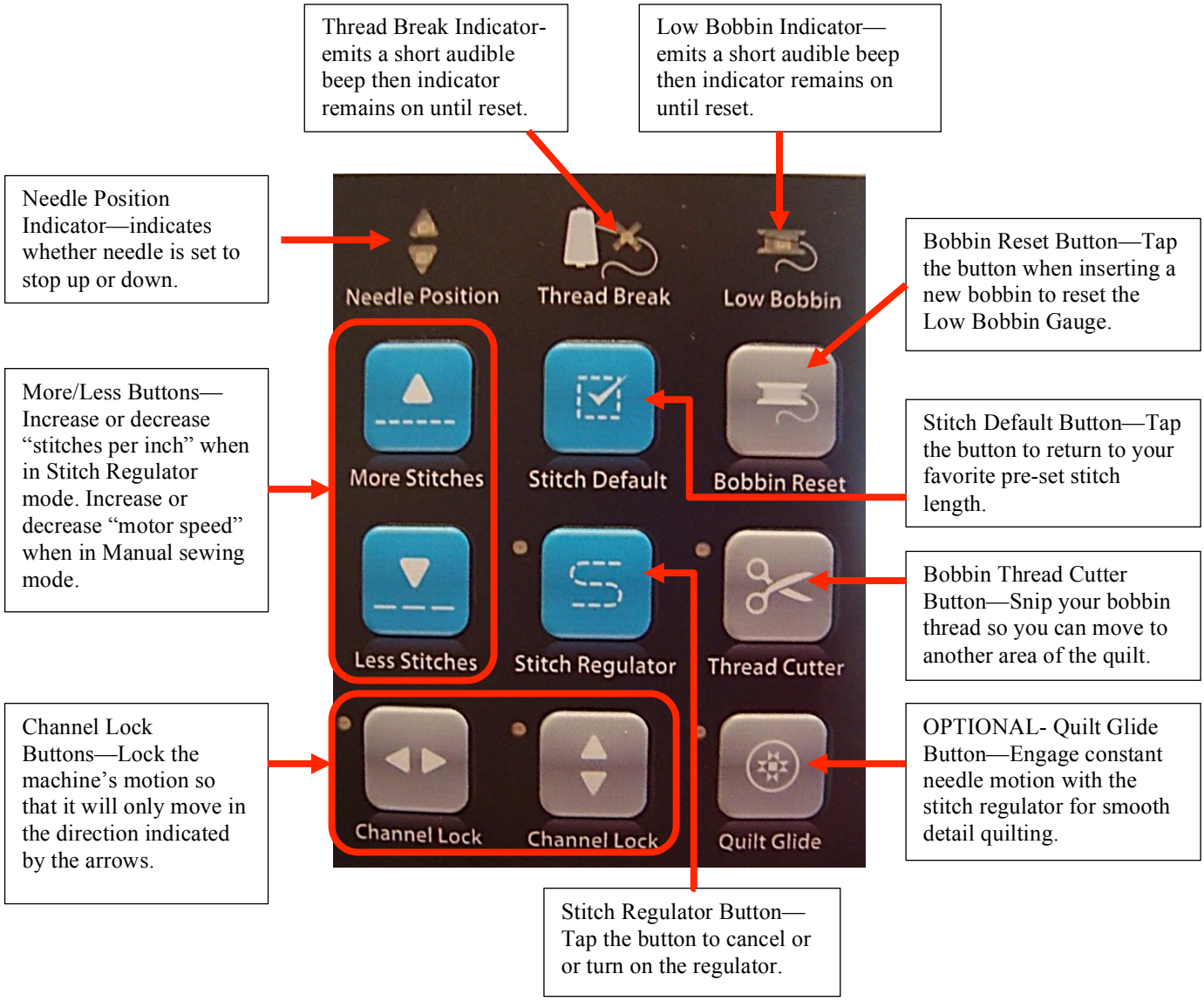
Understanding the Controls

Your new Millennium or Freedom SR machine uses simple controls and has handy features to make your quilting more fun and enjoyable. The charts below give you a quick overview of each machine's functions. Tap the buttons to change a setting or toggle a feature on or off as described below. The APQS Smart Touch Pad is the same whether you are working on the needle side of the machine or the pantograph side of the machine. Read the full feature descriptions that follow the charts to fully understand how your machine works, including how to change factory presets to suit your quilting preferences.

----------Millennium Smart Touch Pad Features----------



Definitions:

Stitch Regulated Mode. Stitches will be the same length as you move the machine across the quilt regardless of how quickly you move the machine. The sewing motor will speed up and slow down to adjust to your motion.

Manual Mode. Stitches will vary in length as you move the machine across the quilt, depending on how quickly or slowly you move the machine. The sewing motor will operate at a constant speed and your needle will continuously move regardless of your motion.

Smart Touch Pad Buttons:

Stitch Regulator On.

When the blue LED light is on, the Stitch Regulator is engaged. Stitch Regulated Mode is the default mode when you turn on the machine's power. Tap this button to turn off the Stitch Regulator and place the machine in Manual Sewing Mode. When the Stitch Regulator is ON, you'll hear a beep about every 7-8 seconds to remind you that you are in regulated mode.

Stitch Regulator Off = Manual Sewing Mode.

When the LED light is off, your machine is in Manual Sewing Mode. Tap this button to place the machine in Stitch Regulated Mode.

Stitch Default. *(Stitch Regulator Mode)*

Your machine is set for a default stitch length of approximately 11 stitches per inch, a common length used by quilters for general quilting. You can "override" the default stitch length by pressing either the "More Stitches" or "Less Stitches" button.

To return to the default stitch length setting, tap the Stitch Default button.

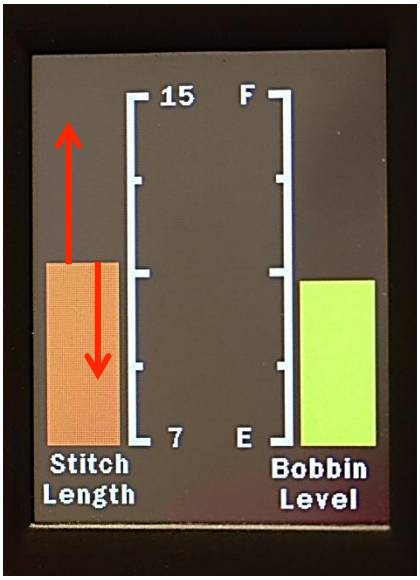
Stitch Default. *(Manual Sewing Mode)*

If you have turned the Stitch Regulator off, the sewing motor will default to run at a constant "medium" sewing speed. You can override the default sewing motor speed by pressing the "More Stitches" or Less Stitches" button.

To return to the default medium sewing speed while in Manual Sewing Mode, tap the Stitch Default button.

