

Singer 2263 & Brother XL2600i Sewing Machines

Training Manual

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When & Why Use a Sewing Machine?

Prototypes are great for validating and iterating on your preliminary concepts. These include:

- Proof-of-Principle Prototype (some but not all functional aspects of your design)
- Visual and/or Form Study Prototype (size and appearance, but not functionality)
- User Experience Prototype (captures enough to support user research)
- Functional Prototype (function and appearance - not necessarily in final materials or scale)

When things need to bend, mold to a shape, have flexibility, be attached and undone, and be opened or closed - cloth prototypes can be a good early prototype material approach to test your concept.

Safety Basics

WARNING: Danger of finger puncture is serious! Receive medical attention if you are injured, and report any injury that occurs based on the departmental protocols.

Needles can break, and needle pieces can fly, always use caution when operating machinery.

Sewing Basics

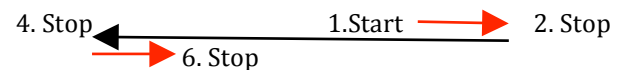
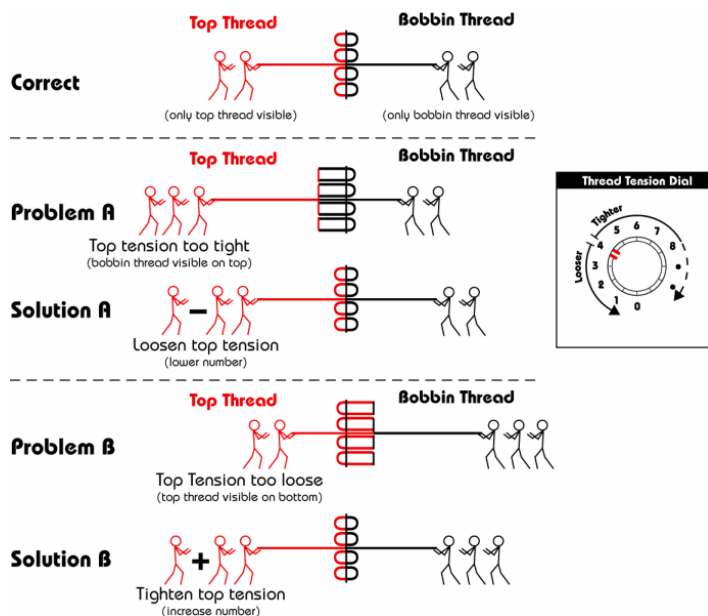
A few factors to keep in mind:

- Weight of fabric - thickness of cloth
- Stretchiness of fabric - lengthwise, widthwise and diagonally
- Fiber content - Natural, manmade, cleanability, treatability (waterproof, etc)

When in doubt or trying for the first time, start with medium weight fabric, medium stretchiness, medium stitch length setting, and a “stretchy stitch” to avoid ripping your stitches. Measure twice, do once, and try your stitch on a test piece of cloth first to make sure the settings are doing what you wanted.

Stitch length will also be related to the speed at which you guide the cloth.

To make sure that your stitches hold - double back over the two ends! (See figure below)



The Singer 2263

Intro to the Singer

The basics to get you started are in this Quick Start Manual. Seeing it in action can be very helpful too.

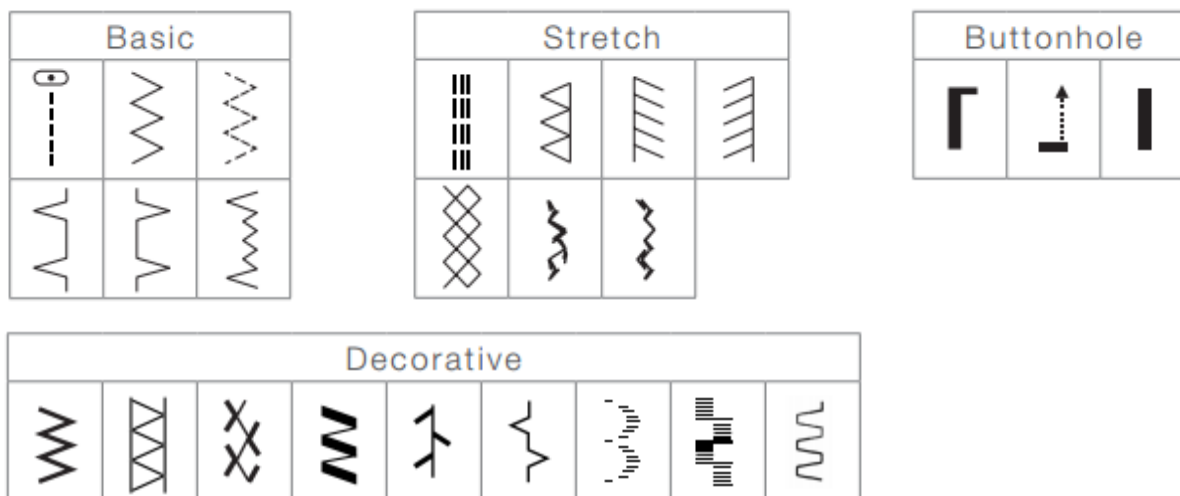
Ideally, watch this short (8 minute) introductory video:

<https://www.youtube.com/watch?v=9wSiAQZuRnU> to understand the capabilities of the machine, and how to make basic selections.

For further details about the machine, you can watch the 7-part series by Singer on youtube:

https://www.youtube.com/watch?v=XXl6Ar7WMmU&list=PLRw6RCDlq_8_d2McCqK_2-0JrFo7EpEsd

It has the following stitch capabilities:

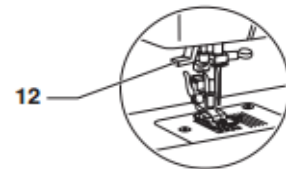
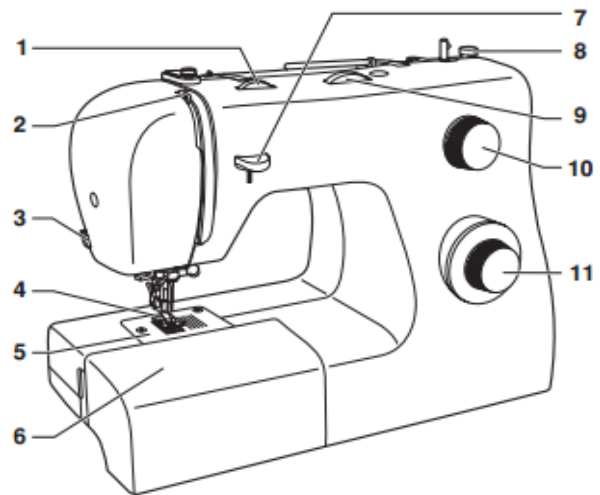


Note: The stitches in **BLUE** are stretch stitches - and are selected by choosing the "S" setting on the stitch length dial, then rotating the pattern selector dial accordingly.

