BERNINA Q-matic 4.0

Course Workbook

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CONTENTS

Introduction **1**

Preparing to Stitch **2**

Exercise Materials 2

Machine Set Up References 2

Basic Navigation **4**

Navigating the Q-matic Screen. 4

Accessing Icons 4

Menu Bar 4

Auto Save 5

Quilt Design Area & Control Center **8**

Quilt Design Area 8

Control Center 8

Tool Center. **11**

Select & Multi-Select 11

Design Pool 11

Copy and Delete 11

Viewing Tools 12

Screen Gestures and Mouse Zoom 12

Quilt Size 12

Design Placement Tools 12

Realign Safe Area 12

Sew Options 13

Reverse Sew 13

Design Modification Tools 13

Design Center **19**

Searching For Designs 19

Importing Designs From a USB Stick 20

Deleting Designs From Design Pool 21

CONTENTS

Design Placement Methods 22

Grab and Drop 22

Boundary 23

Exercise 1 — Edge-to-Edge Quilt Layout 27

Load the Frame 27

Create the Layout 27

Trim 29

Quilt First Row(s) 30

Advancing the Quilt 31

Exercise 2 — E2E Autofit 33

Load the Frame 33

Create the Layout 33

Realign the Safe Area 34

Stitch the Quilt 35

Exercise 3 — Straight-line Quilt Layout 36

Load the Frame 36

Create the Layout 36

Stitch the Quilt 37

Exercise 4 — Custom Quilt Layout 38

Load the Frame 38

Create the Layout 38

Align the Blocks 40

Stitch the Quilt 41

Art & Stitch 44

Using Art & Stitch Designs 44

Converting Art & Stitch Designs to BQM 45

Thread Break Recovery 46

INTRODUCTION

Welcome! Learning to use your new BERNINA Longarm Quilting Automation System to its fullest capabilities will let you enjoy your quilting system for many years. A thorough understanding of the Q-matic features and navigation system will maximize your creativity and fun. This workbook will cover all the basics, as well as some of the more advanced creative techniques, and will certainly enhance your expertise. It will complement your machine's manual and can be used over and over as a technique reference guide.

Although this is just the start of your educational journey, there are countless other chances for ongoing learning. BERNINA of America strives to provide quality sewing, quilting, and embroidery machines while offering the best educational experience possible.

BERNINA Skill Hub, the BERNINA International YouTube channel, the WeAllSew blog, and in-person retreats at the BERNINA Creative Center are excellent resources to enhance your learning experience. You will also find inspiring sewing projects and eBooks on the BERNINA website at bernina.com in the Learn & Create section. Visit your local dealer for the "Big Book of Longarm Quilting," as well as BERNINA feet and bobbins for your Q Series machine.

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Chapter I

PREPARING TO STITCH

EXERCISE MATERIALS

Fabric & Batting

- For Exercises 1-3, **each** will need: (1) 48" x 48" backing, (1) 48" x 48" batting, and (1) 42" x 42" quilt top.
- For Exercise 4, prepare a quilt top consisting of (9) 12"x12" blocks from two different colors of fabric and, with a ¼" seam allowance, piece together in a 3 x 3 configuration for a finished quilt top that is 34 ½" x 34 ½". You will also need (1) 41" x 41" batting and (1) 41" x 41" backing.
- To complete all the exercises in this workbook, you may prefer to load a large quilt back and work through the exercises together. Recommended size is 96" x 96" minimum.

Notions

- Bobbin Tension Gauge
- (4) 90/14 Quilting needles
- Longarm quilting thread to coordinate with quilt tops and backing fabrics.
- Extra bobbins
- Thread snips

MACHINE SET UP REFERENCES

Q-matic Start-up

The order for turning on the Q-matic system is important for successful operation. Watch this video and then follow the steps below.

1. Use the rocker switch on the back of the Control Cabinet to turn the system on.
2. Press the GREEN button on the top of the Control Cabinet for three seconds until you hear a "thump."
3. Ensure both Clutch Belt Clamps are engaged. Move levers to the center position to engage and ensure the peg goes between the teeth on the belt.
4. Once the Sewhead is on, it is safe to power up the computer and open Q-matic.

Turning Off the System

1. Close the Q-matic program using the "X" in the upper right corner of the screen.
2. You will be prompted to save the file if you have not already done so.
3. Turn off the computer with the normal Windows shutdown procedure (select the Start icon, then Power, then Shut Down).
4. When the computer power light goes out, use the rocker switch to turn off the Control Cabinet and Sewhead. The Sewhead power switch may remain in the "on" position.

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Set Up for Quilting

Before beginning a project, you need to clean and oil the machine. It is also a good practice to insert a new needle at this time.

Wind your bobbins and set the bobbin tension using the bobbin tension gauge. Then you are ready to thread the machine and test stitch.

Maintaining the Q-matic System

- Make sure movement of the Sewhead is not obstructed.
- Clean carriage wheels regularly with a clean, dry piece of cotton batting to prevent the build-up of dirt on the wheels. Do not use any waxes or abrasive cleansers.
- Dust and remove any thread, pins, or debris from the frame bed.
- Use the Allen wrenches included with your system to tighten any loosened screws. Also, check the rail ratchet screws periodically to prevent the rails from shifting sideways.
- Clean the Q-matic computer and Sewhead screens with the microfiber cloth included with your Sewhead.

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BASIC NAVIGATION

NAVIGATING THE Q-MATIC SCREEN

From the main Q-matic screen (Fig. 1), you'll be able to access the Menu Bar, the Quilt Design Area, Speed Control, Control Center, Tool Center, and the Design Center to edit, control, and stitch a wide variety of quilting designs.

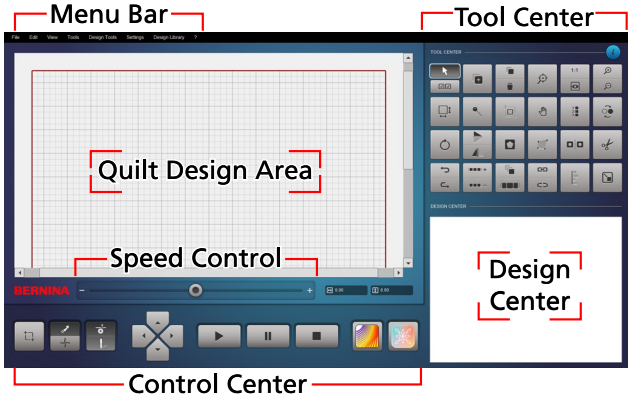


Fig. 1

ACCESSING ICONS

Icons can be accessed by using the touch screen or by using a mouse.

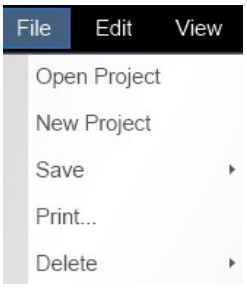
Touch Screen	Mouse Equivalent
Touch (or tap)	Click
Tap (or Touch) and Hold	Right-click
Double tap	Double click

Please use the reference chart above, if needed, for the equivalent action between using a touch screen and a mouse.

MENU BAR

The Menu Bar across the top of the screen features dropdown commands for various functions in Q-matic. With the exception a few functions, most features have a button readily available on the screen, either in the Tool Center or the Control Center. Depending on your preference, you can access them in either location.

File



Selecting File offers you several options for your projects, including Open Project, New Project, Save a Design or Save a Project, Delete a Design (from your catalogue) or a Project, and Print your catalogue of designs. Design files are saved as a BQM format and Project files are saved as a BQP format.

When deleting a file you have the option to delete design files and project files.

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FEATURE FOCUS

Auto Save

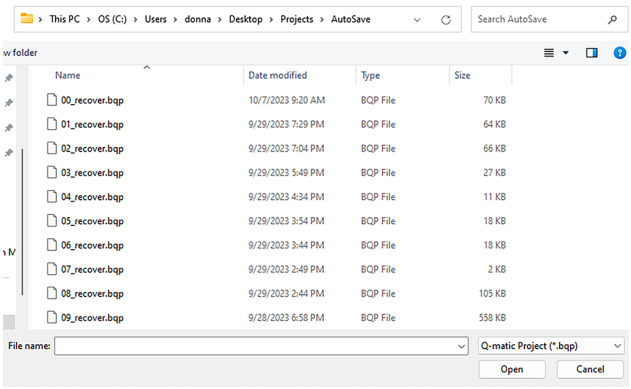
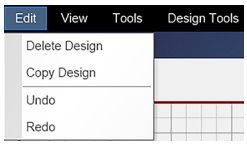


Fig. 2

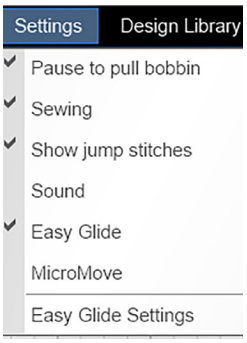
When you open a project, Auto Save is the first file folder you'll see (Fig. 2). The Auto Save feature automatically saves your work every five minutes to allow for the recovery of lost work. The folder, located in Projects on the Hard Drive, will have up to ten recoveries for you to choose from.

Edit, View, Tools, and Design Tools



The Edit, View, Tools, and Design Tools functions in the Menu Bar are also available in the Tool Center on the main screen. You may access them from either location. We will dive deeper into each of the command options in the Tool Center section of this workbook on p. 11.

Settings



The Settings menu allows you to select functions that facilitate your quilting workflow. When a function is activated, you will see a check mark next to it. Some of the functions you can activate include: Pause to Pull Bobbin, Sewing On/Off, Show Jump Stitches, Sound, Easy Glide, and MicroMove.

Several of these functions are also available below in the Control Center.

Design Library

Your designs are accessible from the Tool Center. From the Menu Bar you can Import Designs, Manage (Add, Edit, Delete) the descriptor tags associated with each design, or Add or Remove tags from designs.

Manage Tags

Designs in the Q-matic Library have tags to help with your sorting and searching in the Design Pool. Tags can be added, modified, and deleted. Designs can have more than one tag or no tags at all.

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Create A Tag

Fig. 3

1. To create a new tag, select Design Library and then Manage Tags in the dropdown menu. A secondary window will open (Fig. 3).
2. Select Add to open a dialog box.
3. Enter the new tag name in the dialog box (Fig. 4). When you're finished, confirm with the green check mark.

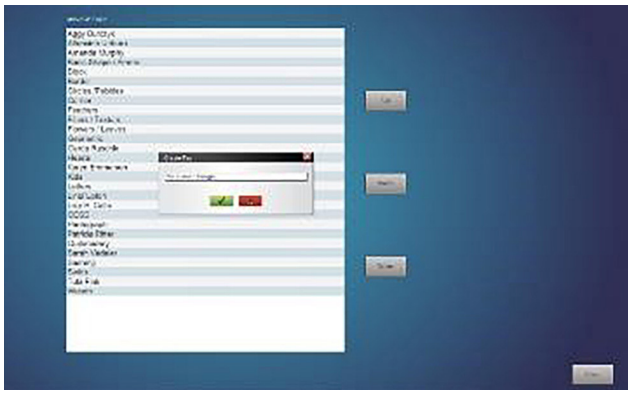

Fig. 4

Your new tag can now be seen in the alphabetical tag list.

Modify A Tag

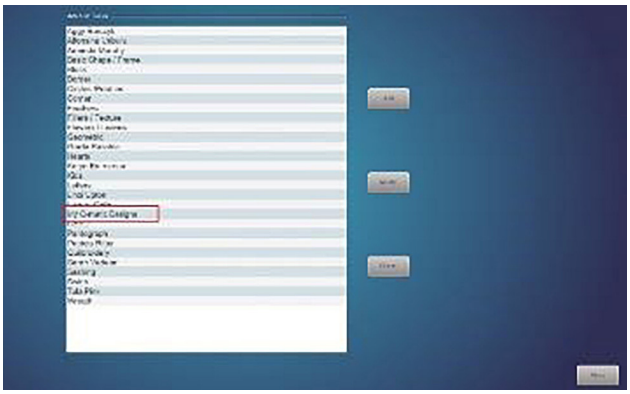

Fig. 5

1. Select the tag you would like to change (Fig. 5), then select Modify. A dialog box will open, and the name can be changed in the dialog box.
2. When finished, confirm with the green check mark.

The modified tag name can now be seen in the alphabetical tag list.

Delete a Tag

1. Select a tag to delete.
2. Select Delete (make sure you really want to delete the tag before selecting Delete as the deletion is permanent).

The tag is now deleted and no longer available.

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Design Tags

You can Add or Remove Tags to any design, making them easier to find when filling your Design Center.

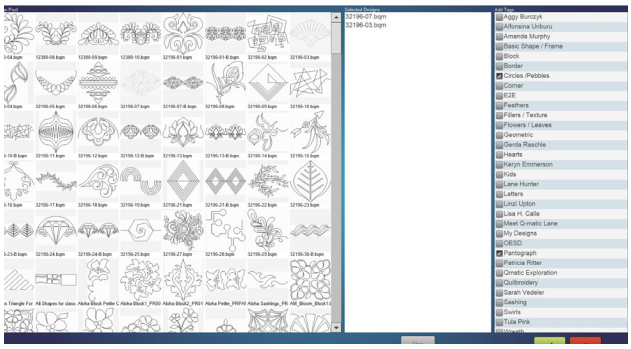


Fig. 6

Adding Tags

1. From the top menu, select Design Library and scroll down to Design Tags.
2. Select Add and the screen will open with three columns. The first holds all your designs. The second is blank. The third is all of the available tags (Fig. 6).
3. Double-click or drag a design(s) into the second column.
4. From the third column, select which tags you would like to add to the design(s).
5. When finished, select the green check mark.

You may then begin again by resetting the second column, using the Clear button at the bottom of the window. Then, start selecting designs anew. When you are finished adding tags, select the red X at the bottom to go back to the main page.

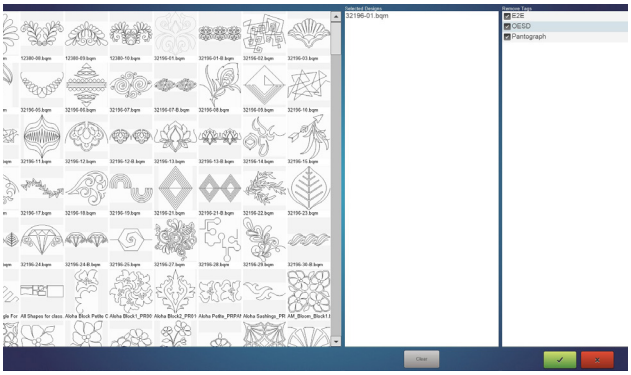
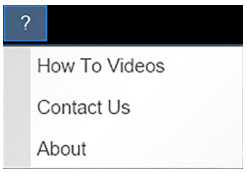


Fig. 7

Removing Tags

1. Select Remove and a similar page will open except that the third column is also empty.
2. Double-click or drag a design(s) into the second column and the third column will populate with the associated design tags (Fig. 7).
3. Deselect the tags you wish to remove and select the green check at the bottom of the page.
4. Clear the second column (button below) to continue or select the red X at the bottom of the page if you are done.

? (About)



From the About menu indicated by the question mark, you can access supportive resources, including How-to Videos, Contact information, and, under About, the software version currently installed.

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QUILT DESIGN AREA & CONTROL CENTER

You will do the majority of your quilt layout and set up from the main screen of the Q-matic software. It is comprised of four main sections; the Quilt Design Area, Control Center, Tool Center, and Design Center.