More Stitches. *

Increase the stitches per inch from the current setting. As you tap the More Stitches button, the stitch length indicator bar on the LCD Screen will climb to reflect the change. *Press the Stitch Default button to return to your preset default stitch length.*



Less Stitches. *

Decrease the stitches per inch from the current setting. As you tap the Less Stitches button, the stitch length indicator bar on the LCD Screen will drop to reflect the change. *Press the Stitch Default button to return to your preset default stitch length.*

**When you turn off the Stitch Regulator, theses buttons now increase or decrease the motor speed in Manual Sewing Mode. The stitch length indicator bar will climb or fall to indicate the change. Tap the Stitch Default button to return to the default motor speed when sewing in Manual Mode.*

Channel Lock—Left to Right.*

Tap this button to lock the machine so that it only sews left to right (horizontally) across the table's length as indicated by the arrows on the button. When the red LED light is on, the Channel Lock is active. Tap the button to release the lock. **Electronic Channel Locks are only found on Millennium models.*

Channel Lock—Front to Back.*

Tap this button to lock the machine so that it only sews forward and backward (vertically) as indicated by the arrows on the button. When the red LED light is on, the Channel Lock is active. Tap the button to release the lock.
**Electronic Channel Locks are only found on Millennium models.*

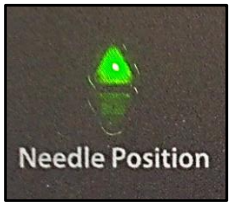
Thread Cutter.*

Raise the needle to the "UP" position (see the "Handle Switches" information beginning on Page ???) and tap this button to trim the bobbin thread. A red LED light indicates the cutter's puller arm is cycling. When the red LED light is on, the handle switches are inoperable. The red LED light will turn off when it is safe to resume quilting. The thread cutter will leave a short bobbin thread tail on the quilt back of the quilt. **The Thread Cutter is only available on Millennium models.*

Optional Quilt Glide.

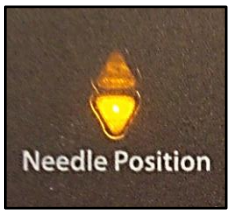
This is a "micro quilting assistant". This feature combines continuous needle motion with stitch regulation to make micro quilting more fluid. It is best used for detail and close quilting work. Tap this button to engage the Quilt Glide. When active, the red LED indicator light glows. The needle will continue to move up and down even when you've paused your movement while in stitch regulated mode. To avoid thread build up or breaks, continue moving the machine or turn off the sewing motor using a handle's toggle switch. Tap this button again to cancel the Quilt Glide feature and return to standard stitch regulated mode. *(The Quilt Glide function will not affect needle motion in manual sewing mode.)*

Smart Touch Pad Indicator Lights



Needle Up Indicator.

Green UP arrow indicates the needle will stop in the "up" position when you tap the sewing motor toggle switch on any handle, cancelling the sewing motor. Tap any handle's toggle switch toward the white dot to change the needle position to the "down" position.

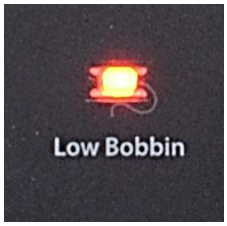


Needle Down Indicator.

Yellow DOWN arrow indicates the needle will stop in the "down" position when you tap the sewing motor toggle switch on any handle to cancel the sewing motor. Tap any handle's toggle switch toward the white dot to change the needle position to the "up" position.

Top Thread Break Indicator.

Red "X" illuminates and a short series of audible beeps sound when the top thread break sensor detects a possible break. Stop the sewing motor using one of the handle switches and re-thread if necessary. The indicator will reset when you stop the sewing motor and then start it again to resume quilting. *(See the "Top Thread Break Sensor Operation" on page ??? for more information.)*



Low Bobbin Indicator.

Red LED light flashes and a short series of audible beeps sound when the bobbin reaches a preset low level. Insert a new bobbin and tap the "Bobbin Reset" button. The Low Bobbin Indicator will not work if the Top Thread Break Sensor is off or bypassed. *(See "Bobbin Reset Procedure" on page ??? for information.)*

----------Top Thread Break Sensor Operation----------

The Top Thread Break Sensor is a useful tool for quilters who work on the pantograph side of the machine or who use an optional computerized system such as the APQS Quilt Path. An encoder reads the motion of the thread break sensor wheel. If the wheel stops turning, the encoder "assumes" that the top thread has broken. You'll hear a short series of beeps and the Top Thread Break Indicator Light located on each Smart Touch Pad will come on.

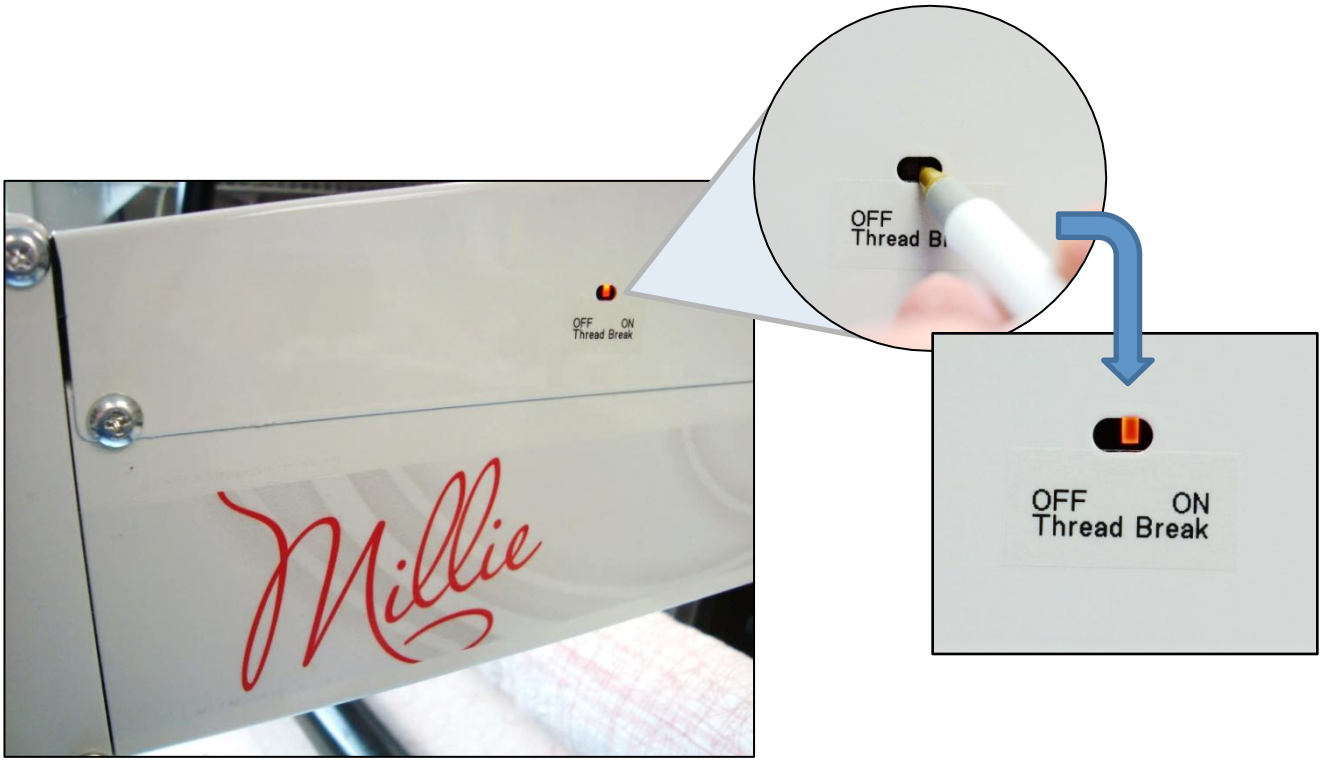
The machine will NOT stop sewing; the Top Thread Break Sensor is an alert system only. Turn off the sewing motor toggle switch on any handle and re-thread your machine if necessary. The thread sensor will reset when you stop the sewing motor to check for the thread break.

