



# LEARN & CREATE

*with Baby Lock*

## Regalia – Let’s Quilt

Your new Baby Lock Regalia is all set up, threaded and the tensions are balanced. Now you are ready to sew, but which sewing mode should you select, and what do all those icons on the screen mean? This class will guide you through the differences between stitching with Cruise Stitch Regulation, Precision Stitch Regulation and the Manual stitching modes. We will go over the controls on the Main Screen, so you know how to set up the stitch just the way you desire. You will learn how to pull up the bobbin thread and sew tie-off stitches when you start to sew. And you will learn how to sew tie-off stitches and pull up the bobbin thread at the end of stitching, so you can trim the threads. And you will see how to select and use the built-in basting stitches in the Regalia and what a Walking Stitch is and how it can be used.

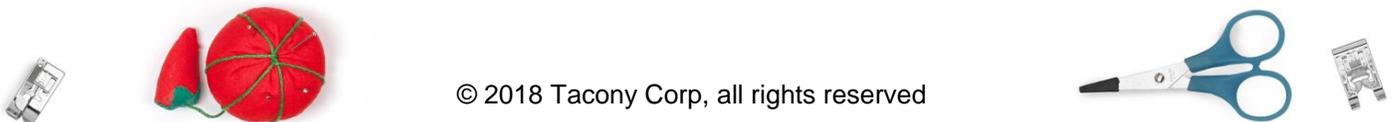
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### Regalia on Pro-Stitcher Tablet

If you have added the Pro-Stitcher to your Regalia, the Pro-Stitcher tablet computer replaces the front touch screen display.

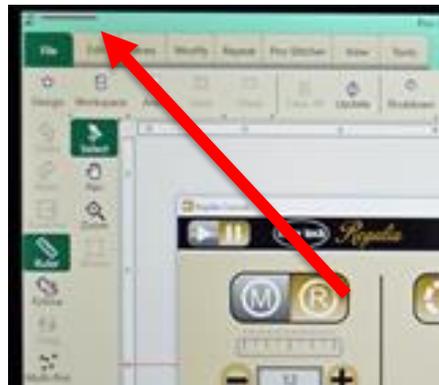
1. The Regalia display is integrated into the display on the Pro-Stitcher tablet computer.
2. The Regalia controls still function as they did without Pro-Stitcher, but you will see a couple of differences.



3. You will be able to see the Pro-Stitcher program behind the Regalia display.



4. To navigate between the Regalia screen and the Pro-Stitcher screen, you will use the menu displayed when you touch the small grey bar in the upper left corner.
  - You may have used a similar grey bar to access a floating keyboard in other computer programs



5. Touch the grey bar to open the menu bar



6. The Red X  closes the menu bar
  - It does NOT close either the Regalia or the Pro-Stitcher screens

7. The icon with a keyboard  opens the floating keyboard
  - The keyboard can be used to type a name for a file that you are saving in Pro-Stitcher



8. The Baby Lock icon  opens the Regalia screen in front of the Pro-Stitcher screen
9. The Pro-Stitcher icon  minimizes the Regalia screen to give you full access to the Pro-Stitcher screen
10. The Art and Stitch icon  opens the optional Art and Stitch program for digitizing or editing quilting patterns
  - Art and Stitch is loaded on the Pro-Stitcher tablet, but until you purchase the program, you will not be able to save any of the designs you create.
  - When you purchase this optional program, you receive a registration code which activates the program so you can save your work

You will see one other difference on the Main screen of your Regalia if you are using the Pro-Stitcher tablet.

1. The Pro-Stitch channel lock functions are displayed on the Main screen just below the on-screen handwheel



2. The channel locking function locks the Regalia so it can only sew a straight line
  - Sew a horizontal line  from left to right
  - Or a vertical line  from top to bottom
3. The Pro-Stitcher does this by locking the gears on the robot so it can only move in the selected direction.



4. If you do not have the Pro-Stitcher, perfect straight lines can be created with the aid of a physical channel lock that fits over the wheel and prevents that wheel from turning.
  - You might even want two, so you can place one on both the front and back wheel of the Regalia.
  - Place it on the wheel of the carriage if you want to sew a vertical straight line.



## Main Screen Standard Functions

Some functions are always displayed on the Main screen, so they are available in all sewing modes.



### The Title Bar

1. The Title Bar is found at the top of the screen
2. At the left the Title Bar shows whether the machine is running or stopped
3. The Title has icons at the right side that provide access to frequently used options.

