

On Screen Designer ver.1.0

Embroidery Data Creation Software

Instruction Manual

- Before using this software, be sure to read this Instruction Manual for information on the correct use of the software.
- Keep this Instruction Manual in a safe place for future reference.

Introduction

Thank you for using our embroidery design software On Screen Designer. On Screen Designer enables you to create original embroidery patterns from the screen of your Baby Lock household computerized sewing machine equipped with an embroidery function. Carefully read the instructions contained in this manual in order to fully understand each of the various functions and the correct operation of this software.

Note:

This Instruction Manual does not contain explanations on the operation of the sewing machine. For details on using the sewing machine functions to edit embroidery patterns, refer to the Instruction Manual for the sewing machine.

Important:

Use of this software for unauthorized duplication of optional embroidery cards or newspapers, magazines, etc. for commercial purposes may be unlawful and violate copyright laws.

This application is protected by copyright laws. The use and duplication of this software is regulated by copyright laws.

This software is for household use only.

Safety Precautions

Note:

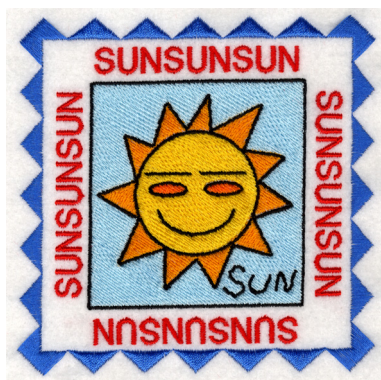
For safety precautions concerning the sewing machine, refer to the Instruction Manual provided with the sewing machine. Use the sewing machine safely and correctly, as described in the Instruction Manual.

What You Can Do With This Software

This software allows you to create original patterns just by using the pen to draw images and text on the screen of the sewing machine and painting the drawing with the desired colors as easily as drawing images and text on paper with a pen.

Until now, you could select various characters from those available, combine them, and then embroider the characters. However, now you can write your signature on the screen, and then embroider it.

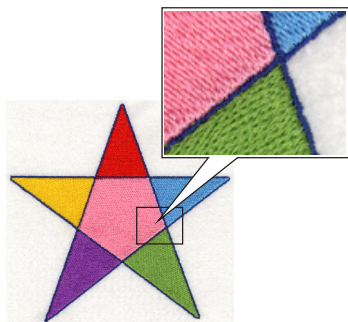
The created embroidery patterns can be resized, combined with characters and images and freely arranged in the sewing machine's embroidering or embroidery-editing screen in the same way that built-in embroidery patterns are.




Embroidery patterns that can be created with this software

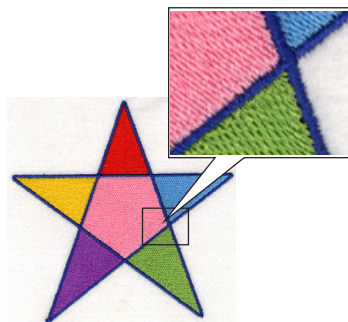
Lines of the drawing are sewn with satin stitches and areas are sewn with fill stitches. The following settings can be specified.

- ① Satin stitch (lines): thickness and stitch density
- ② Fill stitch (areas): sewing direction and stitch density




Line thickness: 1.0 mm

Fill stitch sewing direction: 



Line thickness: 3.0 mm

Fill stitch sewing direction: 

Chapter 1 Before Use

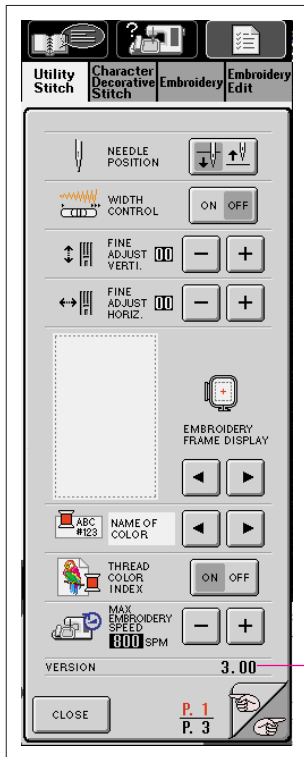
CHECKING


Sewing Machine

On Screen Designer can be used with any of the following sewing machines. Check that your sewing machine model and its program version meets the following requirements.

Models: ESG, ESG2, and ESG3

Program version: Ver. 3.0 or later



* The program version can be checked by pressing  (Setting) key. For more details, refer to the Instruction Manual provided with the sewing machine.

① Displayed here

For upgrade information, consult with your Babylock dealer; or visit our website at www.babylock.com.

Floppy Disks

Important:

Data on floppy disks may be lost due to normal wear of the disks. Therefore, in order to prepare for the event that a floppy disk can no longer be used, we recommend that you back up the application software.

The sewing machine reads this software and starts it up from floppy disks. In addition, data created with this application is stored on the floppy disks. Follow the precautions below when handling the floppy disks.

- Be sure to use Windows-formatted 2HD floppy disks.
- Data on floppy disks may be lost due to normal wear of the disks. We recommend that you back up important data.
- Do not insert a floppy disk containing pattern data other than those saved using our application. (Only .pmd and .phc data can be used.)
- If the magnetic head is dirty, data on floppy disks may not be read correctly. We recommend using a commercially available cleaning disk to periodically clean the magnetic head. (For details on cleaning, refer to the Instruction Manual provided with the sewing machine.)
- Do not leave floppy disks in a dusty location, for example, where they are exposed to paper dust, otherwise the disks may be damaged. Be sure to store floppy disks in a hard case.
- Do not leave floppy disks where they are exposed to magnetic fields, such as near televisions or magnets, otherwise the data may be lost.
- When storing data on floppy disks, the floppy disks must not be write-protected.
- If the file name of embroidery data cannot be identified, for example, the name contains special characters, the names are not displayed. If this occurs, change the name of the file.
- Do not create folders in floppy disks. If embroidery data is stored in a folder, that embroidery data cannot be displayed by the sewing machine.

Precautions on the Use of the Display

- Only touch the screen with your finger or the pen included with the sewing machine. Do not use a mechanical pencil, screwdriver or any other hard or sharp object. In addition, do not press the screen with extreme pressure, otherwise the screen may be damaged.
- All or part of the screen may sometimes become darker or lighter due to changes in the surrounding temperature or other changes in the environment. This is not a sign of a malfunction. If the screen is difficult to read, adjust its brightness.
- The screen may be dark immediately after the sewing machine is turned on. This is a normal characteristic of the backlight and is not a malfunction. After approximately 10 minutes, the screen should reach its normal level of brightness.
- If you are not directly facing the screen, the colors may be distorted or the screen may be difficult to read. This is a normal characteristic of the screen and is not a malfunction. Be sure to sit in front of the screen while using it.




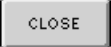
SETTING THE SEWING MACHINE TO START UP THE SOFTWARE

The sewing machine must first be set so that On Screen Designer can be started up. APPLICATION CHECK on the settings screen must be set to ON. If the sewing machine is turned on with a floppy disk inserted, the machine checks the software on the floppy disk, and

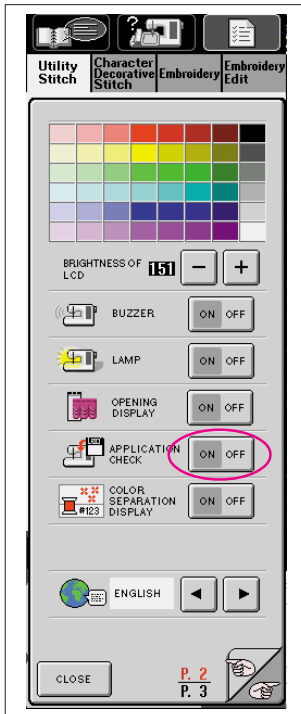
then starts it up.

1 Turn on the sewing machine.

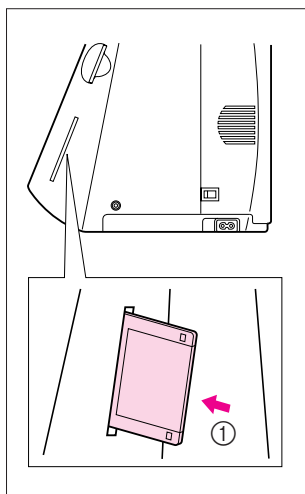
2 Press , and then press  to display the next screen.

3 Press  APPLICATION CHECK so that it changes to , and then  press .

4 Turn off the machine.



STARTING UP ON SCREEN DESIGNER



- 1 Insert the floppy disk containing the application into the floppy disk drive slot on the right side of the machine.

① Fully insert the floppy disk.

Caution

- Do not insert anything other than floppy disks into the floppy disk drive slot, otherwise the floppy disk drive may be damaged.
- Do not insert a floppy disk containing pattern data other than those saved using our application. (Only .pmd and .phc data can be used.)

- 2 Turn on the sewing machine.

- 3 With your finger, lightly press the opening screen. A screen that allows you to select the application or sewing machine, like that shown at the left, appears.

* If a floppy disk that does not contain the application is inserted, the Utility Stitch screen appears.

- 4 Press the icon for the application. On Screen Designer starts up.

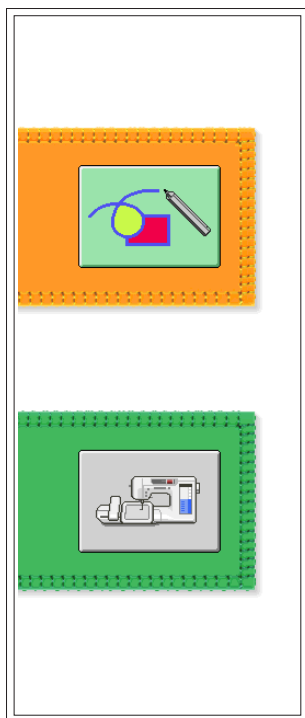
* Startup takes about 20 seconds.

Caution

Do not turn off the machine or eject the floppy disk while the application is starting up, otherwise the disk may be damaged.

Caution

After startup, we recommend ejecting the floppy disk. Do not save data on the floppy disk containing the software; use a different floppy disk.



Closing the Application

- 1 To close On Screen Designer, turn off the sewing machine.

To close the application to use the sewing machine, press

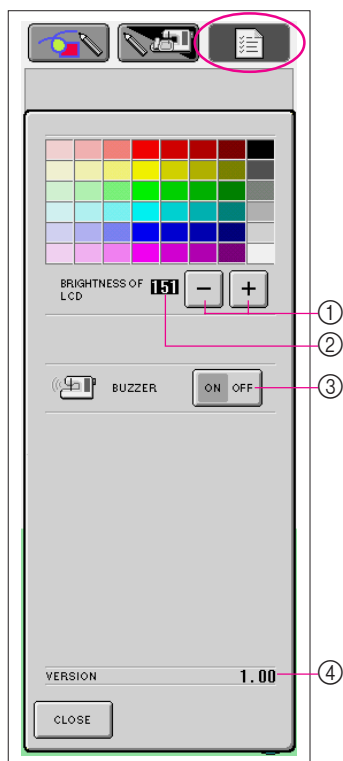



(Refer to page 43.)

Caution

When the application is closed, the currently displayed data is deleted. Be sure to save any necessary data before closing the application.



KEY OPERATIONS (ADJUSTING THE SCREEN, CHANGING THE BUZZER SETTING AND CHECKING THE VERSION NUMBER)





1 Press  to display the screen shown at the left.



- ① Allows you to adjust the density of the screen
- ② Current density setting
- ③ Turns on/off the buzzer
- ④ Displays the version information for On Screen Designer

Adjusting the Screen

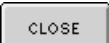
Press  and  to adjust the brightness of the screen so that adjustments can be clearly viewed.

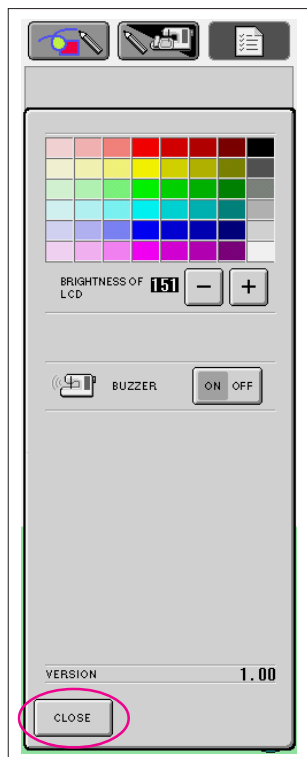
To make the screen lighter, press . To make the screen darker, press .

