My BERNINA
Embroidery Workbook

Embroidery Machine Basics
For all current BERNINA and Deco models

My BERNINA
Embroidery Workbook

Embroidery Machine Basics

580

7 Series

830

Deco 340

The information in this workbook applies to all current BERNINA embroidery modules & machines. *Note: Some exercises apply only to certain models equipped with the feature being highlighted.*

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My BERNINA
Embroidery
Workbook

Congratulations on your purchase of a BERNINA embroidery machine and/or module! This workbook is designed to be used in conjunction with the My BERNINA Classes offered at your BERNINA store, and contains a series of exercises intended to familiarize you with the features of your new BERNINA embroidery machine. In addition, you will learn about needles, threads, stabilizers, embroidery hoops and accessories, all of which will increase your knowledge of sewing and assist you in achieving success in all of your embroidery endeavors.

Once you have completed the exercises designated for your BERNINA machine, keep this workbook as a reference tool as you use your machine and explore the creative possibilities it affords.

BERNINA of America, Inc. strives to provide its customers not just with quality sewing machines, but with informative publications and classes. You'll find additional information on the BERNINA of America website –www.berninausa.com – offering free projects and embroidery designs, inspirational stories, and interviews with creative stitchers.

Learn to use your BERNINA embroidery machine to its full extent and enjoy being creative with fabric and thread!

For more ideas and information about using your BERNINA embroidery machine, download *Through the Needle* ONLINE. This FREE magazine offers fun sewing projects and informative articles for all types of stitchers: quilters, garment makers, embroiderers, crafters, virtual stitchers, fiber artists and more!
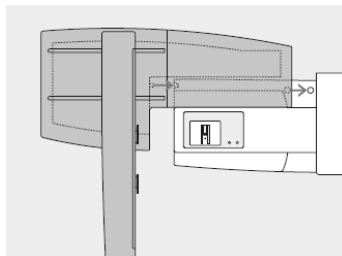
Sign up now for *Through the Needle* ONLINE at www.throughtheneedle.com, and you'll receive an e-mail notification with a link to each new issue when it becomes available. After all, the next best thing to sewing is reading about it!

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deco 340 Embroidery Machine
• Turn the machine OFF; insert the machine plug into the machine. *Note: The symbol "0" indicates the "off'" position of the* switch.
• Connect the machine to a power outlet and turn it on. *Note: After turning on the power, it takes about six seconds for the machine to boot up and the pattern selection window to be displayed on the touch screen.*

BERNINA 450 & 580 Embroidery Module
• Module Connection Cable
  - Stored on the bottom back edge of the module
  - Make sure the FLAT side of the cable plug is to the FRONT
• Attaching the Module
  - Place the machine on a flat surface (such as a table or countertop)
  - Place the module on the machine behind the free arm
  - Slide module on from left until lugs engage in base plate
• Removing Module
  - Remove cable plug from sewing/embroidery computer
  - Lift module slightly (do NOT use the embroidery arm to lift the module!); slide the module to the left

BERNINA 750, 780, & 830 Embroidery Module Set Up
• Attaching the Module
  - Place the machine on a flat surface (such as a table or countertop) sturdy enough to support the weight of the machine without sagging
  - Slide the module at an angle from left to right to Attach.
• Removing Module
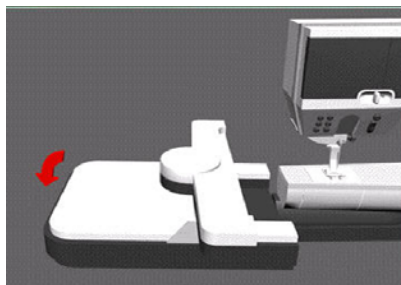 - Detach by lifting left end & sliding to the left.

Deco 340 Tips
• Always provide sufficient clearance for the embroidery carriage behind your machine before starting to stitch.
• Do not force to move the carriage by hand.
• Return the carriage to the idle position. before turning the power off.

BERNINA 450 & 580 Tips
• When connecting the embroidery module, make sure that the machine and module are on a flat and even Surface.
• Make sure that there is enough space around the sewing computer and embroidery module to allow the unimpeded movement of the embroidery arm.
• Always separate the module and sewing computer for transporting— never transport them as a single unit.

BERNINA 750, 780, & 830 Tips
• The slide-on table must not be attached while the embroidery module is being attached or removed.
• Make sure that there is enough space around the sewing computer and embroidery module to allow the unimpeded movement of the embroidery arm.
• Always separate the sewing computer and the embroidery module from one another before transporting – do not transport as a single unit.

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Preparing to Embroider
- Presser Foot (BERNINA 830, *780, 750 QEE, 580* & *450E)*
    - Attach Embroidery Foot #26 to the machine
- Needles
    - Use the proper needle for the thread and fabric being used; insert new needle for each project
    - Needle should be in the highest position when attaching the hoop to prevent snagging fabric and/or bending needle
- Straight Stitch Plate (optional accessory for BERNINA *780, 750 QE,* & *450E)*
    - Reduces flagging of fabric, resulting in improved stitching
- Bobbin—threaded for increased tension:
    - B580E: Use the Embroidery (gold latch) Bobbin Case threading the "pigtail"

pigtail
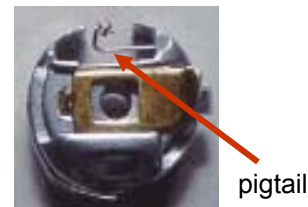
- BERNINA 780, 750 QEE*: The bobbin case is threaded the same way for embroidery as for sewing.

- BERNINA 830*: Pull the bobbin thread clockwise, guiding it into the slit on the right hand side of the hook area as shown (1). Then up (2) and down the curve of the retaining finger (3). Bring the thread back to the left, pull the thread until the bobbin makes 2 revolutions, then cut thread on cutter (4).

1   **2**   **3**   **4**
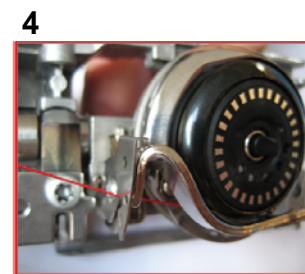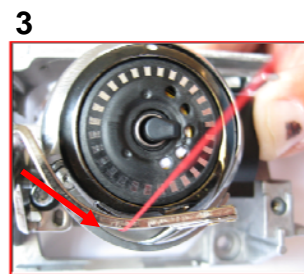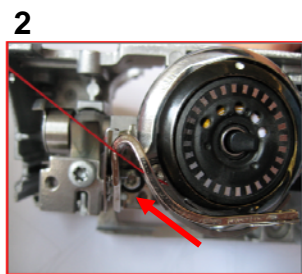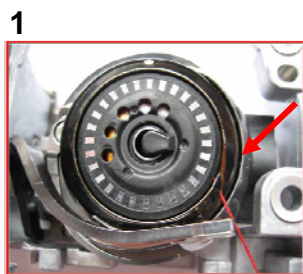
Threading
- Begin the threading process with the presser in the up position; this releases the tension; during the threading process the 830 and 7-series will lower the foot when necessary
- Thread using either the horizontal or vertical spool pin with the foam pad attached
    - Horizontal spool pin is for use with cross-wound threads
    - match spool cap size to end of spool
    - smallest spool cap fits into the end of large cones/spools
    - such as Isacord embroidery thread
    - Vertical spool pin is for use with stacked threads and should use the foam under the spool to avoid extra tension on the thread
    - also for some decorative and metallic threads
    - use supplemental thread guide as needed on the 450E to
    - control temperamental threads
- Use a thread net to prevent thread from forming loops which might interfere with consistent feeding
- Multiple Spool Holder (optional; available for *deco, 450E)*
    - attaches to the back of the machine
    - holds up to 13 thread spools

Multiple Thread Stand/Spool Holder

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Embroidery Thread

Most designs are digitized for 40 weight rayon or polyester thread, which are the most commonly used types by machine embroiderers. Both have a beautiful rich look; both are widely available. Polyester is stronger, more colorfast, and more abrasion resistant making it especially good for embroidering children's clothing. Polyester is also usually more economical than rayon.

Select high-quality embroidery thread because bargain brands may cause excessive thread breakage while stitching and may produce undesirable final results. Specialty threads such as metallics, acrylics, and silk may also be used but are often employed as accents rather than for full designs.

Bobbin Thread

Using a lightweight fine thread that will help avoid thread build-up on the wrong side of your project, keeping the design supple and avoiding a thick, hard result. Bobbin thread is designed to be strong so it will stand up to the high-speed stitching of high-quality embroidery machines. They are usually more economical than embroidery thread and will save time in thread changes if you use the same neutral-colored bobbin thread for all needle thread changes. Most thread companies offer a bobbin thread, sometimes in a wide array of colors. Because bobbin threads are so fine, your bobbin will hold more so you will be changing the bobbin less frequently than with a heavier thread.

Embroidery Needles

Not all needles are appropriate for use in embroidery machines. As with all sewing projects, needle choice is determined by the fabric, thread, and application. For most embroidery, an Embroidery needle is the best choice. They are designed to withstand the faster speed of embroidery machines as well as the wear and tear of stitching through dense designs.

Occasionally, other needles may be recommended for specially digitized techniques, such as a Wing needle for heirloom embroidery.

The size of the needle depends on the fabric you are using. As with any sewing you do, heavier fabric requires a larger needle (higher number) and finer fabrics use a smaller needle (lower number). *Note: If stitching a dense design, use a small needle so it will slide into the stitches. You also want to select a point that relates to your fabric.* For example, use a Universal for most fabrics, Ballpoint for knits, etc.

Ballpoint needles (designated by SUK) have also shown to have positive results when embroidering with metallic thread. Due to the wiry nature and memory of this type of thread, a traditional embroidery needle with a sharp point can cut the thread, causing breakage. Ballpoint needles are blunt enough to avoid this.

Titanium-coated Embroidery needles are a great choice because they last 3 times longer than regular embroidery needles. They work well for almost any type of embroidery and are especially useful when using an adhesive-coated stabilizer. The coating on the needle helps it move in and out of the stabilizer, resisting any adhesive residue. Titanium needles are often gold-colored and should be changed after 90,000 stitches.

Change your embroidery needle every 2-3 hours or about every 30,000 stitches. This may seem frequent but remember how fast your embroidery machine runs and how many times that needle has to go through the fabric and through layers of stitches and stabilizer compared to regular sewing.

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Used extensively in machine embroidery, stabilizers are also useful when sewing decorative stitches across the surface of fabric. Adding stabilizer to fabric (usually on the wrong side), provides a foundation that will support the stitching. Without the stabilizer, there will often be puckering of fabric and tunneling of stitches, ruining the beautiful look of embellishment you desire. While there are dozens of stabilizers on the market, there are classified by how they are removed from the fabric after stitching:

Tear-Away Stabilizer
• Most commonly used type of stabilizer, designed to provide temporary support of stitching.
• Placed on the wrong side of the project and carefully pulled away once stitching is complete.
• Usually available in three weights – heavy, medium, and light.
• Stabil-Stick is a tear-away with a peel-away backing that exposes a sticky adhesive.
• Hydro-Stick is an adhesive tear-away with a water-activated adhesive on one side that provides a secure bond and a high degree of stabilization for very dense and/or intricate designs.
• Available in white and black.
• Available in several sizes; use one that fits the selected hoop size.

Cut-Away Stabilizer
• Most widely used stabilizer in the commercial embroidery market.
• Does not break down under dense stitching, due to the high fiber – rather than paper – content.
• Excess stabilizer is trimmed away after stitching (leave about ¼" of stabilizer around the edges).
• Remaining stabilizer continues to support stitches throughout life of garment/project.
• Stabil-Stick is available as a cut-away stabilizer
• Available in fusible and non-fusible versions.
• Available in white, black, and beige.
• Available in several sizes; use one that fits the selected hoop size.

Water-Soluble Stabilizer
• Used for backing and topping, in single or multiple layers..
• Excellent for decorative stitching and cutwork as there are no remnants of stabilizer left after removal (it dissolves).
• As a topping, it keeps stitches from being lost in heavily napped fabrics such as velvet and corduroy.
• Aqua Mesh Plus is an adhesive water-soluble stabilizer.

Tips

General Guidelines: Use Cutaway for knit fabrics and Tearaway for wovens.

Wash-away is great for free-standing lace and when you want no stabilizer to remain in the project (fabric must be able to be moistened).

Multiple lightweight layers of tear-away may be preferable to one heavy layer, as they are easier to remove.

Use PolyMesh behind lightweight or light-colored fabrics as it is designed to minimize "show-through".

Keep a minimum of one roll or package of each of the three types so you'll be ready for almost any stitching situation.

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450E Hoops
Standard: Large Oval hoop
Optional: Small & Medium hoops; Freearm Adapter; Mega Hoop

BERNINA 580 E Hoops
Standard: Large Oval & Medium hoops
Optional: Small & Mega hoops; Freearm Adapter

### BERININA 750E and 780
Small, Medium, Large Oval hoop
*Optional:* Mega Hoop & Jumbo hoop (partial use)

BERNINA 830 Hoops
Standard: Small, Medium, & Large Oval hoop
Optional: Mega & Jumbo hoops

Note: All hoops come with template for centering designs on projects.

