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Chicago 7

Embroidery Instruction Manual

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IMPORTANT

When using an electrical machine, basic safety precautions should always be followed, including the following:

Please read the instruction manual carefully before using this machine.

Keep the instruction manual at a suitable place with the machine and hand it over if you give the machine to a third party.

When the machine is not in use or left unattended, always disconnect the machine from the power supply system. Unplug it from the outlet.

DANGER!

To reduce the risk of electric shock:

1. Never leave the machine unattended when it is plugged in.
2. Always unplug this machine from the electric outlet immediately after using and before cleaning.
3. LED RADIATION: Do not view directly with optical instruments Class.

WARNING!

To reduce the risk of burns, fire, electric shock or injury to persons:

1. The machine mustn't be used by children under 8 or by people with reduced physical, sensory or mental capabilities or if there is a lack of experience and knowledge how to operate the machine. Unless they have been given instruction concerning the use of the machine and the involved risks by a person who is responsible for their safety.
2. Do not use this machine as a toy. Close attention is necessary when this machine is used by children, near children or people with reduced sensation.
3. Use this machine only for its intended use as described in this manual. Use only accessories recommended by the manufacturer.
4. Children should be supervised to ensure that they do not play with the machine.
5. Never operate this machine if it has a damaged cord or plug, if it is not working properly, if it has been dropped or damaged, or dropped into water. Return the machine to the nearest authorized dealer or service centre for examination, repair, electrical or mechanical adjustment.
6. Never operate the machine with any air openings blocked. Keep ventilation openings of the machine and the foot control free from accumulation of lint, dust, and loose cloth.
7. Keep fingers away from all moving parts. Special care is required around the machine needle.
8. Always use the proper stitch plate. The wrong plate can cause needle
9. Do not use bent needles.
10. Do not pull or push the fabric while sewing. This can result in needle breakage.

11. Switch the machine off ("O") when making any adjustments in the needle area, such as threading or changing the needle, threading the bobbin, or changing the presser foot, and the like.
12. Always unplug the machine when performing cleaning or maintenance work such as replacing the sewing light or when making any other user maintenance adjustments mentioned in the instruction manual (disconnect the power plug). Cleaning and maintenance work must not be carried out by children without supervision.
13. Never drop or insert any object into any openings.
14. Use this machine only in dry and protected areas. Never operate the machine in a damp or wet environment.
15. Do not operate the machine where aerosol spray products are being used or where oxygen is being administered.
16. To disconnect, turn the power switch to ("O")(off), then remove the plug from the outlet. Do not unplug by pulling the cord, instead grasp the plug to pull it from the outlet.
17. If the supply cord of the foot control is damaged, it must be replaced by the manufacturer or an appropriate service agent or a similar qualified person in order to avoid endangerment.
18. Never place anything on the foot control.
19. When replacing the light bulb, always use the same type.
20. The machine may only be used in combination with a foot control of the type C-9000.
21. The sound pressure level during normal operation is lower than 75dB(A).
22. This machine is provided with double insulation (except U.S.A/Canada). Use only identical replacement parts. See instructions for Servicing of double-insulated products.

SERVICING OF DOUBLEINSULATED PRODUCTS

In a double-insulated product, two systems of insulation are provided instead of grounding. No grounding means is provided on a double-insulated product nor should a means for grounding be added to the product. Servicing a doubleinsulated product requires extreme care and knowledge of the system and should only be done by qualified service personnel. Replacement parts for a double-insulated product must be identical to those parts in the product. A double insulated product is marked with the words "DOUBLE INSULATION" or "DOUBLE INSULATED".

The symbol  may also be marked on the product.

SAVE THESE INSTRUCTIONS!



ATTENTION!

- This machine is intended for household use only. If used intensively or commercially, regular cleaning and especially attentive care is required.
- Signs of wear and tear owing to intensive or commercial use are not covered automatically, even if they occur within the warranty period. The decision on how to deal with any such cases rests with the local authorised servicing staff.



NOTE

If the machine is stored in a cold room, it should be brought to a warm room about one hour before use.

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For technical and product improvement reasons, the machine's features, parts and accessory are subject to unannounced changes and alterations at any time. The accessory included can differ from country to country.



Environmental protection

BERNINA is committed to the protection of the environment. We strive to minimize the environmental impact of our products by continuously improving product Design and our technology of manufacturing. Do not dispose of electrical machines as unsorted municipal waste, use separate collection facilities. Contact your local government for information regarding the collection systems available.

If electrical machines are disposed of in landfills or dumps, hazardous substances can leak into the groundwater and get into the food chain, damaging your health and well-being.

When replacing old machines with new ones, the retailer is legally obligated to take back your old machine for professional disposal free of charge.



Important Embroidery information

Embroidery threads

A good quality thread is essential for embroidery to avoid poor stitch formation, thread breakage, etc.

Embroidery is particularly effective if you use 40wt glossy rayon or polyester embroidery threads as upper threads. They are available in a wide range of colors for beautiful embroidery.

Polyester threads

Polyester with a brilliant sheen is a hard wearing colorfast thread and has a high tensile strength which is suitable for all types of embroidery.

Rayon threads

Rayon is a soft viscose fiber with a brilliant sheen and suitable for fine, delicate embroidery, or items that will not receive excessive wear and tear.

Metallic threads

Metallic thread is a light- to medium weight thread suitable for special effects in embroidery.

Reduce the speed and the upper thread tension when embroidering with metallic threads.

Embroidery needle

- Correct size thread must correspond with correct size needle.
- Replace the needle regularly.



NOTE

Use the vertical spool pin and attach the supplemental thread guide (optional accessory) when using metallic or specialty threads. A Metafil 130/705H-MET need is recommended for embroidering with metallic threads. Adjust upper thread tension and reduce the embroidery speed.

Lower threads

Bobbin Fill (special bobbin thread)

Bobbin Fill is an especially soft and light polyester thread suitable for bobbin thread. This special bobbin thread ensures a steady thread tension and an optimal intertwining of the upper and bobbin thread.

Darning and embroidery thread

Fine mercerized cotton thread which is suitable for embroidering on cotton.



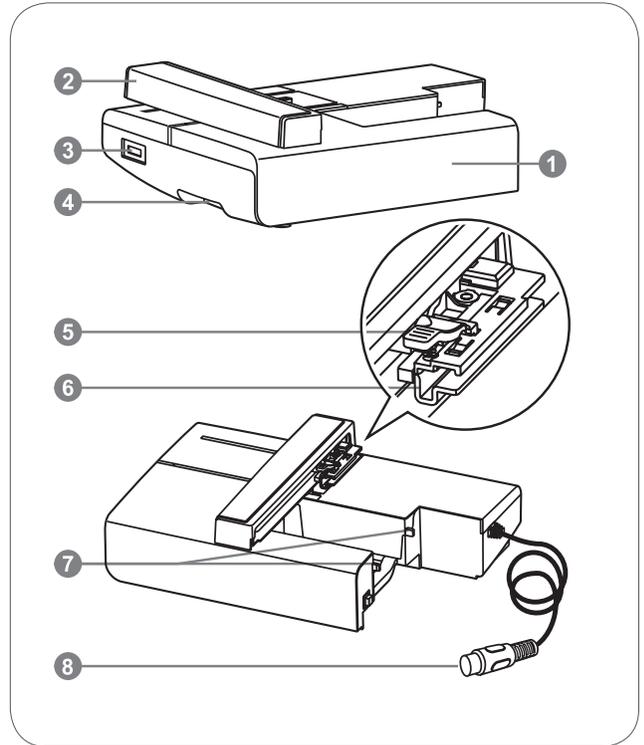
NOTE

In most cases, bobbin thread for embroidery is either white or black. Some special cases require the same thread in top and bobbin.



Details of Embroidery module

- 1 Embroidery module
- 2 Embroidery arm
- 3 USB port
- 4 Embroidery module release lever
- 5 Hoop-securing lever
- 6 Embroidery hoop attachment brackets
- 7 Embroidery module connection
- 8 Embroidery module connector plug



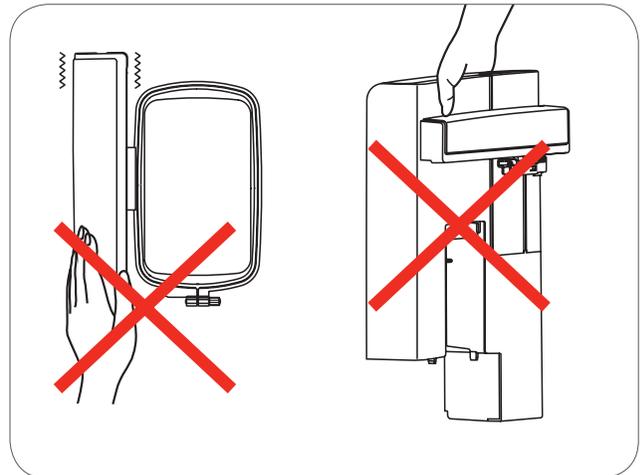
NOTE

Do not touch the embroidery arm. The connector could be damaged, and it may cause malfunctions.

Do not lift up on the embroidery arm, and do not forcefully move it. It may cause malfunctions.

Do not carry the embroidery module by holding it at the release button area.

The foot control is disabled as long as the embroidery module is connected.



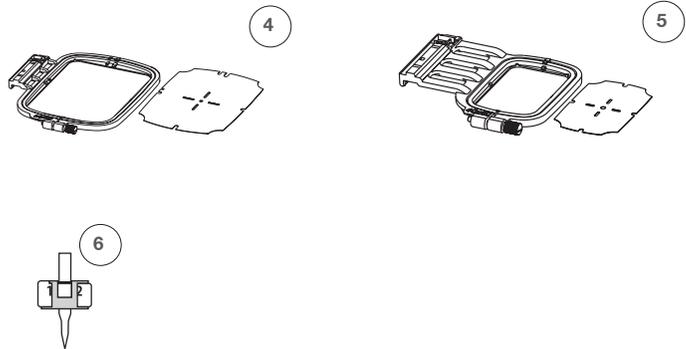
Accessories

- 1 Simple embroidery foot
- 2 Darning/Embroidery foot
- 3 Embroidery hoop (L-110x170mm)



Optional

- 4 Embroidery hoop (M-100x100mm)
- 5 Embroidery hoop (S-40x40mm)
- 6 CutWork Tool



Embroidery Setup

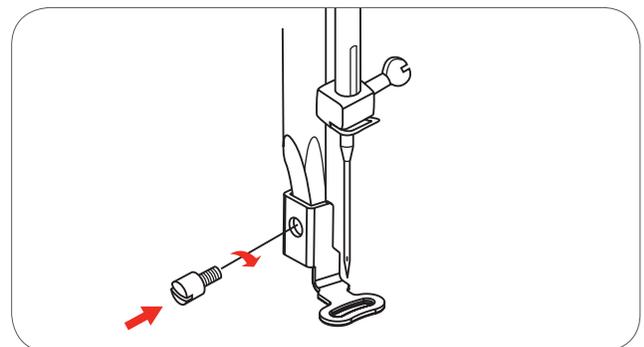
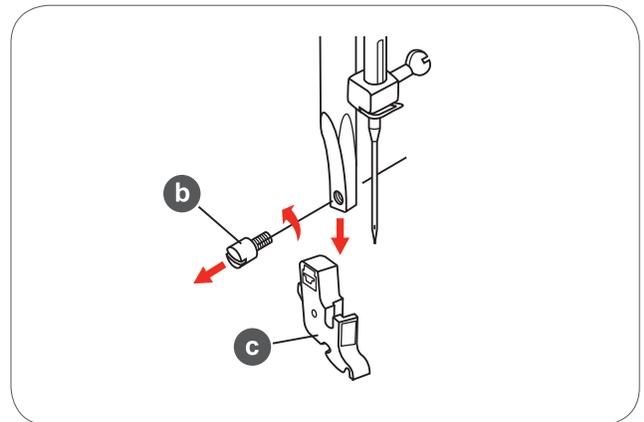
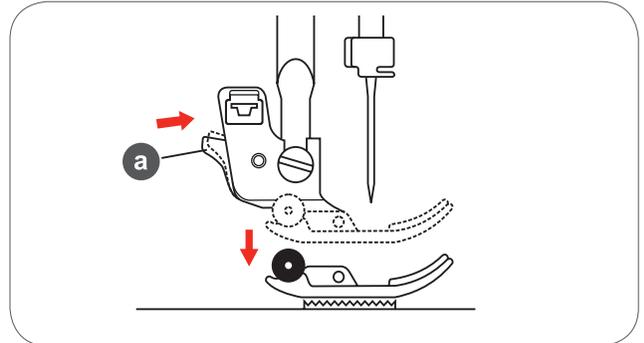
Attaching the embroidery foot



ATTENTION!

Turn power switch to off («O») when carrying out any of the following operations!

- Raise the presser foot.
 - Press the black lever (a) and the foot will disengage.
-
- Remove the presser foot holder (c) by unscrewing (counter-clockwise) the presser foot bar attaching screw (b).
-
- Attach the embroidery foot to the presser foot holder bar.
 - Press the embroidery foot on firmly from behind with your index finger and tighten the screw.



NOTE

To achieve a better sewing result when using thick material, insert the darning/embroidery foot. Adjust the thread tension if necessary.