(*Using the Top Thread Break Sensor is optional, unless you wish to use the Low Bobbin Indicator.* If you are working on the needle side of the machine where you will obviously see the top thread break, you may choose to turn the sensor off, and then thread your machine in the standard format as indicated in the main user manual.)

The Top Thread Break Sensor MUST be used if you wish to use the Low Bobbin Indicator.

Step 1: Turn On the Top Thread Break Sensor.

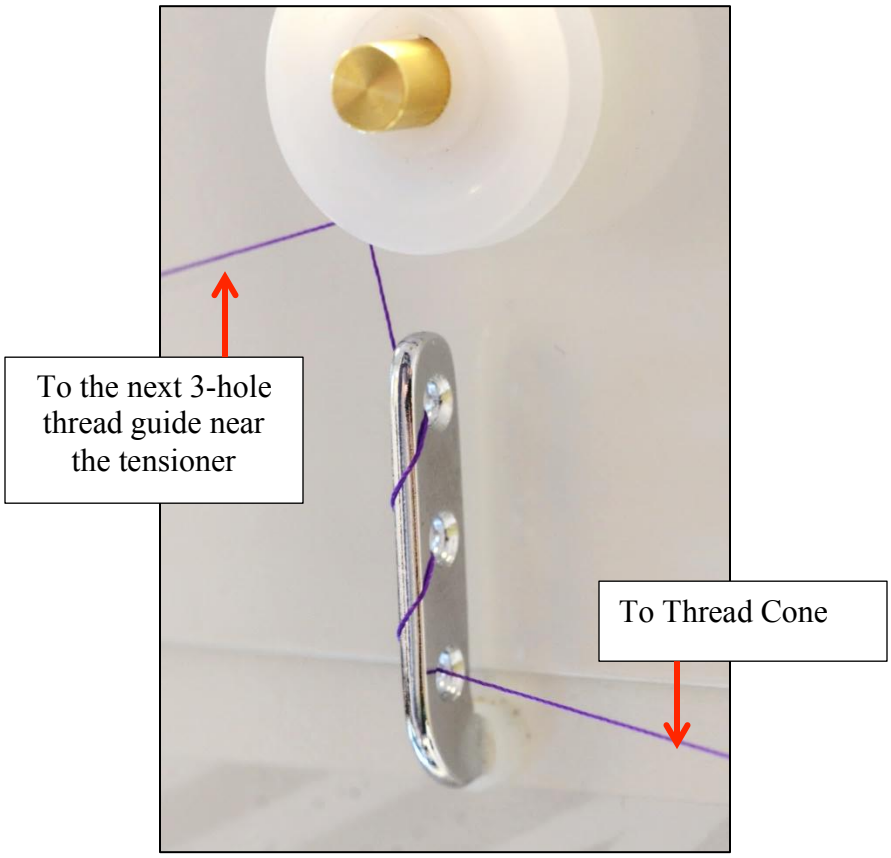
Locate the Thread Break Sensor Switch on the machine's top cover (on the thread path side of the machine). Use a pen (not a pencil) or other blunt point instrument to slide the small toggle switch toward the "ON" position. The LED light illuminates indicating the sensor is active.



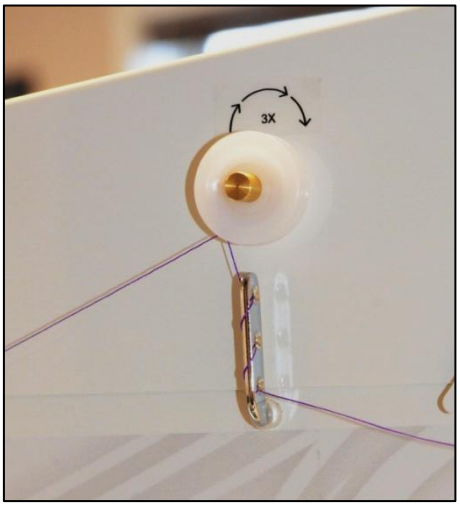
Step 2: Prepare the Top Thread Break Sensor Wheel.

a. Place your thread cone on the left rear handle thread stand. Pass the thread up through the first large wire thread guide directly above the cone.

b. Thread the 3-hole thread guide directly below the Thread Break Sensor Wheel as shown below, spiraling around the vertical 3-hole thread guide.



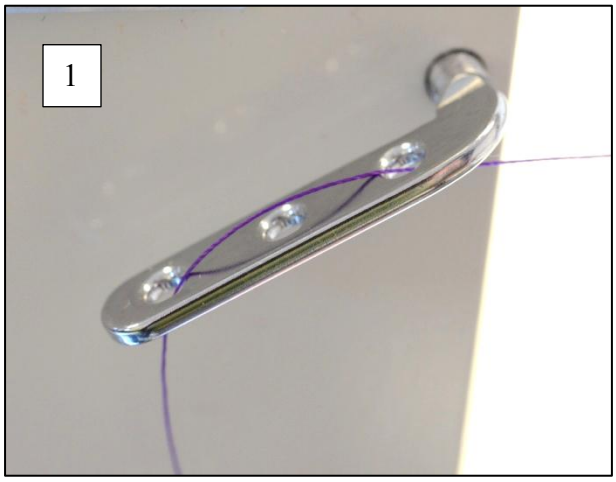
c. Follow the arrows printed above the thread sensor wheel and wrap the thread around the wheel **clockwise 3 times** (see photo at right). This does not add much pre-tension to your thread, but wrapping the thread three times is necessary to prevent the thread from slipping on the thread sensor wheel, which could result in false readings.



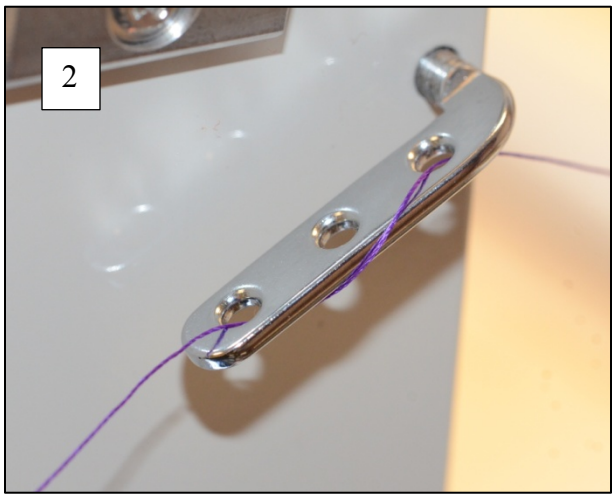
Step 3: Thread the 3-hole Guide Near the Tension Assembly

The 3-hole thread guide next to the tension assembly provides pre-tension to your thread and also helps manage “thread twist” before your thread enters the tension disks on the tensioner.

When you use the Top Thread Break Sensor, thread the 3-hole thread guide directly above the tension assembly as shown in Photo 1 at right to begin. (This thread path is different from the path you would use if you chose to bypass the Top Thread Break Sensor.)

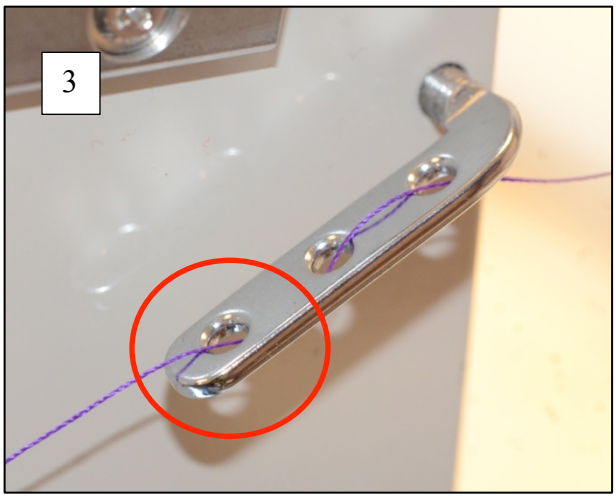


It’s okay to experiment with the thread path next to the tension assembly if your thread requires more pre-tension, or if the thread appears to twist too much, causing tangling or looping around the needle. Photos 2 and 3 show some optional thread paths through the 3-hole guide next to the tension assembly.



