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Sewing Machine Badging Guide

The Beginners Guide to the Singer 2263 Sewing Machine

As a patron of the Ascension Parish Library (APL) system, you have access to a variety of equipment and software! The Singer machines are professional level sewing machines. The Singer 2263 sewing machine provides patrons with several needle options and stitch options to personalize their projects or make some swag to promote their group, cause, artwork, business, or school! To have the option to reserve Makerspace equipment patrons must take a badging class and pass the practical exam to earn a badge for each equipment or software.

This guide will teach you how to:

- Operate the Singer 2263 Sewing Machine

Need to Know

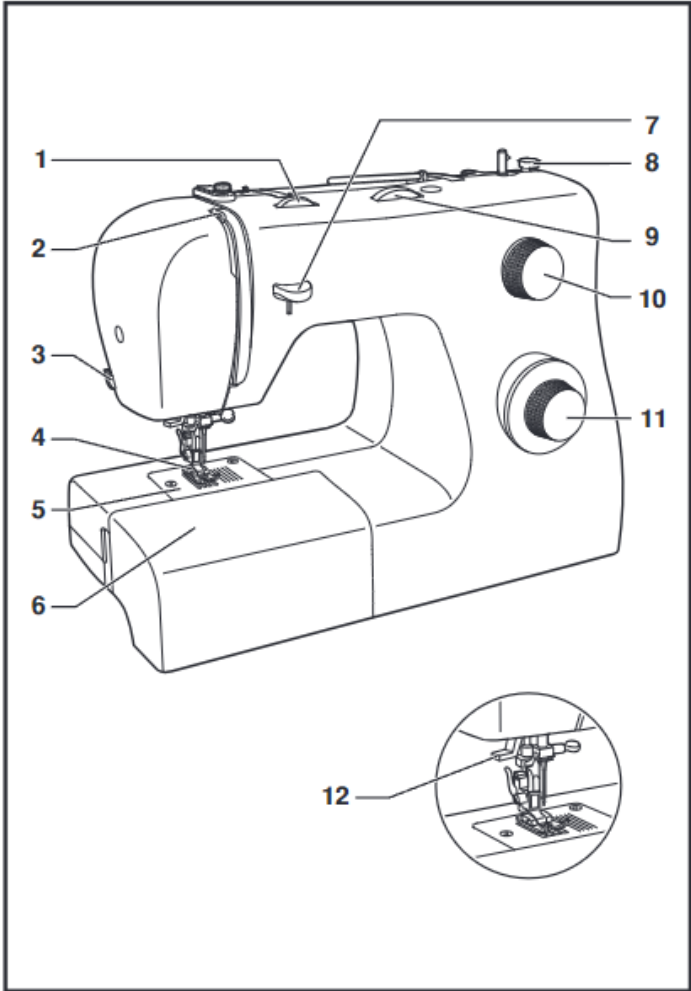
Before you begin, let's review the badging "need-to-knows" so you can add that Sewing Machine Badge to your Makerspace repertoire. Materials you will want to review for the badging practical exam are available on the APL Makerspace webpage in detail and include:

- This badging manual's equipment and station specific content
- Makerspace equipment and station reservation, check-in, clean-up, close-down, and check-out procedures
- Materials Consumables Fees documents; procedures for acquiring and purchasing materials (not scrap)
- Location of branch-specific clean-up and safety equipment (e.g. broom, fire extinguisher, eye and hearing protection, first-aid kits).
- Makerspace User Agreement and Release of Liability
- APL & Makerspace Policies, Procedures and Safety Rules

Begin by reading through this badging manual, the library and Makerspace policies and procedures, and review the pathways to Badging. Next, sign up for a badging class with the equipment you are interested in. Search and register for classes on the [Library Events Calendar](#).

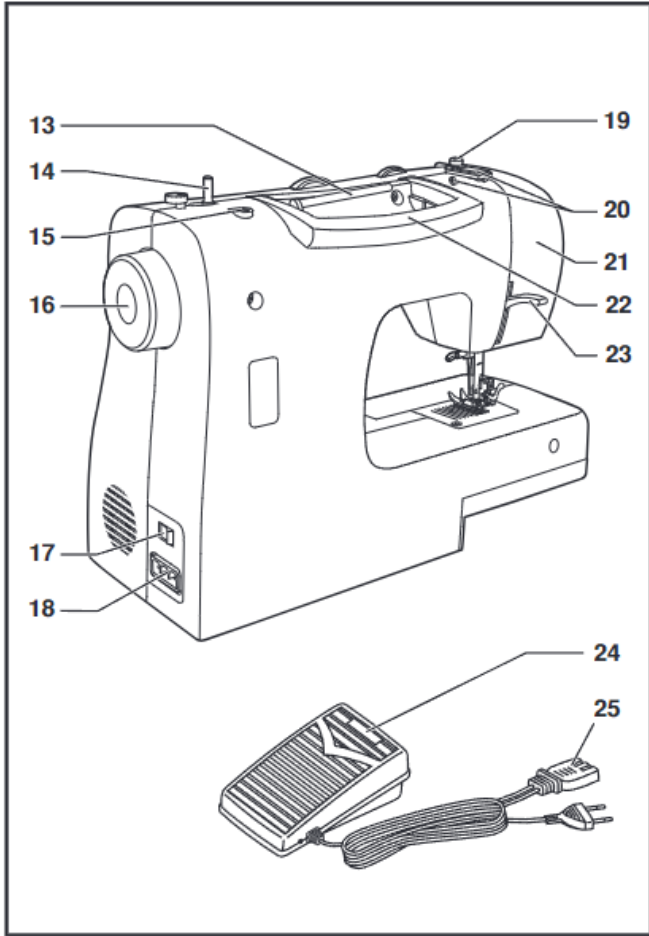
Safety

- Always turn off and unplug the sewing machine when not in use
- If you notice any unusual smells, noises, or heat, stop using the machine and immediately unplug the power cord
- Keep the sewing machine on a stable surface, and away from heat
- Keep your fingers away from all moving parts
- Turn the machine off while making any adjustments in the needle area
- When threading the machine, keep foot off the foot pedal
- Make only adjustments you have been trained to perform
- Do not use bent or damaged needles, and always use the correct size needle for the fabric
- Always use the appropriate sewing foot as indicated by the machine
- Do not push or pull the fabric while sewing
- Do not sew across pins – remove the pins as they near the presser foot
- Keep pins/needles out of mouth
- Wear eye protection