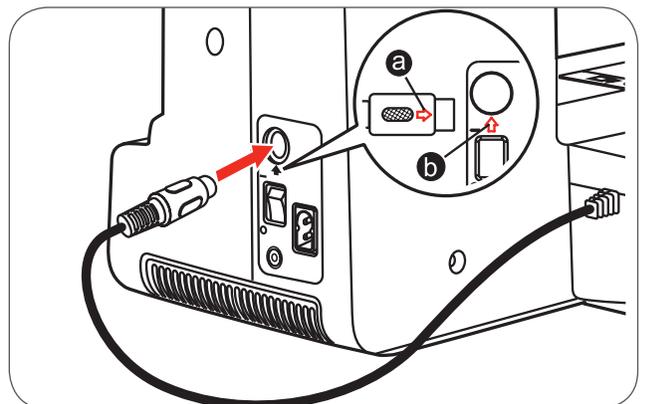
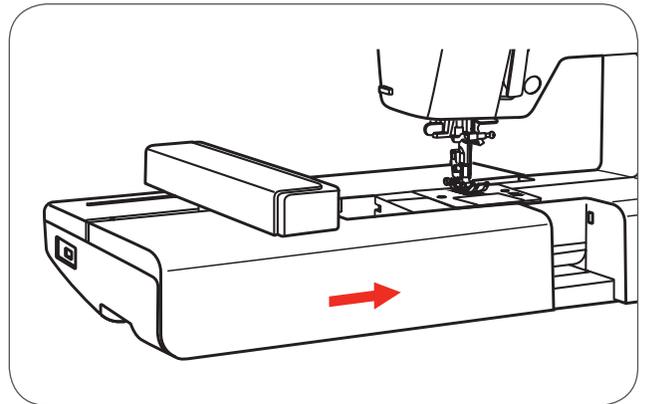
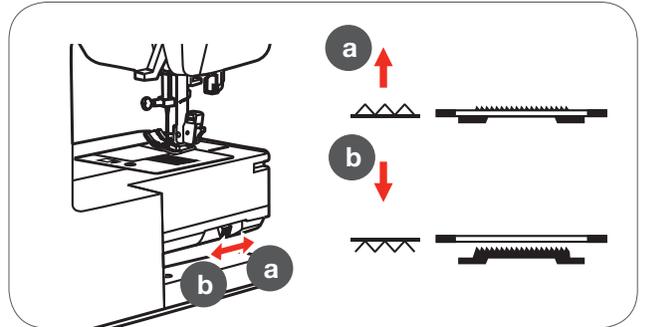
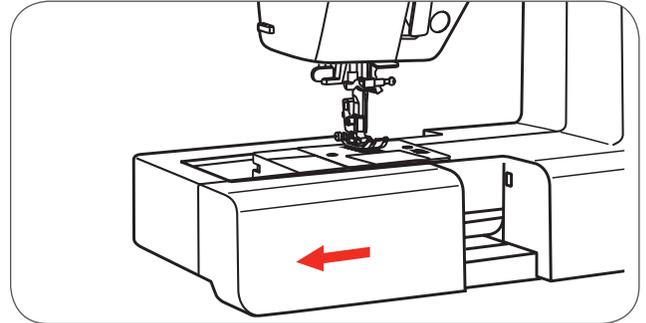
Connecting the embroidery module



ATTENTION!

Turn power switch to off («O») when carrying out any of the following operations!

- Remove the sewing table to the left side.
- Move the feed dog control to lower the feed dog (b).
- Insert the embroidery module connection into the machine connection port.
- Push lightly until the module clicks into place.
- Insert the plug into the embroidery module connector of the machine.



ATTENTION!

Align the arrow on the plug (a) with the arrow on the machine (b).

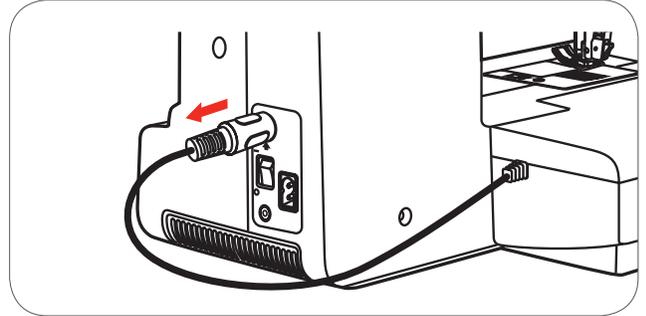
Removing the embroidery unit



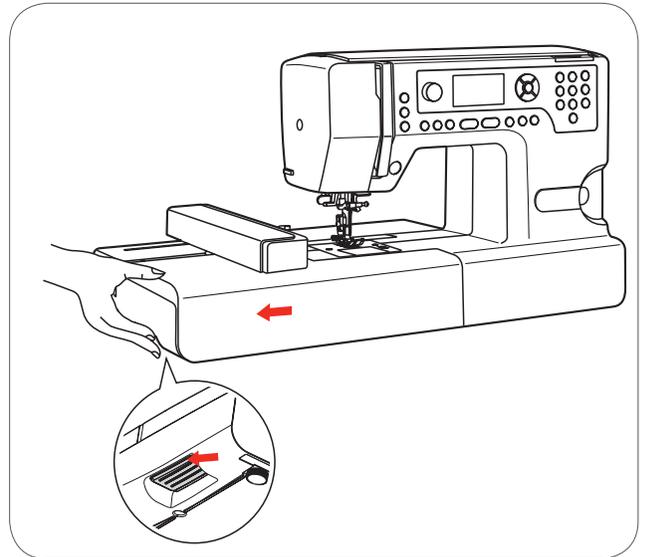
ATTENTION!

Turn power switch to off («O») when carrying out any of the following operations!

- Remove the embroidery module connector plug.

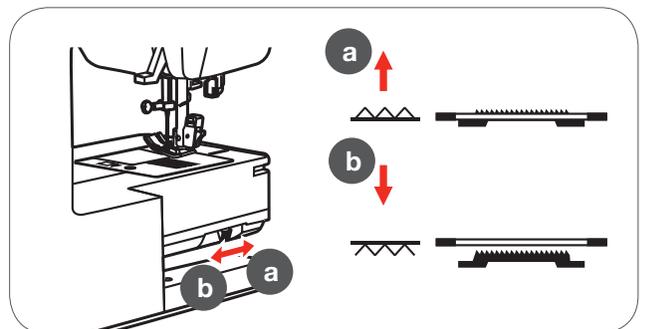


- Press the embroidery module release button on the left, underneath the embroidery module and slide the module to the left to remove it.



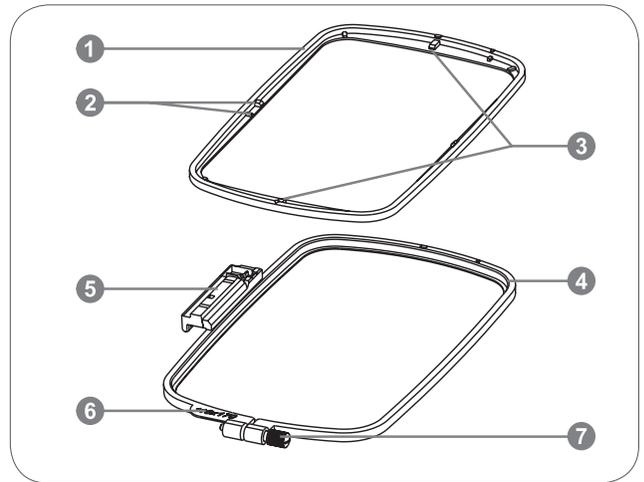
NOTE

When you finish the work, move the feed dog control to raise the feed dog (a).



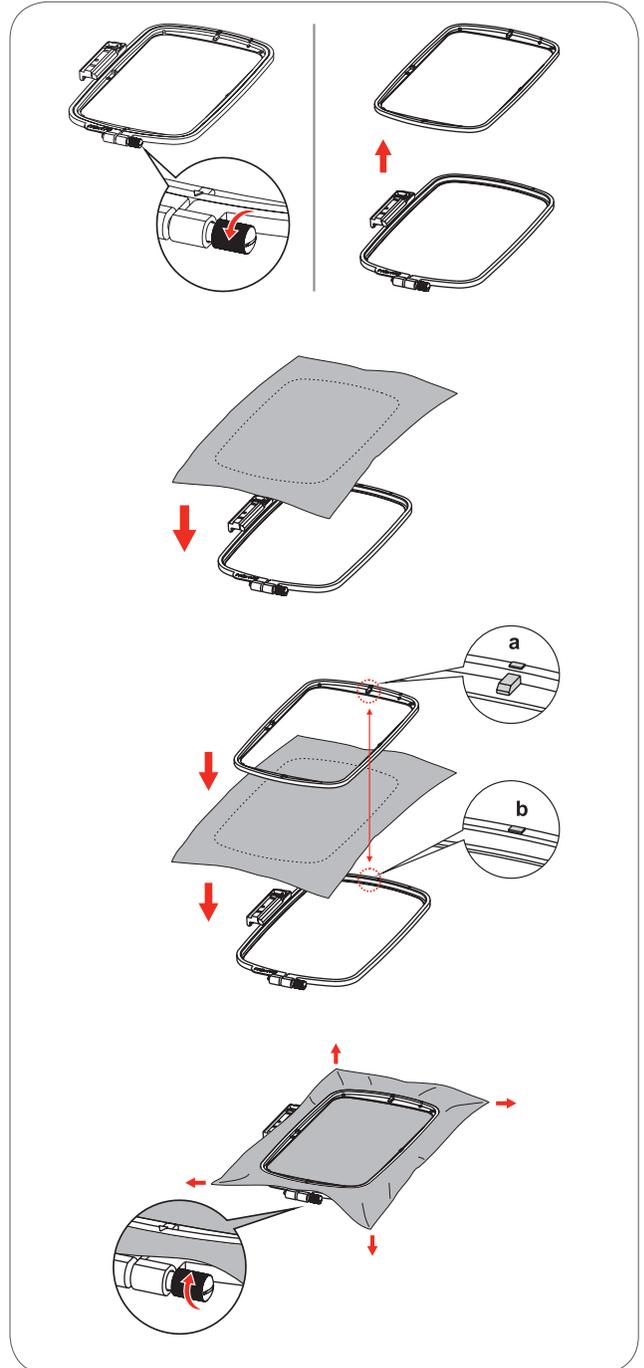
Embroidery hoop

- 1 Inner hoop
- 2 Centering ribs for embroidery template
- 3 Center mark
- 4 Outer hoop
- 5 Embroidery hoop connector
- 6 Hoop size
- 7 Adjustment screw



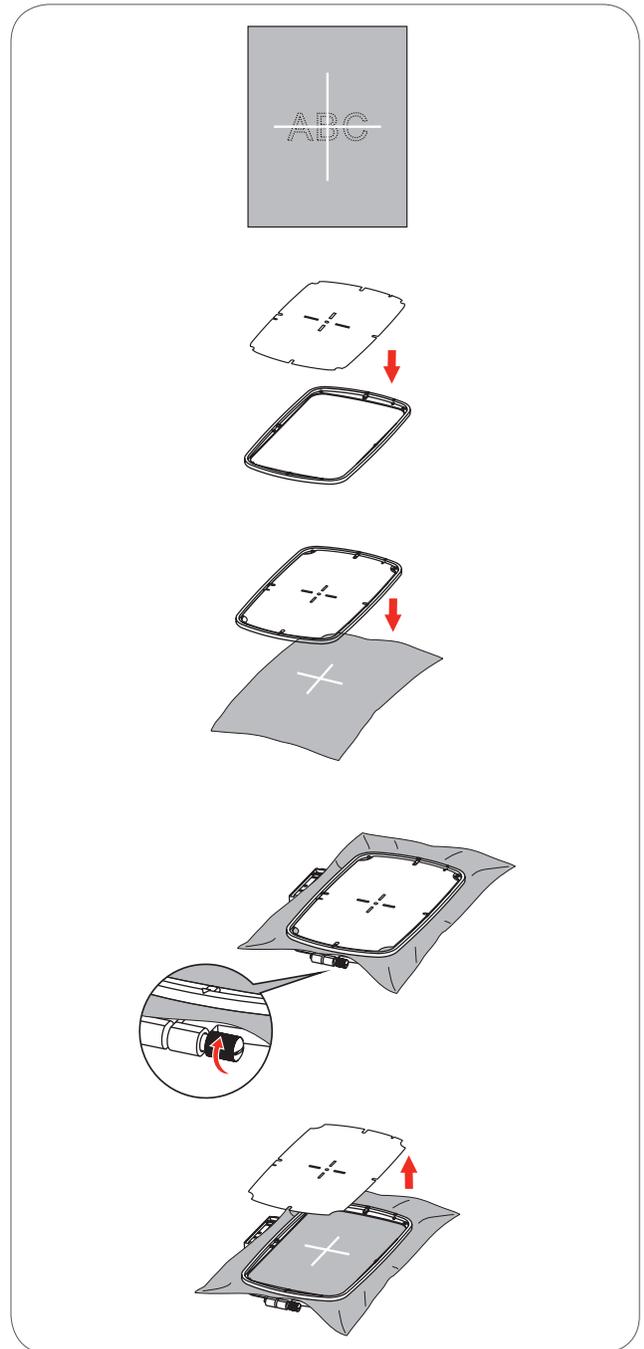
Hooping the fabric

- Loosen the embroidery hoop adjustment screw on the outer hoop.
- Separate the inner and outer hoop by removing the inner hoop upward.
- The fabric is hooped with the right side up.
- Place the fabric with the stabilizer material on top of the outer hoop.
- Press the inner hoop down.
- Push down firmly until the inner hoop fits securely into the outer hoop.
- Align the fabric with the inner hoop (a) and the outer hoop (b).
- Tighten the adjustment screw to secure the fabric.
- Tighten the fabric by hand.
- After tightening the fabric, make sure that the fabric is stretched tautly in the hoop.