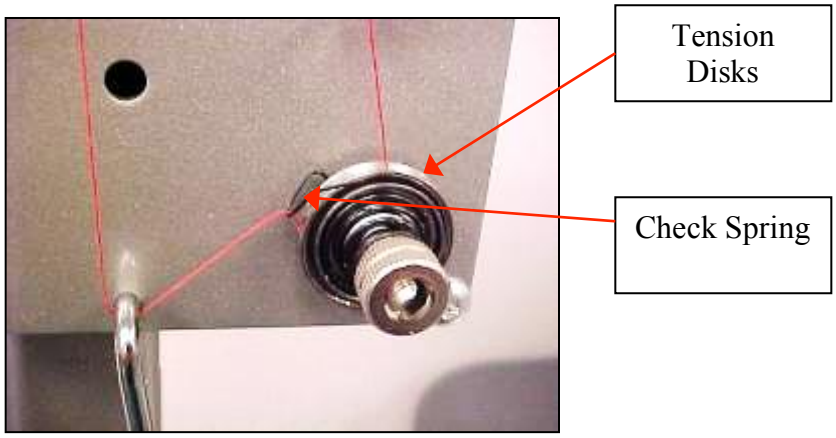
Be sure to use the bottom-most hole in the guide (illustrated by the circle in Photo 3). This last hole ensures that your thread stays deeply between the tension disks and does not slide in and out as you sew.

In addition, occasionally check the guide’s angle. It should point down to “8:00” if you imagine the lower hole as the hands on a clock. This position also helps ensure the thread travels through the tension disks correctly.



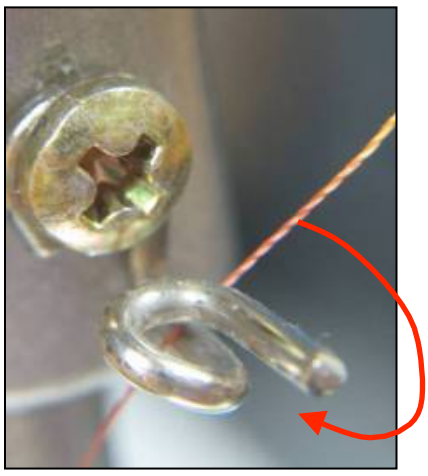
Step 4: Complete the Thread Path.

a. Pull the thread between the tension control disks and over the check spring as shown below. Hold on to the thread just before it enters the tension disks, and pull on the remaining tail firmly to be sure the thread is seated completely between the tension disks. If your stitch quality appears to have changed, such as loops of thread on the quilt surface, this is one of the first places to check. The thread must be completely seated between the two tension disks for proper operation.



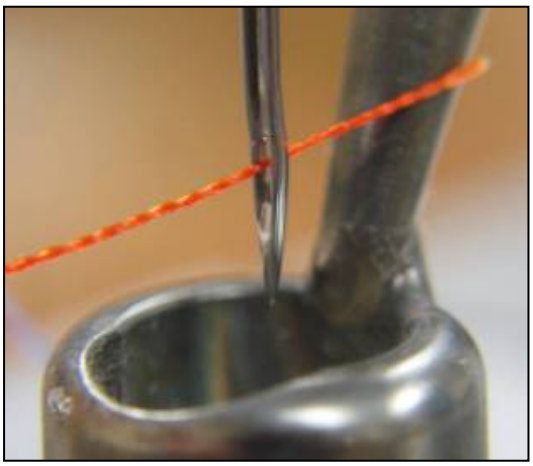
b. From the check spring on the tension disks, feed the thread down and under the L-shaped guide ("shepherd's hook"), up through the take-up lever and down through the side pig-tail thread guide as illustrated at right and below.

c. To insert the thread into the pig-tail guide, take the thread behind the guide on its rounded side, on the left. Next, grab the portion of thread that is coming down from the top and pull it forward past the sharp edge of the pig-tail guide, from the right. This will slip the thread inside the guide without having to poke it down into the guide.



Guide above needle shown; pull thread tail coming from spool around and past the wire tip

d. Take the thread through the front pigtail thread guide as you did in the step above, then through the needle, *front to back*. Make sure the needle is inserted correctly. You can either pass the thread inside and under the hopping foot at this point, or you can wait until your quilt is loaded and you take your first stitch.



e. One way to quickly change thread colors is to cut the thread currently being used just above the spool. Remove the spool and replace it with the new color. Tie the new thread to the old thread with an overhand knot.

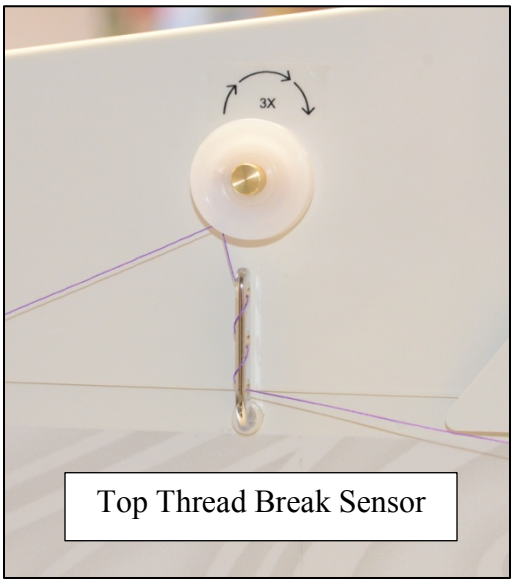
   Remove the old thread from the eye of the needle, and then pull on the old thread just above the needle until the new thread is tugged through all the thread guides (including the Top Thread Break Sensor Wheel) and the tension disks, up to the needle. Depending on the thread thickness, you may be able to pull the knot through the needle. If the knot doesn't fit, cut the knot off the thread and re-thread the needle.

   NOTE: take a moment to double check that the thread passed correctly through all thread guides, is correctly wrapped 3 times around the Top Thread Break Sensor, and is firmly pulled between the tension disks before sewing.

----------Low Bobbin Indicator Operation----------

The Low Bobbin Indicator is a wonderful way to monitor how much thread remains on your bobbin. However, it's important to remember that the indicator provides an *approximation* only.

The Low Bobbin Indicator works in conjunction with the Top Thread Break Sensor (see photo at right). **You MUST use the Top Thread Break Sensor together with the Low Bobbin Indicator or the Low Bobbin Indicator will not work.**



Top Thread Break Sensor

The Low Bobbin Indicator works by measuring how much thread travels through the Top Thread Break Sensor. In simple terms, if you use 10 yards of thread on top of the quilt, then you are also using 10 yards of thread on the back of the quilt.