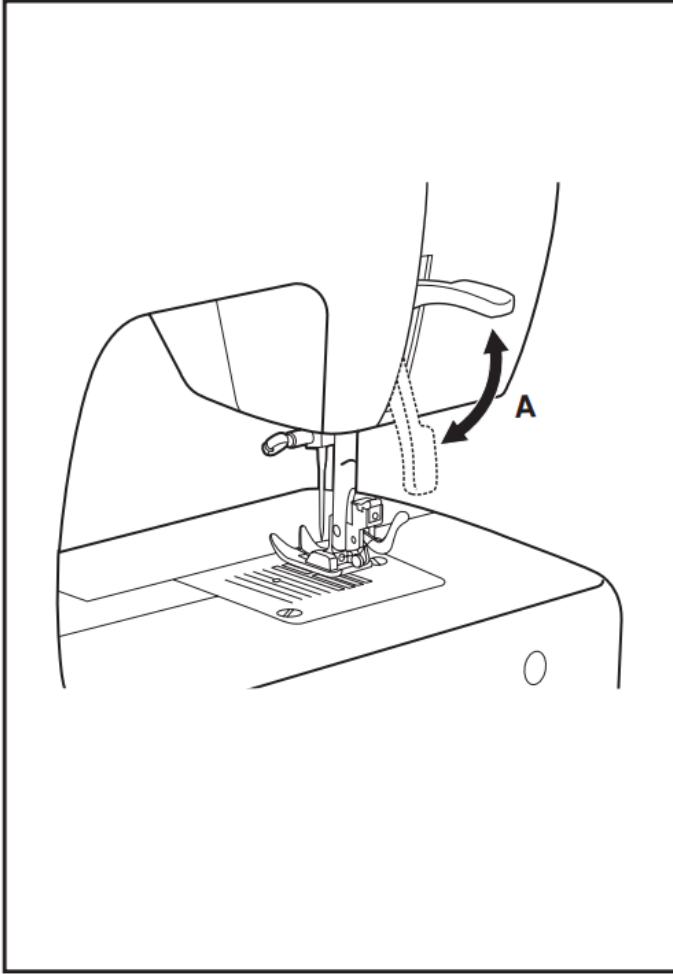
GB **Principal Parts of the Machine**

- 1. Thread tension dial
- 2. Thread take-up lever
- 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



GB Principal Parts of the Machine

- 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



GB Two Step Presser Foot Lifter

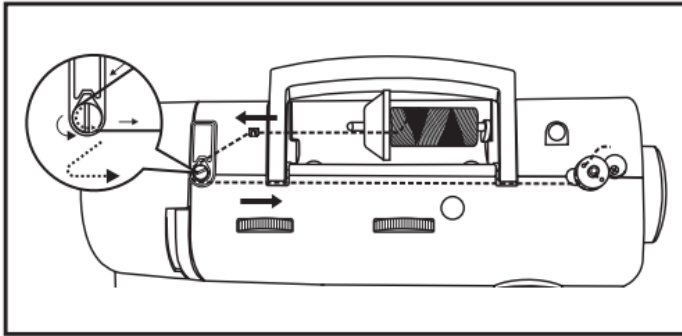
When sewing several layers or thick fabrics, the presser foot can be raised to a higher position for easy positioning of the work(A).

E Elevador del prensatelas de dos tiempos

Cuando se cose varias capas de tela gruesa, el prensatelas puede elevarse a una posición alta para facilitar la colocación de la tela (A).

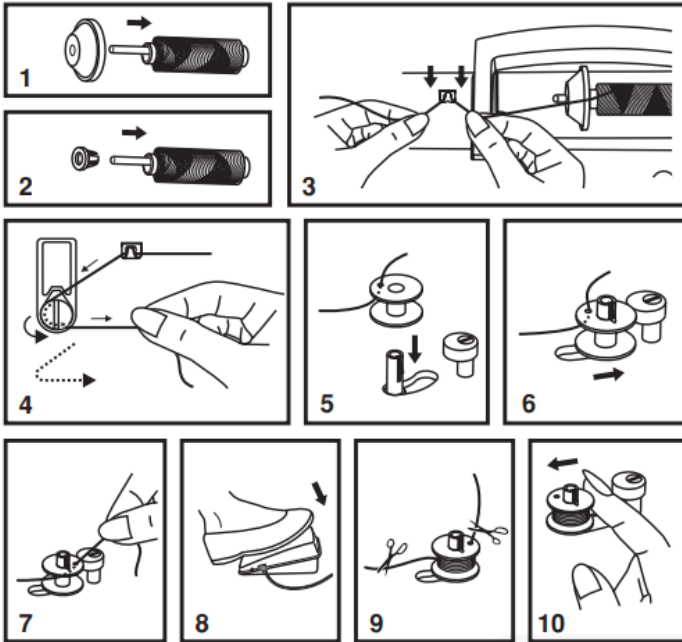
F Lever le pied presseur à deux niveaux

Lorsque vous cousez plusieurs épaisseurs de tissus épais, le pied presseur peut être soulevé sur une position élevée afin de faciliter le positionnement du tissu. Faire attention lorsque vous cousez plusieurs épaisseurs et travailler lentement (A).



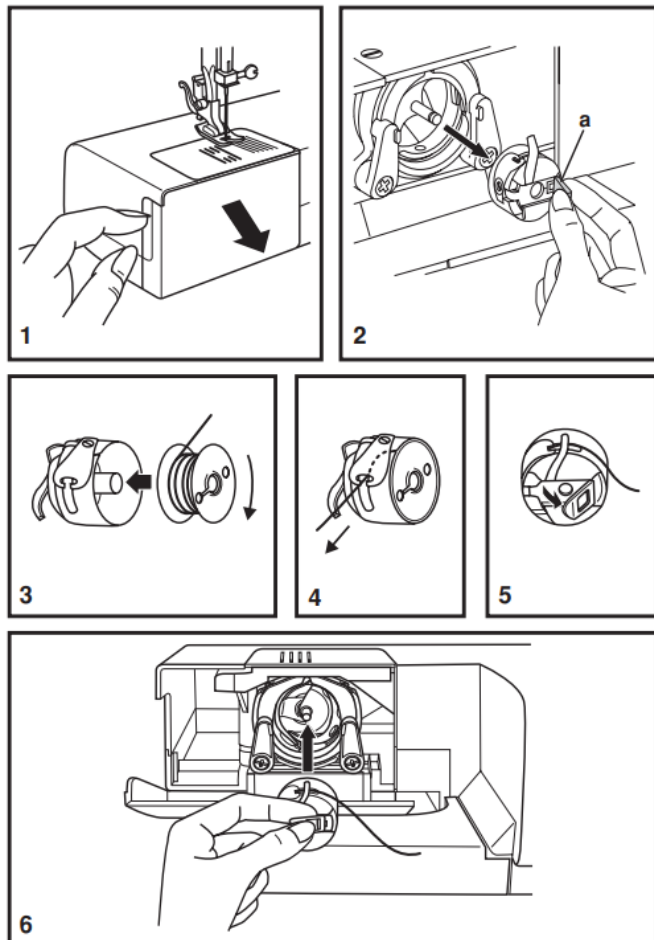
GB Winding the Bobbin

- Place thread and corresponding spool holder on to spool pin. (1/2)
- Snap thread into thread guide. (3)
- Wind thread counterclockwise around bobbin winder tension discs. (4)
- Thread bobbin as illustrated and place on spindle. (5)
- Push bobbin spindle to right. (6)
- Hold thread end. (7)
- Step on foot control pedal. (8)
- Cut thread. (9)
- Push bobbin spindle to left (10) and remove.



Please Note:

When the bobbin winder spindle is in "bobbin winding" position, the machine will not sew and the hand wheel will not turn. To start sewing, push the bobbin winder spindle to the left (sewing position).



