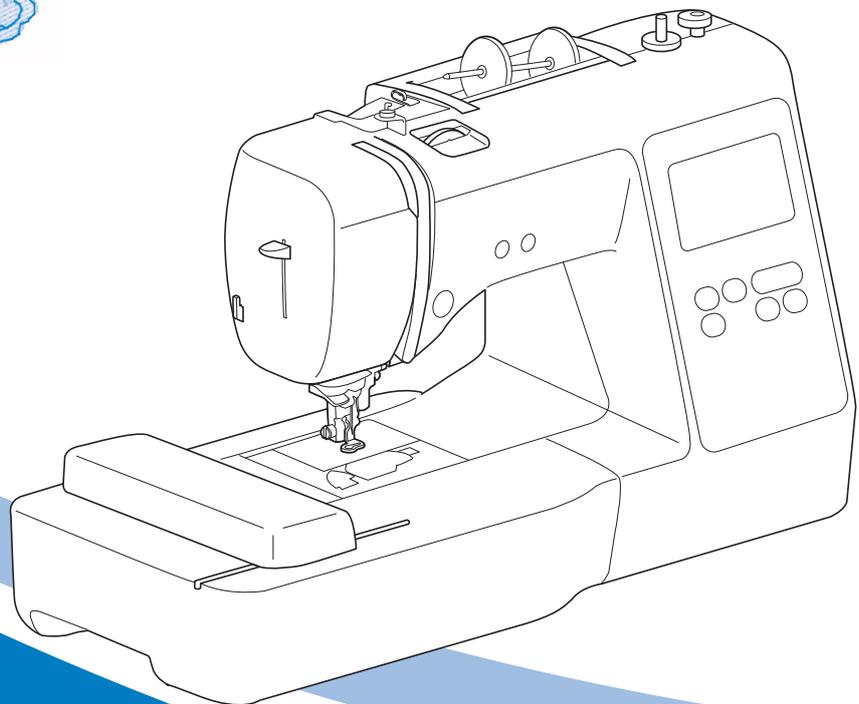


Operation Manual

Embroidery Machine

Product Code: 888-M30/M31



Be sure to read this document before using the machine.
We recommend that you keep this document nearby for future reference.

INTRODUCTION

Thank you for purchasing this machine. Before using this machine, carefully read the "IMPORTANT SAFETY INSTRUCTIONS", and then study this manual for the correct operation of the various functions. In addition, after you have finished reading this manual, store it where it can quickly be accessed for future reference.

IMPORTANT SAFETY INSTRUCTIONS

Please read these safety instructions before attempting to use the machine.

DANGER

- To reduce the risk of electrical shock

- 1** Always unplug the machine from the electrical outlet immediately after using, when cleaning, making any user servicing adjustments mentioned in this manual, or if you are leaving the machine unattended.

WARNING

- To reduce the risk of burns, fire, electrical shock, or injury to persons.

- 2** Always unplug the machine from the electrical outlet when making any adjustments mentioned in the instruction manual.

- To unplug the machine, switch the machine to the symbol "O" position to turn it off, then grasp the plug and pull it out of the electrical outlet. Do not pull on the cord.
- Plug the machine directly into the electrical outlet. Do not use an extension cord.
- Always unplug your machine if there is a power failure.

- 3** Electrical Hazards:

- This machine should be connected to an AC power source within the range indicated on the rating label. Do not connect it to a DC power source or converter. If you are not sure what kind of power source you have, contact a qualified electrician.

- This machine is approved for use in the country of purchase only.

- 4** Never operate this machine if it has a damaged cord or plug, if it is not working properly, has been dropped or damaged, or water is spilled on the unit. Return the machine to the nearest authorized Brother dealer for examination, repair, electrical or mechanical adjustment.

- While the machine is stored or in use if you notice anything unusual, such as an odor, heat, discoloration or deformation, stop using the machine immediately and unplug the power cord.
- When transporting the machine, be sure to carry it by its handle. Lifting the machine by any other part may damage the machine or result in the machine falling, which could cause injuries.
- When lifting the machine, be careful not to make any sudden or careless movements, which may cause a personal injury.

- 5** Always keep your work area clear:

- Never operate the machine with any air openings blocked. Keep ventilation openings of the machine and foot control free from the build up of lint, dust, and loose cloth.
- Never drop or insert foreign objects in any opening.
- Do not operate where aerosol (spray) products are being used or where oxygen is being administered.
- Do not use the machine near a heat source, such as a stove or iron; otherwise, the machine, power cord or garment being embroidered may ignite, resulting in fire or an electric shock.
- Do not place this machine on an unstable surface, such as an unsteady or slanted table, otherwise the machine may fall, resulting in injuries.

- 6** Special care is required when embroidering:

- Always pay close attention to the needle. Do not use bent or damaged needles.
- Keep fingers away from all moving parts. Special care is required around the machine needle.
- Switch the machine to the symbol "O" position to turn it off when making any adjustments in the needle area.
- Do not use a damaged or incorrect needle plate, as it could cause the needle to break.

- 7** This machine is not a toy:

- Your close attention is necessary when the machine is used by or near children.

- The plastic bag that this machine was supplied in should be kept out of the reach of children or disposed of. Never allow children to play with the bag due to the danger of suffocation.
- Do not use outdoors.

8 For a longer service life:

- When storing this machine, avoid direct sunlight and high humidity locations. Do not use or store the machine near a space heater, iron, halogen lamp, or other hot objects.
- Use only neutral soaps or detergents to clean the case. Benzene, thinner, and scouring powders can damage the case and machine, and should never be used.
- Always consult the Operation Manual when replacing or installing any assemblies, the presser feet, needle or other parts to assure correct installation.

9 For repair or adjustment:

- If the light unit is damaged, it must be replaced by an authorized Brother dealer.
- In the event a malfunction occurs or adjustment is required, first follow the troubleshooting table in the back of the Operation Manual to inspect and adjust the machine yourself. If the problem persists, please consult your local authorized Brother dealer.

Use this machine only for its intended use as described in the manual.

Use accessories recommended by the manufacturer as contained in this manual.

The contents of this manual and specifications of this product are subject to change without notice.

For additional product information and updates, visit our website at www.brother.com

SAVE THESE INSTRUCTIONS

This machine is intended for household use.

FOR USERS IN COUNTRIES EXCEPT CENELEC COUNTRIES

This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance.

FOR USERS IN CENELEC COUNTRIES

This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.

FOR USERS IN THE UK, EIRE, MALTA AND CYPRUS ONLY

IMPORTANT

- In the event of replacing the plug fuse, use a fuse approved by ASTA to BS 1362, i.e. carrying the  mark, rating as marked on plug.
- Always replace the fuse cover. Never use plugs with the fuse cover omitted.
- If the available electrical outlet is not suitable for the plug supplied with this equipment, you should contact your authorized Brother dealer to obtain the correct lead.

Trademarks

App Store is a service mark of Apple Inc.
Android and Google Play are trademarks of Google, Inc.
Use of these trademarks are subject to Google Permissions.

Open Source Licensing Remarks

This product includes open-source software.
To see the open source licensing remarks, please go to the manual download section on your model's home page of Brother Solutions Center at “ <http://s.brother/cpjae> ”.

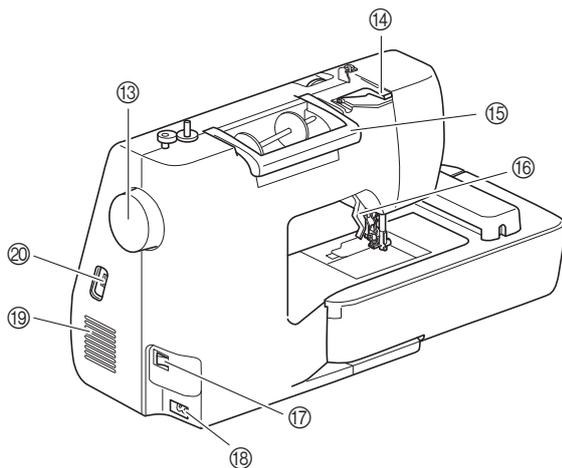
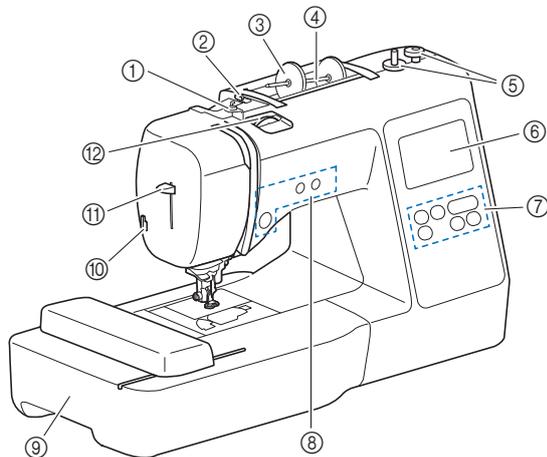
CONTENTS

Chapter 1 GETTING READY	5
Names of Machine Parts	5
Included accessories	7
Optional accessories	8
Turning the Machine On/Off	9
LCD Operation	10
Settings screen.....	10
Adjusting input sensitivity for operation keys.....	11
Winding/Installing the Bobbin	11
Winding the bobbin	11
Installing the bobbin.....	13
Upper Threading	15
Threading the upper thread	15
Replacing the Needle	18
Checking the needle.....	18
Replacing the needle.....	18
Chapter 2 EMBROIDERY	19
Embroidering Preparation	19
Attaching the Embroidery Unit	19
Embroidery Attractive Finishes	20
Hooping the fabric in the embroidery frame.....	21
Attaching the Embroidery Frame	23
Embroidering	24
Selecting an embroidery pattern	24
Embroidering a pattern	27
Adjusting thread tension.....	29
Embroidering the appliqué patterns	29
Using a frame pattern to make an appliqué	30
Split embroidery patterns.....	31
Editing Patterns	32
Editing All Patterns	34
Aligning the pattern and the needle position	34
Embroidering linked characters	35
Using the Memory Function	36
Saving embroidery patterns	36
Retrieving embroidery patterns.....	37
Chapter 3 APPENDIX	39
Care and Maintenance	39
Restrictions on oiling	39
Precautions on storing the machine.....	39
Cleaning the race	39
Touch panel is malfunctioning	40
Adjusting the bobbin thread tension	40
Replacing the Embroidery Foot	41
If the thread becomes tangled under the bobbin winder seat	42
Troubleshooting	43
List of symptoms.....	43
Error messages.....	46
Operation beeps.....	48
Upgrading your machine's software	48
Index	49

Chapter 1 GETTING READY

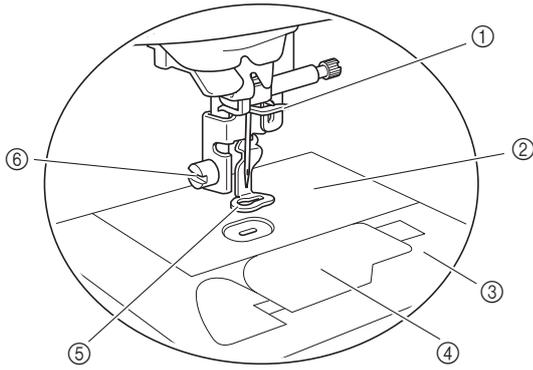
Names of Machine Parts

■ Main parts



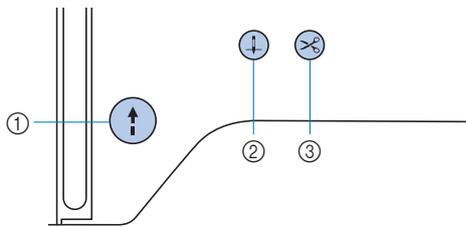
- ① **Bobbin winding thread guide and pretension disk (page 13)**
- ② **Thread guide (page 12)**
- ③ **Spool cap (page 11)**
- ④ **Spool pin (page 11)**
- ⑤ **Bobbin winder (page 11)**
- ⑥ **LCD (liquid crystal display) (page 10)**
- ⑦ **Operation panel (page 6)**
- ⑧ **Operation buttons (page 6)**
- ⑨ **Embroidery unit (page 19)**
- ⑩ **Thread cutter (page 16)**
- ⑪ **Needle threader lever (page 17)**
- ⑫ **Thread tension dial (page 29)**
- ⑬ **Handwheel**
Turn the handwheel toward you (counterclockwise) to raise and lower the needle to embroider one stitch.
- ⑭ **Thread guide cover (page 12)**
- ⑮ **Handle**
Carry the machine by its handle when transporting.
- ⑯ **Presser foot lever**
Raise and lower the presser foot lever to raise and lower the presser foot.
- ⑰ **Main power switch (page 9)**
- ⑱ **Power supply jack (page 9)**
- ⑲ **Air vent**
The air vent allows the air surrounding the motor to circulate. Do not cover the air vent while the machine is being used.
- ⑳ **USB port (for a USB flash drive) (page 36)**

■ Needle and presser foot section



- ① Needle bar thread guide (page 16)
- ② Needle plate
- ③ Needle plate cover (page 14)
- ④ Bobbin cover/bobbin case (page 14, 39)
- ⑤ Embroidery foot
The embroidery foot helps control fabric flexibility for better stitch consistency.
- ⑥ Embroidery foot screw (page 41)

■ Operation buttons



- ① **“Start/Stop” button**

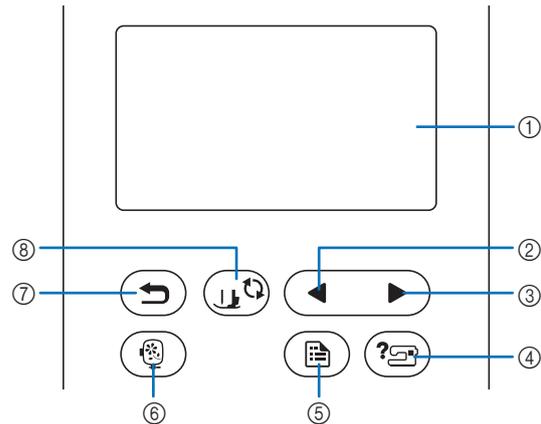
Press the “Start/Stop” button to start or stop embroidering. The button changes color according to the machine’s operation mode.

 - Green: The machine is ready to embroider or is embroidering.
 - Red: The machine cannot embroider.
 - Orange: The machine is winding the bobbin thread, or the bobbin winder shaft is moved to the right side.
- ② **Needle position button**

Press the needle position button to raise or lower the needle. Pressing the button twice embroiders one stitch.
- ③ **Thread cutter button**

Press the thread cutter button after embroidering is stopped to cut both the upper and the bobbin threads.

■ Operation panel and operation keys



- ① **LCD (liquid crystal display) (touch panel)**
Selected pattern settings and messages are displayed. Touch the keys displayed on the LCD to perform operations. For details, refer to “LCD Operation” on page 10.
- ② **Previous page key**

Displays the previous screen when there are items that are not displayed on the LCD.
- ③ **Next page key**

Displays the next screen when there are items that are not displayed on the LCD.
- ④ **Help key**

Press to get help on using the machine.
- ⑤ **Settings key**

Press to set the needle stop position, the buzzer sound, and more.
- ⑥ **Embroidery key**

Press to display the pattern type selection screen.
- ⑦ **Back key**

Press to return to the previous screen.
- ⑧ **Presser foot/Needle exchange key**

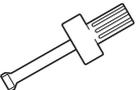
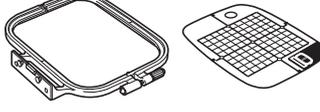
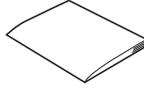
Press this key before changing the needle, the presser foot, etc. This key locks all key and button functions to prevent operation of the machine.