Buzzer

When set to ON, a beeping sound is produced each time a key is pressed. Press  so that it changes to .

* The screen brightness and the buzzer settings depend on the settings of the sewing machine. If the settings are changed in On Screen Designer, the sewing machine settings are changed in the same way.

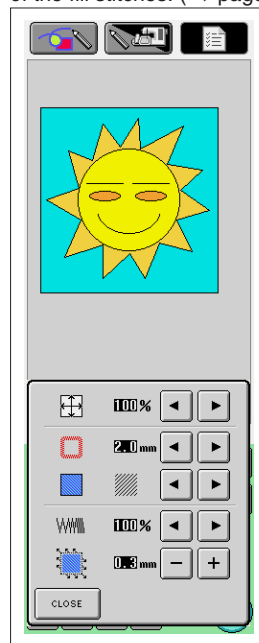
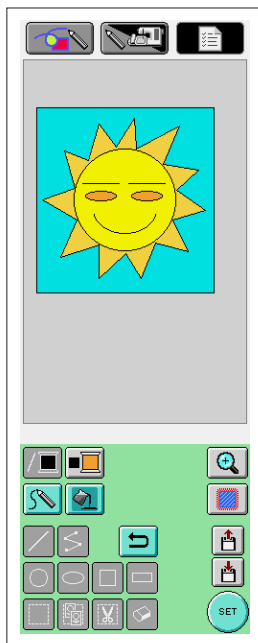
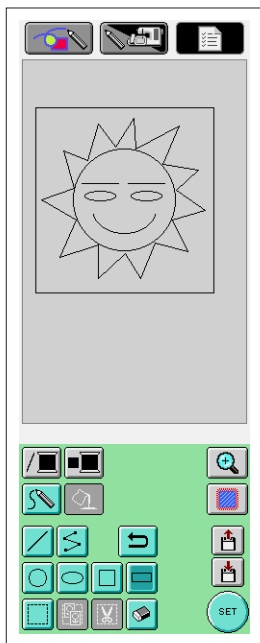
2 After the desired settings are specified, press .



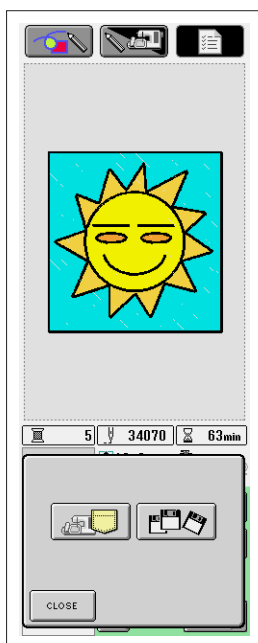
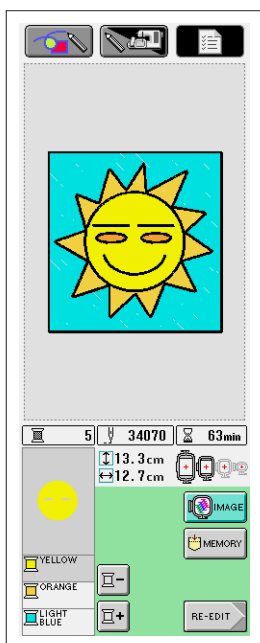
BASIC PROCEDURE OVERVIEW

The basic procedure is described below. For details, refer to the indicated page.

- 1** Draw the lines of the pattern in the pattern drawing screen. (→ page 12)
- 2** Add color to the pattern. (→ page 24)
- 3** Specify the stitching settings. Specify the width of the satin stitches and the sewing direction of the fill stitches. (→ page 29)



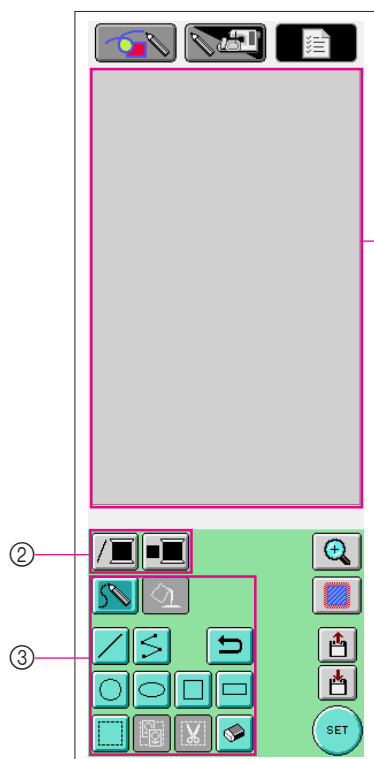
- 4** Convert the image data to embroidery data. The embroidery data check screen appears. (→ page 33)
- 5** Save the embroidery data in the sewing machine's memory or on a floppy disk. (→ page 35)



APPLICATION SCREENS

Pattern Drawing Screen

When On Screen Designer is started up, the following pattern drawing screen appears. The pattern can be drawn in this screen.



- ① Pattern drawing area
Draw the pattern within this area.
The actual dimensions of the pattern are the size of the large embroidery frame (26 cm (height) × 16 cm (width)).
- ② Use to select the thread colors.
- ③ Pattern drawing keys
Use to draw the pattern.

Key displays

The appearances of the keys have the following meanings.



This key is selected (being used).
(When the application is started up, the freehand line key is selected.)





















This key is not but can be selected.



This key cannot be selected.

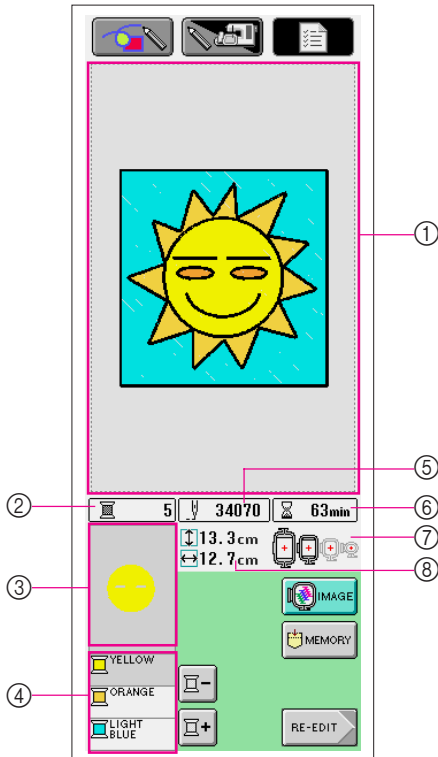
■ Key functions

Key	Key Name	Description	Reference
	New pattern key	Press this key when you want to begin creating a new pattern. When this key is pressed, the currently displayed data is deleted and the first screen displayed when On Screen Designer is started up appears.	42
	Machine function key	Press this key to close On Screen Designer and use the sewing machine. When this key is pressed, all data that had been drawn is erased.	43
	Settings key	Press this key to adjust the screen density and turn on/off the buzzer.	7
	Line thread color key	Press this key to select the color of the lines.	24
	Area thread color key	Press this key to select the color of an area.	25

Key	Key Name	Description	Reference
	Undo key	Press this key to undo the last operation that was performed and return to the condition before that operation was performed. Each press of this key undoes one operation.	13
	Freehand line key	Press this key to draw lines freehand.	12
	Straight line key	Press this key to draw straight lines.	16
	Continuous straight line key	Press this key to draw straight lines that are connected.	14
	Circle key	Press this key to draw circles.	13
	Ellipse key	Press this key to draw ellipses.	15
	Square key	Press this key to draw squares.	20
	Rectangle key	Press this key to draw rectangles.	20
	Select/move key	Press this key to select a section for moving, copying or deleting lines and shapes that have been drawn.	17, 18
	Copy key	Press this key to copy the selected section.	18
	Delete key	Press this key to delete the selected section.	19
	Erase key	Press this key to erase lines that have been drawn.	21
	Fill key	Press this key to fill areas with color. When a thread color for an area is selected, this key becomes available, indicating that an area can be filled with color.	26
	Zoom key	Press this key to display an enlargement of a specified section.	22, 27
	Stitching settings key	Press this key to specify stitching settings. Shrinkage adjustment, the width of satin stitches, the sewing direction of fill stitches and the stitch density can be specified.	29
	Store key	Press this key to save the image data onto a floppy disk.	39
	Recall key	Press this key to recall image data from a floppy disk.	40
	Convert key	Press this key to convert the image data to embroidery data.	33






Embroidery Data Check Screen

Once you are finished drawing the pattern, press the convert key in the pattern drawing screen to convert the image data to embroidery data. When the data is converted, the embroidery data check screen appears.

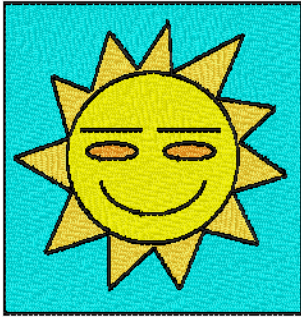


- ① Embroidery pattern display area
The actual dimensions of the pattern are the size of the large embroidery frame (26 cm (height) × 16 cm (width)). The pattern moves to the center of the display area and the embroidery data is displayed.
- ② The number of thread colors is displayed.
- ③ The part of the pattern that will be sewn with the thread color shown first in the thread order list below is displayed.
- ④ The names of the thread colors and their sewing order are displayed.
- ⑤ The total number of stitches is displayed.
- ⑥ The necessary amount of time required to sew the pattern is displayed. (The amount of time needed to change threads is not included.)
- ⑦ The types of embroidery frames that can be used are shown. The icons for the embroidery frames that can be used appear in color.
- ⑧ The size of the pattern is displayed.

Key functions

Key	Key Name	Description	Reference
	Next thread key	Press this key to show the part of the pattern that will be sewn with the next thread color when checking the sewing order. Each press of this key shows the next part of the pattern.	-
	Thread back key	Press this key to show the part of the pattern that will be sewn with the previous thread color when checking the sewing order. Each press of this key shows the previous part of the pattern.	-
	Image key	Press this key to view an image of the pattern as it will be sewn.	34
	Store key	Press this key to save the embroidery data.	35
	Return key	Press this key to return to the pattern drawing screen. The embroidery data is changed back to image data and the pattern colors can be changed or the pattern can be edited.	33

Chapter 2 Creating a Sample Pattern






In order to get a better understanding of how to use this software, we will describe the procedure for creating the pattern shown at the left as an example. By creating an actual pattern, you can learn to master the operation of this software.

1 Drawing the Lines of the Pattern



If the freehand line key is selected, the pen can be used to freely draw lines on the screen as easily as drawing images and text on paper with a pen.

Drawing Lines Freehand

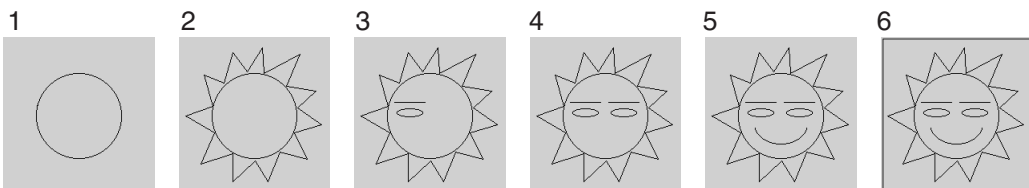
- 1 Press  so that it changes to . (When the application is started up, this key already appears as .)
- 2 Draw the images with the pen.

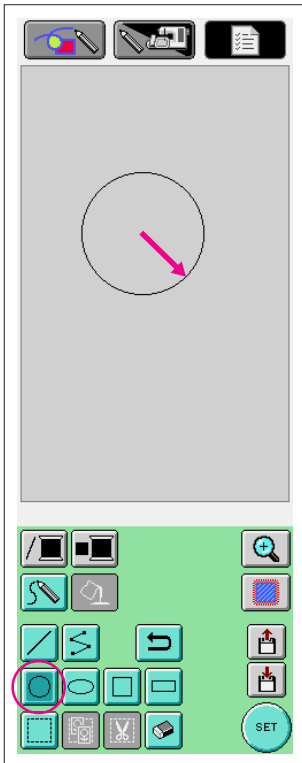
With the freehand line tool, lines can be drawn freely; however, circles and straight lines cannot be drawn perfectly. If one of the other graphics keys is selected, perfect circles and straight lines can be drawn. The procedures for using the graphics keys to draw are described on the following pages.