QUILT DESIGN AREA

Selected designs are placed in the Quilt Design Area for editing and quilting. The default size is 60" x 60" and is intended to help you visualize how your project will work with the selected designs.

The quilt grid is made up of darker and bolder lines in addition to lighter, finer lines. The dark grid always represents 4" increments. The light changes depending on how far you zoom in and out. When zoomed out, the light grid is 1" x 1". When zoomed in, the light grid subdivides into 1/4" increments but the dark grid will remain 4".

In the Quilt Design Area, the Safe Area required for stitching is marked with a red frame. It will only be visible when it has been properly set.

CONTROL CENTER

The Control Center tools (Fig. 8) at the bottom of the Q-matic screen give you direct access to all of the functions needed to successfully execute the stitchout of your project.

Set Safe Area

At start-up, the first thing that you will be prompted to do is set a Safe Area. By setting a Safe Area, you tell the computer where it safe to stitch and where it is not. Remember, the computer cannot see what you can see; you must tell it.

If you wish to set a Safe Area later, you can do so by selecting the icon in the bottom left corner of the Control Center. It is possible to work on designing your project without a Safe Area, but you will not be able to stitch anything until a Safe Area is created.

> ***Tip:***
>
> Some tools are not active without a Safe Area set.

1. Engage both Clutch Belt Clamps. Safe Area cannot be set without them engaged.
2. Select the Set Safe Area Icon on the left of the Control Center or follow the prompts upon opening Q-matic at the start of the quilting session.
3. Both the Q-matic screen and the Sewhead screen will prompt you to move the Sewhead to the upper leftmost corner of the loaded quilt back (Fig. 9).

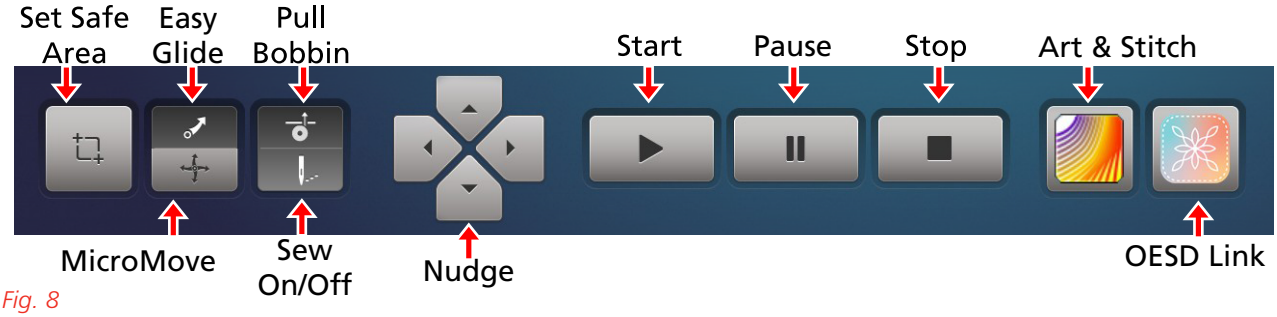

Fig. 8

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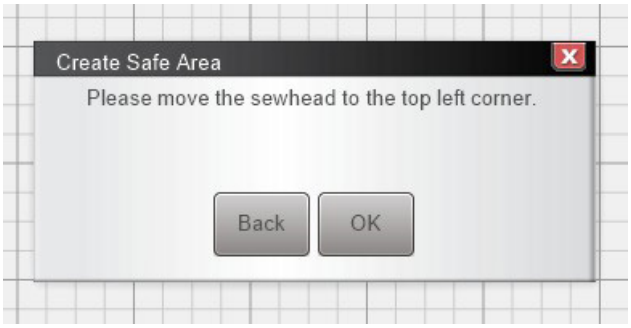

Fig. 9

4. Select Set on the Sewhead when you reach the top-left point of your quilt back.
5. Move the Sewhead at a steady pace across the frame to the lower right-front portion of your quilt back and select Set.
6. As you move the Sewhead towards the bottom right corner, you can see the Safe Area expanding on you computer screen (Fig. 10).

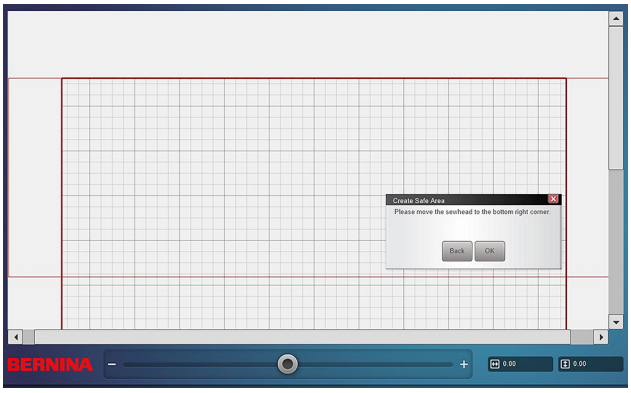

Fig. 10

When to Reset a Safe Area

The Safe Area must be reset when any of the following occur:

- For each new quilting project
- If either Clutch Belt Clamp becomes disengaged
- If Clutch Belts are released for free-motion or rulerwork quilting

The Safe Area cannot be saved and must be reset with each new start-up of Q-matic. It is important to know that Safe Area and Realign Safe Area are not the same.

Easy Glide

Easy Glide assists in moving the Sewhead when it is locked to the belts. Easy Glide Settings allows you to adjust how much help it offers.

MicroMove

MicroMove allows for incremental movement of the sewhead. When activated, the belts are locked tight and cannot be pushed by hand. Choose on the sewhead screen one of three movement lengths then use the toggle switches on the handles to move the sewhead. The switches on the right move left and right. The switches on the left move up and down. In order to move the sewhead by hand again, you must disengage MicroMove.

Pull Bobbin

The Pull Bobbin function is activated by default, indicated by its shaded color as if the button has been pushed in. When stitching a design, this feature will direct you to pull up the bobbin thread at the beginning and end of each design. By deactivating it, the machine will begin to stitch without pulling up the bobbin thread. This is useful with designs that have many small jump stitches.

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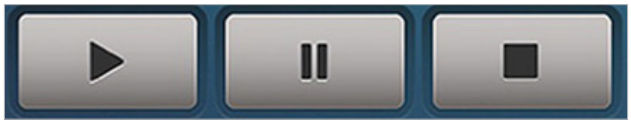
Sew On/Off

The Sew On/Off feature can be used to have the sewhead move along the design path without stitching. This allows you to test-run where the design will be without actually stitching.

Nudge

The nudge function is especially helpful in allowing for precise placement of a design. Use these arrows to move the design in the Quilt Design Area in pixel-by-pixel increments. To avoid confusion with MicroMove, Nudge moves the design for exact placement while MicroMove moves the Sewhead.

Start, Pause, and Stop



When a design is queued and located within the Safe Area, selecting Start in the Control Center will allow stitching to begin. The Q-matic will prompt you to begin sewing at the start point of the design or at the closest location on the pattern to where the needle is currently positioned. The Closest Point on the Design is used whenever there is a thread break or an empty bobbin. You can interrupt sewing with the Pause icon or cancel sewing by selecting the Stop button.

Art & Stitch

Art & Stitch is a comprehensive digitization program that enables you to create your own designs. Art & Stitch has over 350 designs that can be freely used or edited. Use Art & Stitch to open files and designs of various longarm file formats and vector graphics, digitize a design from a picture, design an appliqué or create filler designs as a background. In addition, existing designs can be altered, saved in any major longarm file format, and directly imported into the Q-matic software.

OESD Link

This icon is a direct link to Totally Quilted, the OESD Longarm Design website. There are many designs for purchase that come in BQM file formats for use with BERNINA machines. Once purchased, you will still need to import the design into your Design Pool.

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TOOL CENTER

The Tool Center (Fig. 11) contains the tools necessary to retrieve, place, and modify the designs you would like to stitch on your quilt.

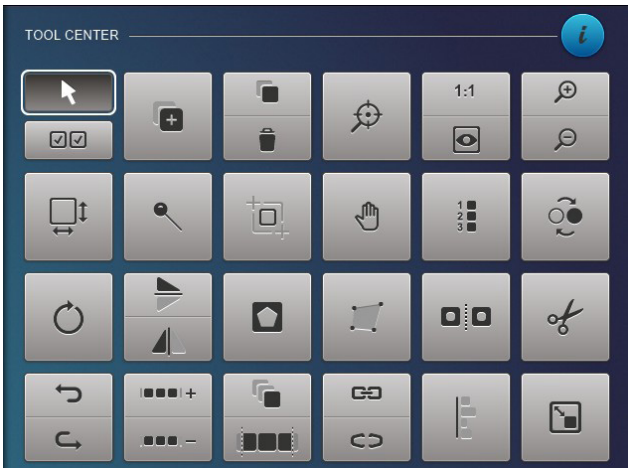

Fig. 11

The "i" icon toggles the Tool Center menu between Icon Images and Text Labels (Fig. 12). The screen defaults to Icon Images with each start-up of Q-matic.

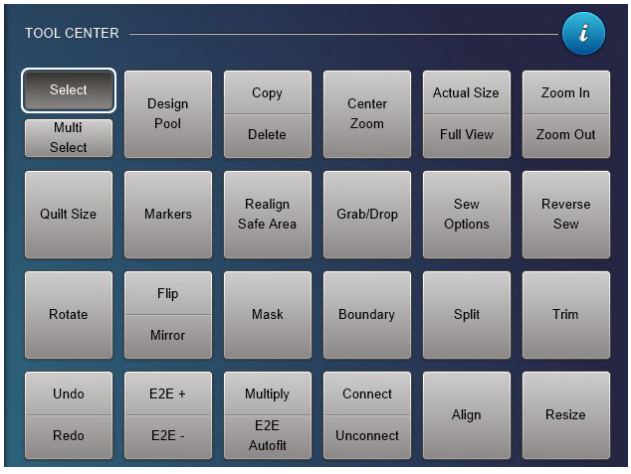

Fig. 12

SELECT & MULTI-SELECT

Select must be activated, indicated by the white outline around the icon, in order for tools to work. It enables you to select a design so it can be modified or placed. Selected designs are red. You can also select a design by touching it on the Q-matic screen.

With Select, you can only select one design at a time unless you drag a box around multiple items. Once the designs are selected, you can use other tools to modify the designs, but if you touch another design or anywhere on the screen, it will deselect the designs.

With Multi-Select activated, you can select multiple designs that may or may not be next to each other. This action momentarily groups the designs so that you can move them simultaneously or use other tools to modify the designs. This function must be deactivated or you may unintentionally add designs to your selection.

DESIGN POOL

The Design Pool contains all of the designs that come with Q-matic and the designs that you have imported. Selecting this icon will allow you to search for and choose the designs that you would like to add to your Design Center.

COPY AND DELETE

Once you have selected a design in your workspace, select Copy to create a duplicate or remove it by pressing Delete.

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Copied Designs will always land in the workspace where the needle is.

Select Delete, the lower icon, to delete selected or connected designs.

VIEWING TOOLS

Q-matic has several methods for viewing the project: Center Zoom, Actual Size and Full View, and Zoom In/Zoom Out.

Center Zoom

With Center Zoom activated, any point you touch will be moved to the center of the screen and zoomed in. Center Zoom can be used multiple times as needed but will need to be deactivated to stop.

Actual Size (1:1) and Full View

The 1:1, upper icon, shows the design in its actual size. Full View, lower icon, shows a full view of the entire quilt grid.

Zoom In/Zoom Out

Zoom in by tapping the upper icon. Zoom out by tapping the lower icon. Horizontal and vertical slider bars will appear to adjust the zoom level.

FEATURE FOCUS

Screen Gestures and Mouse Zoom

There are two additional methods to zoom in and out on the Q-matic screen. You can use Pinch with your fingers to zoom, or use the wheel on your mouse.

QUILT SIZE

Selecting Quilt Size will open a window where you can enter a new quilt size. The grid will change to reflect the new size. Note that Quilt Size and Safe Area are not the same thing. The quilt size is displayed in the Quilt Design Area with the grid and the Safe Area is indicated with a bold red frame. The Quilt Size helps you visualize what your finished quilt will look like.

DESIGN PLACEMENT TOOLS

There are several tools found in the Tool Center that are specific to design placement, editing, and marking, including Markers, Grab and Drop, and Boundary. We'll go over these in more depth in a later chapter, Design Placement Methods on p. 22.

REALIGN SAFE AREA

This icon enables you to reposition the Safe Area down the screen to ensure the next rows of an edge-to-edge are properly spaced.

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SEW OPTIONS

Set the sewing sequence, queue and dequeue designs, and set securing stitch features using the Sew Options Icon.

REVERSE SEW

Each design has a beginning and end point, indicated with green (start) and red (end) markings. Use the Reverse Sew function to switch the direction the design will stitch out. You might choose to do this to reduce long jump stitches and create more efficient stitchouts.

DESIGN MODIFICATION TOOLS

You have a wealth of options when it comes to modifying or editing your quilt designs.

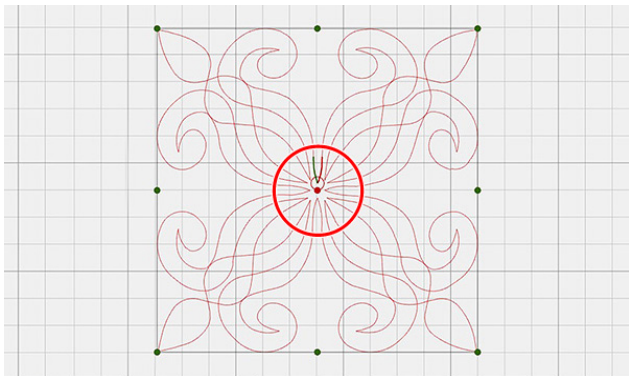

Fig. 13

Rotate

A design can be rotated around one of nine points of rotation. The default rotation point is the center of the design, highlighted by a red dot (Fig. 13). To change the point of rotation, touch and hold or right-click with your mouse on any point to make it active (red).

The design can also be rotated by the start point of the design. To do so, select the Start Point icon in the Rotate function window.

You can rotate a design by manually typing in a specific degree of angle, or in 0.1, 5, and 45-degree increments, left or right.

Flip

The Flip tool will flip the design on a horizontal axis (upside down). Do so by selecting the design (so it is red) and then touching the Flip icon. (Fig. 14)

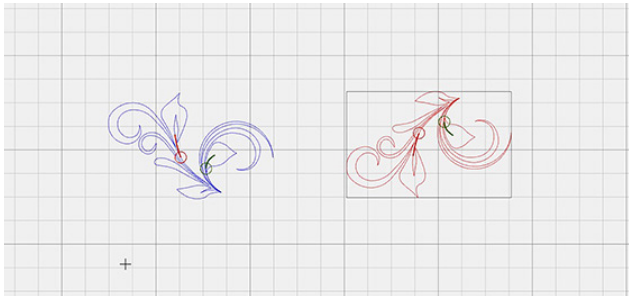

Fig. 14

Mirror

The Mirror tool will mirror the design on a vertical axis (left to right). Select the design and then tap Mirror to flip it sideways. (Fig. 15)

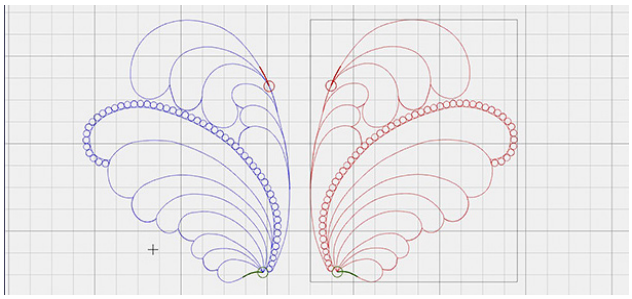

Fig. 15

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Mask

The Mask tool can be used to remove either the inside or outside portion of an area of the design. For example, it can remove stitching across an appliqué or embroidery design. You can create a mask by using an existing design or by plotting one with the Sewhead.

