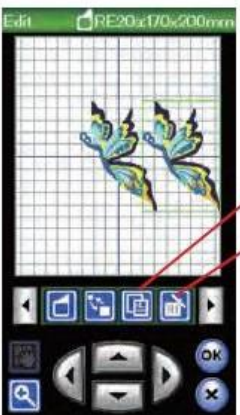
You can change the size of the embroidery design from 80% to 120% of the original size.

Press the "+" key to increase the pattern size.

Press the "-" key to reduce the pattern size.

The size will change by 1% each time you press the plus or minus key. To resize quickly, hold down the "+" or "-" key.

Press the OK key to confirm the new size.



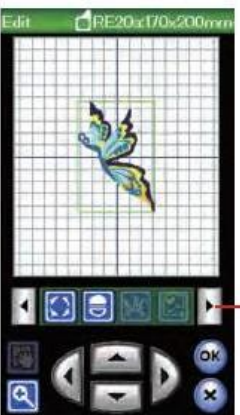
### Duplicating patterns

Press the duplicate key to make a copy of the selected pattern.

2 Duplicate key

#### NOTE:

The duplicated pattern will overlap the original pattern. Move the duplicate to view the original pattern.



### Deleting patterns

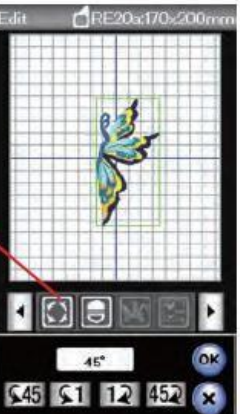
Select the design you wish to delete.

Press the delete key to delete the selected pattern.

3 Delete key

Press the right arrow key to display the next set of editing tools.

4 Right arrow key



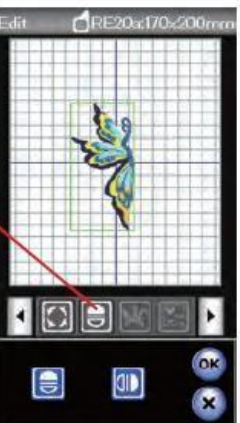
### Rotating patterns

Press the Rotate key to open the rotation options window.

5 Rotation key

Press the     keys to rotate the selected pattern 1 degree or 45 degrees to the right or left.



Press the OK key to confirm.



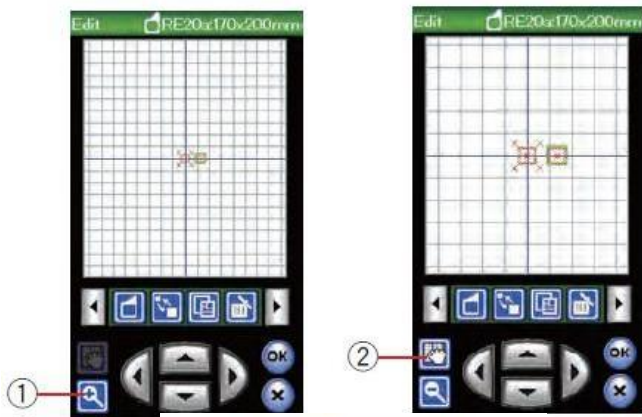
### Pattern flipping

Press the flip key to open the flip options window.

6 Flip key

Press the   keys to flip the selected pattern horizontally or vertically.

Press the OK key to confirm



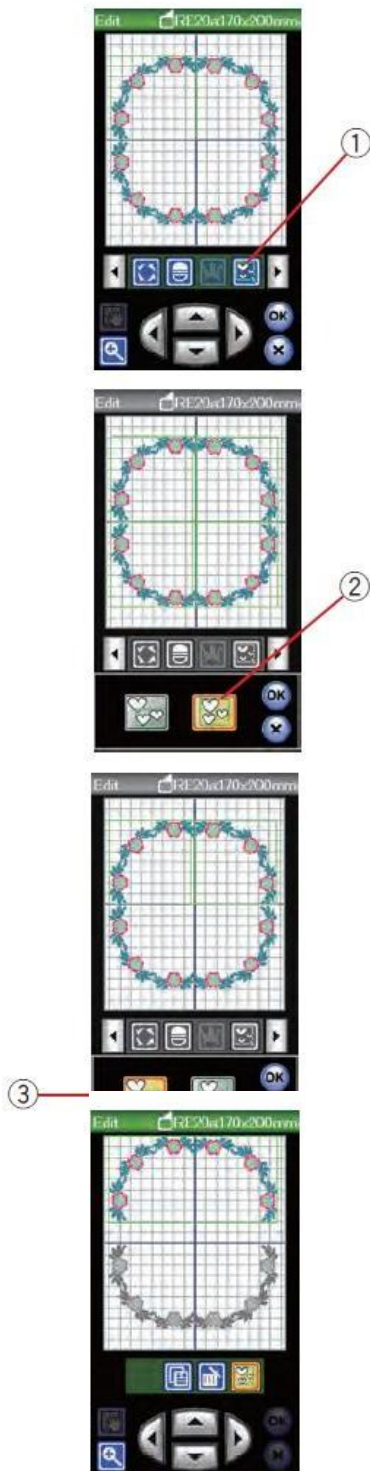
### Zoom in the editing window

Press the zoom key to view the enlarged image in the editing window. Press the zoom key again to view the image in its original size.

1 Zoom key

To move the window, press the scroll key and drag the window in the desired direction. Press the scroll key again to cancel the command.

2 Scroll key



### Grouping patterns

You can group patterns.

Press the grouping key to open the grouping options window.

1 Grouping key

Press the Group All key and then press the OK key to group all the patterns displayed in the editing window.

2 Group All button

If you only want to group the selected patterns, press the Group Selected button.

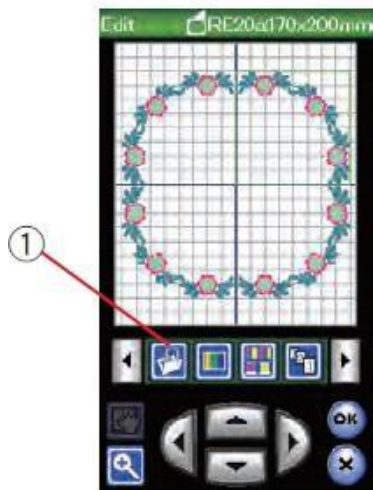
Select the desired patterns by clicking on the pattern images and press the OK button.

3 Group Selected button

When you group only the selected patterns, the remaining patterns are greyed out and cannot be selected.

Grouped patterns can be moved and duplicated as a group.

To ungroup the patterns, press the Group Selected button again.



### Saving a file

Original embroidery designs created in edit mode or programmed using a combination of patterns in normal sewing mode can be saved as files in the built-in memory and/or on a USB memory stick (see page 117).

- 1 File save key



### Customising the screen colour

You can simulate the actual colours of the fabric and threads on the screen by customising the colours of the design image and the edit window.

Press the colour key to open the colour customisation window.

- 1 Colour customisation key



If you wish to change the colour of the design pattern, press the design colour key. Press the cursor keys until the desired section appears in the preview window.

- 2 Design colour key
- 3 Cursor keys



To select the shade, press one of the 12 colour tiles.

To change the hue of the selected colour, press and drag the slider to the left or right.

- 4 Colour tiles
- 5 Slider

You can assign a name to the custom colour in the colour section by pressing the name key.

The assigned name will appear in place of the thread colour name and code in the embroidery window.

- 6 Name key

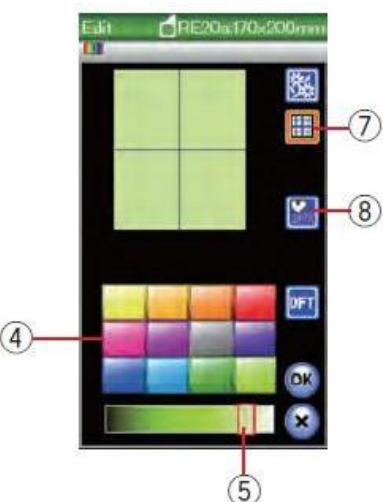


To change the background colour, press the background colour key and select the desired colour.

To select the shade, press one of the 12 colour tiles.

To change the hue of the selected colour, press and drag the slider to the left or right.