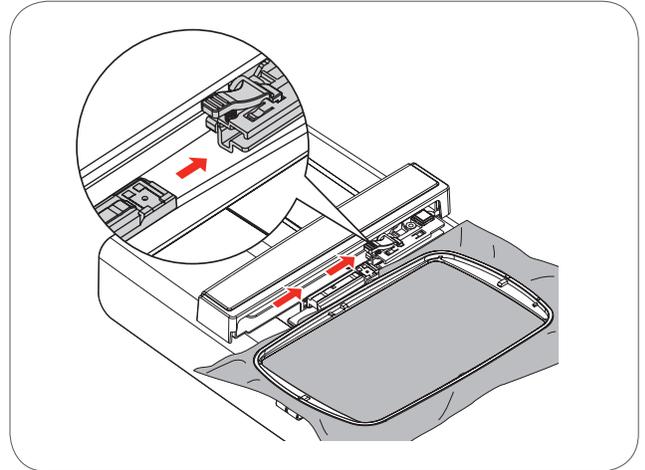
Using embroidery templates

- Mark the center position of the design to be embroidered using a chalk pen.
- Place the embroidery template on the inner frame.
- Align the fabric with the base line of the embroidery template.
- Place the inner frame over the fabric on the outer frame and stretch the fabric.
- Remove the embroidery template.



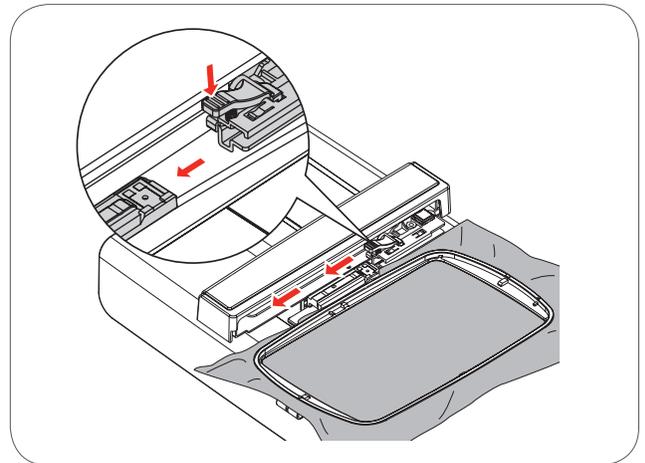
Attaching the embroidery hoop

- Raise the presser foot.
- Place the embroidery hoop under the presser foot.
- Attach the embroidery hoop, plug the embroidery hoop connector into the hoop securing lever from the front to the back until it clicks.



Removing the embroidery hoop

- Raise the presser foot.
- Press the snap on the embroidery hoop holder down.
- Pull the hoop towards you smoothly and carefully.



Stabilizer

Tear-away stabilizers

- Excess is easily torn away.
- One or more layers can be used.
- Available in different weights.
- For more stability, apply to the wrong side of the material with temporary adhesive spray before hooping.
- Carefully tear away excess stabilizer from the back of the embroidery after stitching.
- Designs are not skewed.
- Stabilizer will remain under larger embroidered areas.

Application

- For all woven materials and materials without stretch.

Cut-away stabilizers

- One or more layers can be used.
- Available in different weights.
- For more stability, apply to the wrong side of the material with temporary adhesive spray before hooping.
- Carefully cut away from the back of the embroidery after stitching.
- Designs are not skewed.
- Stabilizer will remain under larger embroidered areas.

Application

- For all elastic materials.

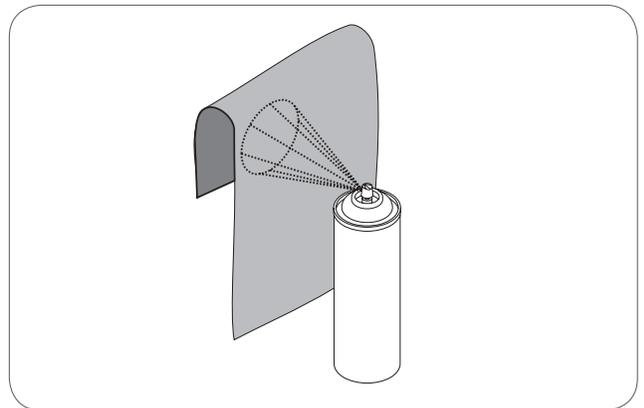
Adhesive Spray

Avoid using spray adhesive next to your embroidery system.

- At a distance of 25-30 cm use adhesive spray carefully.
- Spray the stabilizer and adhere to the wrong side of the material carefully smoothing material so that there are no puckers.

Application

- Stretch and knitted material: to retain shape.
- Smooth material: to avoid slipping of material layers.
- Appliqués can be exactly positioned.
- Material pieces: position material pieces on stabilizer, e.g.pocket flaps.
- Napped materials (i.e. velvet) that should not be clamped in the hoop to avoid getting hoop marks.
- To fix the parts to be embroidered.



Spray starch for additional stiffening

Spray starch is ideal for additional stiffening of fine, soft or loosely woven materials.

- Spray the area to be embroidered
- Let dry; or press gently with a warm iron if necessary
- Always use an additional stabilizer such as water soluble stabilizer on the wrong side of the material.

Application

- Ideal for fine, loosely woven materials, e.g. batiste, fine linen, etc.

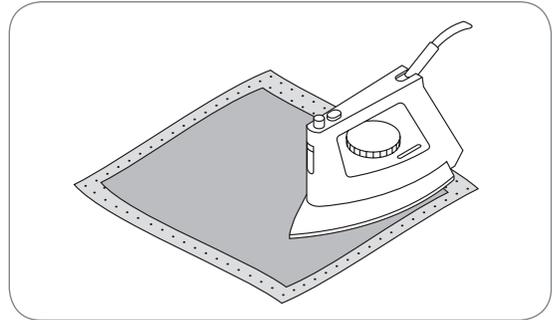
Iron-on interfacing

Iron-on interfacings are available in a variety of weights. Iron-on interfacings should be selected to suit the material being used. Use an iron-on interfacing which is easily removable from the material.

- Iron-on interfacings are pressed (fused) to the wrong side of the material

Application:

- To provide body and shape for the materials onto which designs will be placed, use the appropriate stabilizer.



Paper-backed adhesive stabilizer

- Place stabilizer in hoop, paper side up.
- Use a pointed object (e.g. scissors) to score the paper.
- Remove paper to reveal the self-adhesive surface.
 - The self-adhesive surface reveals.
- Position the material to be embroidered on the stabilizer and smoothen the area.

Application:

- Intended for delicate materials such as jersey or silk etc.
- For hard-to-hoop parts and materials.



Make sure that the adhesive residue on needle, stitch plate and hook area is removed.

Water soluble stabilizer

Water soluble stabilizers look like plastic wrap. Dissolve stabilizer in warm water when the embroidery is complete. Water soluble stabilizers are ideal protection for materials with a thick or looped pile such as toweling. This prevents the threads from sinking into the material and prevents the material from showing through the embroidery stitches.

- Place on top of the material.
- Place all the layers together into the embroidery hoop.
- Use adhesive spray to fix stabilizer if necessary.
- For material with a pile, reinforce with additional, suitable stabilizer on the wrong side.
- After dissolving lay the design down flat and let dry.

Application:

- Ideal for toweling, velvet, bouclé etc.
- Ideal for fine, sheer materials such as organdy, batiste, etc.
- For lace embroidery.

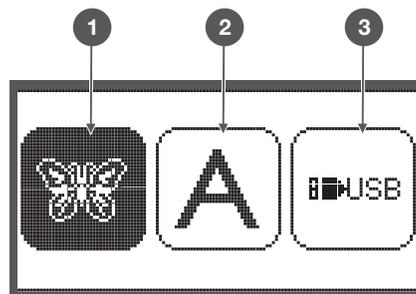


For lace embroidery place one or two layers of water soluble stabilizer in hoop (as the design is not embroidered on any material, only the thread embroidered design is left). Embroidery designs must be combined with short stitches otherwise the individual designs may fall out.

Embroidery Mode

Embroidery mode display - type selection display

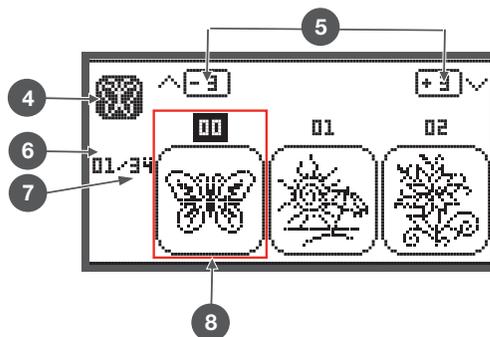
- 1 Built-in Embroidery Designs
- 2 Built-in Embroidery Letters
- 3 Designs from USB



This embroidery machine reads .exp format only. USB stick with up to 32GB readable / only USB 2.0 compatible

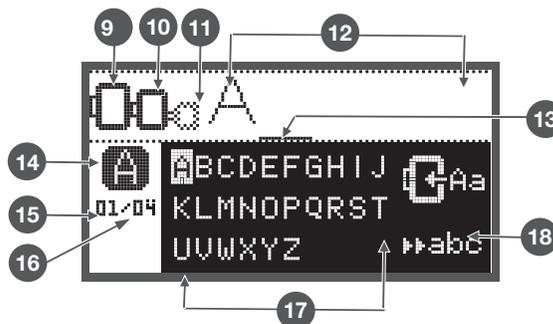
Embroidery mode display - type selection display

- 4 Type mode
- 5 Indication - select page up/down
- 6 Current page
- 7 Total pages
- 8 Embroidery design number and design



Embroidery mode display - Built-in Embroidery letters

- 9 Embroidery hoop size L-110*170mm
- 10 Embroidery hoop size M-100*100mm
- 11 Embroidery hoop size S-40*40mm
(While the hoop icon is flashing the machine is adjusting the size or the current size will change.)
- 12 Editing area
- 13 Cursor
- 14 Type mode
- 15 Current page
- 16 Total page
- 17 Embroidery letters
- 18 Letter type font



Function Buttons

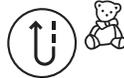
Start/Stop button

- Press the Start/Stop button to start the machine.
- Press again to stop it. The machine will move slowly at the start of sewing.
 - This way you may operate the machine without foot control.



Reverse/Exit button

- In Embroidery Mode press this button to return to the type selection display, the selected pattern is canceled.



Auto-Lock/Trace button

- In Embroidery Mode press this button to check the extents of the embroidery area. The embroidery arm will trace the outline in a rectangle, circumscribing the selected embroidery design without stitching.



Elongation/Resize button

- In Embroidery Mode, press this button to open the resize display.



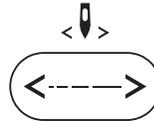
Double needle/Rotate button

- In Embroidery Mode, press this button to rotate the embroidery design.



Stitch length adjustment/ Stitch forward/backward button

- In Embroidery Mode, press this button to move forward or backward within the design stitch by stitch.



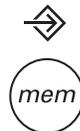
Stitch width adjustment/ Colour forward/backward button

- In Embroidery Mode, press this button to move forward or backward in the colour part.



Memory/Setup button

- In Embroidery Mode, press this button to enter the setting program.



Clear/Return button

- If an incorrect pattern or memory file is selected, press this button to clear it or to return to the previous display.



Pattern group selection/Colour setup button

- In Embroidery Mode, press this button to set the single or multi colour for embroidery designs.



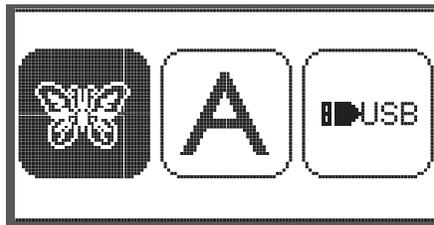
Embroidery Selection

Embroidery Design types

An embroidery design can be selected from the following types available.

- Built-in Embroidery Designs
- Built-in Embroidery Letters
- Designs from USB stick

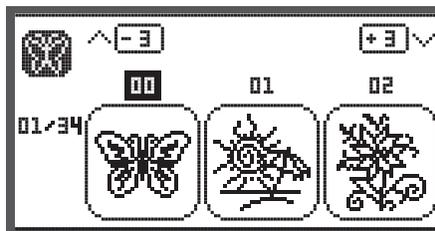
- Use the right/ left arrow buttons to select and press the OK button.
- Select and press the OK button to enter the selected Embroidery design Group.



Built-in Embroidery Designs



There is a total of 100 designs. The designs are embroidered by changing the upper thread according to the instructions shown on the displayed.



Built-in Embroidery Letters



Choose from upper case/ lower case/special character/ number & symbol. When selecting letters or writing a word for embroidering, the display is not showing the written word but it is showing „word“ only.

