

Cutwork Embroidery Upgrade for Multi-Needle Machines

Instruction and Reference Guide

Model BNCW



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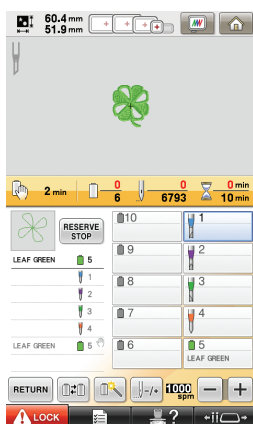
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BEFORE YOU START

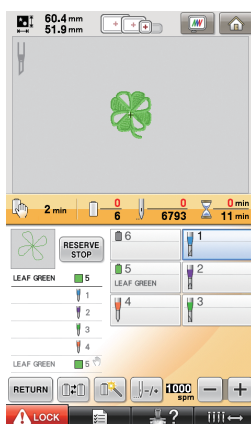
Thank you for choosing our product.

It is important to perform the upgrade according to the procedure outlined in the Installation Guide for upgrade. The machine can then be used as outlined in this upgrade Instruction and Reference Guide. To obtain the best performance from the machine and to ensure safe and correct operation, please read this Instruction and Reference Guide carefully before you start.

- The cutwork functions can be used after the upgrade has been installed and certified. Use the machine after checking that KIT CW has been certified.
- For the procedure on installing and certifying KIT CW, refer to the Installation Guide for upgrade.
- The descriptions in this Instruction and Reference Guide show the screens for the 10-needle machine with Embroidery Upgrade Kit I certified. The settings and operations may differ slightly depending on your machine model or version.



10-needle machine



6-needle machine

NEW FEATURES

- **Fabric can be cut if cutwork needles are installed in specific needle bars of the machine. This allows embroidering and cutting to be done with the same machine. (page 4)**
- **Embroidering and cutting can be done by importing embroidery data (PES format) that includes a cutwork pattern. (page 4)**
- Enjoy creating cutwork designs immediately after you upgrade your machine, using the enclosed CD-ROM (for machines) that contains 30 cutwork patterns. (page 10)
- Cutwork can also be created by designing an original pattern using Palette Version 9.2 with Cutwork, then importing it into your machine.
- **From the machine, an embroidery pattern can be edited so that it will be cut out or sewn with satin stitching. (page 18)**
- When creating an appliqué from an embroidery pattern, the appliqué piece can be cut out. (page 20)
- The embroidery pattern can be cut out along its outer boundary. (page 23)
- The embroidery pattern can be sewn with satin stitching along its outer boundary, then cut out. (page 24)

Video Tutorials

Video tutorials are included on the supplied DVD. Instructional movies are available for the topics listed with the following DVD icons in this Installation Guide.



Preparation

- Videos of the preparation procedure can be viewed by clicking “Preparation” in the chapter index of the supplied DVD.



Basic Cutwork Embroidery

- An instructional movie for basic cutwork embroidery can be viewed by clicking “Basic Cutwork Embroidery” in the chapter index of the supplied DVD.



Advanced Cutwork Embroidery

- An instructional movie for advanced cutwork embroidery can be viewed by clicking “Advanced Cutwork Embroidery” in the chapter index of the supplied DVD.



Cutwork Designs Creation on PC

- An instructional movie for creating cutwork designs on your computer can be viewed by clicking “Cutwork Designs Creation on PC” in the chapter index of the supplied DVD.
-

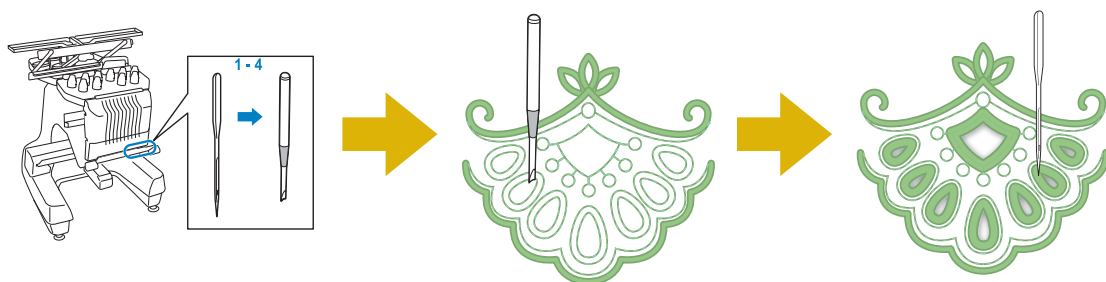
ABOUT CUTWORK

What is Cutwork?

Cutwork is created when an embroidery design has an area that has been cut away and then reinforced around those sections with embroidery, there may also be stitching added within the open spaces to create gorgeous decorative patterns.

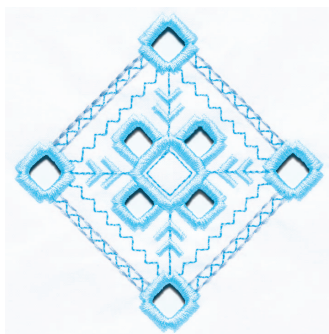


After installing KIT CW to upgrade the machine, replace the embroidery needles in needle bars 1 through 4 with the corresponding cutwork needles which have been created with different angles so the machine can cut the fabric and embroider.



Import a cutwork pattern from the enclosed CD-ROM (for machines) to the machine in order to create cutwork.

For details on the patterns included with KIT CW, refer to the separate Quick Reference Guide.



In addition, the cutwork pattern can be created using the machine to cut or sew satin stitching around the desired pattern. (Refer to "USING THE MACHINE TO POSITION EMBROIDERY PATTERNS FOR CREATING CUTWORK" on page 18)

An original cutwork pattern designed in Palette Version 9.2 with Cutwork can be imported into the machine to embroider cutwork. For details on installing Palette Version 9.2 with Cutwork, refer to the Installation Guide.



Memo

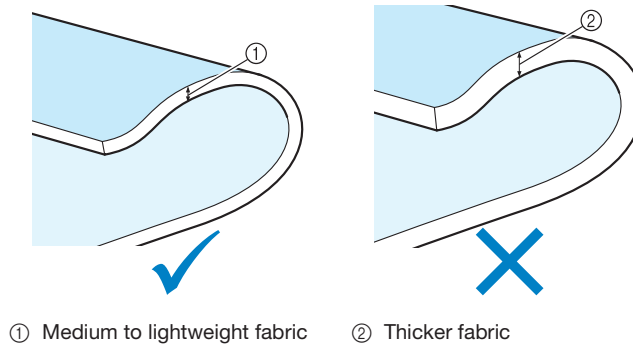
- "Cutwork pattern" is a generic term used to refer to all the embroidery designs created with the cutwork needles, including cutout patterns, in this manual.

Before Creating Cutwork

Information that you need to understand before creating cutwork as well as the preparations that must be performed are described below.

Fabric used with cutwork

The base fabric used with cutwork should be no thicker than a soft denim (equivalent to medium to light weight fabric). Using thicker fabrics may result in damage to the cutwork needles or machine, it may also effect the finish of the design or cause fraying.

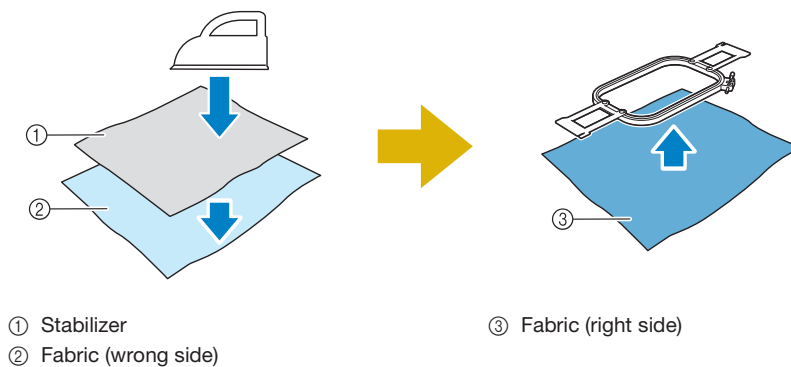


Embroidery frames used with cutwork

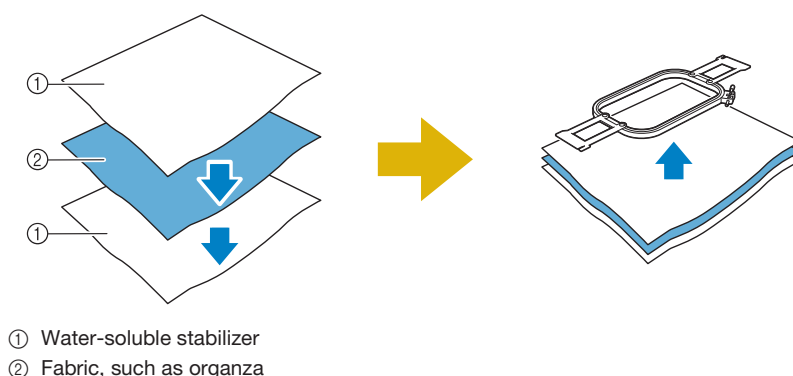
When creating cutwork, the cap frame and cylinder frame cannot be used.

Stabilizer

In order to prevent the pattern from losing its shape during embroidering or cutting, use an iron to affix stabilizer material to the base fabric.



When using fabric that cannot be ironed, such as organza, place water-soluble stabilizer above and below the fabric, and secure the sheets with an embroidery frame.



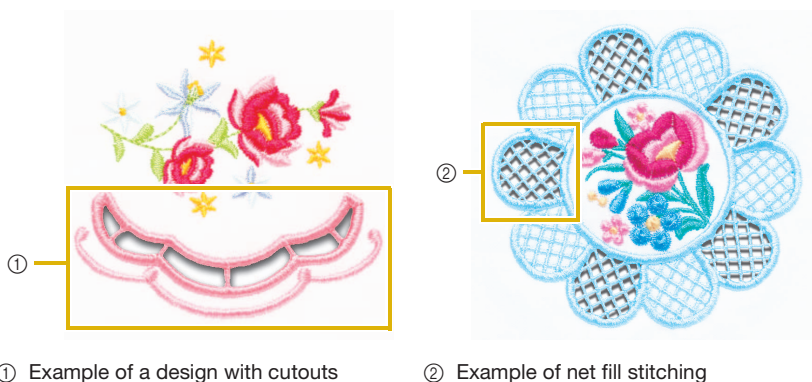
For details on affixing stabilizer, refer to “Attaching Stabilizer” on page 14.

Precautions on using water-soluble stabilizer

- Do not use with fabric that cannot be washed with water.
- Avoid storing in an extremely humid or wet location.
- Store in a dry location not exposed to humidity.

Patterns requiring water-soluble stabilizer

Use a water-soluble stabilizer when stitching the cut edges of a design or when embroidering using the net fill stitch. (Refer to “Attaching Water-Soluble Stabilizer” on page 15.) A sheet of non-woven water-soluble stabilizer is supplied. Optional film-type water-soluble stabilizers are available for use.