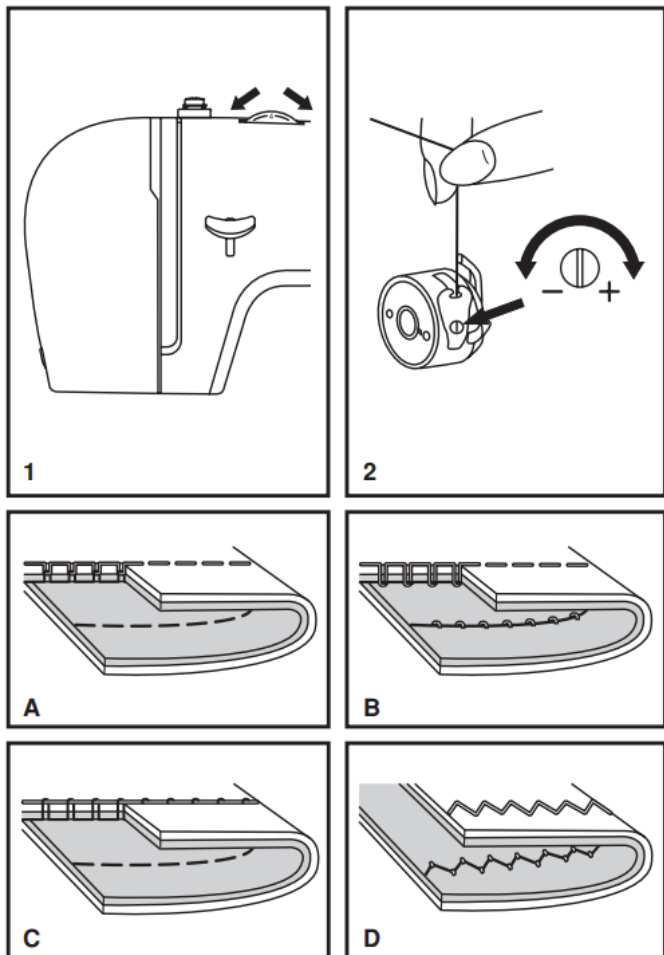
GB Inserting the Bobbin

When inserting or removing the bobbin, the needle must be fully raised.

- Remove the extension table, then open the hinged cover. (1)
- Pull the bobbin case tab (a) and remove the bobbin case. (2)
- Hold the bobbin case with one hand. Insert the bobbin so that the thread runs in a clockwise direction (arrow). (3)
- Pull the thread through the slit and under the finger. (4)
Leave a 6 inch tail of thread.
- Hold the bobbin case by the hinged latch. (5)
- Insert it into the shuttle. (6)

Attention:

Turn power switch to off ("O") before inserting or removing the bobbin.



GB Thread Tension

Upper thread tension

Basic thread tension setting: "4"

To increase the tension, turn the dial to the next number up.

To reduce the tension, turn the dial to the next number down.

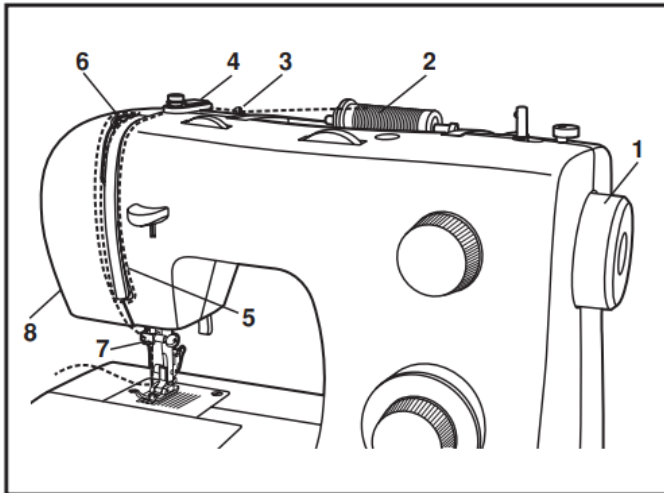
- A. Normal thread tension for straight stitch sewing.
- B. Thread tension too loose for straight stitch sewing. Turn dial to higher number.
- C. Thread tension too tight for straight stitch sewing. Turn dial to lower number.
- D. Normal thread tension for zig zag and decorative sewing. Correct thread tension is when a small amount of the upper thread appears on the bottom side of fabric.

Lower thread tension

To test the bobbin thread tension, remove the bobbin case and bobbin and hold it by suspending it by the thread. Jerk it once or twice. If the tension is correct, the thread will unwind by about an inch or two. If the tension is too tight, it does not unwind at all. If the tension is too loose, it will drop too much. To adjust, turn the small screw on the side of the bobbin case.

Please note:

- Proper setting of tension is important to good sewing.
- There is no single tension setting appropriate for all stitch functions, thread or fabric.
- A balanced tension (identical stitches both top and bottom) is usually only desirable for straight stitch construction sewing.
- 90% of all sewing will be between "3" and "5".
- For zig zag and decorative sewing stitch functions, thread tension should generally be less than for straight stitch sewing.
- For all decorative sewing you will always obtain a nicer stitch and less fabric puckering when the upper thread appears on the bottom side of your fabric.



GB Threading the Upper Thread

This is a simple operation but it is important to carry out correctly as by not doing so several sewing problems could result.

- Start by raising the needle to its highest point (1), and continue turning the handwheel counterclockwise until the needle just slightly begins to descend. Raise the presser foot to release the tension discs.

Note: For safety, it is strongly suggested you turn off the power before threading.

- Lift up the spool pin. Place the spool of thread on the holder with the thread coming off the spool as shown. For small thread spools, place small side of spool holder next to spool. (2)

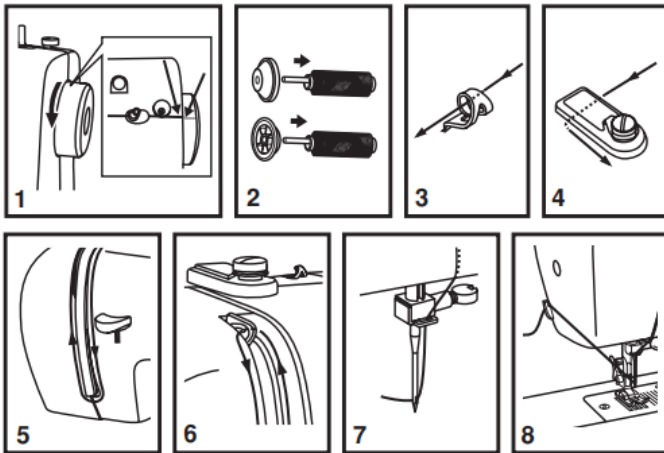
- Draw thread from spool through the upper thread guide (3) and pulling thread through pre-tension spring as illustrated. (4)

