

Sew at Home

OnDemand Classes

Education by Baby Lock & Designer's Gallery

Crown Jewel – Let's Start Sewing

I. Touch Screen Controls – Regulated Mode

A. Main Screen – Stitch Mode

1. Stitch Mode allows you to select either the Regulated **Regulated** or Manual **Manual** mode

B. Main Screen – Needle Stop

1. The Needle Stop position selected on the screen controls where the needle will stop when you touch the Stop button on the right handle bar.
 - a) Select Up **Up** and when you touch the Stop button on the handlebar the needle will stop after it moves up and out of the fabric.
 - b) Select Down **Down** and when you touch the Stop button on the handle bar and the needle will stop in the fabric.
 - c) Changing this Needle Stop setting on the touch screen will not cause the needle to move and change position
 - d) Only the Needle Up/Down button on the left handlebar will cause the needle to immediately move to either the up or down position.

C. SPI **- SPI +** is displayed in the upper right corner of the screen

1. SPI stands for Stitches Per Inch
2. The Crown Jewel can be set to sew as few as 4 stitches per inch or as many as 18 stitches per inch
 - a) Touch the minus or plus buttons to change the setting
 - b) The selected setting is shown in the white box at the top right of the screen
3. Most quilting is done with the SPI set between 9 and 12 SPI
 - a) The setting that is best for your quilt depends on several things and there is no one "correct" setting for this
 - b) Personal preference will influence the choice you make. If it looks good to you, it is right.
 - c) The weight of the batting you are using may make a difference in the setting you choose.

- (1) Thicker batting usually call for a slightly longer stitch length.
- (2) A thinner heirloom type batting may look better with a shorter stitch.
- d) The thread you have chosen to use can also affect the stitch length that looks best
 - (1) A heavier or thicker thread will probably look better with a longer stitch length
 - (2) A finer or lighter weight thread may look best with a shorter stitch length
- e) The type of quilting stitches you are using can also make a difference in the stitch length you select.

- (1) If you are using very tiny micro stitched fills, you will probably choose a shorter stitch so the curves will be smoother.
- (2) If you are quilting large motifs or straight lines, then a longer stitch may be more attractive.



f) Lay a small piece of fabric on the extra batting and backing at one side of the quilt and use this area to test your stitch length.

g) The length is given as the number of stitches per inch so:

- (1) If you have fewer stitches in each inch of quilting, the stitches will be longer. So at 7 SPI as shown in the screen at the right, the stitches are fairly long
- (2) If you changed to 12 stitches in each inch, then the stitches would be much shorter because there are almost twice as many stitches fitted into each inch of stitching.

D. SR Style **SR Style** stands for Stitch Regulation Style

1. The Crown Jewel has two different types of stitch regulation and we will discuss both today

a) The Jewel has only the Cruise style regulation

II. More Touch Screen Controls - Lights

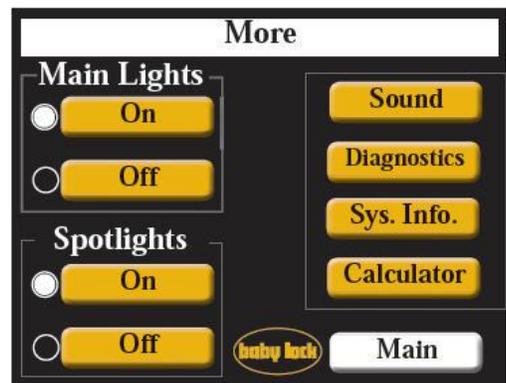
A. Before we talk about stitching in regulated mode, let's take a look at the additional controls on your Crown Jewel



B. Touch More at the lower right of the main screen and another screen opens with additional controls

C. The controls for the lights are on the left side of the screen

1. The spotlights are the three clusters of LED lights closest to the body of the machine on each



side

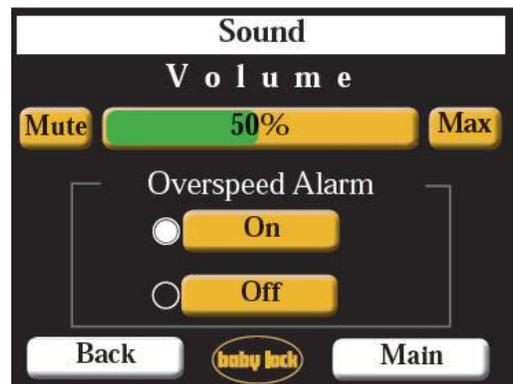
- a) The spotlights provide extra lighting in the needle area
- b) Turn the Spotlights on or off on this screen
- 2. The remaining light clusters that are farther away from the machine body are the Main Lights.
 - a) These lights provide lighting for the entire quilting area.
- 3. Although you will probably want all of the lights on most of the time, there may be occasions when you chose to turn off some or all of your lights.
 - a) If you are using metallic fabrics, you may find that turning off some of the lights limits the glare.
 - b) Also some threads are actually easier to see on dark fabrics when you use less lighting.
- 4. If you would like more lighting that is also possible.
 - a) The Crown Jewel comes with 12 clusters of three LED lights. There are six clusters on each side of the machine body
 - b) There are also an additional 5 sockets on each side of the machine that can hold additional clusters of LED lights
 - c) Additional light clusters can be purchased from your Baby Lock dealer.
 - (1) The light clusters are sold in packages of 2
 - (2) Part number BLJ18