Note

- The operation keys of this machine are capacitive touch sensors. Operate the keys by directly touching them with your finger. The response of the keys varies according to the user. The pressure exerted on the keys does not affect the response of the keys.
- Since the operation keys react differently depending on the user, adjust the setting for “Adjusting input sensitivity for operation keys” on page 11.
- When using an electrostatic touch pen, make sure that its point is 8 mm or more. Do not use a touch pen with a thin point or a unique shape.

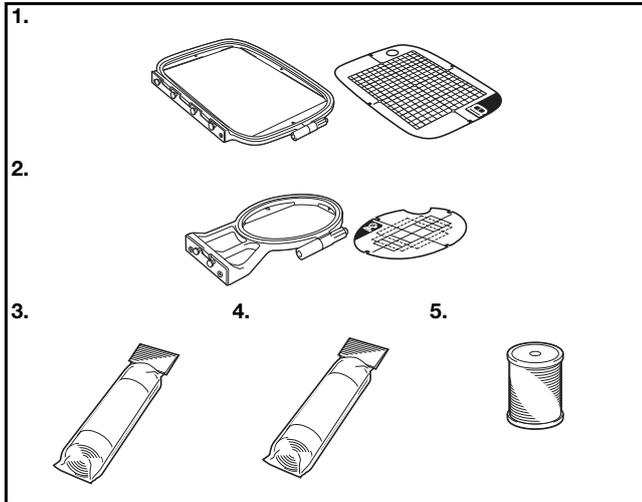
Included accessories

Included accessories may differ from the table below depending on the machine model you purchased. For more details on included accessories and their part codes of your machine, refer to the additional sheet "Included Accessories".

<p>1.</p>  <p>Embroidery foot "Q" (on machine)</p>	<p>2.</p>  <p>Needle set *1</p>	<p>3.</p>  <p>Bobbin</p>	<p>4.</p>  <p>Pre-wound bobbin (90 weight white embroidery bobbin thread)</p>	<p>5.</p>  <p>Bobbin clip</p>	<p>6.</p>  <p>Seam ripper</p>
<p>7.</p>  <p>Scissors</p>	<p>8.</p>  <p>Cleaning brush</p>	<p>9.</p>  <p>Screwdriver</p>	<p>10.</p>  <p>Disc-shaped screwdriver</p>	<p>11.</p>  <p>Spool cap (large)</p>	<p>12.</p>  <p>Spool cap (medium) (on machine)</p>
<p>13.</p>  <p>Spool cap (small)</p>	<p>14.</p>  <p>Thread spool insert (mini king thread spool)</p>	<p>15.</p>  <p>Bobbin case (on machine)</p>	<p>16.</p>  <p>Spool net</p>	<p>17.</p>  <p>Embroidery frame set (medium) 10 cm (H) x 10 cm (W) (4 inches (H) x 4 inches (W))</p>	
<p>18.</p>  <p>Accessory bag</p>	<p>19.</p>  <p>Operation Manual</p>	<p>20.</p>  <p>Quick Reference Guide</p>	<p>21.</p>  <p>Embroidery Design Guide</p>		
<p>*1 75/11 3 needles, 90/14 1 needle</p>					

Optional accessories

The following are available as optional accessories to be purchased separately.



No.	Part Name	Part Code		
		Americas	Europe	Others
1.	Embroidery frame set (large)* 17 cm (H) × 10 cm (W) (6-7/10 inches (H) × 4 inches (W))	SA434	EF71: XF2410-001	EF71 EF71CN
2.	Embroidery frame set (small) 2 cm (H) × 6 cm (W) (1 inch (H) × 2-1/2 inches (W))	SA431	EF61: XF2419-001	EF61 EF61CN
3.	Stabilizer material for embroidery	SA519	BM3: XG6683-001	BM3 BM3CN
4.	Water soluble stabilizer	SA520	BM5: XG6681-001	BM5 BM5CN
5.	Embroidery bobbin thread (90 weight)	EBT-PE	EBT-PEN: XC5996-001	EBT-PEN

* By changing the attaching position of the frame, 17 cm × 10 cm (6-7/10 inches × 4 inches) area can be embroidered without hooping the fabric again. The embroidery area is 10 cm × 10 cm (4 inches × 4 inches).

Memo

- To obtain optional accessories or parts, contact your authorized Brother dealer or visit our site <http://s.brother/cpjae>.
- All specifications are correct at the time of printing. Please be aware that some specifications may change without notice.
- Visit your nearest authorized Brother dealer or our site <http://s.brother/cpjae> for a complete listing of optional accessories available for your machine.
- Always use accessories recommended for this machine.

Turning the Machine On/Off

⚠ WARNING

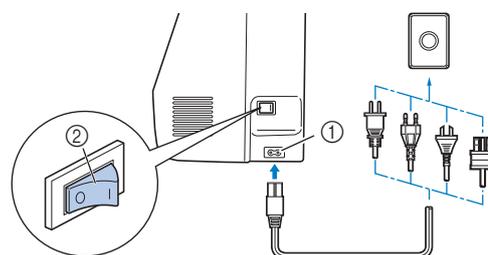
- Use only regular household electricity for the power source. Using other power sources may result in fire, electric shock, or damage to the machine.
- Make sure that the plugs on the power cord are firmly inserted into the electrical outlet and the power cord receptacle on the machine. Otherwise, a fire or electric shock may result.
- Do not insert the plug on the power cord into an electrical outlet that is in poor condition.
- Turn the main power to OFF and remove the plug in the following circumstances:
 - When you are away from the machine
 - After using the machine
 - When the power fails during use
 - When the machine does not operate correctly due to a bad connection or a disconnection
 - During electrical storms

⚠ CAUTION

- Use only the power cord included with this machine.
- Do not use extension cords or multi-plug adapters with any other appliances plugged into them. Fire or electric shock may result.
- Do not touch the plug with wet hands. Electric shock may result.
- When unplugging the machine, always turn the main power to OFF first. Always grasp the plug to remove it from the electrical outlet. Pulling on the cord may damage the cord, or lead to fire or electric shock.
- Do not allow the power cord to be cut, damaged, modified, forcefully bent, pulled, twisted, or bundled. Do not place heavy objects on the cord. Do not subject the cord to heat. These things may damage the cord, or cause fire or electric shock. If the cord or plug is damaged, take the machine to your authorized Brother dealer for repairs before continuing use.
- Unplug the power cord if the machine is not to be used for a long period of time. Otherwise, a fire may result.

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

- 1 Make sure that the machine is turned off (the main power switch is set to “○”), and then plug the power cord into the power supply jack on the right side of the machine.
- 2 Insert the plug of the power cord into a household electrical outlet.



- ① Power supply jack
② Main power switch

- 3 Press the right side of the main power switch on the right side of the machine to turn the machine on (set it to “I”).



→ The light, LCD and the “Start/Stop” button light up when the machine is turned on. The machine will make a sound. This is not a malfunction.

- 4 When the machine is turned on, the opening movie is played. Press anywhere on the screen.

💡 Note

- When you first turn on the machine, select the language of your choice.



- 5 To turn off the machine, press the left side of the main power switch (set it to “○”).

LCD Operation

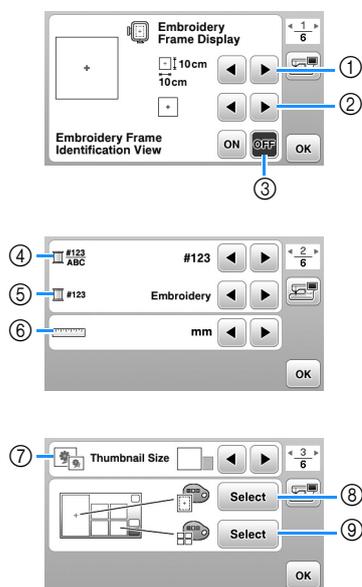
Settings screen

Press  to change the default machine settings (needle stop position, opening display, etc.). Press  or , after you changed necessary settings.

Memo

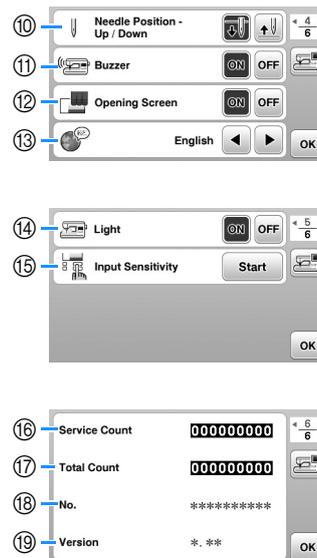
- You can save the current settings screen image in a USB flash drive by pressing  when the USB flash drive is inserted into the USB port. The files are saved in a folder labeled “bPocket”.

Embroidery settings



- Select the embroidery frame to be used.
- Select the center mark and grid lines that are displayed.
- When set to [ON], the embroidery pattern can be selected according to the embroidery frame size that you have selected in number ①. (page 25)
- Change the thread color display on the “Embroidery” screen; thread number, color name. (page 28)
- When the thread number [#123] is selected, select from thread brands. (page 28)
- Change the display units (mm/inch).
- Press to specify the size of pattern thumbnails.
- Change the color of the background for the embroidery display area.
- Change the color of the background for the thumbnail area.

General settings

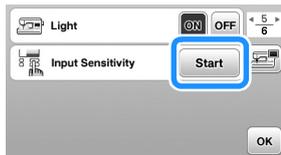


- Select the needle stop position (the needle position for when the machine is not being operated) to be up or down.
- Select whether to hear the beep operation sound.
- Select whether to display the opening screen when the machine is turned on.
- Select the display language.
- Select whether to turn on the light for the needle area and work area.
- Select the level of the input sensitivity for operation keys. (page 11)
- Display the service count which is a reminder to take your machine in for regular servicing. (Contact your authorized Brother dealer for details.)
- Display the total number of stitches embroidered on this machine.
- The [No.] is the internal machine number for your machine.
- Display the program version installed on your machine.

Adjusting input sensitivity for operation keys

You can adjust the sensitivity of the operation keys to 5 levels. Display the settings screen to set desired level.

- 1 Press  to display the settings screen.
- 2 Display page 5 by pressing  .
- 3 Press [Start].



→ The adjusting screen is displayed.

- 4 Adjust the [Input Sensitivity] by pressing  .
 - The higher the setting, the more sensitive the keys will be. The default setting is [3].
 - We recommend selecting the highest setting if an electrostatic touch pen is being used.
 - While adjusting the input sensitivity, press  to check whether the key responds. When the key responds, the setting value indicating the sensitivity blinks.



- 5 Press  to return to previous screen.

■ If the machine does not respond when an operation key is pressed

Turn machine off, then hold down  (Thread cutter button) and turn on the machine to reset [Input Sensitivity]. Display the settings screen, and then adjust the [Input Sensitivity] again.

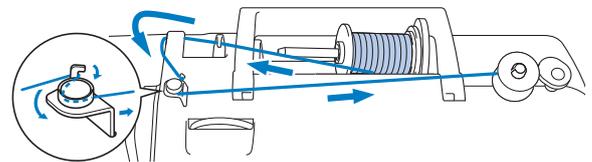
Winding/Installing the Bobbin

⚠ CAUTION

- Only use the plastic bobbin that comes with this machine or bobbins of the same type (SA156/SFB: XA5539-151/SFB). The bobbin's height is 11.5 mm (approx. 7/16 inch). Using other bobbins may cause damage to the machine. SA156 is Class 15 type bobbin.

Winding the bobbin

This section describes how to wind thread onto a bobbin.

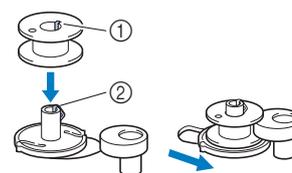


Memo

- When winding bobbin for embroidery, be sure to use the recommended 90 weight embroidery bobbin thread for this machine.

- 1 Place the bobbin on the bobbin winder shaft so that the notch in the bobbin aligns with the spring on the shaft, and then slide the bobbin winder shaft to the right until it snaps into place.

- The "Start/Stop" button lights up in orange.



- ① Notch
- ② Bobbin winder shaft spring

- 2 Remove the spool cap and place the spool of thread for the bobbin onto the spool pin.

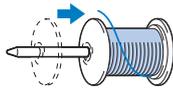
Slide the spool onto the spool pin so that the thread unwinds to the front from the bottom. Otherwise the thread may become tangled around the spool pin.



- ① The thread unwinds to the front from the bottom.

3 Slide the spool cap onto the spool pin.

Slide the spool cap as far as possible to the right, as shown, with the rounded side on the left.



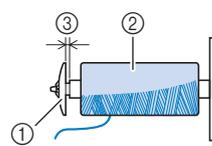
CAUTION

- If the spool or the spool cap is not installed correctly, the thread may become tangled around the spool pin, causing the needle to break.
- Three spool cap sizes are available, allowing you to choose a spool cap that best fits the size of spool being used. If the spool cap is too small for the spool being used, the thread may catch on the slit in the spool or the machine may be damaged. When using mini king thread spool, use the thread spool insert (mini king thread spool). For details on thread spool insert (mini king thread spool), refer to "Memo" on page 12.



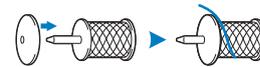
Memo

- When using the spool as shown below, use the small spool cap, and leave a small space between the cap and the spool.

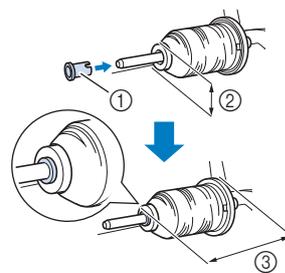


- ① Spool cap (small)
- ② Spool (cross-wound thread)
- ③ Space

- When using thread that winds off quickly, such as metallic thread, place the spool net over the spool before placing the spool of thread onto the spool pin. If the spool net is too long, fold it to fit the size of the spool.

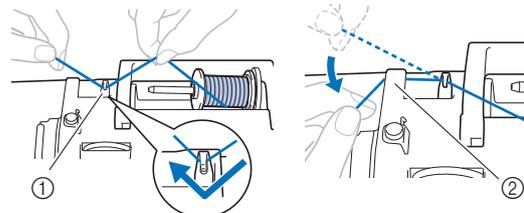


- If a spool of thread whose core is 12 mm (1/2 inch) in diameter and 75 mm (3 inches) high is inserted onto the spool pin, use the thread spool insert (mini king thread spool).



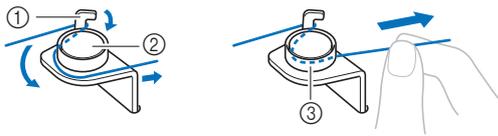
- ① Thread spool insert (mini king thread spool)
- ② 12 mm (1/2 inch)
- ③ 75 mm (3 inches)

4 Pass the thread under the thread guide, then under the thread guide cover and to the front.



- ① Thread guide
- ② Thread guide cover

- 5 Pass the thread under the hook on the bobbin winding thread guide, and then wind it counterclockwise under the pretension disk.