- 7 Background colour button

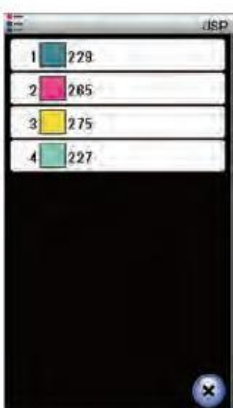
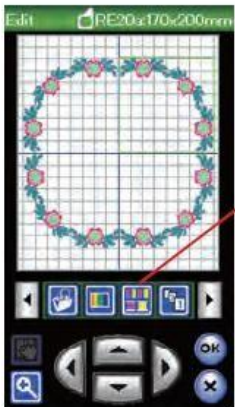
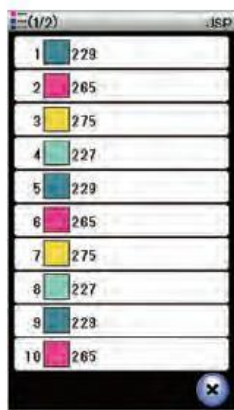


### NOTE:

If you open a design in \*.JPX format, you can view the background image in the editing window by pressing the background image key (see the MBX Digitiser instruction manual).

- 8 Background image key





## Colour grouping

When combining duplicate patterns, you can reduce the number of colour sections using the colour grouping function.

For example, the pattern of the combined design, created on the page, has 16 colour sections.

Press the colour grouping key and the colour grouping window will open.

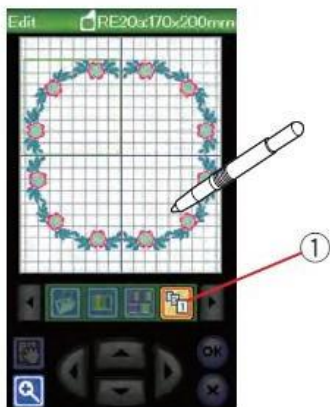
Press the OK key to merge all colour sections of the same colour.

1 Colour grouping button

The number of colour sections is reduced to 4.

### NOTE:

When you return to the editing window, colour grouping is cancelled.



## Sewing order

You can change the sewing order of a pattern combination.

Press the sewing order key and click on the pattern images one by one in the desired sewing order.

The patterns will be sewn in the order in which the images were selected.

Press the sewing order key again to return to the previous screen.

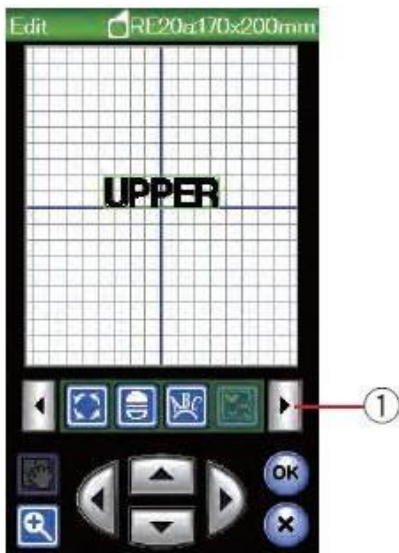
1 Sewing order key



## Arched monograms

In edit mode, you can create arched monograms pointing upwards or downwards.

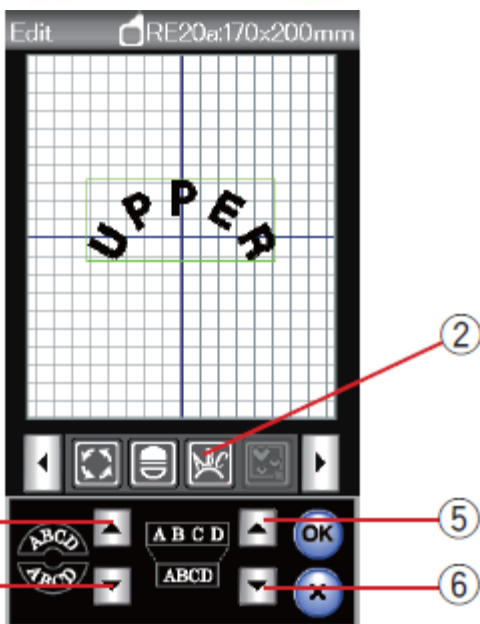
Enter the characters and press the OK key.



The characters you have entered are displayed in the editing window.

Press the arrow key to view the other editing tools.

1 Arrow key



Press the arc key and the arc design window will open.

2 Arc key

Press the Up Arrow key to draw an upward arc.

3 Upward arc key

Press the down arrow key to draw a downward arc.

4 Downward arc key

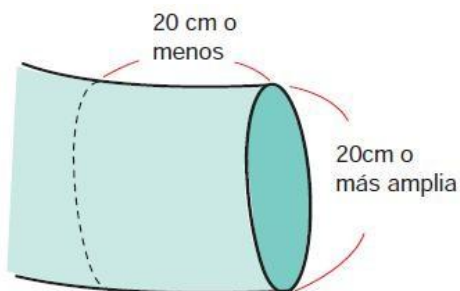
Press the zoom key to draw a longer arc.

5 Zoom-in key

Press the zoom-out key to make a shorter arc.

6 Reduce key

Press the OK key to confirm.



### Free-arm frame (optional accessory)

The FA10 free-arm hoop is specially designed for embroidering tubular garments, such as sleeves, trouser legs, etc.

Check the size of the opening in the tubular part of the garment. The width of the opening must be 20 cm or more. The area to be embroidered should be approximately 20 cm from the opening.

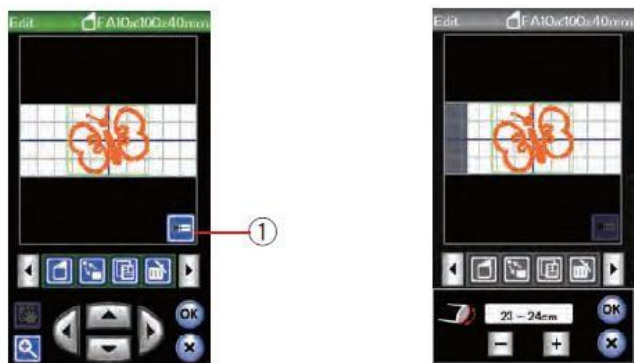
### Opening width:

If the opening width is 20–25 cm, the embroidery area must be reduced to prevent the fabric from restricting the frame's movement.

Press the opening width key and select the opening width by pressing the plus or minus keys.

Press the OK key and the area limits will be displayed.

1 Opening width key

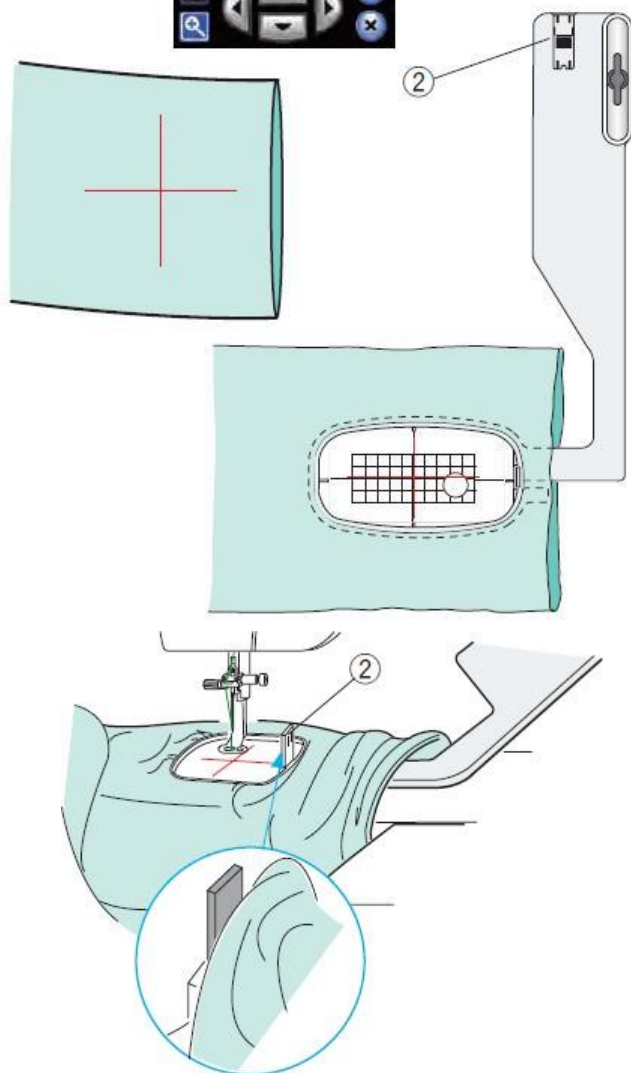


### Free-arm embroidery

Draw the centre lines on the fabric with a piece of chalk.