III. More Touch Screen Controls - Sound

A. Touch Sound **Sound** and a new screen opens

- 1. The Overspeed Alarm can be turned on or off on this screen
- 2. You can also adjust the volume on the alarm.
- 3. The Alarm will sound if the machine is moved too quickly.
 - a) If you move the Crown Jewel faster than it can sew, then the stitch regulator will not be able to keep the stitches at an even length for you.
 - b) Many people find that the alarm is a useful training tool while they are adjusting to the free motion process with the Crown Jewel
 - c) Once you settle into a comfortable rhythm with your Crown Jewel you can return to this screen and turn the alarm to "Off" if you prefer not to use the Alarm.
 - d) Touch Back to return to the More screen
 - e) Touch Main to return to the Main menu



IV. More Touch Screen Controls - Diagnostics

- A. You will also see a button for Diagnostics on the More screen
1. Touching the Diagnostics button opens a screen with machine diagnostic tools.
 2. The diagnostic functions are generally only used when working with technical service to resolve a problem.

V. More Touch Screen Controls – System Information

- A. Touch the button for Sys. Info. (System Information) and a new screen opens

1. The serial number of your Crown Jewel is shown here.
 - a) This is the same number found on label at the back of the machine
2. The C-Pod and Handles numbers identify the version numbers of the electronic boards in the machine and in the handlebars.
3. The Lifetime Stitch Counter keeps track of the total number of stitches sewn since the machine was built
4. The Trip Stitch Counter can be used to count how many stitches have been used on a project.

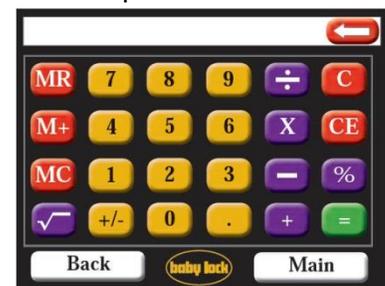


- a) If you have ever wondered as you were looking at a quilt in a quilt show, just how they knew that there were 10,382 quilting stitches in that quilt, this is how they did it!
 - b) Some quilters who quilt tops for people charge based on the number of stitches. The Trip counter can be used to keep track of the stitches in a particular quilt top.
 - c) To start the Trip Counter a zero, simply touch Reset **Reset**
 - d) Then when you complete the quilting on that project, you can return to this screen and record the total number of stitches used.
5. Touch Back to return to the More screen
 6. Touch Main to return to the Main menu

VI. More Touch Screen Controls - Calculator

- A. Touch the button for Calculator on the More screen and a new screen opens

1. A basic calculator is included in the screens of your Crown Jewel
 - a) Handy if you need to figure out how much to charge for the quilt you just finished!
2. Touch Back to return to the More screen
3. Touch Main to return to the Main menu



VII. Set up for Quilting with Cruise Stitch Regulation

A. When you are ready to start sewing with your new Crown Jewel, you may want to spend a little time getting used to this new type of sewing.

1. Load your frame with fabric you can play on
 - a) Use a plain muslin, or other solid color as a quilt top
 - b) The back could be more muslin, or it could be that fabric in your stash that you can't bring yourself to throw out, but that is not going to ever be used.
2. Put a nice bright color thread in the needle so it is easy to see what you are stitching

B. Set up to sew in Cruise Regulated Mode

1. Your Baby Lock Crown Jewel has two different regulated modes.
 - a) The Baby Lock Jewel has only the Cruise style regulation
2. To get a feel for how the two methods differ try a little test stitching in each mode

- a) Draw two six inch squares on your fabric.

3. On the LCD screen select:

- a) Regulated **Regulated**
- b) Cruise **Cruise**

- c) Use the plus or minus keys **- SPI +** to change the Stitches Per Inch (SPI) to 11.



VIII. Quilting in Cruise Mode

A. When sewing in the Cruise mode, the needle will begin going up and down as soon as you touch the Start button even if you do not move the machine

1. As you sew, the speed of the needle will change to match the speed at which you are moving the machine so the length of the stitches remains consistent.
2. If you pause at a corner before you go in the next direction, the machine will slow down but it will not stop.
3. And if you go very slowly around tight curves, the machine will slow but it will not stop.

B. You will see a rectangle between Regulated and SPI at the top of the screen



1. When the machine is stopped, the rectangle will be red
2. If the machine is running, the rectangle will be green

C. When Cruise is selected you will also see a percentage below the Cruise button

1. The percentage shown below Cruise **- 3% +** is the slowest speed that the machine will sew.
2. No matter how slowly you move the machine it will continue to sew at this rate
3. The Cruise percentage can be set as low as 3% or as high as 50%

IX. Pull up Bobbin Thread

- A. Pull up bobbin thread in first square
1. Move the Crown Jewel to the spot where you want to begin sewing
 2. Hold the needle thread
 3. Reach across to the left handlebar and touch Needle down twice.
 - a) The first touch takes the needle down
 - b) The second touch brings the needle back up
 4. Now you have a loop of bobbin thread peeking above the fabric
 5. Move the Crown Jewel to the side and the bobbin thread will be pulled to the top of the fabric.
 - a) Don't move too far or the bobbin thread will be pulled back down through the fabric again.
 6. Now that you can hold both the top and bobbin thread, move the machine back to your starting point
- B. Why do you need to pull up the bobbin thread?
1. If you do not hold on to both the top and bobbin threads while you stitch the first five or six stitches, the bobbin thread will get whipped into the back of your stitching and form a clump of thread known as a "bird's nest".
 2. Holding both threads as you begin to sew will give you a nice clean look on the back of the quilt.