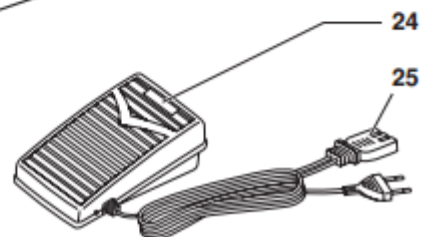
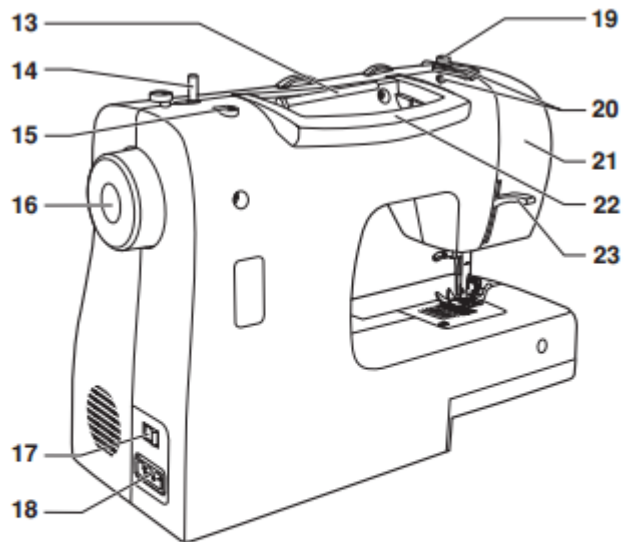
Parts of the Singer

1. Thread tension dial
2. Thread take-up level
3. Thread cutter

- 4. Presser foot
- 5. Needle plate
- 6. Removable extension table/accessory storage
- 7. Reverse sewing lever
- 8. Bobbin stopper
- 9. Stitch width dial
- 10. Stitch length dial
- 11. Pattern selector dial
- 12. Automatic threader



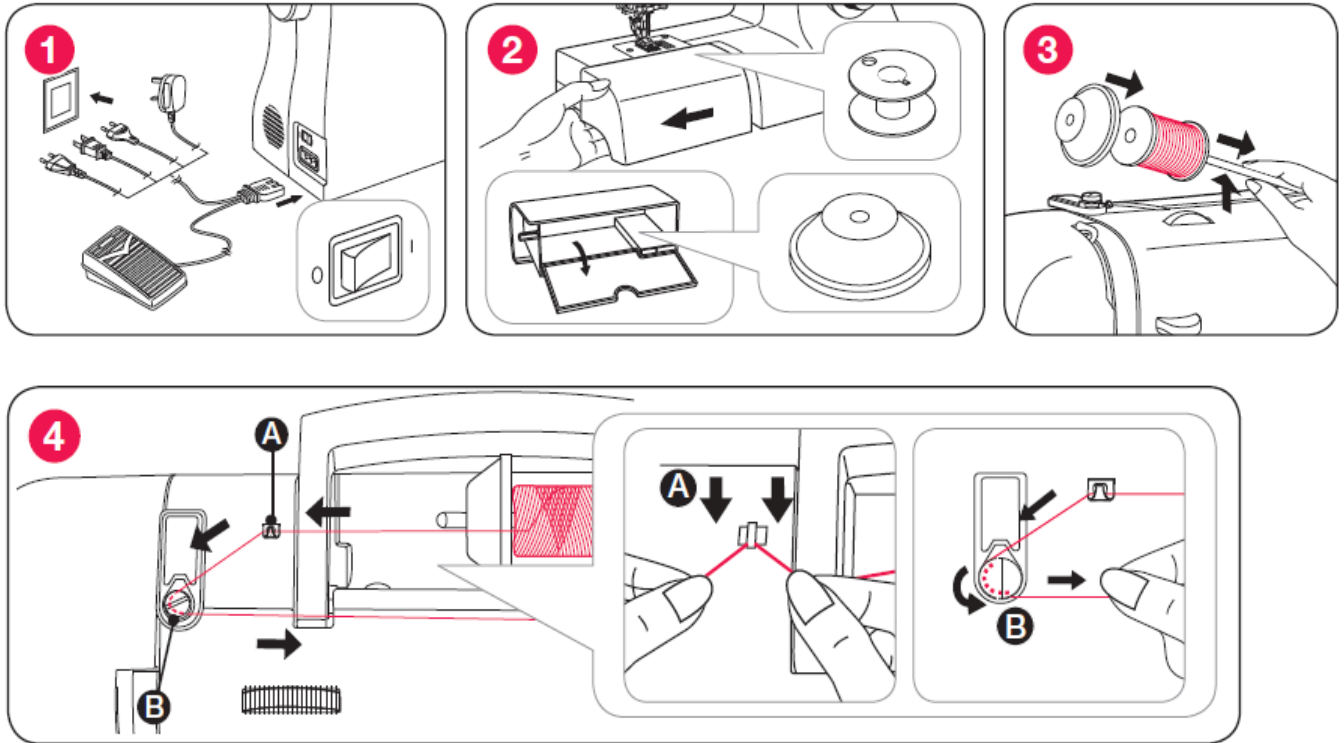
- 13. Horizontal spool pin
- 14. Bobbin winding spindle
- 15. Hole for second spool pin
- 16. Handwheel
- 17. Power and light switch
- 18. Main plug socket
- 19. Bobbin thread guide
- 20. Upper thread guide
- 21. Face plate
- 22. Handle
- 23. Presser foot lifter
- 24. Foot speed control
- 25. Power cord



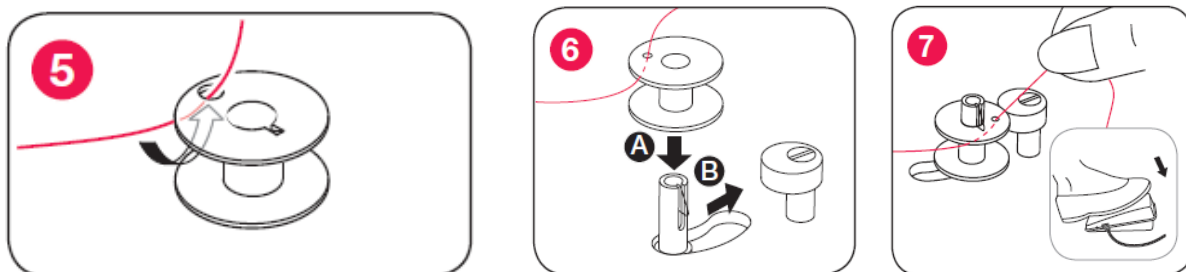
Setting up the Singer - Quick Start Guide

PART I. Prep Machine & Bobbin Thread

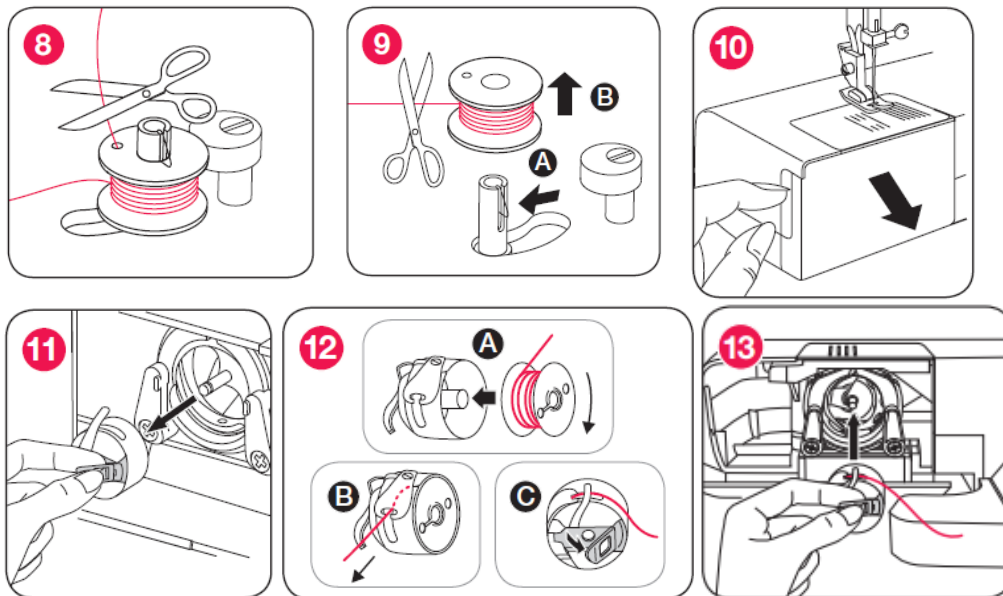
First start by prepping the machine (plugging in, turning on and setting up the thread).



