



LEARN & CREATE

with Baby Lock



Getting to Know Your Baby Lock Rachel

Congratulations on the purchase of your Baby Lock Rachel! Get acquainted with your machine from top to bottom in this class with instructor, Sara Gallegos. You'll go over the parts of the machine, threading, settings, and the accessories that come with the machine & how to use them!

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Wind a Bobbin

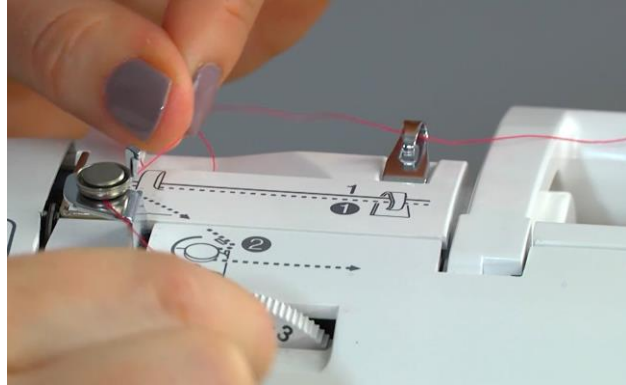
1. A Quick Reference Guide is included with the Rachel



- One side shows how to wind the bobbin
 - The other side of the guide shows how to thread the machine
2. The spool pin on the top of the Rachel is hinged so it can swing up to make it easier to place the spool of thread on the spool pin
 3. Place a spool cap on the spool pin
 - Several different size spool caps are included with the Rachel
 - Use the spool cap that is closest to the size of the thread spool
 - Push the thread cap snug against the top of the spool so the spool does not move around on the spool pin while you are sewing.
 - If the spool has any notches or rough spots, it is important to use a spool cap that is larger than the spool, so the thread is guided away from the rough edge of the spool
 4. The Rachel uses a class 15 Baby Lock bobbin and additional bobbins are available from your Baby Lock retailer
 - Note that you will always get the very best results with a genuine Baby Lock bobbin
 5. Place an empty bobbin on the bobbin winder at the top right side of the Rachel
 6. Turn the bobbin until you hear a click
 - The click is a small spring which holds the bobbin straight as the thread is wound
 7. When threading the Rachel, you will follow a numbered path and there are two different paths on your Rachel
 - The path marked with a solid line is the path used when threading the needle



- The path marked with a dotted line is the path used when winding a bobbin
- To wind the bobbin, place the thread in the thread guide, and then around the thread guide with a tension disk
 - Use two hands when guiding the thread under the tension disk so the thread is seated firmly under the disk
 - Guide the thread to the bobbin and wrap the thread two or three times clockwise around the bobbin
 - Use the thread cutter on the base of the bobbin winder to cut the thread tail



- The end of the thread will be secured by the cutter while the bobbin is wound
- Push the bobbin and the bobbin winder to the right
 - Step on the foot control and the bobbin will be wound
 - You can adjust the speed by using the speed control slide on the front of the Rachel



- The slide controls the maximum speed of the Rachel for both sewing and bobbin winding
 - Move the slide to the left for a slower speed
 - Move the slide to the right for a faster speed
- When the bobbin stops turning, it is full, and it is time to take your foot off the foot control
 - Move the bobbin winder back to the left and you will hear a click as the bobbin winding motor is disengaged
 - Lift the full bobbin off the winder and use small scissors or the thread cutter in the base of the bobbin winder to cut the thread

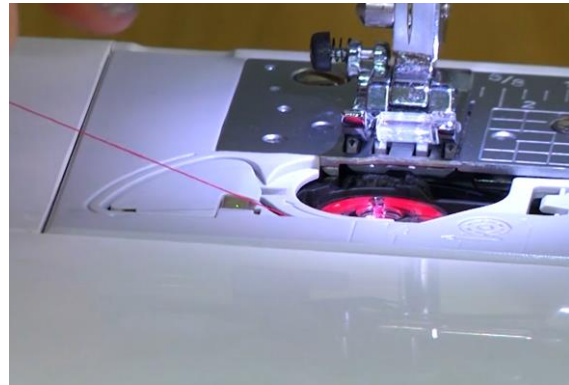


Place the Bobbin in the Bobbin Case

1. Push the lever to the right and the bobbin cover will pop up so it can be removed



2. Hold the bobbin so the thread is going counter clockwise and the thread tail is on the left
3. Drop the bobbin into the bobbin case
4. Pull the thread tail into the channel and follow the arrows to the end of the channel
5. At the end of the channel, a thread cutter will cut the thread tail to the perfect length, so you will not need to pull the bobbin thread up before you begin to sew.
6. Place the bobbin door back on the machine
7. Slide the left side of the bobbin door into the opening, and push down on the right side of the door until it clicks.