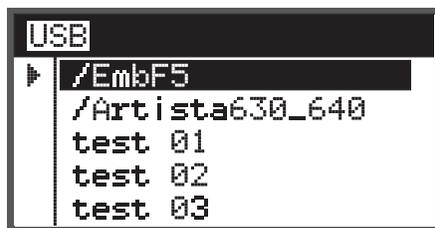


Designs from USB stick



To sew the designs from the USB stick.

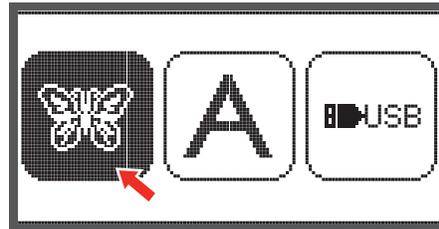
- The design file name must not be longer than 17 items.
- Always save .exp and .inf file of the Design that Chicago 7 can read all the information correctly.
- When uploading Designs from USB stick, the display is not showing the design but it is showing „usb“ only.
- The design file name may only contain following letters, signs and numbers.



A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
a b c d e f g h i j k l m n o p q r s t u v w x y z
1 2 3 4 5 6 7 8 9 0 & ! _ . - ()

Built-in Embroidery Designs

- Use the arrow buttons to choose the built-in embroidery designs and press the OK button.

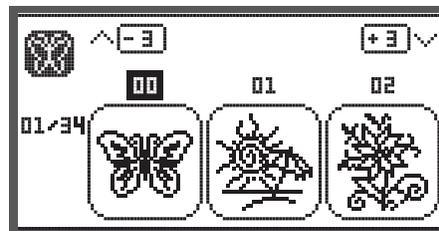


There will be 3 designs on the display.

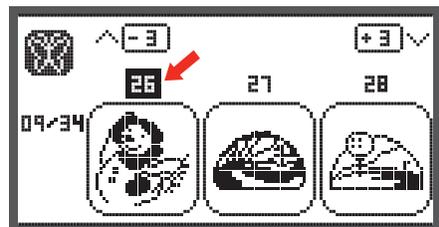
- Use the right/left arrow buttons to switch.

To move forward or back by 3 designs.

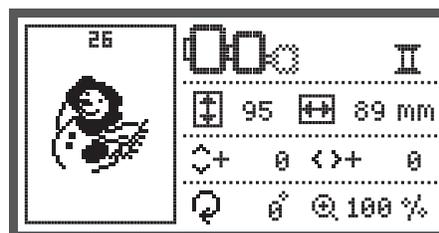
- Press the up/down arrow buttons.



- Or just press the number buttons for direct selection. (E.g. No.26)



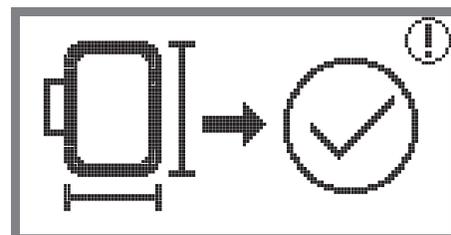
- Press the OK button to enter the editing display.



NOTE

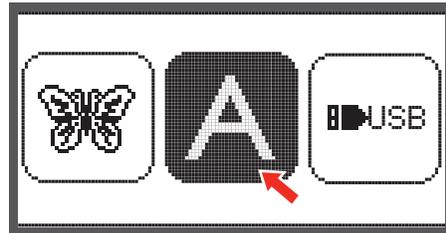
On the editing display the embroidery design may be moved forward/backward & right/left, resized from 80% - 120% or rotated by pressing the respective button. For detailed description see page 27.

- Press the OK button to prepare embroidery.
 - A warning message appears reminding you to check the embroidery hoop size.
- Press the OK button to confirm and enter the embroidery display. Now you can start to embroider.



Built-in Embroidery Letters

- Use the arrow button to choose the built-in Embroidery Letters and press the OK button.



- Press the arrow buttons to choose the letters.
- Press the OK button to select the desired letter.
- Press the clr button to delete a letter.

To move forward or back by 3 letters.

- Press the up/down arrow buttons.



- Move the cursor to the icon at the lower right corner.

Switch between upper case/lower case / special character/number & symbol

- Pressing the OK button.

▶▶ABC – Upper case

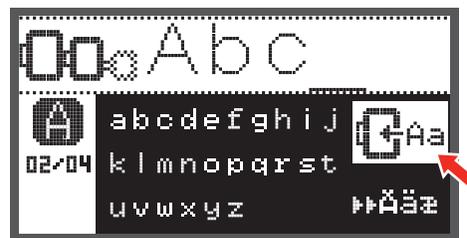
▶▶abc – Lower case

▶▶123 – Special characters

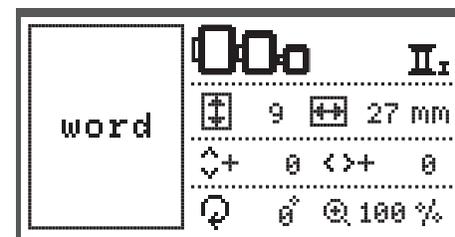
▶▶ÄË – Number & symbols



- Enter some letters, e.g. Abc.
- After editing, move the cursor to the icon on the right side in the middle of the display.



- Press the OK button to enter the editing display.



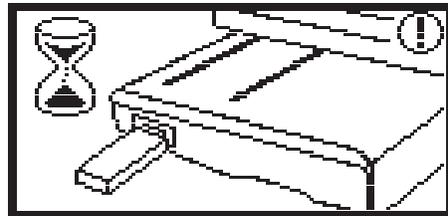
- Press the OK button to prepare embroidery.
 - A warning message appears reminding you to check the embroidery hoop size.
- Press the OK button to confirm and enter the embroidery display. Now you can start to embroider.



Designs from USB stick

The embroidery module provides a USB port to connect your USB stick.

Via the USB stick you can transfer embroidery designs to the machine and the Embroidery designs can be recalled from the USB stick.



Connecting and removing from USB port

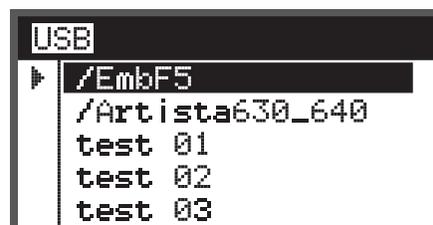
- Insert the USB stick into the USB port on the left side of the embroidery module.
- To remove, carefully pull the USB stick out.



When attaching the USB stick to the embroidery module a message appears reminding you to wait until finish reading the designs. After the warning message disappears, the designs can be uploaded from the USB stick.

Recalling the design from USB stick

- Use the arrow buttons to choose the USB icon and press the OK button.
- Use the arrow buttons to choose the desired embroidery design and then press the OK button.



This embroidery machine reads .exp format only. USB stick with up to 32GB readable / only USB 2.0 compatible

Starting to embroider

After the preparations are done, you can start embroidering. Select the embroidery thread according to the information shown on the display.

When using pure .exp designs from the internet you may find the color information in their document.

- Prepare the embroidery thread, thread the needle and attach the embroidery foot.

- Lead the thread through the embroidery foot hole, and hold it lightly in your left hand.



ATTENTION!

If the thread is pulled too tightly, the needle may break or bend.

Do not allow anything to hit the arm while embroidering. The design might become distorted.

- Lower the presser foot

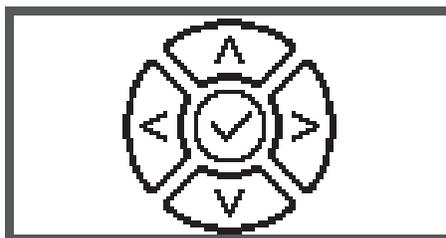
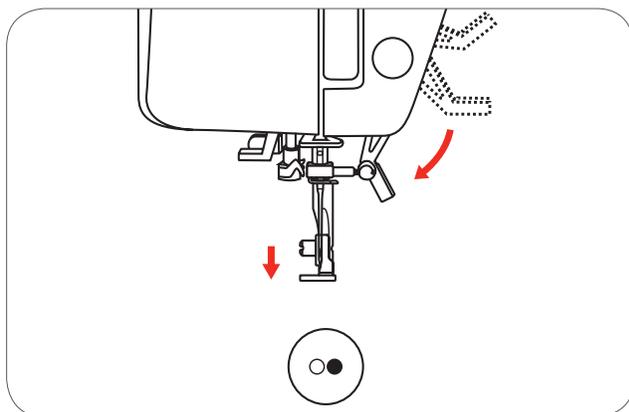
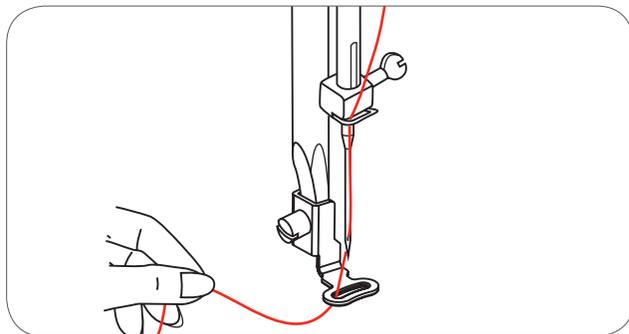
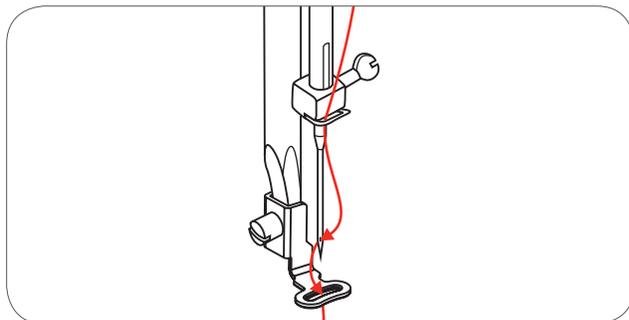


NOTE

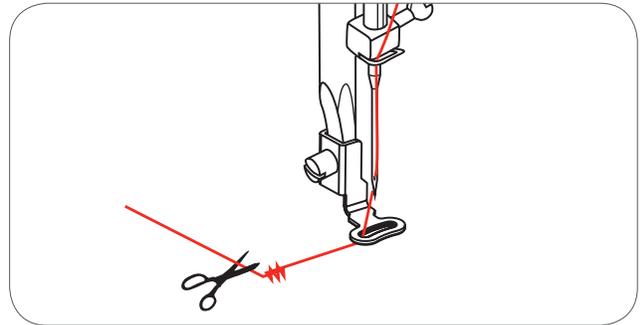
Before pressing the Start/Stop button, press OK button and then the arrow buttons can be used to move the first stitch to desired position.

This is especially used with border embroidering.

- Press Start/Stop button to start embroidering.
- After sewing 5 to 6 stitches, press the Start/Stop button again to stop the machine.

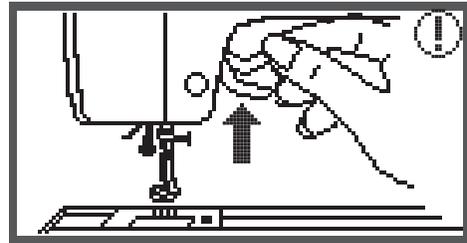


- Raise the presser foot.
- Cut the thread at the beginning of the stitching.
- Lower the presser foot.
- Press the Start/Stop button to continue embroidering.



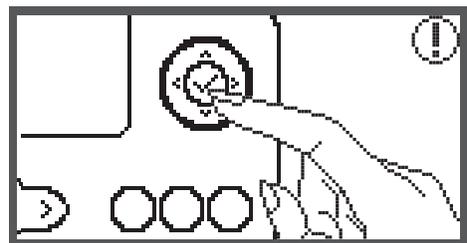
When the first colour is completed, the machine stops automatically.

- The message «Raise presser foot» is displayed.



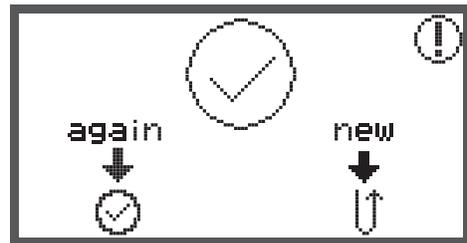
After raising, change the thread according to the information on the display.

- Re-thread with the next colour and press the OK button to confirm.
- Repeat the same actions.



When the embroidery is completed, the machine stops automatically and this message appears.

- Press the OK button to return to the design type selection display.
- Press the Reverse/Exit button to return to editing display of embroidery designs.



NOTE

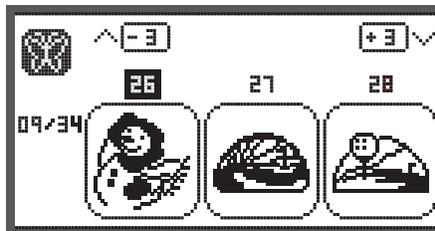
To simply threading of the new thread color and for easier trim of the jumping stitches the embroidery hoop can be moved forwards by pressing the Auto-Lock/Sequence button. By pressing the Auto-Lock/Sequence button again, the embroidery hoop goes back to the correct position.

Editing the Embroidery Design

Basic setting

You can edit designs to create original embroidery.
After selecting the embroidery design.

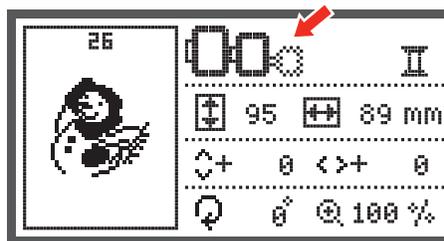
- Press the OK button to open the editing display.