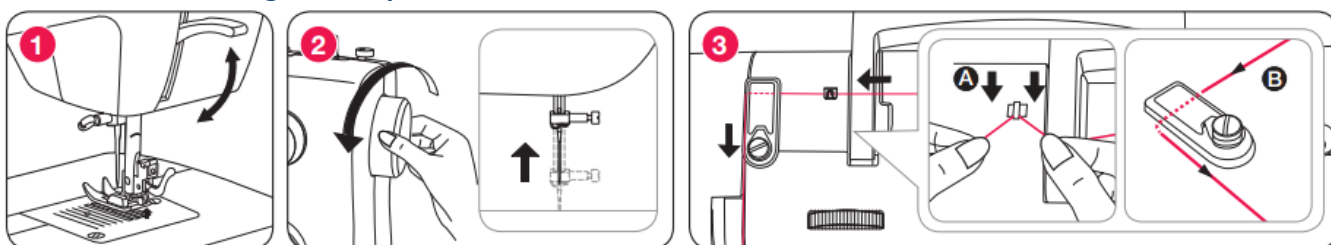
The machine requires two thread spools with which to stitch. One comes down from the top of the machine. You can use the machine to take thread from the horizontal spool pin (3-4) and wind it on to the bobbin winding spindle (5-9).



The wound up bobbin can be placed into the bobbin case (underneath the needle plate and behind the accessory storage) as shown in images 10-13 below.



PART II. Threading the Top Thread

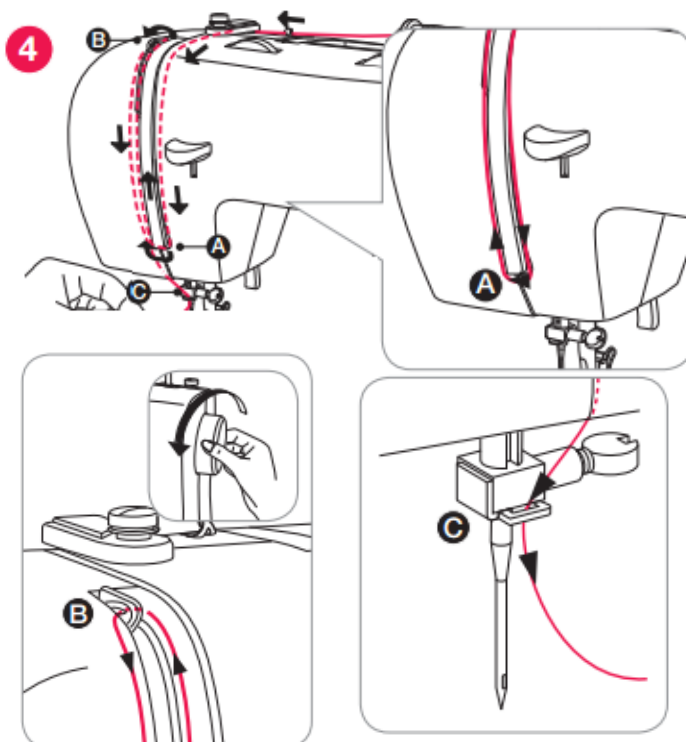


Guiding the thread seems tricky - but just do it and you'll find it's easier than you might think.

Use the lever to RAISE presser foot and rotate the handwheel.

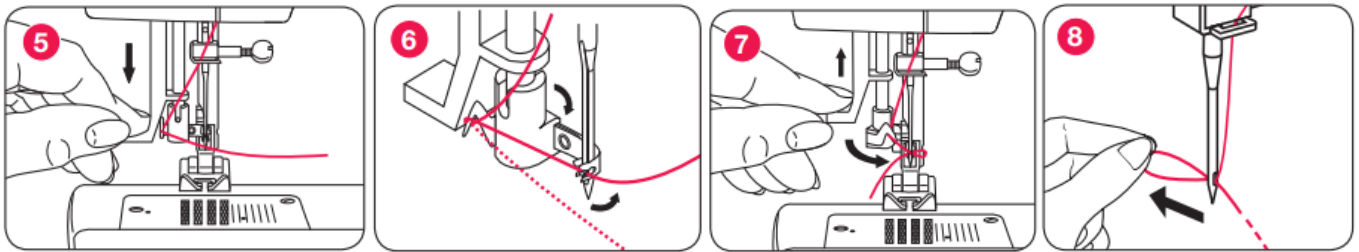
- **ALWAYS thread the machine with the presser foot in the UP position**
- **ALWAYS TURN THE HANDWHEEL TOWARDS YOU (Counter-Clockwise) to avoid damage to your machine**

Guide the top thread from the horizontal spool pin across the machine to weave it up and down through the thread path shown in image 4, passing through the slotted eye of the take-up

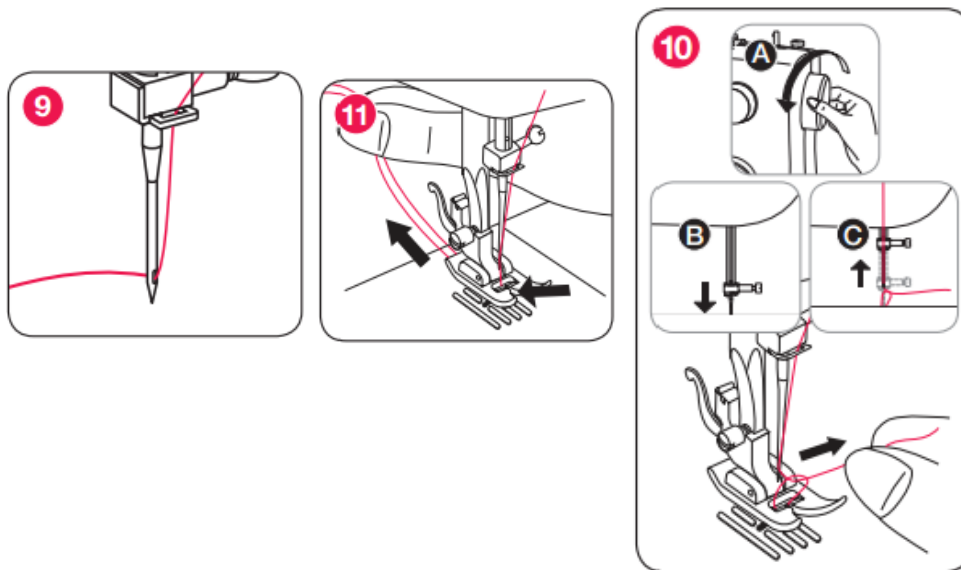


lever, back down, and behind the needle wire clamp, then down to the needle to be threaded FRONT to BACK.

CAUTION: Turn machine OFF when threading



Pass 6-8 inches of thread through the needle eye and behind the machine. Turn the handwheel toward you to get the needle to catch the bobbin thread, then pull both threads to the back and trim them to the same length.



*If it is difficult to raise the bobbin thread, make sure it is not caught in the cover.

If you are having trouble with threading, watch the following video:

<https://www.youtube.com/watch?v=51Ylr4v8eoo>

If you are still having trouble, contact a Design Studio TA for assistance, or see the official user manual (link at the end of this document).

Sewing using the Singer

Choose different stitch patterns for various purposes, and use the quick reverse lever to double sew over the beginning part of your stitch, and the end part of your stitch, to ensure that it doesn't unravel.