However, many factors affect the accuracy of the Low Bobbin Indicator, including:

- Top and bobbin tension
- The method you use to start and stop your stitches (for example, how much bobbin thread you pull to the surface of the quilt independently from the top thread)
- Top thread breaks where you re-thread the top thread, pulling more through the Top Thread Break Sensor than the bobbin uses while stitching
- Changing the top thread (pulling more through the Top Thread Break Sensor) without pulling an equal amount of bobbin thread through at the same time)
- In essence, any situation where you pull more top thread through the Top Thread Break Sensor than you pull up from the bobbin, or vice versa.

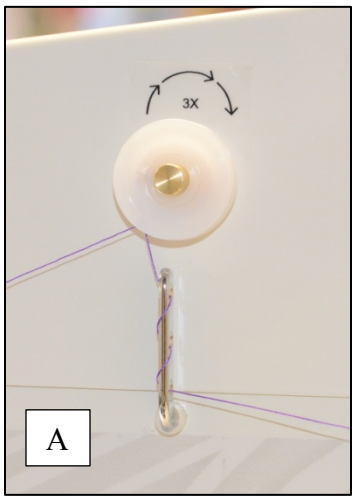
Your APQS machine does not "know" how many yards of thread are on the bobbin you are using. The thread yardage on a bobbin will vary by thread weight, thickness, and tension applied during the winding process. The yardage will also be affected by how soon your bobbin winder disengages.

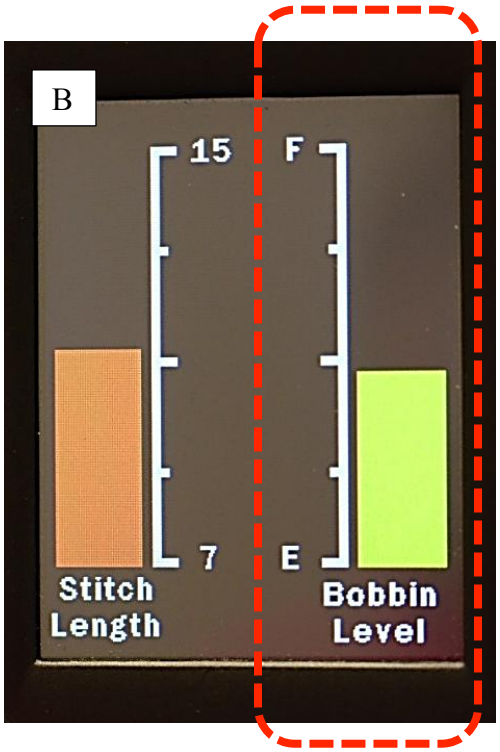
In concept, the low bobbin indicator on your machine works much like the gas gauge on your car. As you drive, the gas gauge shows you how much fuel is left in the tank. When it reaches a certain predetermined point, the car's low fuel indicator comes on to remind you to fill up soon.

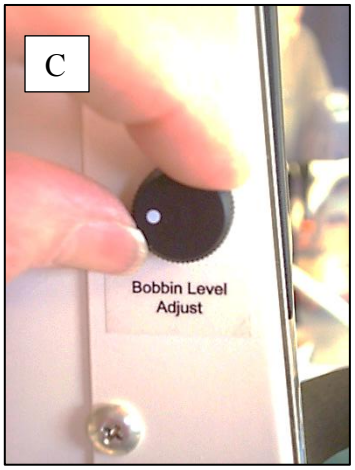
Many late model cars also come with an indicator panel that tells you how many miles you can drive before hitting "empty". It's up to you to determine how far you want to "push" that estimation before it's time to fill up the gas tank again. That reading is based on an average fuel consumption and is affected by how full your gas tank was to begin with. Therefore, you'll need to learn how much farther you can actually quilt (or want to "risk" quilting) once the low indicator triggers, based on experience and the type of thread you're using.

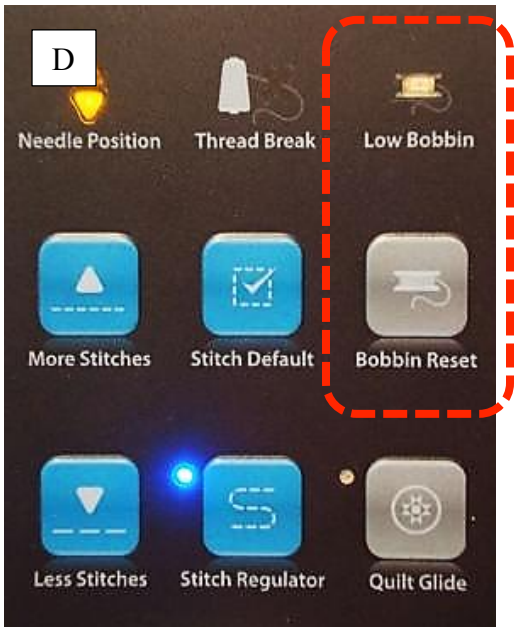
The Low Bobbin Indicator uses these parts on your machine:

1. Top Top Thread Break Sensor (Photo A)
2. Bobbin Level Gauge on the LCD Panel (Photo B)
3. Bobbin Level Adjustment Knob on the Left Side Panel (Photo C)
4. Low Bobbin Warning Light and Audible Signal (Photo D)
5. Bobbin Reset Button on the Touch Pad (Photo D)









Step 1: Set a Preliminary "Full Bobbin Level" for a Bobbin Style or Thread Type.

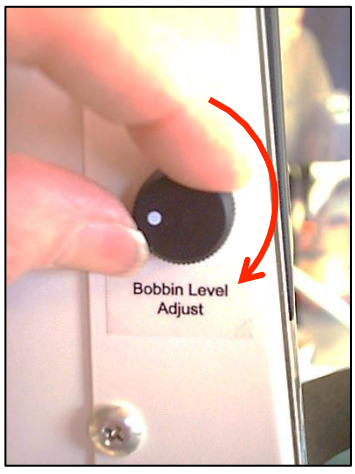
Note: Each bobbin type and thread type that you use will require a different "full level" setting on the low bobbin indicator gauge. For example, a prewound bobbin with 60-weight thread will have more yardage on it than a self-wound bobbin with 40 weight cotton thread. Once you determine a single "full level" for a given type of bobbin/thread combination, you can assume that any future bobbins you use with the same combination will have a similar approximate "full level setting". You will NOT need to repeat Steps 1-4 in this process unless you switch to a different type of bobbin or a different thread in the bobbin.

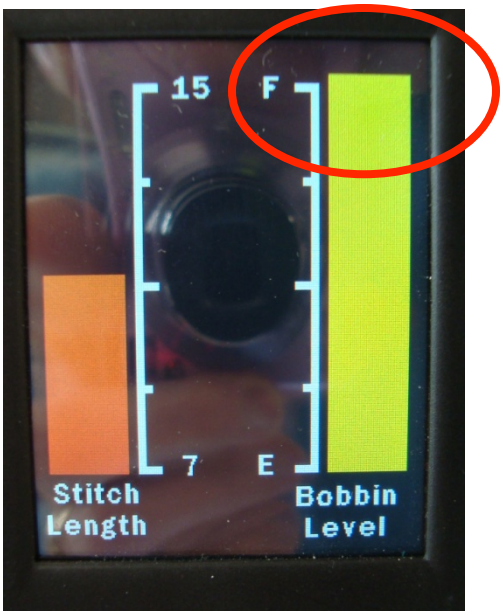
For example, if you complete Step 1 and determine the "full bobbin level" for a cardboard pre-wound bobbin, all bobbins of that type will use a similar setting.

1. Complete preliminary tension adjustments on the machine first, since thread tension will affect the sensor's accuracy. Use a bobbin that contains the thread type you wish to use and do some practice sewing on a sample piece, adjusting your tension on the top and bottom until you are satisfied with the stitches.