To create multiple masks, after indicating where the first mask should be, select Preview. You will be prompted to Undo the mask selection or Accept it and create another mask. When finished making all the desired masks, select the green check to complete the function.

You can also choose to stitch or not stitch the outline of the mask.

Mask Using a Design

1. Add the SwirlsPaisley_Square1 design to the Quilt Area.
2. Add the Heart_01 design to the Quilt Area.
3. Place the Heart in the center of the Swirls Paisley block.
4. With the Swirls Paisley block selected (Fig. 16) (highlighted in red), open the Mask tool.

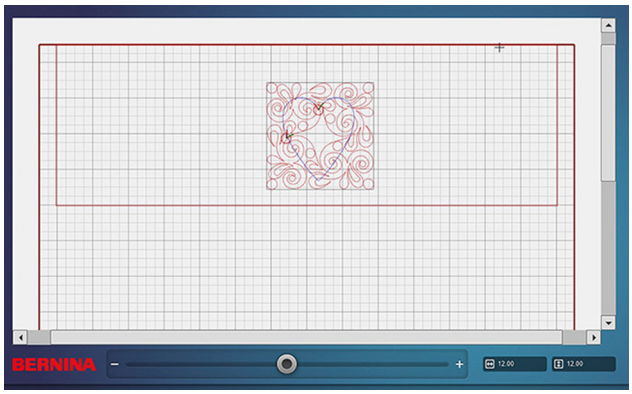

Fig. 16

5. Select the following settings:
    - **Control**: Screen
    - **Method**: Selected Design
    - **Region To Remove**: Inside
    - **Sew Mask Outline**: Check the box
6. Zoom in as needed to select the Heart design using your finger or mouse. The Heart design will turn black (Fig. 17).

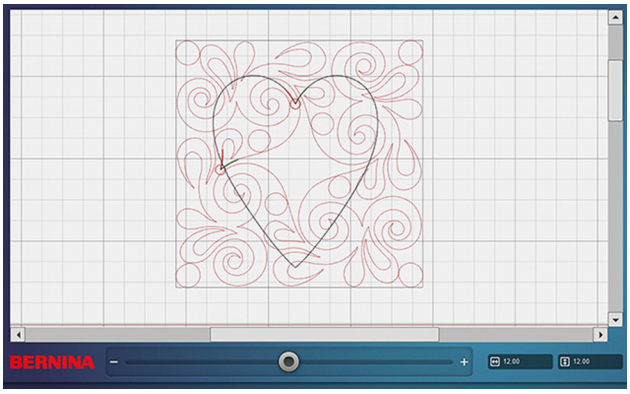

Fig. 17

7. Select Preview to view the mask (Fig. 18). Select Undo if you wish to reposition the mask. When satisfied, select the green check mark to confirm the mask.

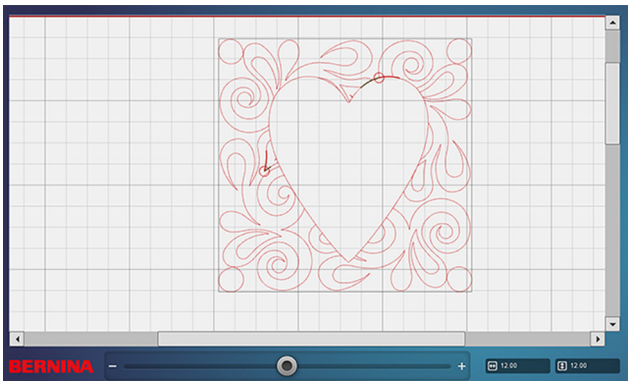

Fig. 18

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Mask Using the Sewhead

1. Add the SwirlsPaisley_Square1 design to the Quilt Area.
2. Select the Swirls Paisley design (Fig. 19) (it will now be highlighted in red) and open the Mask tool.

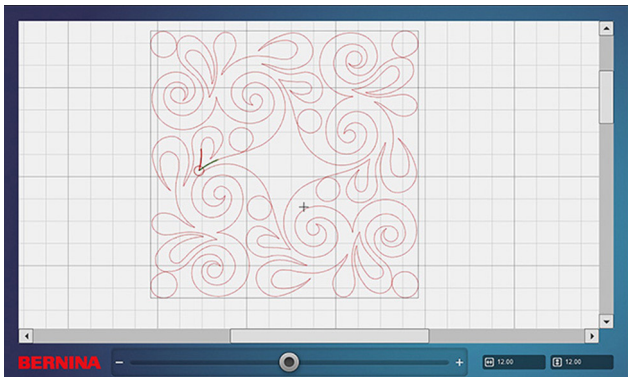

Fig. 19

3. Select the following settings (Fig. 20):
    - **Method**: Create Region (must be selected first before Sewhead Control becomes available)
    - **Control**: Sewhead
    - **Region to Remove**: Inside
    - **Sew Mask Outline**: De-select (no check mark)

Fig. 20

4. Move the Sewhead around the section of the quilt you would like to mask. Confirm each point by selecting Set on the Sewhead screen. The last point should be on top of the first point to auto close the shape (Fig. 21).

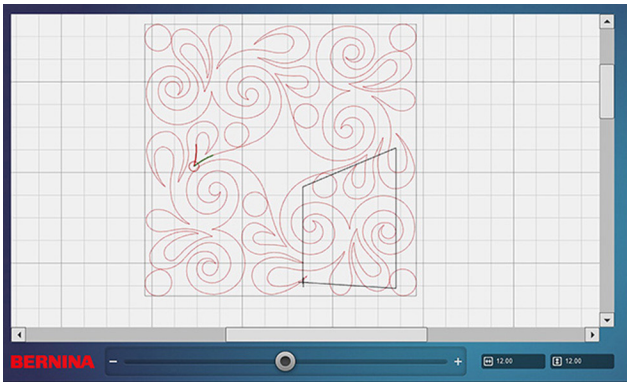

Fig. 21

5. Select Preview (Fig. 22) to see what the mask will look like. At this time, you can either undo the mask or accept the mask and create another one. When satisfied, select the green check to confirm all masks.

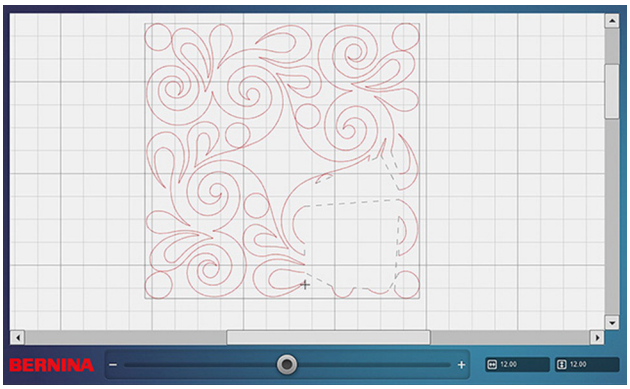

Fig. 22

6. When stitching, the Sewhead will stop where the line of stitching is masked and ask if you would like to pull up the bobbin thread for a neater backing. The Stopping for Jump

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Stitches setting can be toggled off in the Control Center if you wish. Doing so will mean trimming jump stitches later. Note: A tie-off stitch will be added to the design each time it runs into the mask and again on the other side to start stitching again.

> ***Tip:***
>
> If "Show Jump Stitches" is enabled in the Menu Bar, jump stitches will appear as gray dashed lines.

Trim

You can trim away any design that is no longer needed, such as when the quilting extends beyond the edge of the actual quilt. You have the option to complete the function on the screen or Sewhead and can fine-tune the angle and area as needed.You may also select whether or not jump stitches are to be sewn.

Similar to creating a mask, you can trim multiple times by selecting preview, accepting the trim and trim again. When satisfied with all the trims, select the green check mark to complete the function.

Split

Unlike Trim, which cuts a design with a straight line and then deletes a portion of the design, the Split tool allows you to divide the design in two anywhere along the path. The result is two portions of a design that can be used as individual designs. Choosing Segment will divide the design into three segments.

You can fine tune the split placement with the use of arrows that move the cutline in small and large increments.

Undo / Redo

You can undo or redo most of your design modifications step-by-step.

E2E+ / E2E-

E2E are edge-to-edge designs (sometimes called pantograph designs) that have a start and stop point on opposite ends of the design and occupy the same horizontal plane to form a continuous stitch pattern across the quilt when joined together. E2E designs are the only designs that work with the E2E+ / E2E- tool. E2E designs can be found in the Design Pool by matching all tags and selecting Pantograph.

Creating a row from of a single E2E design is simple with the E2E+ icon. Select it to add a design to the row. Select E2E- to remove a design from the row.

Multiply

Designs and rows of designs can be multiplied with the Multiply function. Enter the desired number of repeats across or down as desired. You also have the option to flip the designs and adjust the spacing between the rows vertically, horizontally, or by offsetting them. The default change is 1/4" increments. The default spacing adjustments can be changed by tapping the default window and adjusting it.

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E2E Autofit

E2E Autofit populates an entire quilt with a single design and trims the edges with one click. For a closer look at this tool, follow along with Exercise 2.

Connect / Unconnect

The Connect icon enables various functions including Group, Attach, or Link as options for connecting your designs. Depending on your desired outcome you will select the preferred function.

- **Group**: Designs that are grouped will maintain their individual start and stop points as well as their spacing from each other. When you select one design, all other designs grouped to it will also be selected. Grouped designs that fall within the Safe Area will stitch at one time. Those out of the Safe Area will be stitched after the quilt is advanced and the Safe Area has been realigned.
- **Attach**: The Attach function moves and connects the start point of the second design to the end point of the first design selected, resulting in one new unique design. You can attach multiple designs together, creating one continuous design with one start and one end point.
- **Link**: With Link, the start and end points of two or more designs are connected with a line of travel stitching without moving or altering the individual designs. This is frequently used to join two rows of an edge-to-edge design. The line of stitching is visible on the Q-matic screen.

To remove the connections from design, select the lower icon, Unconnect. The designs are unconnected in the order they were connected.

Align

Several designs can be aligned by choosing how they should be aligned (top, bottom, left, right, center horizontally, or center vertically), then placing a line where they should be aligned, and finally selecting which designs should be aligned.

Resize

Setting the design size is something you will do frequently when working with Q-matic and there are various ways to do so. You can resize the design using the touchscreen by dragging one of the corners, by setting two points with the Sewhead, or by typing in the specific measurements using the keypad. Designs can be resized with or without maintaining ratio.

Design Resize from Screen

1. Select Screen under Control. Four corner points will appear around the design (Fig. 23); the lower-right node is the green active node. To select a different node as the resizing point, touch and hold (or right-click) on the desired node until it turns green.
2. Tap and hold (or right-click with mouse) on the active node.
3. Use your finger or mouse to resize the design on-screen. When Maintain Ratio is selected, the design will retain its proportions. When Maintain Ratio is unchecked, eight nodes

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appear around the design, and all can be resized disproportionally.

4. Confirm with the green check mark (Fig. 23).

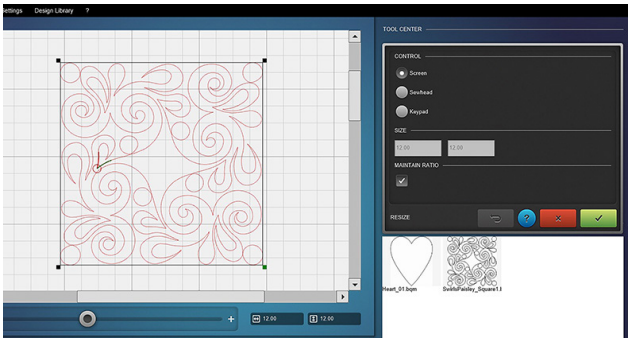

Fig. 23

Design Resize from Sewhead

1. Select Sewhead under Control, then tap and hold (or right-click with mouse) on the desired point to turn it green.
2. Move the Sewhead to the starting point on the quilt block and select Set on the Sewhead screen.
3. Drag the Sewhead diagonally to the opposite corner. You will see the design change size on the Q-matic screen.
4. When positioned as desired, select Set on the Sewhead.
5. Confirm with the green check mark.

Design Resize with Keypad

1. Select Keypad under Control.
2. Type a new height and/or width in the size boxes (Fig. 24). When Maintain Ratio is selected, only one number needs to be entered as the Q-matic will calculate the other one proportionally.
3. Confirm with the green check mark.

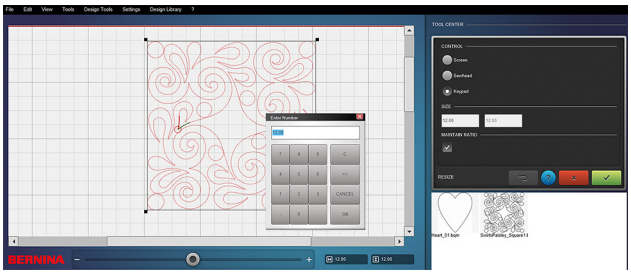

Fig. 24

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DESIGN CENTER

The Design Center, similar to an artist's palette, is an area to place the designs that you would like to use for your current project. You retrieve the designs from the Design Pool and place them in the Design Center. This makes the overall designing of the quilt easier by only showing designs you might like to use for this particular project.

SEARCHING FOR DESIGNS

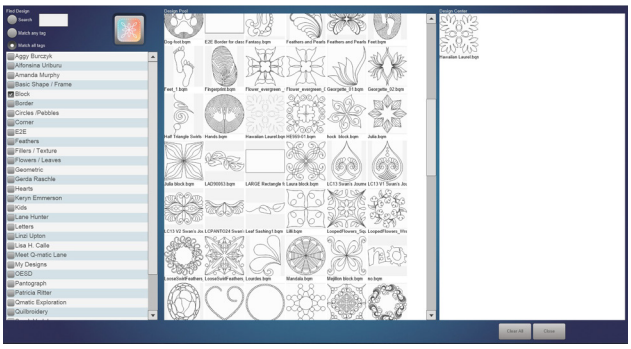

Fig. 25

More than 300 quilt designs are available in the Design Pool for you to choose from. To audition designs for a quilt, move designs into the Design Center, where they are easily available during the creative process.

1. Select the Design Pool icon in the Tool Center. Three columns will appear (Fig. 25): Tags, Design Pool, and Design Center.
2.

The Design Center will still contain the designs used on the previous project. Use Clear All, at the bottom of the column, to empty the Design Center in preparation for the new project. Clearing the designs does not delete them, it only takes them back to the larger pool of designs.
3. The Design Library, located in the middle column of the interface, contains all available designs in Q-matic. There are several ways you can find the designs you need:
    - **Search**: Search for the design by name in the search bar.
    - **Match Any Tag**: Choose tags and see designs that are are tagged with any of those tags. For example, selecting 'Pantograph' and 'Flowers' will show designs that are either a pantograph OR a flower.
    - **Match All Tags**: Choose tags and see designs that contain all of the selected tags. For example, selecting 'Pantograph' and 'Flowers' will show only designs that are pantographs and also contain flowers.
4. To place a design in the Design Center to use for your project, select the design you would like to work with in the Design Pool by double tapping or dragging it over. The design moves into the Design Center, and it becomes grayed out in the Design Pool.
5. To remove a design from the Design Center, double tap or drag the design back into the Design Pool.
6.