Caution

Do not try to fill an area with lines, otherwise the drawing cannot be converted to embroidery data.



We will draw the pattern in the following order.



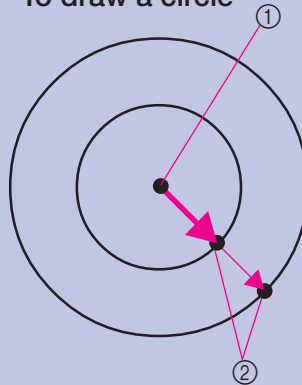


* The arrow in the illustration shown above indicates the direction that the pen is moved.

1. Drawing a Circle

- 1 Press  so that it changes to .
- 2 From the point that will be the center of the circle, drag the pen along the screen until the circle is the desired size.
- 3 When the circle is the desired size, remove the pen from the screen.

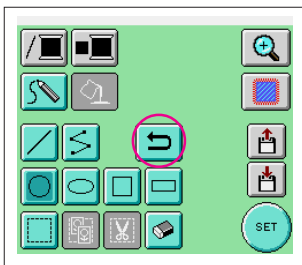
To draw a circle




The circle is drawn with the starting point as the center and the line connecting the starting point and the ending point as the radius. The size can be adjusted as desired until the pen is removed from the screen.


- ① Starting point
- ② Ending point

■ Creating the Desired Circle




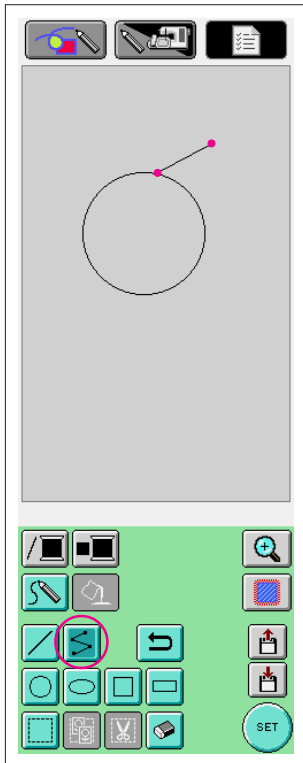
Undoing

If the position or size of the shape is not what you want, the drawn line can be erased so that it can be drawn again. There are many ways of erasing lines, but here we will explain how to use .



To undo the last drawing operation, press . The last operation that was performed is undone and the drawing returns to the condition before that operation was performed.

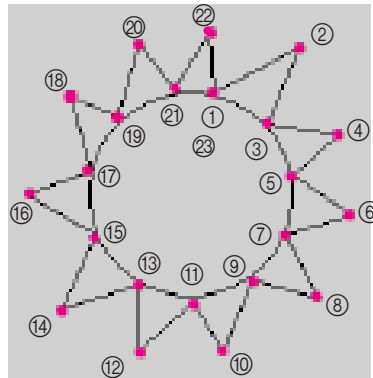
Notes

-  can be pressed at any time while the image is being drawn. For example, if a line is accidentally erased with a different operation, press this key to add back the line and return the drawing to its previous condition.
- Each press of this key undoes one operation.
- An undo operation cannot be undone. For example, this key cannot be pressed to add a line that was erased by pressing this key.

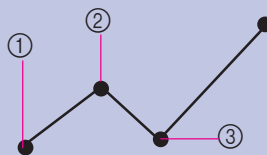


2. Drawing Straight Lines That Are Connected

- 1 Press  so that it changes to .
- 2 Touch the point that will be the beginning of the drawing.
- 3 Touch the next point where you wish to add a corner.
A straight line is drawn connecting the starting point and the next point touched.
- 4 Continue in the same way until you are finished drawing the line. A straight line is drawn connecting the last point to the starting point.



To draw straight lines that are connected



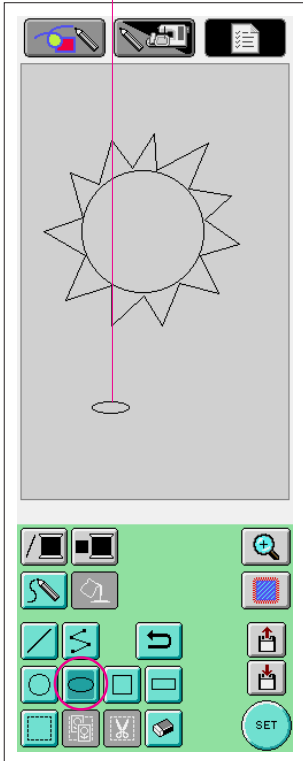
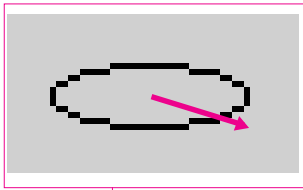
Each time you touch the screen with the pen, a straight line is drawn connecting the last point that was touched to the next point that is touched.

Each time the screen is touched a straight line is added to the polygon until a different key is selected.



- ① Starting point
- ② Next touched point
- ③ Next touched point

Next, draw the eyebrows and eyes.

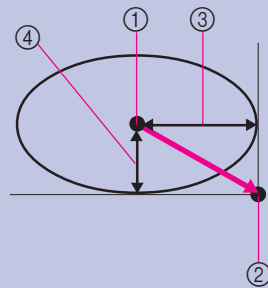
The eyebrows and eyes can be drawn directly inside the circle; however, in order to draw them in the correct positions so that they are balanced, we will draw them in a different place, and then move them. In addition, so that the left and right eyebrows and eyes will be the same size, after drawing one side, we will copy them to draw the other side.



3. Drawing an Ellipse

- 1 Press  so that it changes to .
- 2 From the point that will be the center of the ellipse, drag the pen along the screen until the ellipse is the desired size.
- 3 When the ellipse is the desired size, remove the pen from the screen.

To draw an ellipse



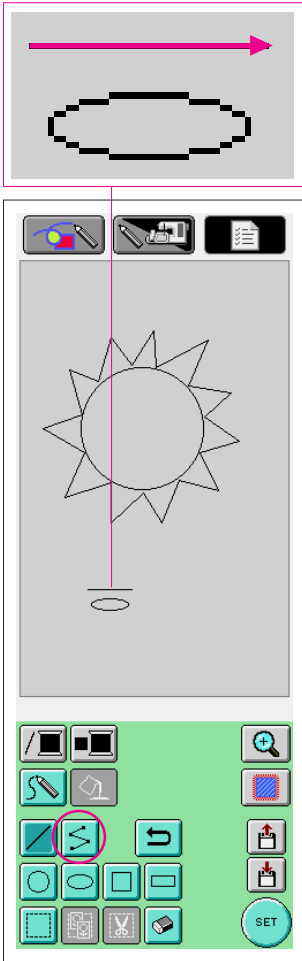
The ellipse is drawn with the starting point as the center, the horizontal length of the line connecting the starting point and ending point as the horizontal radius and the vertical length of the line connecting the starting point and ending point as the vertical radius.

The size can be adjusted as desired until the pen is removed from the screen.



* An angled ellipse, like the one shown at the right, cannot be drawn.



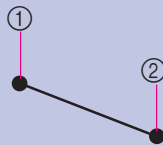
- ① Starting point
- ② Ending point
- ③ Horizontal length
- ④ Vertical length



4. Drawing a Straight Line

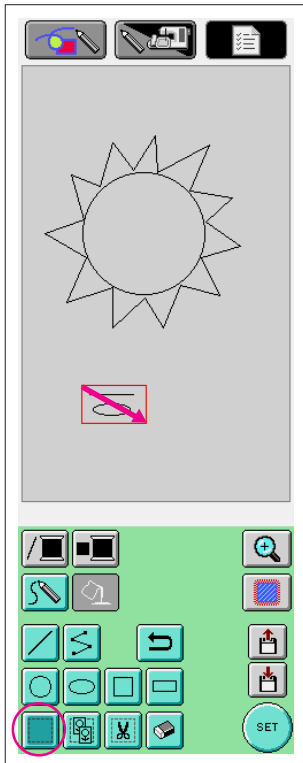
- 1 Press  so that it changes to .
- 2 Drag the pen along the screen until the line is the desired length.
- 3 When the line is the desired length, remove the pen from the screen.

To draw a straight line




A straight line is drawn connecting the starting point with the ending point. The length can be adjusted as desired until the pen is removed from the screen.



- ① Starting point
- ② Ending point



5. Selecting

Select the sections to be copied.

- * Before moving, copying or deleting sections, use  to select the area to be moved, copied or deleted.

- 1 Press  so that it changes to .
- 2 From the top-left corner of the eyebrow, drag the pen along the screen so that the eyebrow and eye completely fit within the red frame (selection frame) that is drawn.

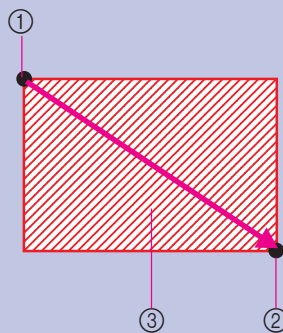
- * The selection frame appears in red.

- 3 When the frame is the desired size, remove the pen from the screen.

Notes

- If the desired area could not be selected (the selection frame could not be drawn), try drawing it again. Touch the screen with the pen to erase the selection frame that was originally drawn, and then draw a new selection frame.
- After a selection frame is drawn, pressing any key other than the copy key or the delete key erases the selection frame.

To draw a selection frame



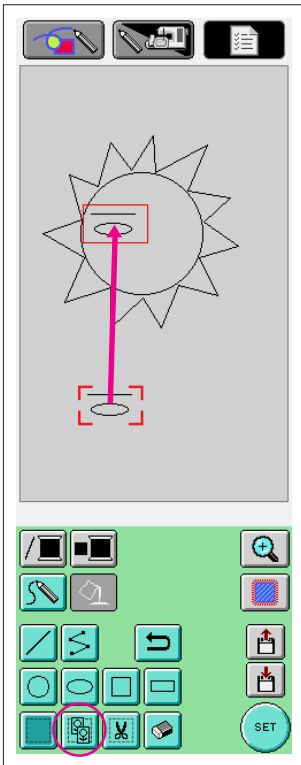
The red frame is drawn with the straight line connecting the starting point and the ending point as the diagonal. The selected area is the part within that frame.

The size can be adjusted as desired until the pen is removed from the screen.



- * An angled selection frame, like the one shown at the right, cannot be drawn.



- ① Starting point
- ② Ending point
- ③ Selected area



6. Copying

- * Before copying, press  so that it changes to , and then select the section to be copied. (Refer to page 17.)

1 Press .

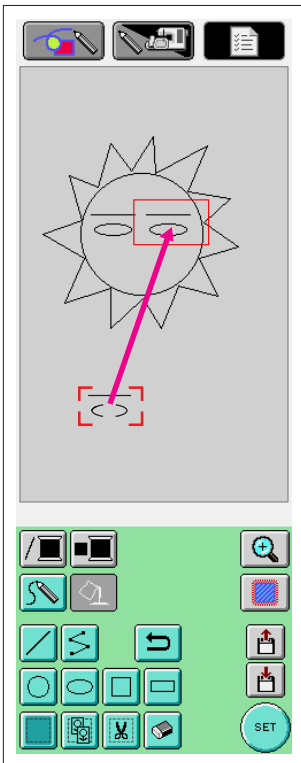
- * If the buzzer is turned on, the buzzer allows you to check whether or not the key was correctly pressed. (For details on turning on the buzzer, refer to page 7.)

2 Touch inside the red frame (selection frame) with the pen, and then drag the pen along the screen. The selected section is copied, and that copy can be moved to the desired location.



3 When the section is moved to the desired location, remove the pen from the screen.

Notes

- If the section could not be moved to the desired location, again touch inside the selection frame with the pen, and then move the section to the desired location.



7. Moving

- * Before moving, press  so that it changes to , and then select the section to be moved. (Refer to page 17.)