2. Insert a full bobbin containing that thread type into the machine.

3. Turn the "Bobbin Level Adjust" knob fully clockwise until the Bobbin Level Gauge reaches all the way up to the "Full" (F) mark on the LCD screen. (Note: M bobbin machines may have a different color Bobbin Level Gauge on the screen.)





Step 2: Quilt until you run out of thread on this first bobbin.

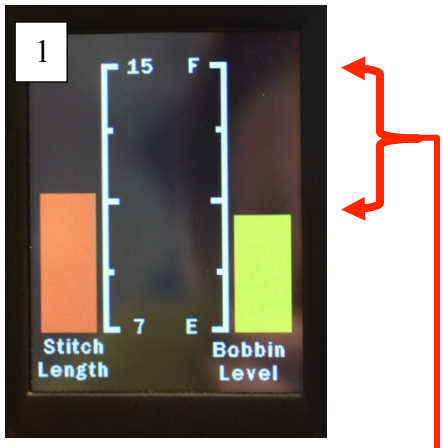
Yes, you read that right. ☺ The very first time you use a particular bobbin and thread type, you'll need to sew until you run DO out thread! Basically, you'll need to tell the machine how big your "gas tank" is---or how much thread happens to be on this particular bobbin. You must re-set where the new "full" line is for each new thread or bobbin style as described in the next steps. That means using a full bobbin and then sewing until it's empty. When it runs out proceed to Step 3.

Step 3: Re-set the "Empty Level" for your bobbin.

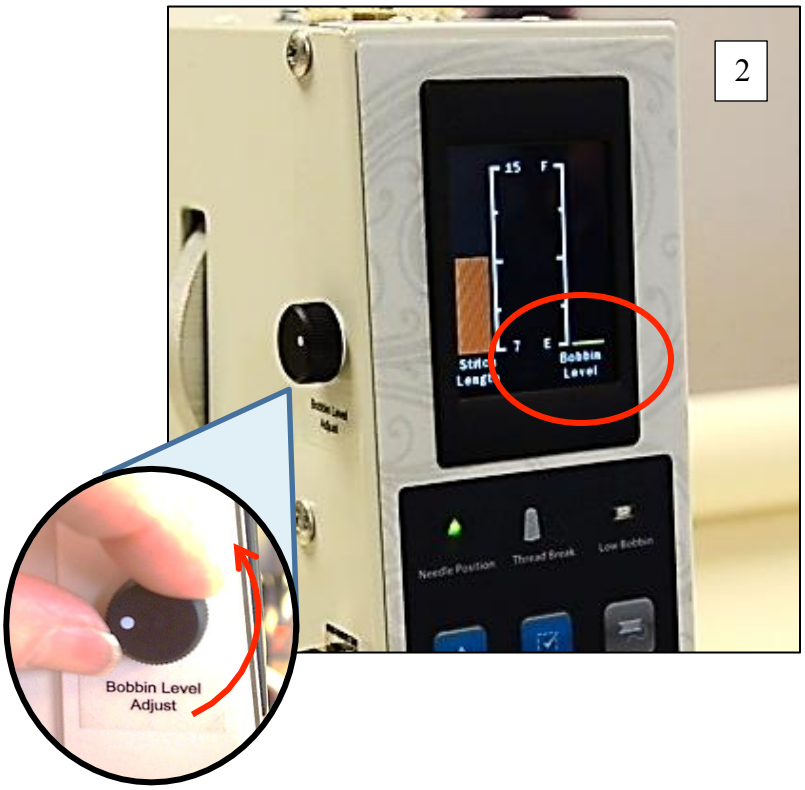
As you sew, the Bobbin Level Gauge on your LCD screen will fall. However, when you finally run out of thread in Step 2 with your first bobbin, the Bobbin Level Gauge will not typically be all the way down to the "E" (empty) mark on the screen (Photo 1 below).

Now that you've run out of bobbin thread, you need to adjust the Bobbin Level Gauge down to the "E" (empty) mark to match your newly empty bobbin. Rotate the Bobbin Level Adjust Knob counterclockwise this time until the Bobbin Level Gauge drops even with the "E" on the indicator bar as in Photo 2 below. Leave a little bit of the Gauge's colored line visible on the screen across from the "E" so that you are alerted in plenty of time.

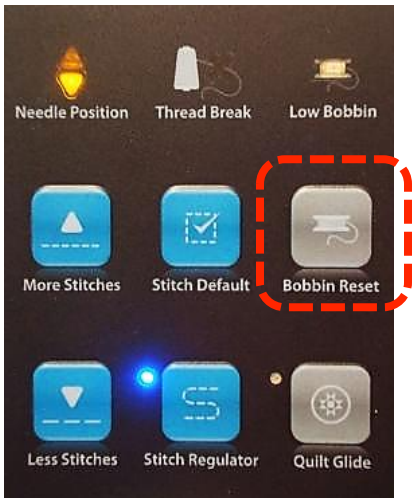
NOTE: It's possible to turn the Bobbin Level Adjust knob until the colored Bobbin Level Gauge becomes a very thin line and nearly disappears from the screen. Only turn it this far if you want to be alerted when the bobbin is very, very low and you are nearly out of thread. You may run out of thread before the indicator can alert you if this is set too low due to variables mentioned previously. If you'd like to be alerted sooner, be sure to leave a little colored portion of the Bobbin Level Gauge line visible as you see in Photo 2.



In this example, a full bobbin used up this much of the "gas tank" before it ran out of thread.



Step 4: Reset the "Bobbin Full" Level.



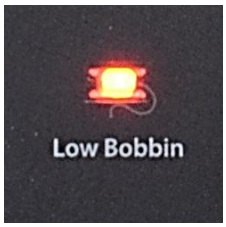
Touch the "Bobbin Reset" button on either the front or back Smart Touch Pad.

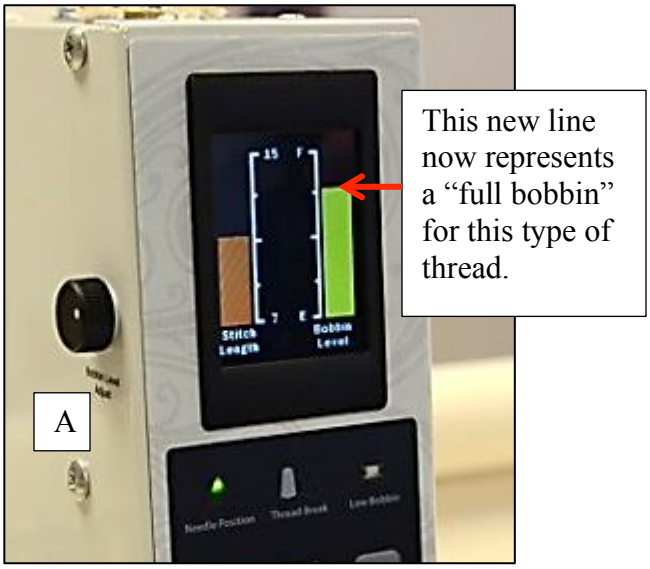
Now that the machine knows your bobbin is empty, it will adjust the "full level" to match the quantity of thread on the bobbin when you touch the Bobbin Reset button.

The Bobbin Level Gauge will jump up from the "Empty" setting, but the line will not be all the way up to the "Full" line this time. The top of the colored bar on the Bobbin Level Gauge now reflects a new "full" setting for this particular thread/bobbin combination (see Photo A below right).