When all designs have been selected for a project, select Close. The selected designs now appear in the Design Center and can be used in the quilt layout.

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IMPORTING DESIGNS FROM A USB STICK

Q-matic uses the BQM file format and you can easily import it into the Design Library. Q-matic will also allow you to import DXF files, but you will need to convert them to BQM in Art & Stitch. Any other longarm formats on the USB stick will show as "can't be imported."

1. Place a USB stick containing the designs you wish to import into the USB port on the side of the Q-matic computer. Depending on the model of your computer, this port may be on the right or left side.
2. Open the Design Library in the Menu Bar and select Import Design. A secondary screen with four columns will open (Fig. 26).
   - **a.** **Explorer**: The first, left column lists all the drives, folders, and files on the computer.
   - **b.** **Files**: The second column shows the files inside the selected folder from the first column. Note: You may see file types that cannot be imported
   - **c.** **Design Preview**: The third column is divided in two parts. The top shows a preview of the selected (single clicked) design.
   - **d.** **Importing**: If a design in the second column is double-clicked, the file name will appear in the bottom of the third column in preparation to be imported. If you wish to import all of the acceptable files in the second column, there is a Select All button beneath the column.
   - **e.** **Tags**: The fourth column shows the tags which can be assigned to the designs.

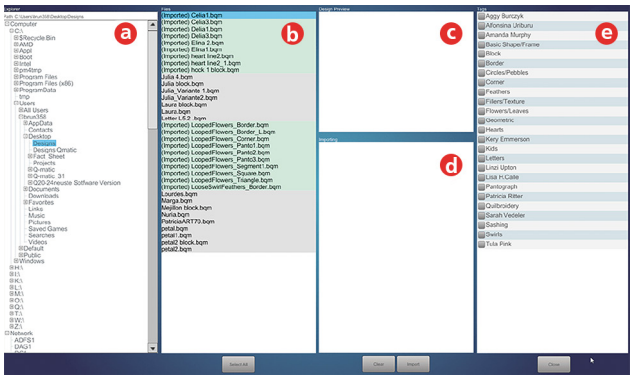

Fig. 26

3. Select the USB stick in the Explorer column and expand the folder to find the design to be imported.
4. The next column shows the files within the expanded folder on the USB stick.
5. Double tap only the BQM file(s). Multiple designs can be imported at once.
6. Confirm the image preview and name in the third columns.
7. Assign any tags to the design(s) being imported.
8.

When ready, select Import and the design(s) will be imported.
9. In the Files column, the design file names will now be highlighted in green and say "imported" (Fig. 27). If a design has already been imported into Q-matic, you will get a message asking if you want to SKIP this

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import or replace the old import with a new import.

10. To confirm that the design is in the library, open the Design Pool and search for it.

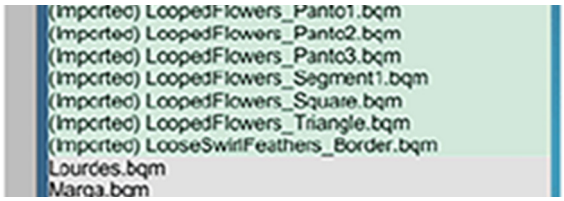

Fig. 27

DELETING DESIGNS FROM DESIGN POOL

Any design file can be deleted out of the Design Pool.

1. From the Menu Bar, select File.
2. Select Delete and then Delete Design File (Fig. 28). A window will open showing all the designs in the Q-matic Library.

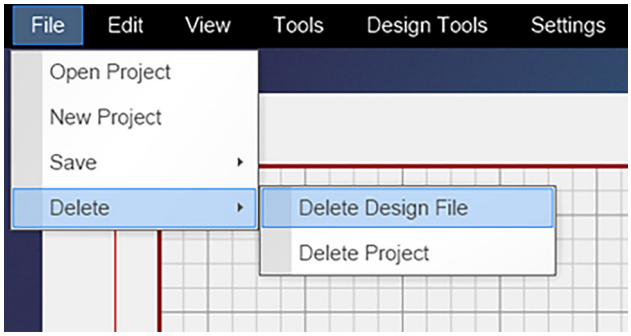

Fig. 28

3. Select the design you want to delete. It will have a pink highlighted box around it (Fig. 29).

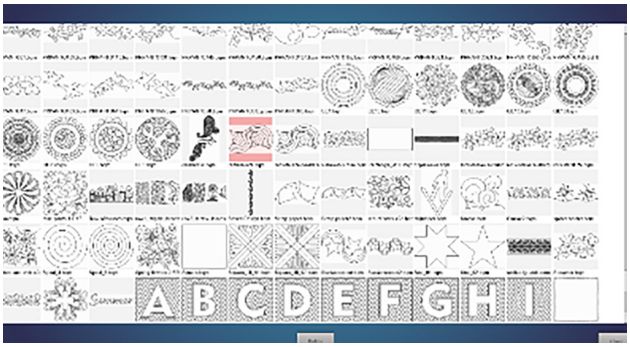

Fig. 29

4.

Select Delete at the bottom of the screen. When Delete is selected, a small dialog box will open asking you to confirm. Select Yes to confirm and delete the design. There is not a way to retrieve a deleted design from the Design Library. It must be re-imported.

5.

Select Close at the bottom of the page to close this window.

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DESIGN PLACEMENT METHODS

Q-matic offers a variety of functions to accurately place a design and fit a design for accurate stitch placement on a quilt.

GRAB AND DROP

Grab and Drop is automatically activated when a design is added to the Quilt Design Area by double-tapping or double-clicking it in the Design Center. You can also activate it to move a design.

The start point of the design is linked with the needle, shown as a crosshair on the Q-matic screen.

Practice using the Grab and Drop tool by following these steps:

1. Set a Safe Area then move the needle so that you see its placement on the screen. The needle is represented on screen with a plus sign.
2. Double tap (or double-click) a design from the Design Center and place it in the Quilt Design Area.
3. The design is now attached to the needle at the first stitch.
4. Note that Grab and Drop has been automatically activated. Move the sewhead and the design will move with it (Fig. 30).

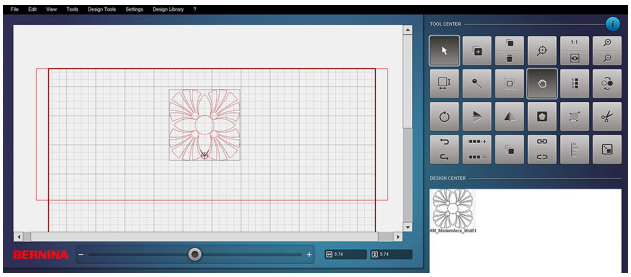

Fig. 30

To disconnect a design from the Sewhead (crosshairs), you can deactivate the Grab and Drop tool in the Tool Center, select Set on the Sewhead screen, or move the design on the Q-matic screen using your mouse or finger.

To reconnect a design to the needle, select the design and touch the Grab and Drop icon. The start point will snap to the crosshairs.

If no Safe Area is set, the design is placed in the middle of the grid and Grab and Drop is not activated (Fig. 31).

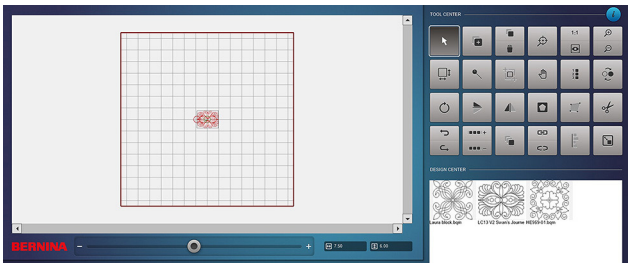

Fig. 31

MARKERS

Designs can be accurately placed using Markers. They are especially helpful when you need to virtually map an area or block on the quilt to place a design within or to digitize a sew line.

When the Markers tool is open, the Sewhead becomes active.

Practice by drawing a temporary rectangle (roughly 2" x 8") on your quilt. Use chalk or other erasable marking tool.

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1. Set a Safe Area if one has not been set.
2. Select Markers.
3. Move the Sewhead around the rectangle and select Set on the Sewhead screen any place that will help you visualize the rectangle on the computer screen (such as corners or bends in the sides).
4. Each time you press Set a red Marker will appear on the screen. You can place as many markers as needed.

Using the Connect function (Fig. 32), you can connect each marker on the Q-matic screen by tapping them in consecutive order. Connected Markers form a queued blue stitch line. You can choose to delete this line before stitching or dequeue it so it does not stitch (Fig. 33).

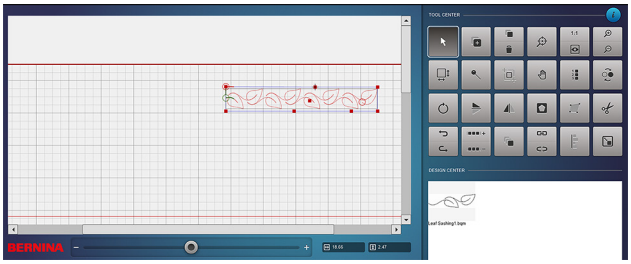

Fig. 32

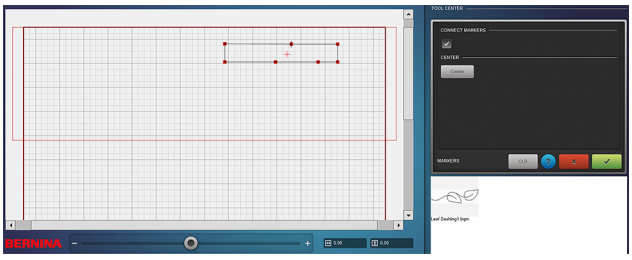

Fig. 33

The Center function will place a final marker in the center of this outlined shape once the green check has been selected (Fig. 34).

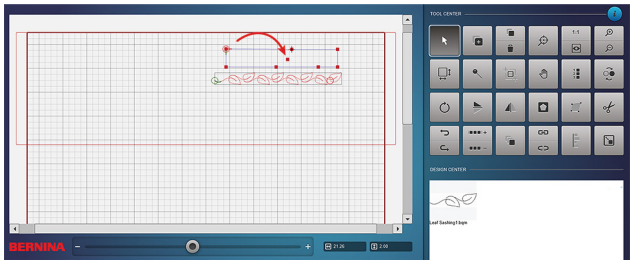

Fig. 34

Markers do not change the dimensions of the design. You will still need to resize and trim as necessary.

If a mistake is made while placing markers, pressing the Undo button will remove the markers in the order they were made. Once the green check mark is selected, the markers are locked and Undo will not work.

All markers can be cleared by opening the Markers tool and selecting CLR. Removing markers is not a requirement; you can add new markers and connect to earlier markers throughout the quilting process.

BOUNDARY

The Boundary tool helps place designs onto the quilt in one of three ways: 4-Point Placement, 2-Point Placement and Multi-Point Placement. The placements can be done either with the Sewhead or the screen.

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4-Point Placement

4-Point Placement allows you to place a design within any 4 pointed shape.

Practice by drawing a temporary shape similar to the one below to see how to place a design inside (Fig. 35).

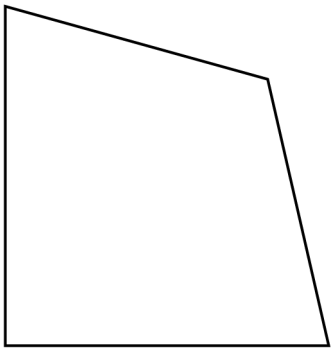

Fig. 35

1. Bring a design onto the Quilt Design Area. Tip: In the Design Pool, search for square designs by Matching All Tags then selecting Block.
2. When a design in the Quilt Design Area is selected (shown in red), you will see that a box has been placed around the design. With the design selected, open the Boundary tool.
3. 4-Point Placement is selected by default. Under Control, select Sewhead, and go to your Sewhead. You will use the Sewhead to indicate where the four corners are, always starting with the bottom left corner and moving counterclockwise.
4. Align the needle with the bottom left corner of your shape and select Set on the Sewhead screen.
5. Move the needle to the next corner indicated by the screen and select Set. Repeat to set all four points.
6. Once you set the fourth corner (upper left), the computer screen will show the design has jumped into the shape, no matter how wonky.

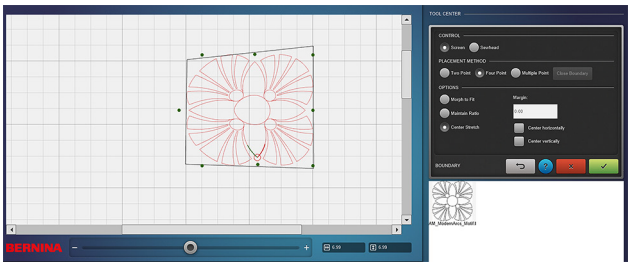

Fig. 36

Boundary offers a variety of fit options, including:

- Maintain ratio, with or without a margin
- Center the design vertically and/or horizontally within the boundary
- Center Stretch (Fig. 36); this allows the design to be "stretched" by activating any of the eight nodes as the stretch point. Activate a node by a single right-click of the mouse or touch and hold on the PC screen. The active node is green.
- Using Center Stretch vertically and/or horizontally.

2-Point Placement

This method allows you to position a quilt pattern on a baseline between two points (Fig. 37).

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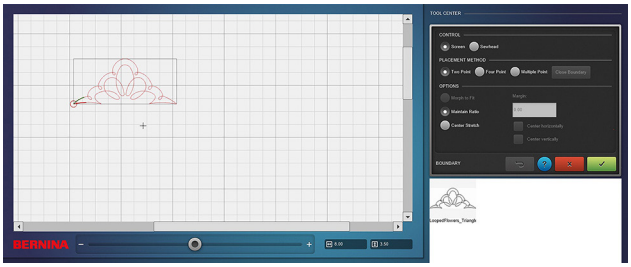

Fig. 37

To practice, create a temporary diagonal line (Fig. 38) on your quilt top:

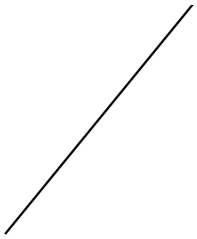

Fig. 38

Note that when a design is selected, a box will appear around it. When you are setting the left and right points for 2-Point Placement, you will position the base of that box. Therefore, whichever point you select first will set the lower left corner of the box. The second point will position lower right corner of the box (Fig. 39).

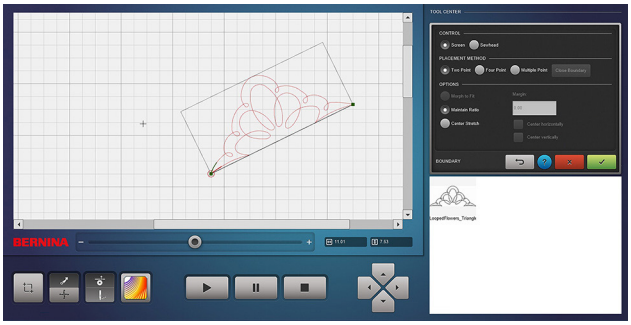

Fig. 39

Try this exercise twice, choosing opposite ends of the diagonal line as your first and second points. Watch how that affects the placement of the box and the design within it.

Although 2-Point Placement is great for triangle placement, it can be utilized for any design. It is important to consider which two points are being used for the placement line.

Center Stretch is available for further adjustments with activated nodes (Fig. 40).