Small Hoop (72mm x 50mm)
(approximately 2.7" x 2")
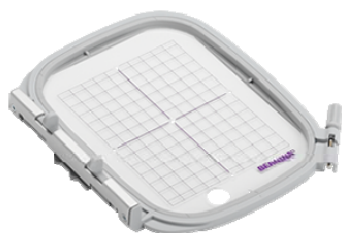
Medium Hoop (100mm x 130mm)
(approximately 3.9" x 5.1")

Large Hoop (155mm x 200mm)
(approximately 6.1" x 7.8")
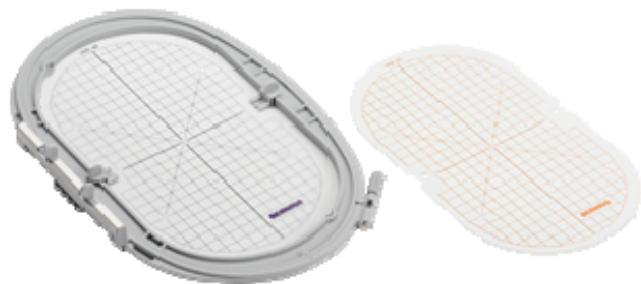
Large Oval Hoop (145mm x 255mm)
(approximately 5.7" x 10")
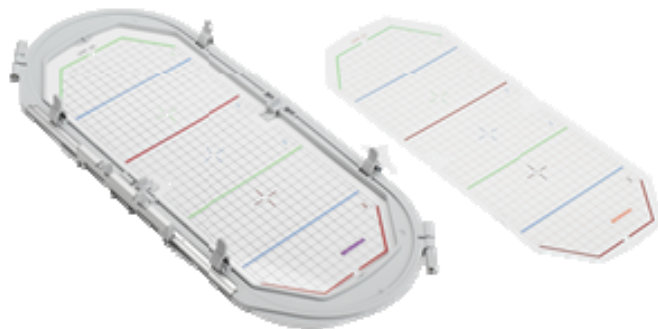
Mega Hoop (150mm x 400mm)
(approximately 5.9" x 15.7")
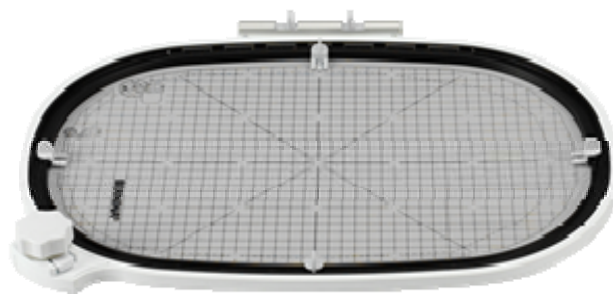
Jumbo Hoop
(approximately 16.5" x 10.5")

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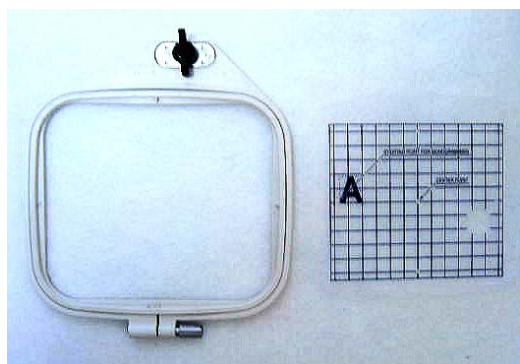
Medium hoop A
110mm x 126mm (4¼" x 5")
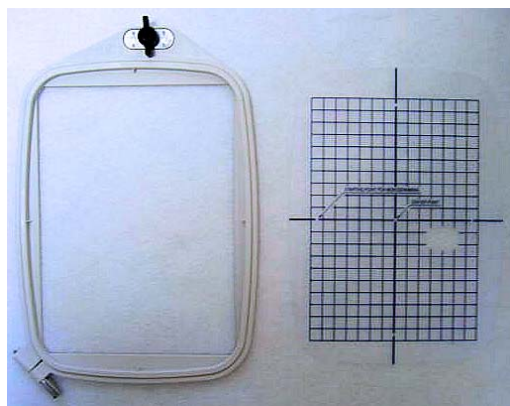
Large Hoop B
140mm x 200mm (5½" x 8")

Deco 340 Hoops
Standard: Medium and Large hoops
Optional: Small Free-Arm and Round hoops
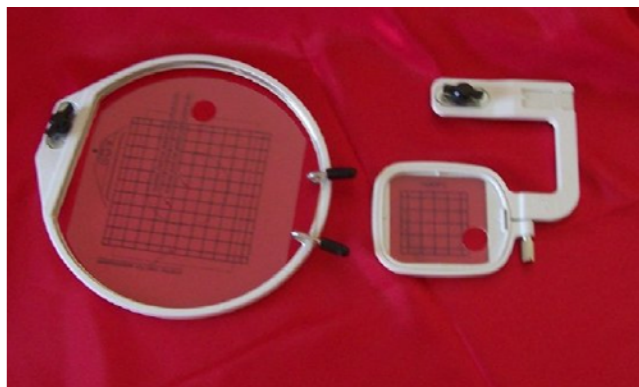
Round hoop F
Free-arm C
50mm x 50mm (2" x 2")

Attaching and Removing Deco Hoops
• Fit the pins into the carriage holes
• Turn the attaching knob clockwise so it is
   parallel with the hoop

Attaching and Removing BERNINA Hoops
• When attaching hoops, seat the frame securely.
• Release the clamp completely before removing
   the frame from the machine

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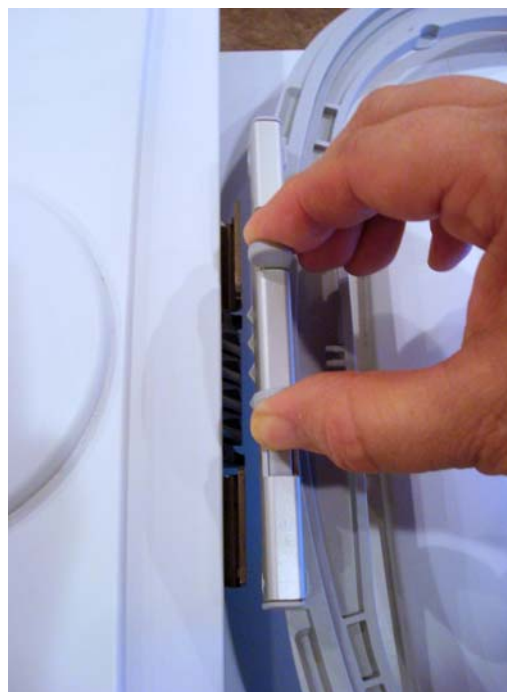
Loosen screw or knob; lay hoop on flat surface
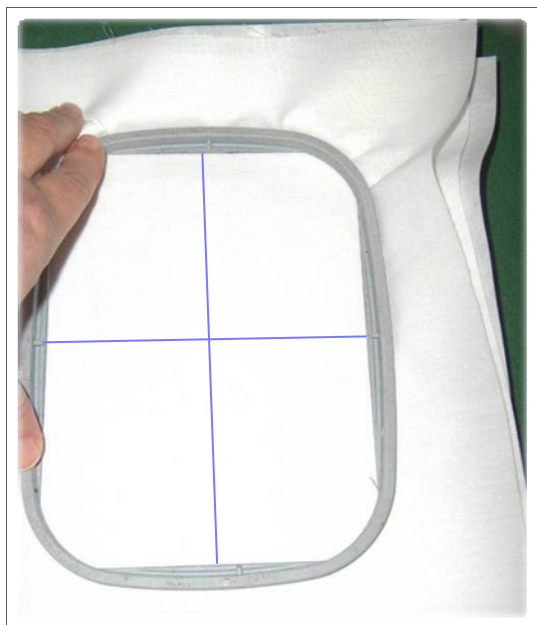
Lay fabric on outer hoop; position inner
hoop on fabric and push into place
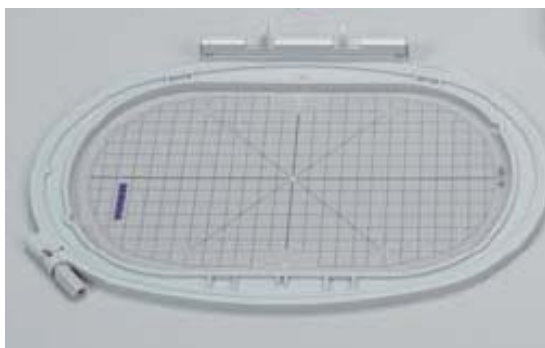
Place template in hoop to
ensure the design is centered

Hooping

• Find the center of the fabric; mark the center

• Separate the embroidery hoop sections
- Loosen the screw or knob. It should be loose
enough that fabric and stabilizer both will
EASILY fit into the hoop

• Secure fabric/stabilizer in the hoop
- Lay the outer hoop on a HARD, FLAT surface
- (*deco* 340 only: Place so the clamp lies off the
edge of the surface and the hoop lies flat.)

- Secure stabilizer to the back of the fabric by lightly
spraying stabilizer with temporary adhesive spray

- Place fabric and stabilizer on a firm surface

- Position template inside the inner hoop

- Position inner hoop on fabric, aligning markings

- Grasping both inner hoop and fabric/stabilizer,
insert them into the outer hoop, making sure
that the arrows align at the edges of both the
inner and outer hoops

- DO NOT DISTORT THE FABRIC when tightening
the screw on the hoop

- Hooped fabric should be taut, but not stretched or
distorted

- Place template into hoop to ensure that the design is
centered in the hoop

- Remove template before stitching. *Note: There are
finger holes to facilitate easy removal of the small and
medium hoop templates; special attachment clips are
Included with the Large Oval, Mega, and Jumbo hoop
templates to facilitate easy removal.*

Hooping Tip
For easier hooping of the layers, adhere the
stabilizer to the fabric using a temporary spray
adhesive. Great for basting or holding layers of
fabric and/or batting together. Can be used as
a repositionable spray, allowing items to stay
sticky but be repositioned on other surfaces.
Works well for securing "hard-to-hoop" items
such as collars and cuffs to hooped stabilizer
for embroidering. *Note: For best results, spray
the stabilizer or batting, not the fabric.*

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Adjusting the Hoop Reference Position

This process calibrates the needle to the center of the hoop. You should calibrate the hoop before the first use and periodically if the alignment of the needle to the center of the hoop seems to be off. On the aurora, 5 Series, and artista machines, It is only necessary to calibrate one hoop, as the adjustment applies to all hoop sizes. For the 830, each hoop should be selected and calibrated separately.

450 E

This process is only necessary if the hoop center does not correspond with the indicated hoop center of the EC on PC display.
- Place template in hoop; select the attached hoop. Use arrow keys on keyboard to place center of template exactly under the needle point; press the Shift key (keep depressed)
- Using the mouse, click on the icon that appears on the screen next to the Position Hoop icon; adjustment will be saved

BERNINA 580, 750 QEE, & 780
- Touch External Setup button
- Select Embroidery Setting option
- Select Calibrating Embroidery Hoop icon and desired hoop
- Place embroidery template into the large oval embroidery hoop
- Start the adjustment by pressing the green check; the hoop is checked and the needle positioned to the center.
- If the needle is **not** positioned exactly in the center of the template, use the arrow icons to move the needle to center of the template
- Confirm with the green check; the adjustment is saved

BERNINA 580

BERNINA 780

BERNINA 830
- Select the required hoop and follow the instructions on the screen
- Touch the external Setup button
- Place embroidery template into the embroidery hoop
- The hoop position is detected & the needle positioned in the center
- If the needle is not positioned exactly in the center of the embroidery template, use the arrow icons to position it accurately
- Touch until the selection menu appears; adjustment is saved

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Deco 340

Pattern Selection window comes up automatically when machine is turned on.

Built-in Designs   1/13

100 Built-in Designs plus Personal Designs stored in the internal memory

Lettering—Choice of 3 fonts, 2– and 3-letter monograms

Design Cards

USB Stick

Toggle between built-in designs and personal saved designs

450E
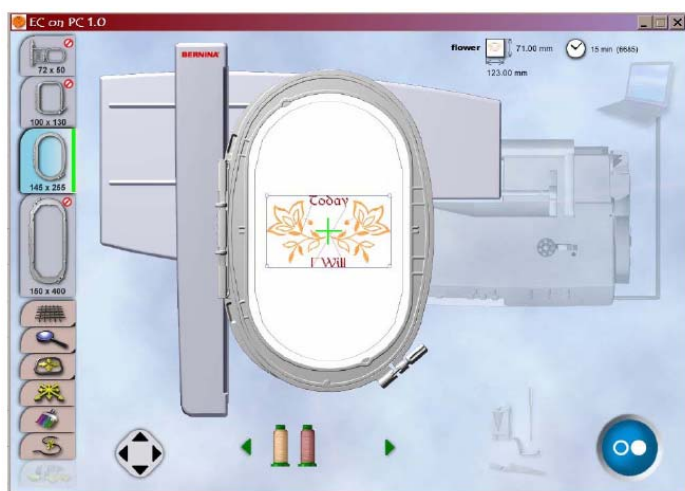
Designs are accessed through the computer using EC on PC (Embroidery Control on Personal Computer).