Step 5: Quilt!

Quilt until you hear the audible "bobbin low" signal or you see the "low bobbin" light flashing on the Smart Touch Pad as shown below.





Step 6: Check the Bobbin.

When you hear or see the low bobbin alert, stop quilting and check the bobbin. You may decide to quilt for a little while longer depending on your project and the remaining thread on the bobbin, or you may choose to change it. Move to Step 7 when you actually decide to change the bobbin.

Step 7: Replace the Bobbin and Tap the "Bobbin Reset" button.

When you decide to replace your bobbin, use another full bobbin. Press the "Bobbin Reset" button on either the front or back Smart Touch Pad. The Bobbin Level Gauge will bounce back up again to the "full" level for that bobbin. (Continued on next page).

Repeat Steps 5 – 7 for each bobbin change.

You must hit the "bobbin reset" button every time you insert a new full bobbin, or the Low Bobbin Gauge will not work.

The only time you need to repeat Steps 1 – 4 is when you change to a different type of bobbin or bobbin thread. For example, if you only use pre-wound bobbins from one manufacturer exclusively, you'll never need to repeat Steps 1 – 4 to reset the initial "bobbin full" level, as long as you always replace the empty bobbin with a full one. However, if you switch to a different pre-wound bobbin manufacturer, you will need to start the process from the beginning to set the new "full level" for your new bobbin style.

Reminder: *Any time you change from one bobbin style or thread type to another, you must repeat Steps 1 – 4 to set the intial "bobbin full" level.*

Important Notes:

- *The Low Bobbin Indicator does NOT stop the sewing motor.* The machine will continue to sew even after the Low Bobbin Signal sounds and the indicator light flashes. You must manually stop the machine to check the actual bobbin level.

- If you use the same type of bobbins and bobbin thread a lot, you may want to place a mark along the outside edge of the LCD screen that identifies the "full" setting for that particular bobbin thread. (To avoid marring the surface of your machine, consider a non-permanent marking solution such as adding a piece of masking tape on which to write or mark.)

  If you change to a different bobbin thread, you'll need to start with Step 1 to reset your "bobbin full" level. However, once you return to your previous thread, you can simply turn the Bobbin Level Adjust Knob until the Bobbin Level Gauge is in line with your reference mark for that thread, and start with a full bobbin once again. You may have several different markings near your LCD screen that represent the "full bobbin level" for a number of different thread combinations.

- To make the low bobbin alert happen sooner (with more thread remaining on the bobbin), set the Low Bobbin Gauge indicator bar slightly ABOVE the "E" (empty) line on the LCD panel as described in Step 3 above.

- To make the alert happen later, set the Low Bobbin Gauge indicator bar BELOW the "E" (empty) line on the LCD panel as described in Step 3 above.

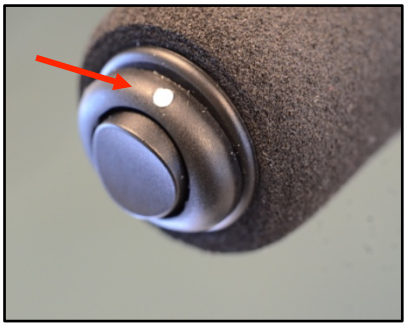
- Once you've set your "full level" initially for a particular bobbin style and bobbin thread type, you will not need to change the Bobbin Level Adjust Knob. The knob is only used when changing to a different bobbin thread.

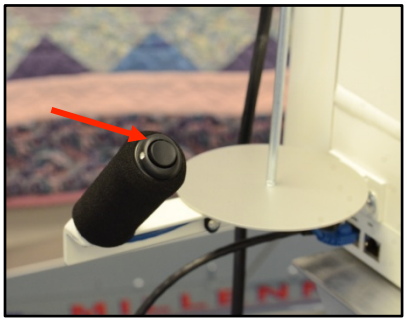
- If you use a partial bobbin instead of a full bobbin, the Low Bobbin Indicator will not be accurate.

----------Handle Switches----------

Each handle switch functions exactly the same way on your machine. The toggle switch on each handle performs two tasks as outlined below:

1. **Change the Needle Position and/or perform a Single Stitch.**





Quick Start Tip: *Tap the toggle switch toward the white dot on any handle to change the needle position.*

For example, if your needle is in the "UP" position, tapping the switch toward the white dot on ANY handle will move the needle to the "DOWN" position, or vice versa. The Needle Position indicator light on your machine's touch pad will tell you which position you currently have selected (see Photos A and B).

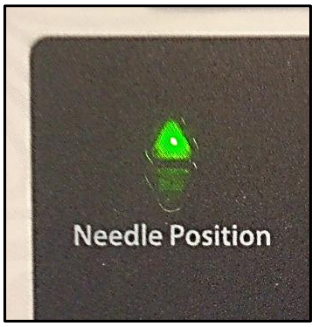


Photo A:
Needle will stop "UP"

Photo B:
Needle will stop "DOWN"

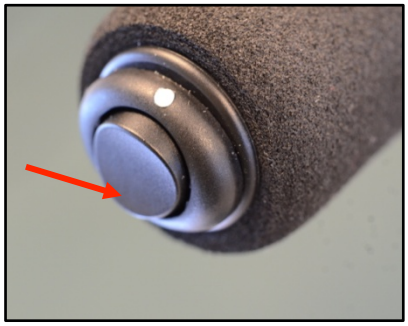
- If you start with the needle in the "UP" position and begin sewing, when you stop the machine and turn off the sewing motor (see toggle switch function #2 below) the needle will cycle back to the "UP" position.
- If you start with the needle in the "DOWN" position, the needle will cycle back to the "DOWN" position when you stop the sewing motor (see #2 on the next page).
- You can change your mind while you quilt! If you begin quilting with the needle in the "UP" position, and decide while you're quilting that you'd like the needle to end in the "DOWN" position, tap the toggle switch just once toward the white dot. Each tap alternates the "UP" and "DOWN" position. Watch the indicator lights on your machine's Smart Touch Pad to be sure the needle is set to stop where you want it to stop.

Single Stitch Tips and Securing Your Threads:

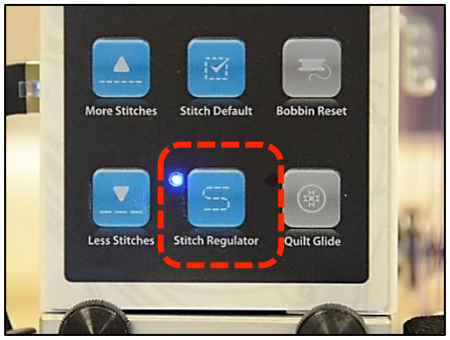
- Move the quilting machine to the location you wish to begin stitching. To bring up your bobbin thread, hold on to the top thread tail. Tap any handle toggle switch toward the white dot one time to move the needle into the fabric, and then tap once more to raise it up again. Move the machine slightly away from the needle hole and gently tug on the top thread tail. This will bring up a loop of bobbin thread. Grasp the loop and pull the bobbin thread tail to the surface of your quilt.
- With each tap of the toggle switch (toward the white dot on your handle), the machine will make a "half stitch". You may continue tapping the button to place precise stitches where you want them. You can also keep the toggle switch pressed toward the white dot rather than tapping it repeatedly. This will make the machine cycle through a complete "UP-DOWN" sequence so that you can make full stitches. Place these stitches very close together to secure your stitches. Place at least 8-10 stitches right next to each other for a firm, secure start.
- When you release the toggle switch, the machine will cycle the needle into the position indicated on the Smart Touch Pad. If you wish to change the needle position, tap the toggle switch toward the white dot once more.
- To end your stitches, stop sewing about ¼-inch away from your actual intended stopping point. Use the "Needle Up/Down" toggle switch again (press the toggle switch on any handle toward the white dot) to place very close stitches for securing the thread.