Various patterns on the enclosed CD-ROM (for machines) require water-soluble stabilizer. For details on patterns included on the CD-ROM, refer to the separate Quick Reference Guide.

By using Palette Version 9.2 with Cutwork, original designs with cutouts and designs using the net fill stitch can be created. For details on installing Palette Version 9.2 with Cutwork, refer to the Installation Guide.

Trial embroidery

Be sure to sew trial embroidery using same fabric and threads as project in order to check the embroidering and cutting results.

CUTWORK MODE

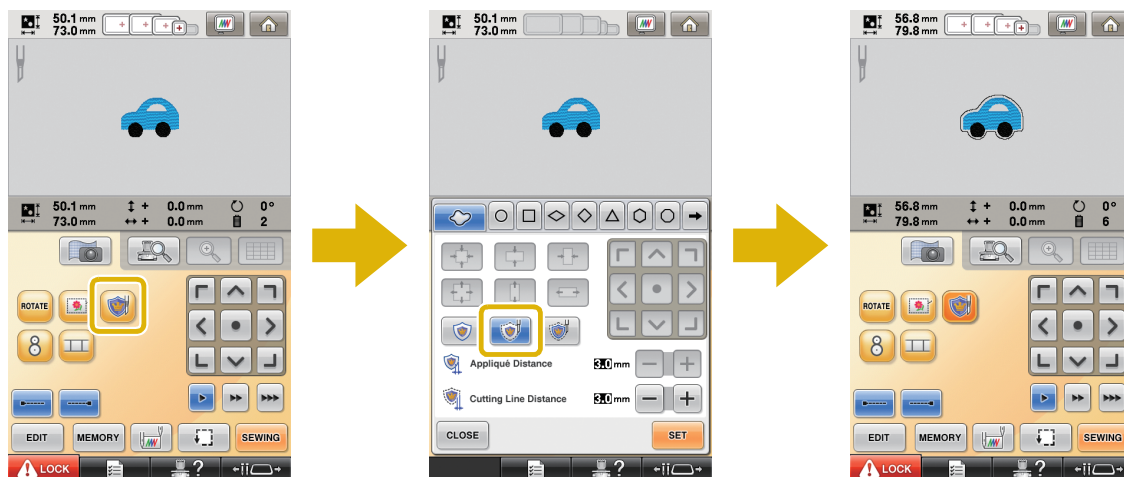
The KIT CW installed on your machine activates the cutwork program for use with the specialized needles.

In order to create cutwork patterns, the machine must be switched to Cutwork mode.

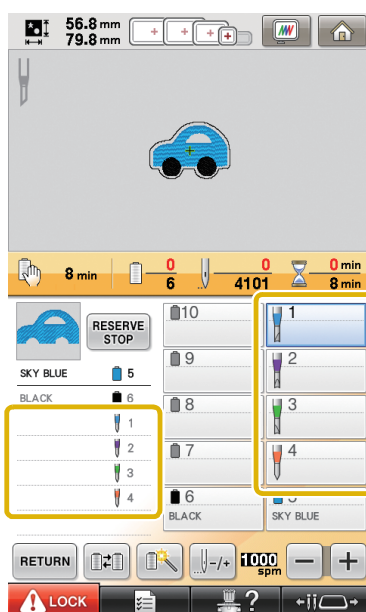
For details on switching the machine to Cutwork mode, refer to “Switching to Cutwork Mode” on page 11.

■ Cutwork mode functions

A cutwork pattern can be designed with your desired embroidery pattern using a cut out or outlined with satin stitching.



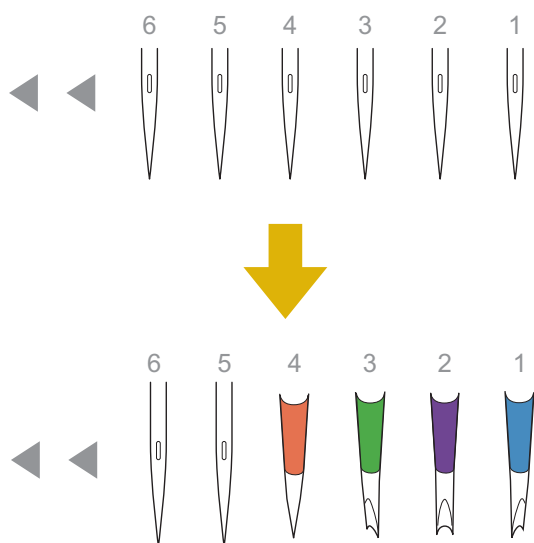
The sections of the design where the cutwork needles will be used are indicated in the embroidering screen as shown below.



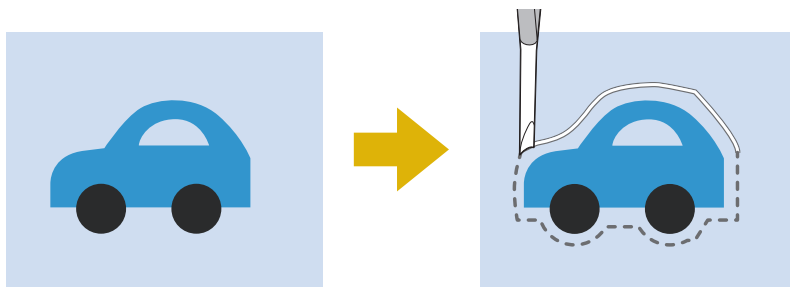
■ When using Cutwork mode

The displays for embroidery needles 1 through 4 change to cutwork needles.

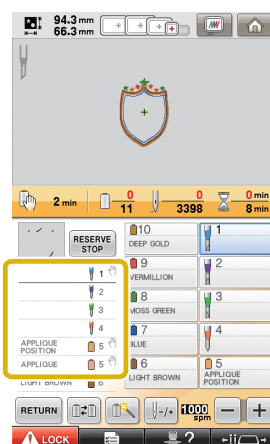
Cutting will be done with needles 1 through 4, and embroidering with the remaining needles.



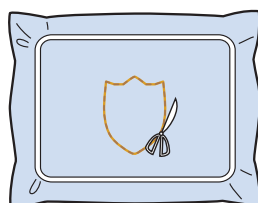
When using the cutwork needles, the fabric will be cut.



The cutting line for the appliqué piece (APPLIQUE MATERIAL) will also be cut using the cutwork needles.



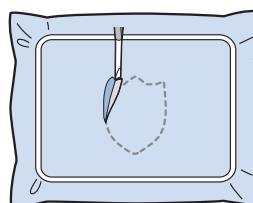
Cutwork mode OFF



APPLIQUE MATERIAL	1	✎
APPLIQUE POSITION	1	✎
APPLIQUE	1	✎



Cutwork mode ON



	1	✎
	2	✎
	3	✎
	4	✎
APPLIQUE POSITION	5	✎
APPLIQUE	5	✎

“APPLIQUE MATERIAL”, “APPLIQUE POSITION” and “APPLIQUE” are assigned to one needle bar number and listed on the screen.

Depending on the thread color display setting, the display may appear as  (APPLIQUE MATERIAL),  (APPLIQUE POSITION) or  (APPLIQUE).



Note

- Depending on the pattern, the cutting line may not be cut. In that case, the cutting line will be sewn.
- For details on patterns that cannot be used for cutwork, refer to “ERROR MESSAGES” on page 32.

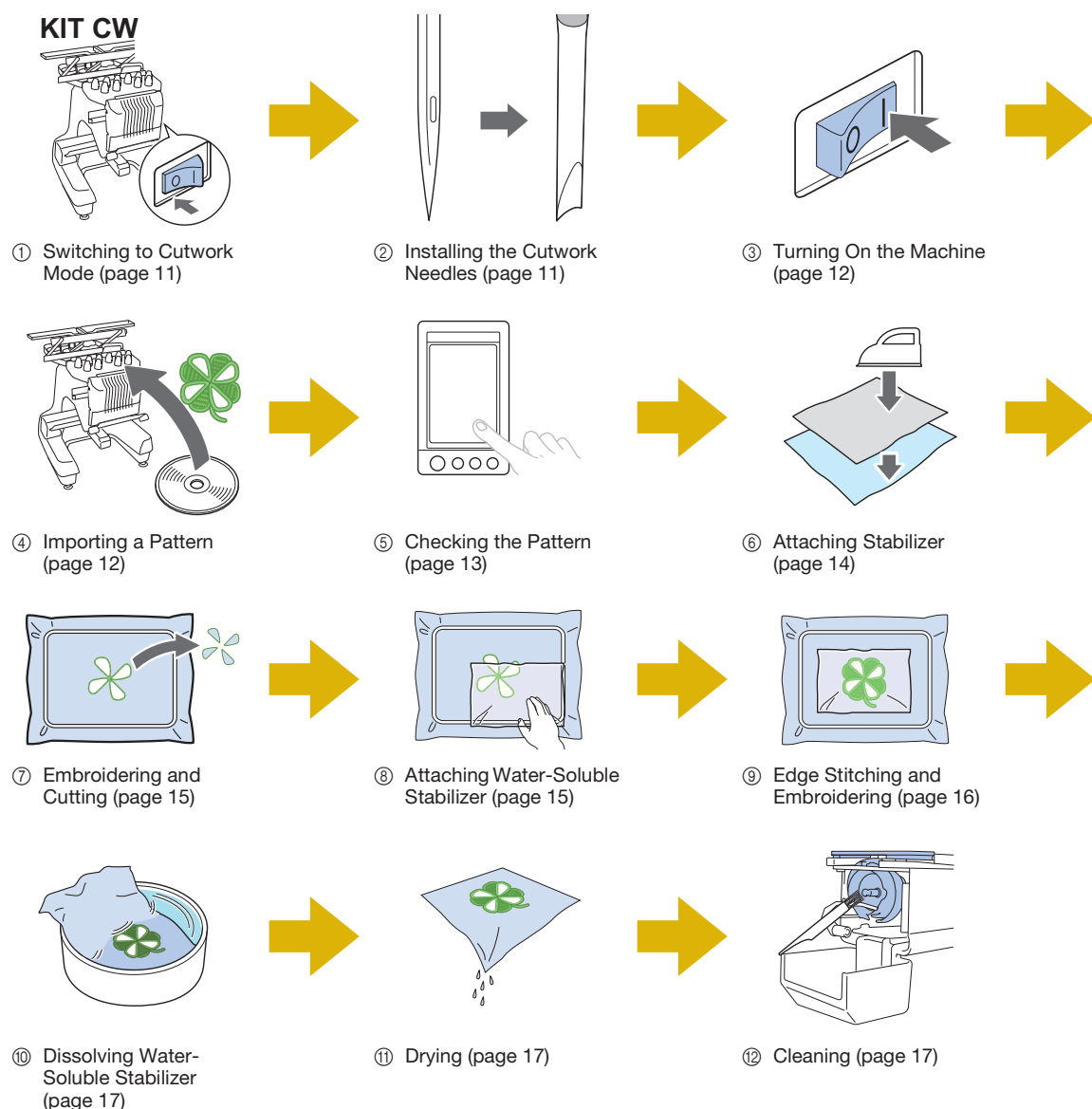
(For use only with Embroidery Upgrade Kit I sold separately)

- When the pattern size is changed by using the stitch recalcuator function, the cutting line will be sewn instead of being cut.