1 Follow the procedure described in “5. Selecting” to select the section to be moved.

2 Touch inside the red frame (selection frame) with the pen, and then drag the pen along the screen to move the selection.

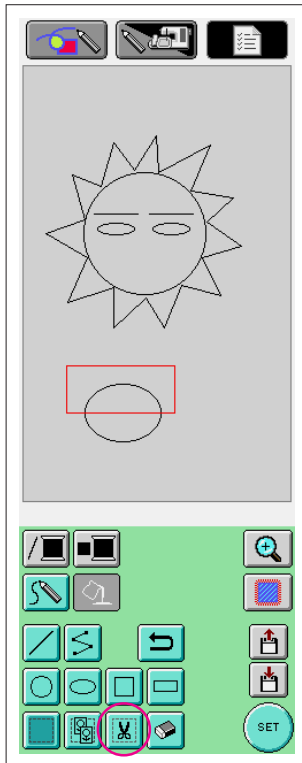
3 When the section is moved to the desired location, remove the pen from the screen.

Notes






- If the section could not be moved to the desired location, again touch inside the selection frame with the pen, and then move the section to the desired location.


Next, we will draw the mouth.

A line can be drawn freehand directly below the eyes; however, for this example, we will draw a half ellipse in a different place, and then move it to the location in the circle where it will be balanced.

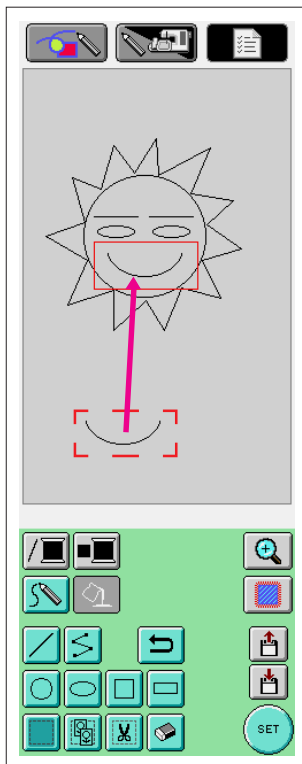


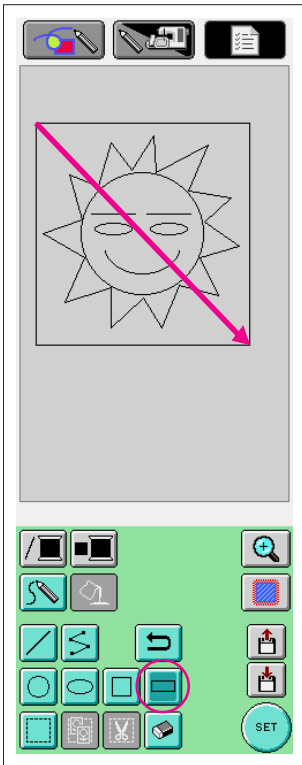
8. Erasing Lines (Drawing a Half Ellipse)

- * Here, we will explain how to erase lines using .
- * Before erasing a line using , press  so that it changes to , and then select the section to be erased. (Refer to page 17.)
- * Lines can also be erased by selecting the  key. (Refer to page 21.)



- 1 Follow the procedure described in “3. Drawing an Ellipse” to draw an ellipse.
- 2 Follow the procedure described in “5. Selecting” to select the section to be erased. For this example, select the top half of the ellipse.
- 3 Press . The lines within the selection frame are erased.

Once the half ellipse is drawn, follow the procedure described in “7. Moving” to move the mouth below the eyes.

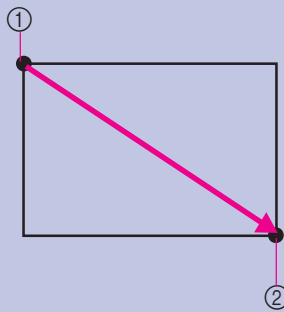





9. Drawing a Rectangle

- 1 Press  so that it changes to .
- 2 From a point that will be a corner of the rectangle, drag the pen along the screen until the rectangle is the desired size.
- 3 When the rectangle is the desired size, remove the pen from the screen. This completes the drawing.

To draw a rectangle or square

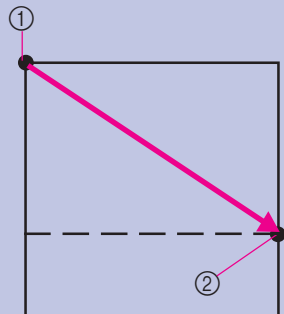



Use  to draw rectangles. The rectangle is drawn with the line connecting the starting point and the ending point as the diagonal.

* An angled rectangle, like the one shown at the right, cannot be drawn.



- ① Starting point
- ② Ending point



Use  to draw squares. The square is drawn with all sides having the length of the longest side of a rectangle whose diagonal is a line connecting the starting point and the ending point.




* An angled square, like the one shown at the right, cannot be drawn.

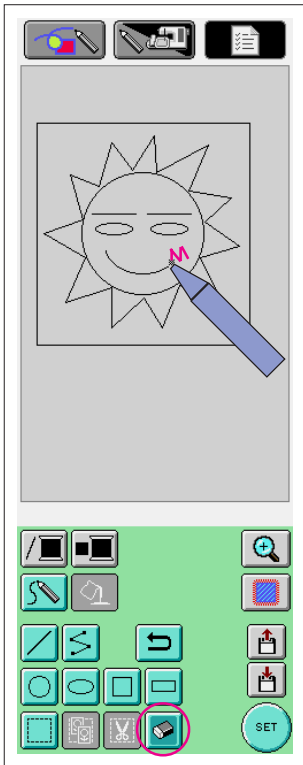


- ① Starting point
- ② Ending point






The size can be adjusted as desired until the pen is removed from the screen.

■ Creating the Desired Drawing

Unnecessary lines and lines not drawn as desired can be deleted by pressing . Lines can also be deleted by pressing , as described in “8. Erasing Lines (Drawing a Half Ellipse)” on page 19; however, to delete detailed sections or if the desired area cannot be surrounded by a selection frame, press . Use the appropriate method as necessary.



Deleting Lines Using

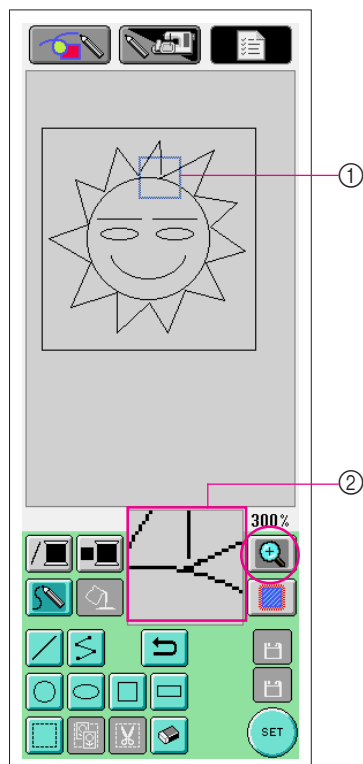
- 1 Press  so that it changes to .
- 2 Touch the screen.  appears. Drag the pen back and forth to trace  along the area that you want to erase. The area traced with  is erased.

Notes



- If the erase key is used, the area can easily be erased if it is enlarged.

Working With Detailed Sections

Working within the enlarged area makes it easier to draw or erase detailed lines.



Working Within the Enlarged Area

- 1 Press  so that it changes to .
The blue frame and the enlarged area appear. The section of the pattern within the blue frame is shown enlarged.
 - ① The blue frame indicates the section that is enlarged.
 - ② Enlarged area
- 2 With the pen, touch the part of the pattern in the pattern drawing area that you want to enlarge.
- 3 The blue frame moves to the part of the pattern that was selected and that part is shown enlarged in the enlarged area.

Notes



- To change the area that is displayed, drag the pen along the screen to move the blue frame.

- 4 The pattern can be edited from within the enlarged area. The operations are performed in the same way that they are in the pattern drawing area.



Caution

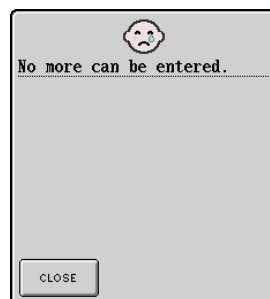
The pattern cannot be edited from the pattern drawing area while the enlarged area is displayed.

■ Closing the Enlarged Area



- 1 Press  so that it changes to .

Precautions on Drawing

- Do not try to fill an area with lines, otherwise the drawing cannot be converted to embroidery data.
- Color can only fill an outlined area. Be sure to design the area that you wish to fill with color so that it is outlined. In addition, a very small area (thin area) cannot be filled.
- After selecting the color of an area, lines of the drawing other than those drawn freehand cannot be edited or added. To change a line other than one drawn freehand, press  to return the drawing to the point before the first color of an area was selected. Before adding color to the drawing, be sure that the shape of the lines is as desired.
- The number of drawing operations is limited. If the limit is reached, the error message shown at the right appears and no operation other than pressing  can be performed.



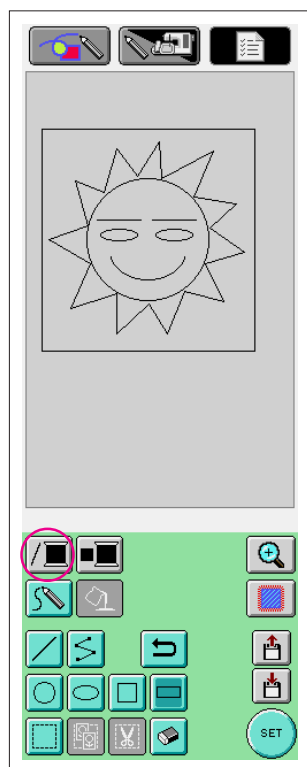
Once the drawing is finished, add colors as desired.

- * If no colors are to be added, continue with the procedure described in “3 Specifying Stitching Settings” on page 29. If a stitching method is not to be specified, continue with the procedure described in “4 Converting to Embroidery Data” on page 33.
- * To clear the entire area and start a new drawing, press . All data that had been drawn is erased, and the screen appears as it did when On Screen Designer was started up (see page 42).
- * To close the application and use the sewing machine, press . All data that had been drawn is erased (see page 43).
- * To save created data, continue with the procedure described in “Saving Image Data” on page 39.

2

Adding Color to the Pattern

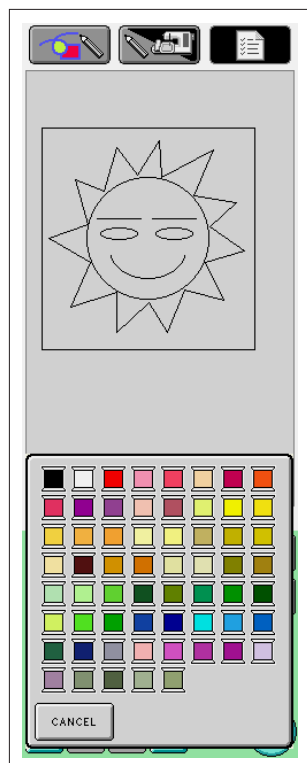
Next, we will add color to the lines and areas.



1. Selecting the Line Color

1 Press .


* When the application is started up, the line color is black.




2 The screen shown at the left appears.

3 Touch the spool of thread showing the desired color. For this example, select black.

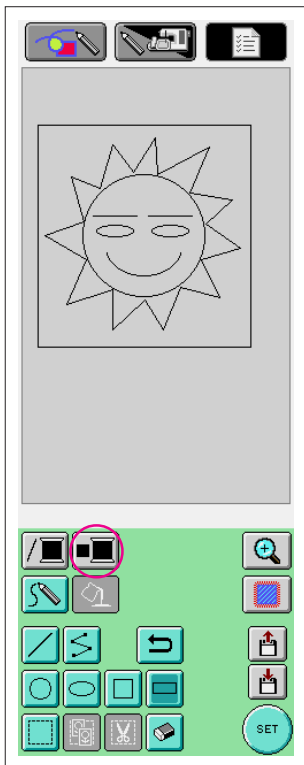
When a color is selected, the palette is automatically closed.

The color of the lines in the pattern and  changes to the selected color.