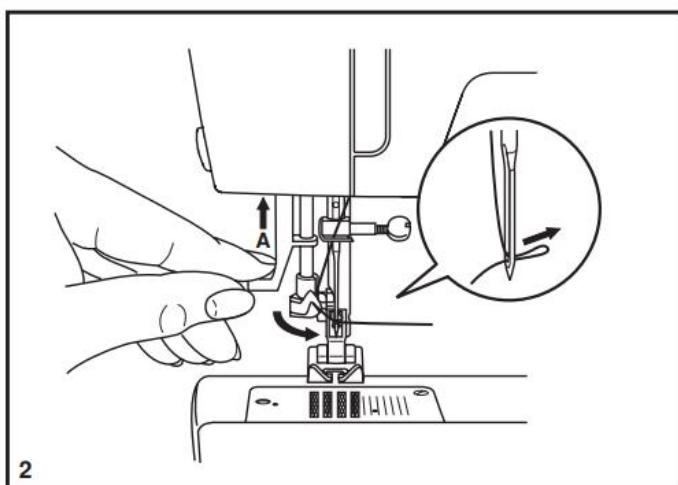
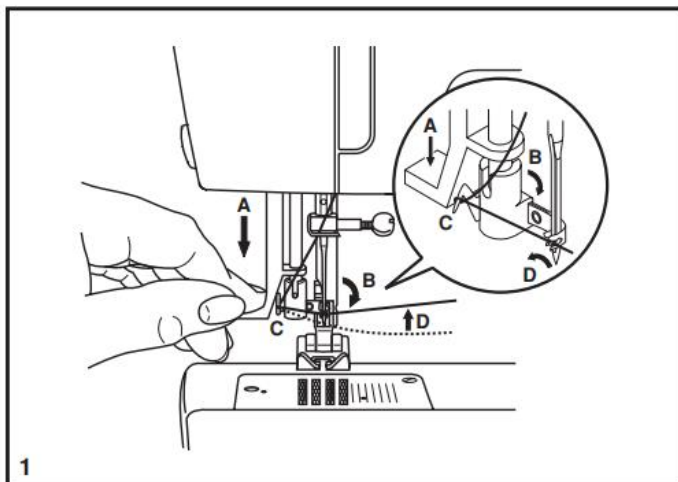
- Thread tension module by leading thread down right channel and up left channel. (5) During this process it is helpful to hold the thread between the spool and thread guide.

- At the top of this movement pass thread from right to left through the slotted eye of the take-up lever and then downwards again. (6)

- Now pass thread behind the thin wire needle clamp guide (7) and then down to the needle which should be threaded from front to back.

- Pull about 6-8 inches of thread to the rear beyond the needle eye. Trim thread to length with built in thread cutter. (8)



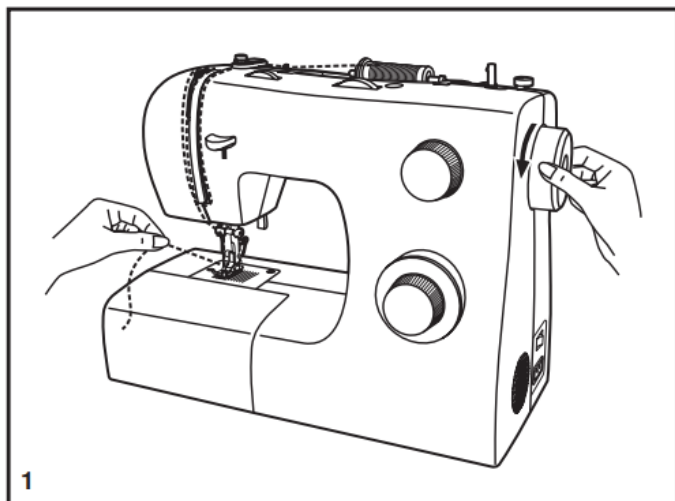


GB Automatic Needle Threader

- Raise the needle to its highest position.
- Press lever (A) down as far as it will go.
- The threader automatically swings to the threading position (B).
- Pass thread around thread guide (C).
- Pass the thread in front of the needle around the hook (D) from bottom to top.
- Release lever (A).
- Pull the thread through the needle eye.

Attention:

Turn power switch to off ("O")!

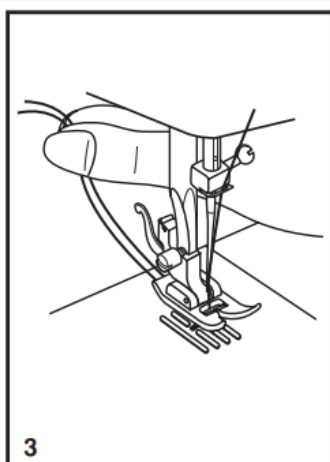
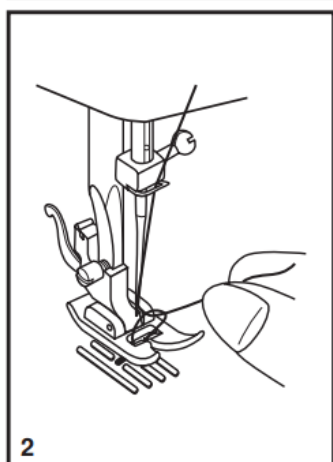


GB Raising the Bobbin Thread

Hold the upper thread with the left hand. Turn the handwheel (1) towards you (counterclockwise) lowering, then raising needle.

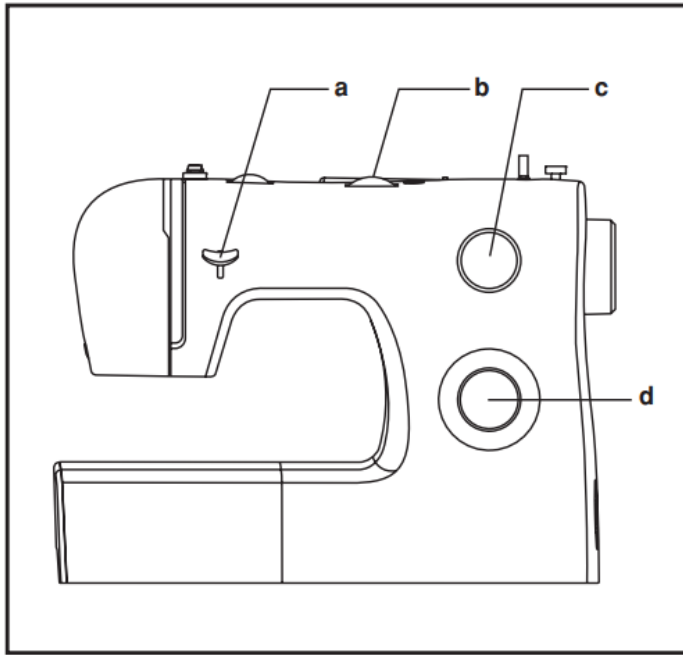
Note:

If it is difficult to raise the bobbin thread, check to make sure the thread is not trapped by the hinged cover or the Removable Extension Table.