Embroidery hoop

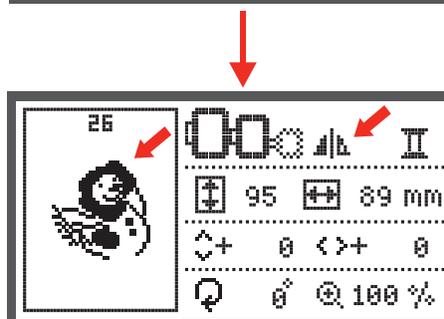
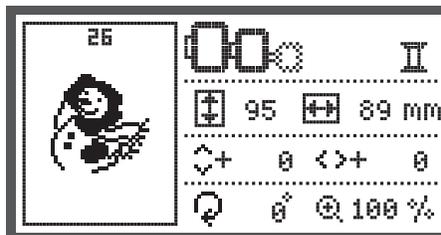
These icons start flashing if the design has been resized, the layout has been altered or the recommended embroidery hoop size has been changed.

Embroidery hoop icons that appear in gray cannot be used.



Mirroring the Design

- Press this button to mirror the embroidery design horizontally.
 - The LCD display icon for mirror imaging of the design appears.



Resizing the Design

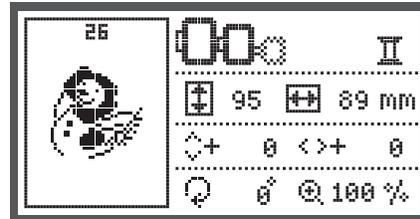
- Press the button to resize the embroidery design.



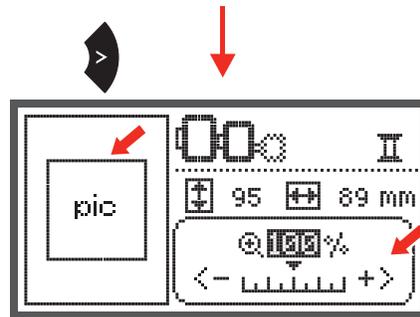
You can change the size of embroidery design from 80% to 120% of the original size.

When you press the button, the resizing display will open.

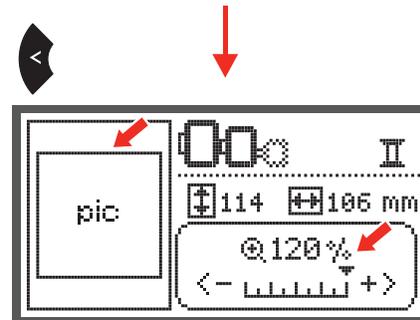
Use the arrow buttons to alter the size, the size will change in 5%-steps each time you press the arrow button.



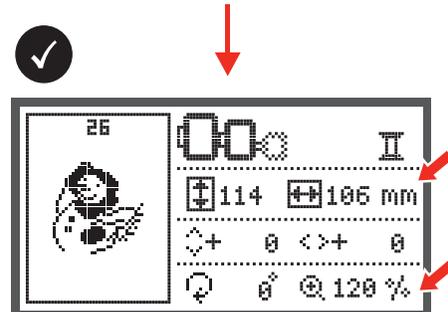
- Press to enlarge the size of the design.



- Press to reduce the size of the design.



- Press the OK button to save the new size and return the editing display.

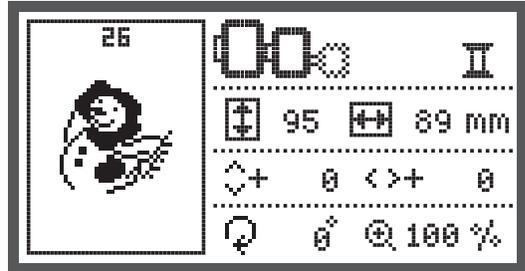


NOTE

Not all designs are suitable to be scaled to 80%.

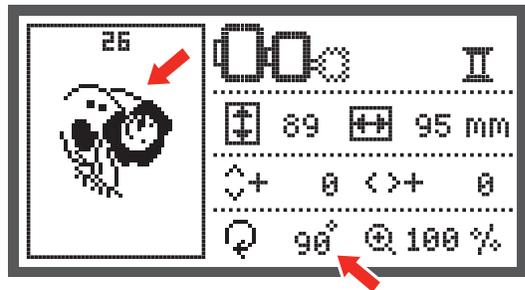
Rotating the Design

- Press the button to rotate the embroidery design.



It will rotate 90 degrees clockwise each time when pressing the button, the angle of the design will be shown.

The icon to rotate the design appears.



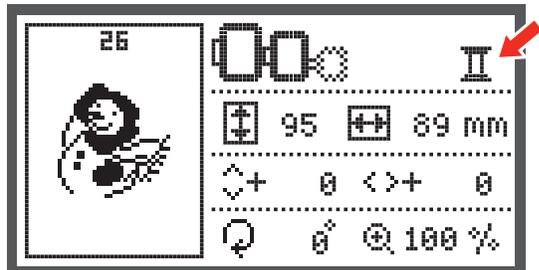
Single/ Multi color

- Press the button to set the single or multi color for the embroidery design.



II Multi color

II_I Single color



Repositioning the Design

- Use the arrow keys to move the design to a new position. When holding the key pressed the repositioning speed will be faster.
- With the “Trace” button you can check the position. The embroidery arm will trace the outline in a rectangle, defining the embroidery design without stitching.
- When the editing is finished, press “OK” to change from editing screen to the stitch-out screen. Press „OK“ again to confirm that the correct hoop is attached. The embroidery arm is moving, the needle is positioned at the first stitch of the design. If the first stitch has to be at an exact position, e.g. for border embroidering): Press “OK” and then use the arrow buttons to move the needle (=first stitch) to the desired position.



NOTE

When using the “Trace” button in the stitch-out screen, the needle will move to the center of the design.

- Use “clr” to go back to the editing-screen. Make all modifications. In the editing-screen you have the possibility to use “Trace” to check the outline of the design. When finished, press “OK” to switch back to the stitch-out screen

Advanced settings



- Press the button to open the setup program and alter the embroidery mode settings.
- Press the button again to save the settings and leave the setup program.

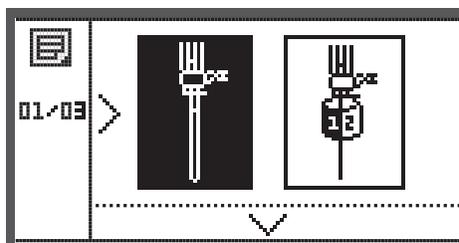
In the setup program, the machine settings or function for embroidery can be customized or executed.

There are 6 functions in the program, use the arrow buttons to select the function.

CutWork Tool

The basic setting refers to the sewing needle.

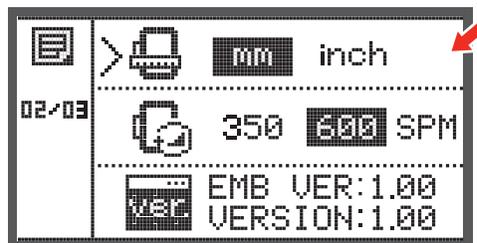
- The Cutwork tool can be selected via the arrow buttons.
-
- Confirm the selection with the OK button.



Inch/mm options

The default unit setting is millimeter.

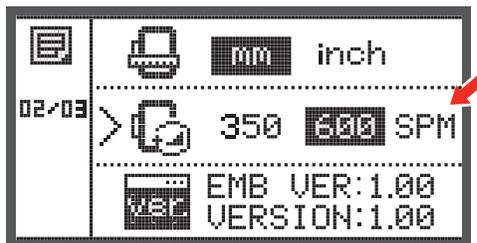
- You can set your machine's measuring unit to either inch or millimeter by pressing the arrow buttons.



Embroidery maximum speed

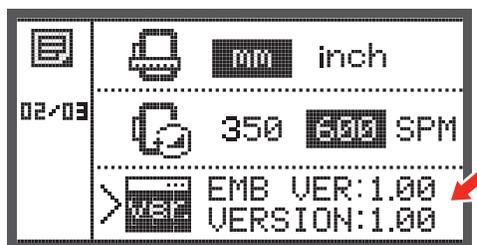
The default speed setting is 600 spm.

- The maximum sewing speed can be altered from 350 to 600 spm for embroidery sewing by pressing the arrow buttons.



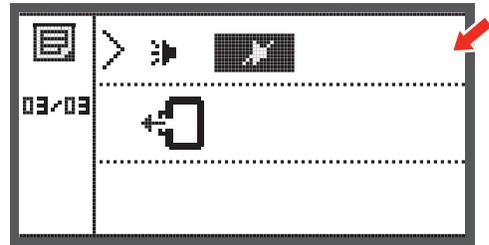
Software version information

- The first line displays the embroidery software version and the second line displays the machine software version.



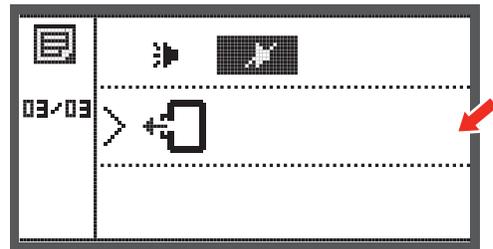
Acoustic signal

The acoustic signal sound can be set on/ off by pressing the arrow buttons.



Embroidery arm return

- Press the OK button and the arm will move to the home position.

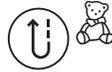


ATTENTION!

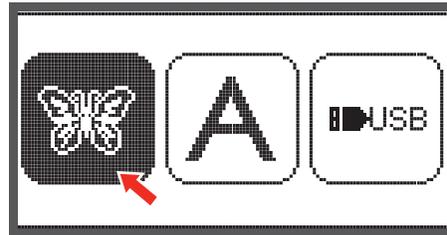
Do not return the arm with the embroidery hoop attached.

Load a Design after interruption

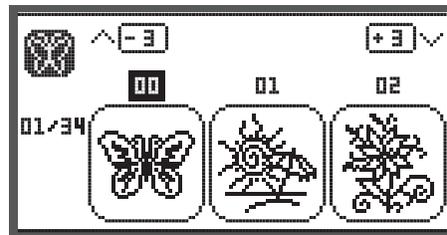
- Press the button to open the type selection display.



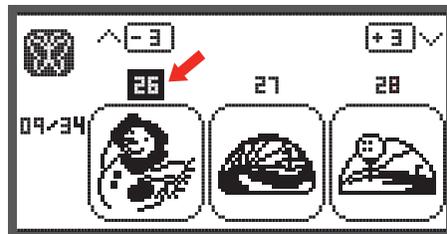
- Use the arrow buttons to choose the design from Built-in Embroidery designs or from USB stick.



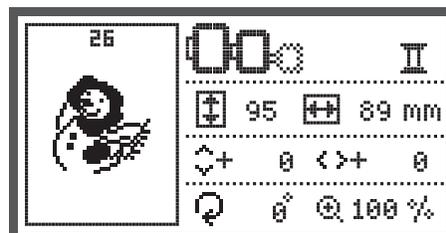
- Press the OK button to confirm the selection.



- Use the arrow buttons or just press the number buttons to select the desired design.



Make all necessary editings, i.e mirroring, resizing, rotating.



- Press the OK button to prepare embroidery.
 - A warning message appears reminding you to check the embroidery hoop size.



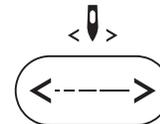
- Press the OK button to confirm and enter the embroidery display.



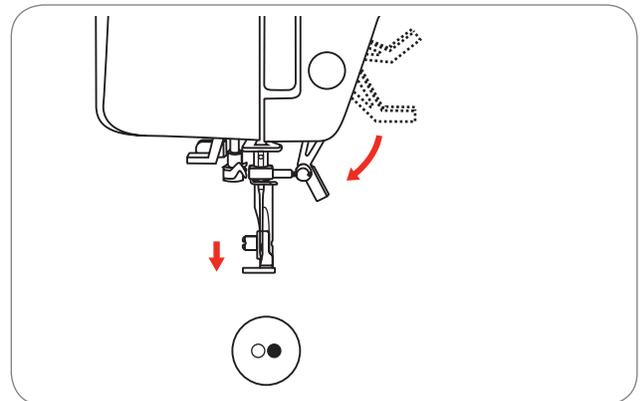
- Press the button to move the design to the last embroidered color.



- Press the button to move the design to the last embroidered stitch position.



- Lower the presser foot and press start/stop button to start to embroider.



NOTE

Always remember all made design editings in case of any interruption to be able to continue embroidering the design.

BERNINA CutWork Tool*

* The BERNINA CutWork Tool accessory is optional. It is not included with this machine.



NOTE

Do NOT change the needle plate to work with CutWork.



ATTENTION!

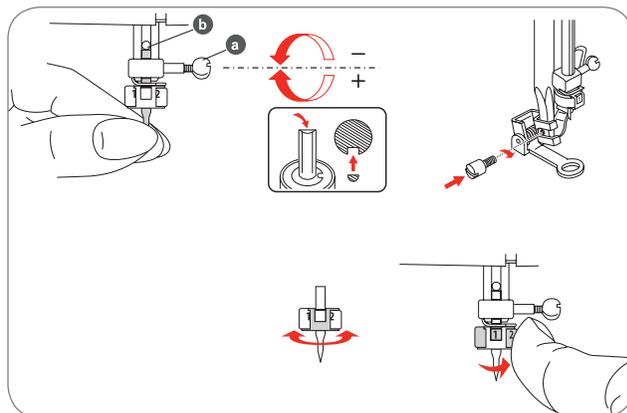
Turn power switch to off («O») when carrying out any of the following operations.