CREATING CUTWORK



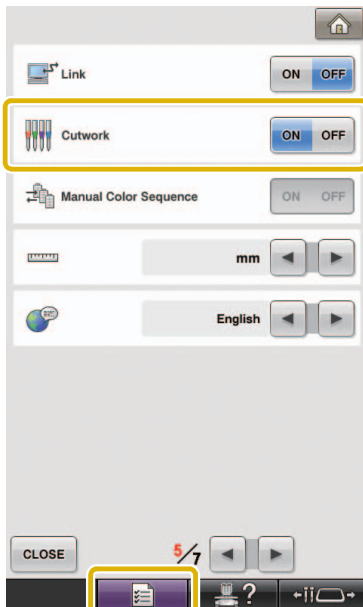
One example procedure for creating cutwork using the machine is shown below. We will follow this procedure to create cutwork using the cutwork pattern for a clover on the enclosed CD-ROM (for machines). Follow this procedure as practice.



Switching to Cutwork Mode → 2

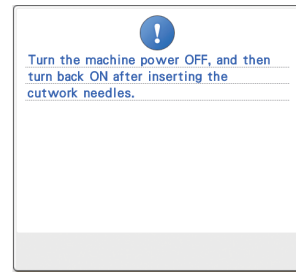
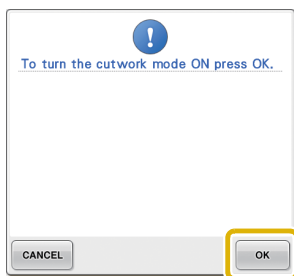
The machine needs to be turned off after the “Cutwork” setting is set to on.

- 1 Touch  to display the settings screen, and then touch  beside “Cutwork”.

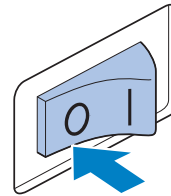


→ A message appears.

- 2 Touch .



- 3 Turn off the machine.



Finishing Cutwork mode

Be sure to turn Cutwork mode off, before you perform embroidery operation with all the needles available for your machine.

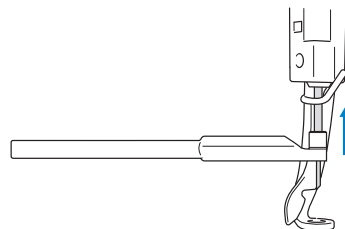
To turn off Cutwork mode, touch  beside “Cutwork” in the settings screen (described in step 1). As directed in the message that appears, turn off the machine, replace the cutwork needles with the embroidery needles, and then turn the machine on again.

Installing the Cutwork Needles → 1

CAUTION

- Be sure to turn off the embroidery machine before replacing the needles, otherwise injuries may result if the machine starts sewing.

- 1 Install the cutwork needles.

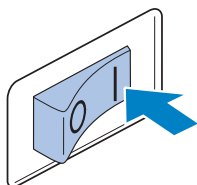


Memo

- For details on installing the cutwork needles, refer to “Replacing the Cutwork Needles” in the Installation Guide.

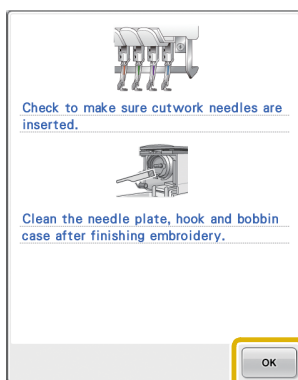
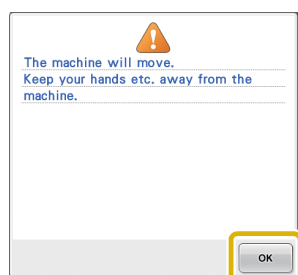
Turning On the Machine →

- 1 Turn the machine on again.



→ The following messages appear.

- 2 Check the information in the message, and then touch .



→ The machine enters Cutwork mode.

Note

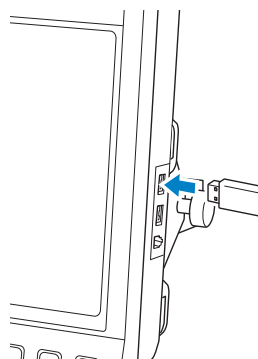
- Check that the cutwork needles are installed. Also, periodically clean the needle plate, hook and bobbin case after using the machine.
- This machine is equipped with a memory feature so that, if the machine is turned off while it is being operated, it will resume the stopped operation when it is turned on again. However, if the Cutwork mode is turned off during an operation, this feature will be disabled. For details on this memory feature, refer to “Resume Embroidering After Turning Off the Machine” in chapter 3 of your machine’s Instruction and Reference Guide.

Memo

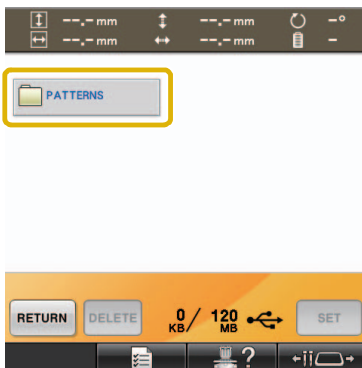
- Once the Cutwork mode has been turned on, the machine starts in Cutwork mode each time it is turned on until Cutwork mode is turned off.

Importing a Pattern →

- 1 Insert the CD-ROM (for machines) into the computer’s CD-ROM drive. Copy the “patterns” folder to the USB media.
- 2 Insert the USB media into the primary (top) USB port on the machine.



- 3 Touch , select the pattern, and then touch  to import the pattern.



→ The pattern editing screen appears.



Note

- To import a cutwork pattern from the enclosed CD-ROM to the machine, use USB media, or directly connect a computer to the machine and transfer the data.



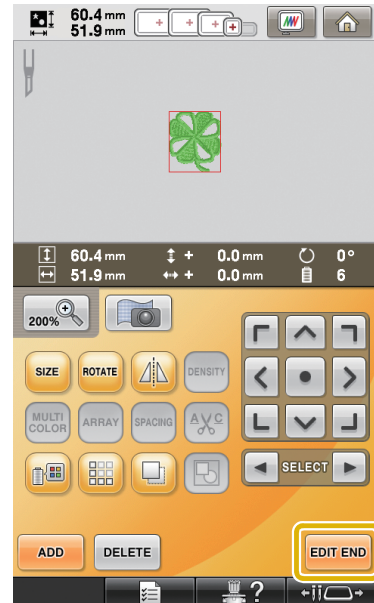
Memo

- For details on importing patterns, refer to "Selecting an Embroidery Pattern" in chapter 5 of your machine's Instruction and Reference Guide.

Checking the Pattern

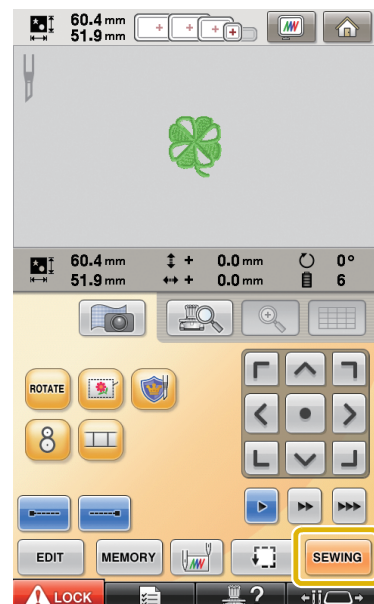
- 1 Touch .

The imported cutwork pattern can be edited, repositioned, added or removed. If the pattern is not edited, continue to the next screen.



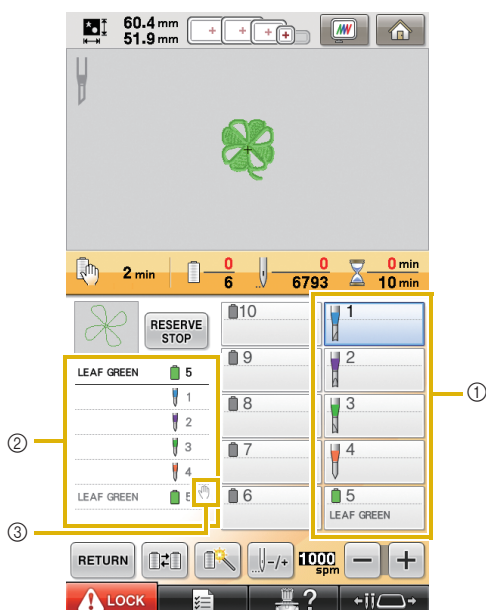
→ The embroidering settings screen appears.

- 2 Touch .



→ The embroidering screen appears.

- 3 With the thread color sequence display and sewing order, check the thread colors and sewing order.



- ① Needle bar key/Thread color set up display
- ② Thread color sequence display
- ③ Indicates that the machine will stop before the embroidering (or cutting) function is preformed.



Note

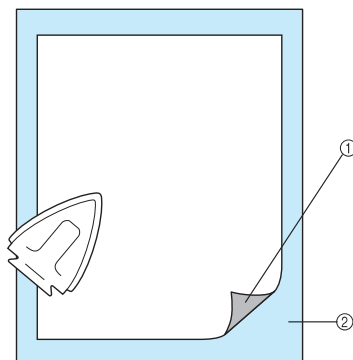
- Specify pause locations, if necessary, referring to “Specifying Pause Locations Before Embroidering” on page 29.
- When the Cutwork mode has been turned on, the cutwork needles appear for needles 1 through 4, and their settings cannot be changed.

→ The machine is now prepared for cutwork.

Attaching Stabilizer → 2

In order to prevent the pattern from losing its shape during embroidering or cutting, use an iron to affix stabilizer material to the fabric being used.

- 1 Using an iron, affix the stabilizer material to the back of the fabric.



- ① Adhesive side of iron-on stabilizer (backing)
- ② Fabric (wrong side)



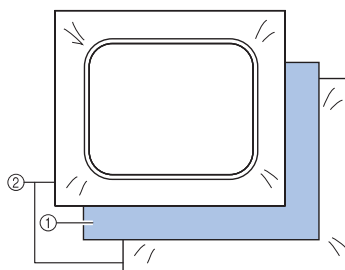
Note

- Follow the package instructions for the stabilizer being used.



Memo

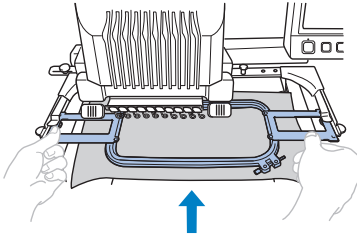
- When using fabric that cannot be ironed, such as organza, place water-soluble stabilizer above and below the fabric, and secure the sheets with an embroidery frame. Water-soluble stabilizers dissolve when washed, allowing you to create beautiful embroidery that is not stiff.