X. Secure the Stitches And Try Cruise Stitching

- A. The easiest and least visible way to secure your stitches is to take several very tiny stitches
1. Hold both the top and bottom threads as you begin to avoid a "bird's nest" on the back of the quilt
 2. Use the Needle up/down key to sew these stitches
 - a) Touch Needle up/down twice
 - b) Then move the machine a tiny bit to one side
 - c) Touch Needle up/down again to sew the next stitch
 - d) And move the machine a tiny bit
 3. Repeat the steps above to sew about a quarter inch of tiny stitches
 - a) So how do you know when you have gone a quarter inch?
 - b) The hopper foot is ¼" from the needle in every direction. So if you sew the tiny stitches until the first stitch is no longer under the hopper foot, you will have ¼" of tiny stitches
 4. Go ahead and clip those threads before you start stitching.
- B. And you are ready to touch the Start/Stop button to begin sewing
- C. To get a feel for this type of stitch regulation, fill your square with stitching.
1. Sew both loose and tight curves.
 2. Also, sew some corners or points.
 - a) When sewing a point like you would want at the tip of a leaf you should curve out to the point, pause briefly, and then curve back up the other side of the leaf.
 - b) That pause at the tip should last just long enough for two or three stitches.
 3. To stop you will need to touch the Start/Stop button.

XI. End by Securing Stitching and Trimming Bobbin Thread

- A. Sew very tiny stitches for about ¼'
 1. Use the needle up/down key for this as you did at the beginning
- B. Stop with the needle up
 1. Move the machine without sewing about six inches in any direction
 2. Grasp the loose thread that has been dragged across the quilt
 3. Move the Crown Jewel back to the end of the last stitch
 4. Use Needle up/down to pull a loop of bobbin thread to the top of the fabric.
 5. Move the machine, again without sewing, to the side and the bobbin thread will be pulled to the top of the fabric
- C. Trim both threads

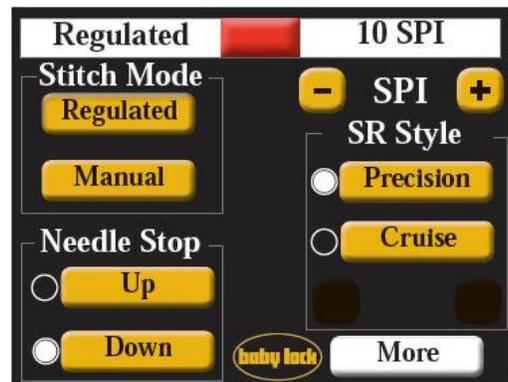
XII. Set up for Quilting with Precision Regulation

- A. Set up to sew in Precision Regulated Mode
 1. Your Baby Lock Crown Jewel has two different regulated modes.
 - a) The Baby Lock Jewel has only the Cruise style regulation
 2. On the LCD screen select:
 - a) Regulated **Regulated**
 - b) Precision **Precision**
 - c) Select the desired stitches per inch by using the plus and minus keys

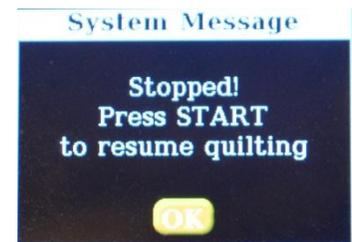


XIII. Quilting in Precision Mode

- A. When sewing in the Precision **Precision** mode, the needle will not begin going up and down as soon as you touch the Start button. Your Crown Jewel will not begin to sew until you move the machine
 1. As you sew, the speed of the needle will change to match the speed at which you are moving the machine so the length of the stitches remains consistent.
 2. If you pause and stop moving the Crown Jewel, the machine will stop sewing when you stop moving.
- A. There is no percentage shown in this mode
 1. You remember that the percentage controlled the speed of the needle when the machine was not moving
 - a) Now the needle will stop when you stop moving the machine
 2. This is great when sewing patterns with lots of points and corners, if you like to “rest” at those corners and points.



- a) If you pause for too long at those corners in the Cruise mode, and the machine keeps stitching, you may have trouble with a buildup of stitches at the corners. It may even cause thread breakage because you paused for too long.
 - b) With the Precision mode, if you stop, then the machine stops.
- B. The pause in sewing may work against you if you are doing lots of small tight curves on patterns like micro stippling
- 1. If you slow down too much on those tight curves the machine can stop sewing.
 - a) In that case, you may be happier with the Cruise mode of regulation.
- C. When you touch the Start button, the bar at the top of the screen turns green to indicate that the Crown Jewel is ready to sew
- a) It is important to pay attention to whether you have green or red when sewing in Precision mode. The machine could be on and if you are not moving it the needle would not be moving..
 - (1) If you leave the Crown Jewel on and do not move the machine for two minutes, the machine will turn itself off and you will then see an error message.
 - (2) Touch OK to close the warning box and you will be ready to continue working.



XIV. Another Method for Pulling up the Bobbin Thread

- A. Move the Crown Jewel to the spot where you want to begin sewing
- 1. Hold the needle thread
 - 2. Reach across to the left handlebar and touch Needle down twice.
 - a) The first touch takes the needle down
 - b) The second touch brings the needle back up
 - 3. Now you have a loop of bobbin thread peeking above the fabric
- B. You could move the Crown Jewel to the side and the bobbin thread will be pulled to the top of the fabric as we did in the previous exercise, but there is another way to get hold of that bobbin thread.
- 1. Once the loop of bobbin thread has been pulled up in the center of the foot,
 - 2. Take hold of the top thread tail and hold it taut between both hands
 - 3. Swipe that top thread tail under the foot and it will knock the loop free and push it out to the back of the foot.
- C. Try both methods of capturing the bobbin thread and use the one that feels more natural to you.