Open the editing window and select the FA10a hoop. Select small designs that can be opened.

Press the OK key to open the sewing list window.



Remove the extension table.

Place the garment in the FA10a hoop, as shown. The garment must be positioned so that the centre lines match those on the template in the hoop.

Place the garment on the machine's free arm and mount the FA10a hoop on the carriage.

Raise the cuff so that it does not get caught on the neck of the free arm.

Insert the locking plate into the inner frame to prevent the cuff from lying over the embroidery area.

2 Lock plate

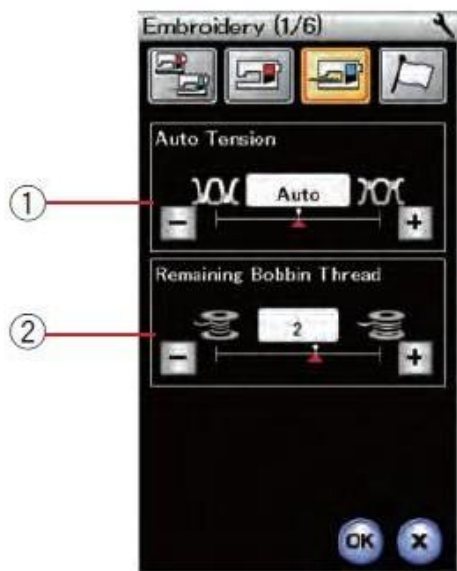
Press the start/stop button to begin sewing, ensuring that the garment can move freely around the free arm.

Remove the hoop from the carriage when you have finished sewing. Remove the garment from the free arm.

## CUSTOMISING THE MACHINE SETTINGS

### Setting the embroidery mode

Press the embroidery setup mode key (see page 75).



#### 1 Automatic thread tension adjustment

The level of automatic thread tension adjustment can be adjusted using the “+” or “-” key.

#### 2 Low bobbin thread warning

The bobbin thread low warning level can be adjusted using the “+” or “-” key.

Set the level to 3 or 4 when using thick threads for cord or quilting designs. To deactivate this option, press the “-” key until “OFF” appears in the window.

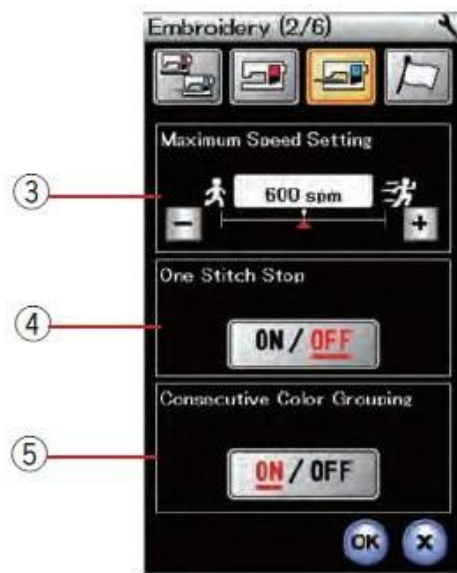
Press the next page key to access the next menu.

#### 3 Maximum embroidery speed

The maximum speed for embroidery can be set to a value between 400 and 800 stitches per minute in increments of 100 stitches per minute by pressing the “+” or “-” key. (The sewing speed can be varied by adjusting the , even whilst the machine is running.)

#### NOTE:

Reduce the sewing speed when working with narrow zigzag stitches that tend to distort at high speeds.



#### 4 Enable/disable one-stitch stop

If this function is enabled, the machine sews one stitch and stops when the start/stop button is pressed, allowing the bobbin thread to be brought up before sewing.

#### 5 Enable/disable grouping of consecutive colours

If an imported stitch data file or pattern combination design file contains consecutive sections of the same colour, these are automatically grouped as a single section when the file is opened or the pattern combination is saved as a file, as well as when switching to the ready-to-sew window. This function does not apply when combining built-in designs with designs from external sources.

Deactivate this option if you do not wish to group the sections.

Press the next page key to access the next menu.

#### 6 Hook confirmation on/off

Hook confirmation on/off The hook confirmation message always appears before opening the Ready to Sew window. However, you can disable this option by selecting Off.

#### 7 Holding frame calibration

You can calibrate the centre position of the hoops. To do this, you must enter embroidery mode before opening the embroidery settings window.

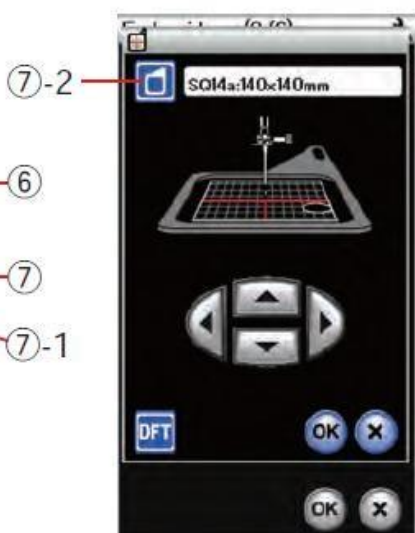
Extend the carriage arm and press the YES key.

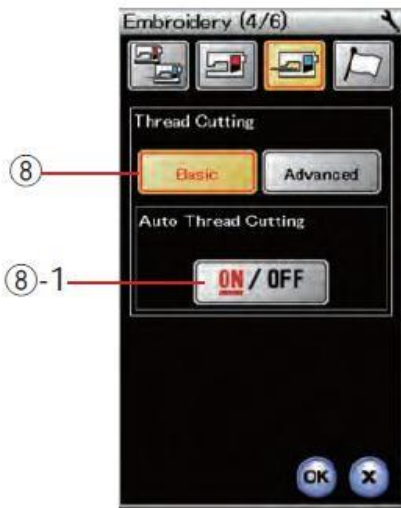
7-1 YES key

The carriage moves to the centre position. Press the hoop selection key to open the hoop selection window.

7-2 Hoop selection key

Select the hoop and mount it with a template on the carriage. Place the template in the hoop. Adjust the position of the hoop by pressing the slow adjustment keys so that the needle is directly above the hole in the template, then press the OK key. Press the next page key to access the next menu.

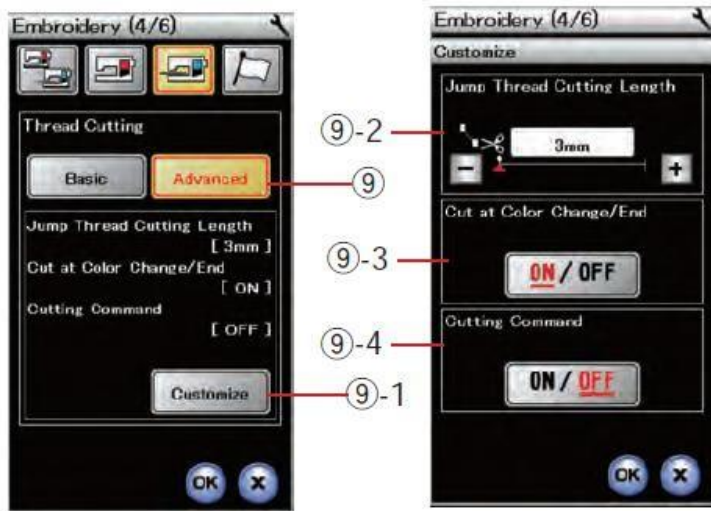




## 8 Automatic thread cutting (basic)

If this option is enabled, the machine automatically cuts the threads when it stops to change to the next colour. Press the ON/OFF keys to turn this function on or off.

8-1 ON/OFF button



## 9 Automatic thread cutting (advanced)

Press the customisation button to open the advanced settings window.

9-1 Customisation button

### 9-2 Jump thread cutting length

You can adjust the jump thread cut length by pressing the "+" or "-" button.

If you enable the cut command option, you must set the length to "OFF".