Threading the Rachel

1. One of the most important things to do when threading your Rachel is to put the presser foot UP
 - When the presser foot is up, the tension disks open
 - The open tension disks allow the thread to set in between the tension disks
 - When the foot is lowered for sewing, the tension disks can then grasp the thread and give you perfect tension
2. Follow the numbered path shown by a solid line
3. The first thread guide is the same guide on the top of the machine that was used for bobbin winding



4. The thread does not go in the tension guide that was used for bobbin winding
5. After the thread guide, the thread goes into the channel that goes down the front of the Rachel
6. At the bottom of the channel the thread makes a U-turn and goes back up the channel on the left
7. At the top of the left channel the thread goes up and over the take-up lever
 - The take-up lever is the silver piece that goes up and down as you are sewing
8. The thread then goes back down the left channel toward the needle
9. The thread goes behind the thread guide just above the needle
 - That thread guide is open on the right side, so hold the thread in two hands and place the thread behind the guide from right to left

The Baby Lock Rachel has a built-in needle threader.

1. It is important when using the needle threader that you have the needle at its highest position
 - There is a tiny hook on the needle threader that pulls the thread through the eye of the needle
 - The hook will be perfectly lined up with the eye of the needle and will not be bent if the needle is at its highest position



2. There is a registration mark on the hand wheel that can be used to position the needle at the correct height
3. But the easiest way to position the needle correctly is to use the Needle Up/Down button



on the front of the Rachel

- Simply touch the button two times to move the needle to its lowest position and then to move it to the highest position
4. Lower the presser foot

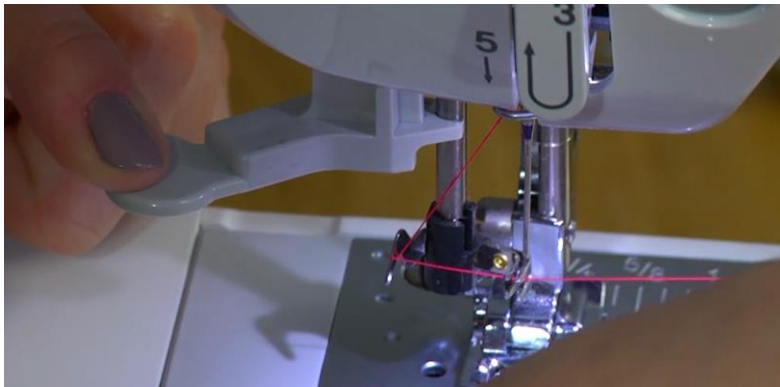


5. Hold the thread under the large hook on the needle threader as you push the needle threader tab down so the thread is caught under the large hook
6. The needle threader swings into place behind the needle and a tiny hook

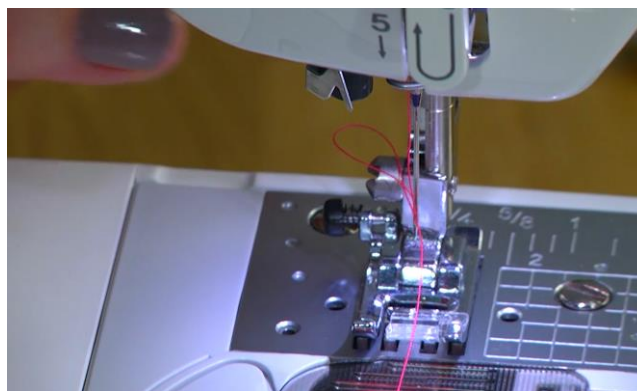


is inserted into the eye of the needle

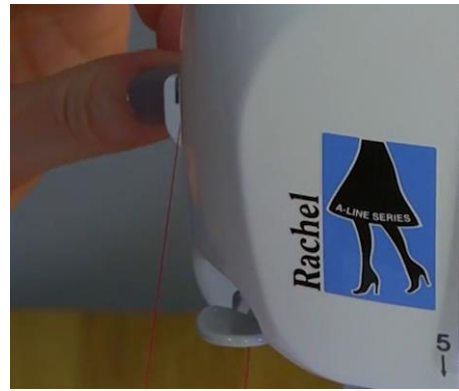
7. Bring the thread to the right and place it under the needle threader hook on the front side of the needle
 - Note that the needle threader is being held down at the same time



8. Release the needle threader and a loop of thread is pulled through the eye of the needle
9. Grasp the loop at the back of the needle and pull the thread tail through the eye of the needle
10. Lift the presser foot and place the thread under the foot



11. If the thread tail is too long, you can cut it with the thread cutter on the left side of the machine.
12. And you are ready to stitch.