- * To quit selecting a color, press .
- * The line color can also be selected before the line is drawn or while it is being drawn.
- * The color of the lines in the pattern can be changed even after a line color is selected.
- * After the color of an area is selected, the color of the lines cannot be changed. To change the color of the lines, undo all operations until the drawing returns to the condition before the first area color is selected.

Caution

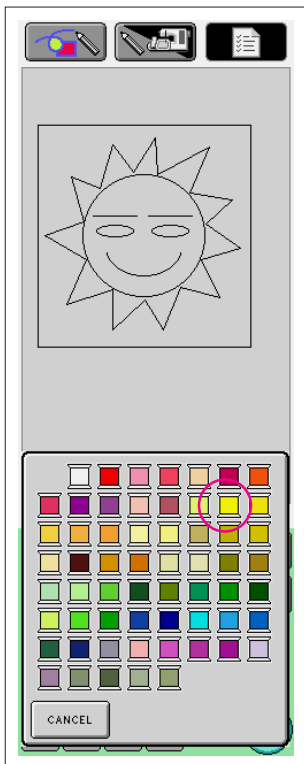
An area cannot be filled with the same color selected for the lines.



2. Selecting the Area Colors

1 Press .

- * The color of the spool of thread in the key is the same color as the one selected for the lines.



2 The screen shown at the left appears.

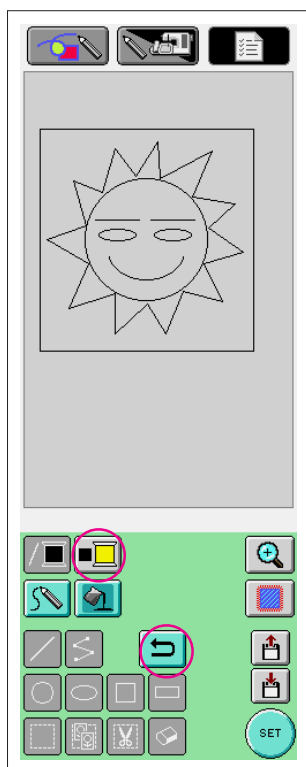
3 Touch the spool of thread showing the desired color. For this example, select yellow.

- * To quit selecting a color, press .


Caution

The color selected for the lines is not available in the palette of colors for the areas. The color selected for the lines cannot be selected for an area.


If you wish to embroider the area with the same color as the lines, select a different color in the pattern, but use the same color of thread when embroidering.

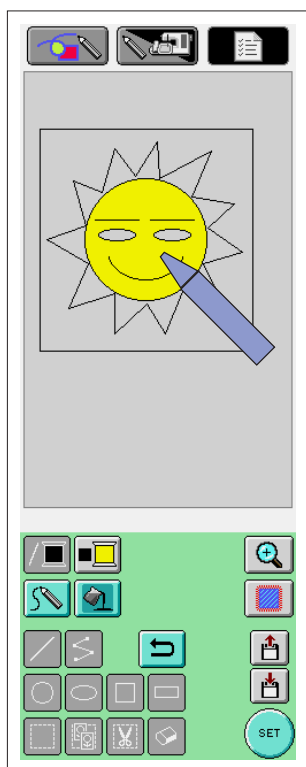


4 When a color is selected, the palette is automatically closed.

The color changes to the color selected with .


In addition,  changes to , indicating that an area can be filled with the selected color.

* After the color of an area is selected, lines of the drawing other than those drawn freehand to close openings cannot be added, edited or their color changed. To change a line, continue pressing  until the drawing returns to the condition before the first color of an area was selected.



5 Touch the area to be filled with the color. The area is filled with the color.

Caution

Color can only fill an outlined area. If the desired area is not filled with color or if an area that you did not want to fill with color is filled, correct the lines. (Refer to [Color Is Not Added] on page 27.) In addition, a very small area (thin area) cannot be filled with color. In this case, continue pressing  until the drawing returns to the condition before the first color of an area was selected, and then correct the lines to make the area larger.

6 Fill the other areas with color as described in steps 1 through 5.


If you fill the wrong area or if you wish to change the color, repeat steps 1 through 5 to change the color.

Notes

- The order in which colors are added is the same as the sewing order.

Color Is Not Added

Only outlined areas can be filled with color. If an area will not fill with color, that area is not completely surrounded by lines. In addition, an area that you may not want to fill with color may be filled. In that case, only the area that you wish to fill with color may not be surrounded by the lines.

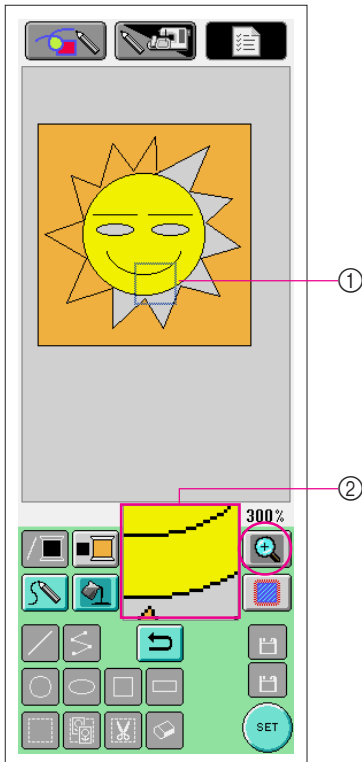
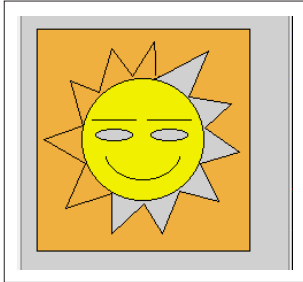
Use  to correct the lines so that the areas are outlined.

Correcting

Example

The background was filled with color when we tried to fill just the rays of the sun.

Because the rays of the sun are not completely enclosed in lines, we must search for the openings and close them.

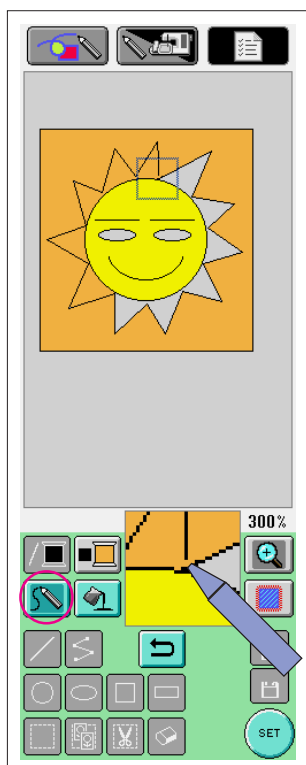


- 1 Press  so that it changes to .

The blue frame and the enlarged area appear. The section of the pattern within the blue frame is shown enlarged within the enlarged area.

- ① The blue frame indicates the section that is enlarged.
- ② Enlarged area

- 2 Touch the screen with the pen to move the blue frame and find the openings in the line.

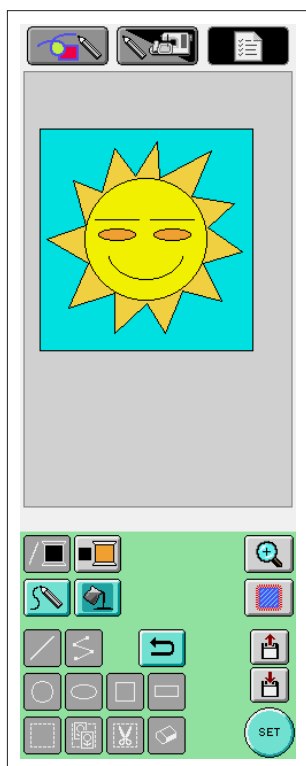


3 After finding the opening, press  so that it changes to





4 Within the enlarged area, close the opening in the line.

5 Change the color of the background as described in steps 1 through 5 of “2. Selecting the Area Colors” on page 25.



After colors are specified for all areas, specify the stitching settings

- * If the stitching settings are not to be specified, continue with the procedure described in “4 Converting to Embroidery Data” on page 33.
- * To erase the entire drawing and start a new one, press . All data that had been drawn is erased, and the screen appears as it did when On Screen Designer was started up (see page 42).
- * To close the application and use the sewing machine, press . All data that had been drawn is erased (see page 43).
- * To save created data, continue with the procedure described in “Saving Image Data” on page 39.

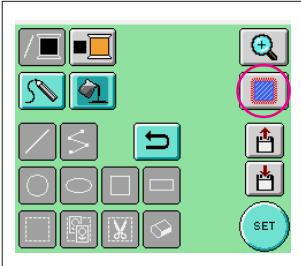
3

Specifying Stitching Settings

Lines of the drawing are sewn with satin stitches and areas are sewn with fill stitches. The following settings can be specified.

- ① Satin stitch (lines): thickness and stitch density
- ② Fill stitch (areas): sewing direction and stitch density

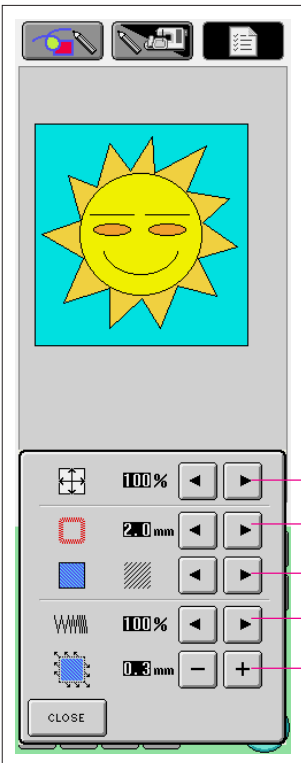
If the drawing data is saved, the settings can be changed after a trial embroidery of the design is sewn. (Refer to [Saving Image Data] on page 39.)



1. Displaying the Stitching Settings Screen

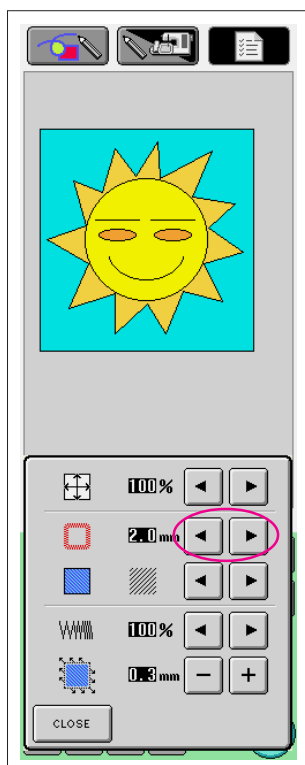
1 Press .

2 The screen shown at the left appears.



- ① Reduces the size of the pattern
The size of the drawn pattern can be changed. (Refer to page 32.)
- ② Specifies the width of the satin stitches used to sew the lines of the drawing (Refer to page 30.)
- ③ Specifies the sewing direction for fill stitches (Refer to page 30.)
- ④ Specifies the stitch density (Refer to page 31.)
- ⑤ Corrects shrinkage
When sewing embroidery, stitched areas may shrink. If this happens, the stitching can be corrected to prevent shrinkage. (Refer to page 44.)

* To quit specifying settings, press .



2. Specifying the Width of Satin Stitches

- 1 Press or beside .

(The default setting is 2.0 mm when the application is started up.)

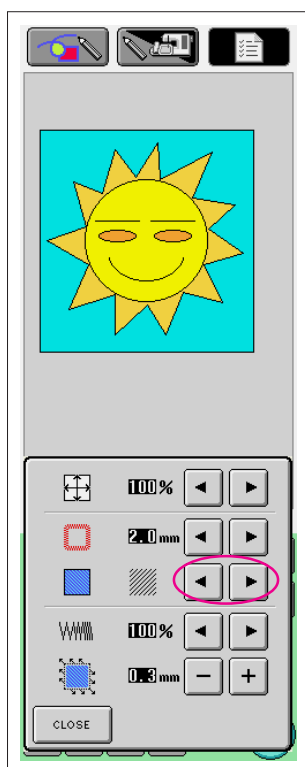
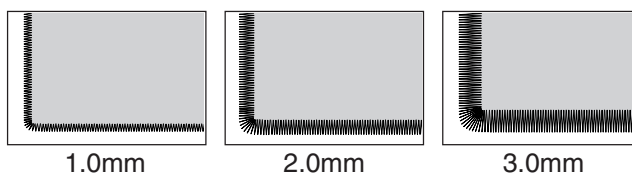
To select a narrower width, press . To select a wider width, press .