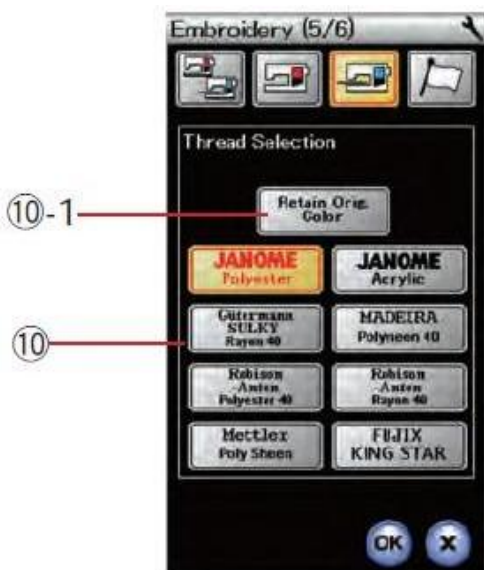
### 9-3 Thread cutting when changing colour and at the start/end of sewing

If this option is enabled, the machine automatically cuts the threads at the end of the seam and when it stops to change to the next colour thread.

### 9-4 Enable/disable cut command

If an external embroidery stitch data file contains a cut code (cut command), enable this option to cut the threads when the cut code occurs.

Press the next page key to access the next menu.



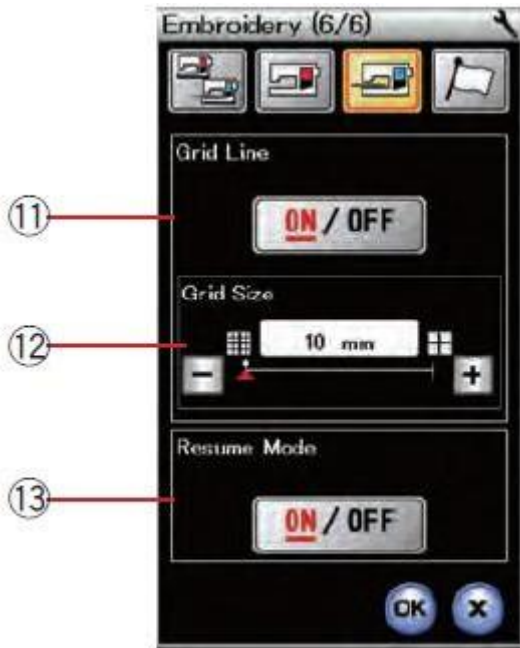
## 10 Thread selection

There are 8 types of embroidery thread to choose from. Press the key for the thread you wish to use. The colour code of the selected thread will appear on the colour/piece key, along with the colour name.

If you are using imported embroidery stitch data that contains appropriate thread information, press the key to retain the original colour and make use of this information.

10-1 Key to retain the original colour

Press the next page key to access the next menu.



### 11 Grid line on/off

Enable this option to display the grid in the editing window, or disable it to hide the grid.

### 12 Grid size

You can change the grid size by pressing the "+" or "-" key.

### 13 Resume mode

When resume mode is enabled, the last stitch sewn before switching off the machine is resumed when the machine is switched on again.

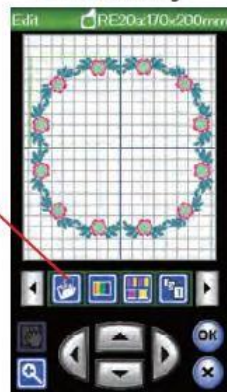
When the machine is switched on, the confirmation window opens. Press the OK key to resume the last stitch of the pattern sewn.

Press the OK key to activate the new settings. To return to embroidery mode without changing the settings, press the X key.

## Ordinary sewing



## Embroidery



## FILE MANAGEMENT

### Saving and opening a

#### file Saving a file

Original embroidery designs created in or programmed using a combination of patterns in normal sewing mode can be saved as files in the built-in memory and/or on a USB memory stick.

Press the key to save files and the save file window will open.

1 File save key

A folder named "OrdF" (normal sewing mode) or "EmbF" (embroidery mode) will appear on the screen.

Press the built-in memory key or the USB port key to select the location where the file is to be saved.

2 Built-in memory key

3 USB port key

To select a folder, press the folder icon.

4 Folder icon

File names are automatically assigned in numerical order starting with M\_001.....

Press the OK key and the file will be saved in the selected folder.

To assign a specific name to the file, press the rename key.

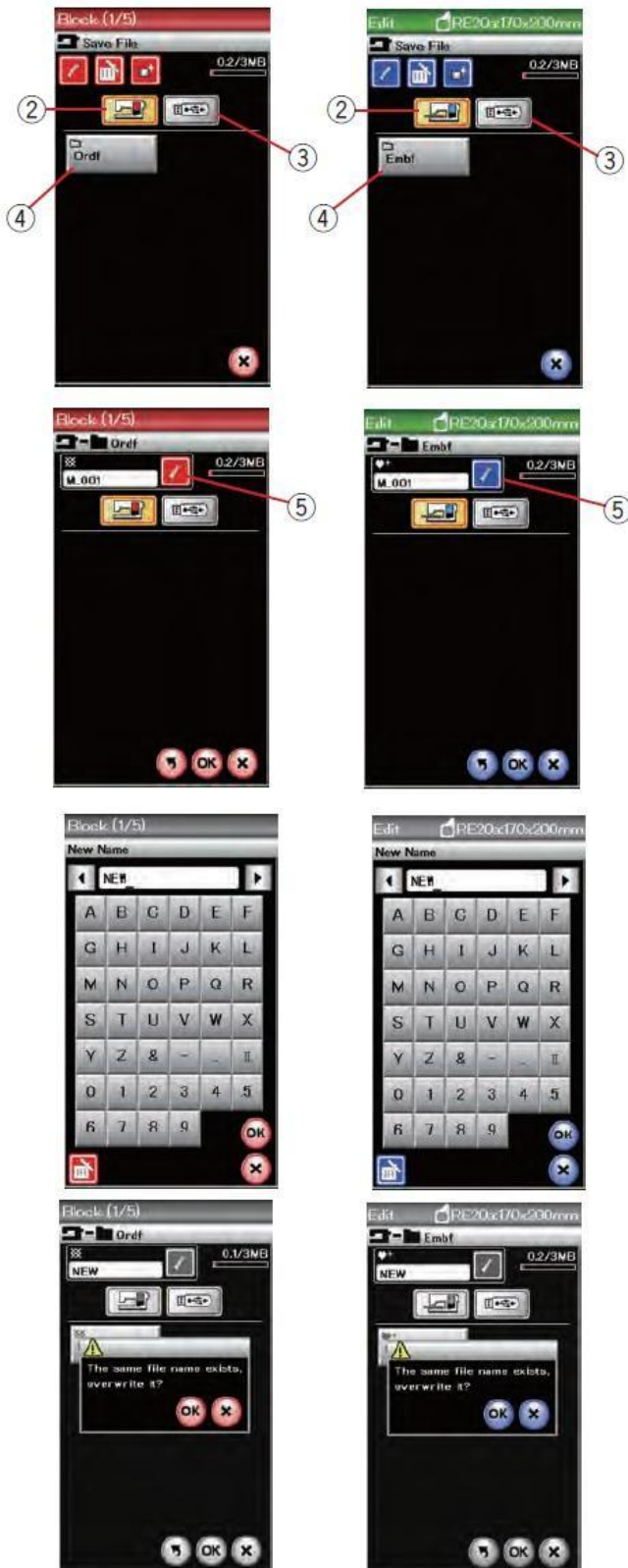
5 Rename key

The keyboard window opens.

Enter the new name and press the OK key. The file is saved with the new name.

If you try to save a file with a name that already exists, a confirmation message will appear.

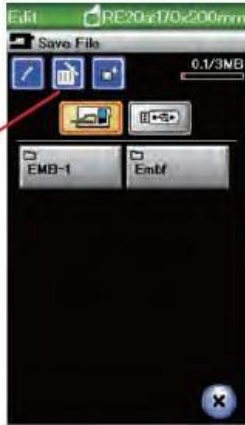
Press the OK key to overwrite the existing file or press the X key if you do not wish to overwrite it.



## Ordinary sewing



## Embroidery



### Creating a folder

Press the New Folder key and the keyboard window will open.  
1 New Folder key

Enter the folder name and press the OK key.