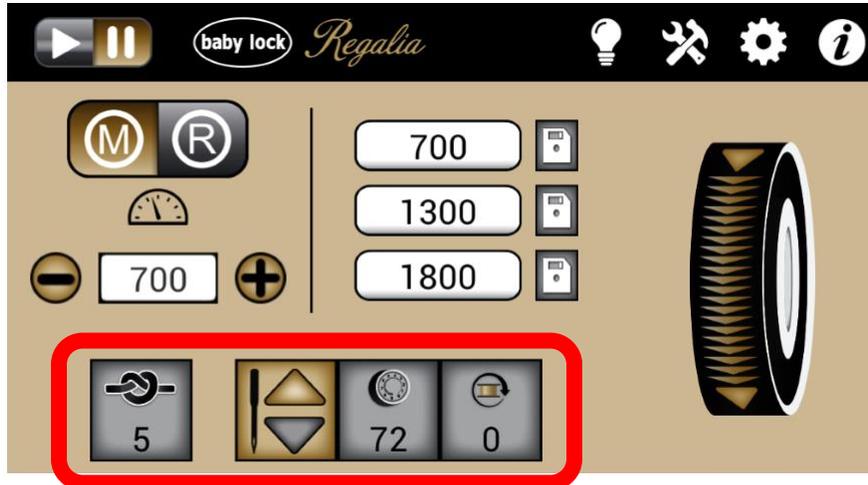


4. At the left side of the Title Bar you will see Run/Pause icons
  - If the arrow is gold, the machine is sewing
  - If the pause is gold, the machine is stopped



- Which one is gold will be changed when you touch the Start/Stop button on the handle bar to sew or to stop sewing
  - This is especially important when sewing in the Precision regulated mode because the machine could be turned on even though you do not see the needle moving.
5. The four icons at the right side of the Title Bar are used to access frequently used options.
-  The light bulb icon opens the Lights screen.
  -  The icon with a hammer and a wrench opens the Machine Tools screen where you will find things like stitch counters, timers and the calculator.
  -  The icon with a gear opens the Settings screen and gives you access to the alarms including the bobbin alarm, customizing handle bar buttons, turning the Needle Beam on or off, and setting tie-off stitches
  -  The icon with the letter "i" on it opens the System Information screen. Use to see Lifetime stitch count, threading guides and needle guide

### Main Screen – Icons along the bottom



The four icons along the bottom of the screen will be the same in both Manual and Regulated sewing modes.



1.  The Tie-off button can be used to secure the threads at the beginning and end of a stitching line.

### Set the number of tie-off stitches

1. Touch Settings  on the Title Bar of the Main Screen
2. Select the Configure Tie-offs icon 
3. Set the tie-off for as few as 2 micro stitches, or set the tie-off for as many as 10 micro stitches
4. Use the plus and minus keys to select the desired number of stitches
5. The number in the window changes
6. And the number of gold stitches above the window changes
  - The number of gold stitches will reflect the number of micro-stitches selected
  - The rest of the stitches will be greyed out
7. Touch Home  to return to the Main Screen
8. The number of tie-off stitches selected is displayed on the tie-off button  on the Main Screen

### To use the tie-off micro-stitches:

1. Touch the Tie-off key  on the touch screen
  - Or if you have programmed either the Star button or the Diamond button on your handlebars to be a tie-off button, you could use the handlebar button to do this
2. If the Regalia is not moved right away, instructions are displayed on the screen telling you to
  - “To complete the tie-off, gently move the machine. To cancel the tie-off, press the tie-off button again.”
3. Move the machine about 1/8” to sew the micro tie-off stitches
4. Go ahead and clip those threads before you start stitching.

### Needle Stop Position

1. The Needle Stop position  selected on the screen controls where the needle will stop when you touch the Stop button on the handle bar.



2. The arrow for the needle position you have selected will be gold
  - The Needle Stop button controls where the needle will be when you stop sewing
3. If the needle position is set for Needle Up, when you touch the Start/Stop button to stop sewing, the needle will stop up.
4. If the needle position is set for Needle Down, when you touch the Start/Stop button to stop sewing the needle will stop down
5. The Needle Stop Position key on the Main screen does not move the needle
  - That key only controls the position of the needle when you stop sewing
6. To change the position of the needle use the Needle Up/Down key on the handlebar

### Quick Set Tension

1. Quick Set Tension  gives a numerical value to your tension setting.
2. Having a number can help you set tensions on your favorite threads

### Bobbin Reset Key

1. The Bobbin Reset key  is used with the low-bobbin alarm in the Regalia.
2. You will find detailed instructions on using the Low Bobbin Alarm in the class called Regalia – Behind the Main Screen

### On-Screen Handwheel



1. This is a new feature of the Baby Lock Regalia that allows you to turn the hand wheel on the touch screen instead of walking around to the back of the machine.