BERNINA 580E & 750 QEE

Alphabets/Fonts   Built-in Designs   Personally Saved Designs
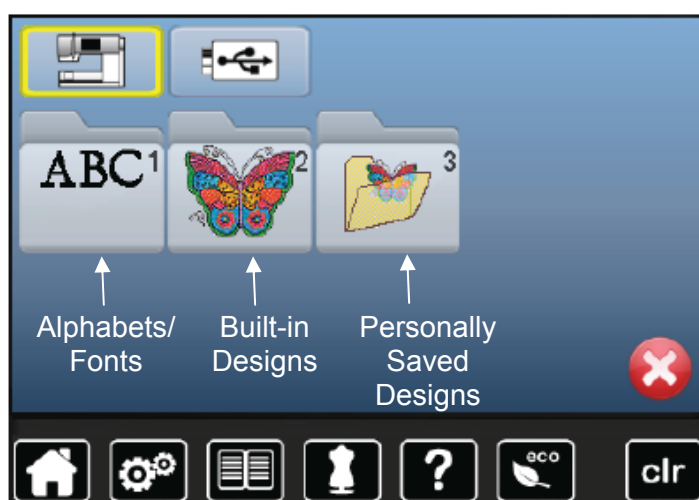
580E: 100 built-in motifs and 7 alphabets
750 QEE: 70 built-in motifs and 4 alphabets

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BERNINA 780

USB Stick

130 built-in motifs
and 12 alphabets

Alphabets/Fonts → Built-in Designs → Library of all Sewing Stitches → Personally Saved Designs

1 / 1

BERNINA 830

USB Stick

150 built-in designs
and 18 alphabets

Alphabets/Fonts   Built-in Designs   Personally Saved Designs

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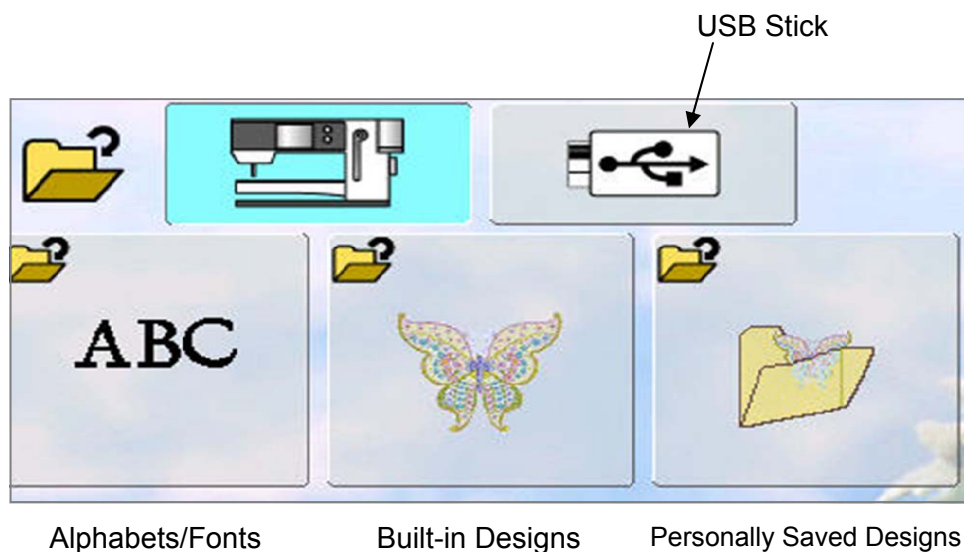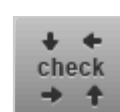
Deco 340—Trace

After adjusting the position, check the parameters of the of the embroidery area by pressing the Trace key. The carriage will trace the outline in a rectangle, circumscribing the selected embroidery pattern without stitching. The carriage will return to the starting position after tracing and the screen will return to the previous display.
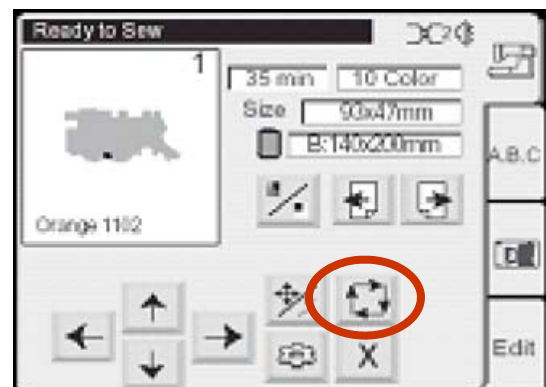
450E—Check

Click on the design and a frame appears around the design on-screen with circles at the corners. Click on the circles in a clockwise direction (you can also use the "F" keys on your computer to move from corner to corner—F5, F6, F7, F8. The hoop will move to each position to show you the motif size. Resize or move the design as needed.
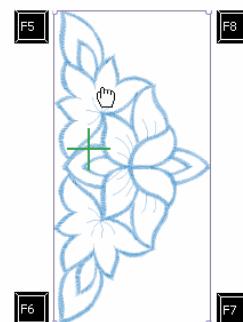
BERNINA 580 & 750 QEE—Check

Confirms stitching area of the selected motif. Select Hoop icon and then touch Check. The hoop moves to lower left corner of stitching area; touch OK to confirm. Hoop moves to lower right corner; touch OK. Hoop moves to upper right corner; touch OK. Hoop moves to upper left corner; touch OK.
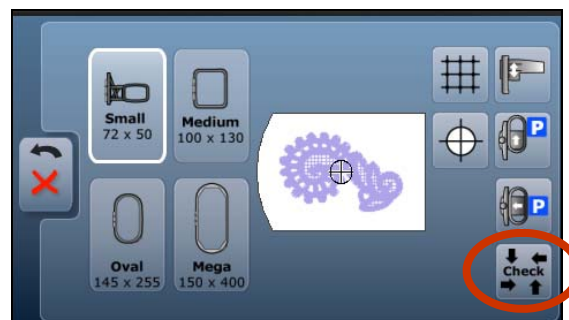
780—Check

Confirms the stitching field of the motif. After the design is selected, select "i" and select check. Select each corner arrow to move the needle to trace around the design in a box fashion. Provides a method to verify placement of the embroidery motif on a project.

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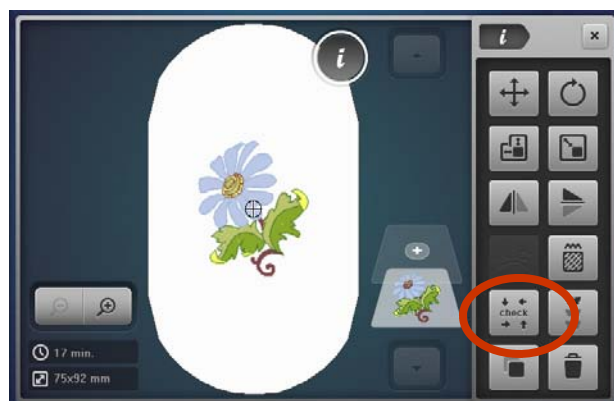
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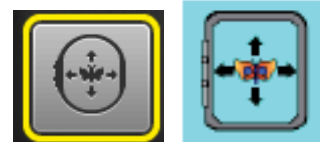
The goal of Absolute Check is to check the all points & boundaries of the design so that they embroider exactly where you want. You can also check the location of any single stitch in even the most complex design.

Hoop fabric & stabilizer; attach hoop to machine.

BERNINA 830
Select the desired design and go to the Edit screen; select the Virtual Positioning icon.

Select a reference point on the design by touching that point on the screen of the machine. The embroidery hoop moves so that the needle is positioned above the fabric, in the location that the selected design reference point will stitch.

Continue selecting points along edge or within design. To fine tune placement, use Move function.

BERNINA 780 & 750 QEE
The Virtual Positioning default setting is active, therefore, when the motif is on the embroidery edit screen, reference points can be selected and checked for perfect placement.

BERNINA 580 E
Select desired design; touch Select Hoop icon. Select Virtual Positioning icon; touch Back Arrow.

Select a reference point on the design by touching that point on the screen of the machine. The embroidery hoop moves so that the needle is positioned above the fabric, in the location that the selected design reference point will stitch.

Continue selecting points along edge or within the design. To fine tune design placement, use the Move Function.

Note: The Motif Center (see page 16) must be deactivated to use Absolute Check.

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Motif Center / Basting Boxes
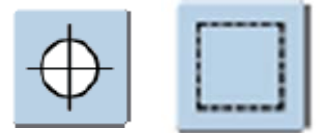
Motif Center

BERNINA 830, 780, 750 QEE, & 580: Touch the Center icon. The exact motif center is displayed in the motif and the embroidery hoop moves to place the needle exactly over the center of the motif. Touch the icon again and the first stitch of the embroidery design is marked in the display again.
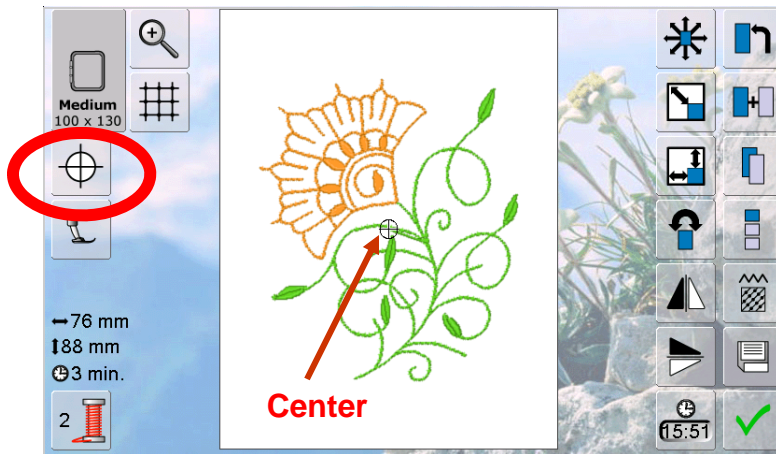
BERNINA 830

BERNINA 580

Basting is also a great way to check alignment of lettering before stitching.
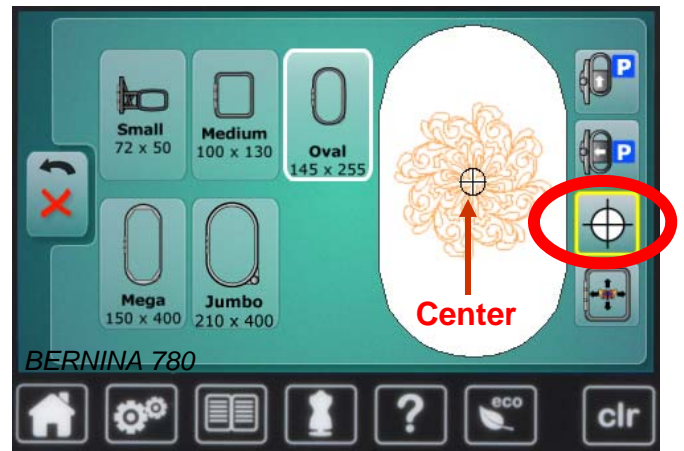
Basting Boxes

Pre-programmed basting outlines stitch along the inside of the hoop or around a selected design. This serves as an additional anchoring to hold the fabric and stabilizer together.

830 & 780 Basting Boxes

- From stitching screen, touch the Basting Box icon: once to baste around the perimeter of the design & twice to baste around the inside of the attached hoop.

580 & 750 QEE Basting Boxes

- Touch Needle icon to go to the stitching screen.
- Touch Hoop Select icon: once to baste around the perimeter of the design & twice to baste around inside of attached hoop.

Other Models

Basting files are available for the deco and BERNINA model 450E at: www.bernina.com.
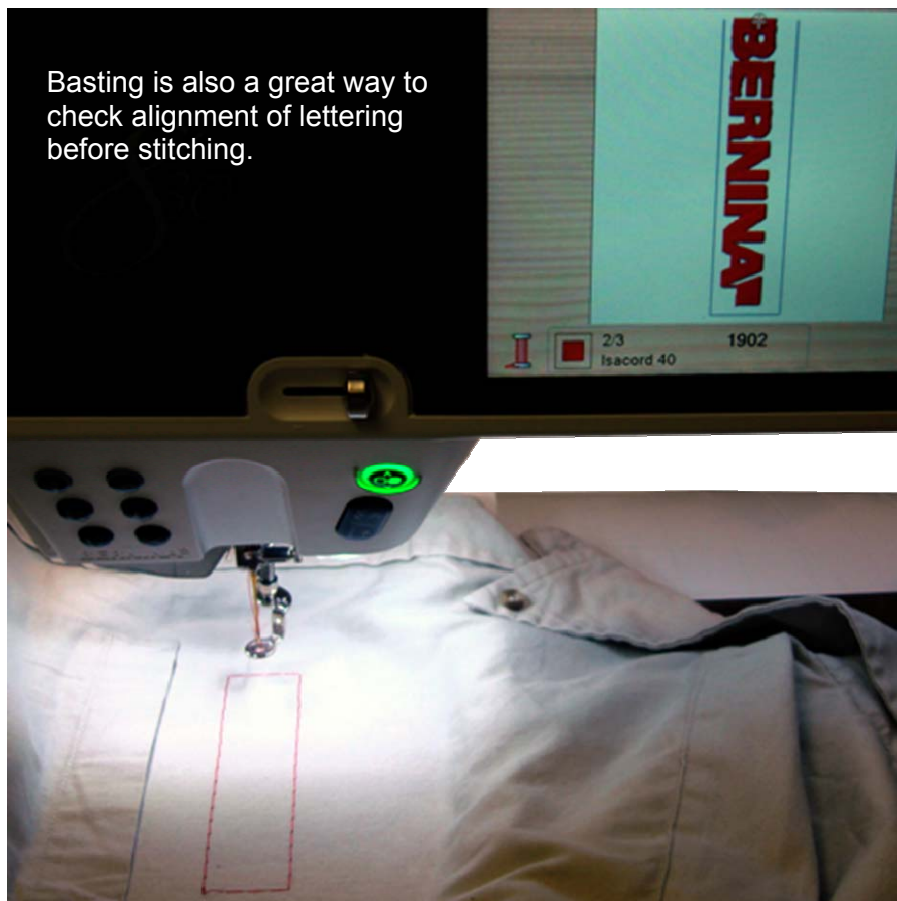
Customize embroidery designs using functions found on your embroidery machine. Take an existing design and make changes to suit your personal tastes, the sewing situation, or the demands of your current project. With so many functions available on the various BERNINA embroidery machines, it is easy for anyone, no matter what skill level, to adapt a design for embroidering on garments, craft projects, and items for your home. Use the functions shown below to customize designs on your particular model of BERNINA embroidery machine. *Note: Specific exercises for customizing designs are found on pages 22-25.*

	Deco 340	aurora 450E	BERNINA 580	BERNINA 750 QEE	BERNINA 780	BERNINA 830
Rotate	45°	EC on PC	⟳	⟳	⟳	⟳
Move	← ↑ ↓ →	✳	✳	✳	✛	✳
Mirror Image: Right/Left	◭	EC on PC	◭	◭	◭	◭
Mirror Image: Up/Down	◮	EC on PC	◮	◮	◮	◮
Duplicate	---	EC on PC	▯	---	▯	▯
Resize/ Rescale	◰	EC on PC	◳	◳	◰ ◳	◳ ◳
Resequence*	---	---	⫿	---	≡	⫿

*When designs are duplicated, it causes duplicated color stops. After selecting the sew-out option, select the Resequence Icon to group like color changes and consolidate the number of repeated color changes. The Resequence function only groups colors if it does not interfere with the artistic order of color arrangement.