The CutWork Tool is a very sharp accessory. Special care is required when working with this tool and keep fingers away from the sharp knife. Please consult you in CutWork book packed with the CutWork Tool accessory.

Preparation

Attach the Darning/Embroidery foot

- Loosen the needle clamp screw (a) to remove the needle.
- Turn the CutWork Tool between no. 1 and no. 2.
- Insert the CutWork Tool with the flat side back, fully up to the top (b).
- Tighten the needle clamp screw (a) again.
- Turn the CutWork Tool back to no. 1.
- Attach the embroidery module



NOTE

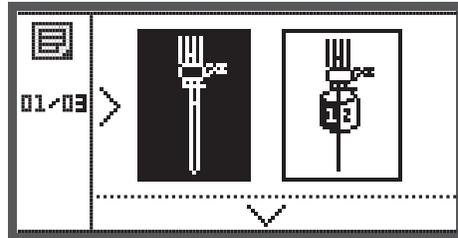
In CutWork Mode the upper thread sensor is disabled.

When a CutWork Design is selected the machine makes all necessary settings automatically.

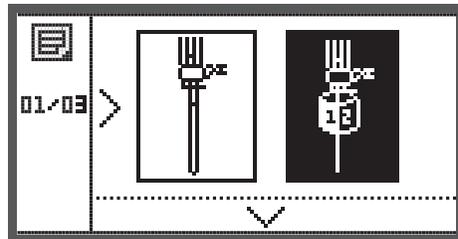
Switch from Embroidery Mode to Cutting Mode

Depending on the selected designs, the machine is making all necessary settings automatically.

- Switching from Embroidery Mode to Cutting Mode can be made manually too.



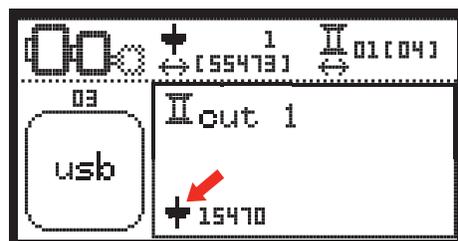
- Open the Setup program and use the arrow buttons to choose the CutWork Tool or to choose the sewing needle.



- Press the OK button to confirm.



- In Cutting Mode following display is shown.



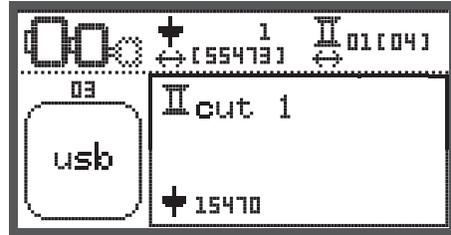
- In Embroidery Mode following display is shown.



Start to Cut

Upload the CutWork Design via the USB Stick to the machine.

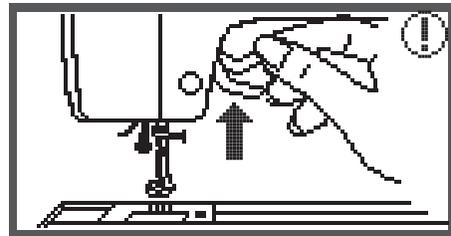
- The display will show the CutWork Design with „Cut 1“.



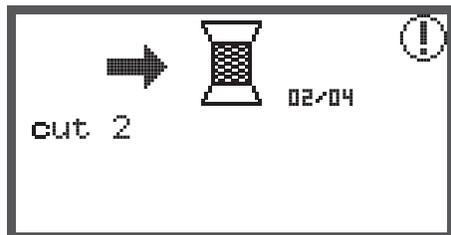
- Press Start/Stop button and start to cut.



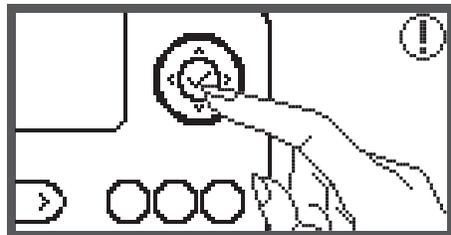
- When Cut 1 is completed, the machine stops automatically. The message „Raise presser foot“ is displayed.



- After raising, turn the CutWork Tool according to the information on the display.

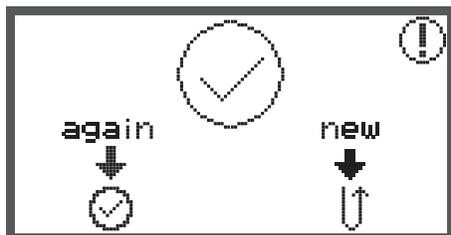


- Turn the CutWork Tool to next Cut and press the OK button to confirm.
- Repeat the same actions.



When the cutting is completed, the machine stops automatically and this message appears.

- Press the OK button to return to the design type selection display.
- Press the Reverse/Exit button to return to editing display of embroidery designs.



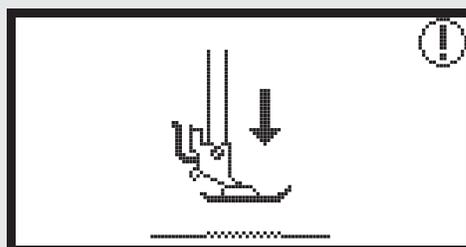
Warning functions

Warning message

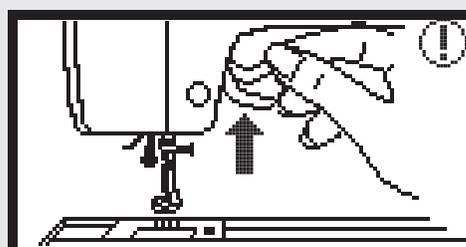
Warning display

Presser foot is not lowered

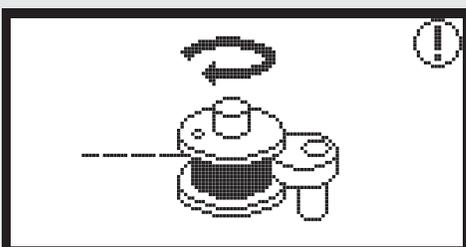
This message is displayed when the Start/stop button or the needle up/down position button is pressed while the presser foot is raised.

**Presser foot is not raised**

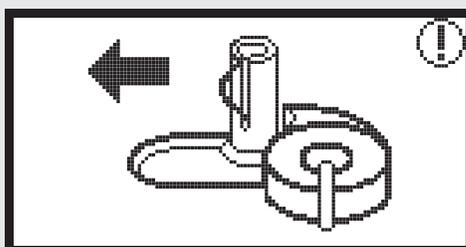
This message is displayed when the embroidery module will initialize while the embroidery foot is lowered.

**Bobbin winding**

This message is displayed when the bobbin winder is winding the bobbin.

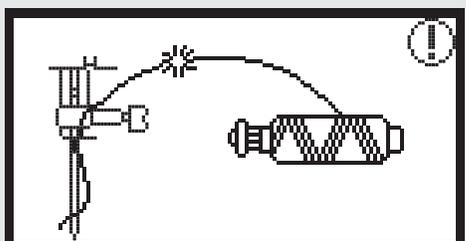
**Push the bobbin winder spindle to the left**

This message is displayed when the bobbin winder spindle is still positioned to the right.

**The upper thread is broken**

This message is displayed when the upper thread is broken.

Please check and rethread the upper thread.

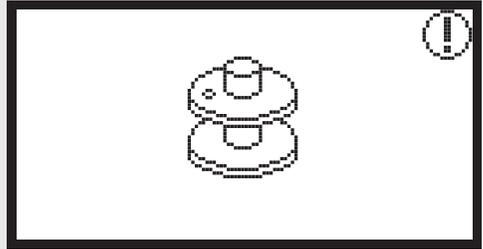


Warning message

Warning display

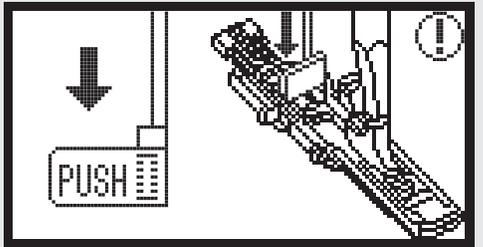
Bobbin thread is low

This message is displayed when the bobbin thread is running out.



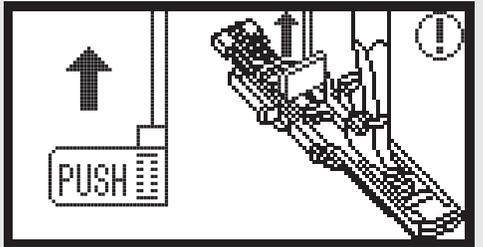
BH lever is not lowered

This message is displayed when the buttonhole or darning stitch was selected and the start/stop button was pressed while the buttonhole lever is raised.



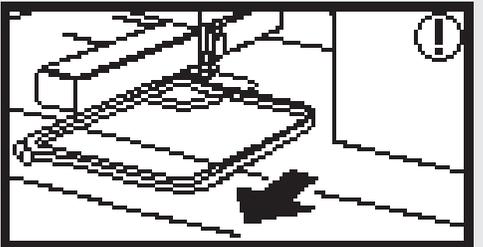
BH lever is not lifted

This message is displayed when the stitch other than the buttonhole or darning stitch was selected and the start/stop button was pressed while the buttonhole lever is down.

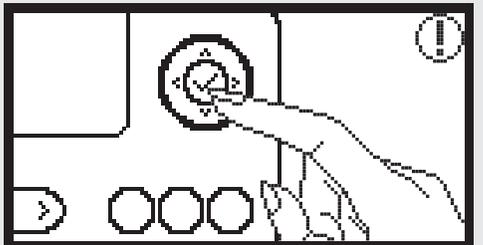


Remove the embroidery hoop.

This message is displayed when the embroidery module will initialize, it is reminding you to remove the embroidery hoop.



Press the OK button to confirm

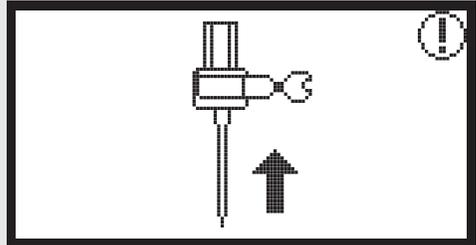


Warning message

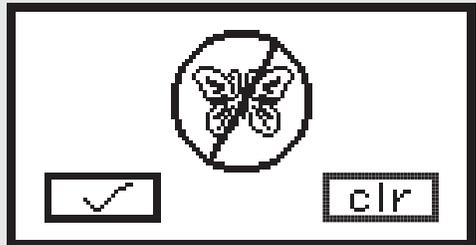
Warning display

Press the needle up/down position button to raise the needle.

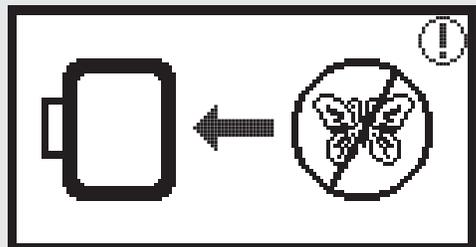
This message is displayed when the embroidery module is attached and the power is turned on with the needle in the down position.

**Delete design?**

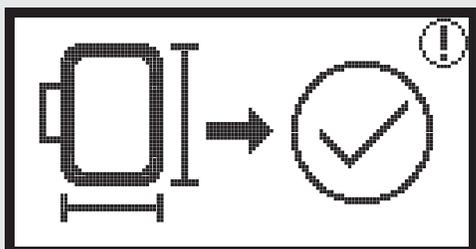
This message is displayed when the machine is in embroidery mode and you pressed the button

**The embroidery design can't be imported.**

This message is displayed either when the machine is in USB mode, the embroidery design you selected is too large to fit in the embroidery hoop (110*170mm) or it has more than 30 colours.

**Check the embroidery hoop size.**

This message is reminding you to check the embroidery hoop size.

**Change the thread color.**

This message is reminding you to change to the next color part thread.



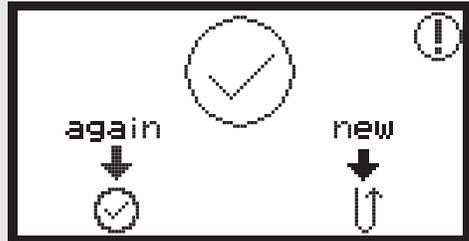
Warning message

Warning display

Embroider again or choose a new design?

This message is displayed when the embroidery design is completed.

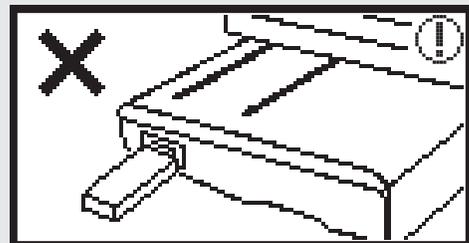
Press the buttons to choose embroider again or choose a new design.



Cannot recognize the data.

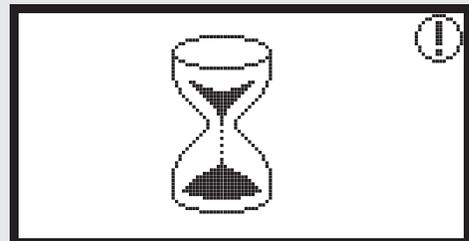
This message is displayed when the data of the selected design is defective.