Gently pull on the upper thread to bring the bobbin thread up through the needle plate hole. (2)

Lay both threads to the back under the presser foot. (3)



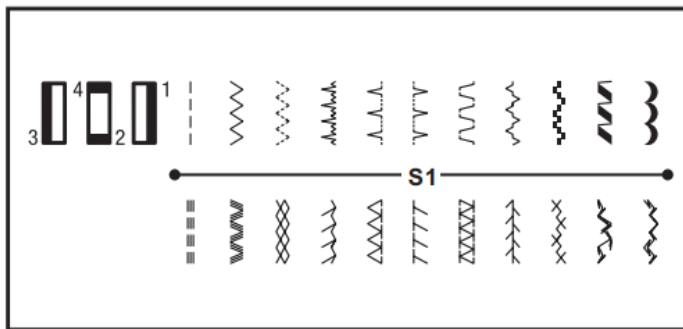
GB How to Choose Your Pattern

The diagram on this page display the stitch patterns available on the machine.

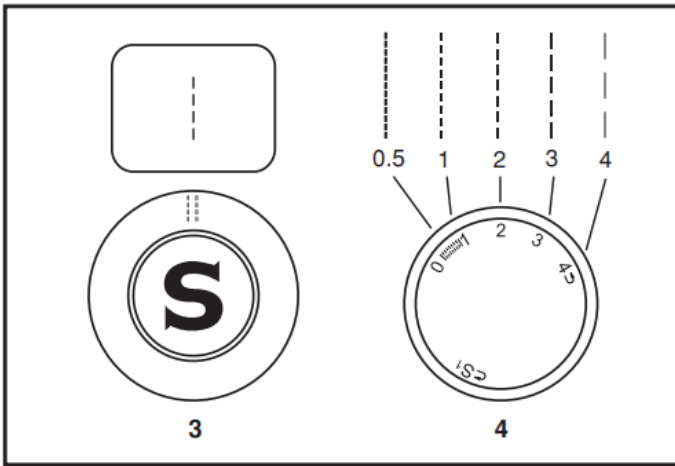
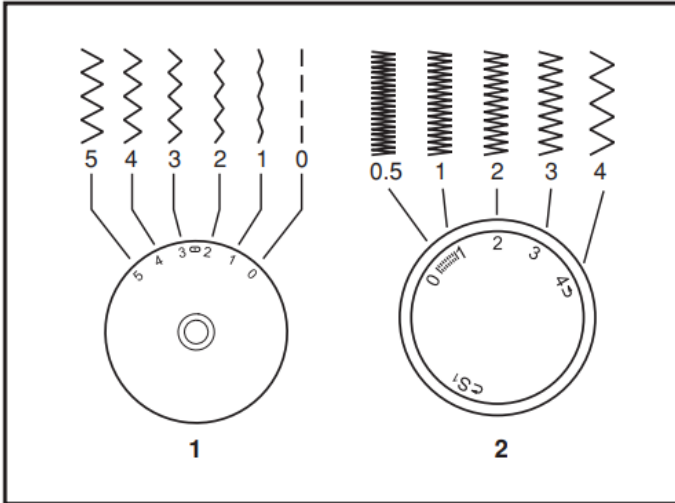
Stitches in the top of the diagram are indicated on the Pattern Selector Dial in black. To select the patterns indicated with the black color, turn the Pattern Selector Dial. (d) Use the Stitch Length Dial (c) to adjust the stitch length as desired for the project. Use the Stitch Width Dial (b) to adjust the width of the stitch as desired.

Stitches in the bottom row of the diagram are indicated on the Pattern Selector Dial in blue. The blue indicates that the stitch is a stretch stitch pattern, and information on how to sew these stretch patterns is on page 31.

The Pattern Selector Dial may be turned in either direction.



- a. Reverse Sewing Lever
- b. Stitch Width Dial
- c. Stitch Length Dial
- d. Pattern Selector Dial



GB Stitch Width Dial & Stitch Length Dial

Function of stitch width dial

The maximum zigzag stitch width for zigzag stitching is 5mm; however, the width can be reduced on any patterns. The width increases as you move zigzag dial from "0" - "5". (1)

The Stitch Width Dial is also the control for the straight stitch infinite needle position. "0" position is full left, "5" is full right and between "2" and "3" is center needle position.

Function of stitch length dial while zig-zag stitching

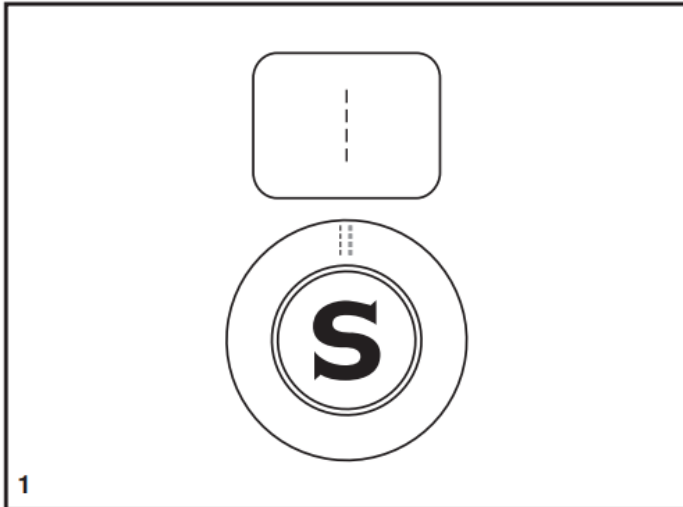
Set the Pattern Selector Dial to zig-zag.

The density of zig-zag stitches increase as the setting of stitch length dial approaches "0".

Neat zig-zag stitches are usually achieved at "2.5" or below. (2)
Dense zig-zag stitches are called satin stitches. (2)

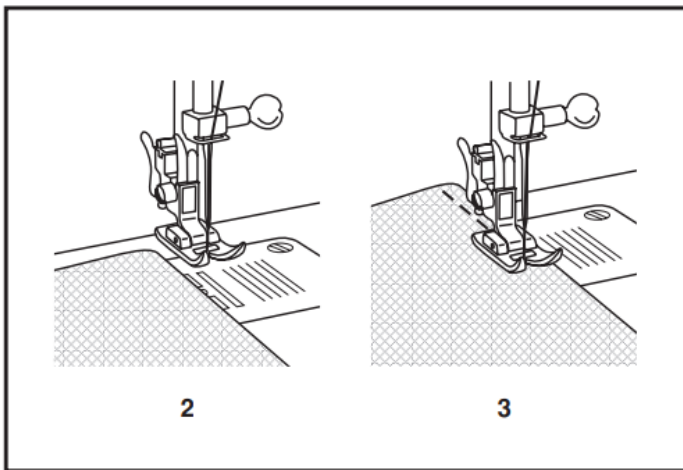
Function of stitch length dial for straight stitching

For straight stitch sewing, turn the Pattern Selector Dial to the straight stitch setting. (3) Turn the Stitch Length Dial, and the length of the individual stitches will decrease as the dial approached "0". The length of the individual stitches will increase as the dial approaches "4". (4) Generally speaking, use a longer stitch length when sewing heavier weight fabrics or when using a thicker needle or thread. Use a shorter stitch length when sewing lighter weight fabrics or when using a finer needle or thread.