Single Color Embroidery

To stitch a multi-colored design in one color, set your machine to bypass color changes.

- Touch the single/Multi-color symbol
- If the symbol is active, the machine will not stop at the color changes and the entire motif will be stitched in one color.
- If the symbol is inactive, the machine will stop at color changes for thread changes.
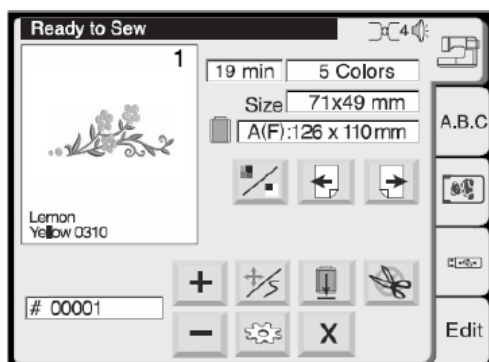
aurora

BERNINA 780

BERNINA 830 & 580 E

made to create **BERNINA**

My BERNINA Embroidery Workbook

Fabric Preparation

Deco 340
Hoop a piece of firm woven fabric backed with tear-away stabilizer in the Large hoop.

450E, 5 Series, 7 Series, and 8 Series
Hoop a piece of firm woven fabric backed with tear-away stabilizer in the Large Oval hoop.


Ready to Sew screen

deco 340

Select indicated motif. Stitch. *Note: At the end of each color, the machine automatically stops and a message appears reminding you to cut the thread and rethread for the next color.*

When the motif is complete, a message appears indicating that the stitching is finished. Press the carriage return key after finishing the last section to return the carriage to the stored position.

deco 340: #64 - floral border
2-color design
98mm x 34mm
10 minutes
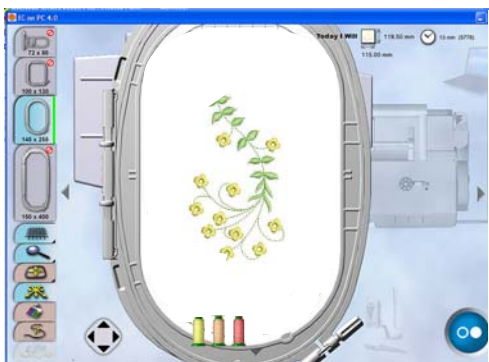
aurora 450E

Select and open indicated motif. Click on Write to Machine icon. Select *aurora* 430/440 (stitch out only); EC on PC opens. *Note: Lower feed dog, lift presser foot, and remove foot control.*

Attach hoop. Click start button on EC on PC screen. The hoop moves, then an animation prompts you to lower the presser foot & press the Start/Stop button on the machine.

Machine will sew a few stitches and stop. An animation appears, prompting you to trim thread tail. When first color is complete, animation will prompt you to change the thread color. When embroidery is complete, ✓ appears in lower left corner of EC on PC screen.

aurora: Floral3.art
2-color design
49mm x 98mm
7 minutes

BERNINA 580 E

Select the sewing machine icon and motifs (butterfly) folder #2 to access stored designs.

Select indicated design; Touch Needle icon > OK to go to Embroidery Ready screen. Stitch. *Note: At the end of each color, thread is automatically cut and a message appears reminding you to thread the next color.*

When the motif is complete, a message will appear indicating that the stitching is finished.

580 E: Folder 2: #3
2-color design
128mm x 92mm
9 minutes

made to create **BERNINA**
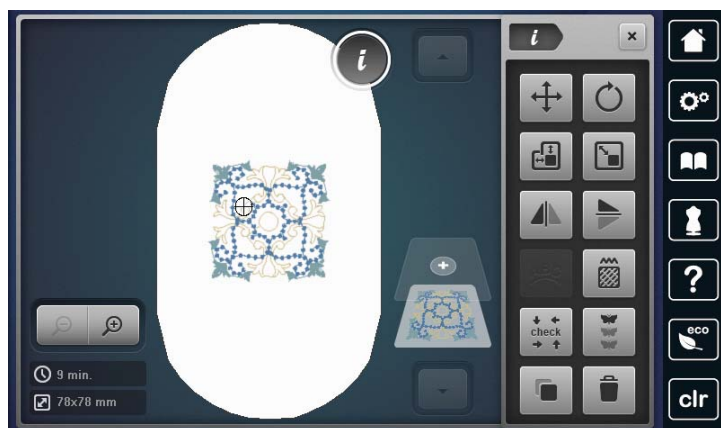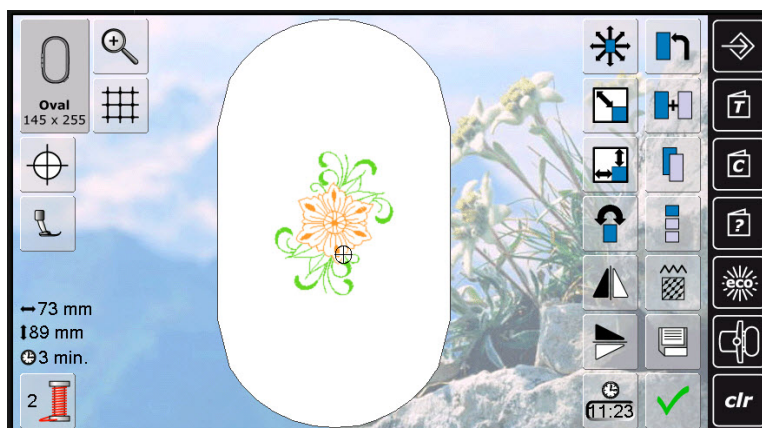
My BERNINA
Embroidery Workbook
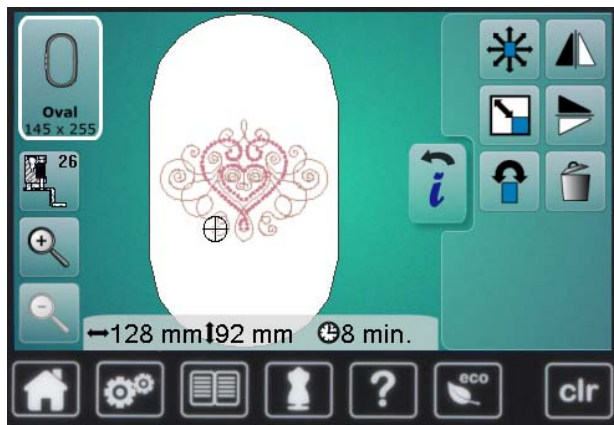
BERNINA 750E

Select the sewing machine icon and motifs (butterfly) folder to access the folders of stored embroidery designs.

Select Folder 1 and design #7.

Stitch the design.

Folder 1, Design #7
2-color design
128mm x 92mm
9 minutes

BERNINA 780

Select the sewing machine icon and motifs (butterfly) folder to access the folders of stored embroidery designs.

Select Folder 1 and design #3.

Stitch the design.

Folder 1, Design #3
3-color design
78mm x 78mm
9 minutes

BERNINA 830

Select the sewing machine icon and the Built in Motifs (butterfly) folder to access the designs that come with the machine.

Select design #23 and Touch Green Check (OK) to go to Embroidery Ready screen.

Stitch the design. *Note: At the end of each color, thread is automatically cut; a message appears reminding you to thread the next color.*

BERNINA 830:
Design #23
2-color design
73mm x 89mm
3 minutes

When the motif is complete, a message will appear indicating that the stitching is finished.

made to create **BERNINA**

My **BERNINA** Embroidery Workbook

| Deco 340 | 450E | 580 & 750 |

deco 340
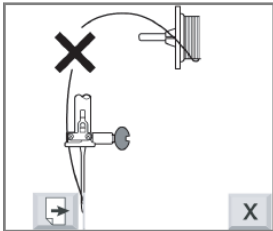
- The machine stops automatically if the upper thread runs out or breaks. The screen shows information that the upper thread broke. Press next page key to continue.
- Raise the foot and remove the hoop; remove the excessive threads from back of the project with scissors.
- Place the hoop back onto the machine; Replace upper thread spool if required and thread upper thread
- The last screen reminds you to move back several stitches in your project before continuing your work. The number of stitches required depends on how many you cut out of your project. Press the Cancel key, then use the key in the Embroidery window to move the appropriate number of stitches back.

aurora

- When the thread breaks, the machine stops; a blinking icon shows on the *machine* screen. An animation indicates that the upper thread has broken.
- Click on the Move Hoop for Threading icon; re-thread machine.
- Click on the Sequence Control icon; click on the Return Arrow to the right of the Sequence Control icon to return to the last stitch.
- Go back 5 stitches by clicking on the left arrow 5 times.
- Click Start button; an animation shows you can push Start button on machine.
- Push the Start button of the machine and continue stitching.
- Computer keys: arrow keys = stitch by stitch; Ctrl + arrow = 10 stitches; Page Up/Dn = 100 stitches; click on Sequence Control icon to go to first stitch of design
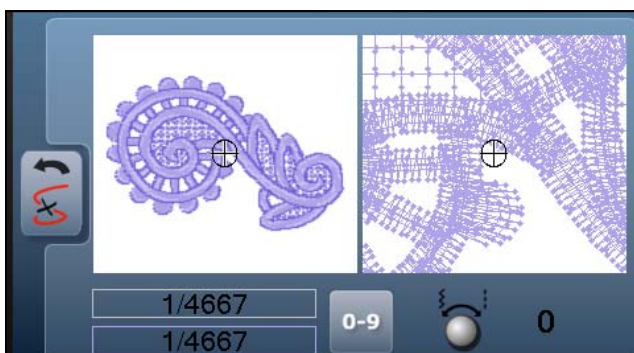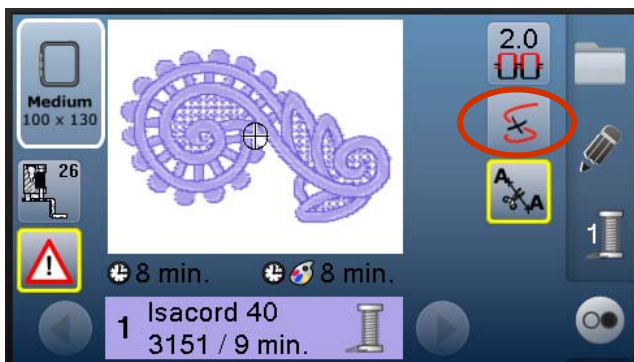
BERNINA 580 & 750 QEE

Touch the Embroidery Sequence Control icon; motif is enlarged for a better view of the exact place of the thread breakage and an Information Area appears

Turn the stitch width knob counter clockwise (or clockwise) to move the embroidery hoop backward (or forward) in the embroidery sequence

Turn the stitch width knob to move the hoop stitch by stitch. Turn the stitch length knob to move larger stitch increments (53 stitches per each movement). The number in the information area shows the number of stitches in the embroidery sequence; use the 0-9 field to go directly to a stitching position.

Touch Back icon to close display or begin stitching from this screen

To resume stitching, press foot control or Start/Stop button on head frame and the Embroidery screen reappears.

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Embroidery Workbook
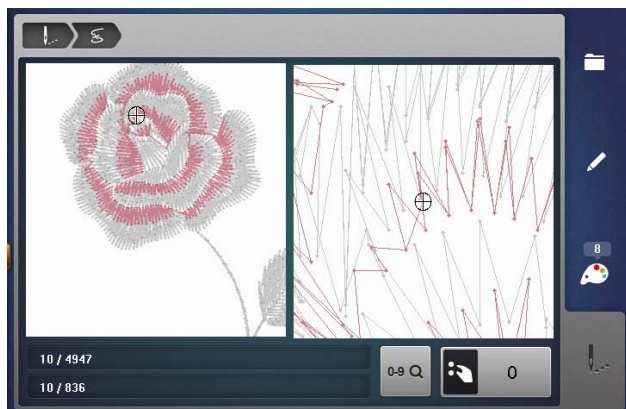
BERNINA 780

- Touch the Embroidery Sequence Control icon; the motif is enlarged for a better view of the exact place of the thread breakage and an Information Area appears.
- Turn the stitch width knob counter clockwise (or clockwise) to move the embroidery hoop backward (or forward) in the embroidery sequence
- Turn the stitch width knob slowly to move the hoop stitch by stitch
- Go back stitch by stitch to a position several stitches before thread breakage occurred to resume stitching
- To resume stitching, press foot control or Quick Reverse button on head frame and the Embroidery screen reappears
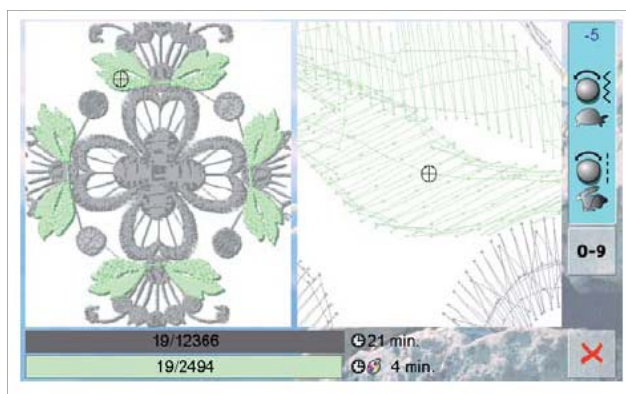
BERNINA 830

- Touch the Embroidery Sequence Control icon; the motif is enlarged for a better view of the exact place of the thread breakage and an Information Area appears.
- Turn the stitch width knob counter clockwise (or clockwise) to move the embroidery hoop backward (or forward) in the embroidery sequence.
- Turn the Stitch Width knob to advance and move the hoop stitch by stitch.
- Turn the Stitch Length knob to advance and move the hoop in stitch increments of about 50 stitches.
- The number in the information area shows the number of stitches in the embroidery sequence; use the 0-9 field to go directly to a stitching position.
- To resume stitching, press the Start/Stop button on head frame and the Embroidery screen reappears and stitching resumes in the desired location.

made to create **BERNINA**

My BERNINA
Embroidery Workbook

Deco 340
The deco 340 rotates designs in clockwise increments of 45º (1x = 45º, 2x = 90º, 3x = 135º....); also rotates designs clockwise & counterclockwise, in 1º increments.