Press the Save Files key to open the Save Files window.

### Deleting files or folders

Press the delete key and select the file or folder you wish to delete.

2 Delete key

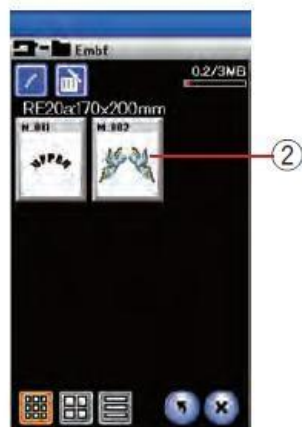
A confirmation message appears.

Press the OK key to delete the file or folder.

## Ordinary sewing



## Embroidery



## Opening files

To open saved files, press the Open File key to open the Open File window.

1 File Open button


Select the folder location, either on the machine's internal memory or on a USB drive.

Open the folder containing the file you wish to open by pressing the folder icon.

The list of files in the selected folder is displayed. To open the


file, press the icon for the desired file.

2 File icon


In embroidery mode, the file attributes can be viewed by pressing the  key to display the large file icon.

3 File attributes

The four file attributes are as follows:

 : \*.JEF (Janome embroidery format)


 : \*.JEF+ (editable Janome embroidery format)

 : \*.JPX (\*.JEF+ with a bitmap background image)

 : \*.JPX (\*.JEF+ with FA10a hoop boundary)

## View file names

In the file list window, the button with the file icon can display up to 8 characters of the file name.

If the file name is long and cannot be displayed, press the large icon button  to display the full file name.

4 Large icon button

File names in Russian characters can also be viewed by pressing the large icon button.

## Ordinary sewing



## Embroidery



## Renaming files or folders

Press the Rename key and select the file or folder you wish to rename.

Press the Rename key.

This will rename the file or folder.

1 Rename key

The keyboard window opens.

Enter the new name and press the OK key.



If you enter a name that already exists, a confirmation message appears. Press the X key and enter another name.



## CARE AND MAINTENANCE

### Cleaning the bobbin holder area

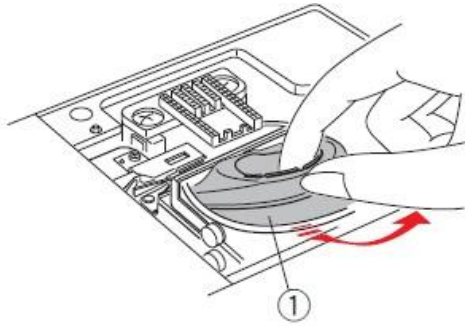
Clean the bobbin area at least once a month. Remove the needle plate (see page 19).

Switch off the machine and unplug it.

Remove the needle and the presser foot.

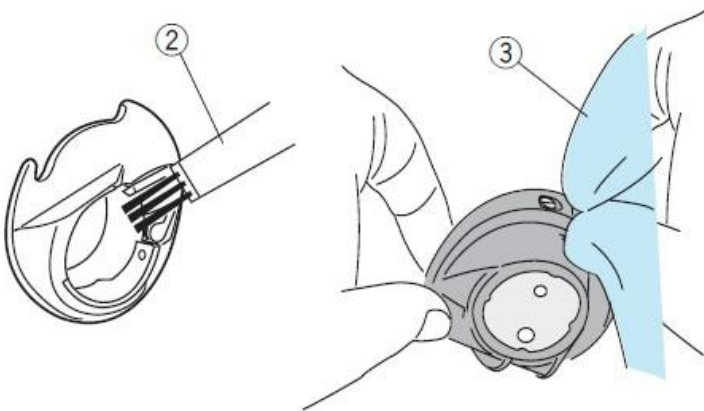
#### NOTE:

The machine should only be disassembled as explained in this section.



Remove the bobbin and the bobbin holder.

1 Bobbin holder

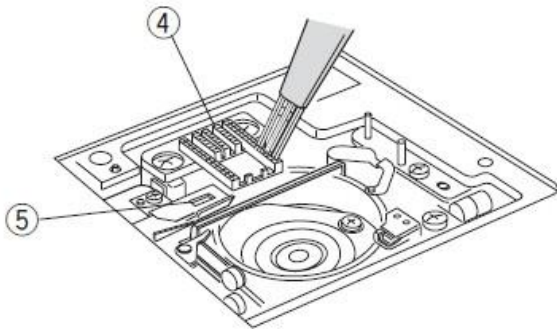


Clean the bobbin holder with a lint brush.

Apply a few drops of bobbin case cleaner (included in the standard accessories) to a soft cloth and wipe the bobbin case inside and out.

2 Lint brush

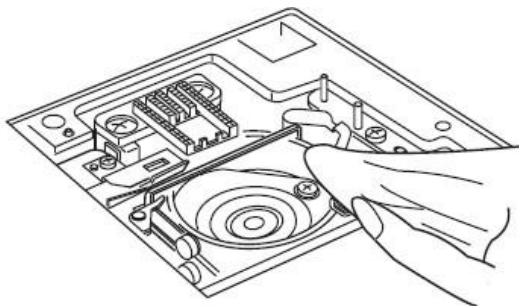
3 Soft cloth



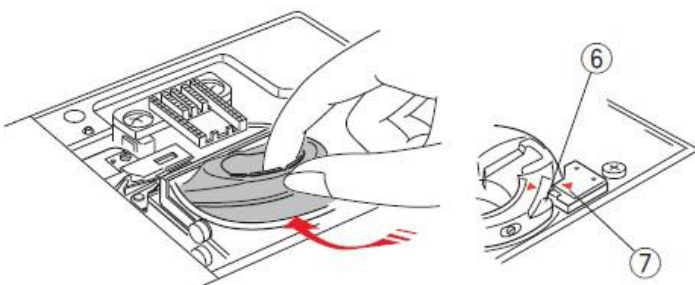
Clean the feed dogs and thread cutter with the lint brush.

4 Feed dogs

5 Automatic thread cutter



Clean the bobbin case with a soft cloth.



Insert the bobbin holder so that the knob fits close to the end of the slot.

Insert the bobbin.

6 Knob

7 Stop

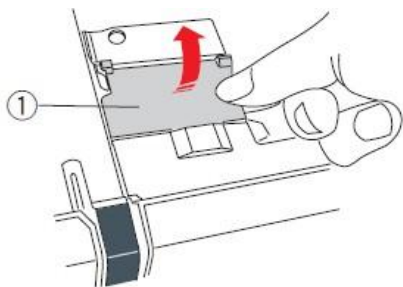
Fit the needle plate, presser foot and needle.

## Cleaning the inside of the thread guide

Clean the inside of the thread guide plate under the top cover at least once a month.

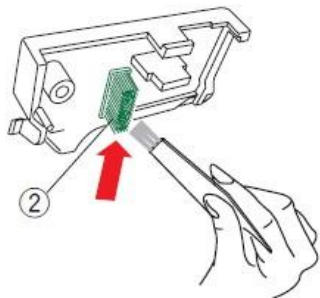
Remove the thread from the needle and remove the thread guide plate by pulling it out.

1 Thread guide plate



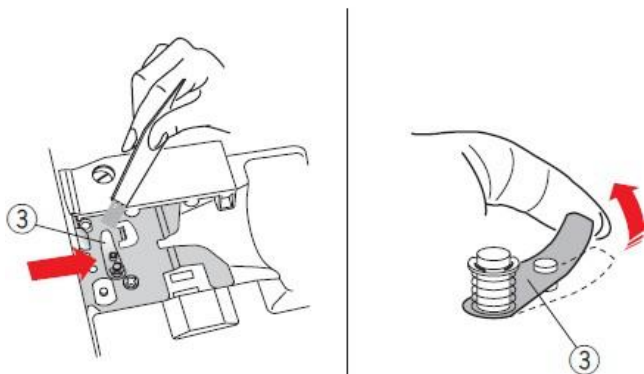
Remove lint and dust from the brush under the thread guide plate using a lint brush.

2 Thread guide plate brush



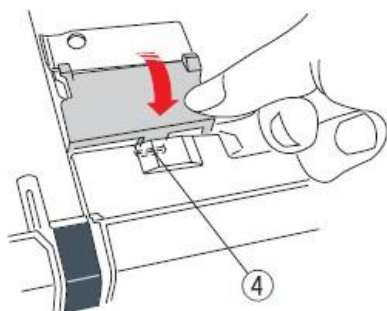
Clean the area around and under the tension plate with the lint brush.

