

# Fashion and Soft Lab Studio Orientation & Policies Handbook

## CCA Shops

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# Orientation and Handbook Summary

This orientation and handbook serve as training on the industrial sewing machine, portable sewing machine, overlock machine and pressing iron at CCA. During this orientation you will learn the basics of how the machines work, how to operate them correctly, and equipment classification. Once completed, this orientation will certify you to use the sewing equipment at CCA.

In this orientation guide, you will find information on CCA rules and policies and how they relate to the Fashion Studios, Soft Lab, and the sewing equipment within them. You will also find information relating to identifying the parts on the sewing machines.

## Safety Considerations

- **Fire Danger!** Irons may distort, melt, or scorch the fabric of your design. You can test iron temperature with a small swatch of the fabric selected for the design. While using the iron you MUST:
  - **Not leave the iron “on” or “hot” unattended!**
  - **Unplug** iron when not in use.
  - If a fire/damage occurs, **put out the fire immediately** and **report the fire** to shop’s staff
- Additional Safety considerations
  - **Sharp Items:** It’s easy to lose track of pins and needles. They end up on the floor or stuck in unwanted places. **Always wear closed toe shoes in the studios and lab.** Always sweep and/or vacuum your work area.
  - **Disposing of Sharp Items:** Do not toss sharp items into the wastebasket. Those discarded items can stab or cut you. Dispose of sharp items inside the sharps containers. Old rotary blades should be sandwiched between two pieces of cardboard and securely taped shut before disposing.



# CCA, Shops, and Fashion Studio/Soft Lab Rules and Policies

## CCA Student Code of Conduct

### **Violations of the Student Code of Conduct**

CCA expects its students to uphold the college's values of artistic and academic excellence, compassion, integrity, and global citizenship. The following list, while not exhaustive, illustrates those behaviors that, when determined to have occurred in the judgment of the college, necessarily violate the values of the college; impinge upon the rights, safety, and well being of its constituents; and therefore represent misconduct subject to disciplinary action:

- Attempted or actual theft of or **damage to college property** or property of college community members.
- Conduct that could result in the violation of any federal, state, or local law.
- **Conduct which threatens or endangers the health or safety of any member of the college community** including but not limited to physical abuse, verbal abuse, threats, verbal or nonverbal intimidation, bullying, stalking, or coercion.
- **Failure to comply with the directions of college officials**, law enforcement units, and emergency personnel acting in authorized performance of their duties. **This also includes failure to identify oneself to such persons when requested.**
- Failure of a student to act in a responsible manner to assure that the student's guest is preserving the rights of the college community as outlined within the Student Code of Conduct.
- Forgery, alteration, or misuse of college documents, records, or identification.
- Hazing or conspiring to engage in similar acts that actually or potentially injure, endanger, or humiliate any fellow student or member of the college community, whether the hazing is consensual or not.
- **Interference with, obstruction of, or disruption of the teaching or learning process, administration, or any other college-sponsored activity.**
- **Knowingly furnishing false information to the college.**
- Possession, distribution, or use of any controlled substances on college property or at college-sponsored activities.
- Possession, distribution, or use of alcohol on college property or at college-sponsored activities, except under the conditions specified in the **Alcohol Policy**.
- Possession, distribution, or use of cigarette or vapor products on college property or at college-sponsored activities, except under the conditions specified in the **Smoking Policy**.
- Possession or use of a weapon or a replica thereof, such as a firearm, knife, explosives, or any other instrument used or potentially used to intimidate, threaten, and/or injure any member of the college community.
- Retaliation -- adverse action taken against a person because of the person's good faith opposing, reporting, or threatening to report a violation of the Code of Conduct or for participating in good faith in investigations, proceedings, hearings, or remediation related to college policies, including the Code of Conduct.

- Soliciting, assisting, or inciting another college community member to perform an act that violates the Student Code of Conduct or attempting to do the same.
- **Unauthorized entry or use of college property**, which includes unauthorized residence.
- Unauthorized possession, distribution, use, or duplication of keys or access cards for college property.
- Unauthorized use of electronic or other devices to record any person while on college property, disseminate personal information, or otherwise violate privacy without prior knowledge or consent.
- Unlawful harassment or discrimination based on race, color, religion, sex (including gender identity and pregnancy), national origin, age, disability, genetic information, sexual orientation, or parental status.