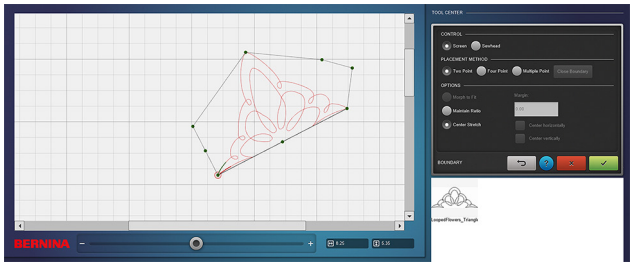

Fig. 40

Multiple Point Placement

Multiple Point Placement allows you to position a quilt pattern within a polygonal boundary using the Q-matic screen or the Sewhead (Fig. 41).

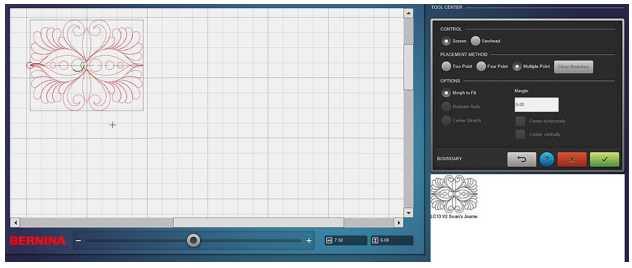

Fig. 41

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To practice, draw a temporary shape similar to the one in Fig. 42. It is almost a rectangle but the long sides have an elbow in them to create a 6-pointed "bowtie" shape:

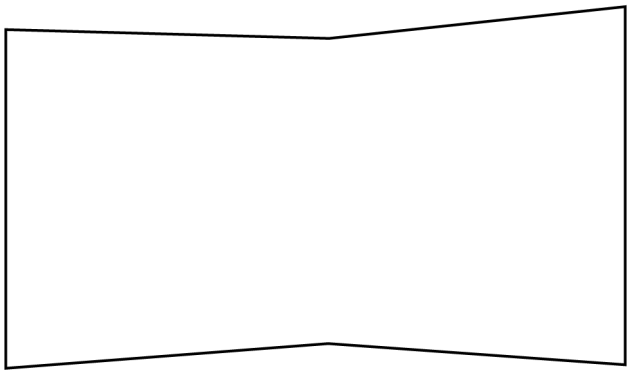

Fig. 42

1. With your design selected, open the Boundary tool and select Multiple Point Placement.

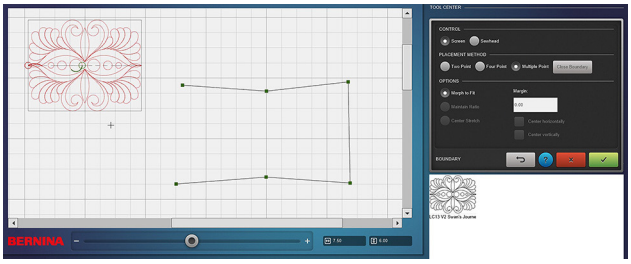

Fig. 43

2. Unlike 2- and 4-Point Placement, the number of points for alignment is entirely decided by you. Therefore, you will plot all the points with the Sewhead, then choose Close Boundary on the computer to let it know the points are completed (Fig. 43).

3. Once the boundary is closed (Fig. 44), you will be prompted to select the four corner points as a positioning guide, starting at the bottom left and selecting the remaining three points in a counterclockwise manner. These points, selected on the Q-matic screen, turn red as they are selected.

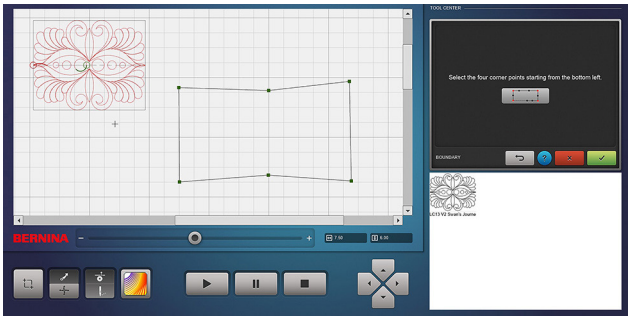

Fig. 44

4. When the fourth point is selected, the design will morph to the boundaries set (Fig. 45).

You can add a margin if you wish. However, Maintain Ration and Center Stretch are not available in Multiple Point Placement.

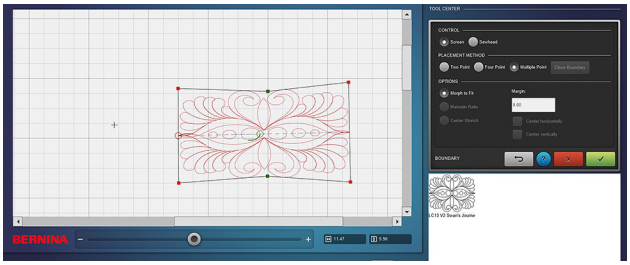

Fig. 45

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Exercise 1

EDGE-TO-EDGE QUILT LAYOUT

Materials

(1) 48″ x 48″ backing, (1) 48 x 48″ batting, and (1) 42″ x 42″ quilt top

Needle: 90/14 Quilting

Edge-to-Edge quilting is a continuous line design that is repeatedly stitched from one edge of the quilt to the other and repeated in rows to fill the entire quilt. It is a popular, easy way to quilt with Q-matic.

LOAD THE FRAME

Refer to the videos in Chapter I to prepare for quilting.

1. Clean and oil the machine and insert a new needle before beginning.
2. Load the frame with backing, batting, and your quilt top.

CREATE THE LAYOUT

1. Open Q-matic by double tapping on the desktop icon with your finger. If you are using a mouse, right-click on the screen, and then select Open from the dropdown menu.
2. You will be prompted to set the Safe Area. You may set the Safe Area now or later, but it must be set in order to stitch a design or use some of the editing tools.
3. Select Design Pool to add the Bellflower.bqm design (Fig. 46) to the Design Center for the project.
4. Set the Quilt Size to 42″ x 42″.

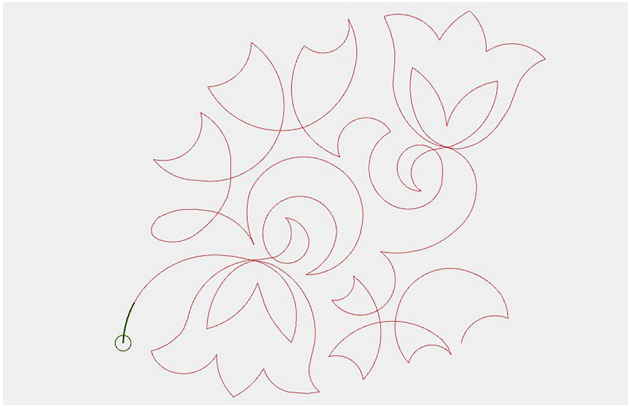

Fig. 46

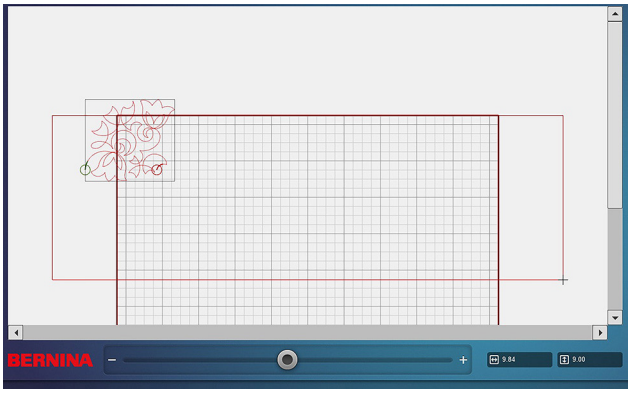

Fig. 47

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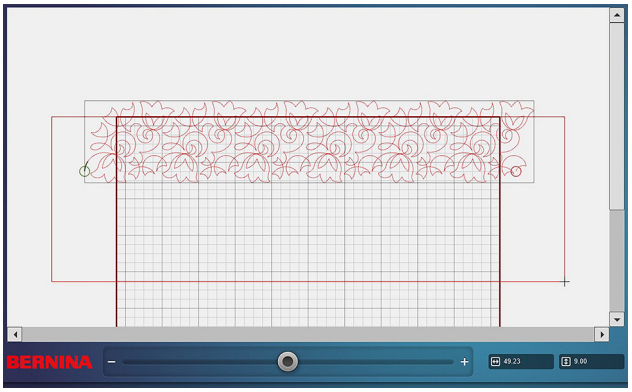

Fig. 48

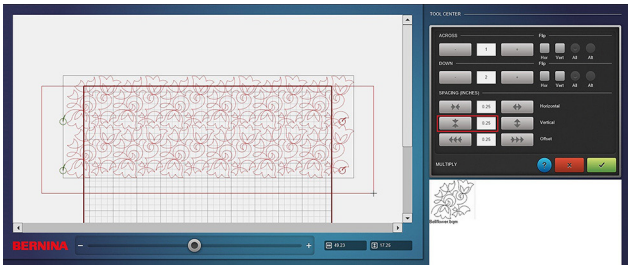

Fig. 49

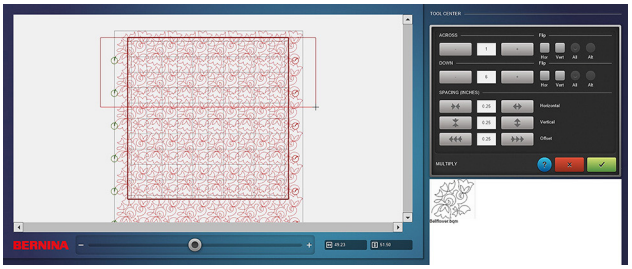

Fig. 50

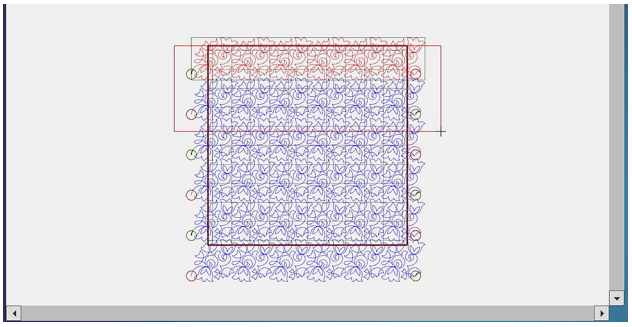

Fig. 51

5. Double tap the Bellflower.bqm in the Design Center to place on Quilt Area.
6. Move the design to the upper left corner of the grid, letting it extend beyond the top and left boundaries of the grid (Fig. 47).
7. Select E2E+ to repeat the design across the top row of the quilt. Add enough repeats so that the designs extend beyond both edges (Fig. 48). Select and move to center, as desired.
8. Select Multiply and change the number of rows under DOWN to 2.
9. Click the arrows that point together twice to decrease the vertical spacing between design rows under SPACING (Fig. 49).
10. Under DOWN, add additional rows to fill the quilt grid. In this example, a total of 6 rows were used (Fig. 50). Adjust the position of the layout so that it fits over all sides of the grid.
11. When satisfied, click the green check mark mark to confirm.
12. Select Unconnect once to separate the rows. If selected more than once, the entire row of designs becomes unconnected.
13. Select Row 2, then select Reverse Sew. This reverses the start/end points so that the Q-matic can stitch back and forth without stopping (Fig. 51). Repeat for Rows 4 and 6 (and any other alternate rows you added to your quilt).
14. Select Row 1, then select the Connect Tool. Select Link.

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15. Next, with Row 1 still selected, select or tap Row 2. Both rows become active (highlighted in red) and a stitch line forms from the end of Row 1 to the start point of Row 2 (Fig. 52). Note that rows can only be linked if they are within the same Safe Area.
16. Click the green check mark to confirm.

TRIM

Before stitching, we need to trim away the extra areas of the design that are beyond the quilt top and don't need to be stitched.

1. Move Sewhead to upper left corner, just above and to the outside of the actual quilt. This location will be noted by the crosshairs on the Q-matic screen. Many times the crosshairs are not exactly at the top left of the grid so trim using the Sewhead position for the first row(s).
2. Select Row 1, then select Trim from the Tool Center. Select the following settings:
    - **Control**: Sewhead
    - **Method**: Selected Design
    - **Trimline Orientation**: Horizontal
    - **Invert**: Check the box

    The top portion of the quilt to be trimmed will become black on the screen (Fig. 53). Confirm with the green check mark.
3. Without moving the Sewhead, select Trim again. Select the following settings:
    - **Control**: Sewhead
    - **Method**: Selected Design
    - **Trimline Orientation**: Vertical
    - **Invert**: Check the box

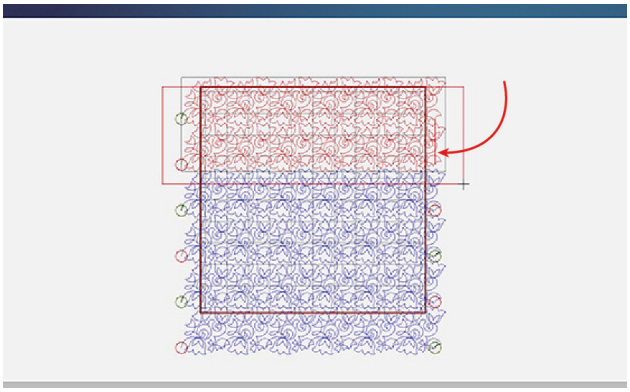

Fig. 52

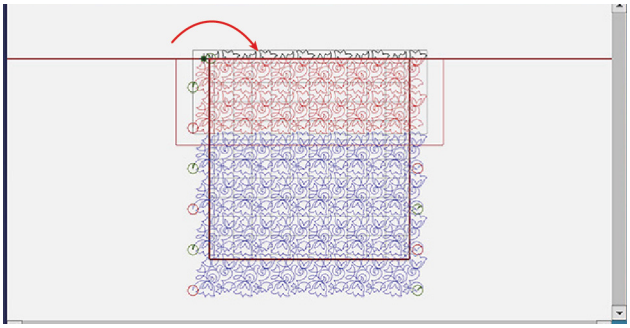

Fig. 53

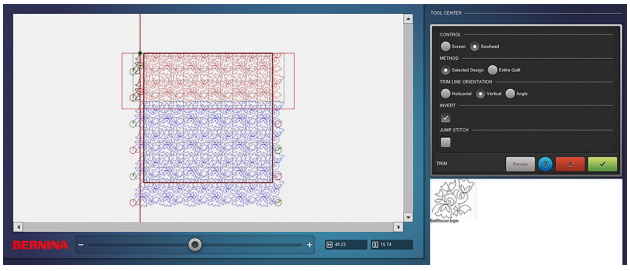

Fig. 54

The unneeded portion of the design to the left of the needle will be black (Fig. 54). Confirm with the green check mark.

4. Next, move the Sewhead to the right side of the quilt just beyond its edge and select Trim.

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5. Select the following settings:
    - **Control**: Sewhead
    - **Method**: Selected Design
    - **Trimline Orientation**: Vertical
    - **Invert**: Do not check the box

    Everything to the right of the needle should be black (Fig. 55). Confirm with the green check mark.

It is best practice to trim your rows as you go, rather than doing the whole quilt at once, to accommodate variances in the quilt size and loading method.

After the top and sides are trimmed (Fig. 56), you are ready to stitch .