Each press of makes the width narrower by 0.5 mm.

Each press of makes the width wider by 0.5 mm.

A setting between 1.0 mm and 3.0 mm in 0.5 mm units can be specified.

Setting examples



3. Specifying the Sewing Direction of Fill Stitches

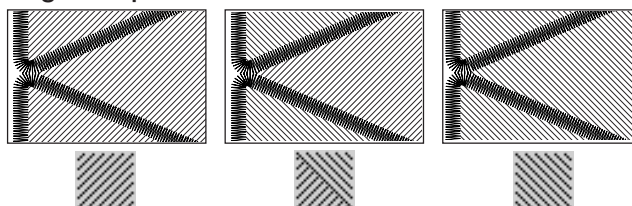
- 1 Press or beside .

(The default setting is when the application is started up.)

Each press of changes the setting in the following order:

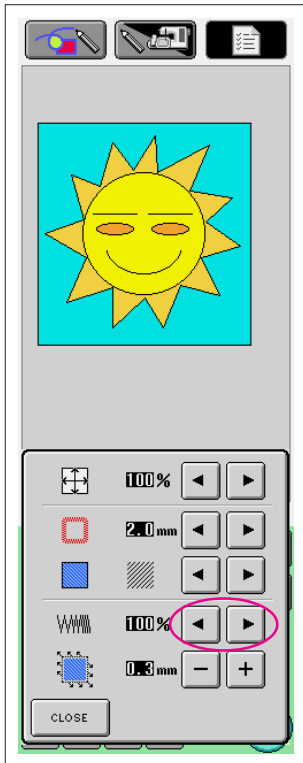
→ → . Press to reverse the order of .

Setting examples



Notes

- If the size of the created pattern is larger than 10 cm \diamond 10 cm, it is recommended that be set in order to prevent shrinkage.

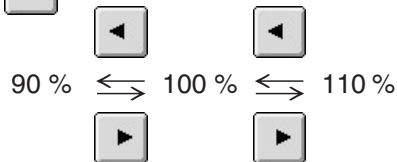


4. Specifying the Stitch Density

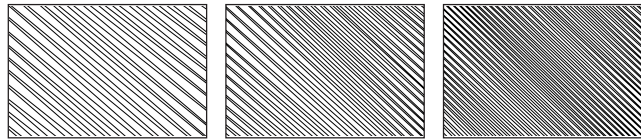
1 Press or beside .

(The default setting is 100 % when the application is started up.)

To select a coarser density, press . To select a finer density, press .



Setting examples



90 % (coarse)

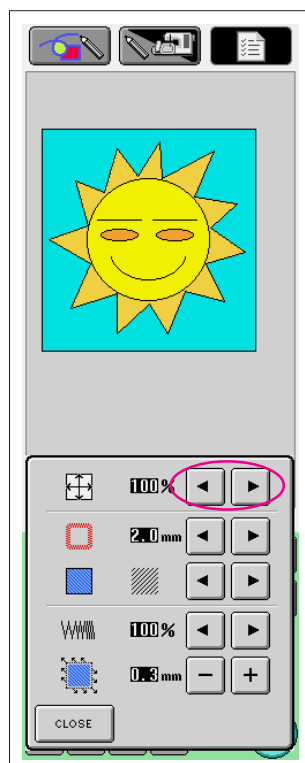
100 % (standard)

110 % (fine)

Notes

- It is recommended that a finer stitch density be selected if a detailed drawing is created.
- If areas of the embroidery shrinks when a trial embroidery of the design is sewn, specify a coarser stitch density. Continue sewing trial embroidery while adjusting the stitch density.

2 After the desired settings are specified, press . The screen returns to the one displayed before the stitch settings screen was displayed.











Reducing the Pattern Size



The size of the created pattern can be changed.
Select a size from 50%, 70% and 100%.

Notes

- The pattern can also be enlarged or reduced from the embroidering or embroidery-editing screen of the sewing machine. If the desired size cannot be selected with this software or if a specific size must be specified, adjust the size from the sewing machine.

- Press  in the pattern-drawing screen. The screen shown at the left appears.
- Press  or  beside .
Press  once to reduce the size to 70%. Press  again to reduce the size to 50%.
To return the size to the original size (100%), press .
- Press . The screen returns to the one displayed before the stitch settings screen was displayed.

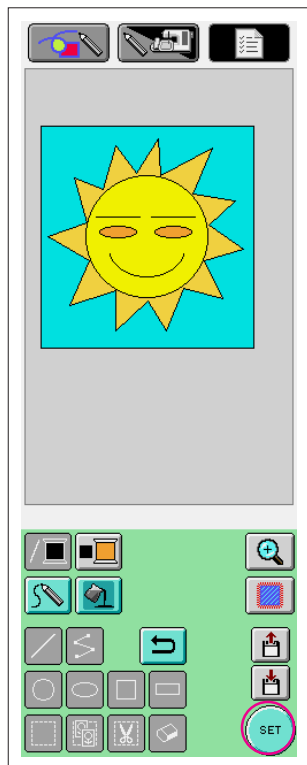
After the stitching settings are selected, convert the image data to embroidery data.

- To clear the entire area and start a new drawing, press . All data that had been drawn is erased, and the screen appears as it did when On Screen Designer was started up (see page 42).
- To close the application and use the sewing machine, press . All data that had been drawn is erased (see page 43).
- To save created data, continue with the procedure described in [Saving Image Data] on page 39.

4

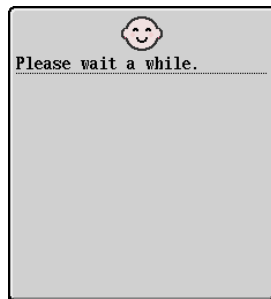
Converting to Embroidery Data

Now, the created image data can be converted to embroidery data.

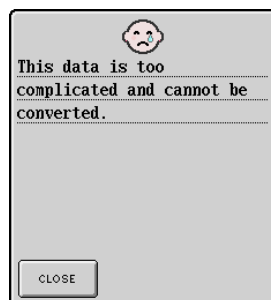
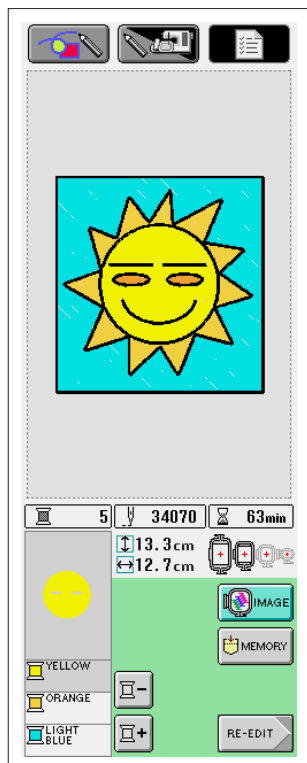


1 Press **SET**.

The following message appears.



2 If the image data is correctly converted to embroidery data, the embroidery data check screen shown at the left appears. The pattern moves to the center of the embroidery pattern display area and the embroidery data is displayed.



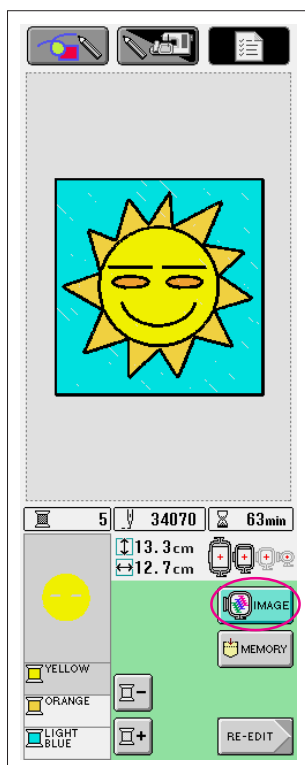
If the message shown at the left appears, either the drawing contains too many lines or the design is too complicated to be converted to embroidery data. Press **CLOSE** to return to the pattern drawing screen, and then correct the data.

In this screen, the number of thread colors and the number of stitches in the created pattern can be checked. For details on the various displays, refer to “Embroidery Data Check Screen” on page 11.

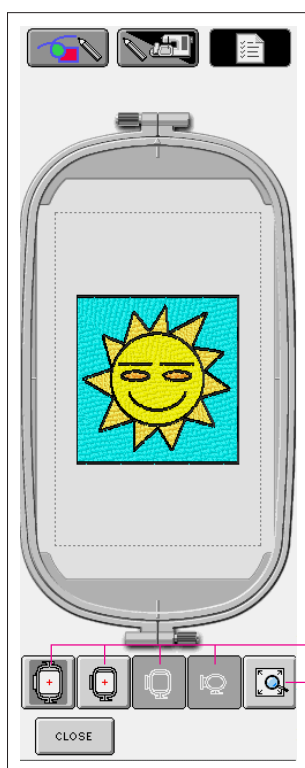
To change the pattern, press **RE-EDIT** to change the embroidery data back to image data and display it in the pattern drawing screen.

* However, lines of the drawing other than those drawn freehand to close openings cannot be added, edited or their color changed. To change a line, continue pressing **↶** until the drawing returns to the condition before the first color of an area was selected.

Viewing an Image of the Embroidered Pattern

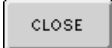


1 Press  .



2 An image of the pattern as it will be embroidered appears.

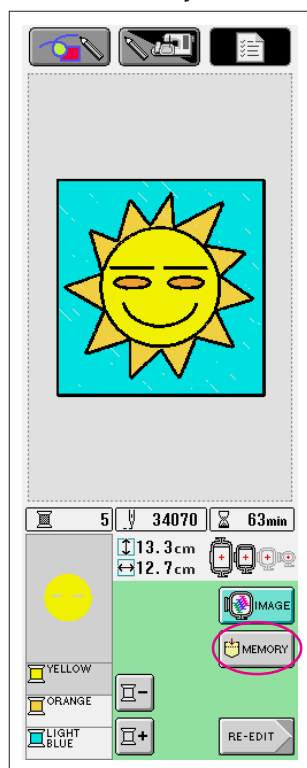
- ① Press these keys to display the pattern in the various sizes of embroidery frames. The embroidery frames that appear in white on the gray keys cannot be selected.
- ② Press this key to display the pattern enlarged.

3 Press  to return to the previous screen.

5

Saving the Embroidery Data

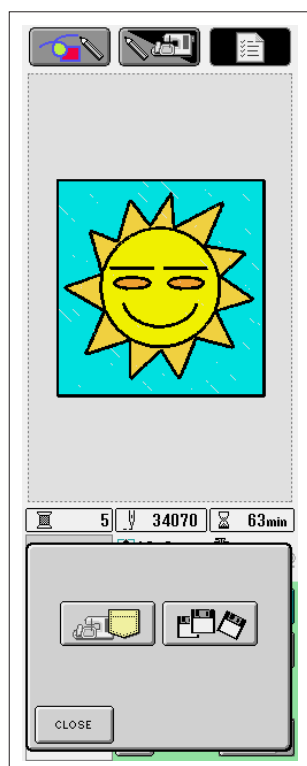
The embroidery data can be saved in the sewing machine's memory or on a floppy disk.



Caution


- Embroidery data saved in the sewing machine's memory can be recalled and sewn. Be sure to save created embroidery data.
- Saved embroidery data cannot be recalled with On Screen Designer. To recall data and edit it with On Screen Designer, save the image data on a floppy disk before converting it to embroidery data or press **RE-EDIT** after the conversion to return to the pattern drawing screen, and then save the image data on a floppy disk. (Refer to "Saving Image Data" on page 39.)

1 Press **MEMORY**.



2 Select where you wish to save the data.

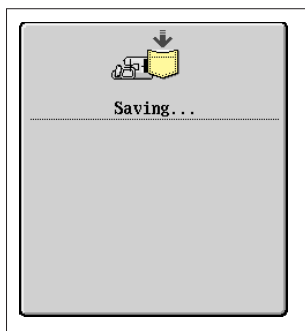
To save the data in the machine's memory, press .

To save the data on a floppy disk, insert a floppy disk into the floppy disk drive slot, and then press .