It is also displayed when USB stick capacity is higher than 32GB or higher than USB 2.0.



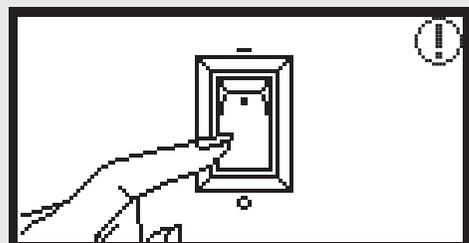
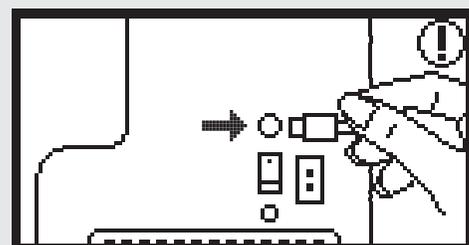
Loading.

An embroidery design is loading.



Turn off the machine, the plug is not attached correctly.

The messages are displayed when the embroidery module plug is not attached correctly.

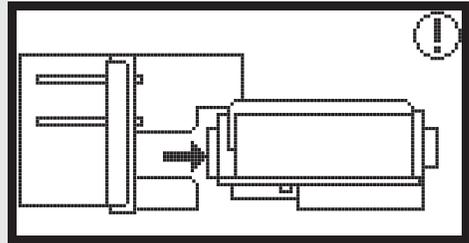


Warning message

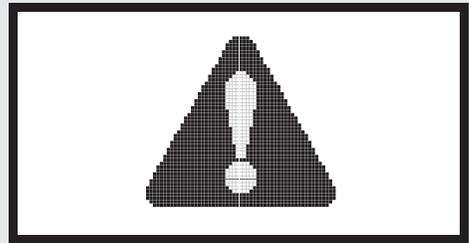
Warning display

Embroidery model is not attached correctly.

This message is displayed when the embroidery module is not attached correctly.

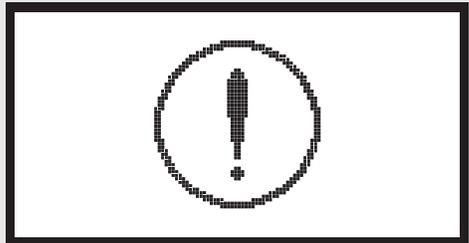
**The arm of the embroidery module will move**

This message is displayed when the embroidery module is initializing.

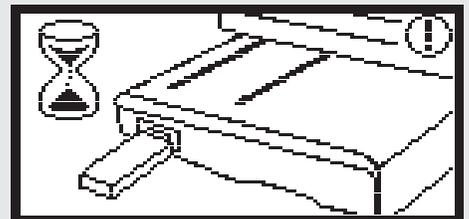
**The sewing machine is blocked**

The exclamation message means that the thread is twisted or jammed or the fabric is too thick and the hand wheel cannot move.

- Please look through the «Trouble shooting guide» on page 42-43 to resolve the problem.



This message is displayed when the USB files are read.



Warning sound

When operating correctly:

1 beep

- When the memory is full with 20 units of designs:
 - 3-short beeps
- When operating incorrectly:
 - 3-short beeps
- When the sewing machine is in trouble and can't sew:
 - 3-short beeps



It means that the thread is twisted or jammed and the hand wheel axle can't move. Please look through the «Trouble shooting guide» to find the solution. After the problem has been solved, the machine will continue sewing.



NOTE

If the problem is still not solved, please contact your local dealer.



ATTENTION!

During sewing, if the thread get jammed inside the hook stopping the needle from moving and you continue pressing the foot control, the security switch will stop the machine completely. In order to restart the sewing machine, you will have to turn the on/off switch to the OFF position and then ON again.

Trouble shooting guide

Before calling for service, check the following items. If the problem can't be solved, contact the place of purchase or your nearest authorized dealer.

Problem	Cause	Correction	Reference
The sewing machine doesn't operate	<ul style="list-style-type: none"> The machine is not turned on. 	<ul style="list-style-type: none"> Turn on the machine. 	
	<ul style="list-style-type: none"> The machine is not plugged in. 	<ul style="list-style-type: none"> Connect the power line plug to the power outlet. 	
Embroidery module does not move	<ul style="list-style-type: none"> The embroidery module is not set up correctly. 	<ul style="list-style-type: none"> Set the embroidery module up correctly. 	9
	<ul style="list-style-type: none"> No design selected. 	<ul style="list-style-type: none"> Select a design. 	20

Problem	Cause	Correction	Reference
Embroidery not neatly done	<ul style="list-style-type: none"> The thread is tangled or the bobbin case, etc., is plugged up. 	<ul style="list-style-type: none"> Remove the tangled thread. When the bobbin case is plugged up, clean the hook area. 	
	<ul style="list-style-type: none"> The thread tension is incorrect. 	<ul style="list-style-type: none"> Adjust the tension of the upper thread. 	
	<ul style="list-style-type: none"> The fabric is not fully stretched in the embroidery hoop. The fabric is loose. 	<ul style="list-style-type: none"> Stretch the fabric properly in the embroidery hoop. 	12
	<ul style="list-style-type: none"> No stabilizer material is attached. 	<ul style="list-style-type: none"> Always use stabilizer material for embroidery with stretch fabrics, thin fabrics, fabrics with a loose weave and fabrics where stitches easily contract. 	15
	<ul style="list-style-type: none"> Objects are placed near the arm or embroidery hoop. 	<ul style="list-style-type: none"> If the embroidery arm or embroidery hoop bumps into objects, the designs will be distorted. Do not place objects within the range of any embroidery hoop motion. 	
	<ul style="list-style-type: none"> Material coming out of the embroidery hoop is causing problems. 	<ul style="list-style-type: none"> Stretch the fabric on the hoop once again so that the material coming out of the embroidery hoop does not cause problems, rotate the design and embroider. 	
	<ul style="list-style-type: none"> Heavy fabric is being embroidered, and the fabric is hanging off the table. 	<ul style="list-style-type: none"> If embroidery is done with the fabric hanging off the table, the embroidery module movement will be affected. Support the fabric while embroidering. 	
	<ul style="list-style-type: none"> The fabric is being caught. It gets jammed. 	<ul style="list-style-type: none"> Stop the sewing machine and arrange the fabric correctly. 	
<ul style="list-style-type: none"> The arm was moved while the embroidery hoop was being removed or attached during embroidery. 	<ul style="list-style-type: none"> If the arm is moved during the process, the design may be distorted. Be careful when removing or attaching the embroidery hoop. 		

Start Screen

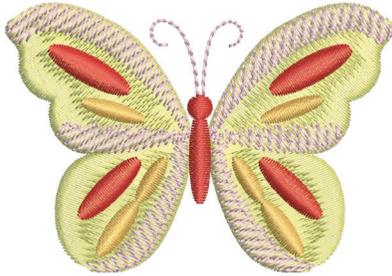
00 - Butterfly



4'086

71.9 mm

49.2 mm



Colors



01 - Beach Logo



5'622

100.4 mm

89.6 mm



Colors



02 - Jewel Flower



3'741

80.8 mm

95.2 mm



Colors



03 - Night Ballon



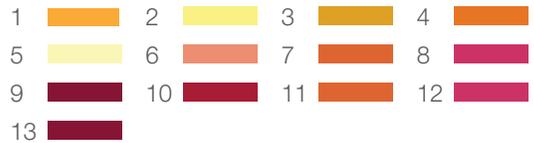
12'017

72.4 mm

91.8 mm



Colors



04 - Parrot



16'929

73.8 mm

129.8 mm



Colors



05 - Lil' Fish



8'045

76.2 mm

76 mm



Colors



06 - Hummingbird



4'936

92.2 mm

69.8 mm



Colors



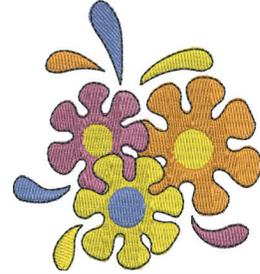
07 - Pop Flowers



7'637

63.4 mm

64.0 mm



Colors



Seasons

08 - Scarecrow



10'547

77.4 mm

98.6 mm



Colors



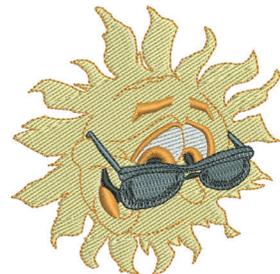
09 - Happy Sun



9'535

70.4 mm

69.7 mm



Colors



10 - Camping



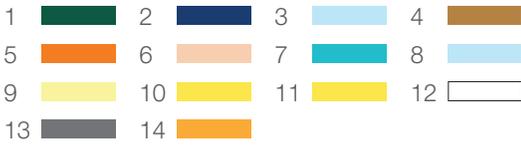
14'267

88.1 mm

67.5 mm



Colors



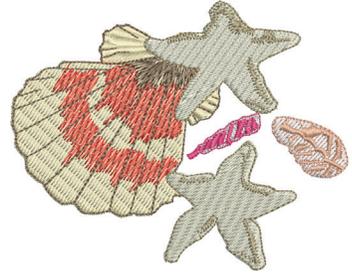
11 - Shells and Starfish



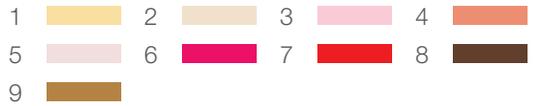
8'675

88.4 mm

69.7 mm



Colors



12 - Big Fireworks



7'283

80.5 mm

126.2 mm



Colors



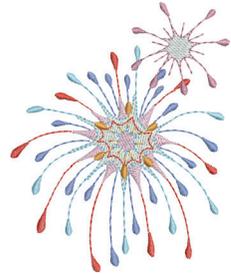
13 - Fireworks



6'308

80.8 mm

99.0 mm



Colors



14 - Pumpkins & Vine



11'165

88.8 mm

66.4 mm



Colors



15 - Pumpkins 2



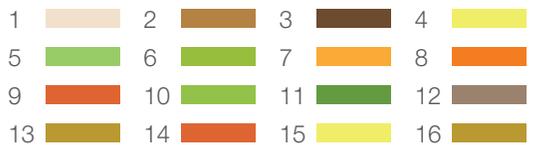
10'441

99.8 mm

87.4 mm



Colors



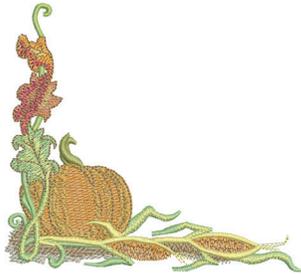
16 - Fall Corner



10'704

101.6 mm

91.5 mm



Colors



17 - Fall Leaves



9'881

74.0 mm

101.6 mm



Colors



18 - Pine Cones



6'402

76.2 mm

87.2 mm



Colors



20 - Santa 1



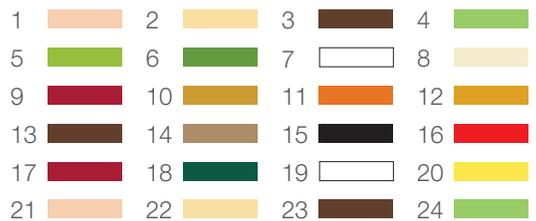
33'204

107.9 mm

155.0 mm



Colors



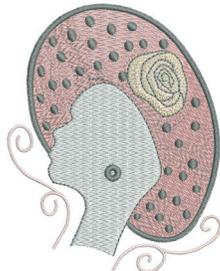
19 - Summer



16'344

82.8 mm

103.0 mm



Colors



21 - Santa 2



7'691

66.8 mm

102.0 mm



Colors

- | | | | | | | | |
|---|--|---|--|---|--|---|--|
| 1 | | 2 | | 3 | | 4 | |
| 5 | | 6 | | 7 | | | |

22 - Candle



8'271

100.8 mm

113.8 mm



Colors

- | | |
|---|--|
| 1 | |
|---|--|

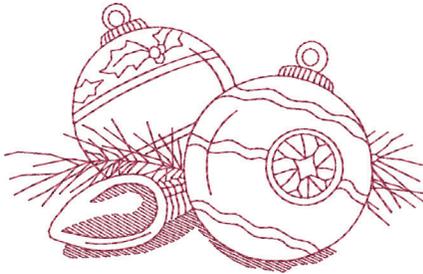
23 - Redwork Ornament



3'260

98.8 mm

62.6 mm



Colors

- | | |
|---|--|
| 1 | |
|---|--|

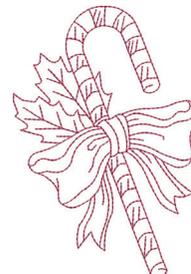
24 - Redwork Candy Cane



5'090

66.0 mm

97.4 mm



Colors

- | | |
|---|--|
| 1 | |
|---|--|

25 - Snowflake



4'708

76.4 mm

76.2 mm



Colors

- | | |
|---|--|
| 1 | |
|---|--|

26 - Breezy (Snowman)



15'888

89.0 mm

95.2 mm



Colors

- | | | | | | | | |
|----|--|----|--|----|--|----|--|
| 1 | | 2 | | 3 | | 4 | |
| 5 | | 6 | | 7 | | 8 | |
| 9 | | 10 | | 11 | | 12 | |
| 13 | | 14 | | 15 | | | |