2. Activate the Sewing Motor.

Quick Start Tip: *Tap the toggle switch away from the white dot on any handle to start or stop the "sewing motor". Once the sewing motor is on, simply move the machine to begin quilting. Tap the toggle switch away from the white dot once more to stop the sewing motor and pause your quilting.*



- When you first turn on the power switch for your quilting machine, the machine will automatically power up in Stitch Regulated Mode at a preset stitch length. A blue LED light next to the "Stitch Regulator" icon on the Smart Touch Pad reminds you that the Stitch Regulator is active (see photo at right).



- In Stitch Regulated Mode, the machine will not start sewing until you press the sewing motor toggle switch on any handle, and then start moving the machine.
- If you stop moving the machine in Stitch Regulated Mode, but do not tap the sewing motor toggle switch, the machine is still active but will not stitch until you move it again. Tap the toggle switch on any handle away from the white dot to stop the sewing motor completely.
- You can place the machine in Manual Sewing Mode by tapping the "Stitch Regulator" icon on the touch pad. The blue LED light next to the icon will turn off, indicating that the

Stitch Regulator is no longer engaged. *In Manual Sewing Mode, the needle will immediately begin moving up and down at a constant speed when you tap any handle's toggle switch away from the white dot* (see "Manual Sewing Mode in the next section for more information). Tap the toggle switch again to turn off the sewing motor.

- The default stitch length is preset at the factory for a medium-length stitch. However, you can easily change the default to suit your preferences. See the instructions on Page ??? to learn how to change the default stitch length.

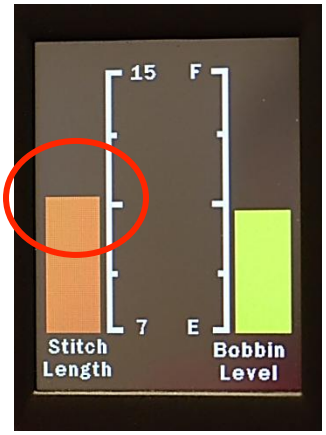
----------Manual Sewing Mode Operation----------

Your Millennium or Freedom machine will power up in Stitch Regulated mode each time you turn it on. The blue LED light next to the Stitch Regulator button will illuminate when the Stitch Regulator is engaged.

Some quilters prefer to use the manual sewing mode for certain quilting techniques such as stitching in the ditch or background quilting, especially if they did not purchase the optional Quilt Glide feature. You will need to experiment to discover what works best for your style of quilting.

To put the machine in manual mode, simply tap the Stitch Regulator button one time. The blue LED light will disappear, signaling that the machine is now in Manual Sewing Mode.

When you tap one of the handle buttons to start the sewing motor, the machine will immediately begin stitching at whatever motor speed corresponds to the stitch length you had previously selected. Take a look at the Stitches Per Inch (SPI) gauge on the LCD screen shown at right. The "Stitch Length Gauge" currently lines up with the middle mark on the gauge, right at about 11 stitches per inch—half way between the minimum of 7 SPI and the maximum of 15 SPI.



When you tap the Stitch Regulator button on the LCD screen to turn of the Regulator, that same "Stitch Length Gauge" now refers to your *motor speed.* Since the Stitch Length Gauge is right in the middle of the graph, your motor is set at a "medium" sewing speed. The needle moves at a constant speed and will not stop until you tap the sewing motor button on any handle.

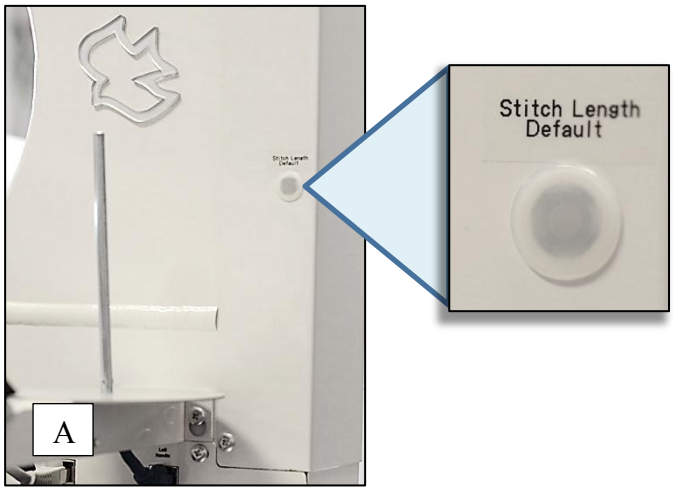
You can adjust the motor speed by tapping the "More Stitches" button to make the needle go faster, or "Less Stitches" button to slow it down.

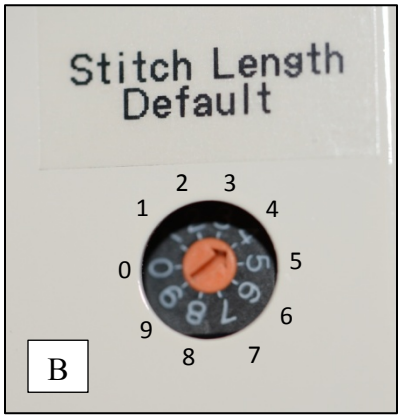
When you re-engage the Stitch Regulator by tapping the Stitch Regulator button, the stitch length will correspond to wherever you have the "Stitch Length Gauge" set on the LCD panel. For example, if you are sewing in manual mode and you slow the sewing motor down until the Stitch Length Gauge is near the 7 on the LCD screen, your stitches will now be 7 SPI when you tap the Stitch Regulator button and put the machine back in regulated mode. *To return to your favorite stitch length, tap the "Stitch Default" button on the Smart Touch Pad.*

----------Changing the Stitch Length Default Setting----------

Your APQS machine comes from the factory with the Stitch Length Default set at 11 stitches per inch. This is the most common stitch length our customers seem to prefer. However, you can easily change the default to suit your own personal preferences. *NOTE: The Stitch Length Default also sets a "default" motor speed when the machine is in manual sewing mode. This will also change if you adjust the Stitch Length Default setting.*

1. Locate the Stitch Length Default adjustment module on the rear of the machine, near the thread stand on the left rear handle (Photo A). Remove the protective plastic plug to access the adjustment module.





2. Inside the hole you'll see the adjustment module as shown in Photo B above. The arrow in the center points to a number corresponding to a stitch length setting. To change the setting from the factory default of 11 stitches per inch (number 4 on the module), insert a small flat blade screwdriver into the slot on the arrow indicator. Rotate the center arrow portion to a different number on the dial. Use the chart at right for reference. Replace the protective cover.

Module Seting	Default Stitches Per Inch Desired	Manual Motor Speed Default
0	7	None
1	8	Very Slow
2	9	Slow
3	10	Medium
4	11	Medium
5	12	Medium-High
6	13	High
7	14	High
8 & 9	15	Full Speed

3. When you turn on the machine, it will automatically power up in stitch regulated mode and will default to your new stitch length setting. You can still manually change the stitch length and override the default setting by tapping the "More Stitches" or "Less Stitches" buttons. To return to your default setting, tap the "Stitch Default" Button.