- ① Fabric
- ② Water-soluble stabilizers

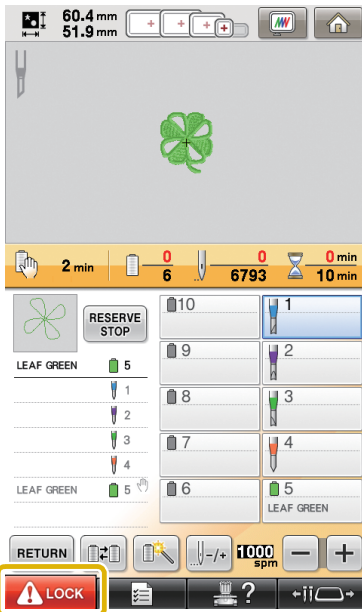
- For details on using stabilizer, refer to “Stabilizers (backing)” in chapter 7 of your machine’s Instruction and Reference Guide.

- 2 Securely hoop the fabric with the stabilizer attached, and then attach the embroidery frame to the machine.



Embroidering and Cutting → 2

- 1 Touch **LOCK**, and then press the start/stop button to start embroidering.



→ After the outlines of the cutout areas are sewn, the areas will be cut with the cutwork needles. After cutting with the cutwork needles, the machine will stop.

Attaching Water-Soluble Stabilizer → 2

After cutting, place the enclosed water-soluble stabilizer or similar product on the fabric, if necessary, and then embroider.



Note

- For details on the patterns requiring water-soluble stabilizer, refer to "Patterns requiring water-soluble stabilizer" on page 6.

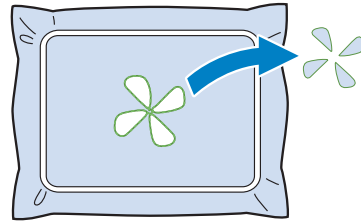
1

Remove the embroidery frame.

2

Remove the fabric cut outs created using the cutwork needles.

Depending on the type of fabric that is used, some areas may not be fully cut. Use tweezers and scissors to carefully remove the cutout pieces without stretching the fabric.



Note

- When removing the cutout pieces, do not remove the fabric from the embroidery frame.



Memo

- If the cut edges will be sewn, for example, with satin stitching, use scissors to remove excess threads which will create a cleaner finish.
- On the 10-needle machine, touch  and then press  to move the embroidery frame toward you so that the fabric can be cleaned up without removing the embroidery frame.

3

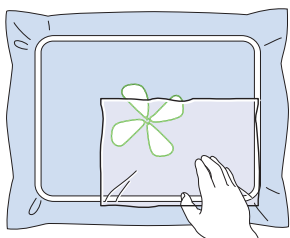
Reattach the embroidery frame, or if you have moved the frame toward you using  and  on the 10-needle machine, touch  to move it back into position.



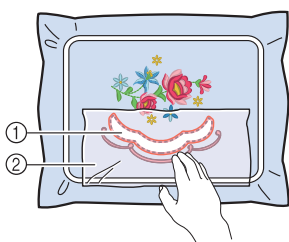
Note

- Make sure not to replace the embroidery frame upside down, otherwise the pattern will become misaligned.

- 4 Place the enclosed water-soluble stabilizer on the cutout areas to reinforce the edges to be sewn with satin stitching.

**Note**

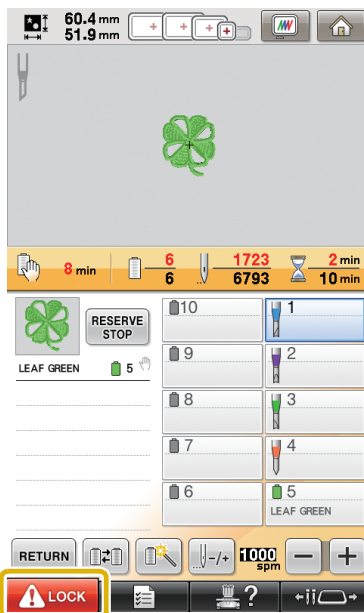
- Use a sheet of water-soluble stabilizer that is slightly larger than the cutout area or net fill stitching area.



- ① Cutout area
② Water-soluble stabilizers

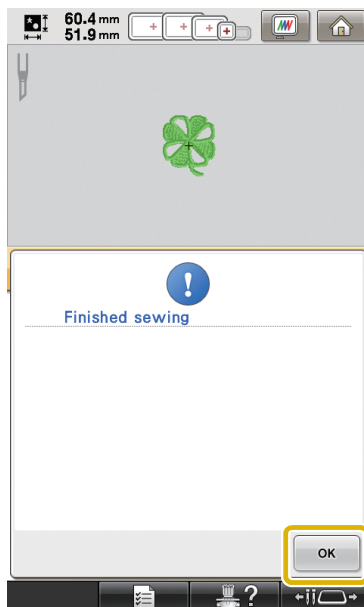
Edge Stitching and Embroidering → 2

- 1 Touch **LOCK**, and then press the start/stop button to restart embroidering.



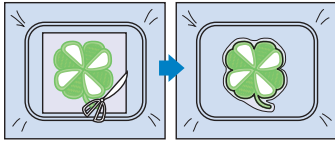
→ When all embroidering is finished, the following screen appears.

- 2 Touch **OK** to return to the embroidering settings screen.

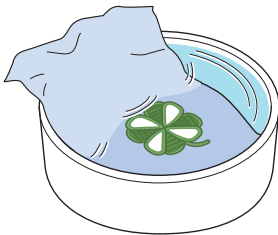


Dissolving Water-Soluble Stabilizer → 2

- 1 Remove the embroidery frame from the machine and the fabric from the frame. Use scissors to cut and remove the excess water-soluble stabilizer along the outline of the embroidery pattern.

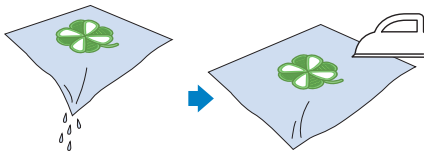


- 2 Soak the fabric in warm water to melt away the remaining water-soluble stabilizer.



Drying

- 1 Dry the fabric. And then iron it, if necessary.



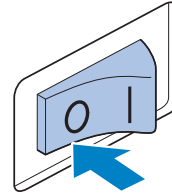
Note

- When ironing, be sure to use the right iron temperature for the type of fabric to protect it from shrinking, scorching or becoming damaged.

Cleaning → 2

When fabric and stabilizers are cut with the cutwork needles, fabric scraps and lint may be produced. Clean the needle plate, hook and bobbin case at least once a day or after each project which ever comes first. For details on cleaning them, refer to "Maintenance" in chapter 7 of your machine's Instruction and Reference Guide.

- 1 Turn off the embroidery machine.

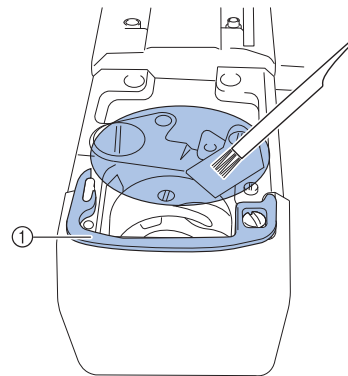


CAUTION

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

- 2 Remove the needle plate and then use the brush to remove any lint and dust.

Carefully clean and dust under and around the needle plate spacer before replacing the needle plate.



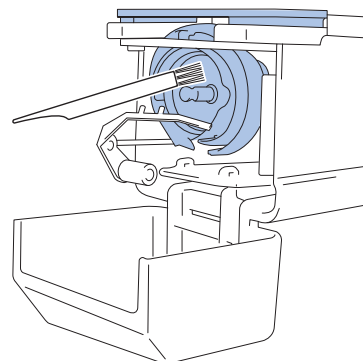
① Needle plate spacer



Note

- Since lint easily collects around the needle plate, it should be cleaned periodically.
- While cleaning, be careful not to lose the spacer.

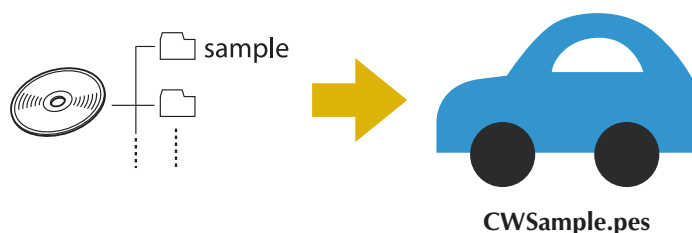
- 3 Open the hook cover, remove the bobbin case, and then use the brush to remove any fabric scraps and lint.



USING THE MACHINE TO POSITION EMBROIDERY PATTERNS FOR CREATING CUTWORK

Sample Pattern

Enjoy creating cutwork patterns on your machine. The procedures for editing a cutwork pattern are described as follow. The sample pattern used in this instructions is contained in the supplied CD-ROM (for machines).



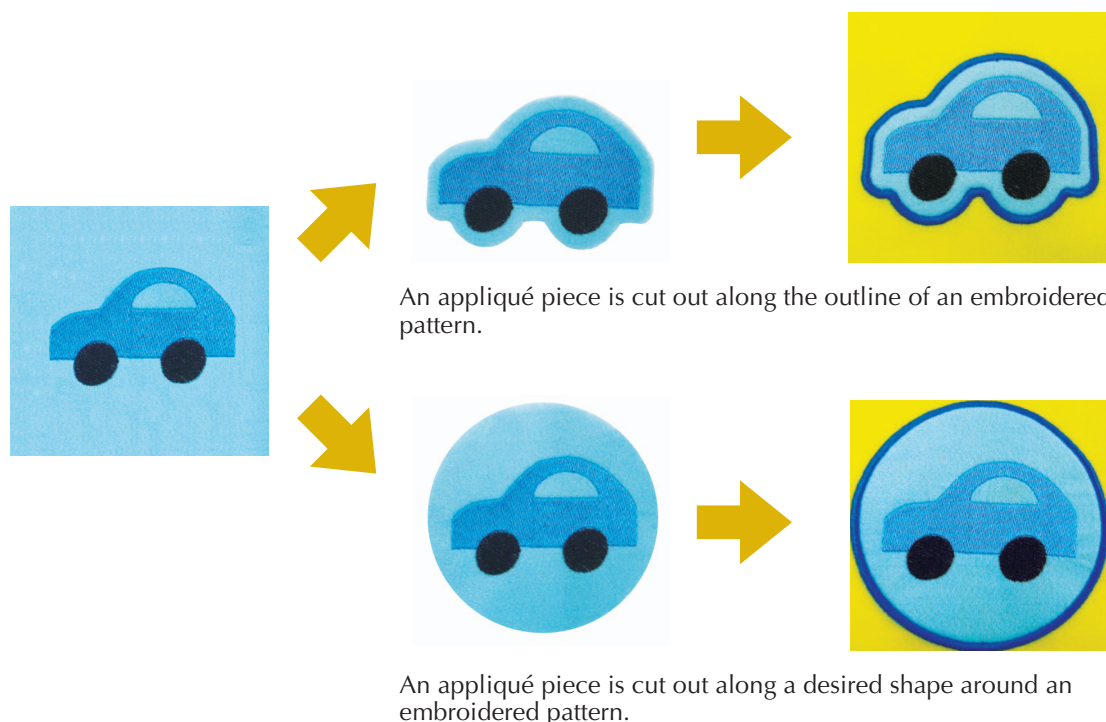
Using Editing Functions on Embroidery Patterns

From the machine, a cutwork pattern can be designed by either cutting out an embroidery pattern or outlining it with satin stitching.