- Select indicated motif; select Editing tab.
- Use positioning arrows or touch screen to move the motif up and to the right.
- Select Pattern selection tab; select motif again.
- Touch Rotate 45º. Move design to right.
- Select Pattern selection tab; select motif again.
- Touch Rotate 45º two times. Move design to left and down.
- Hold the rotate key for more than one second, then use the plus and minus keys to adjust the flowers as desired.

#64 - floral border

aurora 450E
Editor Lite software provides quick & easy rotation by 45º increments, free rotation by clicking & dragging, and by specifying degree of rotation in the Object Properties box.

- Select motif; copy; paste.
- Right click to open new design's Object Properties > General.
- Type 22 in Rotation field; click OK. Move design up and to the right.
- Click Paste; while selected, rotate design 45º by left clicking Rotate CCW/CW icon. Move up & to right.
- Click Paste; right click to open Object Properties > General.
- Type 77 in Rotation field; OK. Move up and to the right.
- Paste again; left click 2x on Rotate CCW/CW icon. Move up & to right.
- Save As rotation exercise.

My Designs >
BlackBorder2.art

5 Series: 580 E
The B580 E rotates design in 1° increments using stitch width knobs or in 90° steps by touching the +90 rotate icon.

- Select New Motif. Folder #3 floral - #1
- Select "I" or Edit icon; select the Move function
- Using the Stitch Length and Width knobs (or touch motif on screen) move design to upper left of the hoop. Touch Back arrow
- Select duplicate > touch "I" on layer 2 > touch Move function > touch Center
- Touch Back > select Rotate > touch +90 icon one time > touch Back arrow > select first motif on screen
- Select Duplicate again > touch "I" on layer 3 > Select Rotate. Touch +90 icon two times > touch Back
- Select Move Function > Use Stitch Length and Width knobs to position
- Select each motif to fine tune the positioning as shown.
- Touch Back arrow.> Select Layer with All Motifs (no number)
- Select "I" > Select Move function> Touch Center> Touch Back arrow two times

Folder 3
Motif #1—floral

made to create **BERNINA**

My BERNINA
Embroidery
Workbook

BERNINA 750 QEE
- Select Motif and rotate as desired; stitch out.
- Return to the embroidery screen and rotate the motif.
- Use Absolute Check/Virtual Positioning to guarantee accurate placement for the next motif and embroider.
- Repeat these steps until the number of stitched motifs has been achieved.

#54 - floral

BERNINA 780
- Select Motif—Folder 10, Design #6, floral branch
- Use the hoop selection icon and select the oval hoop
- Move Motif 1 (Drag and drop) to the upper left of the oval hoop
- Select "I" and duplicate
- Rotate second motif 56º using the stitch width knob
- Touch the "I" breadcrumb; select duplicate
- Rotate the third motif 75º and move into place
- Touch the "I" breadcrumb; select duplicate
- Rotate the fourth motif 63ºand move into place

TIP: Using the breadcrumb navigation will allow the information menu to remain available (open) for functions on the information screen during on-screen editing.

#14 - little wild rose

BERNINA 830
The BERNINA 830 rotates designs clockwise & counterclockwise in 90° steps by selecting the Rotate icon or in 1º increments using the Stitch Width knob.

- Select motif #19, touch Hoop Select and select Oval.
- Select Move function, using Stitch Width and Length knobs, move design to the upper left in the hoop or touch the motif on screen and move into position.
- Select Duplicate icon, select Rotate icon; use the Stitch Width knob to rotate 45º.
- Select the Move function; using Stitch Width and Length knobs, move design below the first motif and slightly to the right or touch the motif on screen and move into position. Use Stitch Width and Length knobs to fine tune the positioning.
- Select first motif by touching on screen or use Retrieve function to select #1 motif.
- Select Duplicate icon, select Rotate icon two times to rotate 90º.
- Select Move function; using Stitch Length and Width knobs, move design below the first motif and slightly to the right or touch the motif on screen and move into position. Use Stitch Width and Length knobs to fine tune the positioning.
- Select first motif by touching on screen or use the Retrieve function to select #1 motif.
- Select Duplicate icon, select Rotate icon two times to rotate 135º.
- Select Move function; using Stitch Length and Width knobs, move design below first motif, slightly to the right or touch motif on screen and move into position. Use Stitch Width and Length knobs to fine tune positioning.
- Use the Retrieve function to select desired motif and the Stitch Length and Width knobs to fine tune the positioning to arrange the motifs as shown. Touch OK

#19 - floral

made to create **BERNINA**

My BERNINA
Embroidery Workbook

deco 340

- Select the indicated motif; select the Editing tab.
- Resize motif to 90%; use positioning arrows to move the motif to the left.
- Select Pattern selection tab; select motif again. Resize motif to 90%.
- Touch the Right/Left Mirror Image icon; use arrows to move motif to the right.
- Select Pattern selection tab; select motif again.
- Touch the Up/Down Mirror Image icon. Resize motif to 90%.
- Use arrows to move motif to the left and up.
- Select Pattern selection tab; select motif again. Resize motif to 90%.
- Touch the Right/Left and Up/Down Mirror Image icons.
- Use arrows to move motif to the right and up, arranging the four motifs as shown.

#65 - evergreen corner

450E

- Select the indicated motif.
- Left click on the Scale By 20% icon to scale the motif down 20%.
- Select Edit > Duplicate; there are now two motifs on screen.
- Click on Mirror Image Right/Left to mirror image motif.
- While duplicate is selected, use the left arrow keyboard key to move design to left.
  Note: Use up or down arrows to move design along its vertical axis, and/or right and left arrows to move design along its horizontal axis.

My Designs > floral8.art

BERNINA 580

- Select indicated motif
- Select Hoop icon and select Oval hoop, touch Back arrow
- Touch "i" or Edit
- Select Rescale > rescale to 90 % > select Back arrow
- Select Duplicate icon > there are now two motifs on screen
- Touch "i" on Layer 2 > Select Right/Left Mirror Image. The active motif is flipped.
- Select Move function.
- Select motif on screen and move so motifs are side by side.
- Use the Stitch Width and Length knobs to fine tune the position of motif.
- Touch Back arrow two times, Select the Layer with both motifs (no number)
- Touch "i" > Select Duplicate .There are now four motifs on the screen.
- Touch "i" on Layer 3 > Select Up/Down Mirror Image.
- Select Move function.
- Select motif on screen and move duplicated motifs above original motifs as shown.
- Use the Stitch Width and Length knobs to fine tune the position of motif.
- Touch Back arrow two times and Select the Layer with All motifs (no number)
- Select "I" > Select Move function> Touch Center> Touch Back arrow two times
- Touch Needle icon > OK

Folder 2 Motif #5

made to create **BERNINA**

My BERNINA
Embroidery
Workbook

BERNINA 750 QEE
- Select Motif and rescale as desired.
- Stitch the design.
- Return to the embroidery screen and mirror image the motif.
- Use Absolute Check/Virtual Positioning to guarantee accurate placement for the next motif and embroider.
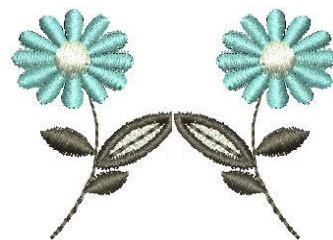
#54 - floral

BERNINA 780
- Select Motif—Folder 10, Design #9, floral spray
- Select Hoop Selection and the Oval Hoop; close
- Select "i" and proportional rescale 90%; move design left of center
- Select the "i" breadcrumb; select Duplicate
- Select Mirror Image Left/Right and move into place
- You may want to use Zoom (5 levels) for better visibility when aligning designs; use the multi-function knobs to fine tune placement; UnZoom
- Select the bottom-most layer to select all
- Select Duplicate
- Select Mirror Image top/bottom and move into place using the multi-function knobs
- Touch the "i" breadcrumb; select the lowest layer to select all
- Select Move and select center to center the design in the hoop
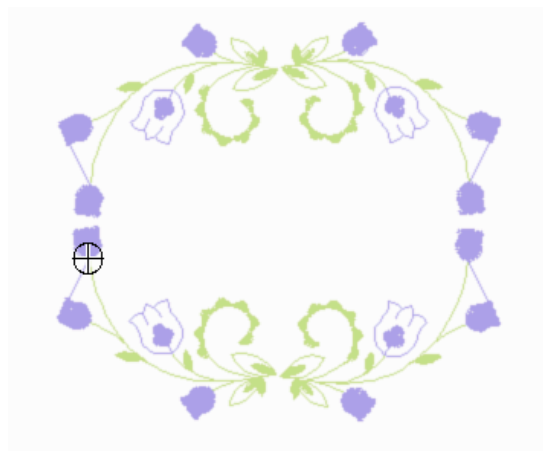
Tip: Using the breadcrumb navigation will allow the information menu to remain available (open) for functions in the information screen during on-screen editing.

#9 - floral spray

BERNINA 830
- Select indicated motif. Touch Hoop Select and select the Large Oval hoop.
- Using the Proportional Rescale icon, using Stitch Length and Width knobs, rescale to 90%
- Select the Duplicate Motif symbol. There are now two motifs on the screen.
- Touch the Right/Left Mirror Image symbol. The active motif is flipped side to side.
- Select Move function; using Stitch Length and Width knobs or touching the motif on screen, move design to the right of the first motif, arranging them side-by-side as shown.
- Touch the Retrieve icon to select both motifs.
- With both motifs selected, touch the Duplicate Motif symbol. There are now four motifs on the screen.
- With the last two motifs selected, touch the Up/Down Mirror Image.
- Select Move function; using Stitch Length and Width knobs or touching the motif group on screen, move designs into position above first set, arranging as shown.
- Touch the Retrieve icon to select all four motifs.
- Select Move function to center the selected motifs in the hoop.

#32 - butterfly

made to create **BERNINA**

My BERNINA
Embroidery
Workbook

After customizing an embroidery motif or creating a combination that you want to be able to quickly access and use again, follow these steps.

deco 340

Saving a Motif to Machine
▪ Select Editing tab.
▪ Touch Save File Key.
▪ Touch File Name key to assign file name.
▪ Key in file name.
▪ Touch OK; touch OK.

Saving to a Personal Design Card
▪ Select Editing; touch Save File.
▪ Touch Built in/Card key to toggle to Personal Design Card.
▪ Touch File Name key to assign file name.
▪ Key in file name.
▪ Touch OK; touch OK.

Deleting a Motif
▪ Select Editing tab.
▪ Touch Delete key symbol (trash can).

Retrieving a Saved Motif
▪ Select Pattern selection tab.
▪ Select Open File key.
▪ Touch Built-in/Card key to toggle between built-in motifs and motifs on the PDC. Use arrow keys to select desired motif.
▪ Touch OK.

aurora 450E

Saving a Motif
▪ Select File > Save As.
▪ Save in desired location (My Designs folder or other location). *Note: Motifs are accessed through the Editor Lite software on your PC.*

Deleting a Motif
▪ Select Editing tab.
▪ Touch Delete key symbol (trash can).

Retrieving a Saved Motif
▪ Select Pattern selection tab; select Open File key.
▪ Touch Built-in/Card key to toggle between built-in motifs and motifs on the PDC.
▪ Use arrow keys to select desired motif. Touch OK.

BERNINA 580, 750 QEE, and 780

Saving a Motif
▪ Touch Selection icon and select Save icon. The motif to be saved is displayed as New with a yellow border around it.
▪ Touch the Selection icon and select the Save icon on the left of the display. The design to be saved appears with a yellow frame and the System Memory Capacity (free capacity) is displayed in Percent (%) in a bar in top right corner of screen.
▪ Select the yellow-framed motif to save the motif to Embroidery Machine. The design is automatically saved into the My Designs folder.
▪ After the motif is saved; the Edit screen appears again. The My Designs folder is automatically opened and the System Memory Capacity (free capacity) is displayed in percent (%) in a bar in the top right.
▪ Select the motif to be saved; the Edit screen appears again.

Saving to a USB Stick
▪ The motif to be saved is displayed with a yellow border around it.
▪ Touch the Save icon on the left of the display.
▪ Insert the USB stick; touch USB Stick icon in the Selection Menu. The USB Memory Capacity (free capacity) is displayed in percent (%) in a bar in the top right.
▪ Select the motif to be saved; the embroidery motif is saved on the USB stick.