Tour of the Rachel



Start/Stop button

1. The Start/Stop button can be used to run the machine instead of using the foot control
 - If you want to use the Start/Stop button, the foot control must be unplugged
 - Touching the Start/Stop button when the foot control is plugged into the machine will result in an error message
 - You will find a list of the error messages in your Instruction Manual
2. Unplug the foot control, and the error message disappears
3. Place your fabric under the presser foot
4. Touch the Start/Stop button to sew
5. Touch the same Start/Stop button again to stop sewing



6. The speed control lever  on the front of the Rachel can be used to set the speed




Reverse button


7. The Reverse key is on the front of the Rachel just above the Start/Stop button
8. The Rachel will sew in reverse as long as you press the reverse key and sew forward when you release the key.
9. The Needle Position key (Needle Up/Down) can be used to move the needle to the down position or to the full up position
10. When sewing with the Rachel, the default is for the machine to stop with the needle down so it is easy to pivot and turn corners.



11. If you would like to reset the machine to default to a needle up position:

- Turn the machine off
- Hold down the Reinforcement key  while you turn the machine back on and the default is changed from down to up

12. To return to the original needle down default repeat the process:

- Turn the machine off
- Hold down the Reinforcement key  while you turn the machine back on and the default is changed from down to up

Foot Control

1. Plug the foot control into the jack on the right side of the machine
2. You will find that because the Rachel is an electronic machine, you have a lot of control with your foot control.
3. If you need just one more stitch, tap the foot control and the machine will sew just one more stitch

Needle Position Button (Needle Up/Down)

1. The Needle Up/Down button moves the needle the best way to bring the needle up out of the fabric at the end of a seam
2. Touch the button to cycle the needle to the full up position and it is easy to remove the fabric and cut the thread tails with the cutter on the left side of the machine.

Tension Dial

1. The tension dial is on the top of the Rachel
2. You will be able to sew most fabrics without needing to make tension adjustments
3. The default setting of 4 will work for most things
4. However, with some specialty techniques you may want to make tension adjustments
 - For instance, if you are sewing with invisible monofilament thread, you may find that the tension needs to be set at a lower number

Selecting a Stitch Pattern

The LCD screen and the stitch pattern display on the front of the Rachel are designed to make it very easy to access the stitch patterns.

Recommended Presser Foot

1. Just above the LCD screen there is a picture of a presser foot



- The letter on the LCD screen just below that image is the recommended presser foot for the selected stitch pattern



- In the image above, the selected stitch is a straight stitch and the recommended presser foot is the J foot

Selecting a Stitch Pattern

- All the stitch patterns are shown on the front panel of the Rachel and it is easy to select your desired stitch.
- Each stitch pattern is numbered
- Find the stitch you want among those displayed on the front of the machine
- The stitch number is shown above the stitch image
- Turn the dial on the front of the machine to the desired number
 - The dial can be turned in either direction



Stitch Length



1. The LCD screen changes to show the settings for the selected stitch pattern
2. The recommended presser foot for this stitch is the N foot
3. The Stitch Length is displayed in the upper right corner of the LCD screen and is currently set at 3.0 for this stitch
 - The dashed line above the LCD screen is designed to show that this number is the stitch length of the selected stitch pattern
 - The stitch length can be changed by touching the plus and minus



on the button to the right of screen

- If you touch the button one time too many and try to make the stitch either longer or shorter than the maximum setting, the machine will beep to signal that you have reached the limit

Stitch Width

4. The Stitch Width is displayed in the lower right corner of the LCD screen and is currently set at 6.0 for this stitch
 - The zig zag line below the LCD screen is designed to show that this number is the stitch width of the selected stitch pattern
 - The stitch width can be changed by touching the plus and minus on



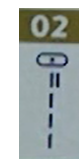
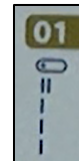
the button to the right of screen

- If you touch the button one time too many and try to make the stitch either narrower or wider than the maximum setting, the machine will beep to signal that you have reached the limit
- The maximum width for stitches on the Rachel is 7mm