The CCA Student Code of Conduct can be read in its entirety at <https://portal.cca.edu/thriving/student-handbook/student-code-conduct/>

### CCA Shops Safety Procedures, Community Standards, and Policies.

Please note that repeated violations or any severe violation of the Studio and Lab Safety Procedures, Community Standards, and Policies may result in mandatory retraining, interim suspension of shop access, and can be elevated to the Student Code of Conduct Process.

- **Studio and Lab users must follow the instructions of staff and student shop monitors.**
- **Studio and Lab users must have their CCA ID with them and show it to shop staff if requested.**
- Be respectful to all studio and lab users and shop staff.
- **Training and approval is required to operate equipment.**
  - This training may be provided by studio and lab staff or by your instructors in classes.
- **Do not use the studio or lab while impaired** by substance use, lack of sleep, stress, or other issues.

**Impairment due to lack of sleep, stress, or the use of any substance is a severe safety concern. Behaviors associated with this impairment jeopardizes the health and safety of the community and will be referred to the Student Code of Conduct Process and may result in disciplinary action.**

- Ask for help or information whenever you need it.
- **Headphones or earbuds may not be used in shops** where posted.
- Clean up after every process and reset or return your tools.
- Keep walkways clear and safe.
- No running, yelling, or rowdy behavior.
- **Report machine or tool problems, or damage to staff by completing the machine maintenance form.**
- Report injuries and accidents immediately to staff.

- The studio and lab are not responsible for the security of student projects or materials left in spaces.
- Guidelines on material use and disposal must be followed.

These studio and lab specific policies and standards are set in each studio by the Studio Manager.

**They cannot conflict with the rules above or the Student Code of Conduct.**

- Specific attire and PPE rules
- Storage of materials or projects in shops
- Food and drink guidelines
- Material use procedures
- Access times
- Cleanup procedures

**Please ask the studio manager if you are not clear on any of the policies or procedures in the shop you are working in. We want the shops to be safe, efficient, and easy to work in for all of the community.**

## Fashion Studios and Soft Lab Orientation Policies

The CCA Shops including the Soft Lab and Fashion Studio **require all users attend an orientation** to learn how to safely operate our shop equipment **before use**. To facilitate access to our tools, the soft lab runs numerous orientation trainings throughout the semester. A full orientation schedule of the soft lab can be viewed here:

<https://portal.cca.edu/learning/shops/soft-lab/>

- When attending an orientation:
  - **Be on time.** Attendees arriving more than 10 minutes late after the scheduled start time will have missed essential safety information and will be asked to leave and will not be “certified” for soft lab/ fashion studio use.
  - **Participate and pay attention.** These orientations are for your safety in addition to increasing your knowledge. You are encouraged to ask questions while attending the orientation. Do not engage in disruptive behavior while attending the orientation.
  - **Sign in and fill out the attendance sheet.** Without this information we will not have a record of your attendance for the orientation. Tool certification will not be granted to anyone who has not signed in on the attendance sheet.
- “Open” orientations are:
  - Available to any “active” CCA user including enrolled students, active staff and active faculty.
  - Scheduled approximately once (1) a week until the final four (4) weeks of the semester.
  - **NOT scheduled during the final (4) weeks of the semester to accommodate student machine use during finals.**
- “Class” orientations may be requested to train entire class groups on Fashion/Soft Lab Tools. Class orientations:
  - Must be requested by the **faculty** member teaching the course.
  - Must be scheduled with the Studio Manager via email with at least 1 week's notice to schedule “ahead” of existing appointments and student tool use.
  - Must provide a class syllabus to the Studio manager at least 1 week in advance of the orientation.
  - Will be scheduled in the order they are requested.
  - **Must be attended by the requesting faculty member.**
- Only CCA Soft Lab / Fashion Studio management staff can train you on Soft Lab and Fashion Studios Tools.
  - Other students or faculty cannot certify other users on the sewing machines.
  - Only certifications performed by Soft Lab / Fashion Studio Managers will be honored.
  - Studio Staff is **not** responsible for project outcomes.

# Fashion Studios and Soft Lab Rules and Policies

The Following Rules apply to ALL users at CCA. Violation of these rules and policies may result in immediate suspension of access to the Soft Lab and/or Fashion Studio. Reinstatement of access will be at the discretion of a Studio Manager.