■ Creating an Appliqué from an Embroidery Pattern (page 20)

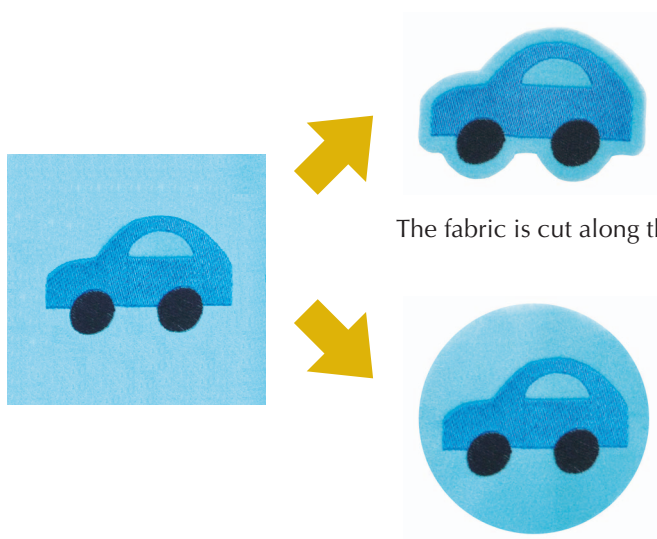
An embroidery pattern can be selected to create an appliqué with a desired shape.

After embroidering and cutting out an appliqué piece, it can be attached to fabric with satin stitching.



■ Cutting Around an Embroidered Pattern (page 23)

After a pattern has been embroidered, it can be cut out following the shape of the pattern or in a desired shape. This is useful for cutting out only the pattern to create an appliqué piece.



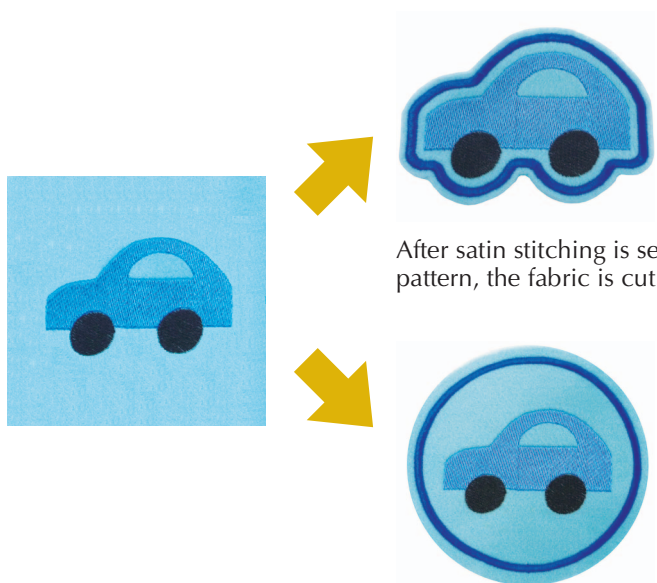
The fabric is cut along the outline of an embroidered pattern.

The fabric is cut in a desired shape around an embroidered pattern.

■ Satin Stitching Around an Embroidery Pattern, then Using the Cutwork Needles to Cut the Design Out (page 24)

After satin stitching is sewn in a desired shape around the embroidered pattern, it can be cut out along that outer boundary.

This is useful for adding an artistic touch to the pattern. In addition, this is best suited for making patches.



After satin stitching is sewn along the outline of an embroidered pattern, the fabric is cut.

After satin stitching is sewn in a desired shape around an embroidered pattern, the fabric is cut.

Creating an Appliqué from an Embroidery Pattern → 3

The procedure for cutting out an embroidered piece along the outline or desired shape to create an appliqué is described below.



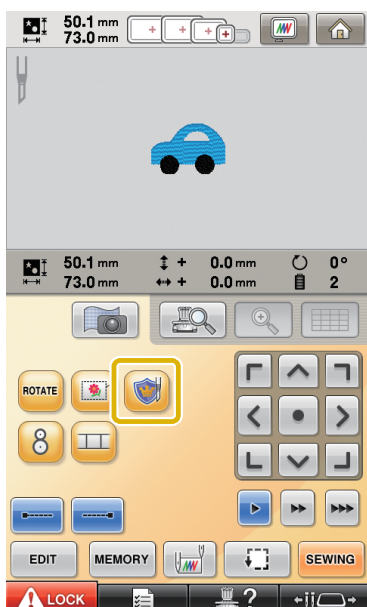
Memo

- For details on making an appliqué, refer to “Appliqué Sewing” in chapter 7 of your machine’s Instruction and Reference Guide.

■ Creating an appliqué with the outline around a pattern



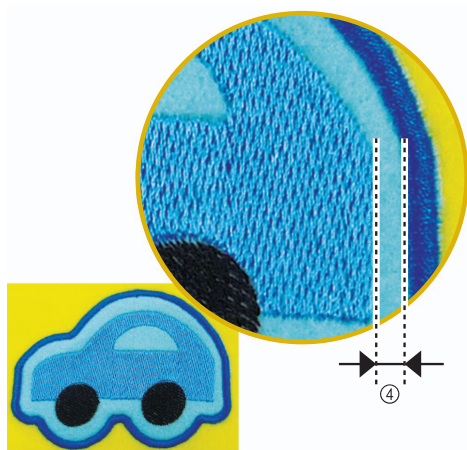
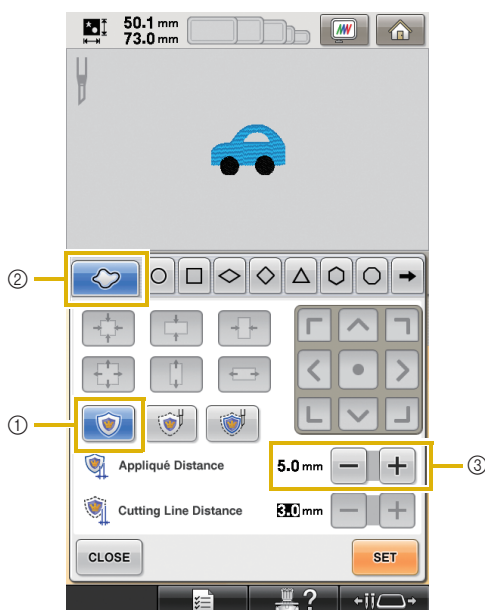
- 1 Set the embroidery machine to Cutwork mode and turn it off. Turn the machine back on after inserting the cutwork needles. (page 11, 12)
- 2 After selecting the pattern, touch in the embroidering settings screen.



→ The pattern settings screen appears.

- 3 Touch , and make sure is highlighted.

With the “Appliqué Distance” keys, specify the distance of the appliqué outline from the embroidery pattern.



- ① Appliqué key
- ② Outline tab
- ③ Appliqué Distance keys
- ④ Distance between appliqué outline and pattern edge



Note

- Grayed-out keys are unavailable for use in this operation. Available keys vary depending on the cutout design and the specified settings.

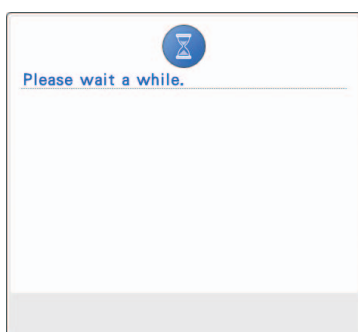


Memo

- “Appliqué Distance” can also be specified on page 2 of the Settings screen.

4 Press .

→ The following messages appear.



5 Check the displayed preview, and then touch if it is acceptable.

If desired distance is not acceptable touch  and repeat step 5.



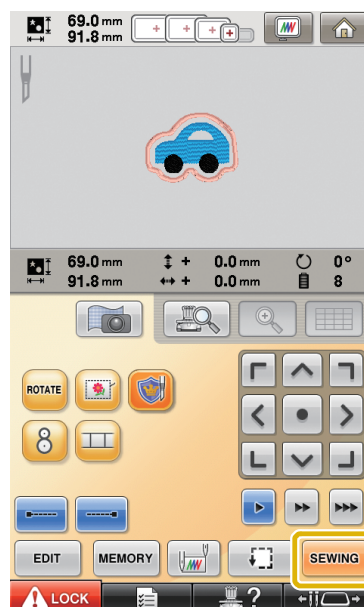
→ The embroidering settings screen appears again.



Memo

- Touching  in the embroidering settings screen after specifying the settings clears all settings and edited data described above.
- An appliqué piece can also be created by using water-soluble stabilizer, instead of fabric, as the appliqué base. For details on making an appliqué piece, refer to “Creating an appliqué piece” in chapter 4 of your machine’s Instruction and Reference Guide.

6 Press .



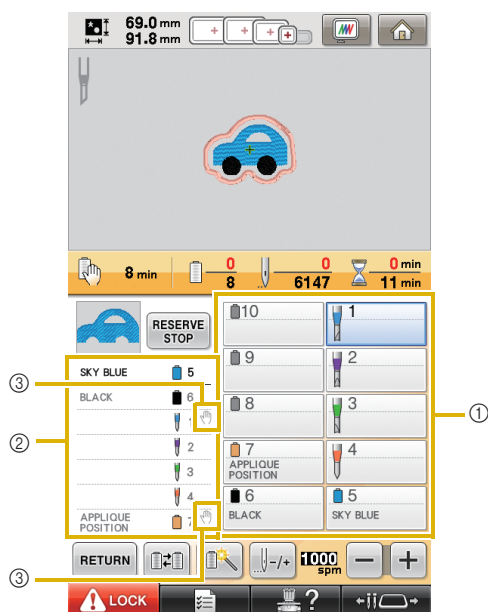
→ The embroidering screen appears.



Note

- If necessary, touch  on the top right side of the screen to display a preview image, and then touch  on the following screen to display an enlarged view of the pattern, in order to check the pattern position.

- 7 With the thread color sequence display and sewing order, check the thread colors and sewing order.



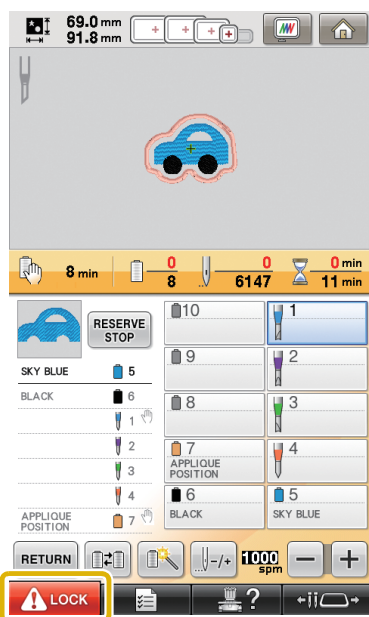
- ① Needle bar key/Thread color set up display
- ② Thread color sequence display
- ③ Indicates that the machine will stop before the embroidering (or cutting) function is preformed.