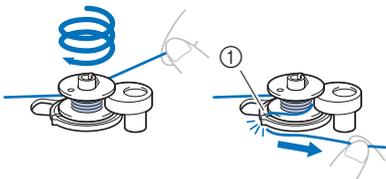


- ① Bobbin winding thread guide
- ② Pretension disk
- ③ Pull it in as far as possible

Note

- Make sure that the thread is passed under the pretension disk.

- 6 Wind the thread clockwise around the bobbin 5 or 6 times, pass the thread through the guide slit in the bobbin winder seat, and then pull the thread to cut it.



- ① Guide slit in bobbin winder seat (with built-in cutter)

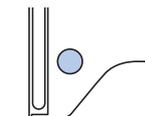
Note

- Be sure to wind the thread clockwise around the bobbin, otherwise the thread will become wrapped around the bobbin winder shaft.

CAUTION

- Be sure to cut the thread as described. If the bobbin is wound without cutting the thread using the cutter built into the guide slit in the bobbin winder seat, the thread may become tangled in the bobbin or the needle may bend or break when the bobbin thread starts to run out.

- 7 Turn on the machine.
- 8 Press the “Start/Stop” button once to start winding the bobbin.

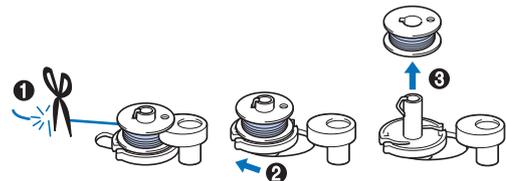


- 9 When the bobbin winding becomes slow, press the “Start/Stop” button once to stop the machine.

CAUTION

- When the bobbin winding becomes slow, stop the machine, otherwise the machine may be damaged.

- 10 Cut the thread, slide the bobbin winder shaft to the left until it snaps into place, and then remove the bobbin.



- 11 Remove the spool for the bobbin thread from the spool pin.

Installing the bobbin

Install the bobbin wound with thread. You can begin embroidering immediately without pulling up the bobbin thread by simply inserting the bobbin in the bobbin case and guiding the thread through the slit in the needle plate cover.

CAUTION

- Use a bobbin that has been correctly wound with thread, otherwise the needle may break or the thread tension will be incorrect.



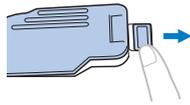
- Before inserting or changing the bobbin, be sure to press on the operation panel to lock all keys and buttons, otherwise injuries may occur if the “Start/Stop” button or any other button is pressed and the machine starts.

- 1 Turn on the machine.
- 2 Press (Needle position button) once or twice to raise the needle.
- 3 Press .
- The screen changes, and all keys and operation buttons are locked (except .

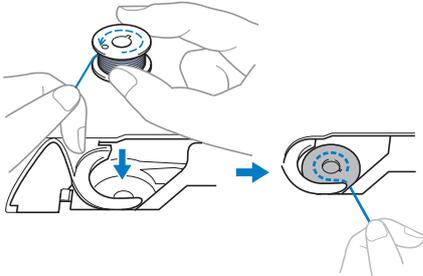


- 4 Raise the presser foot lever.

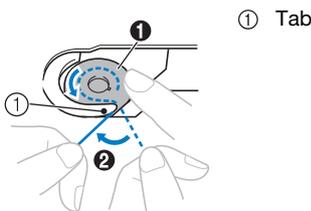
- 5 Slide the bobbin cover latch to the right and remove the bobbin cover.



- 6 Insert the bobbin into the bobbin case so that the thread unwinds to the left.



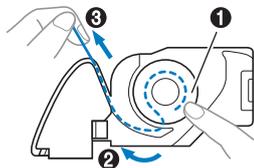
- 7 Lightly hold down the bobbin with your right hand (1), and then guide the end of the thread around the tab of the needle plate cover with your left hand (2).



⚠ CAUTION

- Be sure to hold down the bobbin with your finger and unwind the bobbin thread correctly, otherwise the thread may break or the thread tension will be incorrect.

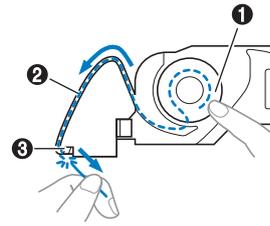
- 8 While lightly holding down the bobbin with your right hand (1), guide the thread through the slit in the needle plate cover (2) and lightly pull it with your left hand (3).



📖 Memo

- By guiding the thread around the tab of the needle plate cover, passing the thread as shown by 2 in this illustration, then lightly pulling the thread at 3, the thread will enter the tension spring of the bobbin case to apply the appropriate tension to the bobbin thread during embroidering.

- 9 While lightly holding down the bobbin with your right hand (1), continue guiding the thread through the slit with your left hand (2). Then, cut the thread with the cutter (3).

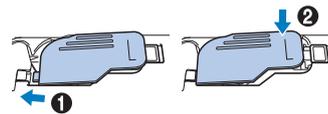


📖 Memo

- Be sure to complete the bobbin threading correctly according to these instructions. If the thread is simply placed in the slit in the needle plate cover, the bobbin thread will not be correctly threaded, resulting in poor embroidery performance or incorrect thread tension.

- 10 Reattach the bobbin cover.

Insert the tab of the bobbin cover into the notch of the needle plate cover, and then lightly press down on the right side.



- 11 Press  to unlock all keys and buttons.

Upper Threading

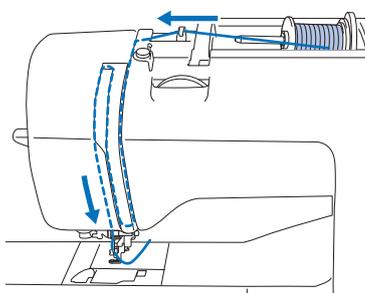
⚠ CAUTION

- When threading the upper thread, carefully follow the instructions. If the upper threading is not correct, the thread may become tangled or the needle may bend or break.

Threading the upper thread

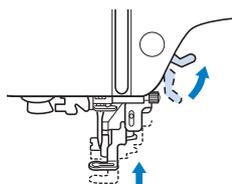
Note

- Refer to “Embroidering a pattern” on page 27, and prepare embroidery threads in the colors corresponding to those in the embroidery pattern.



→ When threading the upper thread, carefully follow the instructions.

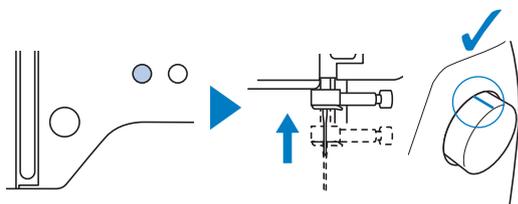
- 1 Turn on the machine.
- 2 Raise the presser foot lever to raise the presser foot.

**Note**

- If the presser foot is not raised, the machine cannot be threaded.

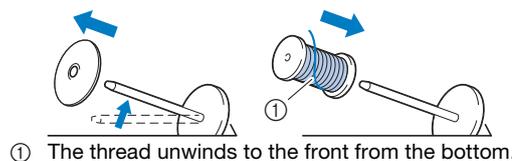
- 3 Press **⬆** (Needle position button) once or twice to raise the needle.

→ The needle is correctly raised when the mark on the handwheel is at the top, as shown below. Check the handwheel and, if this mark is not at this position, press **⬆** (Needle position button) until it is.



- 4 Remove the spool cap and place the spool of thread onto the spool pin.

Slide the spool onto the spool pin so that the thread unwinds to the front from the bottom. Otherwise the thread may become tangled around the spool pin.

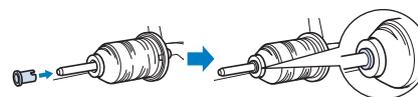


- 5 Slide the spool cap onto the spool pin.

Slide the spool cap as far as possible to the right, as shown, with the rounded side on the left.

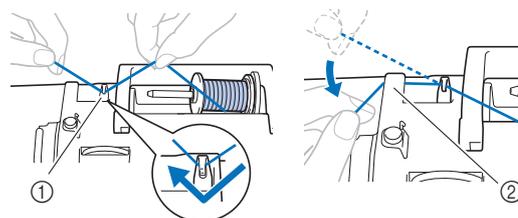
**⚠ CAUTION**

- Choose a spool cap that best fits the size of spool being used. For more information regarding the choice of spool caps for your thread choice, refer to “Memo” on page 12.



- If the spool or the spool cap is not positioned correctly, the thread may become tangled around the spool pin or the needle may break.

- 6 Pass the thread under the thread guide, then under the thread guide cover and to the front.



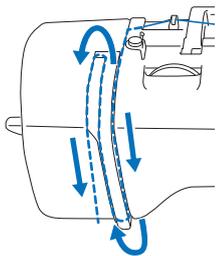
- ① Thread guide
② Thread guide cover

- 7** Press .
 → The screen changes, and all keys and operation buttons are locked (except .

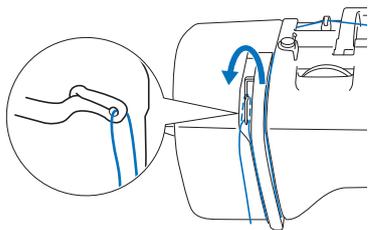
⚠ CAUTION

- When threading the needle, be sure to press  on the operation panel to lock all keys and buttons, otherwise injuries may occur if the “Start/Stop” button or any other button is pressed and the machine starts.

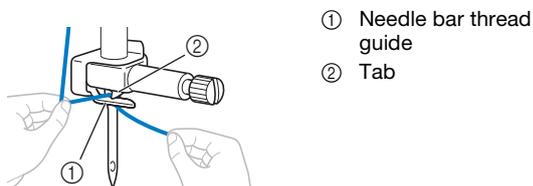
- 8** Pass the thread through the thread channel in the order shown below.



- 9** Make sure that the thread is passed into the thread take-up lever as shown below.



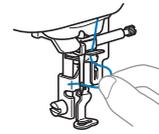
- 10** Slide the thread behind the needle bar thread guide.
 The thread can easily be slid behind the needle bar thread guide by holding the thread in your left hand, then feeding the thread with your right hand, as shown. Make sure that the thread is passed through to the left of the tab of the needle bar thread guide.



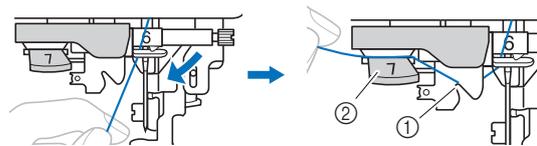
- 11** Check that the needle and thread are compatible with the needle threader. If they are compatible, continue with the next step.

- The needle threader can be used with machine needles 75/11 through 90/14.
- When thread such as metallic thread or specialty threads are used, it is not recommended to use the needle threader.

- If the needle threader cannot be used, insert the thread through the eye of the needle from front to back by hand. At this time, be sure to lock all keys and operation buttons described in step **7**.

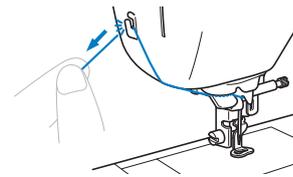


- 12** Pull the end of the thread, which has been passed through the needle bar thread guide, to the left, then pass the thread through the notch of the threader thread guide, and then firmly pull the thread from the front and insert it into the slit of the threader thread guide disk marked “7” all the way.



- ① Notch of the threader thread guide
 ② Threader thread guide disk

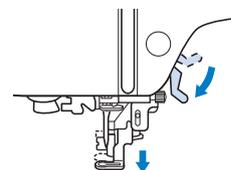
- 13** Cut the thread with the thread cutter on the left side of the machine.



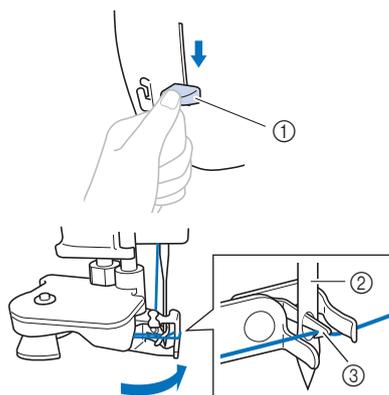
💡 Note

- If the thread is pulled through and cannot be cut correctly, lower the presser foot lever so that the thread is held in place before cutting the thread. If this operation is performed, proceed to step **15**.
- When using thread that quickly winds off the spool, such as metallic thread, it may be difficult to thread the needle if the thread is cut. Therefore, instead of using the thread cutter, pull out about 8 cm (approx. 3 inches) of thread after passing it through the threader thread guide disk (marked “7”).

- 14** Lower the presser foot lever to lower the presser foot.



- 15** Lower the needle threader lever on the left side of the machine as much as possible to make the hook turn.

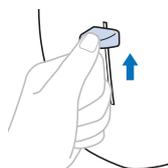


- ① Needle threader lever
② Needle
③ Hook

Note

- If the needle is not raised to its highest position, the needle threader cannot thread the needle. Turn handwheel counterclockwise until the needle is at its highest position. The needle is correctly raised when the mark on the handwheel is at the top, as shown under step 3 on page 15.

- 16** Raise the needle threader lever slowly.

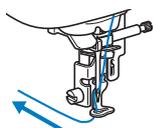


- 17** Carefully pull the end of thread that was passed through the eye of the needle.

If the needle was not completely threaded, but a loop in the thread was formed in the eye of the needle, carefully pull the loop through the eye of the needle to pull out the end of the thread.



- 18** Raise the presser foot lever, pass the end of the thread through and under the presser foot, and then pull out about 5 cm (approx. 2 inches) of thread toward the rear of the machine.



- 19** Press  to unlock all keys and buttons.

Replacing the Needle

⚠ CAUTION

- Only use recommended home sewing machine needles. Use of any other needle may bend the needle or damage the machine.
- Never use bent needles. Bent needles can easily break, possibly resulting in injuries.

■ Thread and needle number

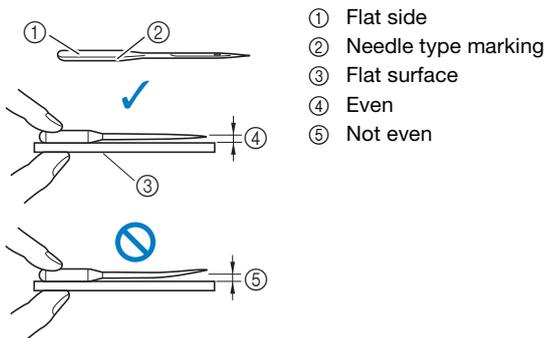
The lower the thread number is, the heavier the thread; the higher the needle number, the larger the needle.

■ Embroidery needles

It is recommended to use a 75/11 home sewing machine needle. However, if the machine cannot make embroidery very well when embroidering on heavy weight fabric, please try a 90/14 needle.

Checking the needle

Before using the needle, place the flat side of the needle on a flat surface and check that the distance between the needle and the flat surface is even.



Note

- Replace the needle in cases such as the two described below:
 - ① If stitches are skipped. (The needle may be bent.)
 - ② Generally, after using three full bobbins of thread.

Replacing the needle

Use the screwdriver and a new needle that has been determined to be straight according to the instructions in "Checking the needle" on page 18.

- 1 Press (Needle position button) once or twice to raise the needle.
- 2 Place fabric or paper under the presser foot to cover the hole in the needle plate to prevent the needle from falling into the machine.

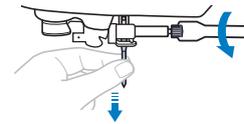
- 3 Press .

→ The screen changes, and all keys and operation buttons are locked (except .