- **All users must be a current CCA student or active staff or faculty member.**
  - CCA alumni or other outside users are NOT allowed to use ANY of the equipment in the Soft Lab or Fashion Studios at CCA.
- All users must attend an Orientation before using any of the equipment. Orientations will not be scheduled after the final 4 weeks of the semester.
- Users may not leave any equipment that is running unattended, especially while on CCA property.
- **Do not remove equipment from the studios or lab**
  - **DO NOT REMOVE bobbin cases**, thread, machine needles, needle screws, dress forms, half-scale dress forms, portable sewing machines.
- Use the equipment only for its intended use as described in this manual.
- Checking out equipment:
  - Request to check out equipment such as portable sewing machines, dress forms, half-scale forms, etc. by emailing the manager at [jeisold@cca.edu](mailto:jeisold@cca.edu)
  - Be specific about the equipment item, for example the size and the length of time the requested item is needed.
- Clean all work areas/surfaces when you are finished with your work each day.
  - Clean worktables, ironing boards, and floor of any materials, pins and remnants.
  - Do not leave work-in-progress projects inside the studio and/or lab unattended.
  - Store your work inside a locker and/or hanging on a z-rack.
  - Wipe and sanitize your work area.
  - No food or drink in the Lab or Studios except for water in a closed container.
  - **Unplug the irons!** Do not unplug by pulling the cord. To unplug, grasp the plug, not the cord.
- No parties or meetings inside the studios or lab without permission.
- No animals are permitted in the studios.
- No Prohibited Materials
  - “Unknown” or “mystery” are prohibited materials and cannot be used under any circumstances.
  - **Use of “Prohibited Materials” may result in immediate suspension of access to the Lab or Studios.**
- Unreported damages to the machines results in increased and significant damage.
  - Complete a machine maintenance form and place it under the arm of the sewing machine and/or next to the overlock machine.
  - When using electrical equipment, basic safety precautions should always be followed.
  - Never operate the machine if it has a damaged cord or plug or if it is not working properly.
- CCA reserves the right to use photos and videos taken during class and other events in CCA publicity materials and social media. Registration in classes gives CCA permission to use those images without further consent.



- **Users must Follow all staff instructions.**
  - If you do not understand something, please let us know!

# Machine Use Guide



## How to use the Juki DDL 8700 Industrial Sewing Machine

Industrial sewing machines are designed to perform specific operations in a manufacturing setting. They are built to operate at high speed, 24 hours a day, 7 days a week. They produce a more consistent, professional stitch, and on more types of material, than most domestic machines can.











### To use the sewing machine safely

Marks and pictographs included in the Instruction Manual and shown on the sewing machine are used so as to ensure safe operation of the sewing machine and to prevent possible risk of injury to the user and other people.


Warning marks are used for different purposes as described below.

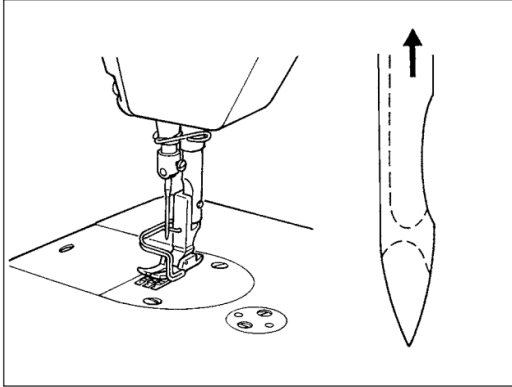
 <b>WARNING</b>	Indicates that there is a possible risk of death or serious injury if this mark is ignored and the sewing machine is used in a wrong manner.
 <b>CAUTION</b>	Indicates the operation, etc. which can cause a possible risk of personal injury and/or physical damage if this mark is ignored and the sewing machine is used in a wrong manner.

Pictographs mean the following:

	Danger warning which is not specified		There is a risk of electrical shock		There is a risk of fire		There is a risk of injury to hands, etc.
	Prohibited matter which is not specified		Disassembly/alteration is prohibited		Do not place fingers under the needle		Do not pour oil, etc.
	Generally required behavior		Disconnect the power plug				

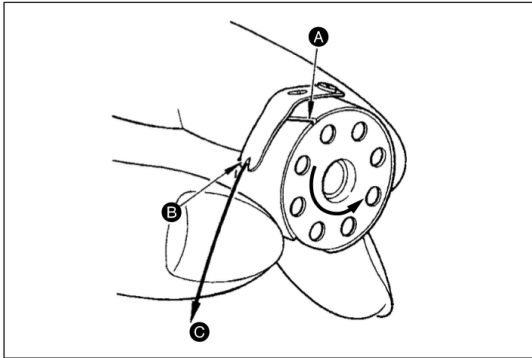
## ATTACHING THE NEEDLE

 **WARNING :**  
To protect against possible personal injury due to abrupt start of the machine, be sure to start the following work after turning the power off and ascertaining that the motor is at rest.