Note

- Specify pause locations, if necessary, referring to “Specifying Pause Locations Before Embroidering” on page 29.

- 8 Touch **LOCK**, and then press the start/stop button to start embroidering.



Memo

- An appliqué piece can be created along the outline of an embroidered pattern even when Cutwork mode is turned off. With Cutwork mode turned off, the cutting line “**APPLIQUE MATERIAL**” is embroidered, instead of it being cut out.
- For details on making an appliqué, refer to “Appliqué Sewing” in chapter 7 of your machine’s Instruction and Reference Guide.

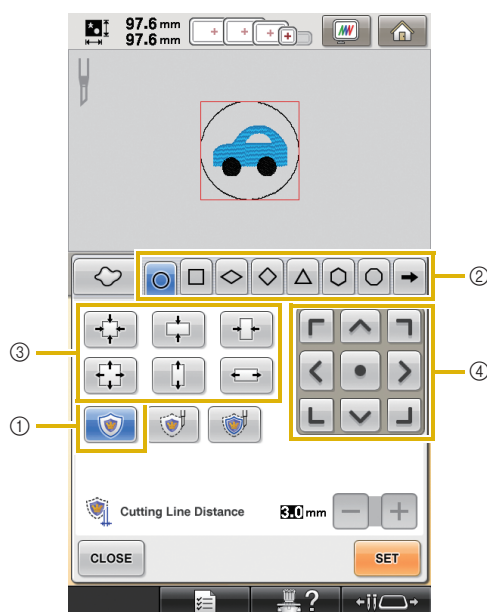
Creating an appliqué with a desired frame shape



- 1 Follow steps ① and ② in “Creating an appliqué with the outline around a pattern” on page 20.

- 2 Touch . Next, touch  until the desired frame shape appears, and then select it.

If desired, change the size and position of the frame.



- ① Appliqué key
- ② Frame type keys
- ③ Frame resizing keys
- ④ Frame positioning keys

- 3 Continue the procedure starting with step 4 in “Creating an appliqué with the outline around a pattern” on page 20.



Memo

- An appliqué piece can be created along a desired shape around the embroidered pattern even when Cutwork mode is turned off. With Cutwork mode turned off, the cutting line “**APPLIQUE MATERIAL**” is embroidered, instead of it being cut out.

Cutting Around an Embroidered Pattern → 3

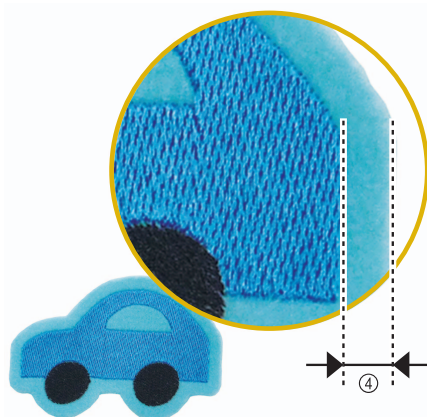
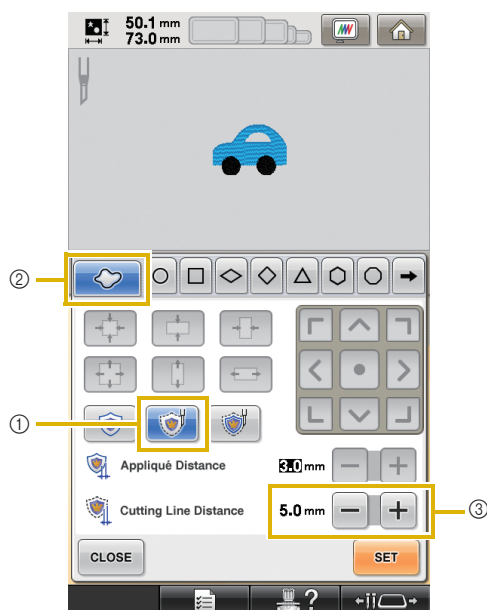
■ Cutting the fabric along the outline of a pattern



- 1 Follow steps 1 and 2 in “Creating an appliqué with the outline around a pattern” on page 20.

- 2 Touch and make sure is highlighted.

With the “Cutting Line Distance” keys, specify the distance of the cutting line from the embroidery pattern.



- ① Cut key
- ② Outline tab
- ③ Cutting Line Distance keys
- ④ Distance between cutting line and pattern edge



Note

- Grayed-out keys are unavailable for use in this operation. Available keys vary depending on the cutout design and the specified settings.



Memo

- “Cutting Line Distance” can also be specified on page 2 of the Settings screen.

- 3 Continue the procedure starting with step 4 in “Creating an appliqué with the outline around a pattern” on page 20.

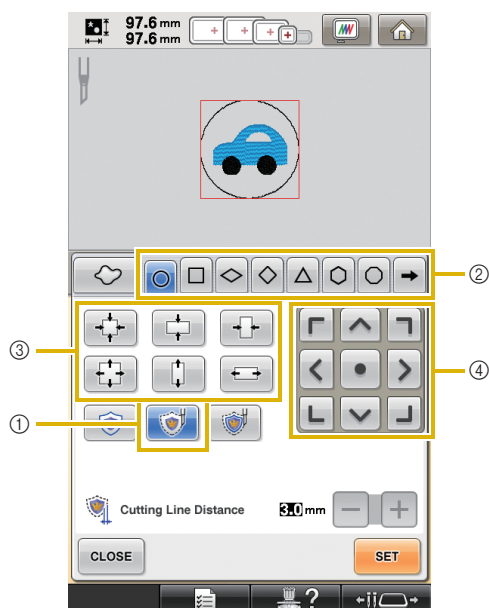
■ Cutting the fabric along the outline of a desired frame shape



- 1 Follow steps 1 and 2 in “Creating an appliqué with the outline around a pattern” on page 20.

- 2** Touch . Next, touch  until the desired frame shape appears, and then select it.

If desired, change the size and position of the frame.



- ① Cut key
- ② Frame type keys
- ③ Frame resizing keys
- ④ Frame positioning keys

- 3** Continue the procedure starting with step ④ in “Creating an appliqué with the outline around a pattern” on page 20.

Satin Stitching Around an Embroidery Pattern, then Using the Cutwork Needles to Cut the Design Out

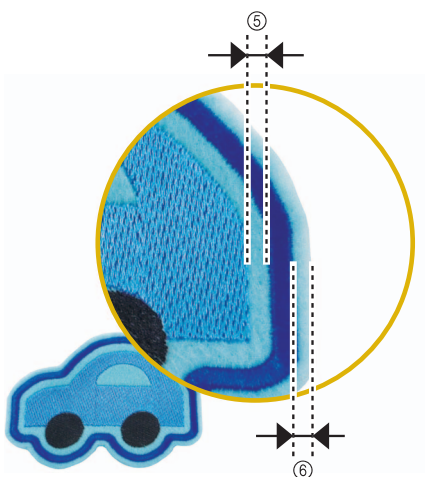
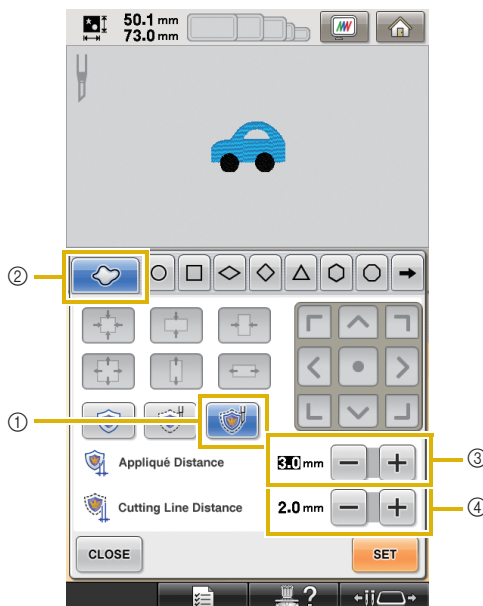
■ Satin stitching along the outline of a pattern, then cutting the fabric



- 1** Follow steps ① and ② in “Creating an appliqué with the outline around a pattern” on page 20.

- 2** Touch , and make sure  is highlighted.

With the “Appliqué Distance” keys, specify the distance of the satin stitching from the edge of the pattern. With the “Cutting Line Distance” keys, specify the distance of the cutting line from the edge of the satin stitching.



- ① Satin & Cut key
- ② Outline tab
- ③ Appliqué Distance keys
- ④ Cutting Line Distance keys
- ⑤ Distance between satin stitching and pattern edge
- ⑥ Distance between cutting line and edge of satin stitching (outlining the pattern)



Note

- Grayed-out keys are unavailable for use in this operation. Available keys vary depending on the cutout design and the specified settings.



Memo

- “Appliqué Distance” and “Cutting Line Distance” can also be specified on page 2 of the Settings screen.

- Continue the procedure starting with step 4 in “Creating an appliqué with the outline around a pattern” on page 20.

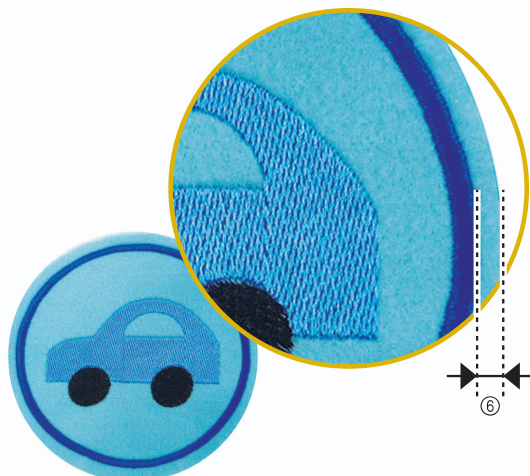
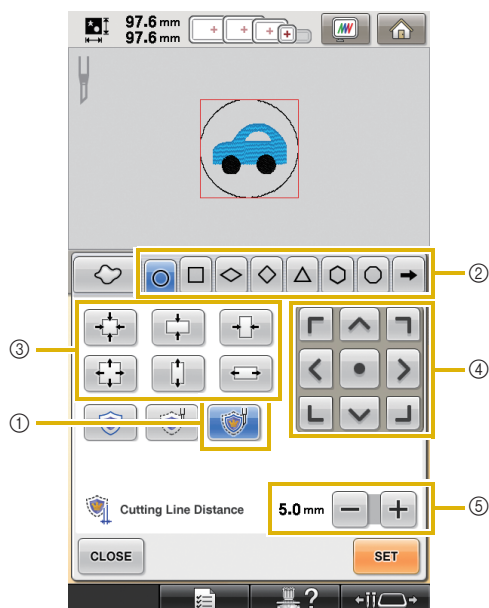
■ Satin stitching along the outline of a desired frame shape, then cutting the fabric



- Follow steps 1 and 2 in “Creating an appliqué with the outline around a pattern” on page 20.

- Touch . Next, touch until the desired frame shape appears, and then select it.