⚠ CAUTION

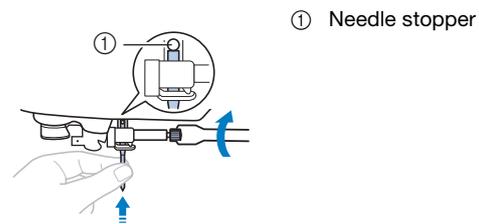
- When replacing the needle, be sure to press on the operation panel to lock all keys and buttons, otherwise injuries may occur if the "Start/Stop" button or any other button is pressed and the machine starts.

- 4 Hold the needle with your left hand, and then use a screwdriver to turn the needle clamp screw toward you (counterclockwise) to remove the needle.



- Do not apply a strong force when loosening or tightening the needle clamp screw, otherwise certain parts of the machine may be damaged.

- 5 With the flat side of the needle toward the rear of the machine, insert the new needle until it touches the needle stopper. Using the screwdriver tighten the needle clamp screw by turning it clockwise.



⚠ CAUTION

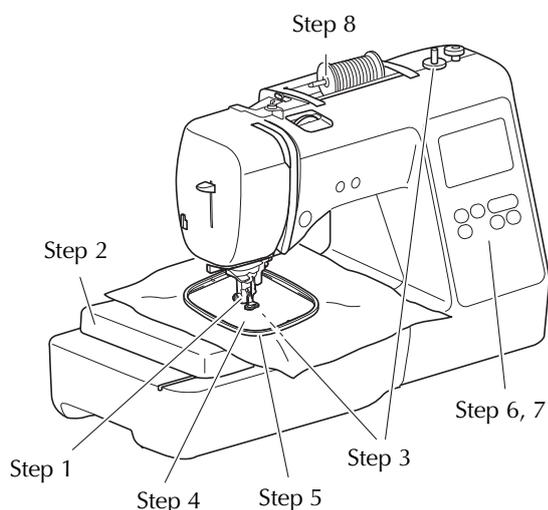
- Be sure to insert the needle until it touches the needle stopper and securely tighten the needle clamp screw with the screwdriver, otherwise the needle may break or damage may result.

- 6 Press to unlock all keys and buttons.

Chapter 2 EMBROIDERY

Embroidering Preparation

Follow the steps below to prepare the machine for embroidery.



Step #	Aim	Action	Page
1	Checking the needle	It is recommended to use a 75/11 home sewing machine needle.	18
2	Embroidery unit attachment	Attach the embroidery unit.	19
3	Bobbin thread setup	For the bobbin thread, wind embroidery bobbin thread and set it in place.	11
4	Fabric preparation	Attach a stabilizer material to the fabric, and hoop it in the embroidery frame.	21
5	Embroidery frame attachment	Attach the embroidery frame to the embroidery unit.	23
6	Pattern selection	Turn the main power to on, and select an embroidery pattern.	24
7	Checking the layout	Check and adjust the size and position of the embroidery.	26
8	Embroidery thread setup	Set up embroidery thread according to the pattern.	27

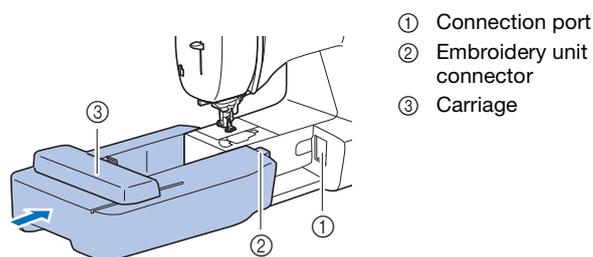
Attaching the Embroidery Unit

⚠ CAUTION

- Before attaching the embroidery unit, be sure to turn off the machine. Otherwise, injuries may occur if one of the operation buttons is accidentally pressed and the machine starts embroidering.
- Do not move the machine with the embroidery unit in place. The embroidery unit may be dropped and cause injury.
- Keep your hands and other objects away from the embroidery carriage and frame when they are moving. Otherwise injury may result.

1 Turn off the machine.

2 Insert the embroidery unit connector into the connection port, and then lightly push in the embroidery unit until it snaps into place.



💡 Note

- Make sure that there is no gap between the embroidery unit and the machine, otherwise the embroidery pattern may not be embroidered correctly. Be sure to fully insert the connector into the connection port.
- Do not push on the carriage when attaching the embroidery unit to the machine, otherwise damage to the embroidery unit may result.
- Do not touch the connector in the embroidery unit connector slot. The connector could be damaged, and it may cause malfunctions.
- Do not lift up on the embroidery carriage, and do not forcefully move it. It may cause malfunctions.

3 Turn on the machine.

→ A message appears in the screen.

💡 Note

- If [Opening Screen] is set [ON] within the settings screen, touch screen for the following message to appear.

- 4 Be sure that no objects or hands are near the embroidery unit and press .



- The carriage moves to its initial position.
- The screen for selecting the embroidery pattern type is displayed.

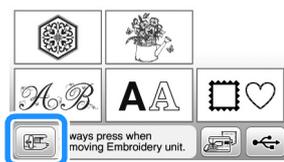
■ Removing the embroidery unit

Make sure that the machine is completely stopped and follow the instructions below.

- 1 Remove the embroidery frame.

- For details on removing the embroidery frame, refer to “Removing the embroidery frame” on page 23.

- 2 Press , and then press .



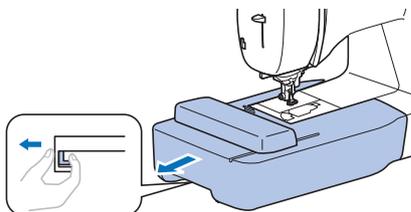
- The embroidery carriage moves into a position where it can be stored.

- 3 Turn off the machine.

⚠ CAUTION

- Always turn off the machine before removing the embroidery unit. It may cause malfunctions if removed when the machine is turned on.

- 4 Hold the release button on the bottom left of the embroidery unit, and slowly pull the embroidery unit to the left.



Embroidery Attractive Finishes

There are many factors that go into beautiful embroidery. Using the appropriate stabilizer (page 21) and hooping the fabric in the frame (page 21) are two important factors mentioned earlier. Another important point is the appropriateness of the needle and thread being used. See the explanation of threads below.

■ Thread

Upper thread	Use embroidery thread intended for use with this machine. Other embroidery threads may not yield optimum results.
Bobbin thread	Use the included bobbin pre-wound with 90 weight embroidery bobbin thread or recommended 90 weight embroidery bobbin thread (page 8).

Hooping the fabric in the embroidery frame

⚠ CAUTION

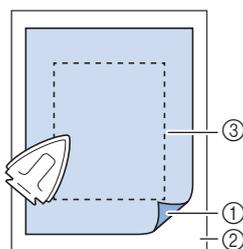
- Use fabrics with a thickness of less than 2 mm (1/16 inch). Using fabrics thicker than 2 mm (1/16 inch) may cause the needle to break.
- Always use a stabilizer material for embroidery when embroidering stretch fabrics, lightweight fabrics, fabrics with a coarse weave, or fabrics which cause pattern shrinkage. Otherwise, the needle may break and cause injury.

■ Attaching iron-on stabilizers (backing) to the fabric

For best results in your embroidery projects, always use stabilizer material for embroidery.

1 Press the iron-on stabilizer material to the wrong side of the fabric.

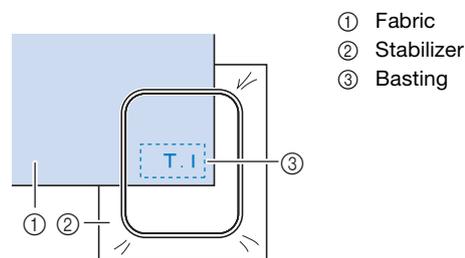
- Use a piece of stabilizer which is larger than the embroidery frame being used.



- ① Fusible side of stabilizer
- ② Fabric (wrong side)
- ③ Size of the embroidery frame

📖 Memo

- When embroidering small pieces of fabric that cannot be hooped on an embroidery frame, use stabilizer material as a base. After lightly ironing the fabric to the stabilizer material, hoop it in the embroidery frame. If stabilizer material cannot be ironed onto the fabric, attach it with a basting stitch. After completing the embroidery, remove the stabilizer material carefully.



- When embroidering on thin fabrics such as organdy or lawn, or on napped fabrics such as terry cloth or corduroy, use water soluble stabilizer (sold separately) for best results. The water soluble stabilizer material will dissolve completely in water, giving the project a more attractive finish.
- In the case of thick terry cloth towels we recommend that you place a piece of water soluble stabilizer on the top surface of the towel. This will help to reduce the nap of the toweling and result in more attractive embroidery.
- When using fabrics that cannot be ironed (such as terry cloth or fabrics that have loops which expand when ironed) or in places where ironing is difficult, position the stabilizer material under the fabric without fusing it, then position the fabric and stabilizer in the embroidery frame, or check with your authorized Brother dealer for the correct stabilizer to use.

■ Inserting the Fabric

⚠ CAUTION

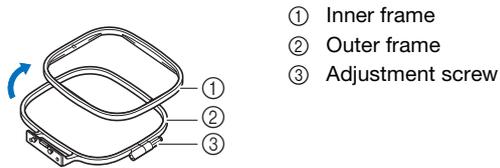
- If you use a frame that is too small, the presser foot may strike the frame during embroidering and cause injury or may damage your machine.

💡 Note

- If the fabric is not securely held in the embroidery frame, the embroidery pattern will embroider out poorly. Insert the fabric on a level surface, and gently pull the fabric taut in the frame, being careful not to distort hooped fabric.

- 1 Loosen the embroidery frame adjustment screw and remove the inner and outer frames, placing the outer frame on a flat surface.**

Separate the inner and outer frame by removing inner frame upward.

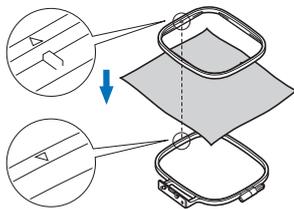


- 2 Place the fabric with the stabilizer material on top of the outer frame.**

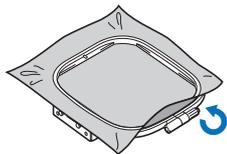
Have the right side of the fabric facing up.

- 3 Press the inner frame in from the top of the fabric.**

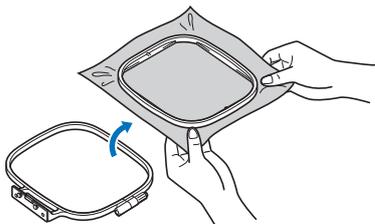
Line up \triangle on the inner frame and \triangle on outer frame.



- 4 Tighten the adjustment screw by hand just enough to secure the fabric.**



- 5 Gently remove the fabric from the frame without loosening the adjustment screw.**



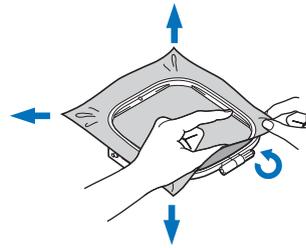
Memo

- This precautionary step will help reduce pattern distortion while embroidering.

- 6 Press the inner frame in from the top of the fabric again, lining up \triangle on the inner frame and \triangle on outer frame.**

- Press the inner frame into the outer frame.

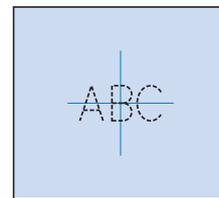
- 7 Tighten the adjustment screw while removing any slack in the fabric by hand. The goal is to have a drum-like sound when the fabric is struck lightly.**



■ Using the embroidery sheet

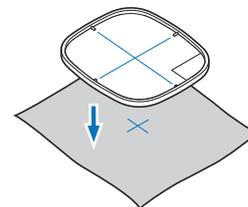
When you want to embroider the pattern in a particular place, use the embroidery sheet with the frame.

- 1 With a chalk pencil, mark the area of the fabric you want to embroider.**



- 2 Place the embroidery sheet on the inner frame.**

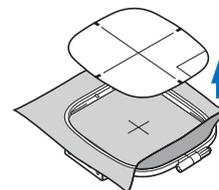
- 3 Line the mark on the fabric up with the base line on the embroidery sheet.**



- 4 Place the inner frame with the fabric on the outer frame and adjust the fabric if needed to align marks on fabric with the embroidery sheet.**

- For details, refer to page 21.

- 5 Remove the embroidery sheet.**



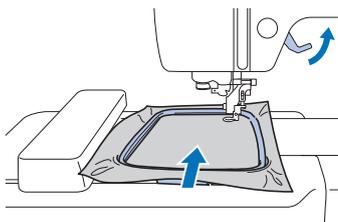
Attaching the Embroidery Frame

Note

- Wind and insert the bobbin before attaching the embroidery frame making sure to use the recommended bobbin thread. Check that there is enough thread in the bobbin.

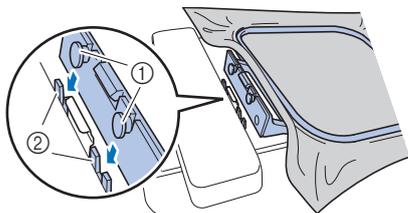
- 1 Raise the presser foot lever to raise the presser foot.

- 2 Pass the embroidery frame under the presser foot.
 - If necessary, raise the presser foot lever even further.



- 3 Firmly insert the embroidery frame guide into the embroidery carriage frame holder from the top.

Line up the embroidery frame guide tabs and the embroidery carriage frame holder slots and push in until it clicks and stops.



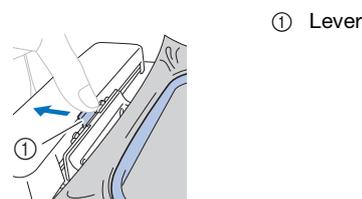
- ① Embroidery frame guide tabs
 - ② Embroidery carriage frame holder slots
- The embroidery unit is attached.

CAUTION

- Correctly set the embroidery frame into the embroidery frame holder. Otherwise, the presser foot may hit the embroidery frame, resulting in injury.

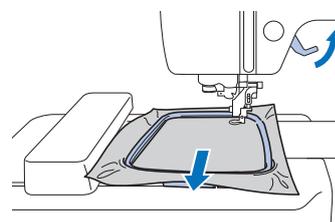
Removing the embroidery frame

- 1 Raise the presser foot lever to raise the presser foot.
- 2 Press the part of the embroidery frame holder in the figure to the left side, and raise the embroidery frame.



→ The embroidery frame will separate from the embroidery frame holder.

- 3 Remove the embroidery frame under the presser foot while raising the presser foot lever even further.



CAUTION

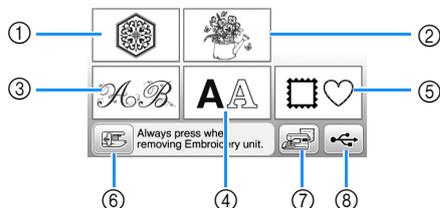
- Do not hit the needle with your finger or the embroidery frame. It may cause injury or needle breakage.

Embroidering

■ Copyright information

The patterns stored in the machine are intended for private use only. Any public or commercial use of copyrighted patterns is an infringement of copyright law and is strictly prohibited.

■ Embroidery pattern types



- ① Embroidery patterns
 - ② Brother "Exclusives"
 - ③ Floral alphabet patterns
 - ④ Character patterns
 - ⑤ Frame patterns
 - ⑥ Press this key to position the embroidery unit for storage
 - ⑦ Patterns saved in the machine's memory
 - ⑧ Patterns saved in USB flash drive
- Refer to the "Embroidery Design Guide" for more information on each category's embroidery pattern.