Sports

27 - Sunrise on the Greens



10'262

92.0 mm

49.9 mm



Colors



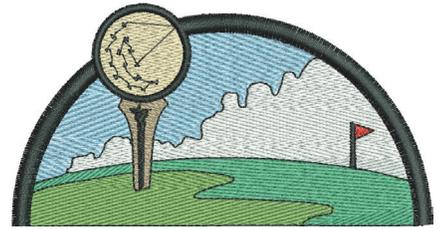
28 - Golf



10'465

94.6 mm

49.9 mm



Colors



29 - Baseball



9'704

127.4 mm

41.3 mm



Colors



30 - Soccer Player



8'050

83.6 mm

95.2 mm



Colors



31 - Soccer Smiley



17'079

89.4 mm

80.4 mm



Colors



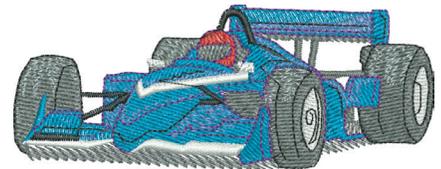
32 - Blue Race Car



11'484

98.6 mm

38.4 mm



Colors



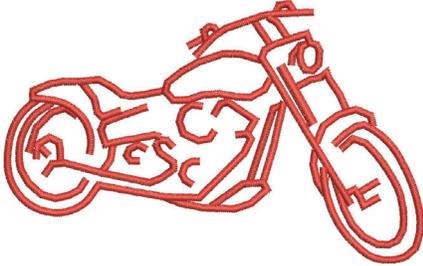
33 - Motorcycle



5'160

89.1 mm

55.6 mm



Colors

1

34 - Sailing



14'716

87.3 mm

88.6 mm



Colors

1 2 3 4
 5 6 7 8

35 - Fishing



6'450

101.2 mm

60.8 mm



Colors

1 2 3

36 - Hunting



5'158

104.8 mm

58.8 mm



Colors

1

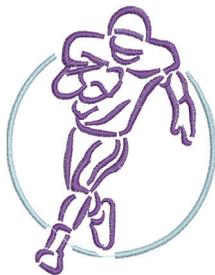
37 - Baseball



4'452

78.2 mm

93.4 mm



Colors

1 2

38 - Snowboarding



11'692

82.6 mm

99.0 mm



Colors

1 2 3 4
 5 6 7 8
 9 10 11 12

Decoration

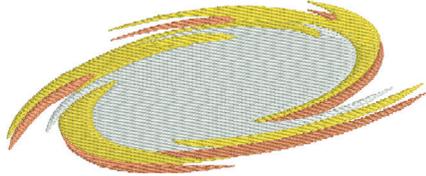
39 - Milky Way Ellipse



7'078

101.6 mm

41.0 mm



Colors



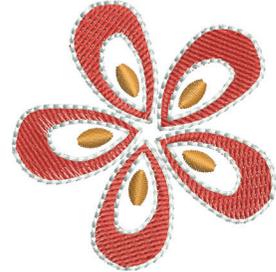
40 - Pop Flower 1



3'785

50.2 mm

50.9 mm



Colors



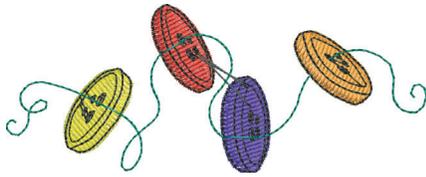
41 - Sewing Border



2'455

86.5 mm

34.2 mm



Colors



42 - Heart Monogram



3'734

98.8 mm

57.4 mm



Colors



43 - Lace Bouquet



11'144

92.0 mm

88.9 mm



Colors



44 - Heart Design



4'375

65.4 mm

56.4 mm



Colors



45 - Lace Heart Border



12'428

67.0 mm

151.6 mm



Colors

1 

46 - Flowered Heart



5'192

70.4 mm

89.0 mm



Colors

1  2  3  4 
 5  6  7  8 

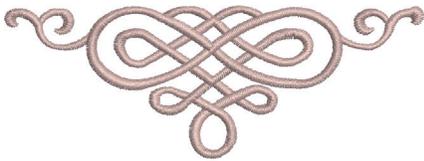
47 - Fancy Gizmo Border



2'665

98.6 mm

33.2 mm



Colors

1 

48 - Lace Flower



7'276

56.5 mm

98.6 mm



Colors

1 

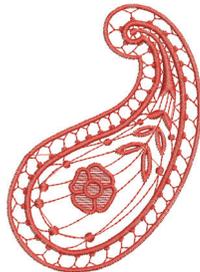
49 - Lace Paisley



6'188

71.1 mm

97.9 mm



Colors

1 

Flowers

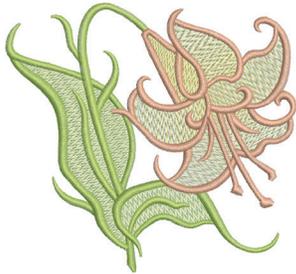
50 - Lily



14'243

95.4 mm

87.4 mm



Colors



51 - Aster



8'531

72.0 mm

89.2 mm



Colors



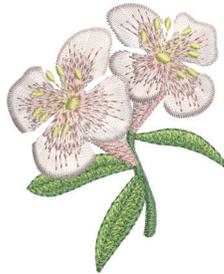
52 - Flowers 3



6'707

58.8 mm

71.9 mm



Colors



53 - White Daisies



15'642

76.2 mm

268.1 mm



Colors



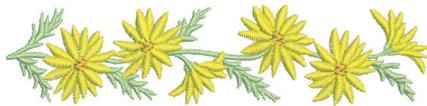
54 - Sunflower Border



4'903

98.8 mm

21.8 mm



Colors



55 - Daisy Wreath



7'995

86.3 mm

87.1 mm



Colors



56 - 3 Sunflowers



16'592

98.6 mm

71.4 mm



Colors



57 - 2 Roses



17'255

71.0 mm

136.0 mm



Colors



58 - Magnolia & Dogwood Corner



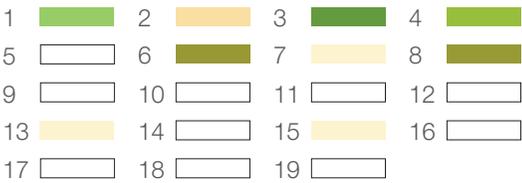
23'636

107.0 mm

138.8 mm



Colors



59 - Flowers 3



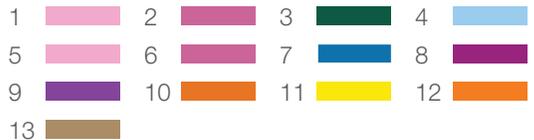
3'667

90.6 mm

127.0 mm



Colors



60 - Flowers



2'442

86.0 mm

117.8 mm



Colors



61 - Grapes 1



4'076

61.2 mm

65.4 mm



Colors



62 - Strawberries



7'984

62.5 mm

90.5 mm



Colors



63 - Floral Border



3'437

98.0 mm

34.0 mm



Colors



64 - Boston Ivy



6'944

85.3 mm

88.9 mm



Colors



65 - Flower Chain



4'675

132.6 mm

51.8 mm



Colors



66 - Flower Frill



5'977

89.6 mm

53.4 mm



Colors



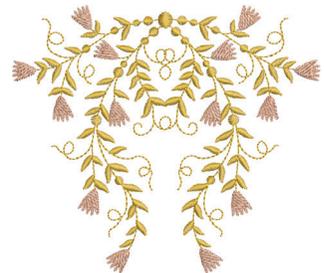
67 - Floral Swag



7'154

98.6 mm

85.4 mm



Colors



68 - Edelweiss



8'198

102.9 mm

58.5 mm



Colors



69 - Bouquet Applique



9'150

91.3 mm

146.6 mm



Colors



Children

70 - Rocking Horse



6'238

70.2 mm

74.0 mm



Colors



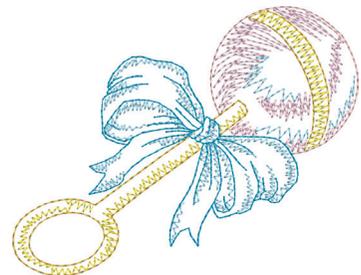
71 - Rattle



5'630

98.6 mm

76.4 mm



Colors



72 - Balloons



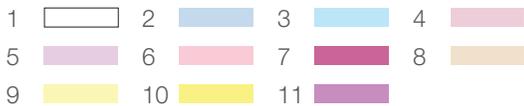
14'239

88.8 mm

98 mm



Colors



73 - Teddy Bear



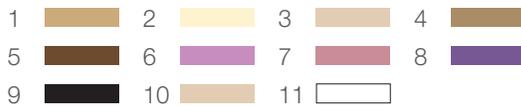
15'877

78.2 mm

106.4 mm



Colors



74 - Grizzly



17'306

72.8 mm

89.1 mm



Colors



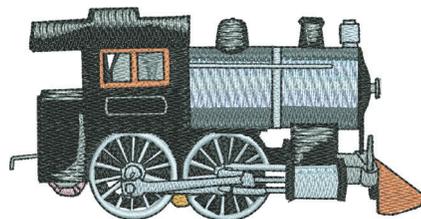
75 - 1910 Locomotive



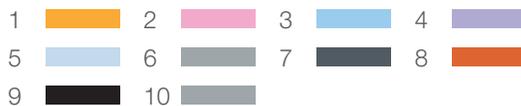
14'720

93.2 mm

47.2 mm



Colors



76 - Pirates



21'996

94.2 mm

98.5 mm



Colors



77 - Easter Girl in Flowers



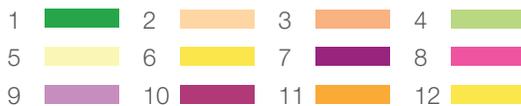
18'792

98.8 mm

78.6 mm



Colors



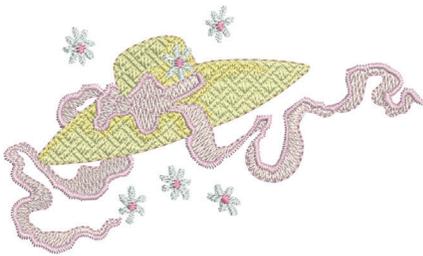
78 - Gardening Hat



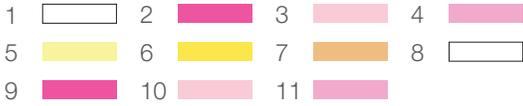
9'629

101.8 mm

59.2 mm



Colors



79 - Cute Bunny



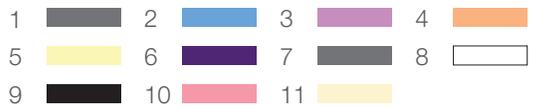
4'502

38.4 mm

53.8 mm



Colors



80 - It's a Girl!



8'201

96.0 mm

99.6 mm



Colors



81 - It's a Boy



7'263

103.0 mm

84.1 mm



Colors



82 - Girls Rule



13'778

98.6 mm

90.3 mm



Colors



83 - I Love You



5'996

99.5 mm

81.2 mm



Colors



Animals

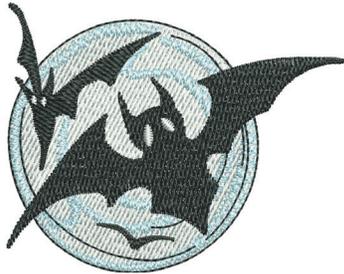
84 - Moonlit Bats



6'888

65.2 mm

51.4 mm



Colors

1 2 3 4

85 - Dragonfly



10'428

98.3 mm

62.4 mm



Colors

1 2 3 4
 5 6 7 8
 9 10

86 - Hummingbird 2



3'814

71.0 mm

84.8 mm



Colors

1 2 3 4
 5 6 7 8
 9 10

87 - Eagle



14'401

89.0 mm

120.6 mm



Colors

1 2 3 4
 5 6

88 - Dove



9'595

102.8 mm

120.4 mm



Colors

1

89 - Zebra



11'235

98.6 mm

74.1 mm



Colors

1 2

90 - Gazelles



15'215

90.7 mm

94.6 mm



Colors



91 - Giraffe



7'008

106.0 mm

114.3 mm



Colors



92 - Lion



9'140

95.0 mm

127.0 mm



Colors



93 - Buck



18'699

88.0 mm

88.0 mm



Colors



94 - Deer Head



5'733

65.6 mm

101.1 mm



Colors



95 - Kitty 2



1'380

75.0 mm

68.6 mm



Colors



96 - Wolf



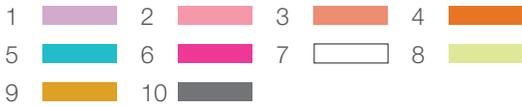
23'313

99.0 mm

77.2 mm



Colors



97 - Moorish Idol



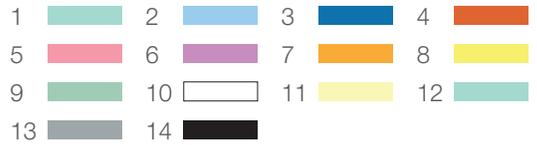
18'831

89.0 mm

85.6 mm



Colors



98 - Horse



11'383

99.2 mm

86.8 mm



Colors



99 - Dragon



17'151

68.2 mm

152.6 mm



Colors



bernette
sublime

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