Select your stitch type by adjusting::

a. Reverse Sewing Lever

- To secure the beginning & ends of your seam, press down on the lever, sew a few reverse stitches
- Release the lever and the machine will sew forward again

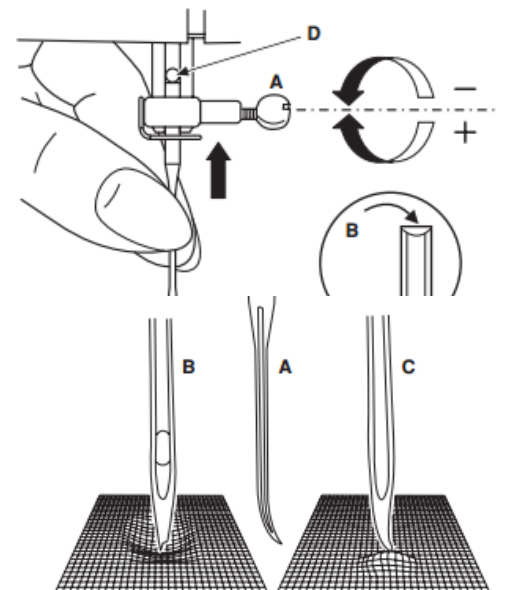
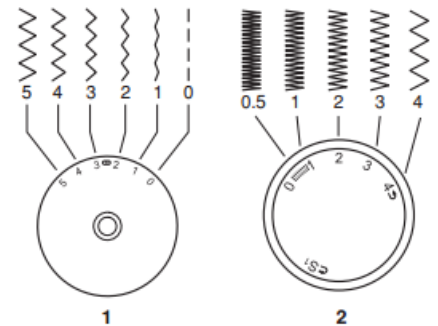
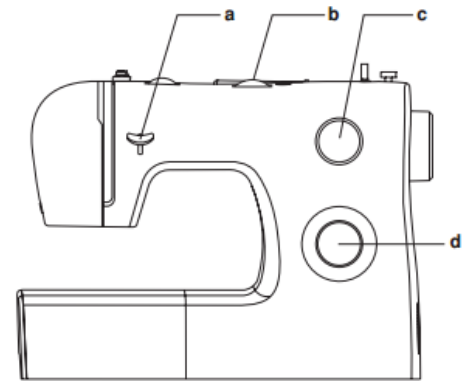
b. Stitch Width Dial

- Maximum zig-zag stitch width is 5mm
- Center (middle) position is between 2 and 3

c. Stitch Length Dial

- Zig-zags
 - Density of zig-zag stitches increases as the setting of the length dial approaches zero
 - Neat zig-zags achieved ~2.5 or below
- Straight Stitches
 - Use longer stitches for heavier weight fabrics, or when using a thicker needle or thread

d. Pattern Selector Dial



Inserting & Changing Needles

Change needles regularly!

- Loosen the needle clamp screw and tighten again after inserting the new needle.
- The flat side of the shaft should go towards the back
- & D. Insert the needle as far up as it will go

Attention! Turn power switch to OFF ("0") before inserting or removing the needle!

Removing your Work from the Machine

Turn the handwheel toward you (counter-clockwise!) to bring the take-up lever to its highest position.

Continue turning until the needle just slightly begins to descend.

Raise the presser foot and remove work behind the needle and presser foot.

Pull the threads under and behind the presser foot, and guide the threads to the side of the face plate and into the thread cutter (on the side of the machine).

Pull threads down to cut.

Congratulations, you're finished!

The Brother XL2600i

First, watch this short introductory video: <https://www.youtube.com/watch?v=6MyFh6ywJk4>

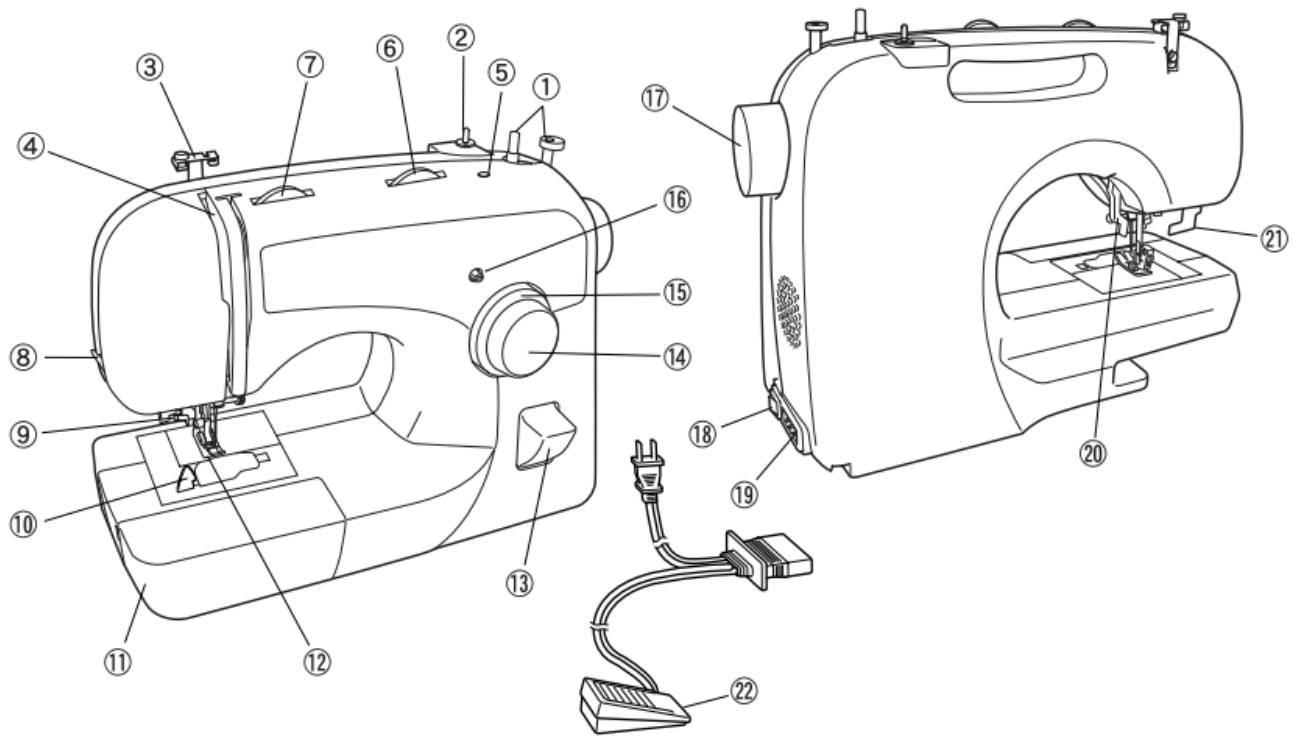
For details, go to the complete manual: http://www.brother-usa.com/VirData/Content/en-US/HAD/Consumer/UsersManual/UM_XL_2600i_ENES_1478.PDF

Brother XL2600i picture:



A picture of Brother XL2600i

Parts of the Brother



1. Bobbin winder: This winds the thread onto the bobbin for use as the lower thread.
2. Spool pin: This holds the spool of thread.
3. Thread guide: This is used when winding the thread onto the bobbin and then threading the machine.
4. Thread take-up lever
5. Hole for extra spool pin: This holds a second spool of thread for sewing with the twin needle.
6. Stitch width dial: This controls the stitch width.
7. Upper tension-control dial: This controls the tension of the upper thread.
8. Thread cutter: Pass the threads through the thread cutter to cut them.
9. Needle threader (Only available on certain models)
10. Quick-set bobbin (Only available on certain models)
11. Flat bed attachment with accessory compartment
12. Presser foot
13. Reverse sewing lever: You can push this to stitch in the reverse direction.
14. Pattern selection dial: You can turn this in either direction to choose the stitch you want.