Deleting a Motif
▪ In the Selection Menu touch the Delete icon (trash can) and select the USB Stick icon (USB Stick is inserted) or Embroidery Computer and the My Designs folder.
▪ Select the motif to be deleted in the opened screen Confirm the animated graphic that appears; the motif is deleted.
▪ Touch the X to go back to previous screen.

made to create **BERNINA**

My **BERNINA**
Embroidery
Workbook

BERNINA 830

Saving a Motif

▪ Touch the Save icon in the Edit screen. The motif
  to be saved is displayed as New on the left of the
  display. In the Selection Menu the Embroidery
  computer icon is activated. The My Designs folder
  is opened automatically and the System Memory
  Capacity (free capacity) is displayed in percent (%)
  in a bar in the top right.
▪ Select the motif to be saved; the Edit screen
  appears again.

Saving to a USB Stick

▪ The motif to be saved is displayed as New on the
  left of the display.
▪ Insert the USB stick.
▪ Touch USB Stick icon in the Selection Menu.
  The System Memory Capacity (free capacity) is
  displayed in percent (%) in a bar in the top right.
▪ Select the motif to be saved; the embroidery motif
  is saved on the USB stick.

Deleting a Motif

▪ In the Selection Menu select the place where the
  design is stored—USB Stick icon   (USB Stick is
  inserted) or Embroidery Computer and the My
  Designs folder.
▪ Touch the Delete icon.
▪ Select the motif to be deleted in the opened screen.
▪ Confirm the animated graphic that appears; the
  motif is deleted.
▪ Touch the X to go back to previous screen and
   touch X again to return to the Edit screen.

SAVE
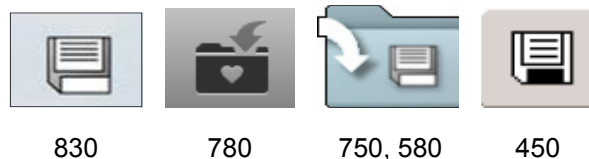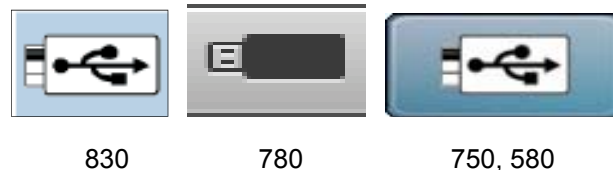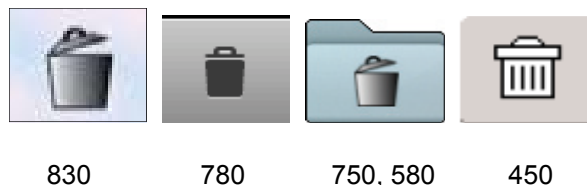
| 830 | 780 | 750, 580 | 450 |

USB

| 830 | 780 | 750, 580 |

DELETE

| 830 | 780 | 750, 580 | 450 |

made to create **BERNINA**✚

My BERNINA
Embroidery
Workbook

Fabric Preparation

Deco 340
Hoop a piece of firm woven fabric backed with tear-away stabilizer in the Large hoop.

580, 750 QEE, 780 and 830
Hoop a piece of firm woven fabric backed with tear-away stabilizer in the Large Oval hoop.

Lettering screen
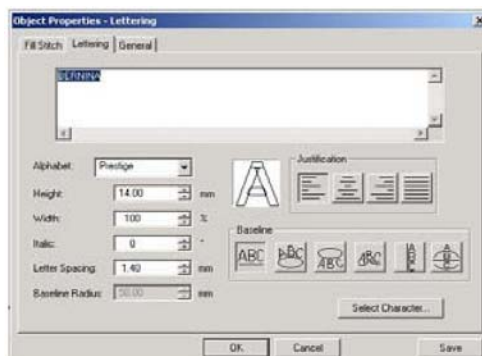
deco 340
- Select Alphabet tab
- Select desired alphabet & medium size font.
- Select vertical lettering.
- Enter your first name, selecting upper and lower case letters as desired; touch OK.
- Touch Edit; touch Alphabet tab
- Enter your last name, selecting upper and lower case letters as desired; touch OK.
- Use the Positioning Arrows to move the last name into position below the first name; touch OK
- Embroider sample. Press the carriage return key after finishing to return the carriage to the stored position.

aurora 450E
- Left click on the Lettering/Values button on the design toolbar.
- Place cursor on design screen; left click. A vertical cursor appears.
- Select desired font; type your name as desired using the keyboard.
- Press Enter; lettering is filled and remains selected.
- Use the Rotate CW/CCW tool to rotate the lettering 90° if needed to fit hoop.
- Click outside the lettering to deselect it.
- Save As NAME; stitch.

BERNINA 580
- Select the Alphabet folder; select desired font
- Enter your first name, selecting upper and lower case letters as desired; touch Green checkmark (OK).
- Select Hoops and touch Oval hoop. Touch Back arrow
- Touch Selection icon; touch Add Motif; enter last name using upper and lower case letters as desired. Touch Green checkmark (OK).
- Select "i" on Layer 2.
- Select Hoop and Touch Show Grid icon 2 times to activate grid.
- Touch Back arrow. Select Move function, Use SL knob to move last name into position below first name.
- Touch Back arrow two times. Select Layer with All motifs, Touch "i"
- Select Move function and touch Center to move to center of hoop.
- Touch Back arrow. Select Rotate; touch +90° if needed to fit in hoop
- Touch Back arrow two times; touch Needle icon (OK). Stitch.

made to create **BERNINA**

My BERNINA
Embroidery Workbook
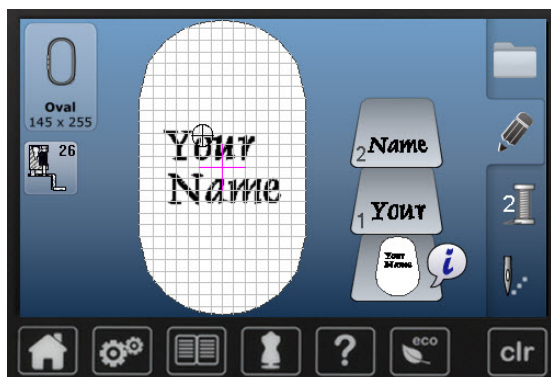
BERNINA 750 QEE
- Select the Alphabet folder; select desired font
- Enter your first name, selecting upper and lower case letters as desired; touch Green checkmark (OK).
- Select Hoops; touch Oval hoop. Touch Back arrow
- If the name is too wide for the hoop, Select "i" and rotate the name 90°; stitch the name
- Touch Selection icon; and select desired font
- Select Hoops; touch Oval hoop. Touch Back arrow
- If the name is too wide for the hoop, Select "I" and rotate the name 90°
- Enter last name using upper and lower case letters as desired. Touch Green checkmark (OK).
- Use Absolute Check to plan the placement for the last name in conjunction with the stitched first name on the fabric; touch Needle icon (OK). Stitch.

BERNINA 780
- Select Alphabet folder; select desired horizontal font
- Enter your first name, selecting upper and lower case letters as desired; touch Green checkmark (OK).
- Select Hoops; select Oval hoop then close the window
- Select the ADD symbol on upper layer
- Select a font; enter your last name using upper & lower case letters as desired. Touch Green checkmark (OK).
- Select "i" and the Move Icon; use the multifunction knobs to move the last name below the first name.
- Select Hoops; touch Show Grid icon 2x to activate grid.
- Close the Hoops Window and Select "i"
- Select the Move function, and use multi-function knobs to arrange the lettering in a pleasing arrangement.
- Select the lowest layer to select all motifs
- Select Move & Center icon to center the motif in hoop
- Select Rotate; touch +90° if needed to fit in hoop
- Close the information window
- Touch Needle icon (OK). Stitch.

BERNINA 830
- Select the Alphabet Folder; select desired font
- Enter your first name, selecting upper and lowercase letters as desired; touch Green Check
- Select Hoop Select, then Large Oval Hoop
- Touch Add Motif; enter last name using upper and lowercase letters if desired; touch Green Check.
- Select Move function; use the Stitch Width and length knobs or touch the motif on screen to move into position below the first name.
- Touch Show Grid icon 2x to turn on grid.
- Touch Retrieve icon to select both motifs.
- Touch Move Motif 2x to center design in the hoop.
- Select Rotate icon 2x to rotate lettering 90° if needed to fit in hoop.

made to create **BERNINA**

My BERNINA
Embroidery Workbook

deco 340
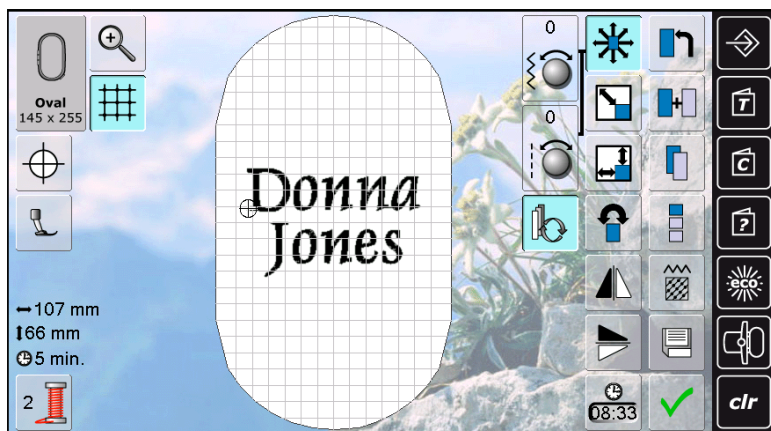
Note: While the Lettering Height cannot be changed on the Deco machine, it is possible to stitch letters in three sizes, small, medium, and large.
- Select Alphabet tab and desired font. Select small font size (10mm).
- Select the Large Hoop.
- Enter **Deco**; touch OK. Use Positioning arrows to move word up.
- Select Alphabet tab and desired font. Select medium font size (20mm).
- Enter **Deco**: touch OK. Use Positioning arrows to move word up.
- Select Alphabet tab and desired font. Select large font size (30mm).
- Enter **Deco**; touch OK. Position as needed.
- Embroider. Return carriage to stored position.

aurora 450E

- Open a New file. Select the Large Oval Hoop
- Press **A** (on keyboard) to open Lettering Object Properties.
- Select King Charles, height 14mm.
- Type **aurora**; press Enter; OK. Click to see lettering.
- Copy & paste to create 2 **aurora**s for a total of 3.
- Select second **aurora**; right click to open Lettering Object Properties. Change height to 20mm; OK.
- Select third **aurora**; click & drag top center sizing handle to adjust height of lettering as desired.
- Reposition as desired. Save As **lettering height**.

BERNINA 580 E

While lettering can't be resized directly on the 580 E, the size of the lettering object can be changed using the Rescale Motif Proportionally tool.
- Select Alphabets folder: select folder #5 Chateau fonts.
- Enter **BERNINA;** touch Green checkmark (OK).
- Select Hoop icon and select Oval Hoop, touch Back arrow.
- Touch "I" and select Duplicate, Touch "I" and select Duplicate to create a total of three words.
- Select on screen and move to arrange words as shown.
- Starting with the top word make changes to the size of each selected word;
- Select the word, touch the "I".
- Select Rescale using the Stitch Width knob to make changes to size.
- Touch the next word to be changed and use the SW knob to make change.
- Repeat for the third word.
- Touch Back arrow two times.

made to create **BERNINA**

My BERNINA
Embroidery
Workbook

BERNINA 750 QEE

Enter single letters or words and use the Rescale Motif Proportionally tool to change the size of the lettering object.
- Select Alphabets folder: select folder #4 Drifter fonts.
- Enter BERNINA; touch Green checkmark (OK).
- Select Hoop icon and select Oval Hoop, touch Back arrow.
- Select "i"; select Rescale using the Stitch Width knob to make changes to size.
- Touch Back arrow two times; stitch word (optional)
- Continue changing the size of the word and stitching until 3 text lines have been stitched.

BERNINA 780

- Enter single letters or words and use the Rescale Motif Proportionally and the Rescale Motif width and Height to change the size of the lettering object.
- Select Alphabets folder: select folder #1 Drifter font.
- Enter BERNINA; touch Green checkmark (OK).
- Touch "I"; select Duplicate 2x to create 3 words total.
- Move the text on screen by selecting on the touch screen or selecting the layers to the right of the hoop on screen. Arrange the text as shown.
- Select "I"; select the top word and select Rescale Motif Proportionally
- Adjust Stitch Width knob and size of lettering to 90%
- Select the second layer (or second text line) and the Rescale Motif Width and Height
- Adjust Stitch Length knob to change lettering height to 70%
- Select the third layer (or third text line) and the Rescale Motif Width and Height
- Adjust the Stitch Width knob to change the lettering width to 70%
- Select the close box

BERNINA 830

- Open Alphabet folder; select Drifter.
- Enter **BERNINA**; touch OK.
- Touch Hoop Select, then select Large Oval Hoop.
- Touch Duplicate twice to create a total of three words.
- Use the Move Motif and Retrieve functions or touch the motifs on screen to arrange the words as shown.
- Select the Rescale Motif Width and Height icon to make the following changes.
- Starting at the top, select each word and make changes as follows, touching OK after altering each word:
  1. SL knob = 200%, SW knob = 100%
  2. SL knob = 100%, SW knob = 100%
  3. SL knob = 60%, SW knob = 100%

made to create **BERNINA**

This exercise works with changing the spacing between individual letters in a word. The following machines have this feature: aurora 450E, 730E and BERNINA 8 Series only.

aurora 450E

- Open a New file. Select the Large Oval Hoop
- Press **A** (on keyboard) to open Lettering Object Properties.
- Select King Charles, height 14mm.
- Type **aurora**; press Enter; OK. Click to see lettering.
- Copy & paste to create 2 **aurora**s for a total of 3; arrange vertically.
- Select the first **aurora**; open Lettering Object Properties. Change letter spacing to 3.5; click OK.
- Select the third **aurora**; select the Reshape icon.
- Adjust letter spacing manually by clicking on the diamond-shaped control points and sliding the letters along the baseline.
- Reposition as desired; Save As **letter spacing**.