Straight Stitch Patterns

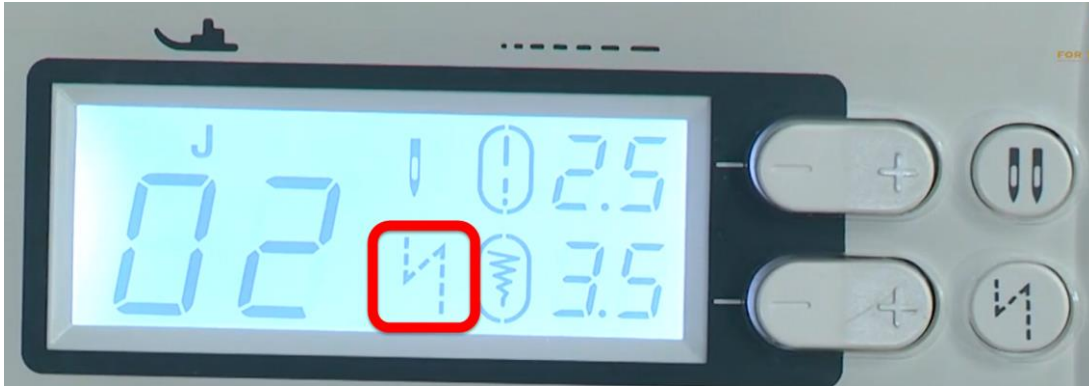
There are two different straight stitch patterns in the Baby Lock Rachel

1. Stitch number 01 is a left justified straight stitch
2. When you sew a straight stitch with stitch 01, the needle will be at the left side of the opening in the presser foot
 - If you are stitching on specialty fabrics and having trouble with skipped stitches, using the left needle position can help
3. Stitch number 02 is a straight stitch with the needle in the center needle position
4. The two different straight stitch patterns gives you a choice.

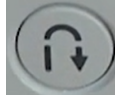



Tie-Off

1. If you press the Tie-Off button  at the right side of the screen, the same icon shown on the button appears on the LCD screen



2. When the tie-off button is pressed, the machine will automatically back stitch at the beginning of the seam
 - You will not have to hold down the Reverse key for back stitching at the start of the seam
 - The machine sews three stitches forward and back and then continues sewing the seam

3. At the end of the seam, simply touch the Reverse button  and the Rachel will automatically back stitch.
 - A simple touch tells the Rachel that it is time for the back stitch
 - You will not have to hold the button while the back stitch is sewn
 - The machine sews three stitches backward and forward and stops automatically

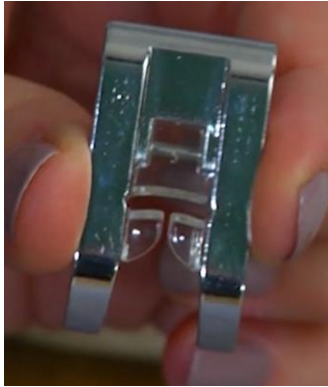
4. Touch the Needle Position button  to bring the needle up
5. Lift the presser foot
6. And you will be able to remove the fabric and cut the thread tail with the cutter on the left side of the Rachel

The N Foot

1. Select stitch 29
2. The LCD screen shows that foot N is the best foot to use for this stitch pattern



3. The N foot has a clear center and a nice open toe so it is easier to see exactly where your stitch is being sewn



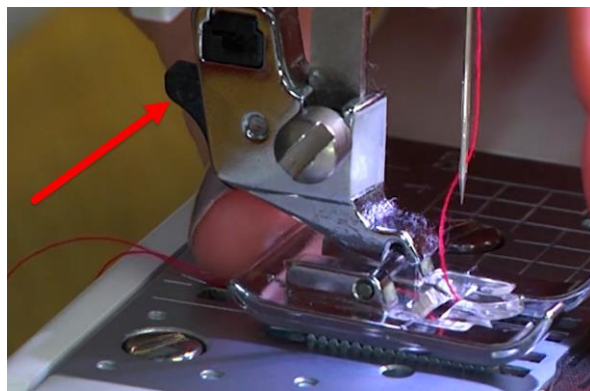
4. The bottom of the N foot is important also
5. A carved-out channel on the bottom of the N foot is designed to allow the built-up thread of decorative stitches feed smoothly under the presser foot

Note: when sewing decorative stitches, add a layer of stabilizer under the fabric for the best results. The support provided by the stabilizer keeps the fabric flat and smooth as the decorative stitches are sewn.