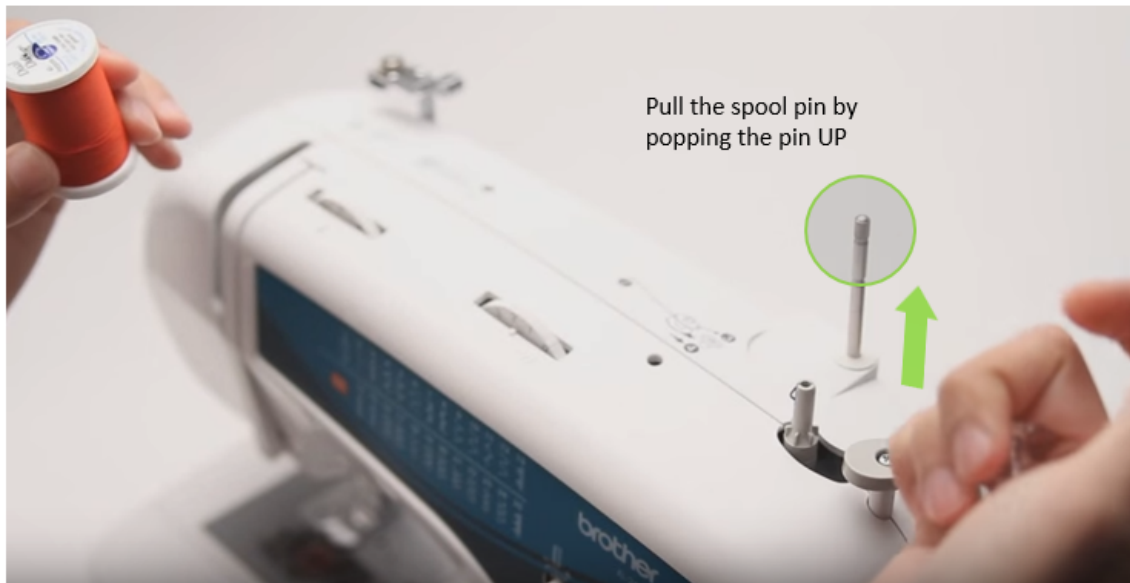
- 15. Stitch length dial: This controls the stitch length.
- 16. Buttonhole fine-adjustment screw
- 17. Handwheel: Used to manually raise and lower the needle.
- 18. Main power and sewing light switch: You can turn the main power and sewing light switch on and off.
- 19. Foot controller jack / socket: Plug in the foot controller plug and connect the machine to the power supply.
- 20. Presser foot lever: Used to raise and lower the presser foot.
- 21. Buttonhole lever (1-Step automatic buttonhole): Lower the buttonhole lever when sewing buttonholes.
- 22. Foot controller: You can use this to control the sewing speed, and to start and stop sewing.

Setting up the Brother XL2600i sewing machine:

Step I: Fill your bobbin with thread:

Filling the bobbin with the thread is one of the first steps in setting up the brother sewing machine. One can wind thread on the sewing machine manually by hand but it can take longer time and the same can be easily done in less time by using the bobbin winding feature on the machine. One has to follow few steps to wind the bobbin with thread using the sewing machine. The steps are given below step by step with visuals for reference.

1. Once, the thread spool is ready, pull the spool pin, by popping the pin up, refer picture below:

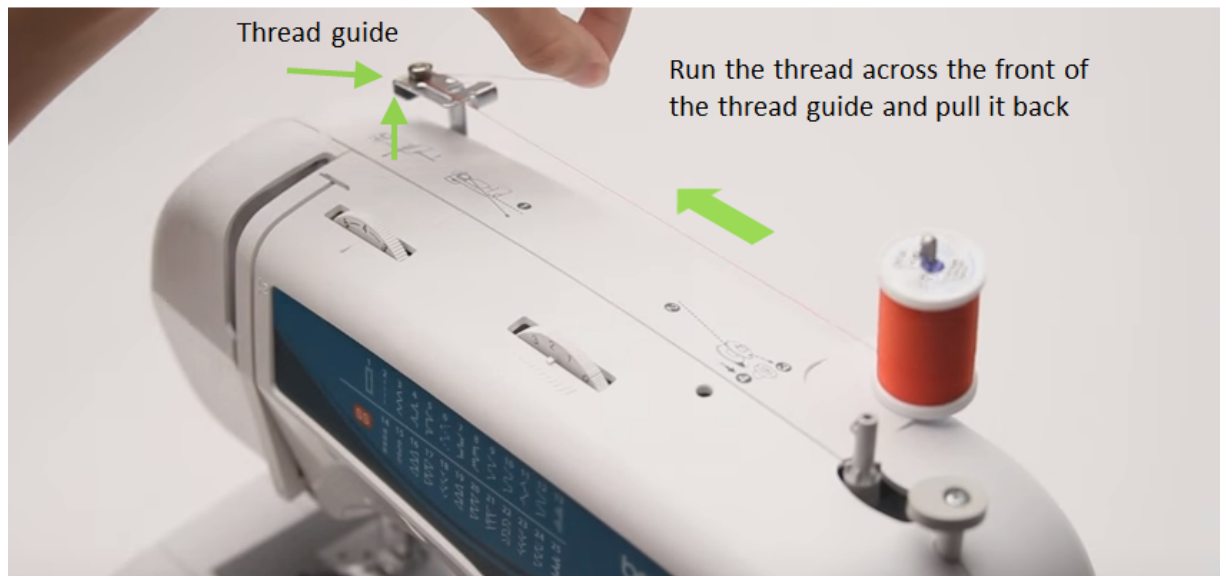


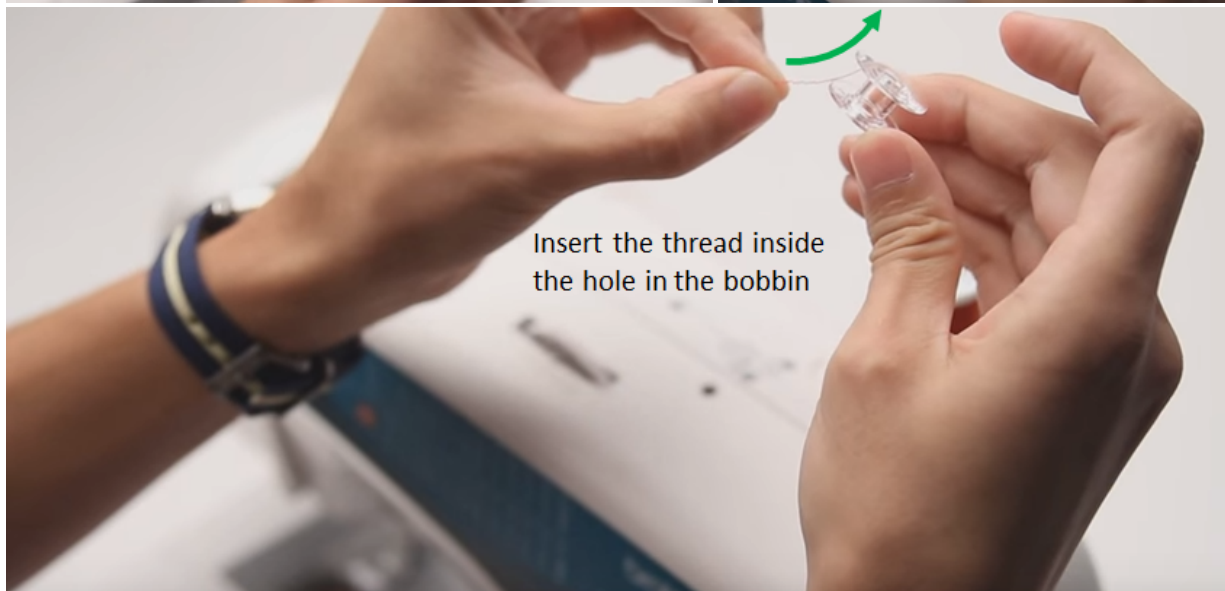
2. Put the thread on the top of the pin as shown below:

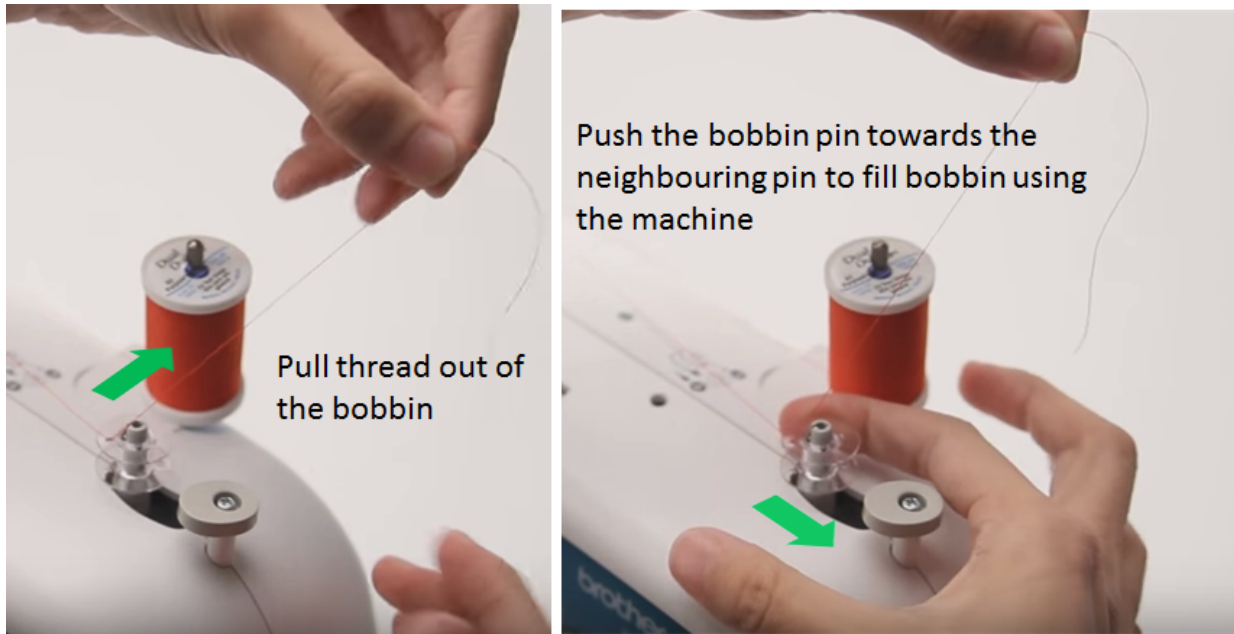


3. Once the thread is popped in the pin, run the thread out and through the front of the thread guide and through the back and insert it in the bobbin with hand. Once thread is inserted into the bobbin, push the bobbin on the pin in front of thread spool and pull some thread out of the bobbin. Also, push the bobbin against the neighbouring rotating pin to enable

machine to fill bobbin. These steps are sequentially explained in the subsequent pictures below.



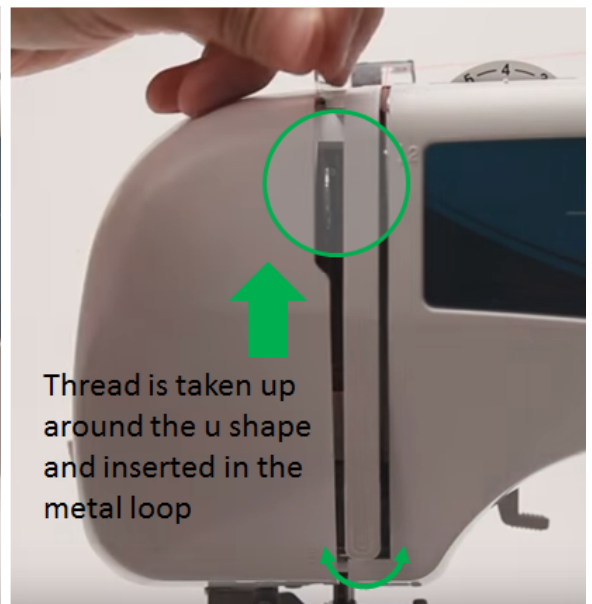
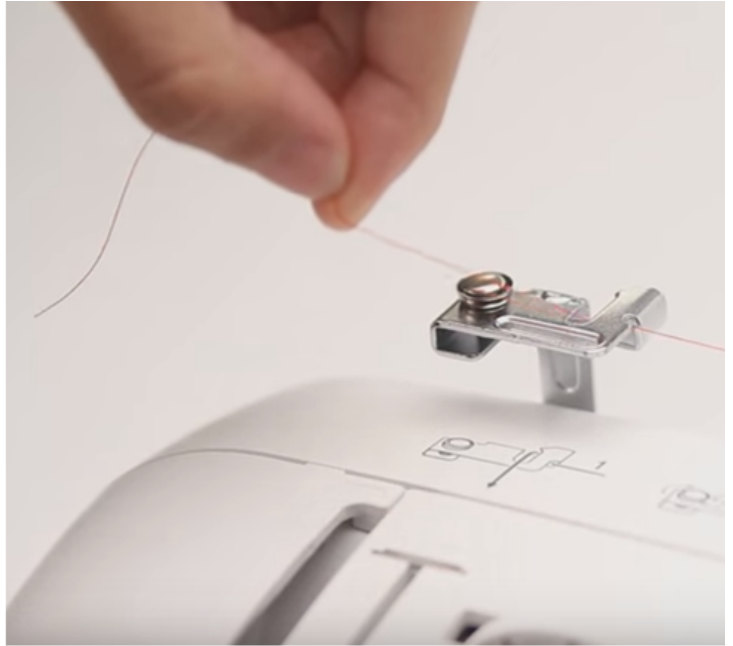
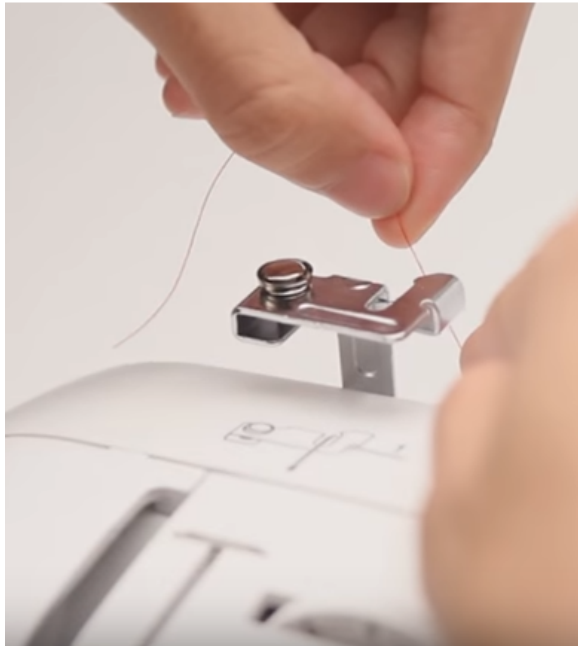