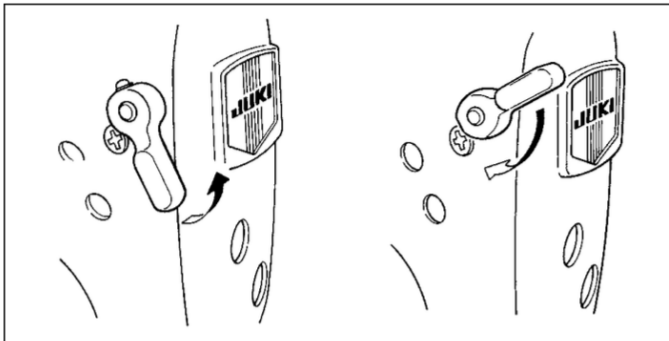
The SCARF (indentation) faces right

## SETTING THE BOBBIN INTO THE BOBBIN CASE



- 1) Pass the thread through thread slit **A**, and pull the thread in direction **B**.  
By so doing, the thread will pass under the tension spring and come out from notch **B**.
- 2) Check that the bobbin rotates in the direction of the arrow when thread **C** is pulled.

## LIFTING THE PRESSER FOOT

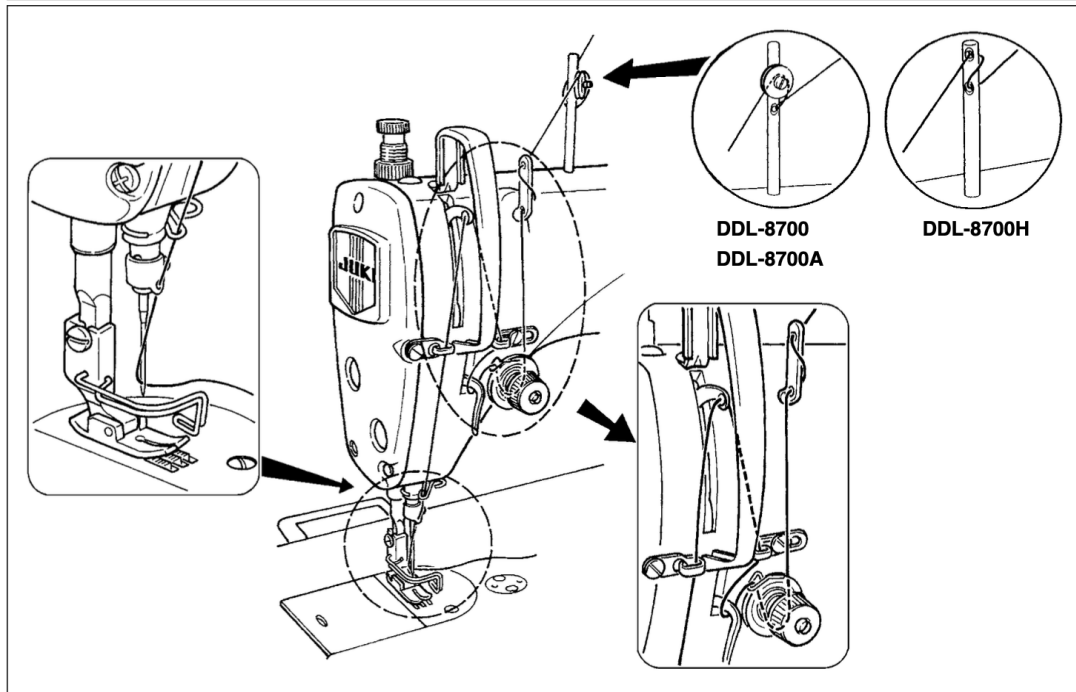


## THREADING THE MACHINE



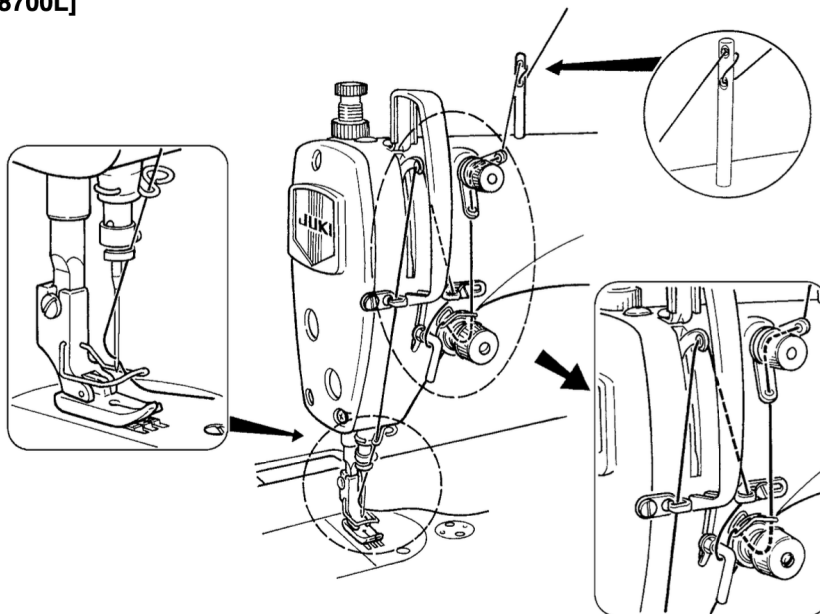
**WARNING :**

To protect against possible personal injury due to abrupt start of the machine, be sure to start the following work after turning the power off and ascertaining that the motor is at rest.

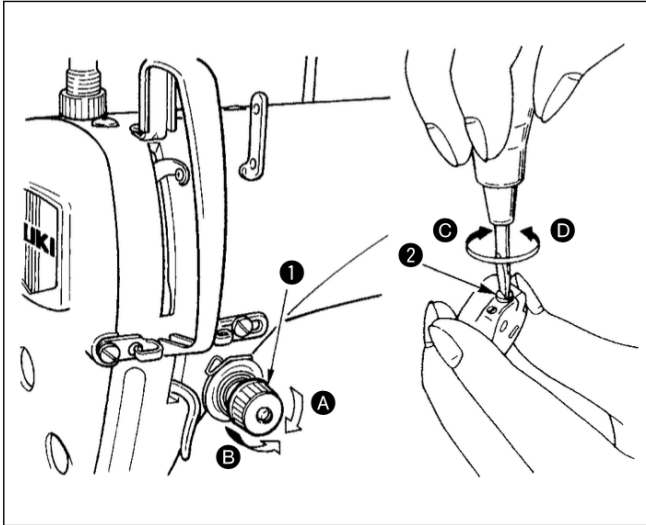


## THREADING THE MACHINE CONTINUED

[DDL-8700L]