XV. Try Precision Stitching

- A. Secure your stitches with a short line of tiny stitches in exactly the same way you did on your cruise sample
- 1. Go ahead and clip those threads before you start stitching.
- B. And you are ready to touch the Start/Stop button to begin sewing
- 1. Remember that in the Precision mode, the Crown Jewel will not begin to stitch until you begin moving the machine.
- C. To get a feel for this Precision stitch regulation, fill your square with stitching.

1. Sew both loose and tight curves.
 2. Also, sew some corners or points.
 3. Start and stop, so you get a feel for how the machine works with you.
 4. Sew both quickly and slowly to see how your Crown Jewel adjusts to the movement of the carriage to keep the stitches a consistent length.
- D. Tie off at the end and pull the bobbin thread up to trim in the same way you did on the first sample.
- E. Fill that block with stitching and remember it does not need to be beautiful.
1. This is a chance for you to get comfortable with how the machine works with you.

XVI. Manual Mode – Why Sew with Unregulated Stitch Length

- A. Why would you ever want to sew in manual mode?
1. One reason that you might want to use an unregulated stitch would be for thread painting.
 - a) You may see many different kinds of thread painting at your next quilt show.
 2. Different colors and textures of quilting are added to create shading and dimension in landscape or portrait quilts
- B. When stitching with an unregulated stitch length the quilter can vary the length of the stitches to create texture
1. If you move the machine faster the stitches will be longer
 2. If you move the machine more slowly the stitches will shorter

XVII. Set up for Quilting in Manual Mode

A. Main Screen – Stitch Mode

1. Touch Manual **Manual**
 - a) The selected mode is shown in the upper left corner of the screen
 - b) And the controls on the right side of the screen change



B. Main Screen – Speed

1. The speed setting is shown in the upper right corner of the LCD screen
 - a) The percentage controls the speed at which the machine will sew, and that speed will not vary with your movements
 - b) This machine is set to sew at 86% of 1800 stitches per minute which would be 1548 stitches per minute
2. The speed can be set to sew as slow as 5%.
 - a) At 5% the Crown Jewel will sew just 90 stitches per minute
3. The speed can be set to sew as fast as 100%
 - a) At 100% the Crown Jewel will sew 1800 stitches per minute.
4. To change the speed, use either the plus and minus on the touch screen, or use the plus or minus buttons on the handlebars.
 - a) Using the handlebar buttons would allow you to change your speed while you are sewing

- C. The red bar between the word Manual and the speed percentage changes color depending on whether the machine is sewing or not sewing
1. When you touch the Start button on the handlebar, the bar turns green to indicate that the machine is sewing
 2. When you touch Stop on the handlebar, the bar turns red to indicate that the machine is not sewing

XVIII. Quilting in Manual Mode

- A. If this is your first time sewing in Manual, you might want to start at a medium speed and then if desired, use your handlebars to change the speed as you settle into this type of quilting.
- B. If you want to try sewing in Manual mode:
1. Draw or trace a shape in the square
 - a) If you need a pattern to trace there are a multitude of sources for shapes to use in your quilting
 - (1) Do you remember cutting paper shapes as a child?
 - (2) You will find cardboard or foam shapes in all sizes and types at the craft store.
 - (3) The cookie cutters in your kitchen
 - (4) A leaf from your garden
 - (5) Or a shell you picked up on the beach
 2. Pull up bobbin thread at the edge of your shape
 3. Secure the stitches
- C. Touch the Start/Stop button to begin sewing
1. When sewing in the Manual mode, the needle will begin going up and down as soon as you touch the Start button.
 2. As you sew, length of the stitches will be controlled by the interaction of the speed you have chosen on the LCD and the speed at which you move the machine
 - a) Remember: the machine will sew at a constant speed, so the length of the stitches will be controlled by how quickly or slowly you move
 3. If you pause at a corner before you go in the next direction, the machine will continue to sew, so make those pauses brief.
 4. The stitches will vary in length unless you are very good at keeping an even pace as you move the machine, but remember that variation can add texture and interest if you are thread painting.
 5. To stop you will need to touch the Start/Stop button.
- D. Start by stitching the outline of your shape as best as you can
1. Remember, this is practice, so accept that it would be really surprising if it were perfect!
 2. Once you have outlined your play area
 - a) Try using different speeds. You may be surprised to find that you are more comfortable with a faster speed rather than a slower one.
 - b) Try different ways of filling the shape.
 - c) Sew around the edges in both directions
 - (1) Most of us are more comfortable in one direction than in the other.
 - d) Try different ways of filling.
 - (1) Loops, stipple, waves, and any other pattern that you want to try.

- e) Try sewing those fills in different sizes.
 - 3. You may also want to try adding additional colors into the mix. Over stitching with a second or third color can add a new dimension to your painting.
 - 4. And remember, you do not have to show this to anyone. This is for you to get a feel for working in that Manual mode and to get comfortable with moving the machine. So relax, and don't forget to breathe
 - 5. And one more tip, try playing your favorite music while you quilt.
- E. Secure your stitches at the end:

XIX. Micro Handles

A. You can purchase a third set of handles for your Jewel or Crown Jewel

- 1. These Micro Handles are mounted low on the front of the machine
- 2. Because these handles allow you to quilt with your hands closer to the quilt top you may find that you have better control of your stitching.
- 3. These handles are especially beneficial when doing detailed or small quilting motifs.