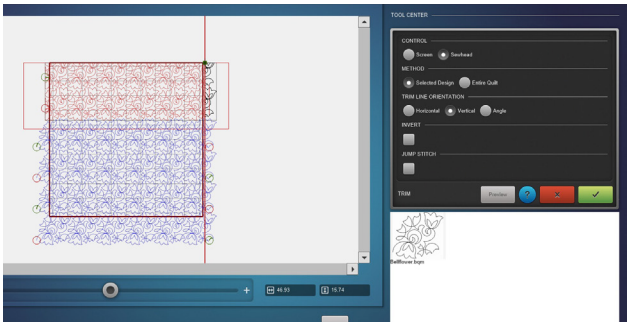

Fig. 55

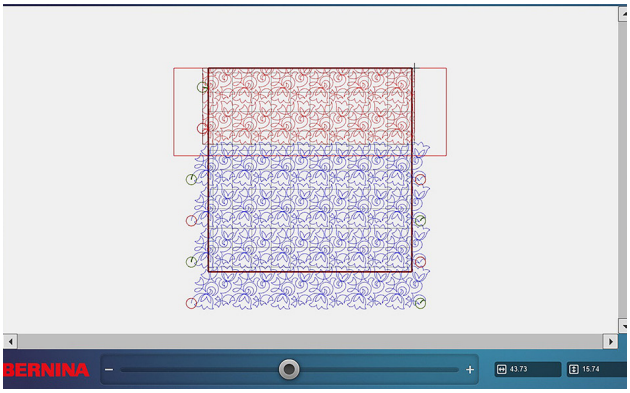

Fig. 56

QUILT FIRST ROW(S)

1. Select the Start icon in the Control Center. A pop-up message will appear asking if you would like to dequeue and proceed. Select "Yes."
   NOTE*:* You will receive this message every time you are ready to stitch a new row if there are rows below that have not been stitched and/or do not fit in the Safe Area. Once a row is stitched, it will be grayed out and will not stitch again unless it is re-queued.
2. Next, select At Start Point when prompted (Fig. 57). The Sewhead will move to the start point of Row 1.

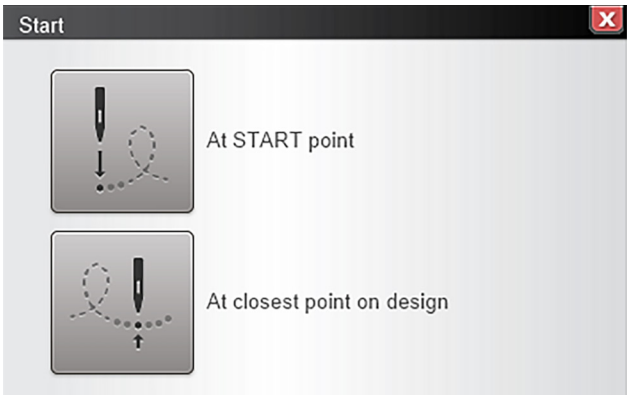

Fig. 57

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3. Follow the prompt to pull up the bobbin thread (Fig. 58). Be sure to pull bobbin thread to the top of your quilt to prevent thread from becoming tangled in the carriage wheels as it moves or thread nests on the back of your quilt. The Sewhead screen will give you the option to turn off the Tie-in function every time you tell Q-matic to start stitching.
4. After pulling bobbin thread, confirm stitching with the green check mark.
5. Hold both thread tails until Sewhead begins stitching. After a few stitches, tap the Pause icon on the Sewhead screen to stop the stitching and cut the thread tails. Confirm with the green check mark to continue sewing.
6. Select OK on the computer screen after the Sewhead stitches the first row(s) and indicates "sewing complete."

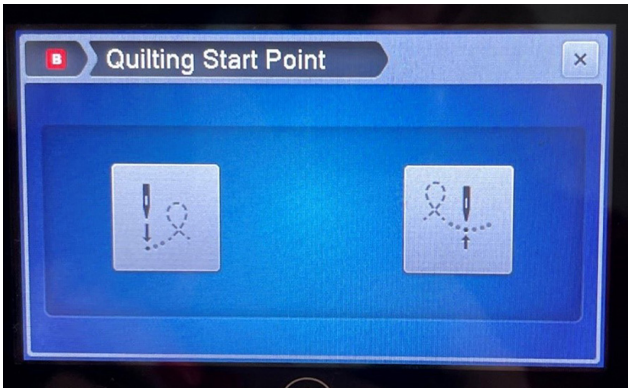

Fig. 58

> ***Tip:***
>
> Do not let the thread tails become tangled in the foot. This could possibly pull and damage your quilt if you are not paying attention.

ADVANCING THE QUILT

1. Advance the quilt onto the Takeup Rail. Firm up the quilt layers, baste down the sides of the quilt and replace the side clamps.
2. Move the Sewhead needle to an exact point in the last just-stitched row that you would like to realign to. Use an easy to identify place, like a peak or point. Use MicroMove, if necessary, to place the needle exactly on the spot you've identified.
3. Click the Realign Safe Area icon, and then select Set under Set Guide Line. A vertical red line appears (Fig. 59) to aid in identifying where

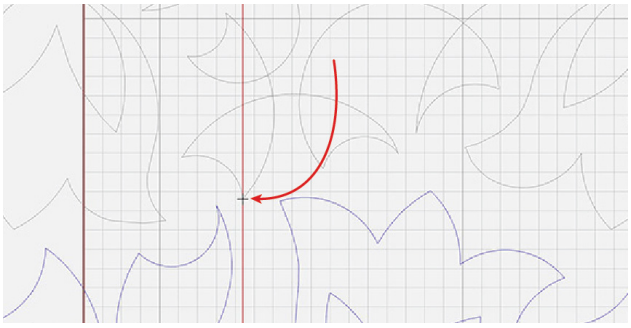

Fig. 59

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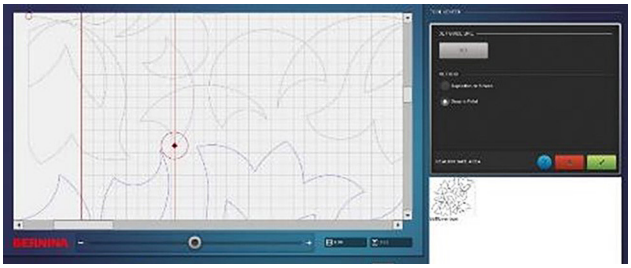

Fig. 60

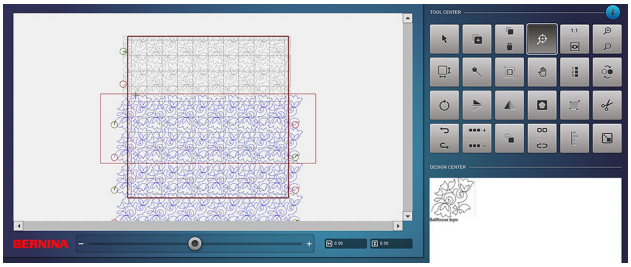

Fig. 61

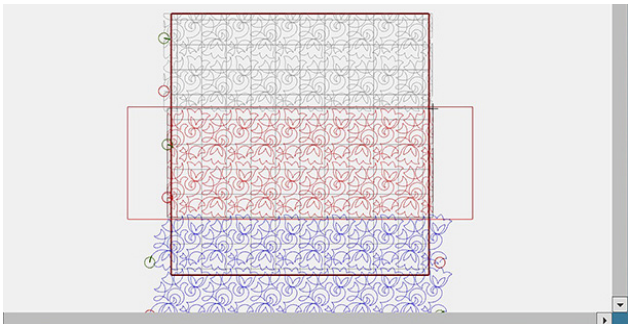

Fig. 62

> ***Tip:***
>
> Be sure to baste the sides as you advance and horizontally across the bottom of the last row to prevent quilt shifting and shrinkage.

you are on the Q-matic screen. The red guideline may not be exactly on the line where your needle is, but it will be close.

4. Next, select Snap To Point. Zoom in on the Q-matic screen to the point being snapped to. Click on the exact point on your Q-matic screen as where the needle is on the quilt (Fig. 60). Remember, you are snapping to a point on the last previously stitched row, so the point you are snapping to on the Q-matic screen is grayed out as it has already been stitched.
5. Snap or reposition the snap point as many times as needed for precision before confirming with the green check mark. Upon confirmation, the Safe Area will reposition itself to allow for the next row(s) to be stitched and the crosshairs of the Sewhead will "snap" to the needle (Fig. 61).
6. If more than one row fits within the Safe Area, repeat the linking steps. Repeat the trimming steps for the left and right sides of the design (Fig. 62).
7. As before, press the Start icon and select "Yes" and "At the Start Point" for the next prompts. The Sewhead will move to the beginning of the row and wait for you to pull bobbin thread; confirm with the green check mark to begin sewing.
8. Repeat advancing, realigning the Safe Area, trimming, and stitching until you get to the last row. If the last row is longer than your quilt top, you can trim it horizontally using the Sewhead as was done with the very first row.

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Exercise 2

E2E AUTOFIT

Materials

(1) 48" x 48" backing, (1) 48 x 48" batting, and (1) 42" x 42" quilt top

Needle: 90/14 Quilting

As an alternative to the technique outlined in Exercise 1, E2E Autofit can save you time in laying out an all-over quilting design.

LOAD THE FRAME

Refer to the videos in Chapter I to prepare for quilting.

1. Clean and oil the machine and insert a new needle before beginning.
2. Load the frame with backing, batting, and your quilt top.

CREATE THE LAYOUT

Because E2E Autofit creates the design based on the Quilt Size measurements entered, it is important to be accurate in measuring.

1. Measure your quilt top width in three different places (top, middle, bottom) and record the largest number. Repeat for the height of the quilt top.
2. Set the quilt size using these numbers. For example: 36.5" x 41.75" (Fig. 63)
3. Double-click or drag design PRPANTO110 onto the workspace. You can place it anywhere. (Fig. 64)
4. With design selected (red), select the E2E Autofit Tool. The design

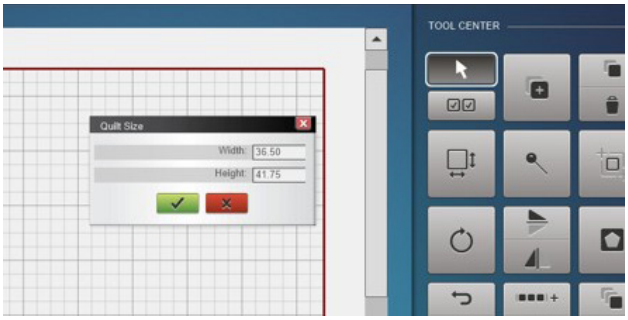

Fig. 63

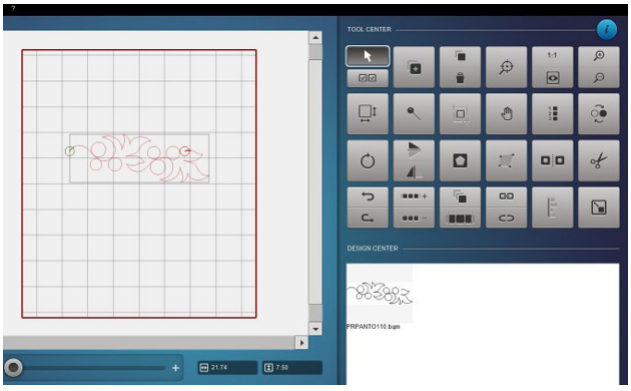

Fig. 64

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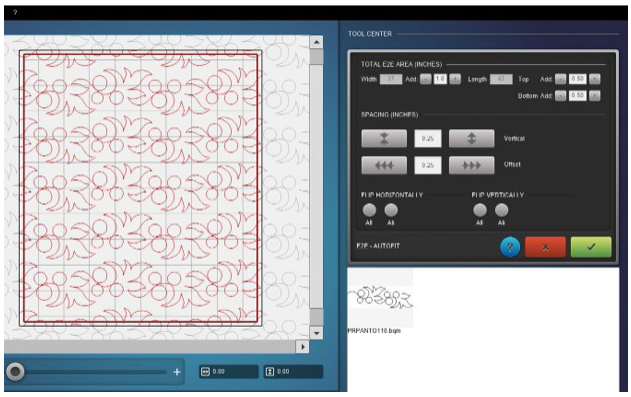

Fig. 65

Fig. 66

will automatically be multiplied into rows with some excess beyond the quilt measurements. (Fig. 65)

5. You still have access to the design elements from the Multiply Tool like pushing the rows closer or offsetting the rows (Fig. 66). You can also Flip the rows in either direction. You can flip all the rows or every other row. The trimming defaults to half an inch outside the quilt top. If you change the Width dimension, it will change both sides simultaneously. You can change the top and bottom margins individually. It is advisable to increase the bottom margin more and you can trim once you can see the bottom of the actual quilt.
6. When satisfied, select the green check to confirm.
7. As with the Multiply tool, the rows are grouped together but individual. You may need to ungroup them and/or link together the amount of rows that fit within the Safe area for more efficient stitching.

REALIGN THE SAFE AREA

Prior to stitching, you will need to move the Safe Area to more accurately depict the actual placement of the quilt and to accommodate for the margin of design above the quilt top. To do this:

1. Place the needle anywhere along the top edge of the quilt top fabric. Note that on the screen the plus sign indicating the needle is below the top edge of the quilt.
2. Select Realign Safe Area.

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3. Choose Reposition on Screen.
4. Using the nudge arrows below the workspace, click the UP arrow until the plus sign sits nicely on the top edge of the quilt top. The Safe Area will move with it.
5. Select the green check to confirm.
6. Your Safe Area should now accommodate for the margin of design above the quilt top. If it doesn't, trim the design.

STITCH THE QUILT

1. Select Start, then choose "Yes" and "At the Start Point."

> ***Tip:***
>
> If you get a message that says there are no queued designs within the safe area and a button that says "OK", look closely at where you trimmed design and if it is within the safe area. You may have to trim again.

2. Once the machine moves into position, pull the bobbin thread up and begin stitching.
3. When sewing is complete, advance the quilt, smooth out the layers, and reattach the side clamps. Baste both sides of the quilt top.
4. To realign the safe area, choose an easily identifiable point on the last row of stitching and place the needle on it. This could be a corner, the point of a leaf or where two paths cross. As long as you can identify it on the real quilt and on the screen.
5. On the screen select Realign Safe Area, then Snap to Point. Zoom in and select the point you have chosen. It should be gray and on the last row of completed stitches. (You can select the Guideline tool which will draw a red line on the screen to help you identify which point you chose. The red line may not be exactly on the point but closer than other design points.) Confirm with the green check and the Safe Area and the needle will have moved into position.
6. Stitch the next section.
7. Repeat until you get to the last section.
8. Once you have reached the bottom edge, you will be able to see where to trim the design at the bottom. Trim the bottom edge if necessary.
9. Finish stitching.

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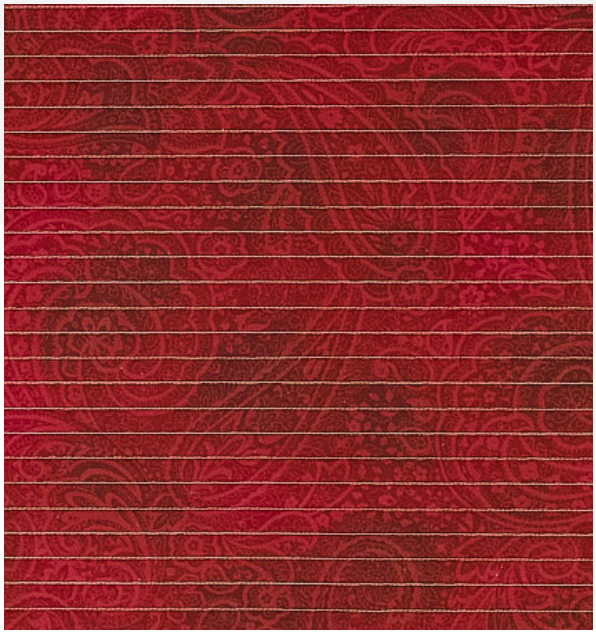
Exercise 3

STRAIGHT-LINE QUILT LAYOUT

Materials

(1) 48″ x 48″ backing, (1) 48″ x 48″ batting, and (1) 42″ x 42″ quilt top

Needle: 90/14 Quilting



LOAD THE FRAME

1. Clean and oil the machine and insert a new needle before beginning.
2. Load the frame with backing, batting, and your quilt top.