## THREAD TENSION



### (1) Adjusting the needle thread tension

- 1) As you turn thread tension nut **1** clockwise (in direction **A**), the needle thread tension will be increased.
- 2) As you turn nut **1** counterclockwise (in direction **B**), the needle thread tension will be decreased.

### (2) Adjusting the bobbin thread tension

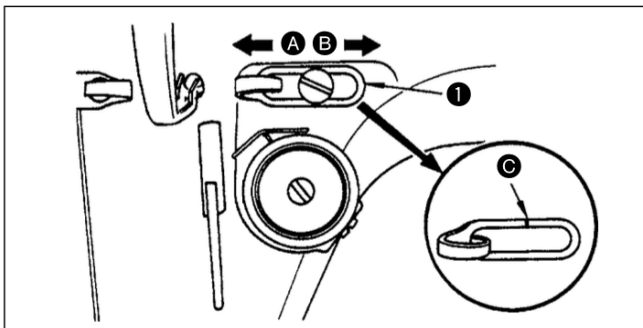
- 1) As you turn tension adjust screw **2** clockwise (in direction **C**), the bobbin thread tension will be increased.
- 2) As you turn screw **2** counterclockwise (in direction **D**), the bobbin thread tension will be decreased.

## ADJUSTING THE THREAD TAKE-UP STROKE



### WARNING :

To protect against possible personal injury due to abrupt start of the machine, be sure to start the following work after turning the power off and ascertaining that the motor is at rest.