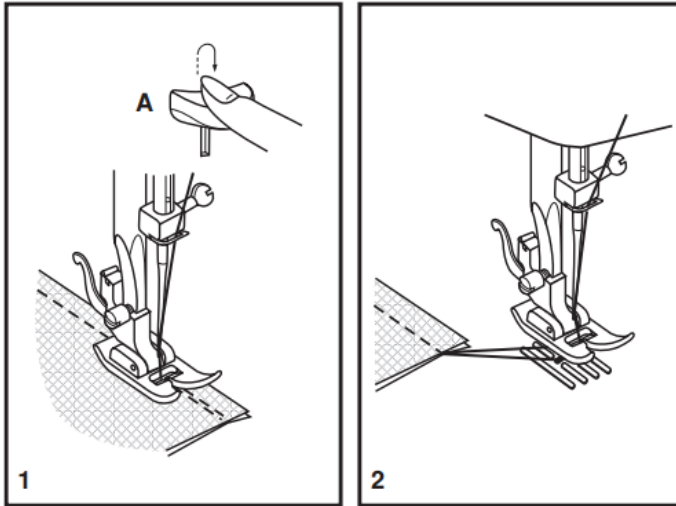
GB Sewing Straight Stitch

To begin sewing, set the machine for straight stitch. (1)



Place the fabric under the presser foot with the fabric edge lined up with the desired seam guide line on the needle plate. (2)

Lower the presser foot lifter, and then step on the foot controller to start sewing. (3)

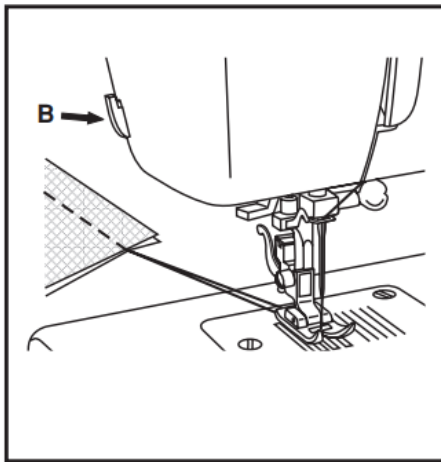


GB Reverse Sewing

To secure the beginning and the end of a seam, press down the reverse sewing lever (A). Sew a few reverse stitches. Release the lever and the machine will sew forward again. (1)

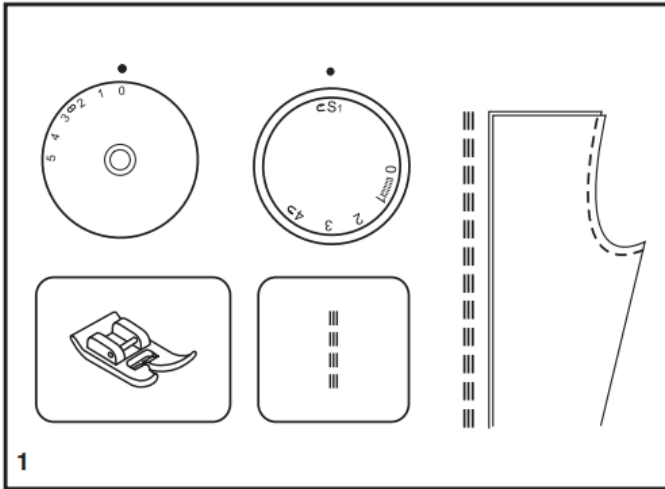
Removing the Work

Turn the handwheel toward you (counterclockwise) to bring the thread take up lever to its highest position, and continue turning until the needle just slightly begins to descend. Raise the presser foot and remove work behind the needle and presser foot. (2)

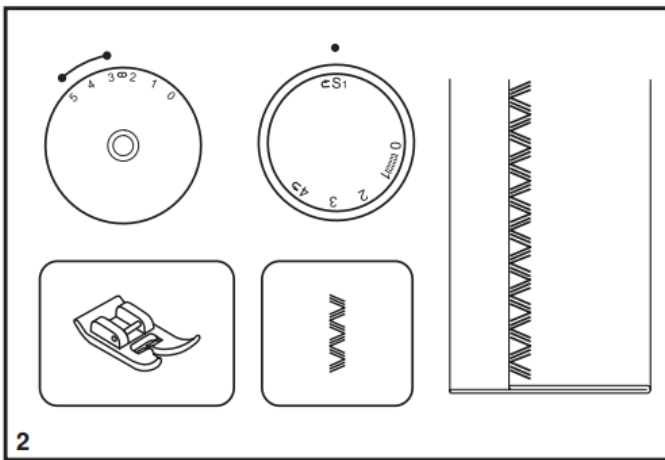


Cutting the Thread

Pull the threads under and behind the presser foot. Guide the threads to the side of the face plate and into thread cutter (B). Pull threads down to cut. (3)



1



2

GB Choosing Stretch Stitch Patterns

The Stretch Stitch Patterns are indicated with a blue color on the Pattern Selector Dial. To select these stitches, turn the Pattern Selector Dial to the desired pattern. Then, turn the Stitch Length Dial to the indicator marked "S1". Though there are several stretch patterns, here are two examples:


Straight Stretch Stitch

Set the Pattern Selector Dial to " ".

Used to add triple reinforcement to stretch and hardwearing seams.

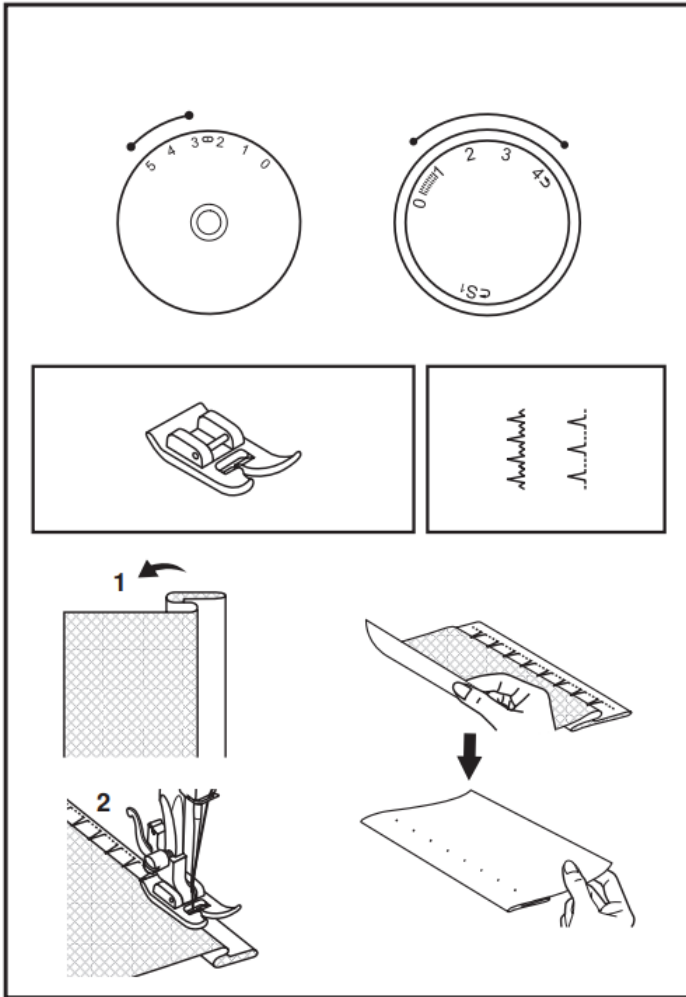
The machine sews two stitches forward and one stitch backwards.