CREATE THE LAYOUT

1. Select Design Pool to add the Basics_06.bqm design to the Design Center.
2. Set Quilt Size to 42″ x 42″.
3. Double tap the design in the Design Center to place on Quilt Area.
4. Select the design, then select Resize. Ensure Maintain Ratio is selected and, with Keypad selected, set to 2.00″ wide to set the lines ½″ apart. You can use whatever sizing you prefer.
5. With the design still selected, tap E2E+. Add enough repeats to make the design 12″ wide (see the measurements in the boxes just below the Quilt Area on the right (Fig. 67).
6. Select Rotate and tap the clock wise 45-degree icon twice to make the lines horizontal and move the start point to the upper left. Position the design so that it is at the top and

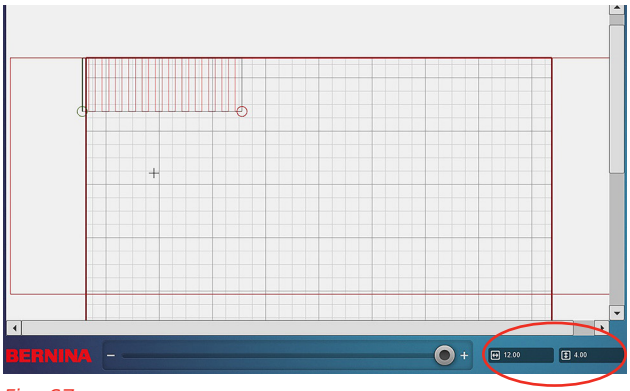


Fig. 67

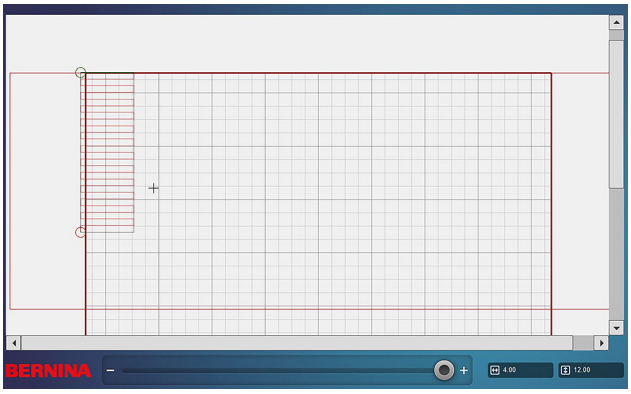


Fig. 68

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slightly outside of the Quilt grid on the left (Fig. 68).

7. With the design still selected, re-open Resize and de-select Maintain Ratio. Right-click or touch the center black node on the right side of the design to activate it and turn it green. Pull that node until the design stretches all the way across the grid and hangs over the right side a little (Fig. 69). It is best to have a little extra on the sides than not enough. Confirm with the green check mark.
8. Select Multiply. Set it to 1 row across and then add enough rows down until the grid is filled (three rows were needed for this example) (Fig. 70).

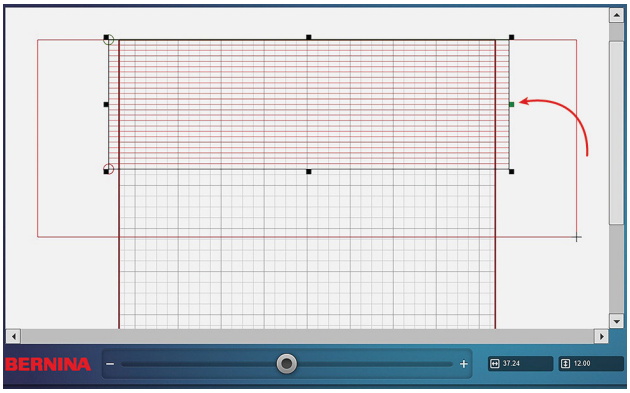

Fig. 69

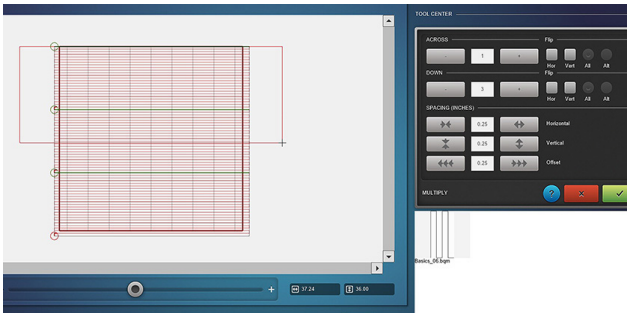

Fig. 70

STITCH THE QUILT

1. Select Start, then choose "Yes" and "At Start Point" when prompted.
2. Pull bobbin thread and begin stitching.
3. When sewing is complete, advance the quilt and firm up the layers and reattach side clamps. Baste down both sides of the quilt.
4. With a straight-line design, the best place to realign to is a corner where the design turns. Place the Sewhead needle exactly on the corner you want to realign to. It should be the last corner on either the right or left side.
5. Select Realign Safe Area, then Snap To Point. Zoom in on the corner you are snapping or realigning to. Use your mouse curser to place the snap point. You may place as many snap points as needed until you are satisfied. Confirm with the green check mark. The Safe Area will have moved down and the crosshairs will have snapped to the Sewhead needle position.
6. Stitch Row 2.
7. Repeat for Row 3.
8. If the last row has any of the design extending below the bottom edge, it can be trimmed. With the row selected, select Trim and place a line at the bottom of the quilt to trim. Be sure to baste the bottom edge and sides before quilting the last row.

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Exercise 4

CUSTOM QUILT LAYOUT

Materials

(1) 41″ x 41″ backing, (1) 41″ x 41″ batting, and (1) 9-block 34 ½″ x 34 ½″ quilt top.

Needle: 90/14 Quilting

In this exercise, you will learn how to create a custom layout.

LOAD THE FRAME

1. Clean and oil the machine and insert a new needle before beginning.
2. Load the frame with backing, batting, and 9-block quilt top.

CREATE THE LAYOUT

1. Select Design Pool to add the following designs to the Design Center:
    - **Design 1**: BD292-01.bqm
    - **Design 2**: LooseSwirlFeathers_Square.bqm
    - **Design 3**: BD394.bqm
    - **Design 4**: Celia1.bqm
2. Set the Quilt Size to 34 ½″ x 34 ½″.

Place Design One

3. Bring BD292-01.bqm onto the Quilt Area.
4. Select the design, then tap Resize. With Maintain Ratio selected, resize the design to 11 ½″.
5. Select the design and then tap Copy to make a total of four blocks.

1	2	3
4	5	6
7	8	9

Fig. 71

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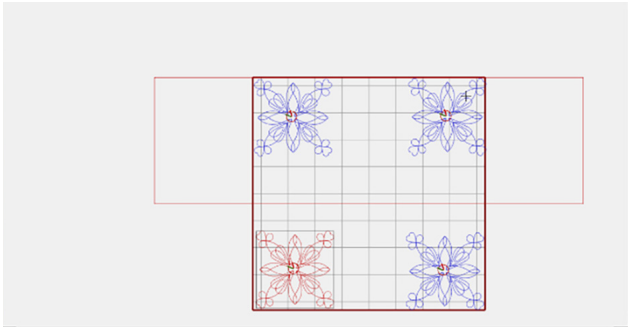

Fig. 72

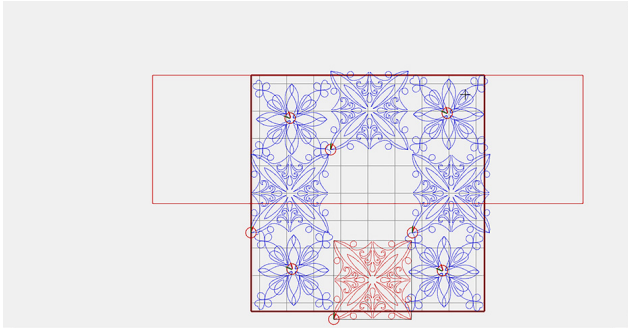

Fig. 73

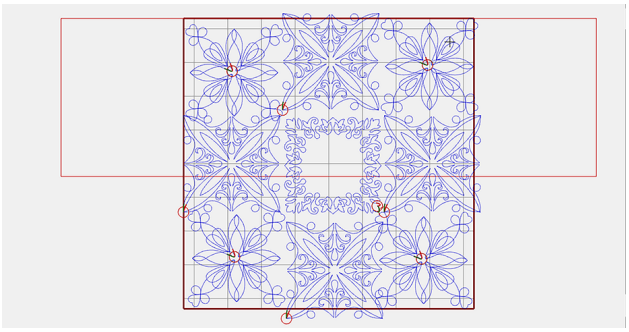

Fig. 74

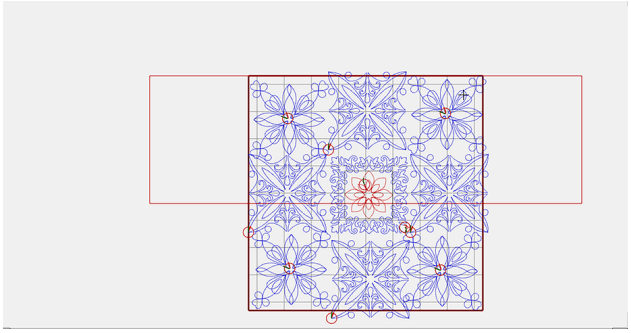

Fig. 75

6. Referring to the layout (Fig. 71), place Design 1 in block areas 1, 3, 7, and 9 (Fig. 72). Don't worry about spacing—we will take care of that after all blocks are placed.

Place Design Two

7. Bring LooseSwirlFeathers_Square.bqm onto the Quilt Area.
8. Select the design, then tap Resize. With Maintain Ratio selected, resize the design to 11 ½".
9. Select the design and then tap Copy to make four blocks.
10. Place Design 2 in block areas 2, 4, 6, and 8 (Fig. 73).

Place Design Three

11. Bring in BD394.bqm onto the Quilt Area.
12. Select the design, then tap Resize. With Maintain Ratio selected, resize the design to 11 ½".
13. Place Design 3 in the center block area (Fig. 74).

Place Design Four

14. Bring Celia3.bqm to the Quilt Area and place inside the center of the BD394.bqm design.
15. Using touch gestures on-screen, resize the Celia design to a size that fits inside the BD394.bqm and is pleasing (Fig. 75).

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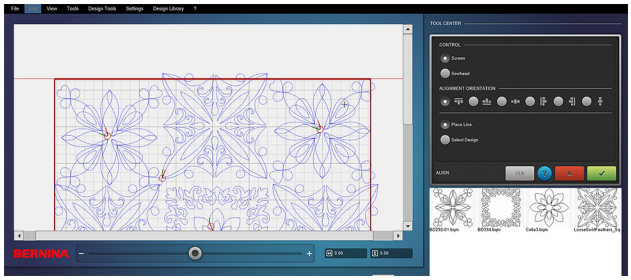

Fig. 76

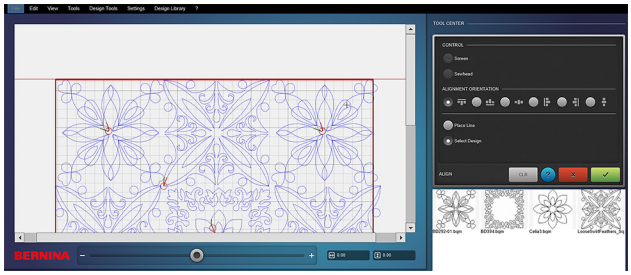

Fig. 77

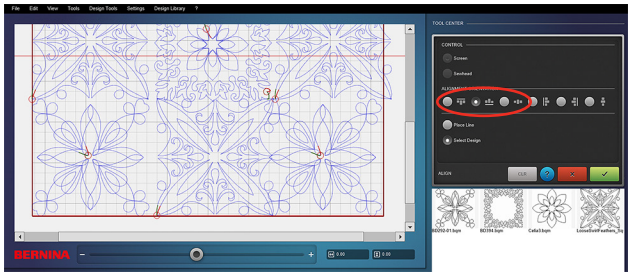

Fig. 78

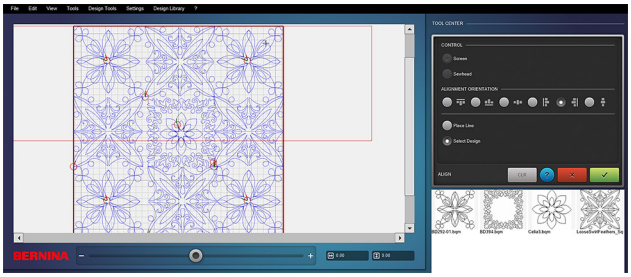

Fig. 79

ALIGN THE BLOCKS

With all the designs in their approximate location, we will align and properly space them. The blocks will be aligned to the sides, top, bottom and the center using different alignment orientation options.

Align Top

1. Open the Align tool. Select Screen Control and Align Top Horizontally options.
2. The Place Line option is active. Place a line at the top of the quilt grid layout (Fig. 76). You may place the line as many times as needed. It appears as a thicker red line on the screen.
3. After the line is placed, tap the Select Design function. Touch each design in the first row and they will snap to the top of the grid (Fig. 77). Confirm with the green check mark.

Align Bottom & Sides

4. Open the Align tool. Select Screen Control and Align Bottom Horizontal options.
5. The Place Line option is active. Place a line at the very bottom of the quilt grid layout (Fig. 78). You may place the line as many times as needed.
6. After the line is placed, tap the Select Design function. Touch each design in the bottom row and they will individually snap to the bottom of the grid.
7. Repeat this process for the left and right sides of the quilt (Fig. 79).

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Align Center

8. Open the Align tool. Select Screen Control and Align Vertical Center options.
9. Place the line on the center gray grid mark.
10. Select the designs in the center row one at a time to center (Fig. 80).
11. Repeat this process selecting the Horizontal Center alignment option (Fig. 81).

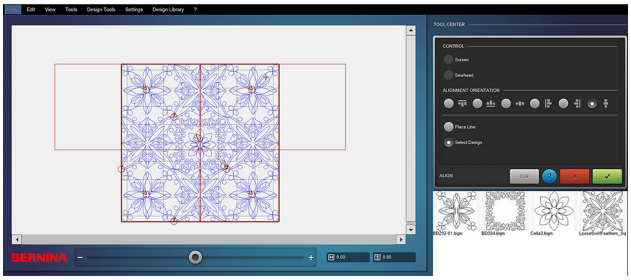

Fig. 80

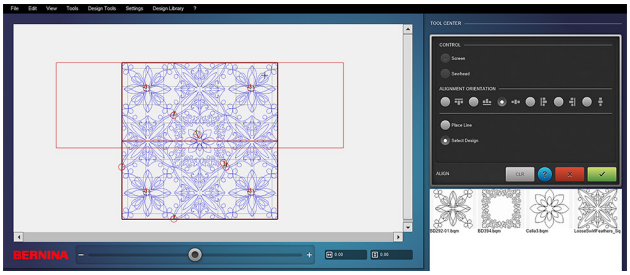

Fig. 81

STITCH THE QUILT

Aligning the blocks presents a visual of the quilting, but the quilt top may not be perfectly stitched and loaded, and things shift in the quilting process.