After changing the size and position of the frame, use the “Cutting Line Distance” keys to specify the distance of the cutting line from the edge of the satin stitching.



- Satin & Cut key
- Frame type keys
- Frame resizing keys
- Frame positioning keys
- Cutting Line Distance keys
- Distance between cutting line and edge of satin stitching (frame)

- Continue the procedure starting with step 4 in “Creating an appliqué with the outline around a pattern” on page 20.

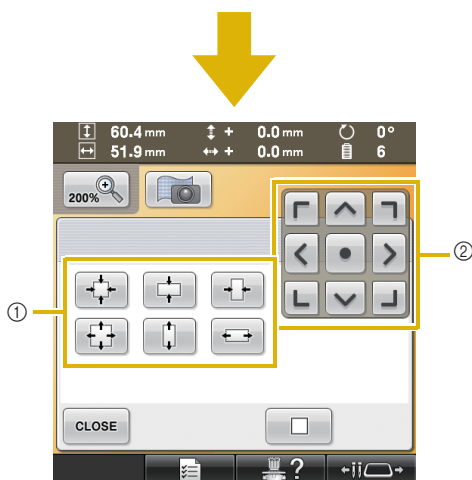
Editing Cutwork Patterns

■ Notes on creating cutwork patterns

- Cutwork cannot be created if the pattern is too large or too complicated or an outline has been applied to a combined pattern. Even if the selected pattern fits within the embroidering area, the entire pattern may exceed the embroidering area when the outline is added. For details on the error messages that appear when creating patterns, refer to “ERROR MESSAGES” on page 32.
- We recommend using the imported cutwork patterns without editing them. Rotating or resizing cutwork patterns may cause the cutting line and pattern to become misaligned or it may not be cleanly cut. Be sure to sew trial embroidery using same fabric and threads as project in order to check the embroidering and cutting results.
- The color of the cutting line in the preview screens differ depending on the background color of the pattern display area.

■ Changing the size of cutwork patterns by using the stitch recalculator function (For use only with Embroidery Upgrade Kit I sold separately)

The size of cutwork patterns **cannot** be changed using the stitch recalculator function. To enlarge or reduce the patterns, use the normal resizing mode.



- ① Frame resizing keys
- ② Frame positioning keys

Arranging Multiple Copies of a Single Pattern to Make All Cuts at One Time → 3

We recommend the following procedure for arranging multiple copies of a single pattern in order to make all cuts at one time.



Note

- When arranging multiple copies of a single pattern to make all cuts at one time, we recommend using the table sold separately (Part Code: ENTABLE), in order to ensure a smooth flow of the fabric.

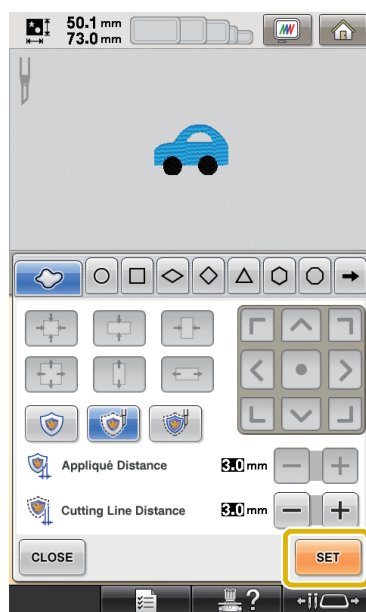


Memo

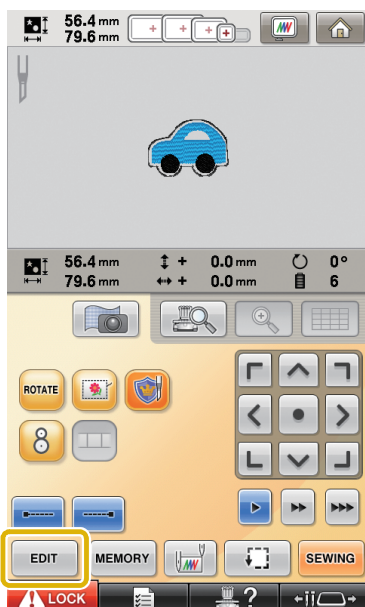
- The following procedure describes how to duplicate cutwork patterns using the editing functions built into your machine, so that all of the cutting steps are preformed at one time. When using a cutwork pattern imported into the machine, start from step 4.

1 Follow steps ① and ② in “Cutting the fabric along the outline of a pattern” on page 23.

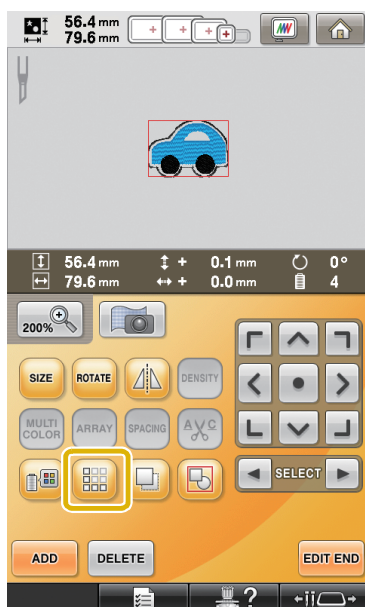
2 Touch **SET** and then touch **OK**.



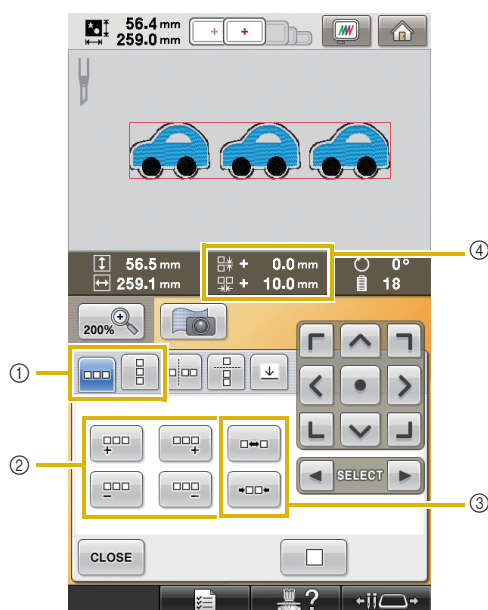
3 Touch **EDIT**.



4 Touch in the pattern editing screen.



5 Select the direction in which the pattern will be repeated, and then adjust the spacing of the repeated pattern.



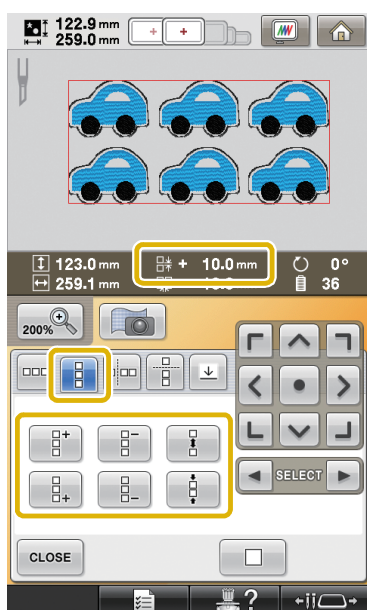
- ① Horizontal and vertical direction
- ② Repeating and deleting keys
- ③ Spacing keys
- ④ Pattern spacing



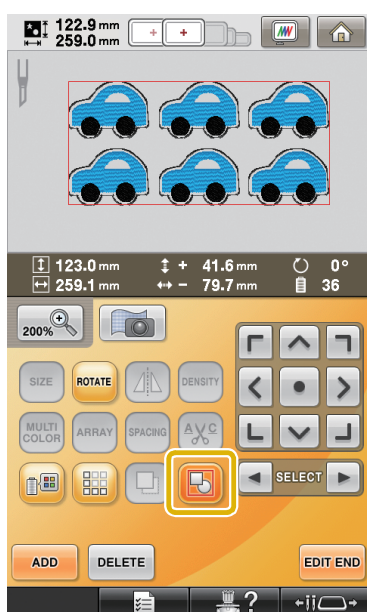
Note

- For details on the border function, refer to “Designing repeated patterns” in chapter 5 of your machine’s Instruction and Reference Guide.
- We recommend spacing of more than 10 mm between the patterns. Making spaces of less than 10 mm may cause pattern shrinkage or distortion during embroidering and cutting.

- 6 Specify the settings for the vertical direction, and then touch **CLOSE**.



- 7 Touch  to ungroup the patterns.



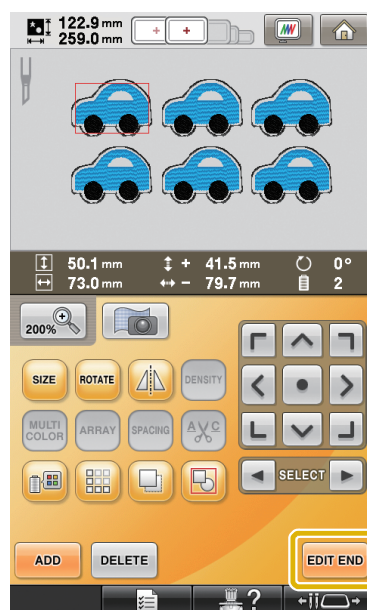
→ Color sorting in the sewing order is canceled.



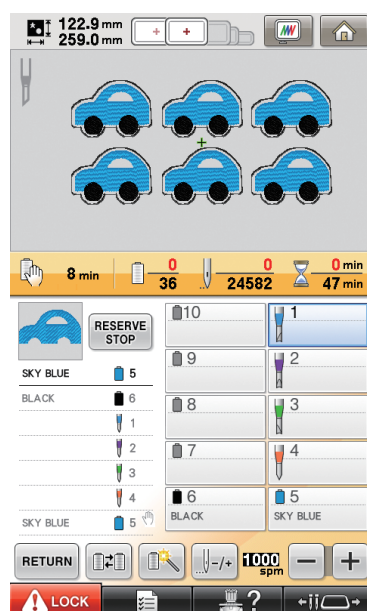
Note

- We recommend ungrouping the patterns in order to cancel color sorting and create a cleaner finish for the sewing.
- Specify pause locations, if necessary, referring to “Specifying Pause Locations Before Embroidering” on page 29.

- 8 Touch **EDIT END**, and then touch **SEWING** on the ensuing embroidering settings screen.



- 9 Check the machine display, and then start embroidering.



Memo

- If the pattern that is used has no more than 6 colors (with the 10-needle machine) or no more than 2 colors (with the 6-needle machine), there will be no need to change the thread colors, resulting in a shorter sewing time.

Specifying Pause Locations Before Embroidering

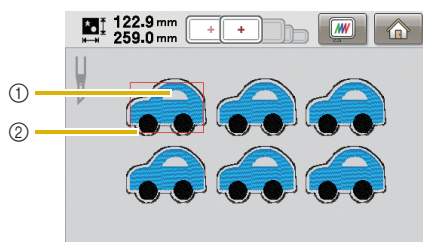
The timing for stopping the machine (pause locations) can be checked in the screen and, if necessary, pause locations can be specified. Pause locations can be specified in the change

thread color screen, displayed by touching .