Selecting an embroidery pattern

1 Press  in the pattern type selection screen.

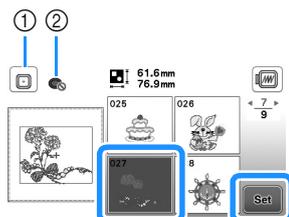
- If the pattern type selection screen is not displayed, press  to display the screen below.



2 Press  or  to display the desired pattern on the screen.

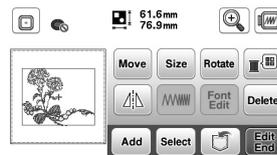
3 Select a desired embroidery pattern, and then press .

- Available frame options are displayed on the screen.



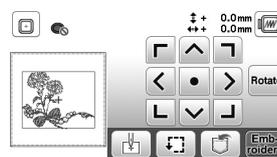
- ① Embroidery frame (medium) can be used
 - ② Embroidery frame (small) cannot be used
- Pattern editing screen appears.

4 Press .



- For details on pattern editing screen, refer to "Editing Patterns" on page 32. You can move the pattern, change the size of pattern, and perform many other editing operations.
 - The pattern can also be moved by dragging it with your finger.
- Embroidery settings screen appears.

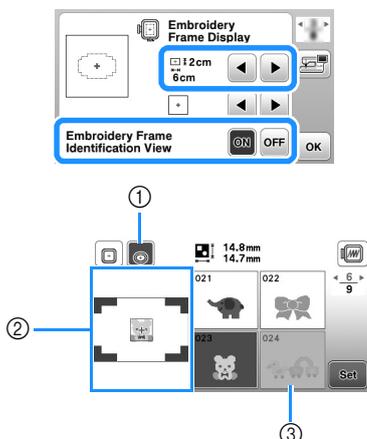
5 Press .



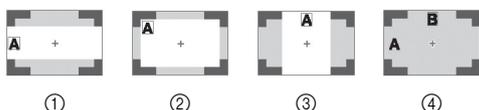
- For details on embroidery settings screen, refer to "Editing All Patterns" on page 34.
- Confirm the pattern position to be embroidered, referring to "Checking the pattern position" on page 26.

Memo

- If [Embroidery Frame Identification View] in the settings screen is set to [ON], the pattern can be edited in the screen as if that embroidery frame is attached.



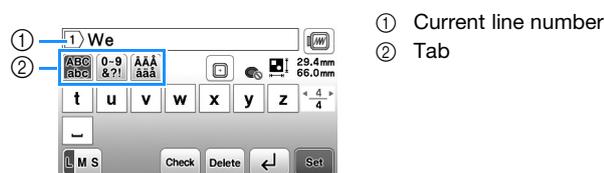
- ① The embroidery frame selected when [Embroidery Frame Identification View] is set to [ON] is highlighted. Press this key to switch the setting between [ON] and [OFF].
 - ② The embroidering area for the selected frame is displayed.
 - ③ Patterns that will not fit in the selected frame appear shaded and cannot be selected.
- There are three embroidering area sizes for embroidery frame (small).
When [Embroidery Frame Identification View] is set to [ON] for embroidery frame (small), the area for arranging patterns can more easily be seen. The area outside of the embroidering area will have a different background color.



- ① 2 cm × 6 cm (approx. 1 inch (H) × 2-1/2 inches (W))
- ② 3 cm × 5 cm (approx. 1-1/8 inch (H) × 2 inches (W))
- ③ 4 cm × 3 cm (approx. 1-1/2 inch (H) × 1-1/8 inch (W))
- ④ Patterns are arranged outside of the embroidering area.

Selecting character patterns

- ① Press **AA**.
- ② Press the key of the font you want to embroider.
- ③ Press a tab to display the desired selection screen, and then type in the text.



- To enter a space, press **□**.

- After selecting a character if you would like to change the character size press **LMS**. The size changes each time you press the key, from large to medium to small. After the character size is changed, all characters on the same line will have the new character size.
- If you make a mistake, press **Delete** to erase the mistake.
- To check all entered characters, for example, when there are multiple text lines, press **Check**.
- To add multiple lines, press **↵**.
- When the Japanese font is selected, the text can be switched between being written vertically and horizontally by pressing **H V**.

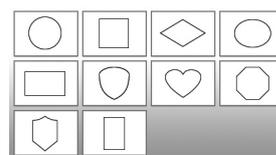
4 Press **Set**.

- For details on editing the pattern, refer to "Editing Patterns" on page 32.

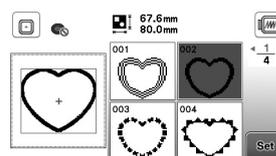
Selecting frame patterns

1 Press **□♥**.

2 Press the key of the frame shape you want to embroider.



3 Press the key of the frame pattern you want to embroider.



4 Press **Set**.

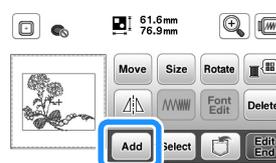
- For details on editing the pattern, refer to "Editing Patterns" on page 32.

Combining Patterns

1 Select the pattern and then press **Set**.

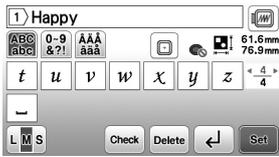
2 Edit the pattern if needed, and then press **Add**.

- For details on pattern editing, refer to "Pattern editing screen" on page 32.



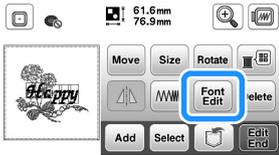
3 Press **AA** to enter the alphabet characters.

4 Select **ABC** and enter "Happy".



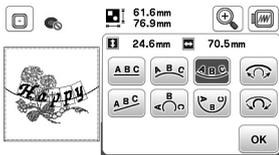
5 Press **Set**.

6 Press **Font Edit** and then select **Array**.



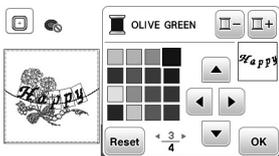
- For details on character editing, refer to "Font editing screen" on page 33.

7 Change the layout of the characters and then press **OK** two times to return to the pattern editing screen.



8 Press **Color** to change the color.

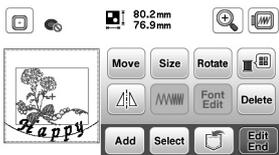
9 Change the color of the characters and then press **OK**.



- For details on changing colors, refer to "Pattern editing screen" on page 32.

10 Edit the pattern position.

- The pattern can be selected with your finger and then moved by dragging it. Use **Select** to select patterns that are overlapping and cannot be selected by touching the screen.
- Press **Move** to decide the pattern position carefully.
- Press **Preview** to check the preview of the combined patterns.

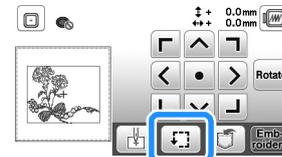


11 Press **Edit End**.

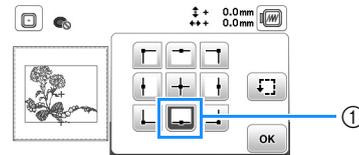
■ Checking the pattern position

The embroidery frame moves and shows the pattern position. Watch the frame closely to make sure the pattern will be embroidered in the right place.

1 Press **Embroidery** on the embroidery settings screen.



2 From **Move**, press the key for the position that you want to check.

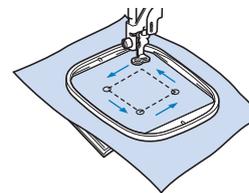


① Selected position

→ The carriage will move to the selected position on the pattern.

Memo

- To see the entire embroidering area, press **Embroidery**. The embroidery frame moves and shows the embroidery area.



⚠ CAUTION

- Make sure the needle is up when the embroidery frame is moving. If the needle is down, it could break and result in injury.

3 Press **OK**, and then press **Embroidery**.

Embroidering a pattern

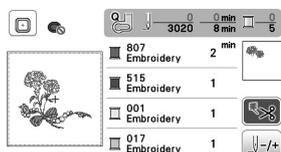
Embroidery patterns are embroidered with a change of thread after each color.

- 1 Prepare embroidery thread of the color shown on the screen.



① Embroidery color order

- Either the thread color name or the thread number appears in this screen, depending on the setting selected in the settings screen. Press , and then change the setting in the settings screen. For details, refer to “Changing the thread color display” on page 28.



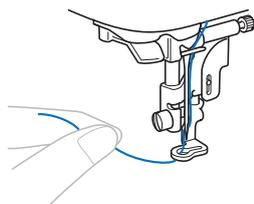
- The automatic thread cutting function will cut the thread at the end of embroidering each color. This function is initially turned on. To turn this function off, press .

- 2 Set the embroidery thread, and thread the needle.

- Refer to “Threading the upper thread” on page 15.

- 3 Raise the presser foot lever and pass the thread through the embroidery foot hole, and hold it lightly in your left hand.

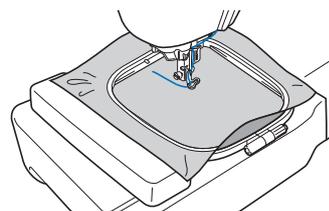
Give the thread a little slack.



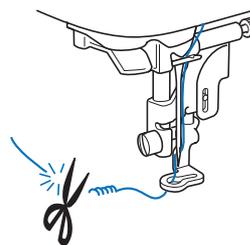
⚠ CAUTION

- Do not let hands or objects hit the carriage while embroidering. The pattern may misalign.
- When embroidering on large garments (especially jackets or other heavy fabrics), do not let the fabric hang over the table. Otherwise, the embroidery unit cannot move freely and the embroidery frame may strike the needle, causing the needle to bend or break and possibly cause injury. Place the fabric so that it does not hang off the table or hold the fabric to keep it from dragging.

- 4 Lower the presser foot, then press the “Start/Stop” button to start embroidering. After 5-6 stitches, press the “Start/Stop” button again to stop the machine.



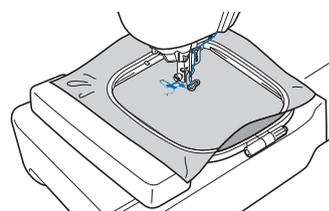
- 5 Trim the excess thread at the end of the seam. If the end of the seam is under the presser foot, raise the presser foot, then trim the excess thread.



- If the thread is left at the beginning of the stitching, it may be embroidered over as you continue embroidering the pattern, making it very difficult to deal with the thread after the pattern is finished. Trim the thread at the beginning.

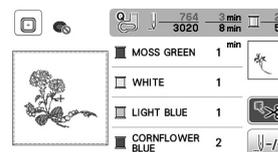
- 6 Press the “Start/Stop” button to start embroidering.

→ Stitching stops automatically with reinforcement after one color has been completed. When automatic thread cutting is set, the thread is cut.



- 7 Remove the thread for the first color from the machine.

- 8 Repeat the same steps for embroidering the remaining colors.



→ When the last color is embroidered, the message informing that the embroidering is finished will appear on the display. Press , and the display will return to the initial screen.

- 9 Cut the excess thread jumps within the color.

■ Changing the thread color display

You can display the name of the thread colors or embroidery thread number.

Memo

- Colors on the screen may vary slightly from actual spool colors.

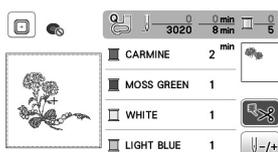
- 1 Press and use or to display the following settings screen.



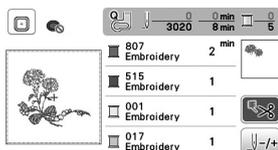
- 2 Use or of the #123 ABC menu to select [Name of Color] or [#123] (thread number).



- When [Name of Color] is selected, the name of the thread colors is displayed.



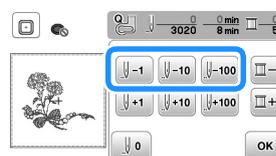
- When [#123] is selected, the embroidery thread number is displayed. Use or of the #123 menu to select the thread brand.



- 3 Press .

■ If the thread breaks or the bobbin runs out of thread during embroidering

- 1 Press the “Start/Stop” button to stop the machine.
- 2 Press and set the upper thread or bobbin thread.
 - If the bobbin thread is almost empty, press (Thread cutter button) to cut the upper and bobbin threads, remove the embroidery frame, and then replace the bobbin with one wound with thread.
- 3 Press .
- 4 Press -1, -10, or -100 to move the needle back the correct number of stitches before the area where the thread broke, and then press .
 - Press 0 to restart from the beginning.



Note

- It is recommended to stitch over the top of the last two or three stitches for complete coverage.

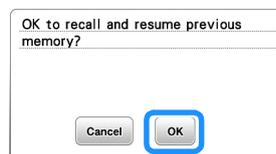
Memo

- If you cannot move back to the area where the thread broke, press to select the color and move to the beginning position of that color, then use +1, +10 or +100 to move ahead to slightly before where the thread broke.

- 5 Lower the presser foot and press the “Start/Stop” button to continue embroidering.

■ Resuming embroidery after turning off the power

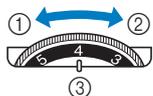
The current color and stitch number are saved when embroidery is stopped. The next time the machine is turned on, you have the option to continue or delete the pattern.



Adjusting thread tension

The upper thread tension is changed using the thread tension dial.

When doing machine embroidery, the tension dial should be set somewhere between 2 to 6.



- ① Loosen (Decrease the number)
- ② Tighten (Increase the number)
- ③ Thread tension dial

Memo

- If the stitches appear loose, turn the tension up one notch and embroider again.

Correct thread tension

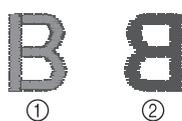
The thread tension is correct when upper thread is just visible on the wrong side (bottom) of the fabric.



- ① Right side (top) of fabric
- ② Wrong side (bottom) of fabric

Upper thread is too tight

The bobbin thread will be visible on the right side (top) of the fabric. In this instance, decrease the upper thread tension.



- ① Right side (top) of fabric
- ② Wrong side (bottom) of fabric

Upper thread is too loose

The upper thread has slack. In this instance, increase the upper thread tension.



- ① Right side (top) of fabric
- ② Wrong side (bottom) of fabric

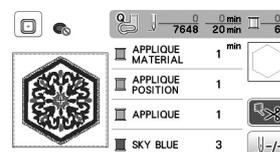
Note

- If the upper thread is not threaded correctly or the bobbin is not installed correctly, it may not be possible to set the correct thread tension. If the correct thread tension cannot be achieved, rethread the upper thread and insert the bobbin correctly.
- If the desired embroidering cannot be achieved after adjusting the tension of the upper thread with the thread tension dial, adjust the tension of the bobbin thread. For details, refer to "Adjusting the bobbin thread tension" on page 40.

Embroidering the appliqué patterns

When the color embroidering order display shows

[(APPLIQUE MATERIAL)],
 [(APPLIQUE POSITION)] or
 [(APPLIQUE)], follow the procedure below.



Required materials

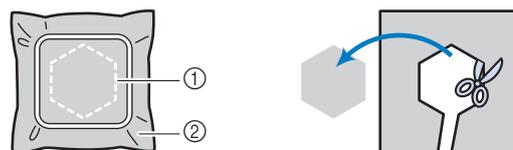
- Fabric for the appliqué piece
- Fabric for the appliqué base
- Stabilizer material
- Fabric glue or temporary spray adhesive
- Embroidering thread

Note

- The correct names and numbers of the thread colors to be used will not appear. Select the thread colors depending on those in the appliqué pattern.