BERNINA 580 E

The lettering motif and be changed by using the Rescale Motif Proportionally tool.

- Select Alphabets folder: select folder #3 King Charles alphabet.
- Select Letters in Lower Case. Enter **BERNINA;** touch Green checkmark (OK).
- Touch Selection icon and Select Add Motif, select folder #3 Swiss Block alphabet.
- Enter **BERNINA;** touch Green checkmark (OK).
- Repeat Add Motif process to create a total of three words.
- Starting at the top make changes as follows: Select the word and touch 'I". Select Letter Manipulation.
- Use the Stitch Width knob to make changes:
  - 1st **bernina** Stitch Width knob = 0; Touch next word.
  - 2nd **bernina** Stitch Width knob = 25; Touch next word.
  - 3rd **bernina** Stitch Width knob = 45

Note: Lettering that is duplicated does not retain the Letter Manipulation (Word Art) properties, each word must be added new to create the combination.

My BERNINA
Embroidery
Workbook

This exercise works with changing the spacing between individual letters in a word. The following machines have this feature: aurora 450E, 580, 780 and BERNINA 8 Series only.

BERNINA 780 E
- Select Alphabets folder: select folder #1 Drifter alphabet.
- Select Letters in Lower Case. Enter **bernina;**
  touch Green checkmark (OK).
- Touch the Hoop Icon and select Oval Hoop;
   select Close
- Select Add Motif (from the layers), select #1 Drifter
  alphabet and lower case
- Enter **bernina;** touch Green checkmark (OK).
- Repeat Add Motif process to create a total of 3 words.
- Starting at the top make changes as follows:
  select the word and touch "i"; select Letter Manipulation.
- Use the Stitch Width knob to make changes:
    - 1st **bernina** Stitch Width knob = 0; Touch next word.
    - 2nd **bernina** Stitch Width knob = 25; Touch next word.
    - 3rd **bernina** Stitch Width knob = 45

*Note: Lettering that is duplicated does not retain the Letter Manipulation
(Word Art) properties, each word must be added new to create the combination*

BERNINA 830
- Open Alphabet folder; select #1 King Charles font. Enter **bernina** in lowercase; touch Green Check (OK).
- Touch Hoop select, then select the Large Oval Hoop. Select Add motif icon and select #1 King Charles font.
- Enter **bernina** in lowercase; touch Green Check (OK). Repeat for a total of three words on the screen.
- Select Rescale Proportionally and use the Stitch Width knob to change to 60%
- Use the Retrieve function to select each word or touch the word on screen and Rescale each word to 60%.
- Select the Move icon, use the Stitch Width and Length knobs to fine tune the posi-
  tioning, and arrange the words as shown in the illustration. *Note: Stitch Width
  knob position should be at 0 for all words.*
- Select the Letter Manipulation icon and make the following changes:
      - 1st **bernina** = no changes
      - 2nd **bernina =** Stitch Width knob = 15
      - 3rd **bernina =** Stitch Width knob = 35
- The top **bernina** has no spacing changes; leave as is.
- Retrieve middle **bernina**. Touch the Letter Manipulation
  symbol and change the Letter Spacing to 3mm. Touch OK.
- Retrieve last **bernina**. Change spacing to 5mm. Touch OK.

made to create **BERNINA**

BERNINA 580 E
- Select Alphabets folder: select folder #4 Guinevere alphabet.
- Enter the letter B. touch Green checkmark (OK).
- Select Hoop icon and select Oval Hoop, touch Back arrow. Touch "I".
- Select the Rescale Proportionally icon and increase size of letter to 200% using the Stitch Width knob. Touch Back arrow
- Select Duplicate design, touch "i", and select Duplicate design. There are now 3 Bs on screen.
- Select and move motifs so that they are aligned left to right.
- Note: Select Hoop icon and Touch Grid icon two times to see grid and center mark. Touch B on right, touch"I".
- Select Change Stitch Type icon; alter satin density to 160%. Touch Green checkmark (OK).
- Touch B on left. Select Change Stitch Type icon; alter satin density to 40%. Touch Green checkmark (OK).
- Embroider sample, noting stitch density of each letter.

Note: Notice that the satin stitches moved closer together or further apart, while the straight stitches under the design remained unchanged.

BERNINA 780 E
- Select Drifter font; type **B**.
- Select "I"; select the Rescale Proportionally icon and increase size of letter to 200% using the Stitch Width knob.
- Select the I breadcrumb (to keep the the I menu open)
- Duplicate design 2 times so that there are 3 **B**s on screen.; use the I breadcrumb to go back
- Select the Move icon; move motifs so that they are aligned left to right.
- To Center, touch the center icon within the move icon menu
- Select **B** on right or the layer; Select Embroidery Stitch Density; alter satin density to 160%.
- Select **B** on left or the layer. Select Embroidery Stitch Density; alter satin density to 40%.
- Touch OK. Embroider sample, noting stitch density of each letter.

Note: Notice that the satin stitches moved closer together or further apart, while the straight stitches under the design remained unchanged.

default   heavy   light

BERNINA 830
- Select Drifter font; type **B**.
- Select the Rescale Proportionally icon and increase size of letter to 200% using the Stitch Width knob.
- Duplicate design 2 times so that there are 3 **B**s on screen.
- Select the Move icon; move motifs so that they are aligned left to right.
  Note: Touch Grid icon two times to see grid and center mark.
- Retrieve **B** on right. Select Motif Properties icon; alter satin density to 160%
- Retrieve **B** on left. Select Motif Properties icon; alter satin density to 40%.
- Touch OK. Embroider sample, noting stitch density of each letter.
  Note: Notice that the satin stitches moved closer together or further apart, while the straight stitches under the design remained unchanged.

light   default   heavy

Embroidery Stitch Type
Embroidery stitch type can be changed and the stitch density increased or decreased. Satin stitching can be changed to step stitching. Then, touch + or — to increase or reduce the default density setting. The Stitch Width knob can also be used to make these changes.

made to create **BERNINA**

My BERNINA
Embroidery
Workbook

BERNINA 580 & 780

- Select Alphabets folder: select a desired font.
- Enter **BERNINA;** touch Green checkmark (OK).
- Select Hoop icon and select Oval Hoop, touch Back arrow.
- Touch "I", Select the Letter Manipulation icon (ABC).
- Turn the Stitch Length & Stitch Width knobs to manipulate the lettering as desired.
- Select Add Motif and add each of the following words one at a time, selecting a desired font and using upper and lowercase choices: **Made; to; Create**
- Select each word or use select each word on screen or select from the layers icon and make changes to each by selecting the Letter Manipulation icon (ABC).
- Select Rotate icon for additional changes if desired.
- Turn the Stitch Length & Stitch Width knobs to manipulate the lettering, when satisfied with the altered lettering, touch the Back arrow two times.
- To center on the 580 & 780, select the Move icon and select the 'center' icon.
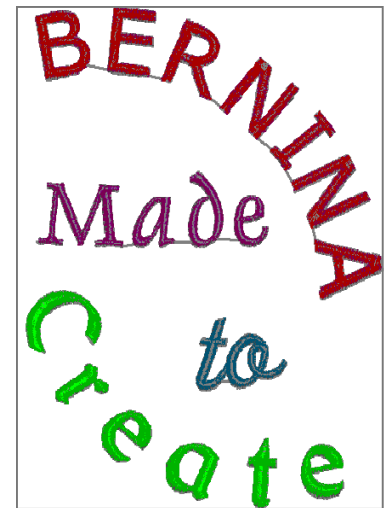
BERNINA 830

- Select the Alphabet folder; select #15 Swiss Block font.
- Enter **BERNINA**; touch Green Check.
- Touch Hoop Select and select Oval hoop.
- Touch the Letter Manipulation icon (ABC)
- Turn the Stitch Length & Stitch Width knobs to manipulate the lettering as desired.
- Select Add Motif and add each of the following words one at a time, selecting a desired font and using upper and lowercase choices: **Made; to; Create**
- Select each word or use the Retrieve icon and making changes to each by selecting the Letter Manipulation icon (ABC). Select Rotate icon to make additional changes if desired.
- Turn the Stitch Length & Stitch Width knobs to manipulate the lettering, when satisfied with the altered lettering, touch the Retrieve icon to select all motifs.
- Touch the Move motif icon 2 x to center the word art.
- Select the Green Check.

made to create **BERNINA**

![My BERNINA Embroidery Workbook logo]
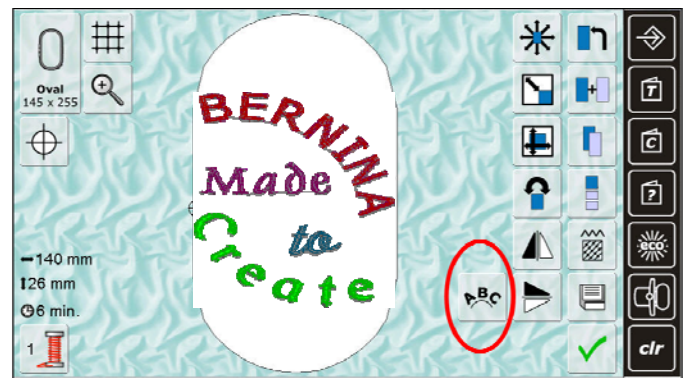
BERNINA 780

Importing stitches into embroidery offers the ability and precision of embroidering backgrounds of individual stitches and stitch combinations. Buttonholes and sideways Motion stitches can be imported and embroidered with perfection. The process of bringing stitches individually or as a combination is similar on the 780 and 830. The BERNINA 780 imports individual stitches by accessing the stitch folder in the embroidery menu.

- Select the Home Icon
- Select Sewing
- Select Combi
- Select the Decorative Stitch Tab
- Select Menu 601 and Scroll to select Stitch #674
- Select the Decorative Stitch Tab or select the Decorative Stitch breadcrumb
- Select Menu 901 and expand the window
- Scroll to select stitch #942
- If the last stitch in the combination is not selected, select it
- Select the Connecting Stitches Icon
- Use the Multifunction knobs to align the stitches.
- *Tip: Use the stylus or fingertip for moving stitches larger distances, and the Multifunction knobs to fine tune*
- Select the Connecting Stitches Icon to exit the screen
- Open the I and 'edit the complete combination' and set pattern repeat to 4
- Close the menu
- Select the Home Icon
- Select Embroidery
- Select My Designs Folder and combination
- Embroider the stitches either singly or duplicated

Virtual Positioning
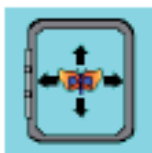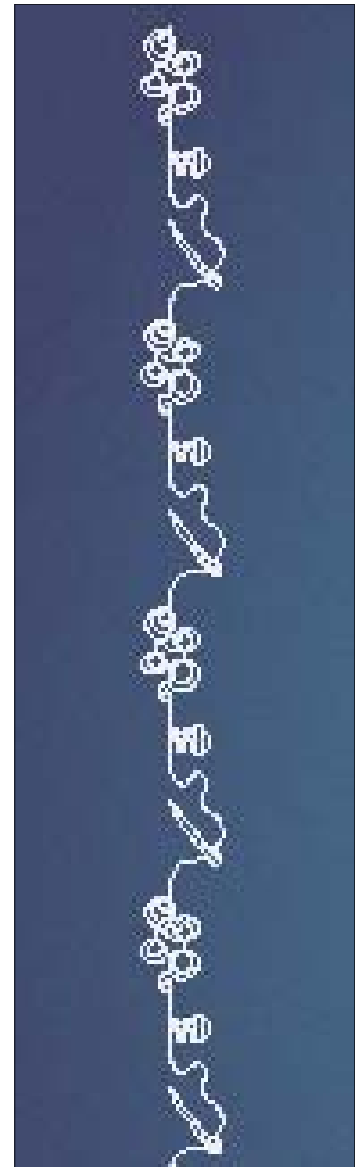
My BERNINA
Embroidery
Workbook

BERNINA 830

Importing stitches into embroidery offers the ability and precision of embroidering backgrounds of individual stitches and stitch combinations. Buttonholes and sideways Motion stitches can be imported and embroidery with perfection. The process of bringing stitches individually or as a combination is similar on the 780 and 830.