B. The Micro handles can be used with any of the three sewing modes discussed above.

XX. Attach Laser to Crown Jewel

A. Locate the laser in the bag of accessories that came with your Crown Jewel

- 1. You will find a picture of the laser at the right so you know what you are looking for.

B. To use the laser with paper pantographs from the back of the Crown Jewel it will need to be installed at the side of the machine

- 1. find the threaded hole on the right hand side of the machine toward the back
 - a) You will find a diagram of this on page 6 of your Crown Jewel instruction book. Look for #13 on the diagram.
- 2. Take the nut and the washer off the stylus post



- 3. It may also be easier to attach the post to the machine if you remove the laser from the post.

- a) Loosen the black thumbscrew and you will be able to slide the laser and its holder off the end of the post



- 4. Re-attach the nut and the washer in the opposite order so the washer will be against the machine when the post is installed.

- a) The washer will protect the paint on your Crown Jewel.



- b) Attach the post to the threaded hole you located in step 3.



- c) Slide the laser holder and laser onto the post and tighten the thumbscrew.
- a) Make sure the light is pointing down and the cord is on top.



- 6. Plug in the laser in the port on the back of the spool pin shelf to turn it on
 - a) Note that to turn the laser off you will need to up-plug it.
 - b) The laser should always be un-plugged when you are not using it

XXI. About Paper Pantographs

A. If you want a pattern to follow as you quilt, but do not want to do a lot of marking on your quilts, then you might like working with paper pantographs.

- 1. Paper pantographs not only give you a pattern to follow, they also will help you hone your free motion skills.

B. Do a web search for paper pantographs and you will find they are available in a multitude of patterns

C. Pantographs are generally sewn from edge to edge across the quilt

- 1. Often this type of quilting is extended to sew into the extra batting and backing on all sides of the quilt.
- 2. If the quilting is started at the top of the quilt so it extends above the quilt top, then it looks planned if the quilting also extends off the edge of the quilt top at the bottom.
- 3. Extending the pattern off the left and right sides of the quilt top will create a unified look for the whole quilt.
- 4. And it will eliminate some math on your part since you do not have to make the rows of pantograph quilting come out even at the bottom of the quilt!

XXII. Secure Quilt Edges

D. You will need to stitch the edges of the quilt before sewing this type of quilting so the hopper foot does not catch on the edge of the fabric and fold it back as you sew onto and off of the quilt top.

- 1. Stitch the quilt top to the batting and backing along the edge.
 - a) This stitching should be less than $\frac{1}{4}$ " from the edge of the quilt top so it will be covered by the binding when the quilt is finished.
- 2. At the top of the quilt, begin by stitching across the top edge of the quilt top and stitch down the right and left sides as far as you can reach.
- 3. Then each time you roll the quilt forward, stitch the newly exposed right and left edges.

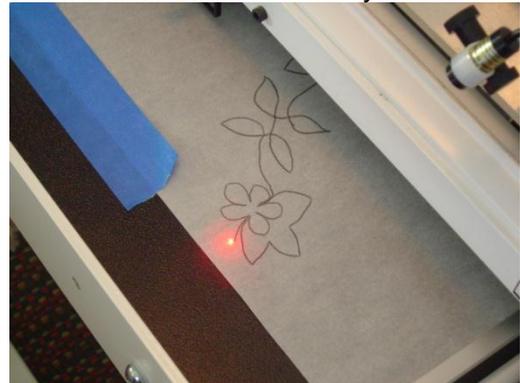
E. You can sew those edges with a straight line of stitching

1. Use the hopper foot to guide the stitching
 2. The hopper foot is $\frac{1}{4}$ " from the needle on all sides
 3. Guide the machine so the needle is on the fabric and the hopper foot is partially off the quilt top and you will be less than $\frac{1}{4}$ " from the edge of the fabric.
- F. You could also create a wave or zig zag stitch along the edge by moving the machine side to side as you sew along the edge.
1. If the fabric in your quilt top has a tendency to fray or curl, the wave or zig zag stitch may help tack down the edge of the quilt top.



XXIII. Position the Pantograph

- A. You will be working from the back side of the machine for this process
1. Move the machine to the side of the quilt where you will begin sewing
 2. Sink the needle into the batting and backing at the spot where you want to begin sewing.
 - a) Place a pin in the quilt back at this spot
 - b) We will use the pin to find the start point for the next row
 - c) Note that the pins need to be parallel to the rails of the quilt frame. If you turn them the other way, it will cause a problem when rolling the quilt onto the take up rail.
- B. Plug in the laser to turn it on
1. Move your paper pantograph and/or change the angle of the laser so the start of the pattern is lined up with the laser light.
 2. Note that we are matching this to the position of the needle. That is why we set the needle down into the fabric, so the machine would not move while we positioned the paper pantograph and the laser light.
- C. Use a painter's tape to secure the paper to the table.
1. Painter's tape is available at the hardware store or the paint store and is a masking tape that leaves no sticky residue when it is removed.
 - a) They even have this type of tape now that can be used on wall paper so it will also not damage your paper pantograph
- D. Lay the paper out across the shelf on the back of the quilt frame and tape the other end of the paper to secure it.
1. Bring the needle back up
 2. Move the machine across the top of the pantograph and check that the pattern will sew in the correct spot on the quilt top at any high and low spots in the design.