J Foot

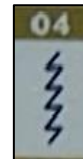
1. Place the J foot on the Rachel
2. To change the foot:
 - Lift the presser foot
 - Push the black button on the back of the presser foot holder and the presser foot is released so it can be removed
 - Place the new foot under the presser foot holder so the bar on the foot is under the clamp on the presser foot holder



- Lower the presser foot lever and the presser foot holder will snap onto the bar on the foot

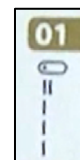


3. Select stitch number 04
4. This stitch is sometimes called the lightning stitch because the shape of this narrow zig zag stitch looks like lightning
5. The lightning stitch is designed for seaming stretch knit fabrics
6. Place two pieces of knit fabric right sides together and sew a seam
7. This very narrow stitch looks almost like a straight stitch, but the narrow zig zag stitching can stretch without breaking
8. When seaming stretch knit fabrics, it is important to have a seam that can stretch with the fabric



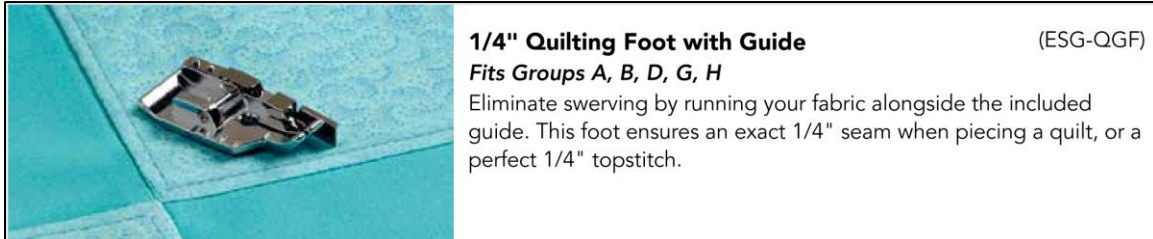
Seam Allowance Markings

1. All the seam allowance markings on the needle plate are measured from the left needle position
2. There is a $\frac{1}{4}$ " marking on the grey plastic in front of the bobbin door and that mark can be used to sew a perfect quarter inch seam using stitch 01 with the needle at the left
3. You will also find a 1-inch marking on the grey plastic



4. Additional seam allowance markings are on the metal portion of the needle plate

Note that if you are working with a quarter inch piecing foot, you will need to use stitch 02 with the needle in the center needle position. There is a guide on the foot that makes it easy to sew a perfect $\frac{1}{4}$ inch seam. The quarter inch piecing foot shown below is available from your Baby Lock retailer



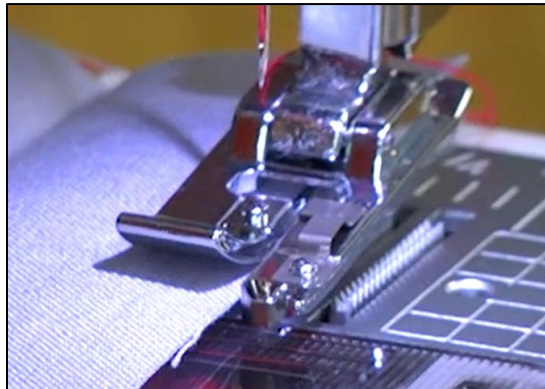
There is also a piecing stitch in the Rachel.

1. Select stitch 15
2. The letter P stands for Piecing
3. When stitch 15 is selected, the needle moves so it is exactly $\frac{1}{4}$ " from the right edge of the standard J foot
4. Stitch 15 allows you to sew a $\frac{1}{4}$ " seam without changing to a special foot.



Overcast Seam Finish

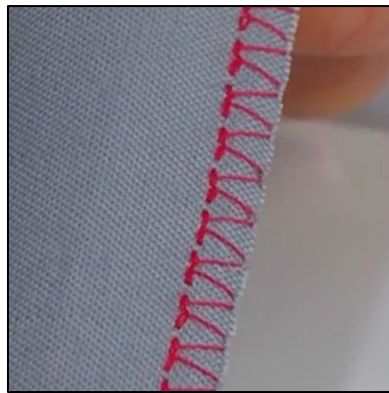
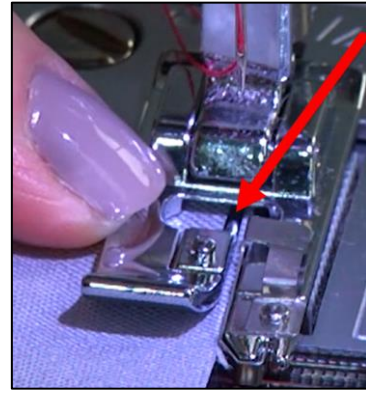
1. Select stitch 08 overcast stitch
2. The display on the LCD screen recommends changing to the G foot
3. The long toe on the right side of the G foot is designed to function as a guide
4. Place the fabric under the foot so the raw edge of the fabric is aligned with the inside edge of the right toe on the presser foot



5. If you look closely at the G foot, you will also see that there is a finger in the center of the foot.



- That finger provides support, so the edge of the fabric stays flat and smooth while the stitches that wrap the fabric edge are sewn
6. As you sew with foot G, the needle will swing left and right and stitches will stretch across the finger.
 7. As the fabric moves forward the stitches slide off the back of the finger
 8. The overcast edge protects the raw edge of the fabric, so it will not ravel when the garment is worn and washed
 - Use this stitch to finish seam allowances or use it as Sara did to finish the top edge of a hem