- Toggle to Sewing
- Select Combi mode
- Select Decorative Stitch Menu; locate Menu 1113 Tassels
- Select stitch #1119 and #1118
- Select the Multi Function Icon
- Select Connecting Stitches
- Move the design into position using Drag and Drop with stylus or finger
- Select Green Check to confirm and then the Red X
- Engage Pattern Repeat 5X
- To save this design, select the File Drawers icon
- Select one the folders and save the combination

- Toggle to Embroidery Mode
- Attach # 26 Embroidery Foot
- Select the My Designs folder and select the combination stitch
- Select Duplicate Motif

- Select Horizontal Mirror Image
- Drag and Drop with stylus or finger the first motif; position to the far left in the hoop.
- Select 2nd design and position to the right and slightly above the original.
- Touch Retrieve to group the designs together
- Select Virtual Positioning to move the hoop when the design is repositioned
- Select any point on the design and check the exact placement of the stitch point within the hoop.
- Select Single Color Motif and deselect Cutting of Jump Stitches.
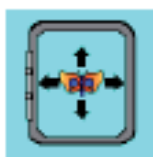
Virtual Positioning

made to create **BERNINA**

My BERNINA
Embroidery
Workbook

Endless embroidery enables you to sew borders and larger embroidery designs by using registration marks for easy rehooping and needle placement. With endless embroidery, you are successful every time.
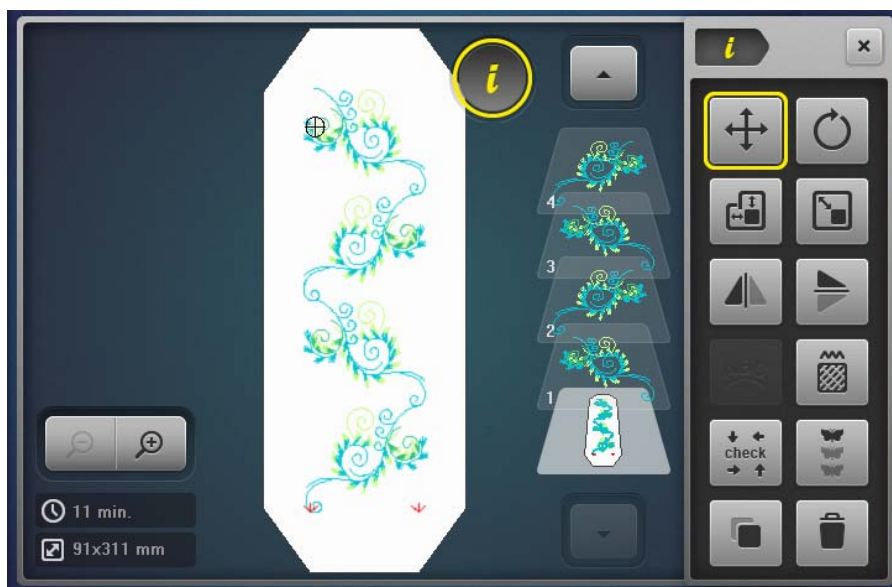
BERNINA 780

- Select Folder 1, Design #11
- Select the Hoop Icon and the Mega Hoop; Close
- Select 'I' and rotate; rotate 15º
- Select the I breadcrumb to select another function within the I menu
- Select Endless Embroidery
- Notice the options, try a few (same explanation as the 830)
- Set the design to 4 repeats and select check
- Select the 2nd motif and Mirror Image Left/right
- Select the 4th motif and Mirror Image Left/right

Additional Notes:
You can also use the stitch length knob or the plus/minus symbols to change the distance between motifs

If you do not want to stitch the registration marks, deactivate them by pressing them.

The Endless Embroidery icon is present in the sew-out screen in case you want to edit further.

made to create **BERNINA**

![My BERNINA Embroidery Workbook logo]

BERNINA 780 & 830 only
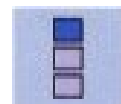
Endless embroidery enables you to sew borders and larger embroidery designs by using registration marks for easy rehooping and needle placement. With endless embroidery, you are successful every time.

Open the desired design.

Access the endless embroidery icon.
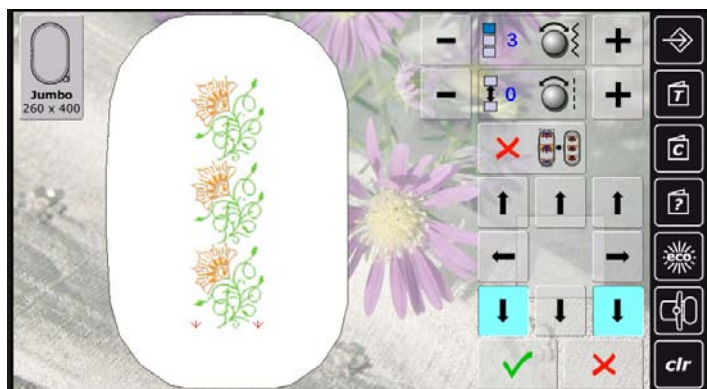
The motif is duplicated in the optimum number to fit the hoop.

Reference marks are also added to be stitched with the desgn. The arrow buttons may be used to add more reference marks in different directions if desired. *Note: You only need 2 reference marks to rehoop successfully.*
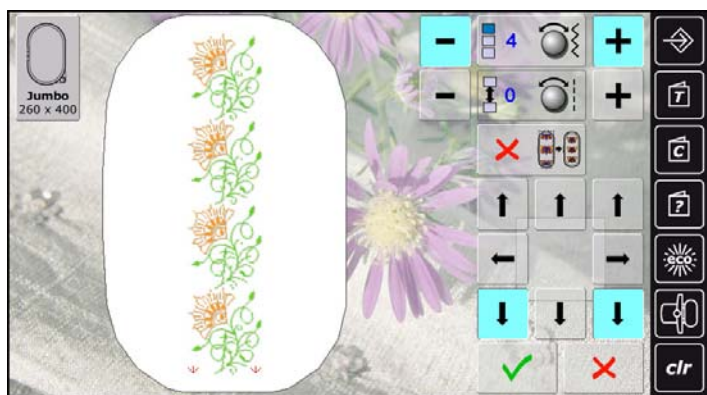
Use the stitch width knob or the plus/minus symbol to increase or decrease the number of motifs.

Touch the center field to reset.

If you increase the number of motifs to extend outside the hoop, engage the fit to hoop icon and all motifs are adjusted in size to fit into the hoop.
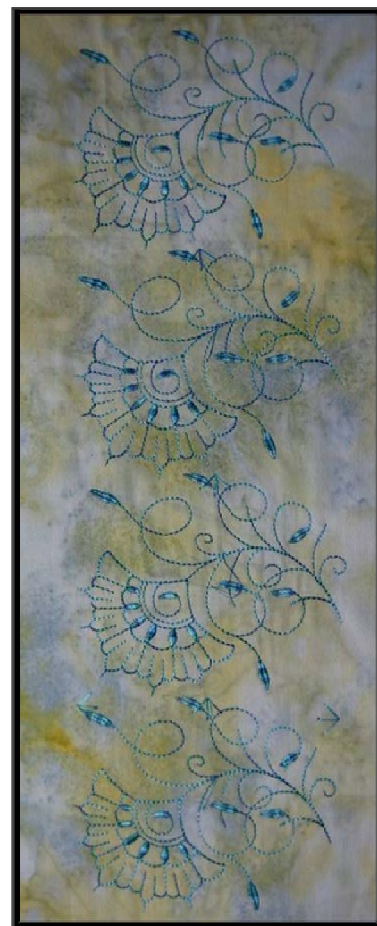
Additional Notes:
You can also use the stitch length knob or the plus/minus symbols to change the distance between motifs

If you do not want to stitch the registration marks, deactivate them by pressing them.

The Endless Embroidery icon is present in the sew-out screen in case you want to edit further.

made to create **BERNINA**
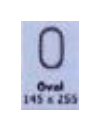
BERNINA 830
Embroidery Functions

EMBROIDERY MOTIF SELECTION					
	Embroidery Mode - *Select Motifs from Folders*				
	Selecting Alphabets Folder		Selecting Motifs Folder		Selecting My Designs Folder
	USB Stick				

EMBROIDERY FUNCTIONS					
	Return to Selection Menu		Change to Embroidery Menu		Save
	Motif, Color, Sequence by Number		Leave Active Screen		Delete
	New Motif		Select Hoop Menu		Retrieve
	Add Motif				Presser Foot Indicator
	Duplicate Motif		Show Grid		Zoom
	Rescale Motif Proportionally		Visual Positioning		Move the Enlarged Design
	Rescale Motif in Height or Width		Hoop Relocator		Motif Center
	Rotate Motif		Fit to Hoop		Change Stitch Type
	Mirror Image (Left/Right)		Basting Box		Embroidery Sequence Control
	Mirror Image (Up/Down)		Move Hoop		Disengage Jump Stitches
	Move Motif		Park Module		Color Numbers
	Endless Embroidery		Move Hoop to Back		Single/Multi-Color Motif
	Letter Manipulation				Color Information Bar

made to create **BERNINA**

artista 780
Embroidery Functions

EMBROIDERY MOTIF SELECTION							
	Selection Overview - Open New Motif		Selection Overview - Add Motif		Selection Overview - Save		Selection Overview - Delete Motifs
	Embroidery Computer - *Select Motifs from Folders*		USB Stick - *Select Motifs from Stick*				
	Motifs Folder		Alphabet Folder		Stitch Patterns Folder		My Designs Folder

EMBROIDERY FUNCTIONS							
	Upper Thread Tension		Confirm Selection		Mirror Image (Left/Right)		Virtual Positioning
	Security Program - Needle		Leave Active Display		Mirror Image (Up/Down)		Basting - Motif/Hoop
	Presser Foot Indicator		Move View of Motif		Alter Characters - Word Art		Thread Breakage
	Select Hoop		Move View of Motif within the Hoop		Alter Stitch Type		Cut Connecting Stitches
	Security Program - Stitch Plate		Zoom Plus 1 - 5x		Check Hoop & Motif Size		Color Numbers
	Feed Dog Up/Down		Zoom Minus 1 - 5x		Endless Embroidery		Color Information
	Filling of Bobbin		Add Embroidery Motif		Delete Motif		Change Thread Brand
	Selection		Motif Center		Move Motif Move Hoop		Convert Thread Brand to Another
	Edit		Rotate Motif		Move Hoop to the Left		Color Resequence
	Embroidery Menu		Alter Motif in Height or Width		Move Hoop to the Back		Single/Multi-color Motif
	Information		Alter Motif Proportionally		Park Embroidery Module		Embroidery Speed
	Back		Duplicate Motif		Show Grid		Embroidery Finish

made to create **BERNINA**

BERNINA 750 QEE
Embroidery Functions

EMBROIDERY MOTIF SELECTION			
	Embroidery Computer - *Select Motifs from Folders*		USB Stick - *Select Motifs from Stick*
	Motifs Folder	ABC — Alphabet Folder	My Designs Folder

EMBROIDERY FUNCTIONS					
Selection		Move View of Motif within the Hoop	Upper Thread Tension		Motif Center
Return to Selection Menu		Zoom Plus 1 - 5x	Security Program - Needle; Stitch Plate		Virtual Positioning
Edit		Zoom Minus 1 - 5x	Presser Foot Indicator		Basting - Motif/Hoop
Embroidery Menu		Mirror Image (Left/Right)	Select Hoop		Cut Connecting Stitches
Information		Mirror Image (Up/Down)	Move Hoop		Thread Breakage
Back		Move Motif	Move Hoop to the Left		Color Numbers
Confirm Selection		Rotate Motif	Move Hoop to the Back	Isacord 40 1840 / 1 min.	Color Information
Leave Active Display		Alter Motif Proportionally	Park Embroidery Module		Change Thread Brand
New Motif		Save Motif	Delete Motif		Single/Multi-color Motif

made to create **BERNINA**

BERNINA 580
Embroidery Functions

EMBROIDERY MOTIF SELECTION					
	Embroidery Menu		Embroidery Computer - *Select Motifs from Folders*		USB Stick
	Selecting Alphabets Folder		Selecting Motifs Folder		Selecting My Designs Folder
EMBROIDERY FUNCTIONS					
	Information		Confirm Selection		Leave Active Display
	Back to Previous Display		Return to Selection Menu		Delete Motif
	New Motif		Add Motif		Duplicate Motif
	Zoom Plus		Zoom Minus		Move Enlarge Motif in Hoop
	Rescale Motif Proportionally		Rotate Motif		Move Motif
	Mirror Image (Left/Right)		Mirror Image (Up/Down)		Alter Stitch Type
	Letter Manipulation		Save		Single/Multi-Color Motif
	Color Numbers		Change Thread Brand		Embroidery Sequence Control
	Edit		Upper Thread Tension		Thread Breakage
	Hoop Selection		Grid		Motif Center
	Check Hoop & Motif Size		Virtual Positioning		Basting Boxes
	Move Hoop		Embroidery Hoop Movement		Move Hoop to Back
	Calibrate Embroidery Module		Presser Foot Indicator		Cut Jump Stitches

BERNINA 450E
Embroidery Functions

EMBROIDERY FUNCTIONS					
	Return to Selection Menu		Change to Embroidery Menu		Save
	New Motif		Closes Special Applications		Delete
	Add Motif	Medium 100x130	Select Hoop		Retrieve
	Rescale Motif Proportionally				Zoom
	Rotate Motif		Show Grid		Motif Center
	Mirror Image (Left/Right)	Check	Check		To Next Page - Edit 1 / Edit 2
	Move Motif		Hoop Relocator	0-9	Color Selection by Number
125 mm / 95 mm	Motif Size	33 min.	Embroidery Time	2	Color Numbers
			Single/Multi-Color Motif		Embroidery Sequence Control
				1/4 1600 Isacord 40	Color Motif Display

Deco 340
Embroidery Functions

EMBROIDERY MOTIF SELECTION					
	Embroidery Computer - *Select Motifs from Folders*				
	Select Alphabets Folder		Select Design Card		USB Stick
	Select Personally Saved Designs		Move from folder to folder or page to page		

EMBROIDERY FUNCTIONS					
	Utility	Edit	Go to Edit Screen	Stitching Time / Total # of colors / Size of Motif / Hoop / Size of Hoop	19 min — 5 Colors / Size — 71x49 mm / A(F):126 x 110 mm
	Setup		Hoop Selection		
	Help		Mirror Image (Left/Right)		Jog Keys
	Hoop Centering		Mirror Image (Up/Down)		New Folder
	Return Carriage	45°)	Rotate Motif		Font Selection
	Image Key—complete or separated by color		Magnifier		Letter Size—small, medium, and large
	Jog / Stitch		Position / Move Motif	ABC	Letter Alignment
	Stitch Forward / Backward		Delete Motif		Move Cursor
	Carriage to Front		Save Motif		Letter Delete
	Trace	X	Close		Upper / Lower case
	Disable Thread Cutter	OK	OK / Confirm	0~9 A~Z	Numbers / Alphabets
	Resize Motif	Color Change	Multi-colored Lettering	AB	Direction of Text