- a) If you move the laser to the spot you want to check on the paper pattern, then you can look to see where the needle would be on the quilt top at that point in the pattern.
- b) In the pictures below, I moved to the highest point in my pattern, and then looked to see where that part of the pattern would be stitched.
- c) You could then move to the lowest point and check again to see where the needle will be in that part of the pattern



- d) If necessary, re-position the paper or the laser so the design will sew correctly.
3. Check various points in your pattern all the way across the quilt top.
 - a) When you reach the spot in your pattern where the machine will stitch off the other edge of the quilt, mark the paper pantograph with a piece of painters tape.
 - b) That way as you are stitching and watching the dot of light on the paper, you will know when you have reached the edge of the quilt top.
 - c) Using tape to mark the end means you do not have to cut your pattern. You might want to use that pantograph on a wider quilt next time!



XXIV. Practice Before Stitching

- A. Before you begin sewing the first row, make sure you are comfortable with the path through the design
 1. Start by finger tracing the design
 2. You may also want to try following the design with the laser light across the pattern without sewing
 - a) These practice runs will help you get a feel for how to move the machine through the pattern

- b) And there is no rule about how many times you need to practice before you begin to sew.
 - c) Practice until you feel comfortable
 - d) This practice builds muscle memory and will help you achieve the best results
- B. Find the places in the pattern where you will be able to pause
- 1. You will need to pause occasionally to re-adjust your hands or your feet.
 - a) Try to take those pauses at corners rather than on a curved line
 - b) If you pause on a curve, it is almost impossible to re-start without creating a jog in the line.
 - c) You will find that if you stop at a corner, then your starts and stops will not create unevenness in your pattern.
 - 2. So as you finger trace and trace with the laser, practice those pause points also.

XXV. Sew the Pantograph

- A. When you do get ready to start sewing, stand so you are comfortable
- 1. Don't forget to breathe!
- B. Having fun with pantographs is partly about attitude
- 1. Part of the beauty of this type of quilting is that none of us can follow that line perfectly every time
 - 2. So as you stitch pantograph quilting there will be some variation in the shapes.
 - 3. You may have some leaves that are longer than others, or some flowers that are plumper than their neighbors.
 - 4. Embrace those differences. Look at any garden and you will see that every flower and leaf varies and is slightly different.
 - 5. If you stand back and look at the quilting as a whole instead of focusing on the one leaf that looks too long, you may find you like the look better than you expected to.
- C. Begin by pulling up your bobbin thread and sewing your ¼" of tiny stitches as discussed above
- 1. Sew the row of pattern
 - 2. End with ¼" of tiny stitches to secure the threads and then pull up the bobbin thread and trim as discussed earlier in this class.
- D. Always unplug the laser when you are finished stitching your pantographs or before you leave the machine
- 1. There is no on/off switch on the laser
 - 2. It is turned off by unplugging it

XXVI. Line up the Next Row

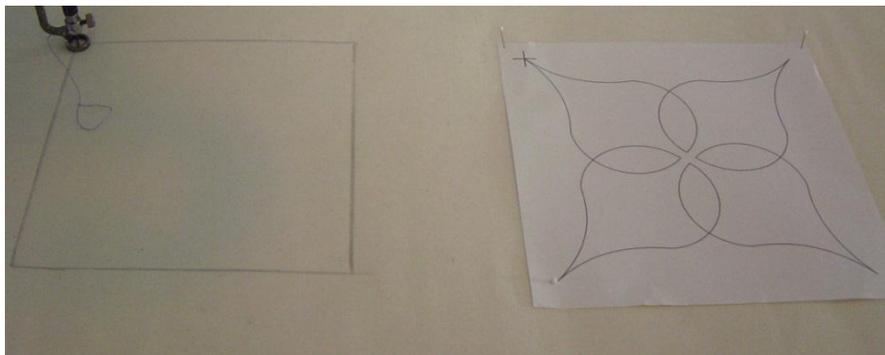
- A. Some paper pantographs have match points printed on them that can be used to line up the next row.
- B. If your pattern does not have match points, you can use that pin
- 1. Use a measuring tape to measure down the edge of the quilt to the new start point.
 - 2. Measure the width of the pattern + the distance you want between rows
 - a) So for instance if you have a 9 inch pattern and want ½ inch between rows, measure down 9 ½ inches.
 - b) Place another pin to mark your start point.
- C. Line up to begin sewing and check your position just as you did for the previous row.

XXVII. Paper Pantographs and Laser from the Front of the Frame

- A. Paper pantographs can also be used to stitch block patterns from the front of the machine.
- B. Move the laser to the top of the machine
 - 1. You will find a threaded hole on the top of the machine that can be used to install the laser
 - 2. This will allow you to aim the laser at the quilt top at the front of the machine

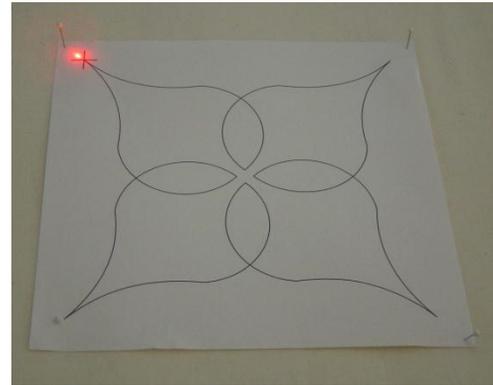
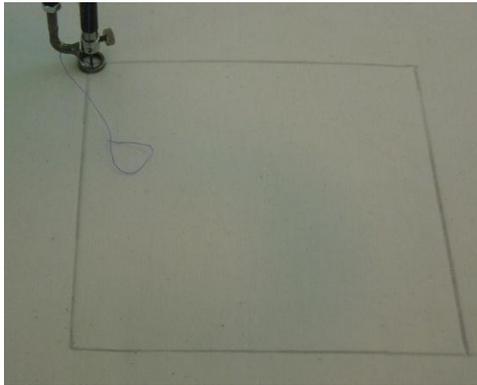