- * Be sure to use a Windows-formatted 2HD floppy disk.
- * The floppy disk must not be write-protected.
- * When saving data onto a floppy disk, save the data in the format for embroidery data. The file name must have the extension "phc".
- * After saving the data, we recommend write-protecting the floppy disk to prevent the data from accidentally being erased.

Caution

- Do not insert anything other than floppy disks into the floppy disk drive slot, otherwise the floppy disk drive may be damaged.
- Do not insert a floppy disk containing pattern data other than those saved using our application. (Only .pmd and .phc data can be used.)



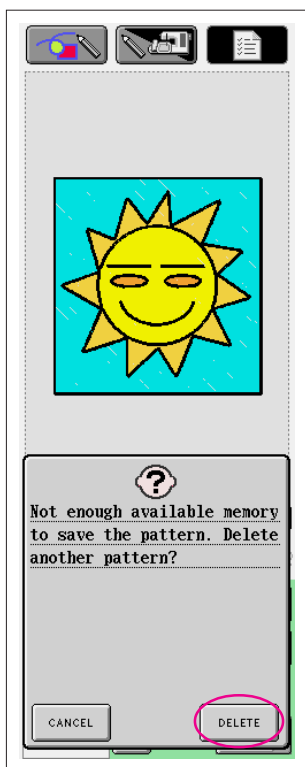
3 The screen shown at the left appears. If the embroidery data was saved successfully, the previous screen automatically appears.

* Saving embroidery data takes approximately 10 seconds.

Caution

Do not turn off the machine while the [Saving] message is displayed, otherwise the embroidery data being saved may be lost. In addition, when saving the data onto a floppy disk, do not try to remove the disk, otherwise the disk may be damaged.

■ If the Embroidery Data Cannot Be Saved



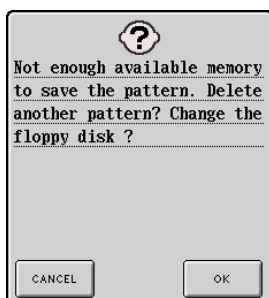
If the screen shown at the left appears, the embroidery data cannot be saved because either the machine's memory or floppy disk is full or the embroidery data being saved is larger than the amount of space available. To be able to save the embroidery data, previously saved embroidery data must be deleted.

* To quit saving, press .

Deleting Saved Data

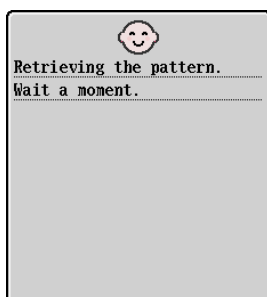
1 Press .

If data is to be deleted from a floppy disk, the following message appears. Press .



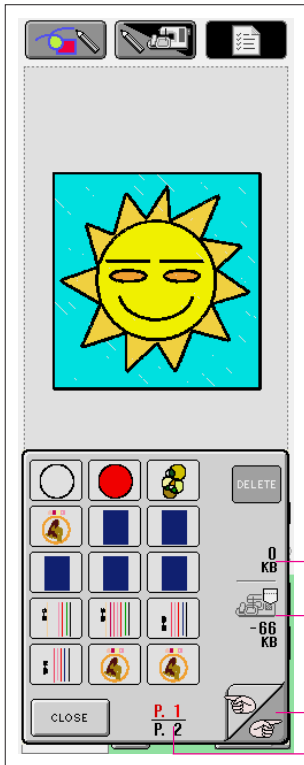
* To change the floppy disk, press .

2 The following message appears.



Caution

Do not turn off the machine while this message is displayed, otherwise saved data may be lost. In addition, do not try to remove the floppy disk, otherwise the disk may be damaged.



3 A list of saved embroidery data is displayed.

- * When saving onto a floppy disk containing only data other than embroidery data, such as image data, nothing is displayed. Press , and then change the floppy disk.
- * To quit recalling, press .

4 Select the pattern to be deleted.



- ① If a pattern is selected to be deleted, the size of the data for the selected pattern is displayed.
- ② The medium where the data is saved and the amount of available space is displayed.

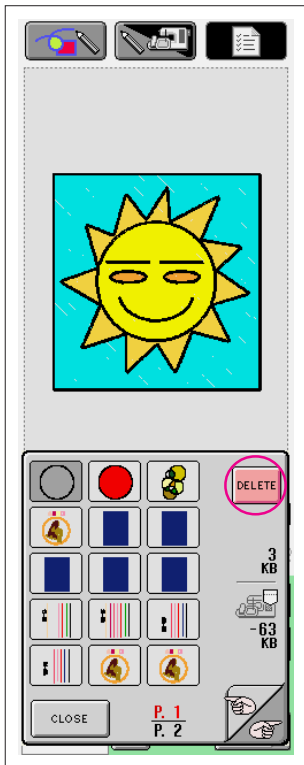


: Sewing machine

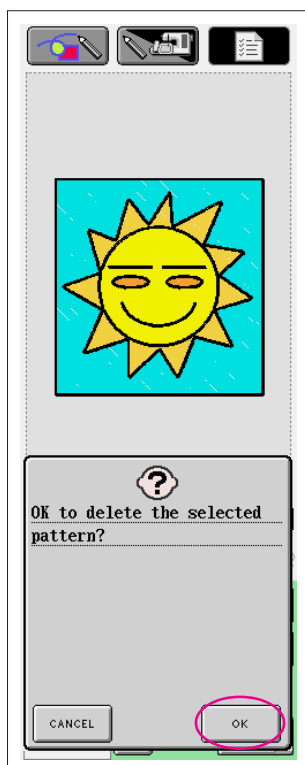


: Floppy disk

- ③ Each page of the list shows 15 embroidery patterns. To view the next page, press . To view the previous page, press .
 - ④ The page number for the displayed list and the total number of pages are displayed.
- * If there is only one page, ③ and ④ do not appear.

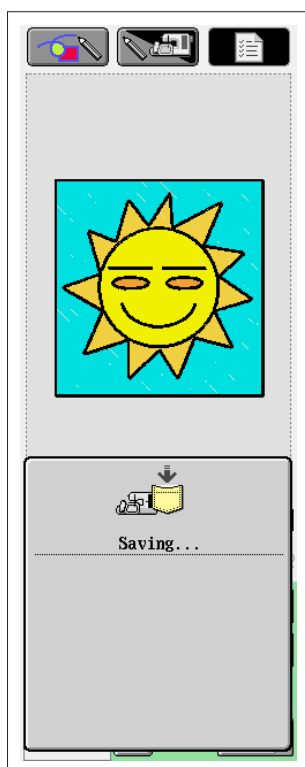


5 Press .



6 To delete the data, press .

* To quit deleting, press .



7 The embroidery data is deleted, and if the required amount of free space is made available, the new embroidery data is automatically saved. If the amount of free space is not enough, another saved embroidery pattern must be deleted.

* When saving onto a floppy disk containing data other than embroidery data, such as image data, it may not be possible to save the new embroidery data, even after embroidery data is deleted. In this case, press , and then change the floppy disk.

If the embroidery data was saved successfully, the previous screen automatically appears.

* Saving embroidery data takes approximately 10 seconds.


Caution

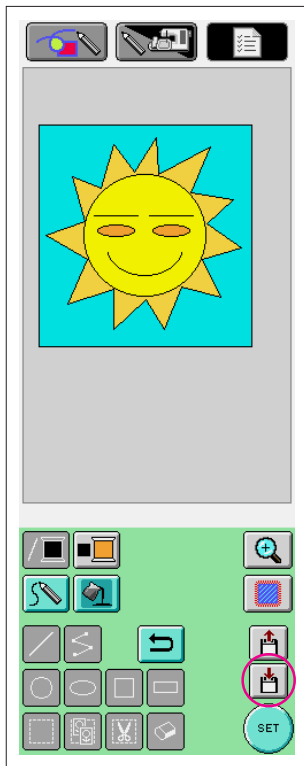
Do not turn off the machine while the [Saving] message is displayed, otherwise the embroidery data being saved may be lost.

Chapter 3 Other Functions

SAVING IMAGE DATA

Saving Image Data

Saved data that has been converted to embroidery data cannot be recalled with On Screen Designer. To recall data and edit it with On Screen Designer, save the image data on a floppy disk before converting it to embroidery data or press  after the conversion to return to the pattern-drawing screen, and then save the data.





1 Insert a floppy disk into the floppy disk drive slot.

- * Be sure to use a Windows-formatted 2HD floppy disk.
- * The floppy disk must not be write-protected.
- * When saving image data onto a floppy disk, save the data in the On Screen Designer file format. The file name must have the extension ".pmd".
- * After saving the image data, we recommend write-protecting the floppy disk to prevent the data from accidentally being erased.

Caution

- Do not insert anything other than floppy disks into the floppy disk drive slot, otherwise the floppy disk drive may be damaged.
- Do not insert a floppy disk containing pattern data other than those saved using our application. (Only .pmd and .phc data can be used.)

2 Press .

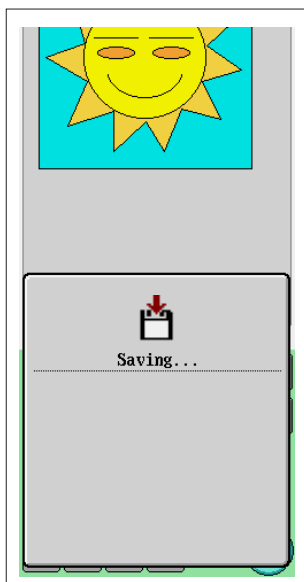
- * The  key is not available when the pattern is displayed in the enlarged area. Press the  key to close the enlarged area.

3 The screen shown at the left appears. If the image data was saved successfully, the previous screen automatically appears.

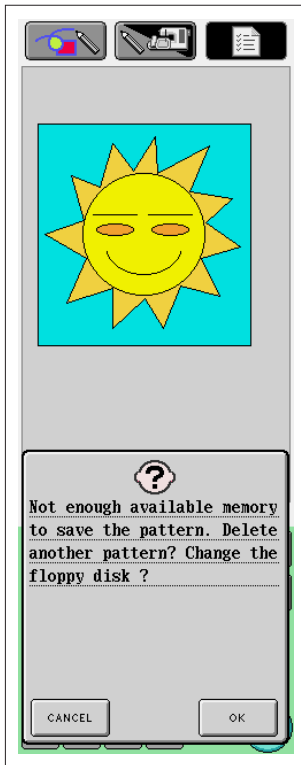
- * Saving image data takes approximately 10 seconds.

Caution

Do not turn off the machine while the [Saving] message is displayed, otherwise saved data may be lost. In addition, do not try to remove the floppy disk, otherwise the disk may be damaged.



■ If the Image Data Cannot Be Saved



If the screen shown at the left appears, the image data cannot be saved because either the floppy disk is full or the embroidery data being saved is larger than the amount of space available. To be able to save the image data on the floppy disk, previously saved image data must be deleted.




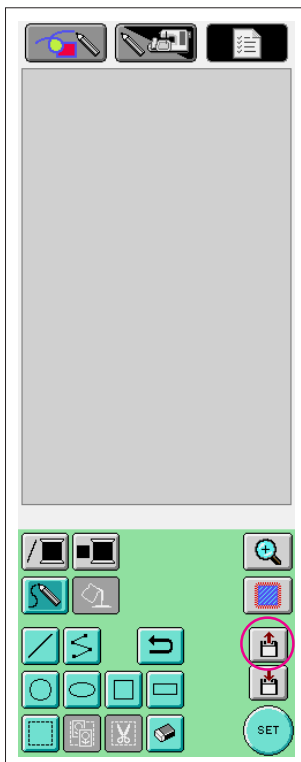
* To replace the floppy disk or quit saving, press .


Image data is deleted in the same way that embroidery data is deleted. For details, refer to page 36.



* Data cannot be saved on the floppy disk in the following cases. Press , and then change the floppy disk.

- When saving onto a floppy disk containing only data other than image data, such as embroidery data, and a list of image data does not appear even when  is pressed.
- When saving onto a floppy disk containing only data other than image data, such as embroidery data, and the new image data is not saved even when other image data is deleted.