Ric Rac

Set the Pattern Selector Dial to " ".


Adjust the Stitch Width Dial to between "3" and "5".

Ric Rac Stitch is suitable for firm fabrics like denim, corduroy, poplin, duck, etc.



GB Blind Hem

For hems on curtains, trousers, skirts, etc.

 Blind hem for stretch fabrics.

 Blind hem for firm fabrics.

Set the Stitch Length Dial with the range shown on the diagram at the right. Blind hems, however, are normally sewn with a longer stitch length setting. Set the Stitch Width Dial at a setting appropriate for the weight/type of fabric being sewn, within the range shown in the diagram on the right of the page. Generally, a narrower stitch is used for lighter weight fabrics, and a wider stitch is used for heavier weight fabrics. Sew a test first to make sure the machine settings are appropriate for the fabric.

Blind Hem:

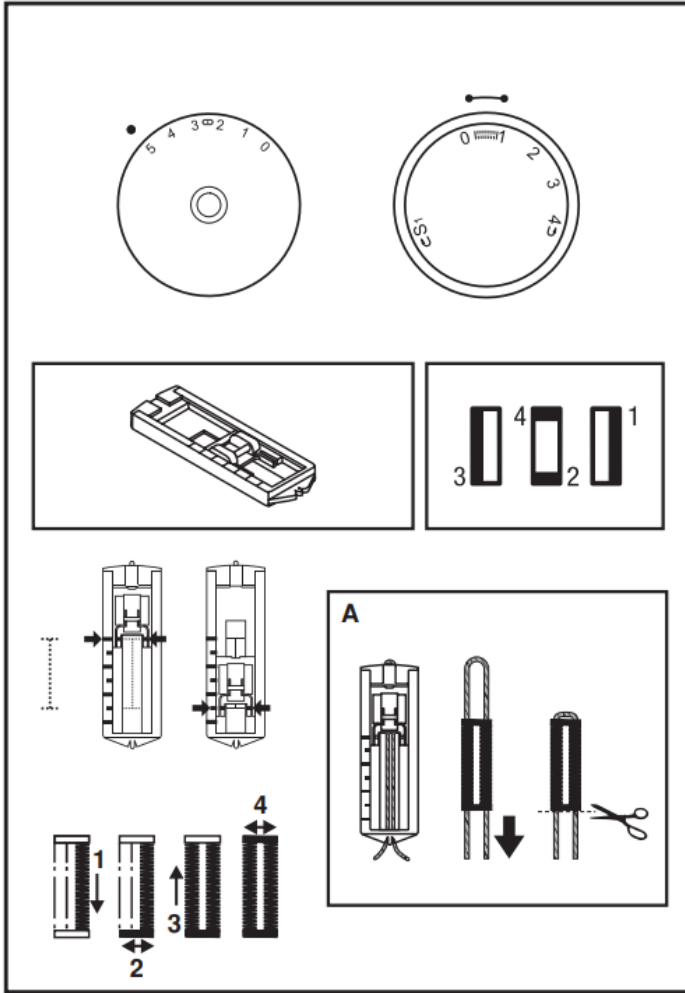
Turn up the hem to the desired width and press. Fold back (as shown in Fig. 1) against the right side of the fabric with the top edge of the hem extending about 7 mm (1/4") to the right side of the folded fabric.

Start to sew slowly on the fold, making sure the needle touches slightly the folded top to catch one or two fabric threads. (2)

Unfold the fabric when hemming is completed and press.

Note:

To make blind hem sewing even easier, use a blind hem foot, available from your SINGER® retailer. (See page 9 for part number)



GB Buttonholes

Prepare

1. Take off the all purpose foot and attach the buttonhole foot.
2. Measure diameter and thickness of button and add 0.3 cm (1/8") for bar tacks; mark buttonhole size on fabric.
3. Place fabric under the foot, so that marking on the buttonhole foot aligns with starting marking on fabric. Lower the foot, so that the buttonhole center line marked on the fabric aligns with the center of the buttonhole foot.

Adjust the Stitch Length Dial in the " " to set stitch density. Set the stitch width at "5". The width however may need to be adjusted according to the project, sew a test first to determine this.

Note:

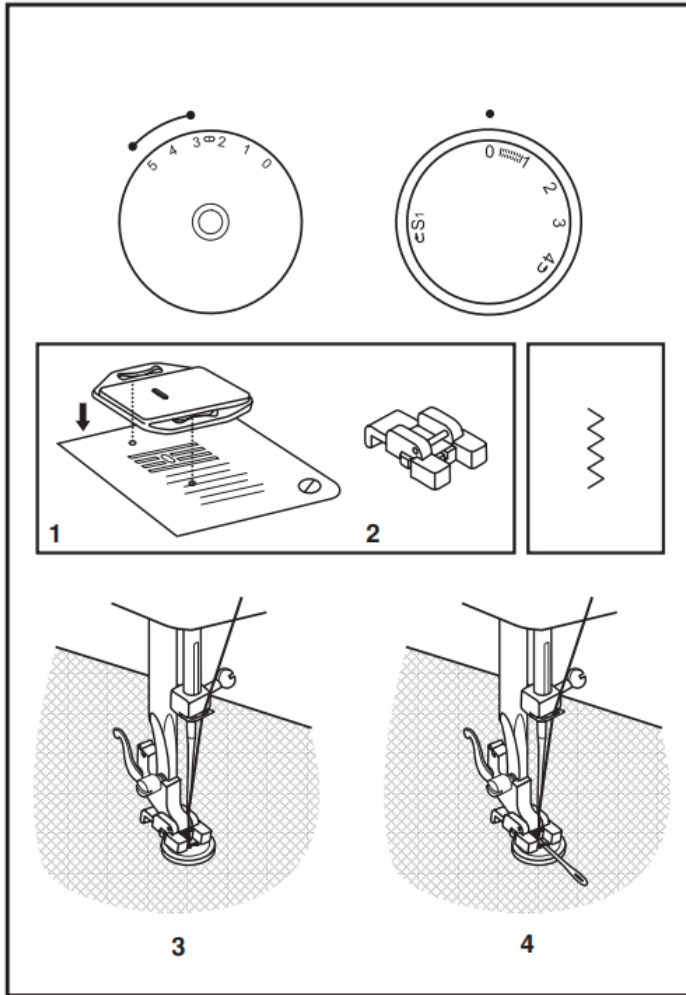
Density varies according to the fabric.

Always test sew a buttonhole on the fabric you are using to sew the buttonhole.

Follow the 4-step sequence changing from one step to another with the Pattern Selector Dial. When moving from step to step through the buttonhole process, be sure that the needle is raised before turning the Pattern Selector Dial to the next step. Take care not to sew too many stitches in steps 2 and 4. Use seam ripper and cut buttonhole open from both ends towards the middle.