- C. Use needle down to sink your needle in the quilt block that will be stitched
 - 1. Pin your paper pantograph to the quilt top to one side of the block to be stitched.
- D. Position the quilt design
 - 1. Decide what point on your pattern and quilt block will be easiest to line up
 - 2. Depending on the quilt pattern you are using you could line up with:
 - a) The center of the quilt block and the center of the paper pattern



- b) Or a corner of the quilt block and a corner of the paper pattern
 - c) Or the starting point of design on the paper pattern could be lined up with the spot on the quilt block where you want to begin sewing
 - 3. Drop the needle into the fabric on the block to be stitched at the point you selected as described above
 - a) The sample was lined up using the corner of the block
- E. Aim laser
 - 1. Aim the laser at the paper pattern you have pinned to the quilt
 - 2. If your needle is at the center of the block to be sewn, then aim the light at the center of the paper pattern

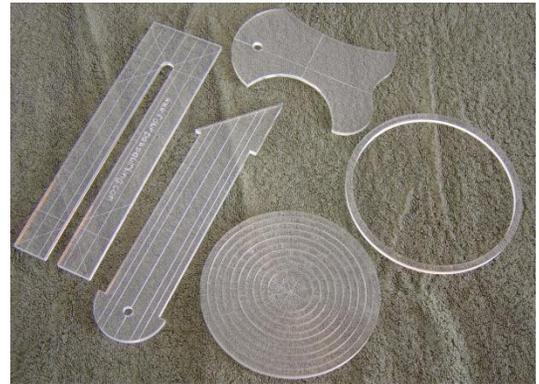
3. If your needle is at a corner of the block then aim the laser at the same corner of the pattern



- F. Check position of pattern
 1. Raise the needle out of the fabric
 2. Check your positioning by moving the light to various points on your pattern and then looking to see where the needle is on the block to be sewn
- G. Quilt
- H. Always unplug the laser when you are finished stitching you pantographs or before you leave the machine
 1. There is no on/off switch on the laser
 2. It is turned off by unplugging it

XXVIII. Ruler Base and Rulers

- A. There are a variety of special rulers on the market that are designed for longarm quilting
 1. These rulers are at least $\frac{1}{4}$ " thick so the hopper foot cannot ride up over the top of the ruler
 2. The rulers come in many shapes and some even come with instructions on how they can be used to create specific quilting patterns
 3. Rulers for quilting may be available from your Baby Lock dealer
 - a) Or look for them at your next quilt show
 - b) There are also some U-Tube videos made by people who sell these rulers.



- B. To use rulers for quilting
 1. Lay the ruler in place on the quilt top
 - a) Remember that when you run the hopper foot along the edge of the ruler, the needle will sew $\frac{1}{4}$ " away from the edge of the hopper foot
 - b) So place the ruler $\frac{1}{4}$ " away from the line to be sewn



2. Hold the ruler with one hand and guide the machine along the edge of the ruler with your other hand
- C. The ruler base provides a stable surface for the ruler when doing this type of quilting.
 1. Use the ruler base whenever you are quilting with rulers
 2. Remove the ruler base for all other types of quilting
 - a) The ruler base cause some drag when you are quilting without rulers
 - b) Also, when the ruler base is attached, you will not be able to quilt quite as close to the Backing Rail as you can without the ruler base.
- D. To place the ruler base on the machine
 1. Place the ruler base at the front of the machine with the hopper foot in the gap at the center of the ruler base
 2. Line up the four notches in the ruler base with the four protrusions on the sides of the machine free arm
 3. Use both hands to hold the ruler base on both sides
 4. Flex the base slightly to spread the opening so it can be snapped into place over the protrusions



XXIX. Stitch in the Ditch with the Line Tamer

- A. My favorite ruler is called the Line Tamer
 1. This may be available from your Baby Lock dealer
 2. Or it can be purchased from Nancy's Notions
 - a) Part #FRP903
- B. This ruler has a groove up the center so you can guide the machine in the groove instead of by the side of the ruler
 1. Each side of the ruler is 1 ¼" wide so it could be used for cross hatch quilting
 2. There are also lines running the length of the ruler that can be used to line up and sew ½" cross hatch quilting
 3. Bias lines are also marked so it is easy to sew cross hatching on the bias
- C. And this will become your go-to ruler for stitch in the ditch
 1. Line up and drop the needle into the ditch
 2. Place the ruler in front of the foot in the direction you want to stitch
 3. Line up the center mark at the closed end of the channel with the ditch
 4. Guide the machine down the channel to stitch right in the ditch.