1. Creating an appliqué piece

- 1 Attach stabilizer material to the wrong side of the appliqué fabric.
- 2 Sew the cutting line of the appliqué piece. Remove the fabric for the appliqué piece from the embroidery frame, and then carefully cut along the sewn cutting line.



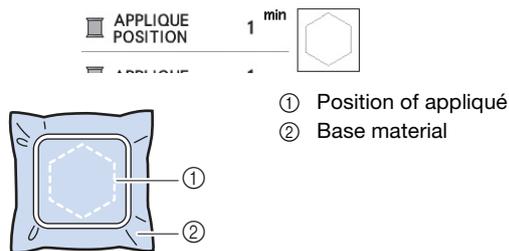
- ① Outline of appliqué
- ② Appliqué material

Note

- If the appliqué piece is cut out along the inside of the cutting line, it may not be correctly attached to the fabric. Therefore, carefully cut out the appliqué piece along the cutting line.
- After cutting out the appliqué piece, carefully remove the thread.

2. Sewing the appliqué position on the base fabric

1 Sew the appliqué position.



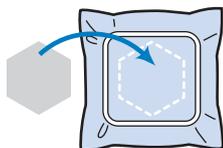
2 Remove the embroidery frame from the embroidery unit.

Note

- Do not remove the base fabric from the embroidery frame until all sewing is finished.

3. Affixing the appliqué piece to the base fabric

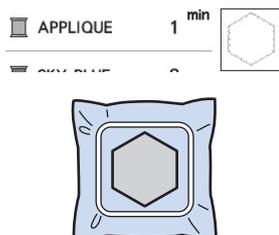
1 Lightly apply fabric glue or temporary spray adhesive to the back of the appliqué piece, and then attach it to the base fabric within the outline of the position sewn in step 1 of "2. Sewing the appliqué position on the base fabric".



Note

- If the appliqué piece cannot be attached to the base fabric with fabric glue or temporary spray adhesive, securely baste it in place with basting stitches.
- If thin fabric is used for the appliqué piece, reinforce and secure it in place with an iron-on adhesive sheet. An iron can be used to attach the appliqué piece to the appliqué location.

2 After the appliqué piece is attached, attach the embroidery frame to the machine. Thread the machine with the embroidery thread, lower the presser foot lever, and then press the "Start/Stop" button to embroider the appliqué.



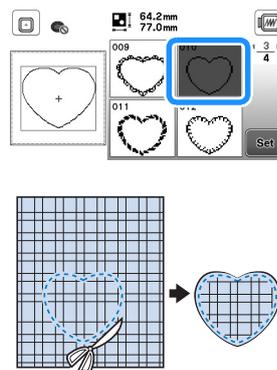
3 Finish embroidering the remainder of the pattern.

Using a frame pattern to make an appliqué

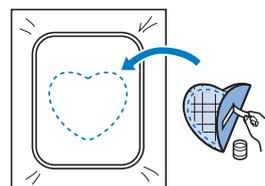
You can use framed patterns of the same size and shape to create an appliqué. Embroider one pattern with a straight stitch and one pattern with a satin stitch.

Method 1

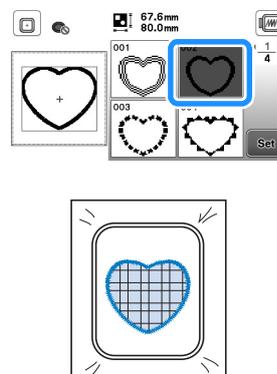
1 Select a straight stitch frame pattern. Embroider the pattern onto the appliqué material, then cut neatly around the outside of the shape.



2 Embroider the same pattern from step 1 onto the base fabric. Apply a thin layer of fabric glue or a temporary spray adhesive to the back of the appliqué created in step 1. Attach the appliqué to the base fabric matching the shapes.

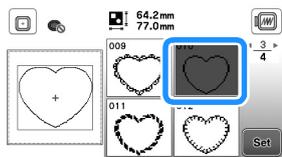


3 Select the satin stitch frame pattern of the same shape as the appliqué. Embroider over the appliqué and base fabric from step 2 to create the appliqué.

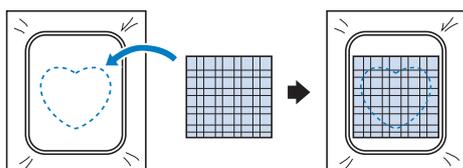


Method 2

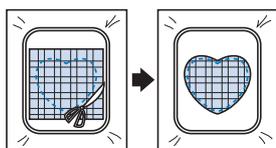
- 1 Select a straight stitch frame pattern, and embroider the pattern onto the base fabric.



- 2 Place the appliqué fabric over the pattern embroidered in step 1 and embroider the same pattern on the appliqué fabric.
 - Be sure that the appliqué fabric completely covers the stitched line.



- 3 Remove the embroidery frame from the embroidery unit, and cut around the outside of the stitches of the appliqué fabric. And then, reattach the embroidery frame to the embroidery unit.

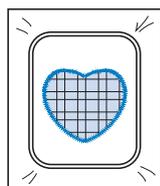
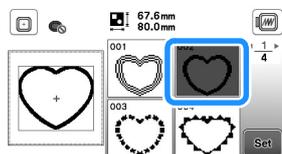


Note

- Do not remove the fabric from the embroidery frame to cut it. Also, do not pull or push on the fabric. Otherwise, the fabric may loosen in the frame.

- 4 Select the satin stitch frame pattern of the same shape as the appliqué and embroider the satin stitch pattern to create an appliqué.

- Do not change the size or position of the pattern.

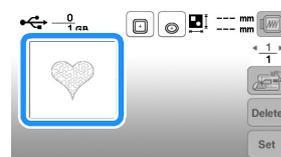


Split embroidery patterns

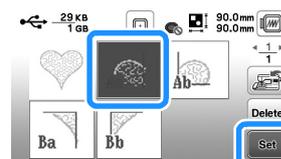
Split embroidery patterns created with PE-DESIGN Ver.7 or later, or PE-DESIGN NEXT can be embroidered. With split embroidery patterns, embroidery designs larger than the embroidery hoop are divided into multiple sections, which combine to create a single pattern after each section is embroidered.

For details on creating split embroidery patterns and for more detailed embroidery instructions, refer to the Instruction manual included with PE-DESIGN Ver.7 or later, or PE-DESIGN NEXT.

- 1 Insert the USB flash drive containing the created split embroidery pattern, and then select the split embroidery pattern to be embroidered.
 - For details, refer to "Retrieving embroidery patterns" on page 37.

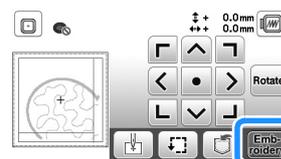


- 2 Select section  to be embroidered and press **Set**.



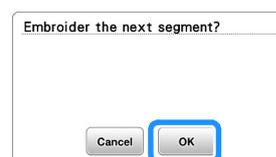
- Select the sections in alphabetical order.

- 3 Press **Edit End** and press **Embroidery**.



- 4 Press the "Start/Stop" button to embroider the pattern section.

- 5 When embroidering is finished, the following screen appears. Press **OK**.



→ A screen appears so that a section of the split embroidery pattern can be selected.

- 6 Repeat steps 2 through 5 to embroider the remaining sections of the pattern.

Editing Patterns

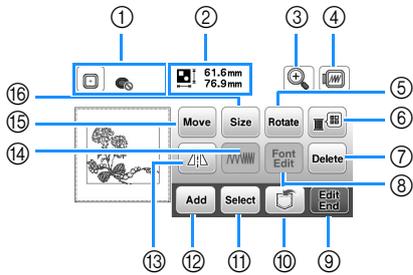
When a pattern is selected in the pattern selection screen and **Set** is pressed, the pattern editing screen appears.

After pressing any of the keys to edit the pattern, press **OK** to return to the previous screen. To finish all the editing, press **Edit End** to continue to the embroidery settings screen.

CAUTION

- When you have revised the pattern, check the display of available embroidery frames and use an appropriate frame. If you use an embroidery frame not displayed as available for use, the presser foot may strike the frame and possibly cause injury.

Pattern editing screen



Memo

- If a key display is light gray, you cannot use that function with the selected pattern.

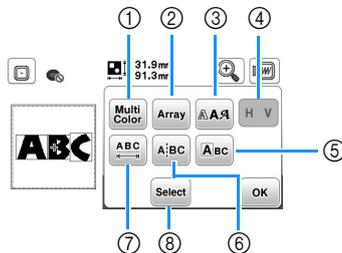
No.	Display	Explanation
	Key Name	
①		Shows the embroidery frames that can be used (page 24). In addition, after pressing the key for the embroidery frame to be used, [Embroidery Frame Identification View] can be set to [ON]. When setting [Embroidery Frame Identification View] to [OFF], press .
	Embroidery frame	
②	61.6mm 76.9mm	Shows the size of the entire combined pattern.
	Pattern size	
③		Press this key to magnify the pattern in the screen.
	Magnify key	
④		Press this key to show embroidered image. Press to select the frame used in the preview. <ul style="list-style-type: none"> : Medium embroidery frame/10 cm x 10 cm (4 inches x 4 inches) : Small embroidery frame/2 cm x 6 cm (1 inch x 2-1/2 inches) Press to enlarge the image of the pattern.
	Preview key	

No.	Display	Explanation
	Key Name	
⑤		Press this key to rotate the pattern. You can rotate a pattern one degree, ten degrees or ninety degrees at a time. Press Reset to return the pattern to its original position.
	Rotate key	
⑥		Press this key to change the colors of the displayed pattern. Press or to select the color you want to change. Press or touch the color on the color palette to choose a new color. To return to the original color, press Reset .
	Thread palette key	
⑦		Press this key to delete the selected pattern (the pattern outlined by the red box).
	Delete key	
⑧		Press this key to display the font editing screen. (page 33)
	Font edit key	
⑨		Press this key to call up the embroidery settings screen. (page 34)
	Edit End key	
⑩		Press this key to save patterns to the machine's memory or USB flash drive. (page 36)
	Memory key	
⑪		When a combined pattern is selected, use this key to select a part of the pattern to edit. The selected pattern is outlined by the red box.
	Pattern select key	
⑫		Press this key to add another embroidery pattern to currently displayed pattern.
	Add key	
⑬		Press this key to make a horizontal mirror image of the selected pattern.
	Horizontal mirror image key	
⑭		Press this key to change thread density for some alphabet character and frame patterns.
	Thread density key	
⑮		Press this key to move the pattern. Use to move the pattern in the direction shown by the arrow. Press to center the pattern.
	Move key	

No.	Display	Explanation
	Key Name	
⑩	Size	Press this key to change the size of the pattern. : Enlarges the pattern proportionately. : Decreases the pattern proportionately. : Stretches the pattern horizontally. : Decreases the pattern horizontally. : Stretches the pattern vertically. : Decreases the pattern vertically. : Returns the pattern to its original size. : Changes the size of the character patterns.
	Size key	

Font editing screen

Font editing screen appears by pressing on the pattern editing screen.



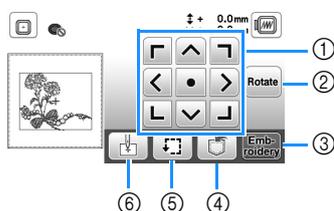
No.	Display	Explanation
	Key Name	
①	Multi Color	Press this key when you want to change the thread color, character by character in character embroidery. Since the machine stops at the end of each character, the upper thread is changed as you embroider. Press this key again to cancel setting.
	Multi color key	
②	Array	Press this key to change the configuration of a character pattern. When selecting an arc (, , , , use and to change the degree of the arc. : Make the arc flatter. : Make the arc rounder. When selecting , and change to and . You can increase or decrease the incline. To arrange the spacing between the character patterns on the line, press .
	Array key	
③	Font	Press this key to change the font of the selected characters. Depending on the font that was selected, it may not be possible to change the font.
	Font key	
④	H V	Press this key to switch between text written vertically and horizontally. (Japanese font only)
	Vertical/horizontal text key	

No.	Display	Explanation
	Key Name	
⑤	A B C	Press this key to edit each character separately. When pressing , select the character by using to change the size. When pressing , select the character by using to change the font.
	Edit character key	
⑥	A B C	Press this key to split text between characters so that they can be edited separately. Use to select where the pattern is to be separated, and then press to separate it. Any pattern that is split cannot be recombined.
	Split text key	
⑦	A B C	Press this key to change the spacing of character patterns. Press / to increase or decrease the character spacing. Press to return the pattern to its original appearance.
	Character spacing key	
⑧	Select	When a combined pattern is selected, use this key to select a part of the pattern to edit. The selected pattern is outlined by the red box. If the line feed key was used while entering text, single lines can be selected.
	Select key	

Editing All Patterns

When **Edit/End** is pressed in the editing screen, the embroidery settings screen appears. After editing the pattern, press **Embroidery** to continue to the embroidering screen.

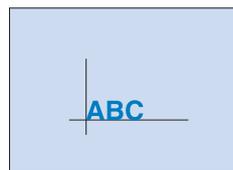
Embroidery settings screen



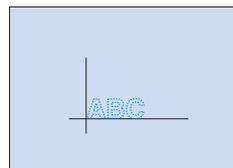
No.	Display	Explanation
	Key Name	
①		Press these keys to move the pattern in the direction shown by the arrow. (Press the center key to return the pattern to the center of the embroidery area.) (page 34)
	Move key	
②		Press this key to rotate the entire pattern. You can rotate a pattern one degree, ten degrees or ninety degrees at a time. Press Reset to return the pattern to its original position.
	Rotate key	
③		Press this key to enter the embroidery screen.
④		Press this key to save patterns to the machine's memory or USB flash drive. (page 36)
	Memory key	
⑤		Press this key to check the position of the pattern. (page 26)
	Trial key	
⑥		Press this key to move the needle start position to align the needle with the pattern position. (page 34)
	Starting point key	

Aligning the pattern and the needle position

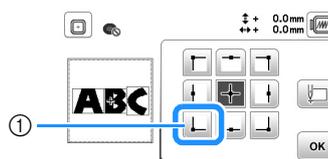
Example: Aligning the lower left side of a pattern and the needle position



- 1 Mark the embroidery start position on the fabric, as shown.

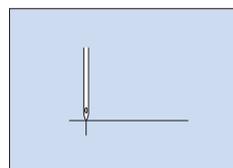
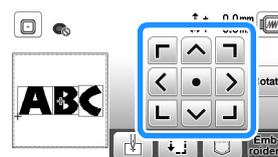


- 2 Press .
- 3 Press and press **OK**.



- ① Start position
→ The needle position moves to the bottom left corner of the pattern (the embroidery frame moves so that the needle is positioned correctly).

- 4 Use to align the needle and the mark on the fabric, press **Embroidery** and begin embroidering the pattern.

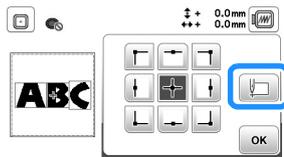


Embroidering linked characters

Follow the procedure described below to embroider linked characters in a single row when the entire pattern extends beyond the embroidery frame.