By setting pause locations, as may be necessary, you can make sure if the embroidering is being successfully performed during an operation. Also, when creating cutwork by arranging multiple appliqué patterns, depending on the finished product, it may be necessary to pause the machine and change the fabric accordingly.

■ Checking/adding the pause location

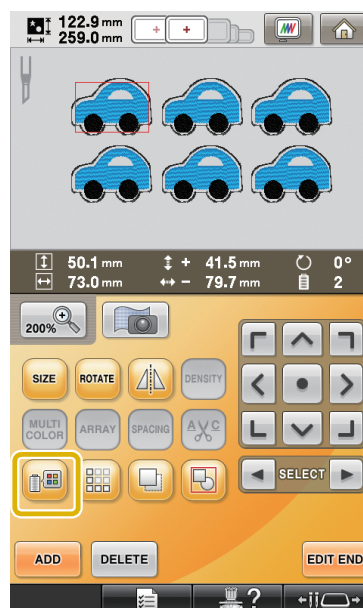
Create a sample of the procedure described in “Arranging Multiple Copies of a Single Pattern to Make All Cuts at One Time” following steps ① on page 26 through step ⑦ on page 28. The instructions on how to pause the machine before cutting the first pattern out are provided as follow.



- ① First pattern to be embroidered
- ② Cutting line

- 1 Touch  in the pattern editing screen that appears after you finish editing the patterns.

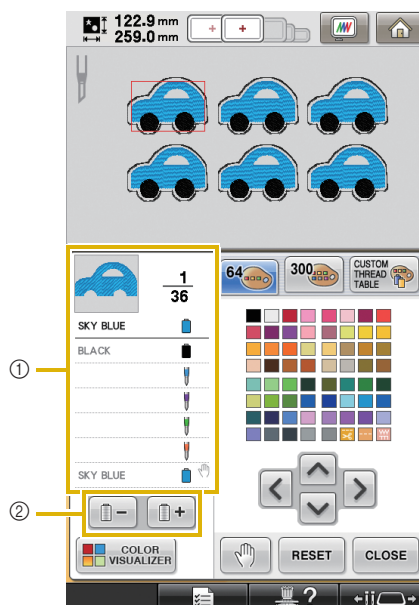
In this example, touch  after you ungroup the pattern shown in step ⑦ on page 28.



→ The change thread color screen appears.

- 2 Use  and  to check all the pause locations () displayed in the thread color sequence display.

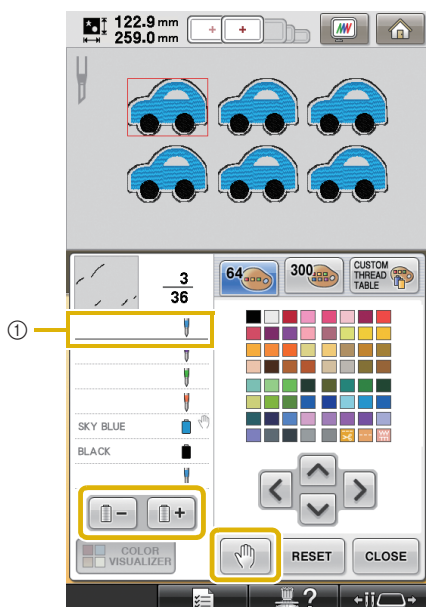
In this example, a pause location is specified before embroidery begins after a previous pattern is cut out.



- ① Thread color sequence display
- ② Select the next/previous color in the thread color sequence display.

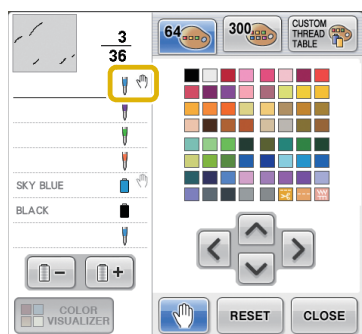
- 3** Use and to display the thread color (or cutwork needle) where the machine will be paused before being sewn (being cut) at the top of the thread color sequence display, and then touch .

In this example, specify a pause location as follow to pause the machine before the first pattern is cut out.



- ① Thread color (or cutwork needle) where you wish to stop the machine before embroidering it (cutting it)

→ appears to indicate where the machine will be paused.



Note

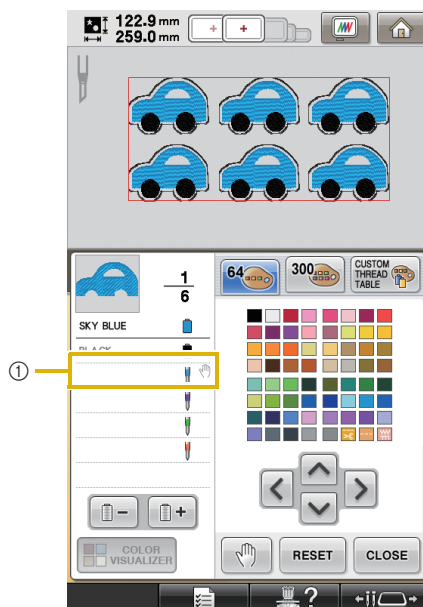
- Complete pattern editing before you start checking/adding/deleting pause locations for the selected pattern.

- 4** Touch .



Memo

- If the patterns are grouped, the sewing order of colors in the combined border embroidery pattern is automatically changed so that the same color can be continuously sewn.

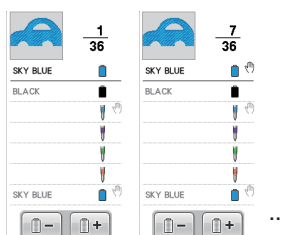


- ① Pause location

The pause locations are specified as follow after you ungroup the patterns by touching



in the pattern editing screen.



■ Deleting a pause location

Refer to step **3** to display the thread color (or cutwork needle) with the pause location to be deleted at the top of the thread color sequence display, and then touch .

An unnecessary pause location can also be deleted after a trial embroidery.



CAUTION

- Be careful when deleting pause locations. If a pause location is incorrectly deleted, the fabric may be cut or embroidered at an unintended location.

Importing Cutwork Patterns

Importing

- Cutwork patterns cannot be imported if the machine is not in Cutwork mode.
- Cutwork patterns in the following data formats can be imported
 - PES*/PHC (when saved on the machine's memory)
 - * Only cutwork patterns either included on the supplied CD-ROM or created in Palette Version 9.2 with Cutwork can be correctly recognized and work properly with the cutwork functions.

Saving/Exporting Cutwork Patterns

Saving

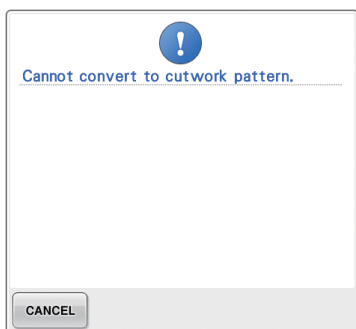
- Cutwork patterns can be saved in the machine's memory.
- Cutwork patterns saved on the machine's memory are all converted to data in the PHC format.

Exporting

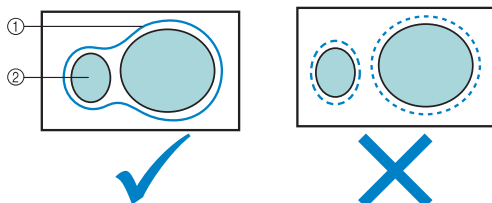
- Cutwork patterns cannot be exported.

ERROR MESSAGES

Depending on the pattern type or method used to create it, some cutwork patterns may not be created or imported properly. In these cases, error messages will appear. If the following error messages appear, select a different pattern or, if necessary, edit the pattern. Possible causes of errors and their solutions are described for various error messages.



When there are two or more objects recognized as cutwork patterns or appliqué pieces

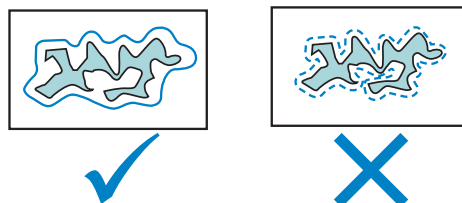


- ① Cutwork pattern or appliqué piece
- ② Input pattern

Solution

- Select a different pattern.
- Increase “**Appliqué Distance**” and “**Cutting Line Distance**” so that the combined pattern will have a single cutting line.
- Shorten the distance between the objects so that the combined pattern will have a single cutting line.

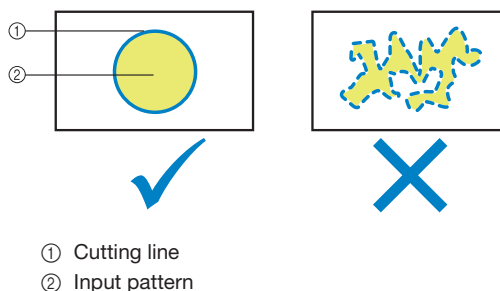
When the outline of a cutwork pattern or pattern used for appliqué piece is complicated



Solution

- Select a different pattern.
- Increase “**Appliqué Distance**” and “**Cutting Line Distance**” to simplify the outline.
- Reducing the size of the pattern may be useful depending on the pattern type.

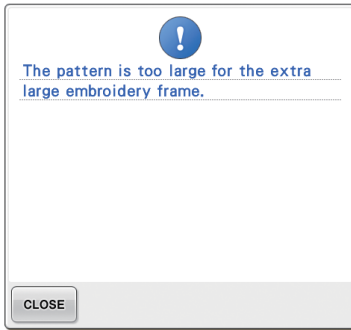
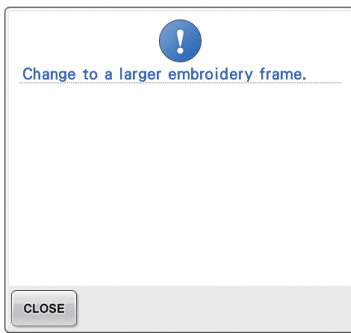
When “APPLIQUE MATERIAL” of an imported pattern is complicated



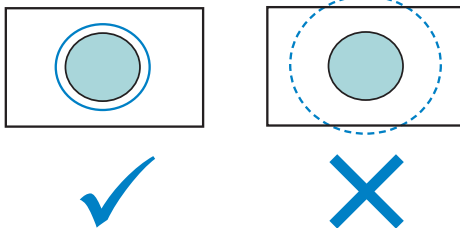
- ① Cutting line
- ② Input pattern

Solution

- Select a different pattern.
- Edit the pattern to simplify the shape of “**APPLIQUE MATERIAL**”.



When the cutting line for a cutwork pattern or appliqué piece exceeds the embroidering area



- Select a different pattern.
- Use a larger embroidery frame to hoop the fabric (when a larger frame is available for use).
- Reposition the selected pattern.
- Resize the selected pattern or decrease "**Appliqué Distance**" and "**Cutting Line Distance**" so that the cutting line fits within the embroidering area.

In order to import cutwork patterns, the machine must be switched to Cutwork mode. If the following error message appears, set the machine to Cutwork mode. For details, refer to "Switching to Cutwork Mode" on page 11.