2. Drag your finger from top to bottom on the wheel to cycle the needle.
  - Always follow the direction of the arrows on the wheel
  - If you drag backwards from bottom to top, the needle will be out of position when you begin to sew
  - If the needle is out of position, you may end up with a broken needle or a torn quilt top when you begin to sew
  - If you accidentally turn the wheel in the wrong direction, you will need to turn everything off including both the machine and the Pro-Stitcher if you are using it.
  - When you turn the machine back on, the needle will be re-set to the correct position.

## Cruise Stitch Regulation

The Regalia can sew in Manual mode or in your choice of two different styles of Regulated mode.

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



2. Touch  to select Regulated and the screen below is displayed.



3.  Allows you to select the style of stitch regulation you want to use

- If  is selected, it will be gold and you will be set for Precision style regulation
- If  is selected, it will be gold and you will be set for Cruise Style Precision

4. Touch  to select Cruise regulation

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. On the left the setting for the stitch length is displayed  12
- The setting is given in Stitches per Inch
    - If you select a higher number, there will be more stitches in each inch of quilting and those stitches will be smaller.
    - If you select a lower number, there will be fewer stitches in each inch of quilting and those stitches will be longer



- Use the plus and minus buttons to change to the desired stitch length
  - Most quilting is done with a stitch length set at 11 to 14 stitches per inch.
4. You may need to do a little test sewing to find the best stitch length for the thread and quilting patterns on your quilt, but there are some general rules that can help.
- Thicker threads usually work better with a longer stitch length and larger quilting patterns
  - Finer threads work better with a shorter stitch length and are often chosen for smaller quilting motifs
    - If you are stitching tiny background fill patterns or small pebbles, you will be able to create smoother curves with a shorter stitch
    - A lighter weight thread will work better with those small stitches

5. On the right the Minimum Speed is displayed



- The speed of the needle is regulated by how fast you are moving the machine
  - The Minimum Speed controls the speed of the needle when you are not moving
  - When you pause briefly at a point or corner, Cruise Regulation will make the needle continue to sew slowly even though the machine is not moving
  - The goal is to set the Minimum Speed, so the needle sews 3 to 4 stitches at those points and corners
    - Dropping 3 to 4 stitches at the corner prevents pulling the bobbin thread to the surface at that corner.
    - Too many stitches can form a knot and may break the thread
6. Baby Lock recommends starting with a Minimum Speed of 200 stitches

per minute 

When you are ready to start sewing with your new Regalia, 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
  - Use a plain muslin, or other solid color cotton fabric as a quilt top
  - 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.

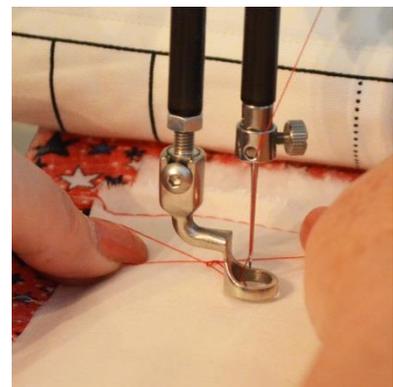


2. Put a nice bright color thread in the needle so it is easy to see what you are stitching
3. Draw two squares on your practice fabric that are about 8 or 9 inches square.
  - Learning to color inside the lines will help when you are trying to quilt specific areas on a quilt top
  - The second block will be used for practicing Precision regulation
4. This is practice so this exercise is not about creating beautiful prize-winning quilting!
  - Vary the speed at which you move the machine so you get used to the feel of the needle changing speed to match your movement
  - Sew both curves and points or corners
  - Pay attention to how many stitches are being sewn when you pause at the points and corners.
    - You want 3 to 4 stitches at those pause points
5. If you are getting more than 3 to 4 stitches at the corners and/or experiencing thread breaks at the points, then you need a lower Minimum speed.
6. If you are getting fewer than 3 to 4 stitches at the corners and/or pulling the bobbin thread to the quilt top at those points, then you need a higher Minimum speed.
7. This is a good opportunity for you to find your ideal Minimum speed.