3 Tension plate



Fit the thread guide plate to the machine by inserting the pins into the slots. Press down on the thread guide plate to secure it in place.

4 Pin



## Troubleshooting

Problem	Cause	Reference
The machine is making a noise.	<ol style="list-style-type: none"> <li>1. The thread is tangled in the bobbin area.</li> <li>2. The feed dogs are clogged with lint.</li> </ol>	See page 121. See page 121.
The needle thread breaks.	<ol style="list-style-type: none"> <li>1. The needle thread is not threaded correctly.</li> <li>2. The needle thread is too tight.</li> <li>3. The needle is bent or damaged.</li> <li>4. The needle is not fitted correctly.</li> <li>5. The thread is too thick for the needle.</li> <li>6. The needle thread was not in the thread holder when you started embroidering.</li> </ol>	See page 13. See page 34. See page 16. See page 16. See page 16. See page 92.
The bobbin thread breaks.	<ol style="list-style-type: none"> <li>1. The bobbin thread is not threaded correctly into the bobbin holder.</li> <li>2. Lint has accumulated in the bobbin case.</li> <li>3. The bobbin is damaged and does not rotate smoothly.</li> </ol>	See page 12. See page 121. Replace the bobbin.
The needle breaks.	<ol style="list-style-type: none"> <li>1. The needle is not fitted correctly.</li> <li>2. The needle is bent or damaged.</li> <li>3. The needle adjustment screw is loose.</li> <li>4. The needle thread is too tight.</li> <li>5. The needle is too thin for the fabric being used.</li> </ol>	See page 16. See page 16. See page 16. See page 34. See page 16.
The touchscreen is not clear.	<ol style="list-style-type: none"> <li>1. The screen contrast has not been set correctly.</li> </ol>	See page 76.
Stitches are being skipped.	<ol style="list-style-type: none"> <li>1. The needle is not fitted correctly.</li> <li>2. The needle is bent or damaged.</li> <li>3. The needle and/or threads are not suitable for the fabric being used.</li> <li>4. The blue needle is not used for sewing stretch, very thin and synthetic fabrics.</li> <li>5. The thread is not threaded correctly through the needle.</li> <li>6. The needle is faulty (rusty or deformed eye).</li> <li>7. The embroidery hoop has not been positioned correctly.</li> <li>8. The fabric is not sufficiently taut in the embroidery hoop.</li> <li>9. The purple needle is not used for sewing thick fabrics, denim or for stitching hems.</li> </ol>	See page 16. See page 16. See page 16. See page 16. See page 13. Change the needle. See page 92. See page 91. See page 16.
Gathering of seams.	<ol style="list-style-type: none"> <li>1. The needle thread is too tight.</li> <li>2. The needle thread or bobbin thread is not threaded correctly.</li> <li>3. The needle is too thick for the fabric being sewn.</li> <li>4. The stitch is too long for the fabric.</li> <li>5. The stitch is too wide.</li> <li>6. The fabric is not sufficiently taut in the embroidery hoop.</li> </ol>	See page 34. See pages 12–13. See page 16. Shorten the stitches. Reduce the stitch width. See page 91.

<b>Problem</b>	<b>Cause</b>	<b>Reference</b>
The fabric is not feeding properly.	<ol style="list-style-type: none"> <li>1. The feed dogs are too fluffy.</li> <li>2. The stitches are too fine.</li> <li>3. The feed dogs are lowered.</li> </ol>	See page 121. Lengthen the stitches. See page 21.
The machine is not working.	<ol style="list-style-type: none"> <li>1. The machine is not plugged in.</li> <li>2. There is thread jammed in the bobbin case.</li> <li>3. The start/stop button is being used for normal sewing whilst the foot control is connected.</li> </ol>	See page 6. See page 121. See page 8.
There is a creaking noise when the machine is running.	<ol style="list-style-type: none"> <li>1. Something is caught between the carriage and the arm.</li> <li>2. The carriage is hitting something around the machine.</li> </ol>	Remove the object. See page 83.
The patterns are distorted.	<ol style="list-style-type: none"> <li>1. The needle thread is not tight enough.</li> <li>2. The stitch length is not suitable for the fabric being used.</li> <li>3. The fabric feed balance selector has not been set correctly.</li> <li>4. No interfacing is used when sewing stretch fabrics and very fine fabrics.</li> <li>5. The embroidery hoop clamping knob is loose.</li> <li>6. The embroidery hoop is touching something around the machine.</li> <li>7. The fabric is not sufficiently taut in the embroidery hoop.</li> <li>8. The fabric is snagging or stretching during embroidery.</li> </ol>	See page 34. See page 33.  See page 82. Use a stabiliser. See page 92. See page 83. See page 91. Stop the machine and release the fabric.
The stitches in the automatic buttonhole are uneven.	<ol style="list-style-type: none"> <li>1. The stitch length is not suitable for the fabric used.</li> <li>2. The fabric feed balance selector has not been set correctly.</li> <li>3. Interlining is not being used with stretch fabric.</li> </ol>	See page 39.  See page 82. Use an interfacing.
The pattern selection buttons are not working.	<ol style="list-style-type: none"> <li>1. The electronic control circuit is not working properly.</li> <li>2. The position of the keys is misaligned.</li> </ol>	Switch the machine off and on again. See page 76.
Threads often bunch up at the bottom of the stitch pattern.	<ol style="list-style-type: none"> <li>1. The minimum cut length for the jump thread is too short.</li> </ol>	See page 115.

To transport the sewing machine, hold the carrying handle with one hand and support the machine with the other. Wipe the exterior of the machine with a soft cloth. Do not use chemical solvents.

Store the machine in a cool, dry place.

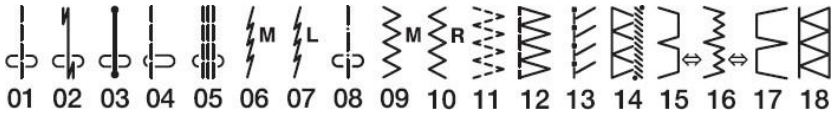
Do not leave the machine in a damp place, near a radiator or exposed to direct sunlight. The power cord can be stored in the semi-hard case.

Do not forget to retract the embroidery carriage arm before switching off the machine.

## STITCH TABLE

### Normal Stitch

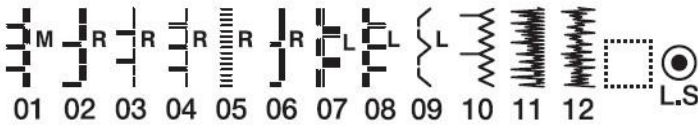
#### Utility (U)



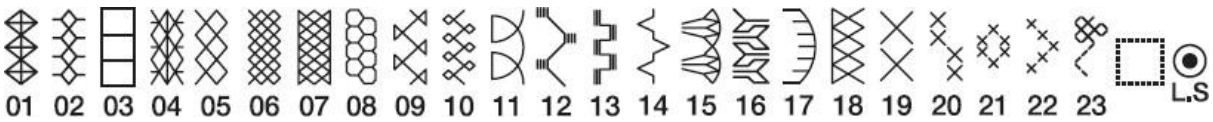
#### Buttonholes (B)



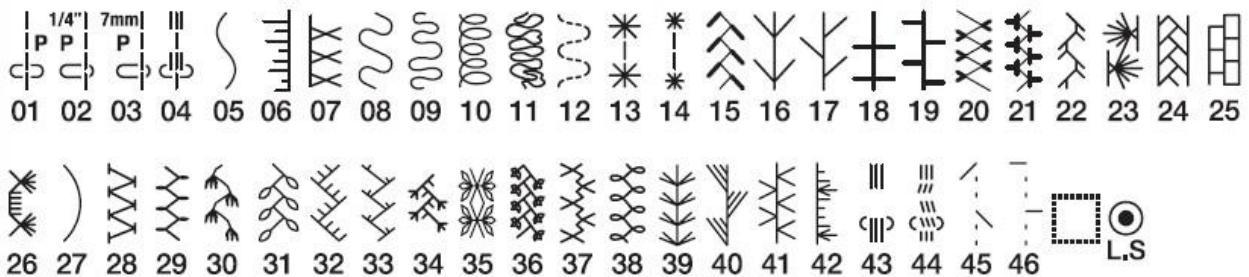
#### Appliqué (A)