XXX. Quilt Pounce and Stencils

- A. Sometimes you may want to mark your quilting pattern directly onto the quilt top
 1. Always test any marking tools on the fabrics in your quilt to be sure that you will be able to remove the marks after stitching
- B. One easy way to mark your quilting is with stencils

1. Although you could use a marking pen or chalk pencil to mark your pattern, a quicker way is to use a chalk pounce
2. A pounce looks kind of like a blackboard eraser and is filled with chalk dust
3. Quilt stencils are plastic sheets with the quilt pattern defined by cut out slits

C. To mark your quilt

1. Mist the area to be marked with a spray bottle with water in it or gently wipe the quilt top with a damp cloth
 - a) The fabric should not feel wet, just barely damp
 - b) The very slight dampness will anchor the chalk dust so it does not bounce as you quilt
2. One side of the stencil will feel rough to the touch



- a) Place the stencil in place on the quilt top with the rough side facing up
3. Rub the pounce across the stencil to mark the pattern on the quilt top

D. Follow the stenciled lines to stitch the pattern



1. As with the paper pantographs you will want to finger trace the pattern so you are sure of the path you will be stitching
2. You may even want to practice by moving the machine along the stitch lines without sewing before you sew the first stenciled pattern

E. There are many stencils available and they are relatively inexpensive.

1. Your Baby Lock dealer may have some stencils for sale.
2. Nancy's Notions sells Quilt Pounces, Chalk refills for the pounce, and some stencils
3. You will also see stencils for sale at quilt shows

XXXI. Create Your Own Pattern for Stem of a Vine or a Cable Stitch

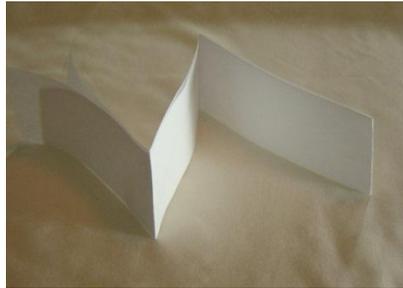
A. There are also some tricks of the trade that will allow you to create your own quilting designs with a minimum of fuss and marking

B. To create a curved vine to fit your quilt border

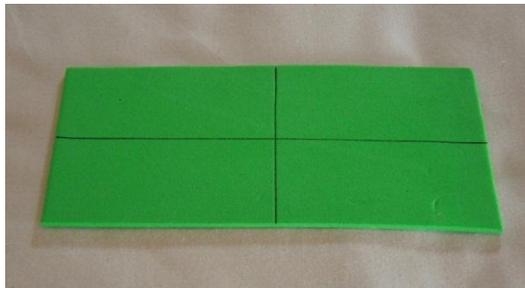
1. Cut a piece of adding machine tape that is the exact width of the area to be filled



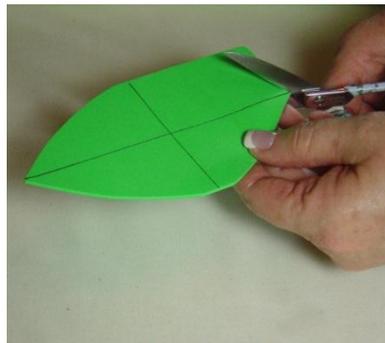
2. Now fold the adding machine tape until you have folded it down to a size that would make a good length for each repeat of your design



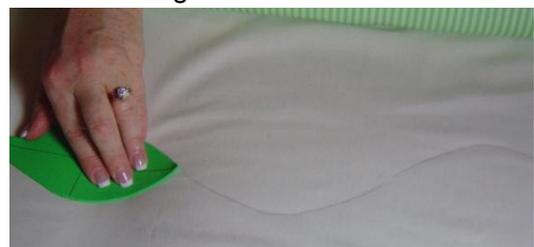
3. Cut a piece of craft foam that is half the width of your border and the same length as your folded adding machine tape
4. Mark the center of each side of the craft foam rectangle



5. Cut the corner off your craft foam rectangle with a curving line.
- Just cut a gentle curve from the center point on one side of the rectangle to the center point on the next side.
 - When you are done you should have a cat's eye shape



6. Use the cat eye shape to trace the stem of your vine
- Lay the shape at the left side of the border and trace over the top
 - Then move the shape to the right and trace along the bottom
 - Move the shape and trace over the top
 - Repeat across the border alternating tracing top and bottom
 - And you will have a beautiful curving line the will form the stem of your vine



7. Quilt along the stem line sewing leaves and/or flowers on both sides of the line as you go
- C. If you want to practice your vine before you stitch
1. Try marking your stem on paper, a chalkboard, or a white board and practice drawing your vine.
 - a) Now that you are a long arm quilter you have the best excuse you could ever want to doodle.
 - b) The more time you spend drawing quilting patterns, the better you will get at drawing those same patterns with your machine!
 - c) Doodle while you watch television or talk on the phone and when you get to the quilt frame it will feel natural to stitch those same patterns!
- D. Now that you have that cat eye shape you could also use it to create cable quilting
1. Or of course you could go back to steps 1 through 5 above to create another size cat eye for a different border!
 2. This time mark both the top and bottom of the cat eye shape on the quilt so you have a row of cat eyes across the border
 3. To quilt the cables:
 - a) Start at the left end and quilt along the cat eye shapes along the bottom of the first one, over the top of the second one.
 - (1) Continue across the row alternating over and under.
 - b) When you reach the end
 - (1) Turn and go back sewing on the unstitched side of each cat eye.
 - c) For the third row of stitching on the cable
 - (1) Sew back to the right using the hopper foot to guide you as you sew $\frac{1}{4}$ " below the first row of stitching
 - (2) You are still going over and under, but now below the first line you stitched
 - d) The fourth row is sewn back to the right and is sewn $\frac{1}{4}$ " below the second line you stitched
 - e) Continue building your cable moving down until you have filled the border.