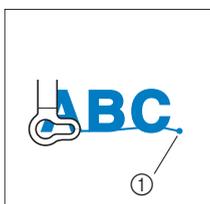
Example: Connecting "ABC" with "DEF"

- 1 Select the character patterns for "ABC", and then press and .
- 2 Press .
- 3 Press , and then press .



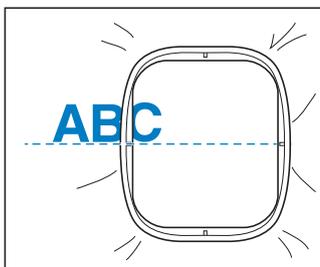
→ The needle is positioned in the lower-left corner of the pattern. The embroidery frame moves so that the needle is positioned correctly.

- 4 Press .
- 5 Lower the embroidery foot and then press the "Start/Stop" button to begin embroidering.
- 6 After the characters are embroidered, and the threads are cut, remove the embroidery frame, and then press for [Finished embroidering].

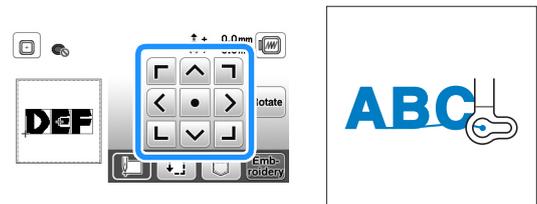


① End of the embroidering

- 7 Reposition the fabric in embroidery frame so that the right side of the letter "C" will be partially inside the embroidery frame; being careful so letters remain straight and level. Then reattach frame again so that the remaining characters ("DEF") can be embroidered.



- 8 Press to cancel the current character patterns.
- 9 Select the character patterns for "DEF", and then press and .
- 10 Press .
- 11 Press , and then press .
→ The needle is positioned in the lower-left corner of the pattern. The embroidery frame moves so that the needle is positioned correctly.
- 12 Use to align the needle with the end of the embroidering for the previous pattern.



- 13 Press .
- 14 Lower the embroidery foot and press the "Start/Stop" button to begin embroidering the remaining character patterns.



Using the Memory Function

■ Embroidery data precautions

⚠ CAUTION

- When using embroidery data other than our original patterns, the thread or needle may break when embroidering with a stitch density that is too fine or when embroidering three or more overlapping stitches. In that case, use one of our original data design systems to edit the embroidery data.

□ Types of embroidery data that can be used

Only .pes, .phc, and .dst embroidery data files can be used with this machine. Using data other than that saved using our data design systems or machines may cause the machine to malfunction.

□ Embroidery pattern size

This machine is compatible with embroidery patterns up to a maximum of 10 cm × 10 cm (4 inches × 4 inches).

□ USB flash drive

USB flash drive is commercially available, but some USB flash drives may not be usable with this machine. Please visit our website "<http://s.brother/cpjae>" for more details.

□ Precautions on using the computer to create and save data

We recommend using the 26 letters of the alphabet (uppercase and lowercase), the numbers 0 through 9, "-", and "_" for the name of the file/folder.

□ Tajima (.dst) embroidery data

- .dst data is displayed in the pattern list screen by file name (the actual thumbnail image cannot be displayed).
- Since Tajima (.dst) data does not contain specific thread color information, it is displayed with our default thread color sequence. Check the preview and change the thread colors as desired.

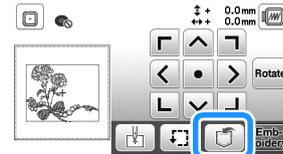
Saving embroidery patterns

You can save embroidery patterns that you have customized in the machine's memory or USB flash drive.

💡 Note

- Do not turn the main power to OFF while the [Saving...] screen is displayed. You will lose the pattern you are saving.

- 1 Press  when the pattern you want to save is in the pattern editing screen or embroidery settings screen.



- 2 When saving the embroidery pattern in a USB flash drive, insert the USB flash drive into the USB port on the machine.



- 3 Press the desired destination to start saving.

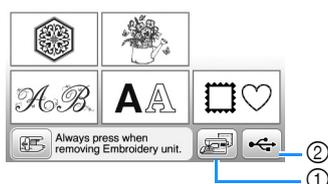


- ① Save to the machine's memory.
- ② Save to the USB flash drive.
The pattern is saved in a folder labeled "bPocket".

Retrieving embroidery patterns

Retrieve embroidery patterns saved in the machine's memory or USB flash drive.

- 1 When retrieving the embroidery patterns from a USB flash drive, insert the USB flash drive into the USB port on the machine.
- 2 Press the desired destination, and then select the desired embroidery pattern.

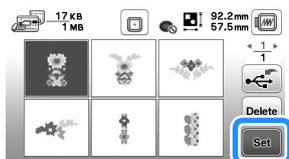


- ① Retrieve from the machine's memory.
- ② Retrieve from a USB flash drive.

Memo

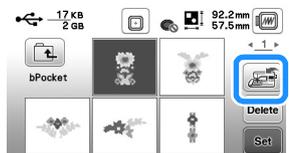
- If the embroidery pattern to be retrieved is in a folder of the USB flash drive, press the key for that folder. Press  to return to the previous screen.

- 3 Press .



Memo

- When you press , the selected embroidery pattern will be deleted permanently.
- When retrieving the embroidery patterns from the machine's memory, the selected pattern can be saved to USB flash drive directly by pressing .
- When retrieving the embroidery patterns from the USB flash drive, the selected pattern can be saved to the machine's memory directly by pressing .



Chapter 3 APPENDIX

Care and Maintenance

⚠ CAUTION

- **Unplug the power cord before cleaning the machine, otherwise injuries or an electric shock may occur.**

If the surface of the machine is dirty, lightly soak a cloth in neutral detergent, squeeze it out firmly, and then wipe the surface of the machine. After cleaning it once with a damp cloth, wipe it again with a dry cloth.

If the screen is dirty, gently wipe it with a soft, dry cloth. Do not wipe the LCD screen with a damp cloth. Do not use organic solvents or detergents.

Restrictions on oiling

In order to prevent damaging this machine, it must not be oiled by the user.

This machine was manufactured with the necessary amount of oil applied to ensure correct operation, making periodic oiling unnecessary.

If problems occur, such as difficulty turning the handwheel or an unusual noise, immediately stop using the machine, and contact your authorized Brother dealer or the nearest Brother authorized service center.

Precautions on storing the machine

Do not store the machine in any of the locations described below, otherwise damage to the machine may result, for example, rust caused by condensation.

- Exposed to extremely high temperatures
- Exposed to extremely low temperatures
- Exposed to extreme temperature changes
- Exposed to high humidity or steam
- Near a flame, heater or air conditioner
- Outdoors or exposed to direct sunlight
- Exposed to extremely dusty or oily environments

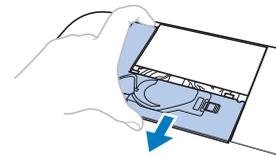
Note

- In order to extend the life of this machine, periodically turn it on and use it. Storing this machine for an extended period of time without using it may reduce its efficiency.

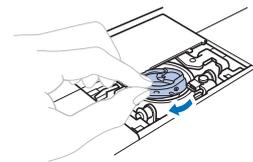
Cleaning the race

Machine performance will suffer if lint and dust collects in the bobbin case, therefore, it should be cleaned regularly.

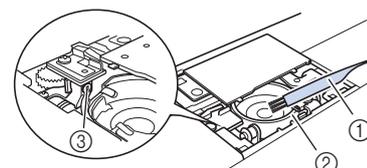
- 1 Press  (Needle position button) to raise the needle.
- 2 Turn off the machine.
- 3 Unplug the power cord from the power supply jack on the right side of the machine.
- 4 Remove the needle and embroidery foot.
 - For details, refer to "Replacing the Needle" on page 18 and "Replacing the Embroidery Foot" on page 41.
- 5 Remove the embroidery unit.
- 6 Remove the needle plate cover.
- 7 Grasp both sides of the needle plate cover, and then slide it toward you.



- 8 Grasp the bobbin case, and then pull it out.



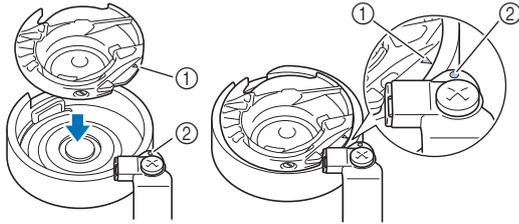
- 9 Use the cleaning brush or a vacuum cleaner to remove any lint and dust from the race and bobbin thread sensor and the surrounding area.



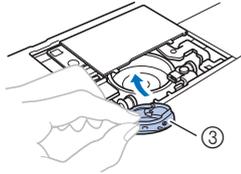
- ① Cleaning brush
- ② Race
- ③ Bobbin thread sensor

- Do not apply oil to the bobbin case.

- 10** Insert the bobbin case so that the ▲ mark on the bobbin case aligns with the ● mark on the machine.



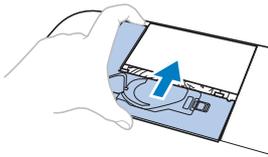
- Align the ▲ and ● marks.



- ① ▲ mark
- ② ● mark
- ③ Bobbin case

- Make sure that the indicated points are aligned before installing the bobbin case.

- 11** Insert the tabs on the needle plate cover into the needle plate, and then slide the cover back on.



⚠ CAUTION

- Never use a bobbin case that is scratched, otherwise the upper thread may become tangled, the needle may break or embroidery performance may suffer. For a new bobbin case, contact your nearest Brother authorized service center.
- Be sure that the bobbin case is correctly installed, otherwise the needle may break.

Touch panel is malfunctioning

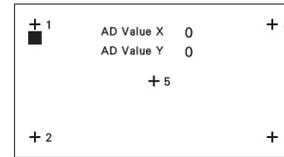
If the screen does not respond correctly when you touch a key (the machine does not perform the operation or performs a different operation), follow the steps below to make the proper adjustments.

- 1** Holding your finger on the screen, turn the main power switch to OFF and back to ON.



→ The touch panel adjustment screen is displayed.

- 2** Lightly touch the center of each +, in order from 1 to 5.



- 3** Turn the main power to OFF, then turn it back to ON.

Adjusting the bobbin thread tension

If the desired stitching cannot be achieved after adjusting the tension of the upper thread with the thread tension dial (page 29), adjust the tension of the bobbin thread.

Set the thread tension dial to “4”, and then adjust the bobbin thread tension as described below.



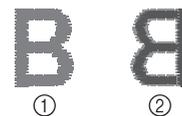
Using a small slotted screwdriver, turn the slotted-head (-) screw to adjust the bobbin case tension.



- ① Do not turn the phillips screw (+).
- ② Adjust with a screwdriver (small).

■ Correct tension

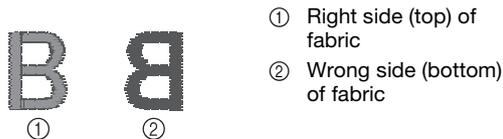
Upper thread slightly appears on the wrong side (bottom) of fabric.



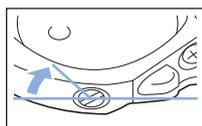
- ① Right side (top) of fabric
- ② Wrong side (bottom) of fabric

■ Bobbin thread is too loose

Bobbin thread appears slightly on the right side (top) of fabric.

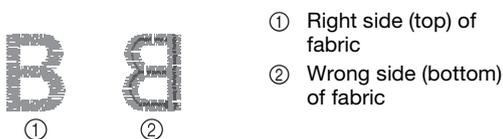


If this occurs, turn the slotted-head screw (-) clockwise, being careful not to over-tighten the screw, approximately 30-45 degrees to increase bobbin tension.

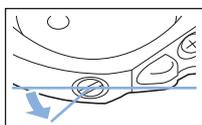


■ Bobbin thread is too tight

Upper thread on the right side (top) of fabric seems to be lifting/looping and bobbin thread is not seen on the wrong side (bottom) of fabric.



If this occurs, turn the slotted-head screw (-) counterclockwise, being careful not to over-loosen the screw, approximately 30-45 degrees to decrease bobbin tension.



⚠ CAUTION

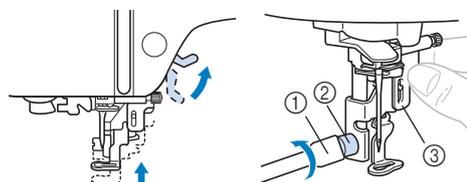
- When adjusting the bobbin case, be sure to remove the bobbin from the bobbin case.
- DO NOT adjust the position of the phillips (+) screw on the bobbin case as this may result in damage to the bobbin case, rendering it unusable.
- If the slotted-head screw (-) is difficult to turn, do not use force. Turning the screw too much or providing force in either (rotational) direction may cause damage to the bobbin case. Should damage occur, the bobbin case may not maintain proper tension.

Replacing the Embroidery Foot

⚠ CAUTION

- Only use embroidery feet designed specifically for this machine. Use of any other embroidery foot may result in injuries or damage to the machine.

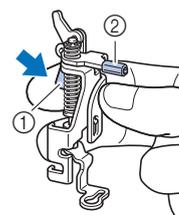
- 1 Press (Needle position button) once or twice to raise the needle.
- 2 Press . → The screen changes, and all keys and operation buttons are locked (except).
- 3 Raise the presser foot lever, use the included screwdriver to loosen the embroidery foot screw, and then remove the embroidery foot.



- ① Screwdriver
- ② Embroidery foot screw
- ③ Embroidery foot

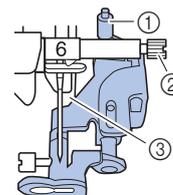
- 4 Hold the embroidery foot "Q" with your right hand, as shown.

Hold the embroidery foot with your index finger wrapped around the lever at the back of the foot.



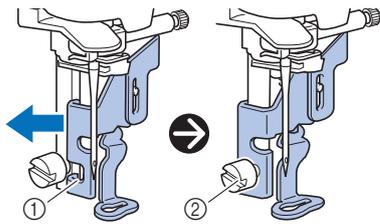
- ① Lever
- ② Embroidery foot bar

- 5 While pressing in the lever on embroidery foot "Q" with your finger, fit the embroidery foot bar over the needle clamp screw.



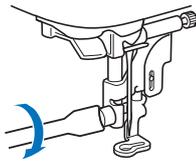
- ① Embroidery foot bar
- ② Needle clamp screw
- ③ Presser bar

- 6** Secure embroidery foot “Q” with the embroidery foot screw, making sure that embroidery foot “Q” is vertical.



- ① Mounting notch
- ② Embroidery foot screw

- 7** Hold the embroidery foot in place with your right hand, and then use the included screwdriver to securely tighten the embroidery foot screw.



⚠ CAUTION

- Use the included screwdriver to firmly tighten the screw of the embroidery foot. If the screw is loose, the needle may strike the presser foot and possibly cause injury.

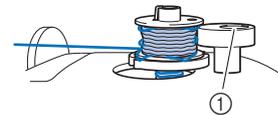
- 8** Slowly lower the presser foot lever.
- 9** Raise the presser foot lever to check that the embroidery foot is securely attached.
- 10** Press  to unlock all keys and buttons.

If the thread becomes tangled under the bobbin winder seat

If the bobbin winding starts when the thread is not passed under the pretension disk of the bobbin-winding thread guide correctly, the thread may become tangled under the bobbin winder seat.