Therefore, each quilt pattern will be placed individually within the block using Markers and/or Boundary placement tools. Remember, the quilt grid is only a visual aid and does not represent the actual quilt placement.

Blocks can be placed on the quilt using Boundary or Markers Placement tools. Let's look at both methods.

Block Placement with Boundary Tool

1. Set the Safe Area if it is not already set.
2. Select the first block in the top row and open Boundary.
3. Select Sewhead and leave Morph to Fit selected. The Sewhead shows the Set Screen.
4. Activate the Needle Point Laser.
5. Place the needle over the lower left corner of the block and press Set.
6. Select MicroMove in the Control Center to fine-tune your needle placement. Select the micro-step size of movement you'd like and then use the toggles on the handles to position the needle.
7. Deactivate MicroMove before attempting to the move the Sewhead to the next corner. The Sewhead is locked in place when MicroMove is activated.

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8. With Four-Point Placement activated, select the corners in a counter-clockwise fashion following the prompts on the Sewhead. When the fourth corner is set, the selected design will morph to the boundary. Select the Undo icon if you wish to redo the placement. Confirm with the green check mark.
9. With the design placed, Queue only this design to stitch:
    - Select Sew Options, then Dequeue All. All designs will become grayed out (Fig. 82).
    - Select Queue and tap only this design on the screen. The queued design is blue. This should be the only blue design on the screen (Fig. 83).

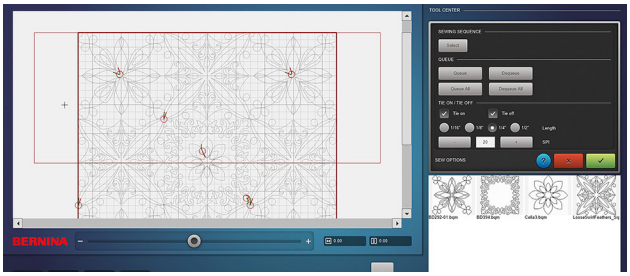

Fig. 82

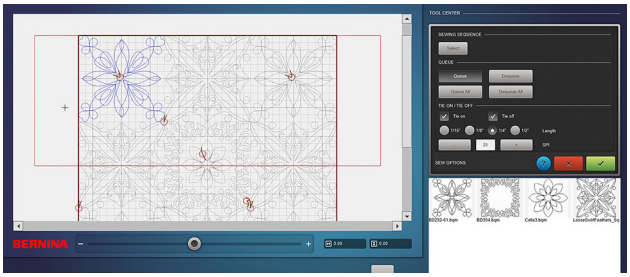

Fig. 83

10. Select Start, and then At Start Point when prompted.
11. Pull bobbin thread using the Pull Bobbin icon on the Sewhead.
12. Confirm to start stitching. Press Pause on the Sewhead to trim thread tails.
13. When sewing is complete, pull bobbin thread to the top using the toggle with the Securing Function programmed and trim thread tails.

Block Placement With Markers

When placing a block with markers, the design must be manually placed and sized to fit within the markers. Markers can only be set with the Sewhead and with a Safe Area defined.

1. Select Markers. When Markers is opened, the Sewhead displays the Set icon.
2. Place the needle over one corner of the block.
3. Select MicroMove to fine-tune the position if needed and then select Set. A marker will appear on the Q-matic screen as a red square.
4. Deactivate MicroMove before going to the next position to mark. Markers do not have to be placed in any particular order but it is easiest to work your way around the block.
5. In Markers, select Connect Markers and Center.

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6. Select any one of the markers as your starting point. Then touch each consecutive marker. A black line forms to connect the markers (Fig. 84). You cannot undo one marker at a time, so zoom in and select each marker in its proper order. It is okay to skip a marker if you choose, but markers will connect in the order they are selected. **Please note that the connected Markers line is a stitch line and it will stitch unless it is dequeued or deleted after block placement**. When the marker connection is complete, there will be a red crosshair delineating the center of the marked area. This crosshair can be used to help place the design.

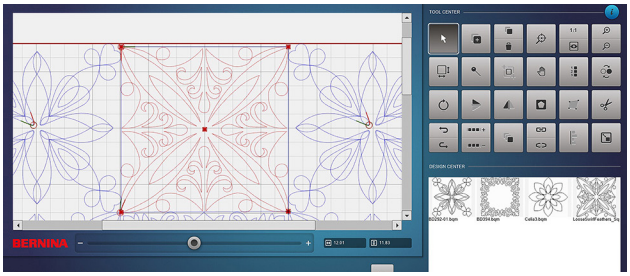

Fig. 84

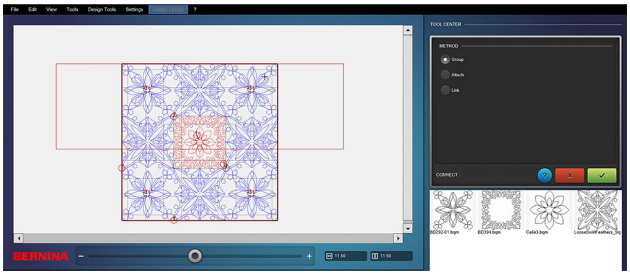

Fig. 85

7. Confirm with green check mark.
8. Move the design within the markers and use the nudge arrows to precisely place the design.
9. Resize the design if needed and inspect all markers to verify the design will fit within the area.
10. Continue stitching each block using either Boundary or Markers Tool. Remember to Dequeue and Select as needed for each block.

The center two blocks should be grouped before placement to maintain proper alignment (Fig. 85).

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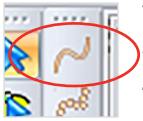
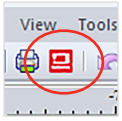
ART & STITCH

Art & Stitch is a digitizing software built into Q-matic that can be used to fix, resize, split, create and convert designs. There is so much you can learn to do with this software, however this section is an overview of the basics.

USING ART & STITCH DESIGNS

1. With no designs selected in the Quilt Design Area, select the Art & Stitch icon in the Control Center.
2. When Art & Stitch opens, find the blue star on the left of the toolbar. This is the Library icon which contains vector files that can be turned into stitches. It opens a secondary window with a dropdown menu of folders.
3. Select any design you'd like to work with or stitch in Q-matic. When the design is chosen, it will open onto the Art & Stitch grid and it will already to be selected (black box around it). At the bottom of the screen, it shows there are no stitches in the Sew Simulator. This image is only vector artwork.
4.  Touch the first icon on the second toolbar to the left for **Line Sew Type: Running Stitches**. This adds stitches to the design, which populates the Sew Simulator (Fig. 86). The properties on the right-hand side of the screen shows the stitch information.
5.  With the stitches added to the design, select the Q-matic shortcut (red Q-matic Icon) near the top of the screen to send the design to Q-matic.

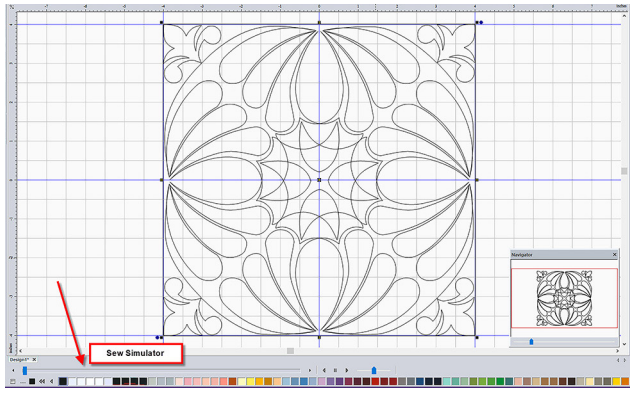


Fig. 86

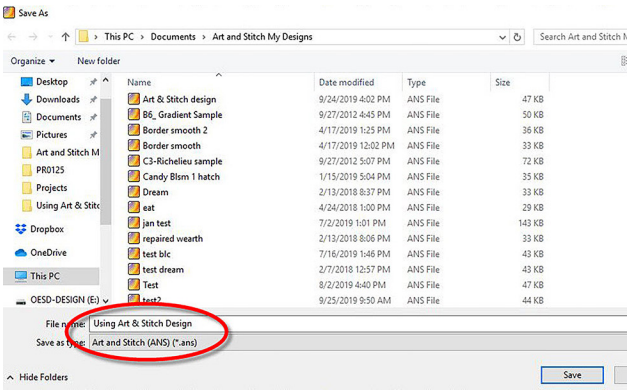


Fig. 87

6. Save the design as an ANS file when the dialogue box pops up (Fig. 87).
7. Once saved, the design will open in the center of the Q-matic Quilt Design Area and be queued (blue). The design is now ready to be placed and stitched.
8. To store in the Q-matic Library (when a BQM file was saved, it was not imported into the Design Library), you'll need to import it from the Art & Stitch My Designs folder.

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CONVERTING ART & STITCH DESIGNS TO BQM

1. Open Art & Stitch using the shortcut on the Q-matic screen (or the program on a personal PC).
2. Once open, select File in the top Menu Bar, and then Open from the dropdown menu. Or you may select the Open File icon.
3. Open the design you want to convert to BQM (Fig. 88). Any file format will work, but IQP and QLI formats do especially well.

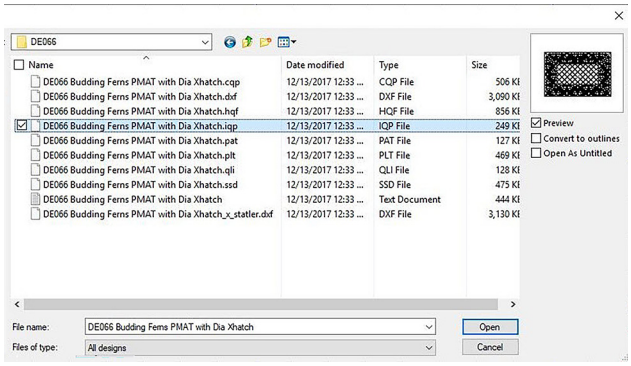

Fig. 88

4. When the file opens, use the Select Tool to select the design (black box will form around it) (Fig. 89).

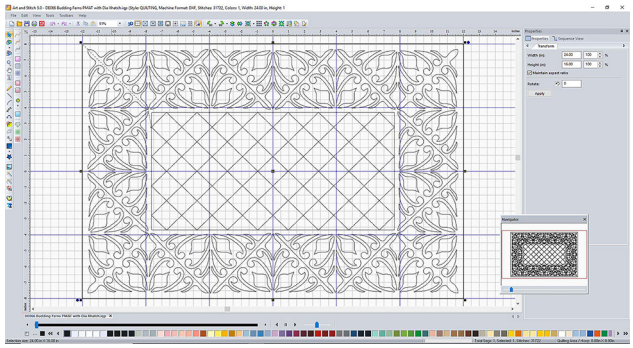

Fig. 89

5. Select File, then Save As.
6. Select the location you would like to save the file. If you do not change the location, the design will save in the same folder as the original file.
7. In the File Name box, rename the file or use the previous name. In "Files of Type" at the bottom of the screen, select the dropdown menu and change the file to a BERNINA BQM file type (Fig. 90). Select Save.

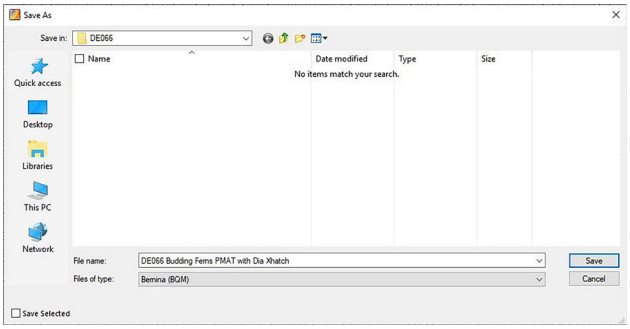

Fig. 90

8. A small dialog box will open on your screen saying, "The current design does not fit the current hoop. Do you still want to continue?" Select Yes. (This message displays because Art & Stitch is also used as embroidery software).

Once saved, the file will still need to be imported into the Q-matic Library if you wish it to be visible in your Design Library. If you are only using the design once, the BERNINA shortcut at the top of Art & Stitch can be used to place the design back onto your Q-matic Quilt Design Area..

Get creative with Art & Stitch to really enhance your Q-matic capabilities.

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THREAD BREAK RECOVERY

When the Sewhead detects a thread break or an empty bobbin, the Sewhead will stop stitching and flash a red question mark on-screen (Fig. 91).

Fig. 91

The Q-matic computer will pop up a message that a thread break has been detected (Fig. 92).

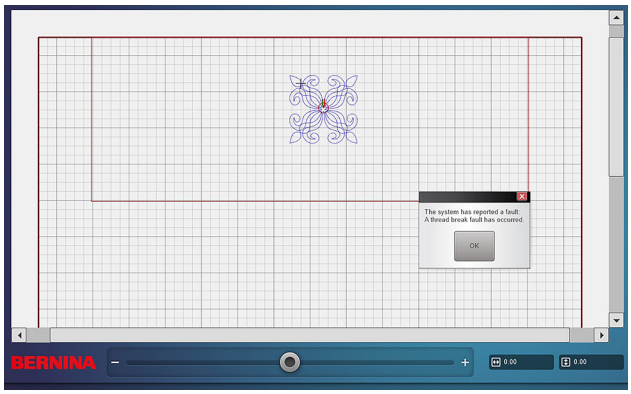

Fig. 92

Close out of the message on the Sewhead and tend to the empty bobbin or broken thread issue.

When everything is recovered, bring Sewhead back to the area where the event occurred on the quilt. Reposition Sewhead about 1/2" before the thread break. The Sewhead does not need to be exactly on the stitched line, but it must be close.

1. Select Start and confirm that you'd like to continue sewing.
2. Sewhead & Q-matic screen will ask where you'd like to begin stitching: At the Stop Point or at the Closest Point on the Design. Select Closest Point on the Design and confirm. The Sewhead will move to the spot you have selected on the design.
3. Inspect the location and redo this process if necessary. When satisfied, pull bobbin and continue sewing.
4. Sometimes it is difficult to know where Q-matic is within a design during a thread break message because of back-track stitching within the design. In this case, back the Sewhead up about 5" behind the thread-break/bobbin-empty issue and turn Sewing to Off either in the Settings dropdown on the Menu Bar or via the Sewing On/Off icon in the Control Center (Fig. 93).

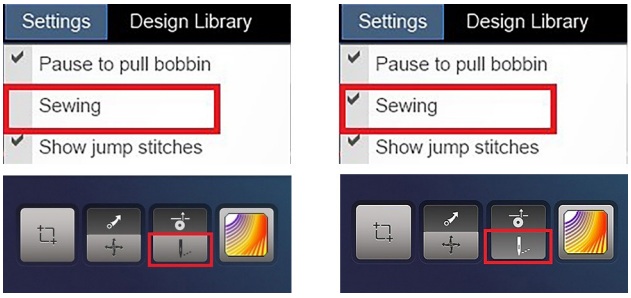

Fig. 93

5. Resume stitching without sewing to see which direction the design is headed and when the Sewhead is within a ½" of the last stitch before the thread broke or you ran out of bobbin thread, pause the Sewhead and turn Sewing back to On in the Control Center. Pull bobbin thread and continue stitching.

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