#### Decorative French Stitches (H)



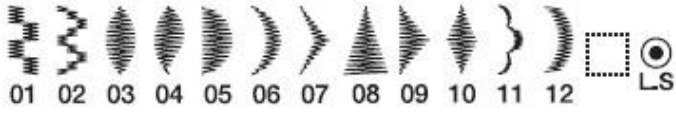
#### Quilting (Q)



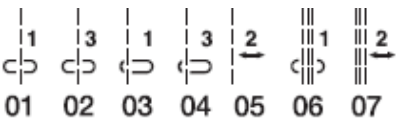
## STITCH TABLE

### Standard Stitch

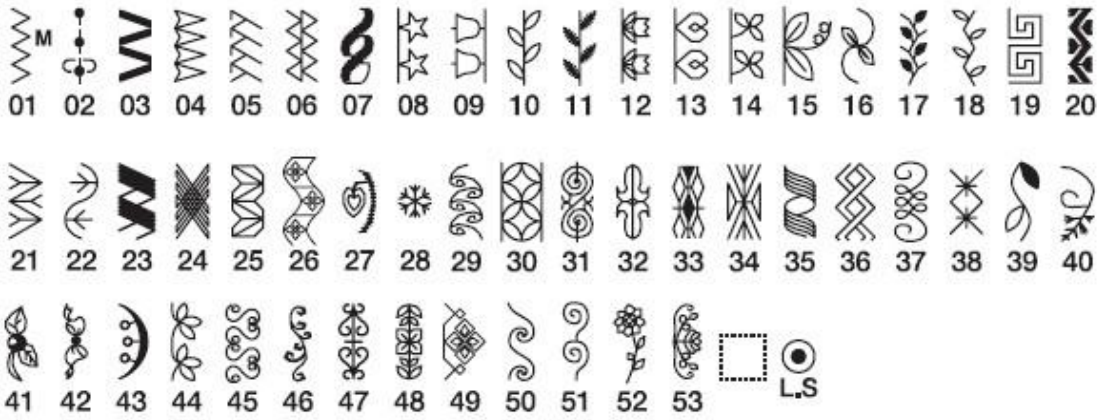
#### Satin (S)



#### Utility (BR)



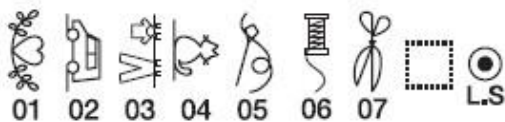
#### Decorative (D)



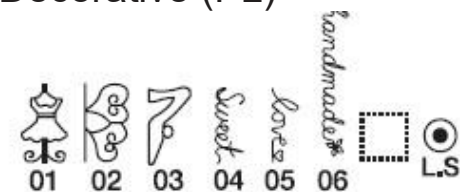
#### Elongated (L)



#### Pictograms (P)



#### Decorative (PL)



# STITCH TABLE

## Standard Stitch

Block

A	B	C	D	E	F	G	H	I	J	K	L	M	N					
O	P	Q	R	S	T	U	V	W	X	Y	Z	.	□	□	□			
a	b	c	d	e	f	g	h	i	j	k	l	m	n					
o	p	q	r	s	t	u	v	w	x	y	z	.	□	□	□			
1	2	3	4	5	6	7	8	9	0	&	-	\$	@	.	.			
,	?	¿	!	¡	'	'	<	>	(	)	-	+	=	/	//	%	~	:
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Ò	Ó	Ô	Õ	Ö	Ø	Ù	Ú	Û	Ü	ß	À	Ç	È	Ë	Ì	Ï		
Ł	Ń	Œ	Ś	Ş	Ž	Ž												
à	á	â	ã	ä	å	æ	ç	è	é	ê	ë	ì	í	î	ï	ñ		
ò	ó	ô	õ	ö	ø	ù	ú	û	ü	ß	à	ç	è	ë	ì	í	ij	
ł	ń	œ	ś	ş	ž	ž												

Italic

<i>A</i>	<i>B</i>	<i>C</i>	<i>D</i>	<i>E</i>	<i>F</i>	<i>G</i>	<i>H</i>	<i>I</i>	<i>J</i>	<i>K</i>	<i>L</i>	<i>M</i>	<i>N</i>					
<i>O</i>	<i>P</i>	<i>Q</i>	<i>R</i>	<i>S</i>	<i>T</i>	<i>U</i>	<i>V</i>	<i>W</i>	<i>X</i>	<i>Y</i>	<i>Z</i>	<i>.</i>	<i>□</i>	<i>□</i>	<i>□</i>			
<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>e</i>	<i>f</i>	<i>g</i>	<i>h</i>	<i>i</i>	<i>j</i>	<i>k</i>	<i>l</i>	<i>m</i>	<i>n</i>					
<i>o</i>	<i>p</i>	<i>q</i>	<i>r</i>	<i>s</i>	<i>t</i>	<i>u</i>	<i>v</i>	<i>w</i>	<i>x</i>	<i>y</i>	<i>z</i>	<i>.</i>	<i>□</i>	<i>□</i>	<i>□</i>			
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>	<i>9</i>	<i>0</i>	<i>&amp;</i>	<i>-</i>	<i>\$</i>	<i>@</i>	<i>.</i>	<i>.</i>			
<i>,</i>	<i>?</i>	<i>¿</i>	<i>!</i>	<i>¡</i>	<i>'</i>	<i>'</i>	<i>&lt;</i>	<i>&gt;</i>	<i>(</i>	<i>)</i>	<i>-</i>	<i>+</i>	<i>=</i>	<i>/</i>	<i>//</i>	<i>%</i>	<i>~</i>	<i>:</i>
<i>À</i>	<i>Á</i>	<i>Â</i>	<i>Ã</i>	<i>Ä</i>	<i>Å</i>	<i>Æ</i>	<i>Ç</i>	<i>È</i>	<i>É</i>	<i>Ê</i>	<i>Ë</i>	<i>Ì</i>	<i>Í</i>	<i>Î</i>	<i>Ï</i>	<i>Ñ</i>		
<i>Ò</i>	<i>Ó</i>	<i>Ô</i>	<i>Õ</i>	<i>Ö</i>	<i>Ø</i>	<i>Ù</i>	<i>Ú</i>	<i>Û</i>	<i>Ü</i>	<i>ß</i>	<i>À</i>	<i>Ç</i>	<i>È</i>	<i>Ë</i>	<i>Ì</i>	<i>Ï</i>		
<i>Ł</i>	<i>Ń</i>	<i>Œ</i>	<i>Ś</i>	<i>Ş</i>	<i>Ž</i>	<i>Ž</i>												
<i>à</i>	<i>á</i>	<i>â</i>	<i>ã</i>	<i>ä</i>	<i>å</i>	<i>æ</i>	<i>ç</i>	<i>è</i>	<i>é</i>	<i>ê</i>	<i>ë</i>	<i>ì</i>	<i>í</i>	<i>î</i>	<i>ï</i>	<i>ñ</i>		
<i>ò</i>	<i>ó</i>	<i>ô</i>	<i>õ</i>	<i>ö</i>	<i>ø</i>	<i>ù</i>	<i>ú</i>	<i>û</i>	<i>ü</i>	<i>ß</i>	<i>à</i>	<i>ç</i>	<i>è</i>	<i>ë</i>	<i>ì</i>	<i>í</i>	<i>ij</i>	
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Block (9 mm)

A	B	C	D	E	F	G	H	I	J	K	L	M	N					
O	P	Q	R	S	T	U	V	W	X	Y	Z	.	□	□	□			
1	2	3	4	5	6	7	8	9	0	&	-	\$	@	.	.			
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# STITCH TABLE Embroidery

Designs are not to scale.