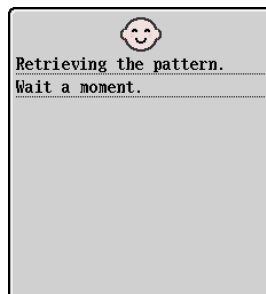
Recalling Image Data



1 Press  in the pattern-drawing screen.

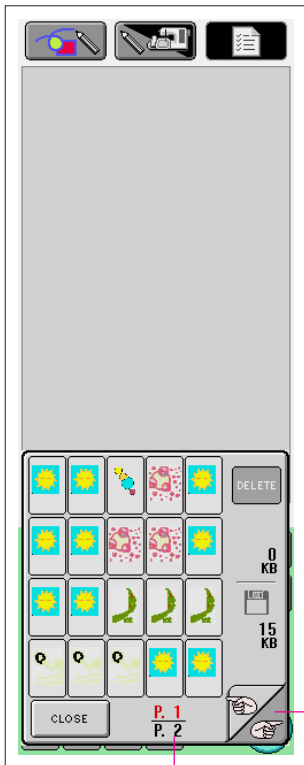
- * The  key is not available when the pattern is displayed in the enlarged area. Press the  key to close the enlarged area.

2 The following message appears.



Caution

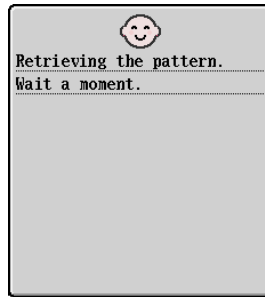
Do not turn off the machine while this message is displayed, otherwise saved data may be lost. In addition, do not try to remove the floppy disk while recalling data, otherwise the disk may be damaged.



3 A list of saved image data is displayed.

4 Select the image data to be recalled.

5 The following message appears.



Caution

Do not turn off the machine while this message is displayed, otherwise saved data may be lost. In addition, do not try to remove the floppy disk while recalling data, otherwise the disk may be damaged.

① Each page of the list shows 20 image data. To view the next page, press . To view the previous page, press .

② The page number for the displayed list and the total number of pages are displayed.

* If there is only one page, ① and ② do not appear.

* To quit recalling, press .

6 The selected image data is displayed.

① When pressed, the selected image data is deleted.

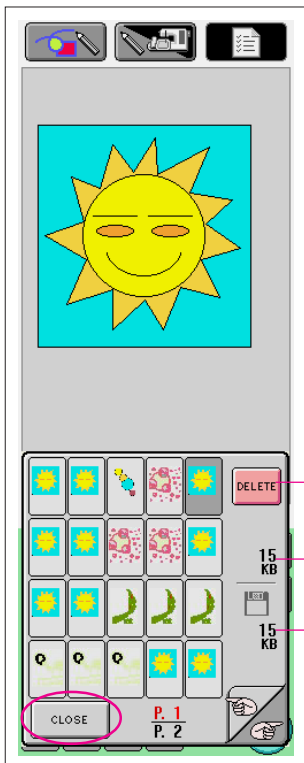
② The size of the selected image data is displayed.

③ The amount of space available on the floppy disk is displayed.

Caution

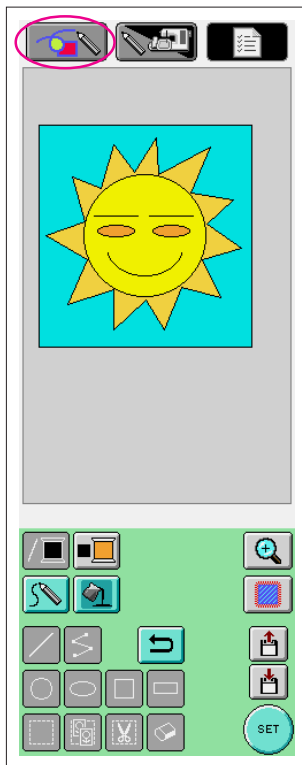
Before the image data is recalled, the currently displayed data is deleted. Be sure to save any necessary data before recalling image data.

7 Press .



CLEARING THE SCREEN

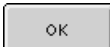
All operations that were performed can be stopped and the screen appears as it did when On Screen Designer was started up.

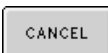


1 Press .

2 The following message appears.



3 To delete the data, press .

* To quit deleting, press .

4 The screen appears as it did when the application was started up.

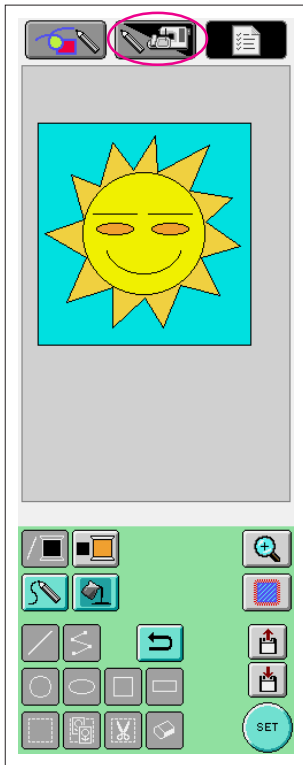
Caution

Before resetting the screen, the currently displayed data is deleted. Be sure to save any necessary data before resetting the screen.



CLOSING THE APPLICATION TO USE THE SEWING MACHINE

You can close the application to use the sewing machine without turning the machine off, then on again.



1 Press .

2 The following message appears.



3 To close the application, press .

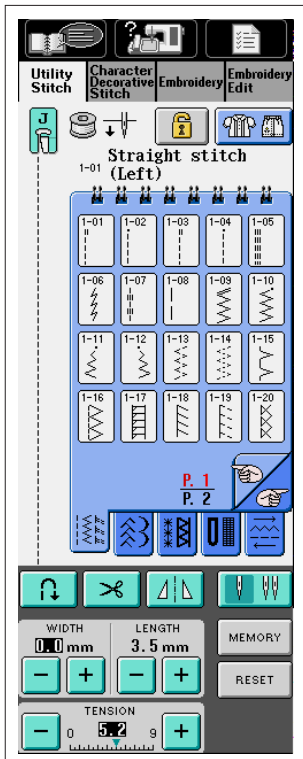
* To stop closing the application, press .

4 The screen appears as it does when the sewing machine is started up.

If a floppy disk containing the application was inserted, the application screen or a screen allowing you to select a machine appears. If this occurs, press the button for the sewing machine.

Caution

Before closing the application, the currently displayed data is deleted. Be sure to save any necessary data before closing the application.



CORRECTING SHRINKAGE

When created embroidery data is sewn, areas of the embroidery may shrink. If this occurs, correct the shrinkage.

■ Shrinkage

The size of the pattern is enlarged and areas (fill stitches) shrink along the sewing direction. Since areas shrink while lines (satin stitches) are sewn with the size before shrinking, the lines and areas are no longer aligned.

In order to prevent this, adjust the length of the lines so that they are in the sewing direction and are larger than the original data.

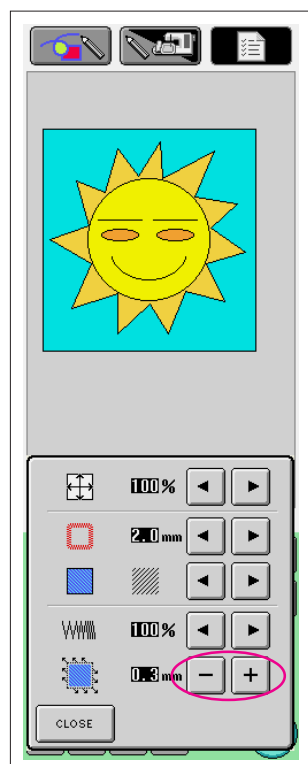
0.3


← Sewing direction →
Original data






0.4

←← Sewing direction →→
Adjusted data
Each arrow represents a shrinkage
adjustment value (0.1 mm units)



- 1 Display in the pattern-drawing screen the data with shrunken areas, and then press . The screen shown at the left appears.

- 2 Press  or  beside .

To lengthen the stitching, press . To shorten the stitching, press .

Each press of  makes the stitching longer by 0.1 mm.

Each press of  makes the stitching shorter by 0.1 mm.


A setting between 0.0 mm and 2.0 mm in 0.1 mm units can be specified.

Notes

- Normally, the default setting is used.
- Continue sewing trial embroidery while making adjustments.
- The larger the pattern size, the easier shrinkage will occur.
- Shrinkage is also related to the sewing direction and stitch density of the fill stitches. Also try adjusting these settings.

Chapter 4 Troubleshooting

ERROR MESSAGES

If an operation is performed incorrectly, the buzzer sounds and an error message appears. If an error message appears, follow the instructions given in the error message to correct the problem. (The message that is displayed can be cancelled either by pressing  or performing the operation correctly.)



1 This message appears if the floppy disk is not formatted or if its format cannot be identified.



2 This message appears if the floppy disk cannot be formatted.






3 This message appears if the pattern cannot be saved on the floppy disk.



4 This message appears if the pattern on the floppy disk cannot be read.



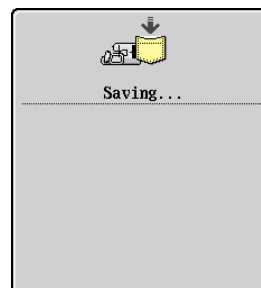
5 This message appears if  or  or  is pressed, but a floppy disk is not inserted.



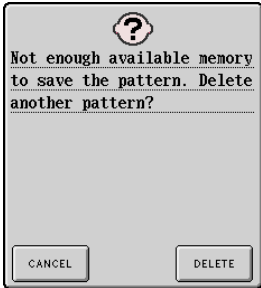
6 This message appears if you try to save a pattern when the floppy disk is write-protected.



7 This message appears if you try to delete a pattern when the floppy disk is write-protected.



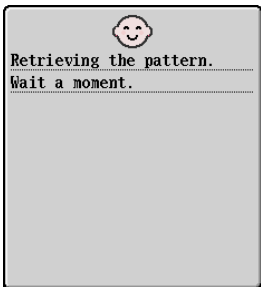
8 This message appears when a pattern is being saved.



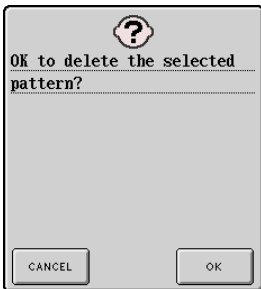
9 This message appears if the storage space is full and data cannot be saved.



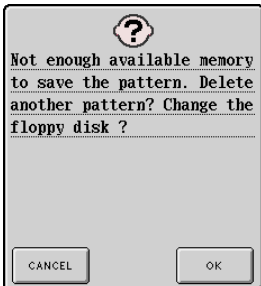
10 This message appears when saved data will be deleted.



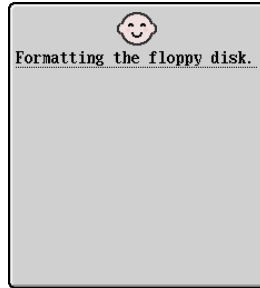
11 This message appears when image data or embroidery data is being recalled.



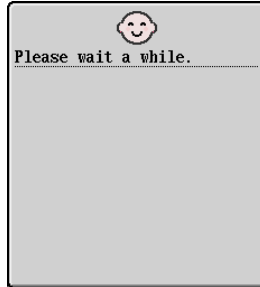
12 This message appears when a pattern is deleted.



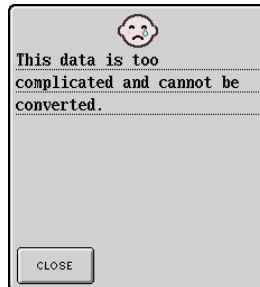
13 This message appears when the size of the pattern data to be saved exceeds the amount of space available on the floppy disk.



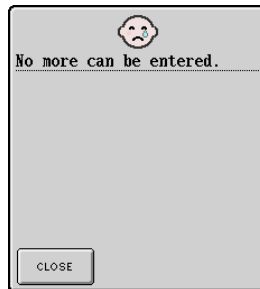
14 This message appears when the floppy disk is being reformatted.



15 This message appears image data is being converted to embroidery data.



16 This message appears when image data is being converted to embroidery data, but the data is too complicated to be converted.



17 This message appears when the number of image data operations exceeds the limit.



18 This message appears when the application is being closed.