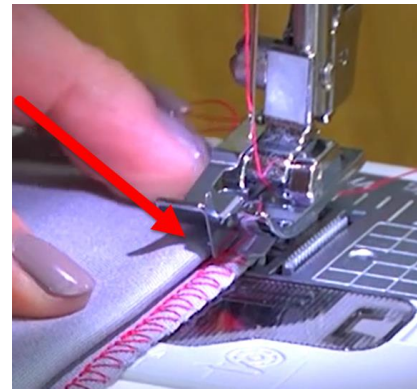


Blind Hem

1. Select Stitch 11
2. The display on the LCD screen recommends changing to the R foot
3. Fold the hem to the outside of the garment
 - The blindhem stitch is sewn along the inside edge of the hem
 - The garment fold is at the left and the bulk of the garment is also on the left
 - The overcast edge of the hem is on the right
4. Position the fabric under the R presser foot so the fold is aligned with the left side of the guide on the foot
5. The blindhem stitch takes several straight stitches along the hem and then swings to the left to catch the fold.



6. The needle then swings back to the right to sew several straight stitches along the hem.
7. When the hem is unfolded, you can see the tiny stitches where the needle caught the fold
8. Sara used a contrasting thread, so you would be able to see in the video how it all works, but you will want to use a thread that matches your fabric for an invisible hem



Rachel has another blindhem stitch

1. Stitch 12 is a stretch blindhem stitch
2. The stitches that sew along the edge of the hem are narrow zig zag stitches instead of straight stitches
3. Those narrow zig zag stitches allow the hem to stretch with the knit fabric



Create Piping with the Zipper Foot

1. Select stitch 02
2. The zipper foot is a double-sided foot
 - It can be attached to the presser foot holder on either the left or the right
 - That allows you to sew with the needle on either the left or right side of the foot
 - That is helpful depending which side of the zipper you want to stitch
3. The zipper foot can be used to sew beautiful zippers, but it is also useful for creating custom piping
4. Place the zipper foot on the machine
 - Place the foot so it is on the left side
5. You will need piping cord and a narrow strip of fabric



6. Fold the fabric with the cord in the fold



7. Place the fabric under the presser foot with the left side of the foot snag against the piping cord
8. Check the needle position
 - Turn the handwheel toward the front of the Rachel to slowly lower the needle
 - The needle should be close to the cord but should not stitch through the cord
9. If the position of the needle needs to be adjusted:

- Bring the needle back to its highest position by touching the Needle

Position button



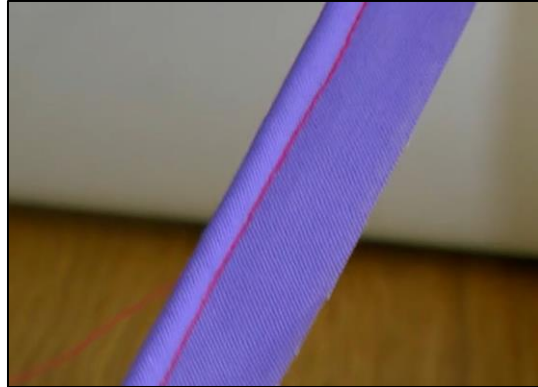
- On a straight stitch pattern, the Stitch Width setting changes the needle position
- Touch the minus key to move the needle to the left or the plus key to move the needle to the right



10. Sara used the minus key to move the needle to the left
11. As you sew, keep the raw edges of the fabric aligned, and make sure the piping cord stays tucked into the fold of the fabric

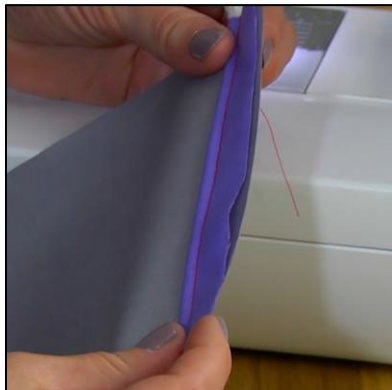


12. And you can easily create custom piping for your next project.



Inserting Piping in a Seam

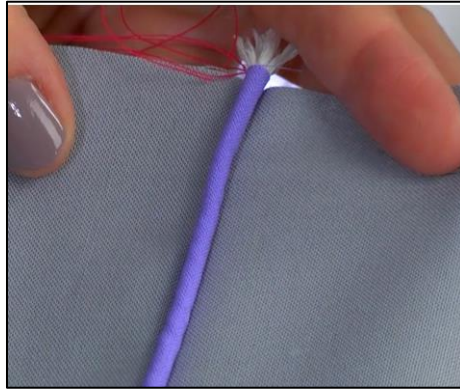
1. The piping will be sandwiched between two layers of fabric
2. Align the raw edges of the piping fabric with the edge of the seam allowance