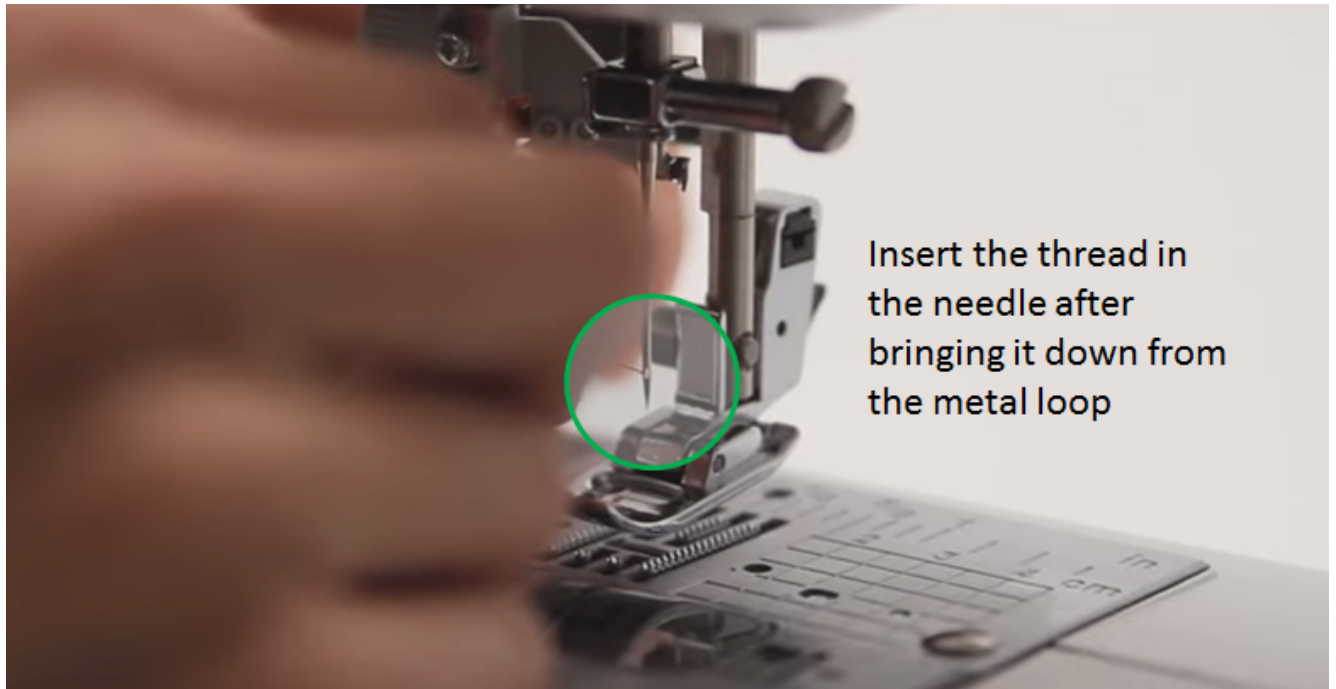


Once the bobbin is in place, the pedal can be pushed and the thread will automatically fill in the bobbin. This completes the entire thread winding process on the bobbin.

Step II: Threading the machine on the top:

The next biggest step in the setting up of machine is threading the top side. The thread is taken from the thread pool and taken through the thread guide and taken down through a slot in the front face of the machine and taken up to insert it inside the metal loop at the top. Once inserted in the loop, the thread is brought down and inserted in the needle.

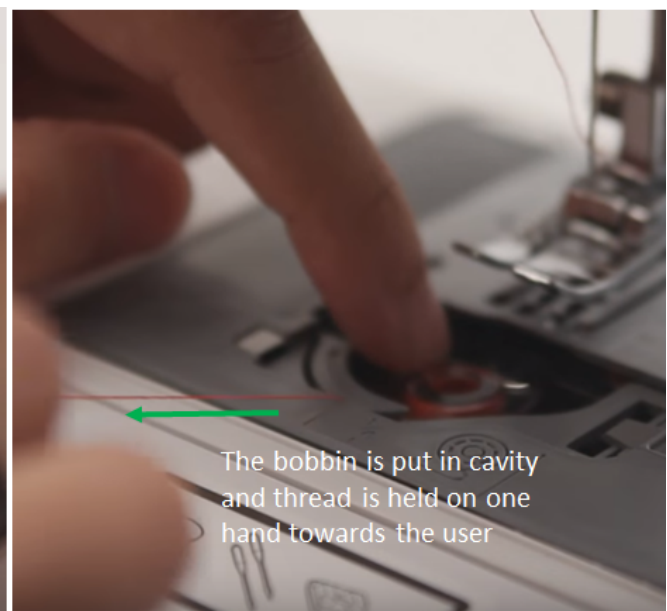
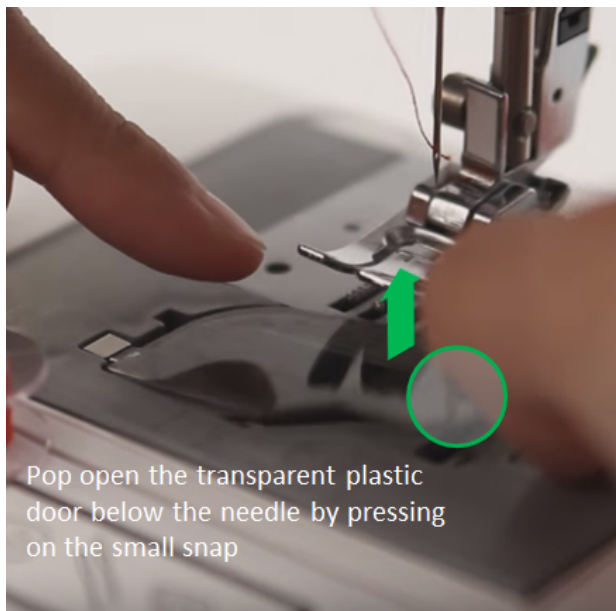
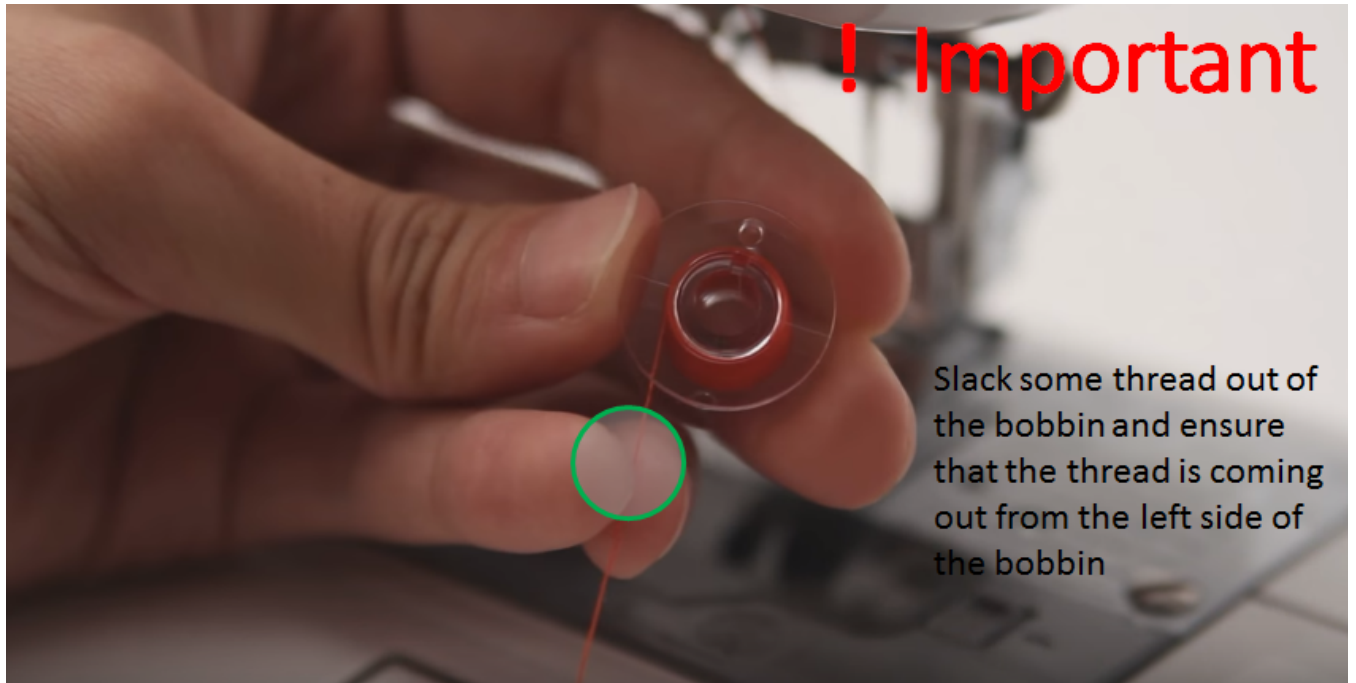