## Bobbin Pull & Securing Stitches

Pull up bobbin thread in your first square

1. Set the Needle Stop so the needle will stop up 
2. Move the Regalia to the spot where you want to begin sewing
3. Hold the needle thread
4. Touch the Needle Up/Down button twice.
  - The first touch takes the needle down
  - The second touch brings the needle back up
5. Now you have a loop of bobbin thread peeking above the fabric.
6. Hold the needle thread in both hands and floss it under the presser foot
  - The loop of bobbin thread will be pushed out from under the foot
7. Now that you can hold both the top and bobbin thread, move the machine back to your starting point



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.



Secure the stitching

1. Hold both the top and bottom threads as you begin to avoid a "bird's nest" on the back of the quilt
2. Touch the Tie-off key  on the touch screen
  - Or if you have programmed either the Star button or the Diamond button on your handlebars to be a tie-off button, you could use the handlebar button to do this
3. Move the machine about 1/8" to sew the micro tie-off stitches
4. Go ahead and clip those threads before you start stitching.

And you are ready to touch the Start/Stop button on the handle bar to begin sewing

1. To get a feel for this type of stitch regulation, fill your square with stitching.
2. This is not about creating beautiful quilting motifs.
3. The goal is to get comfortable with Cruise regulation
4. Sew both loose and tight curves.
5. Also, sew some corners or points.
  - 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.
  - That pause at the tip should last just long enough for three or four stitches.
6. To stop you will need to touch the Start/Stop button on the handle bar.

To secure the stitching at the end of your quilting:

1. Touch the Tie-off key  on the touch screen
2. Move the machine about 1/8" to sew the micro tie-off stitches

Pull up bobbin thread and trim both threads

1. Pull a little slack in the needle thread above the eye of the needle



2. Move the machine about four or five inches in any direction without sewing
  - The needle thread will be stretched across the quilt top
3. Hold the needle thread and move the machine back to the end of your stitching
4. Touch the Needle Up/Down button twice to take the needle down and back up
  - A loop of bobbin thread will be pulled to the top of the quilt
5. Move the machine without sewing and the loop of bobbin thread is stretched across the quilt top
6. Trim both the top and bobbin threads

### Precision Stitch Regulation

The other type of stitch regulation in the Regalia is Precision regulation.

1. Stitch Mode   allows you to select either the Regulated  or Manual  mode
2. Touch  to select Regulated and the screen below is displayed.



3.   Allows you to select the style of stitch regulation you want to use
  - If  is selected, it will be gold and you will be set for Precision style regulation



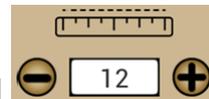
- If  is selected, it will be gold and you will be set for Cruise Style Precision

4. Touch  to select Precision regulation

When sewing in the Precision  mode, the needle will NOT begin going up and down as soon as you touch the Start button on the handle bar. Your Regalia 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 Regalia, the machine will stop sewing when you stop moving.

On the left the setting for the stitch length is displayed



3. The setting is given in Stitches per Inch
  - If you select a higher number, there will be more stitches in each inch of quilting and those stitches will be smaller.
  - If you select a lower number, there will be fewer stitches in each inch of quilting and those stitches will be longer
  - Use the plus and minus buttons to change to the desired stitch length

There is no Minimum Speed displayed when the Precision mode is selected



1. There is empty space on the screen in the area where the Minimum Speed was displayed for Cruise Regulation



2. You remember that the Minimum Speed controlled the speed of the needle when the machine was not moving
  - In Precision mode the needle will stop when you stop moving the machine, so the Minimum Speed is zero
3. This is great when sewing patterns long arm rulers
  - If you want to stop and re-position the ruler, the machine stops sewing
  - Move the ruler without touching the Start/Stop button
  - When you move the Regalia, it sews again

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.
  - In that case, you may be happier with the Cruise mode of regulation.

When you touch the Start button, the arrow  at the top left corner of the screen turns gold to indicate that the Regalia is on and is ready to sew

1. It is important to pay attention to whether the Run arrow is gold  or the Pause hash marks  are gold
2. The machine could be on and if you are not moving the needle would not be moving.
  - It is important to watch the Run/Pause button when you are using the Precision style of stitch regulation

Fill the second square on your practice fabric with Precision style regulated stitching.

1. This is not about creating beautiful quilting motifs.
2. The goal is to get comfortable with Precision regulation and to understand how it differs from Cruise regulation
3. Sew both loose and tight curves.
4. Start and stop as you are sewing to experience the how the Regalia stops when you stop moving
5. Note that even though you have stopped moving, the gold Run arrow  shows that the machine is On
6. To stop you will need to touch the Start/Stop button.