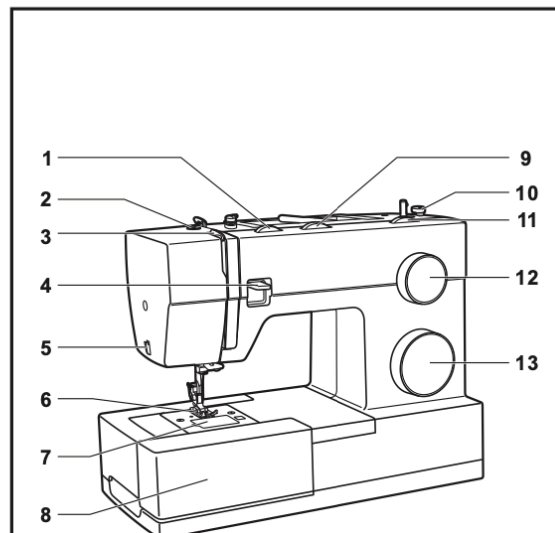
- 1) When sewing heavy-weight materials, move thread guide **1** to the left (in direction **A**) to increase the length of thread pulled out by the thread take-up.
- 2) When sewing light-weight materials, move thread guide **1** to the right (in direction **B**) to decrease the length of thread pulled out by the thread take-up.
- 3) Normally, thread guide **1** is positioned in a way that marker line **C** is aligned with the center of the screw.

## How to use the Singer Heavy Duty Sewing Machine

The Singer Heavy Duty sewing machine is made for the casual home sewer, user-friendliness and provides a variety of stitch types and functions, instead of high stitch quality and machine durability like industrials. Domestic machines also have weaker motors, which means they may not be able to sew thick or difficult materials such as heavy-weight leather or vinyls.

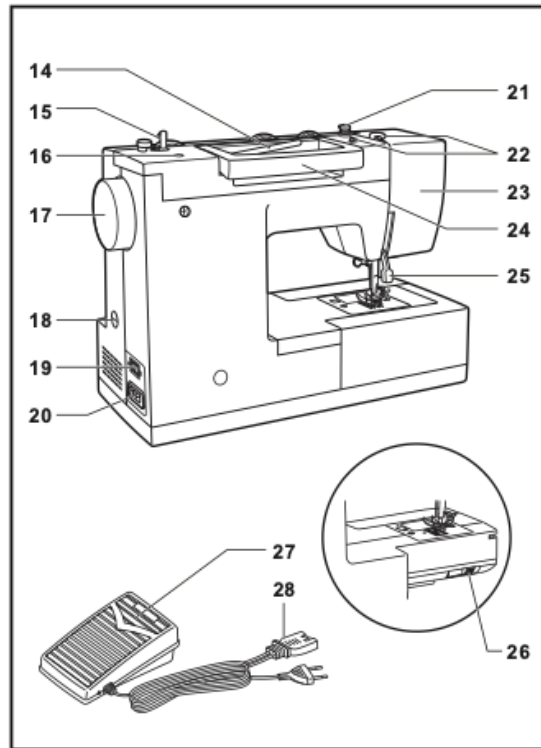
### Principal Parts of the Machine

1. Thread tension dial
2. Presser foot pressure adjustment
3. Thread take-up lever
4. Reverse sewing lever
5. Thread cutter
6. Presser foot
7. Needle plate cover
8. Removable extension table/ accessory storage
9. Three needle position dial
10. Bobbin stopper
11. Stitch width dial
12. Stitch length dial
13. Pattern selector dial



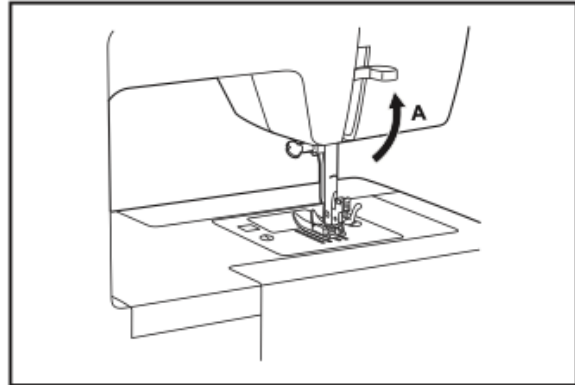
## □ Principal Parts of the Machine

14. Horizontal spool pin
15. Bobbin winding spindle
16. Hole for auxiliary spool pin
17. Handwheel
18. Buttonhole stitch balance adjustment slot
19. Power and light switch
20. Main plug socket
21. Bobbin thread guide
22. Upper thread guide
23. Face plate
24. Handle
25. Presser foot lifter
26. Drop feed control
27. Foot speed control
28. Power cord