## Favourite Designs



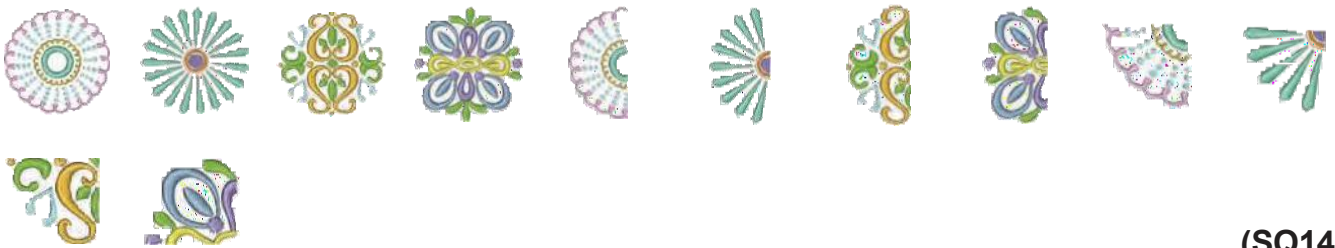
MADE WITH MY Created By Produced By

(SQ14a)



(RE20a)

## Geometric Designs



(SQ14a)

## Cupboard Designs



(SQ14a)



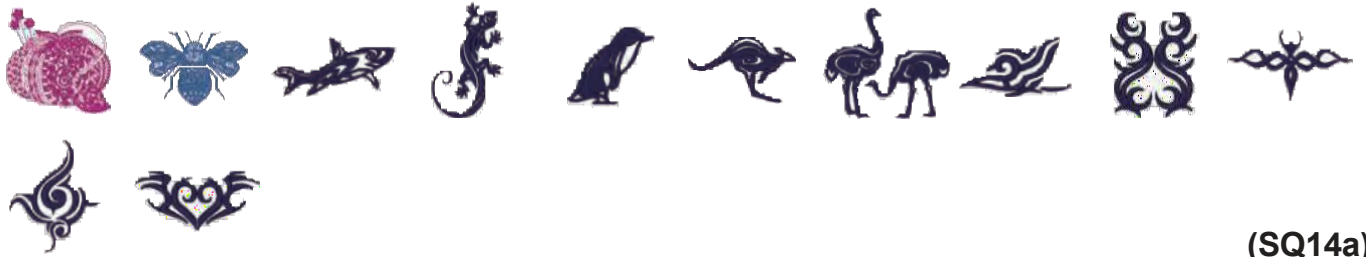
(RE20a)

# STITCH TABLE

## Embroidery

Designs are not to scale.

### Monochrome Designs

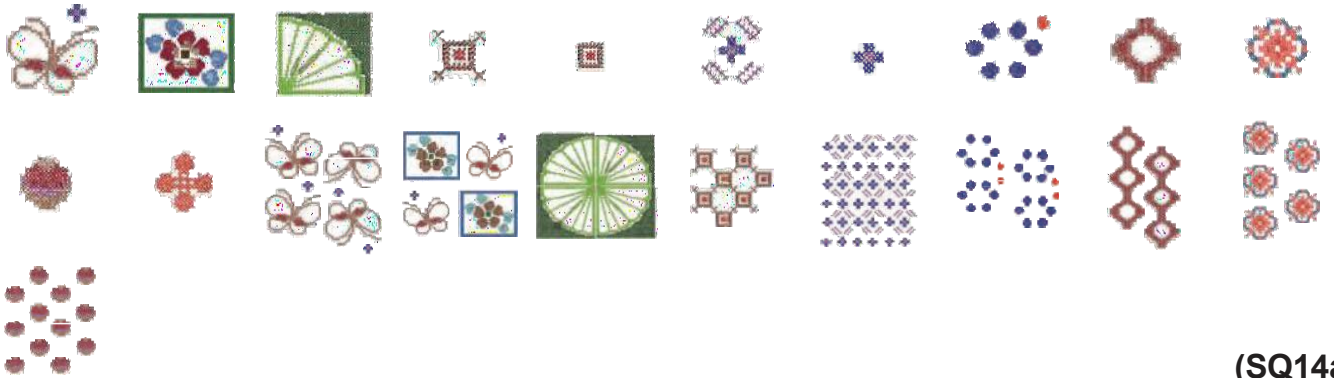


(SQ14a)



(RE20a)

### Cross-Stitch Designs

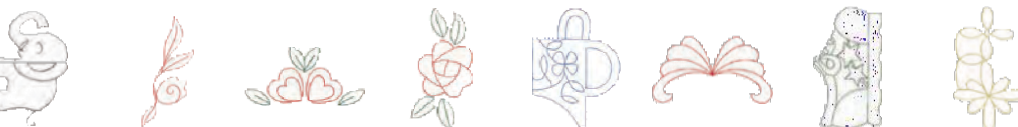


(SQ14a)

### Quilting Designs



(SQ14a)



(RE20a)

### Border Designs



(SQ14a)

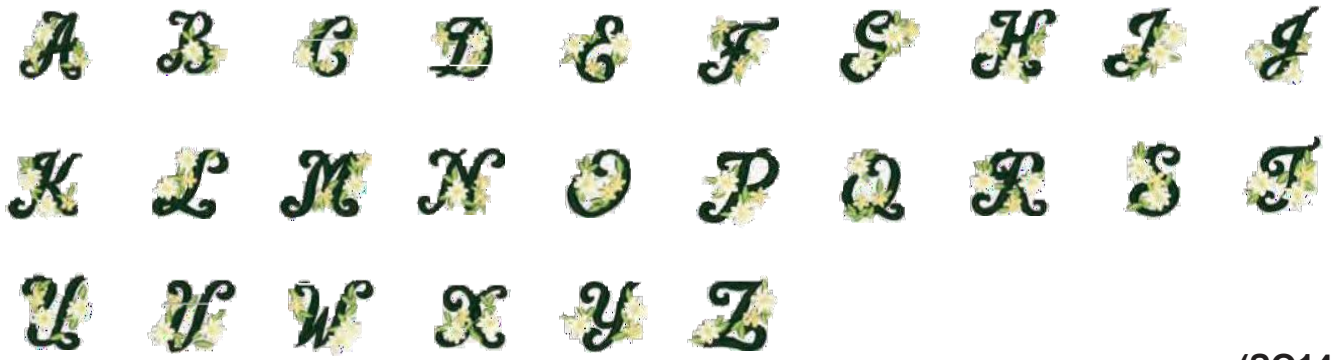


(RE20a)

STITCH TABLE  
Embroidery

Designs are not to scale.

Floral Alphabet Designs



(SQ14a)

Calibration Chart



# STITCH TABLE

## Embroidery

### Gothic

A	B	C	D	E	F	G	H	I	J	K	L	M	N	
O	P	Q	R	S	T	U	V	W	X	Y	Z	.	□	□
a	b	c	d	e	f	g	h	i	j	k	l	m	n	
o	p	q	r	s	t	u	v	w	x	y	z	.	□	□
1	2	3	4	5	6	7	8	9	0	&	_	\$	@	
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Ę	Ĝ	Ĭ	Ĵ	Ł	Ń	Œ	Ś	Ş	Ž	Ž				
à	á	â	ã	ä	å	æ	ç	è	é	ê	ë	ì	í	î
ï	ñ	ò	ó	ô	õ	ö	ø	ù	ú	û	ü	ß	à	ć
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### Cursive

A	B	C	D	E	F	G	H	I	J	K	L	M	N	
O	P	Q	R	S	T	U	V	W	X	Y	Z	.	□	□
a	b	c	d	e	f	g	h	i	j	k	l	m	n	
o	p	q	r	s	t	u	v	w	x	y	z	.	□	□
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### Cheltenham

A	B	C	D	E	F	G	H	I	J	K	L	M	N	
O	P	Q	R	S	T	U	V	W	X	Y	Z	.	□	□
a	b	c	d	e	f	g	h	i	j	k	l	m	n	
o	p	q	r	s	t	u	v	w	x	y	z	.	□	□
1	2	3	4	5	6	7	8	9	0	&	_	\$	@	
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Ï	Ñ	Ò	Ó	Ô	Õ	Ö	Ø	Ù	Ú	Û	Ü	ß	À	Ć
Ę	Ĝ	Ĭ	Ĵ	Ł	Ń	Œ	Ś	Ş	Ž	Ž				
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ï	ñ	ò	ó	ô	õ	ö	ø	ù	ú	û	ü	ß	à	ć
ę	ğ	ı	ij	ł	ń	œ	ś	ş	ž	ž				

### 2 letters / 3 letters



### Border



### Standard Sewing