3. Place the second piece of fabric over the piping and fabric
4. If desired, the layers can be secured with pins or with Wonder Clips
5. Position the seam under the zipper foot
6. The piping cord should be against the right edge of the zipper foot just as it was when the piping was created
7. Stitch the seam
8. As you can see in the picture, Sara used her fingers to feel the piping cord, so it could be guided next to the zipper foot



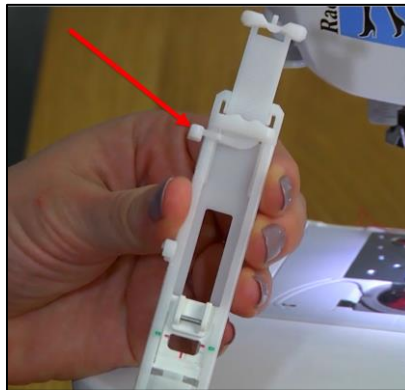
9. When the seam is opened, the fabric covered cord creates a beautiful piped seam



Buttonholes

The Rachel has several built-in buttonholes and it comes with a buttonhole foot that makes it easy to create the perfect size buttonhole.

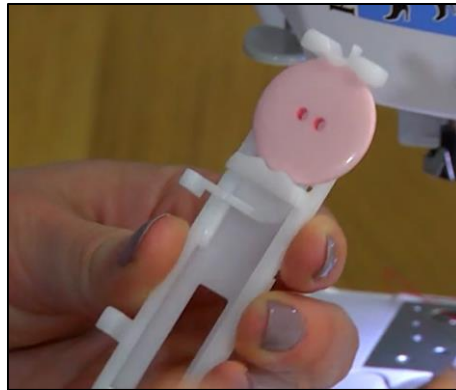
1. Push the tab on the left side of the buttonhole foot toward the back of the foot and the button rest slides open



2. Place the button in the opening and push the back of the foot to close it snugly around the button



- If your button has a shank, simply put the button upside down in the back of the foot

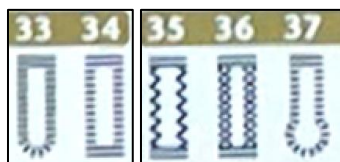


3. The Rachel will sew a buttonhole that is the perfect size for the button you inserted at the back of the foot
4. Attach the buttonhole foot to the presser foot holder with the button at the back
 - When you raise the presser foot on the Rachel, it has a normal stop point
 - If you lift and hold, you can lift the presser foot holder higher than the normal stop position
 - That extra lift can help when you are trying to position the buttonhole foot, so it can be attached
5. Pull down the buttonhole lever on the left side of the foot
 - The buttonhole lever is behind the needle threader
 - Pull it straight down to sit behind the tab on the side of the foot
 - The two tabs on the side of the buttonhole foot and the buttonhole lever are used to signal the Rachel and control the length of the buttonhole so it fits your button
6. Place the fabric under the presser foot



There are several styles of buttonholes in the Rachel

1. You will be able to select the perfect style buttonhole for your project



2. Sara selected stitch 33

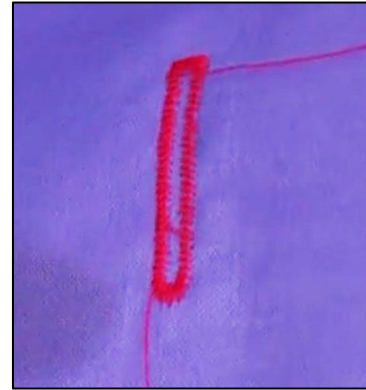


3. Lower the presser foot and you are ready to sew
4. The Rachel will lock the stitching and sew the entire buttonhole in one step
5. If you want to make it really easy, unplug the foot control and use the Start/Stop button



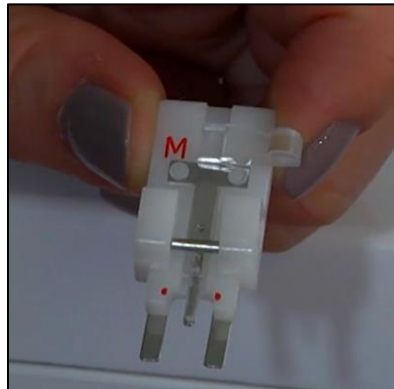
to run the Rachel

- Touch the button to start the machine, and it will sew the buttonhole and stop automatically
6. To complete the buttonhole, carefully cut between the lines of stitching to open the center of the buttonhole