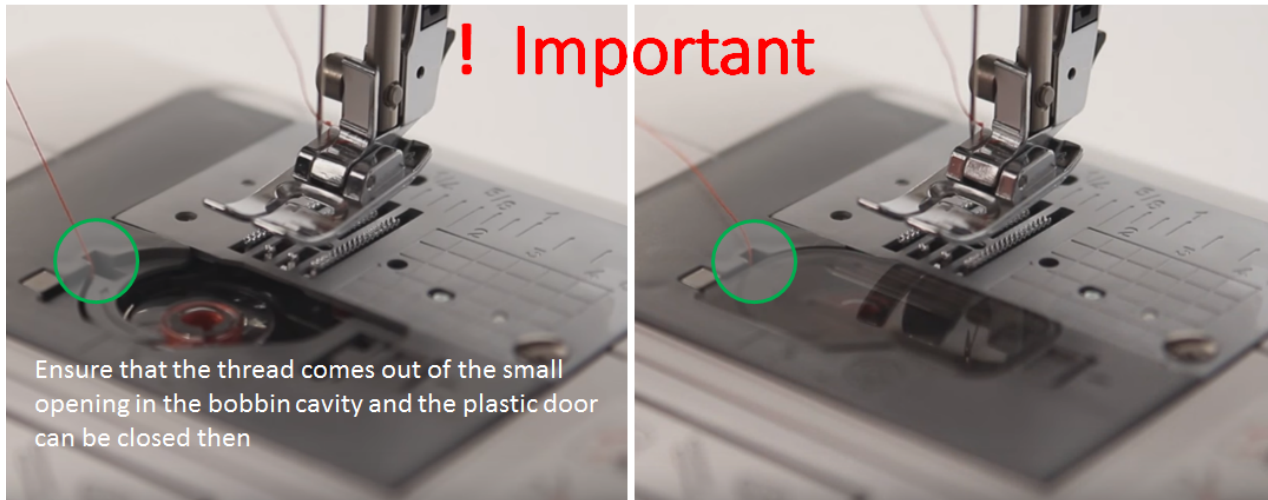


once the thread is inserted in the needle, it completes the top thread set up and now one has to set up the bottom thread using the bobbin.

Step III: Setting up the bobbin thread in the bottom of the machine

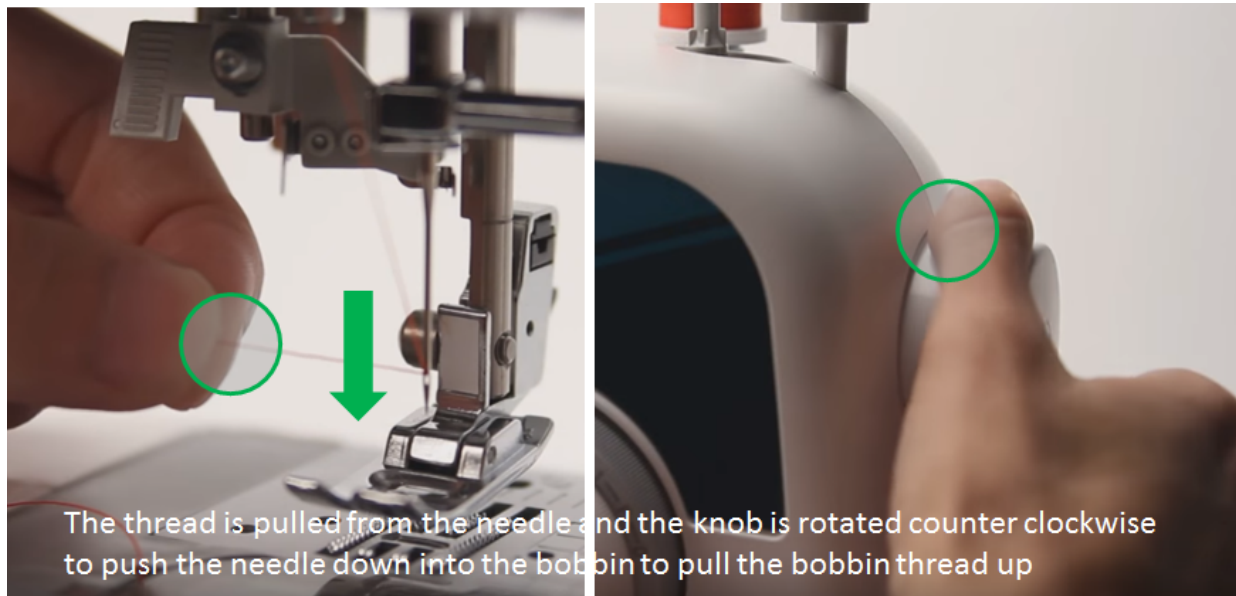
The bobbin is slacked with some thread on the left hand side and the bobbin door is pop opened to place it inside the cavity. The bobbin is put inside the cavity and the thread is taken through a small opening in the front of the cavity. Later, the thread is taken out through a small rectangular opening in the cavity and the plastic door can be closed. These steps are pictorially shown below.

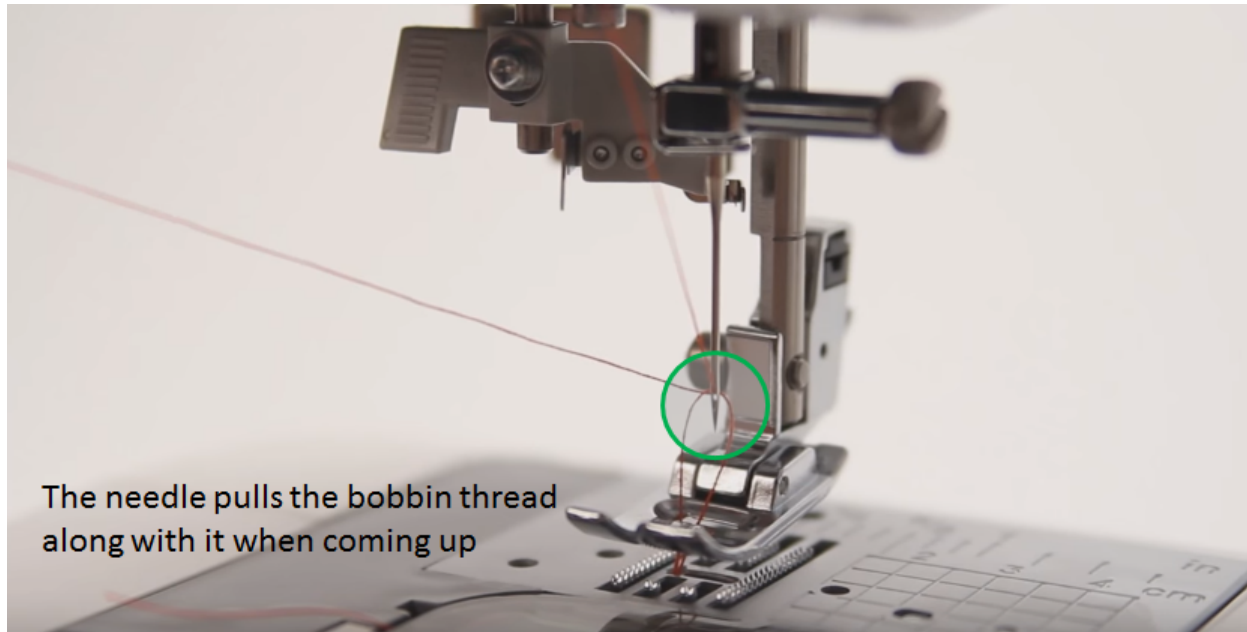




Step IV: Pulling the bottom thread with the needle

Once the top and bottom thread is set up, the needle is used to pull the bottom thread from the bobbin and take them behind and that signals the readiness of the machine for sewing.





When the bottom thread comes up, the threads can be separated and taken to the back side of the machine. This completes the setting up steps for the sewing machine. The machine is now ready to be used for sewing.

Additional Sewing Resources & Links

Brother XL2600i complete manual: http://www.brother-usa.com/VirData/Content/en-US/HAD/Consumer/UsersManual/UM_XL_2600i_ENES_1478.PDF

Singer 2263 complete manual:

[http://www.singerco.com/uploads/download/1180_2263\(eng_spa_fre\).pdf](http://www.singerco.com/uploads/download/1180_2263(eng_spa_fre).pdf)

Sewing for Beginners - A Resource:

<http://www.sewing-machine-success.com/sewing-for-beginners.html>

Easy Projects for Beginners:

<http://so-sew-easy.com/easy-sewing-projects-for-beginners/>