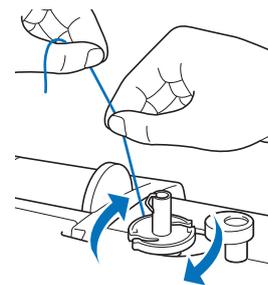
⚠ CAUTION

- Do not remove the bobbin winder seat even if the thread become tangled under the bobbin winder seat. Otherwise, the cutter in the bobbin winder seat may be damaged.
- Do not remove the screw on the bobbin winder guide post, otherwise the machine may be damaged; you cannot wind off the thread by removing the screw.



- ① Screw of the bobbin winder guide post

- 1** Stop the bobbin winding.
- 2** Cut the thread with scissors beside the bobbin-winding thread guide.
- 3** Slide the bobbin winder shaft to the left, and then remove the bobbin from the shaft and cut the thread leading to the bobbin in order to be able to completely remove the bobbin from shaft.
- 4** Hold the thread end with your left hand, and wind off the thread clockwise from under the bobbin winder seat with your right hand as shown below.



Troubleshooting

If the machine stops operating correctly, check the following possible problems before requesting service. You can solve most problems by yourself. If you need additional help, the Brother Solutions Center offers the latest FAQs and troubleshooting tips. Visit us at “ <http://s.brother/cpjae> ”.

If the problem persists, contact your Brother dealer or the nearest Brother authorized service center.

List of symptoms

Check the following possible problems before requesting service. If the reference page is “*”, contact your authorized Brother dealer or the nearest Brother authorized service center.

■ Getting ready

Symptom, Cause/solution	Reference
Cannot thread the needle.	
Needle is not in the correct position. • Press the “Needle position” button to raise the needle.	6
Needle is installed incorrectly.	18
Needle is turned, bent or the point is dull.	18
Upper threading is incorrect. The needle threader lever is not lowered until it clicks.	15
The needle threader hook is bent and does not pass through the eye of the needle.	*
The needle threader lever cannot be moved or returned to its original position.	*
Bobbin thread does not wind neatly on the bobbin.	
The thread is not passed through the bobbin winding thread guide correctly.	11
The thread that was pulled out from the bobbin-winding thread guide was incorrectly wound onto the bobbin.	13
The empty bobbin was not set on the pin properly.	11
While winding the bobbin, the bobbin thread was wound below the bobbin winder seat.	
The thread was incorrectly passed under the pretension disk on the bobbin-winding thread guide. • Remove any entangled thread, and then wind the bobbin.	11, 42
The bobbin thread cannot be pulled up.	
Bobbin is set incorrectly.	13

Symptom, Cause/solution	Reference
Nothing appears in the LCD.	
Main power switch is not turned on.	9
The plug of the power cord is not inserted into an electrical outlet.	9
The LCD screen is fogged up.	
Condensation has formed on the LCD screen. • After a while, the cloudiness will disappear.	–
The operation keys do not respond, or the key response is too sensitive.	
A glove is worn when the keys are pressed. The keys are pressed with a fingernail. A non-electrostatic touch pen is being used. The sensitivity of the operation keys is not set for the user.	6, 11
The machine light does not come on.	
[Light] is set to [OFF] in the settings screen.	10
Embroidery unit does not operate.	
Embroidery unit is not attached correctly.	19

■ While embroidering

Symptom, Cause/solution	Reference
Machine does not operate.	
“Start/Stop” button was not pressed.	6
The bobbin winder shaft is pushed to the right.	11
There is no pattern selected.	24
Presser foot is not lowered.	16
Needle breaks.	
Needle is installed incorrectly.	18
Needle clamp screw is not tightened.	18
Needle is turned or bent.	18
Using improper needle or thread for the selected fabric.	18
Upper thread tension is too tight.	29
Spool of thread is set incorrectly.	11
There are scratches around the opening in the needle plate.	*
There are scratches around the opening in the presser foot.	*
There are scratches on the bobbin case.	*

Symptom, Cause/solution	Reference
A bobbin designed specifically for this machine is not used.	11
Upper threading is incorrect.	15
Bobbin is set incorrectly.	13
Embroidery foot is attached incorrectly.	41
Stabilizer is not attached to fabric being embroidered.	21
Bobbin thread is incorrectly wound.	11
Upper thread breaks.	
Machine is not threaded correctly (used the wrong spool cap, spool cap is loose, the thread did not catch the needle bar threader, etc.).	15
Knotted or tangled thread is being used.	-
Upper thread tension is too tight.	29
Thread is tangled.	39
Needle is turned, bent or the point is dull.	18
Needle is installed incorrectly.	18
There are scratches near the hole in the embroidery foot.	*
There are scratches on the bobbin case.	*
Using improper needle or thread for the selected fabric.	18
A bobbin designed specifically for this machine is not used.	11
The thread is tangled on the wrong side of the fabric.	
Upper threading is incorrect.	15
Using improper needle or thread for the selected fabric.	18
The upper thread is too tight.	
The bobbin thread is incorrectly installed.	13
Bobbin thread breaks.	
Bobbin is set incorrectly.	13
Bobbin thread is incorrectly wound.	11
A scratched bobbin is being used.	13
Thread is tangled.	39
A bobbin designed specifically for this machine is not used.	11

Symptom, Cause/solution	Reference
Fabric puckers.	
There is a mistake in the upper or bobbin threading.	11, 15
Spool of thread is set incorrectly.	11
Needle is turned, bent or the point is dull.	18
Skipped stitches	
Machine is threaded incorrectly.	11, 15
Needle is turned, bent or the point is dull.	18
Needle is installed incorrectly.	18
Dust or lint has collected under the needle plate.	39
Not embroidering	
Needle is turned, bent or the point is dull.	18
Bobbin is set incorrectly.	13
Upper threading is incorrect.	15
High-pitched sound while embroidering	
Pieces of thread are caught in the race.	39
Upper threading is incorrect.	15
A bobbin designed specifically for this machine is not used.	11
There are needle holes or friction scratches in the bobbin case.	*
The needle contacts the needle plate.	
The needle clamp screw is loose.	18
Needle is turned, bent or the point is dull.	18
The handwheel does not turn smoothly.	
Thread is tangled in the bobbin case.	39

■ After embroidering

Symptom, Cause/solution	Reference
Thread tension is incorrect.	
Upper threading is incorrect.	15
Bobbin is set incorrectly.	13
Using improper needle or thread for the selected fabric.	18
Thread tension is set incorrectly.	29

Symptom, Cause/solution	Reference
Bobbin thread is incorrectly wound.	13
Needle is turned, bent or the point is dull.	18
A bobbin designed specifically for this machine is not used.	11
Embroidery pattern does not embroider correctly.	
Thread is twisted.	–
Thread tension is set incorrectly.	29
Fabric was not inserted into the frame correctly (fabric was loose, etc.).	21
Stabilizing material was not attached. <ul style="list-style-type: none"> Always use stabilizing material, especially with stretch fabrics, lightweight fabrics, fabrics with a coarse weave, or fabrics that often cause pattern shrinkage. See your authorized Brother dealer for the proper stabilizer. 	21
There was an object placed near the machine, and the carriage or embroidery frame hit the object during embroidering.	19
Material coming out of the embroidery frame is causing problems. <ul style="list-style-type: none"> Stretch the fabric on the frame once again so that the material coming out of the embroidery frame does not cause problems, rotate the pattern and embroider. 	21
A heavy fabric is being embroidered, and the fabric is hanging off the table. <ul style="list-style-type: none"> If embroidery is done with the fabric hanging off the table, the embroidery unit movement will be impaired. Support the fabric while embroidering. 	27
Fabric is snagged or caught on something. <ul style="list-style-type: none"> Stop the machine and place the fabric so that it does not get caught or snagged. 	–
The carriage was moved while the embroidery frame was being removed or attached during embroidery. <ul style="list-style-type: none"> If the carriage is moved during the process, the pattern may be misaligned. Be careful when removing or attaching the embroidery frame. 	23
Stabilizer is incorrectly attached, for example, it is smaller than the embroidery frame.	21
Loops appear on the surface of the fabric when embroidering.	
The thread tension is incorrectly set.	29
Embroidery bobbin thread intended for use with this machine is not being used.	20

Error messages

When erroneous operations are performed messages and advice on operation will be displayed on the LCD. Follow what is displayed. If you press or do the operation correctly while the error message is displayed, the message disappears.

	Error messages	Cause/solution
1	A malfunction occurred. Turn the machine off, then on again.	This message is displayed if some malfunction occurs. Turn the machine off, then back on again. If this message continues to appear, the machine may be malfunctioning. Please contact your authorized Brother dealer or the nearest Brother authorized service center.
2	Cannot change the configuration of the characters.	This message is displayed when there are too many characters and the curved character configuration is impossible.
3	Cannot change the font since some letters are not included to the selected font.	This message appears when the font of the embroidery character pattern is changed to one that does not include characters used in the pattern.
4	Cannot recognize the data for the selected pattern. The data may be corrupted. Please turn off the power and turn on again.	This message appears when you try to retrieve pattern data that is invalid. Since any of the following may be the cause, check the pattern data. <ul style="list-style-type: none"> • The pattern data is damaged. • The data that you tried to retrieve was created using another manufacturer's data design system. Turn the machine off, then on again to return it to its normal condition.
5	Check and rethread the upper thread.	This message is displayed when the upper thread is broken or not threaded correctly, and the "Start/Stop" button, etc. is pressed.
6	Data volume is too large for this pattern.	This message is displayed when the patterns you are editing take up too much memory, or if you are editing too many patterns for the memory.
7	Lower the presser foot lever.	This message is displayed when a button, such as the "Start/Stop" button, was pressed while the presser foot was raised.
8	Not enough available memory to save.	This message is displayed when the memory is full and the pattern cannot be saved.
9	Not enough available memory to save the pattern. Delete another pattern?	This message is displayed when the memory is full and the pattern cannot be saved. Press <input type="button" value="OK"/> and delete a previously saved embroidery pattern to save the current one. Press <input type="button" value="Cancel"/> to return to the original screen without saving.
10	OK to recall and resume previous memory?	This message appears if the machine is turned off while embroidering, then turned on again. Press <input type="button" value="OK"/> to return the machine to the condition (pattern position and number of stitches) when it was turned off. Follow the procedure described in "If the thread breaks or the bobbin runs out of thread during embroidering" on page 28 to align the needle position and embroider the remainder of the pattern.
11	Pattern extends to the outside of embroidery frame.	This message appears when the selected embroidery pattern is larger than the embroidery frame selected when [Embroidery Frame Identification View] is set to [ON].
12	Pattern extends to the outside of embroidery frame. Add no additional characters.	This message is displayed when the character pattern combination is too large to fit in the embroidery frame. Change the character pattern size or layout the patterns to fit the embroidery frame. If [Embroidery Frame Identification View] is set to [ON], setting to [OFF] or selecting larger frame may help.
13	Pattern extends to the outside of embroidery frame. This function cannot be used at this time.	This message appears when the embroidery character pattern is resized or switched between written vertically/horizontally so that it is too large for the embroidery frame.
14	Preventive maintenance is recommended.	Once this message appears, it is recommended to take your machine to an authorized Brother dealer or nearest Brother authorized service center for a regular maintenance check. Although this message will disappear and the machine will continue to function once you press <input type="button" value="OK"/> , the message will display several more times until the appropriate maintenance is performed.

	Error messages	Cause/solution
15	The bobbin thread is almost empty.	This message is displayed when the bobbin thread is running out. Although a few stitches can be embroidered when the "Start/Stop" button is pressed, replace with a wound bobbin immediately. When embroidering, press  (Thread cutter button) to cut the threads, raise the presser foot, remove the embroidery frame, and then replace the bobbin with one wound with plenty of embroidery bobbin thread.
16	The bobbin winder safety device has activated. Is the thread tangled?	This message is displayed when the bobbin is being wound, and the motor locks because the thread is tangled, etc.
17	 The carriage of the embroidery unit will move. Keep your hands etc. away from the carriage.	This message appears before embroidery unit moves.
18	 The safety device has been activated. Is the thread tangled? Is the needle bent?	This message is displayed when the motor locks due to tangled thread or for other reasons related to thread delivery.
19	This pattern cannot be used.	This message appears when you try to retrieve a pattern that cannot be used with this machine.
20	This USB media cannot be used.	This message is displayed when you try to use incompatible media.
21	USB media is not loaded. Load USB media.	This message is displayed when you try to recall or save a pattern while no USB flash drive is loaded.
22	F**	If error message [F**] appears in the LCD while the machine is being used, the machine may be malfunctioning. Contact your authorized Brother dealer or the nearest Brother authorized service center.

Operation beeps

If a correct operation is performed, the machine beeps one time.

If an incorrect operation is performed, the machine beeps two or four times.

If the machine locks up, for example, because the thread is tangled, the machine continues to beep for four seconds, and then the machine automatically stops. Be sure to check for the cause of the error, and correct it before continuing to embroider.

Upgrading your machine's software

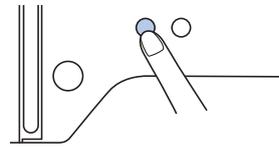
You can use USB flash drive to upgrade software for your machine.

When an upgrade program is available on our website at "<http://s.brother/cpjae>", please download the file(s) following the instructions on the website and steps listed below.

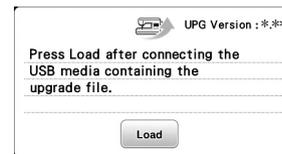
Note

- When using USB flash drive to upgrade the software, check that no data other than the upgrade file is saved on the USB flash drive being used before starting to upgrade.

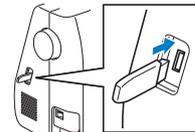
- 1 Turn on the machine while pressing and holding  (Needle position button).



→ The following screen appears.



- 2 Insert the USB flash drive into the USB port on the machine. The media device should only contain the upgrade file.



- 3 Press .

→ When upgrading is finished, the completion message appears.

- 4 Remove the USB flash drive, and turn the machine off and on again.

Index

A

Aligning the position 34
 Appliqué 29, 30

B

Bobbin 11
 Bobbin case 39
 Bobbin installation 13
 Bobbin thread 11, 20
 Bobbin winding 11
 Bobbin winding thread guide 11

C

Character spacing 33
 Cleaning 39

E

Embroidery 19
 Embroidery frames 21, 23
 Embroidery sheet 22
 Error messages 46

F

Fabric 21
 File format 36
 Font 25

I

Included accessories 7

L

Language 10
 LCD 6, 10
 Light 10

M

Maintenance 39
 Memory 36
 Metallic thread 12, 16
 Mirroring 32

N

Needle 18
 Needle plate 6
 Needle plate cover 6, 39
 Needle position 10
 Needle threader 16

O

Operation beep 10, 48
 Optional accessories 8

P

Power supply 9

R

Race 39
 Retrieving 37

Rotate 32, 34

S

Saving 36
 Size 33
 Split embroidery patterns 31
 Spool cap 12
 Spool net 12
 Stabilizer 21

T

Thread 20
 Thread color display 28
 Thread density 32
 Thread tension 29
 Troubleshooting 43

U

Upgrading 48
 Upper thread 15, 20
 USB 36

Please visit us at <http://s.brother/cpjae> where you can get the support information (Instruction Videos, FAQs, etc.) for your Brother product.



Brother SupportCenter is a mobile app that provides the support information (Instruction Videos, FAQs, etc.) for your Brother product. Visit the App Store or Google Play™ to download.



English
888-M30/M31
Printed in Vietnam



XG7968-001