## Manual Mode

The stitch length is not regulated when sewing in Manual mode. 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.
  - You may see many 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

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

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

7. Touch  to select Manual and the screen below is displayed.



7. Stitches Per Minute is displayed in the window



- It is important to note that the setting is Stitches Per Minute and it controls the speed of the Regalia
  - When sewing in the Manual mode you will be selecting the speed the machine will run
  - The length of the stitches will then be controlled by how fast you move the Regalia
  - When you use either of the Regulated sewing modes, the setting is Stitches Per Inch and the Regulation controls the speed to achieve the selected stitch length
8. There are three different ways to set the desired speed when you are in the Manual mode
    - Touch the plus and minus signs at the sides of the window
    - Select one of the three pre-set speeds to the right
    - Or use the plus and minus buttons on the handle bars while you are sewing
      - Changing the speed on the handlebars allows you to change speed as you are sewing without stopping.
  9. You will find three speed presets buttons to the right of the speed setting
    - The speed pre-sets can be set at the speeds you use most often
    - You might use one speed for large edge to edge fills, another for echo quilting around applique or embroidered patterns and the third for sewing tiny pebbles.

To set the speed presets:

1. Set the desired Stitches Per Minute 
2. Touch the Save icon  at the right of the pre-set you want to use
3. And the number in the window  is changed to the desired Stitches Per Minute

To use one of the pre-set speeds:

1. Simply touch the desired pre-set
2. The Stitches Per Minute at the left is changed to the selected speed



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. Top speed of the Regalia is 2500 Stitches Per Minute

If you want to try sewing in Manual mode:

1. Draw or trace a shape on your practice fabric
  - If you need a pattern to trace, there are a multitude of sources for shapes to use in your quilting
    - Do you remember cutting paper shapes as a child?
    - You will find cardboard or foam shapes in all sizes and types at the craft store.
    - Try using cookie cutters from your kitchen
    - Even a leaf from your garden or a shell you picked up on the beach can be used to design quilt patterns
2. Pull up bobbin thread at the edge of your shape
3. Secure the stitches
4. Touch the Start/Stop button to begin sewing

When sewing in the Manual mode, the needle will begin going up and down as soon as you touch the Start button.

1. 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
  - 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
2. If you pause at a corner before you go in the next direction, the machine will continue to sew, so make those pauses brief.
3. 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.
4. To stop you will need to touch the Start/Stop button.

Start by stitching the outline of your shape as best as you can

1. Remember, this is practice, so accept that it would be surprising if it were perfect!
2. Once you have outlined your play area
  - Try using different speeds. You may be surprised to find that you are more comfortable with a faster speed rather than a slower one.
  - Try different ways of filling the shape.
    - Most of us are more comfortable in one direction than in the other.



- Try different ways of filling.
    - Loops, stipple, waves, and any other pattern that you want to try.
  - 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.

## Basting Stitches

Four different sizes of basting stitches are available when stitching in the Regulated mode in the Regalia

1. The basting stitches can be selected by setting the SPI (Stitches Per Inch) at fewer than 5 Stitches Per Inch
2. If you touch the minus key  one more time after you get down to 5 SPI, then you will get a basting stitch that is 1/4" inch long
3. Touch the minus key again and you will have a basting stitch that is 1/2 inch long
4. Touch the minus key again and you will have a basting stitch that is one inch long
5. Touch the minus key again and you will have a basting stitch that is two inches long
6. Touch the minus key one more time and you will have a basting stitch that is four inches long
  - Baste the edges of your quilt when quilting edge to edge so the hopper foot cannot get caught under the quilt top
  - Baste your quilt layers if you are trying to ease in fullness on a less than perfect quilt top
  - Or use your Regalia to baste the quilt layers for a project that will be hand quilted

## Walking Stitches

The Walking Stitch is a handy feature that is activated by using the Needle Up/Down button

1. Hold down the Needle Up/Down button and move the machine



2. The machine stitches slowly and you can create quick basting stitches without changing your stitch length.

Some of you may also be in the habit of creating tie-off stitches with the walking stitch, and you will be able to do that with your Regalia

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 Walking Stitch to sew tiny stitches
  - Hold the Needle Up/Down button down
  - Move the machine very slowly to sew tiny tack down stitches
3. Sew about a quarter inch of tiny stitches
  - So how do you know when you have gone a quarter inch?
  - The hopper foot is  $\frac{1}{4}$ " from the needle in every direction.
  - If you sew the tiny stitches until the first stitch is no longer under the hopper foot, you will have  $\frac{1}{4}$ " of tiny stitches
4. Go ahead and clip those threads before you start stitching.