Tips:

- Slightly reducing upper thread tension will produce better results.
- Use a stabilizer for fine or stretchy fabrics.
- It is advisable to use heavy thread or cord for stretch or knit fabrics. The zig-zag should sew over the heavy thread or cord. (A)



GB Sewing on Buttons

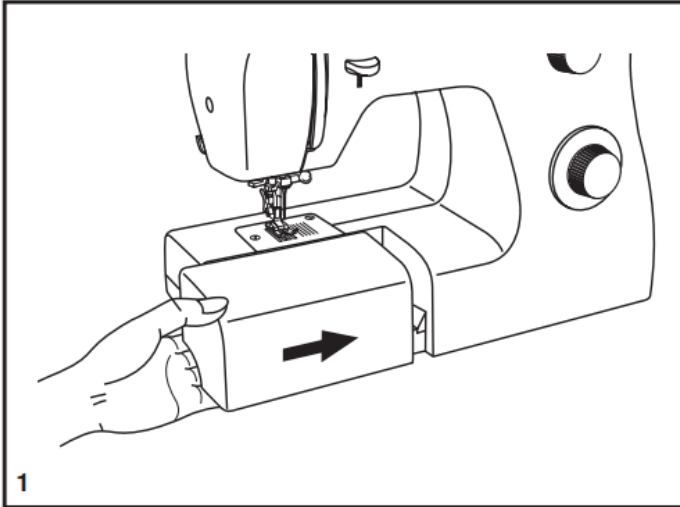
Install the darning plate. (1) Change the all purpose foot to the button sewing foot. (2) Set the stitch length to "0".

To sew a few securing stitches, set the machine for straight stitch, with the stitch width set at "0".

Raise the needle out of the fabric. Set the machine for zig-zag stitch, then set the width to number "3" - "5". Turn the handwheel to check that the needle goes cleanly into the left and right holes of the button. Adjust the stitch width, as needed, according to the distance between the holes of the button. Slowly sew on the button with about 10 stitches.

Raise the needle out of the fabric. Set the machine for straight stitch again, with the width at "0" sew a few securing stitches to finish.

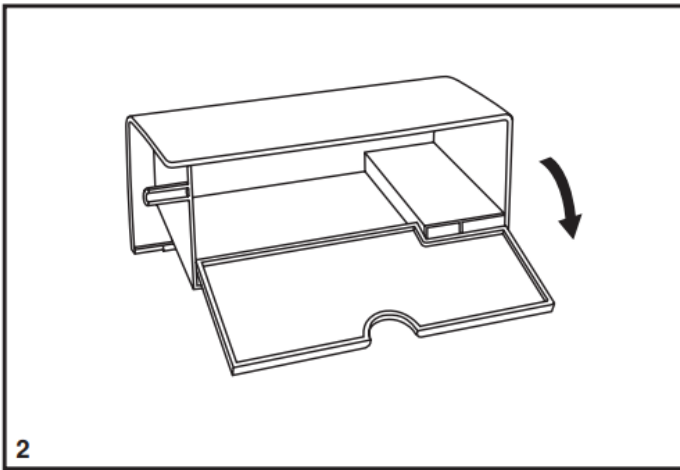
If a shank is required, place a darning needle on top of the button and sew. For buttons with 4 holes, sew through the front two holes first, push the work forward and then sew through the back two holes.



GB Installing the Removable Extension Table

Hold the removable extension table horizontally, and push it in the direction of the arrow. (1)

To remove the extension table, pull it toward the left.



The inside of the removable extension table can be utilized as an accessory box.

To open, flip cover down as shown. (2)

GB Needle/ Fabric/ Thread Chart

NEEDLE, FABRIC, THREAD SELECTION GUIDE

NEEDLE SIZE	FABRICS	THREAD
9-11 (70-80)	Lightweight fabrics-thin cottons, voile, silk, muslin, interlocks, cotton knits, tricots, jerseys, crepes, woven polyester, shirt & blouse fabrics.	Light-duty thread in cotton, nylon, polyester or cotton wrapped polyester.
11-14 (80-90)	Medium weight fabrics-cotton, satin, kettlecloth, sailcloth, double knits, lightweight woolens.	Most threads sold are medium size and suitable for these fabrics and needle sizes. Use polyester threads on synthetic materials and cotton on natural woven fabrics for best results. Always use the same thread on top and bottom.
14 (90)	Medium weight fabrics-cotton duck, woolen, heavier knits, terrycloth, denims.	
16 (100)	Heavyweight fabrics-canvas, woolens, outdoor tent and quilted fabrics, denims, upholstery material (light to medium).	
18 (110)	Heavy woolen, overcoat fabrics, upholstery fabrics, some leathers and vinyls.	Heavy duty thread, carpet thread.

IMPORTANT: Match needle size to thread size and weight of fabric.

NEEDLE, FABRIC SELECTION

NEEDLES	EXPLANATION	TYPE OF FABRIC
SINGER® 2020	Standard sharp needles. Sizes range thin to large. 9 (70) to 18 (110).	Natural woven fabrics-wool, cotton, silk, etc. Not recommended for double knits.
SINGER® 2045	Semi-ball point needle, scarfed. 9 (70) to 18 (110).	Natural and synthetic woven fabrics, polyester blends. Knits-polyesters, interlocks, tricots, single and double knits. Also sweater knits, Lycra®, swimsuit fabric, elastic.
SINGER® 2032	Leather needles. 12 (80) to 18 (110).	Leather, vinyl, upholstery. (Leaves smaller hole than standard large needle.)

Note :

1. For best sewing results always use genuine SINGER® needles.
2. Replace needle often (approximately every other garment) and/ or at first thread breakage or skipped stitches.

Makerspace Workstation Closing Procedures

When your reservation time has ended, follow the closing procedures for ALL workstations. Maker culture and community rely on a shared value of leaving the Makerspace like you found it, or better.

Closing Checklist:

- Turn off the equipment.
- Place all salvageable materials in their appropriate bin (paper, cardboard, 3D filament (plastic), fabric, metal, wood, etc.)
- Recycle or throw away all the remaining non-salvageable scraps and materials. Be sure to place recyclable materials in their appropriate bin.
- Return all accessory tools used to their appropriate locations.
- Inspect all station equipment at the reserved workstation and ensure its functionality.
- Report any concerns to Makerspace staff immediately.
- If you used a Makerspace computer, log off your personal account only. DO NOT log off the workstation computers or shut them down.

- Clean the workstation. This may include: (1) using alcohol spray and a paper towel to wipe down the workstation table and chair(s), as well as equipment handles and buttons; and (2) sweeping the workstation area of visible debris.
- Push Makerspace chairs and stools back under the workstation tables and ensure all electrical cords are tucked away so others will not trip over them.

Once the checklist is completed, check out with the Makerspace staff on duty so they can review/inventory the workstation and charge the total of consumables used to your LS2 account. If you are leaving earlier than your reserved time, and reserved time during Open Hours of Innovation, please let the staff member know so they can allow others to use the workstation.