Sewing Buttons

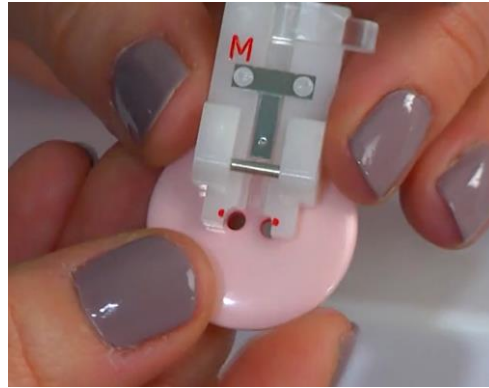
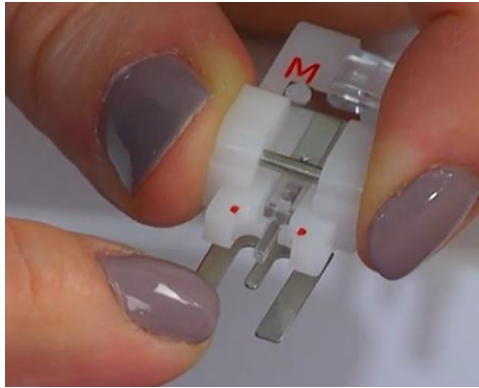
1. The M foot is designed for sewing buttons



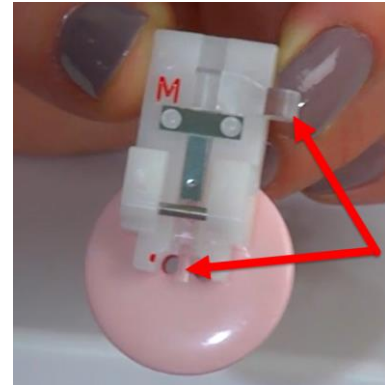
2. The design of the M foot is designed to handle two different challenges that can make sewing on buttons difficult
3. It can be challenging to keep the button from slipping while you are trying to sew into the holes on the button and the M foot opens to allow you to slip the button into the foot



- The end of the foot opens so the button can be slipped into place and be securely held by the foot



- Line up the holes in the button with the red dots on the M foot
 - The red dots show where the needle will be sewing
 - If you have four holes in your button, line up the bottom holes first and you will be able to reposition the button to sew the top holes after the bottom holes are stitched
4. The second thing the M foot can do for you is to create a thread shank so it will be easier to put the button through the buttonhole
- If the button is stitched too tightly to the fabric, it is really hard to button the garment.
5. If you slide the lever on the right side of the foot toward the front of the foot, a clear finger slides forward to sit between the holes of the button
- That clear finger creates the needed slack in the stitches to allow for space between the button and the fabric



To sew the button:

1. Remove the buttonhole foot and push the buttonhole lever back up
2. Lower the feed dogs
 - Move the lever on the back of the free arm to lower the feed dogs
3. The button will be stitched with a zig zag stitch and we want it to sew back and forth in one place
 - Lowering the feed dogs sets the machine so it will not move the fabric allowing us to sew in one place
4. Select stitch 05 zig zag stitch





5. Turn off the Tie-Off by touching the button at the right of the LCD screen
6. Attach the M foot to the presser foot holder
7. Place the fabric under the presser foot
8. The holes in most buttons are 4mm from center to center, so if you set the stitch width to 4.0 it should be a good width for sewing your button
9. Carefully turn the hand wheel toward the front of the machine to confirm that the needle enters the holes of the button and does not hit the button
 - Continue to turn the hand wheel until you have confirmed that the needle is lined up with both holes
 - If needed, you can adjust the position of the button, so everything lines up
 - Or you can change the stitch width if needed to match the spacing of the holes in your button
10. When everything is lined up, go ahead and sew 6 to 8 zig zag stitches
11. Bring the needle back to its highest position by touching the Needle

Position button



12. Remove the fabric by bringing it toward the front of the machine so the stitches slide off the finger in the center of the foot
13. When you cut the threads, leave a nice long thread tail
14. To create a thread shank:
 - Thread the tails into a hand sewing needle
 - Use the needle to pull the thread tails to the space between the button and the right side of the fabric
 - Wrap the thread tails several times around the threads under the button
 - Then use the needle to pull the thread tails to the wrong side of the fabric
 - Tie the tails off on the wrong side of the fabric