## □ 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)

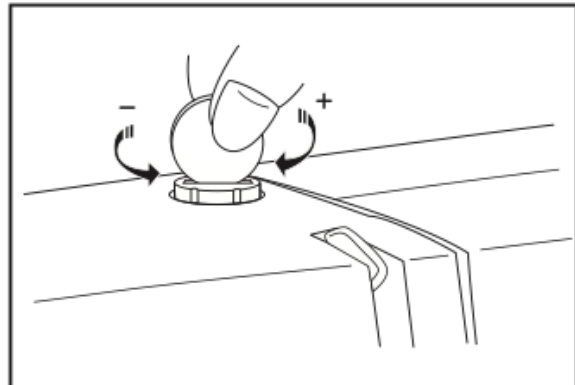


## □ Adjusting Presser Foot Pressure

The presser foot pressure of the machine has been pre-set and requires no particular readjustment according to the type of fabric (light-or-heavy weight).

However, if you need to adjust the presser foot pressure, turn the presser adjusting screw with a coin.

For sewing very thin fabric, loosen the pressure by turning the screw counter clockwise, and for heavy fabric, tighten by turning it clockwise.



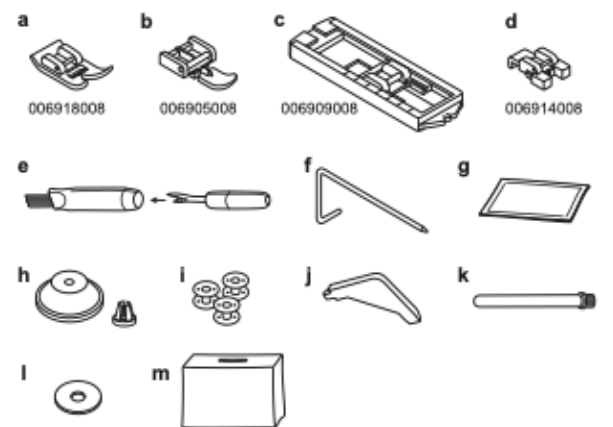
5

## □ Accessories

### Standard accessories (1)

- a. All purpose foot
- b. Zipper foot
- c. Buttonhole foot
- d. Button sewing foot
- e. Seam ripper/ brush
- f. Edge/ quilting guide
- g. Pack of needles
- h. Spool holders
- i. Bobbin (3x)
- j. L-screwdriver
- k. Auxiliary Spool Pin
- l. Spool pin felt
- m. Soft cover

### 1 Standard accessories



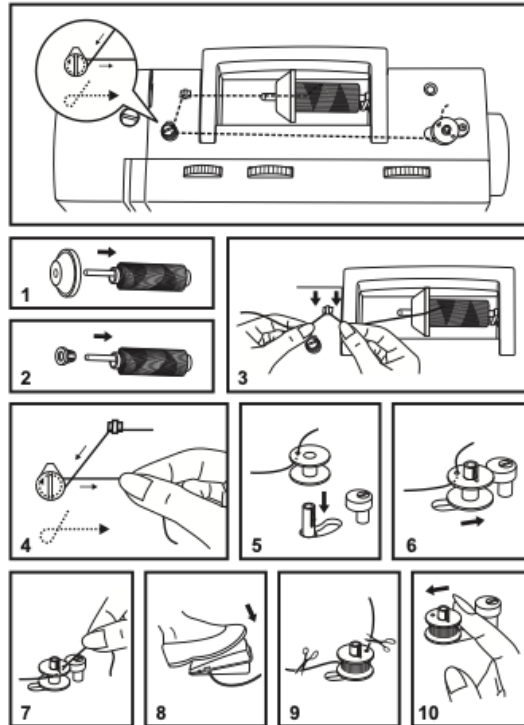


## □ Winding the Bobbin

- Place thread and corresponding spool holder on to spool pin. (1/2)
- Snap thread into thread guide. (3)
- Wind thread clockwise 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 handwheel turn. To start sewing, push the bobbin winder spindle to the left (sewing position).



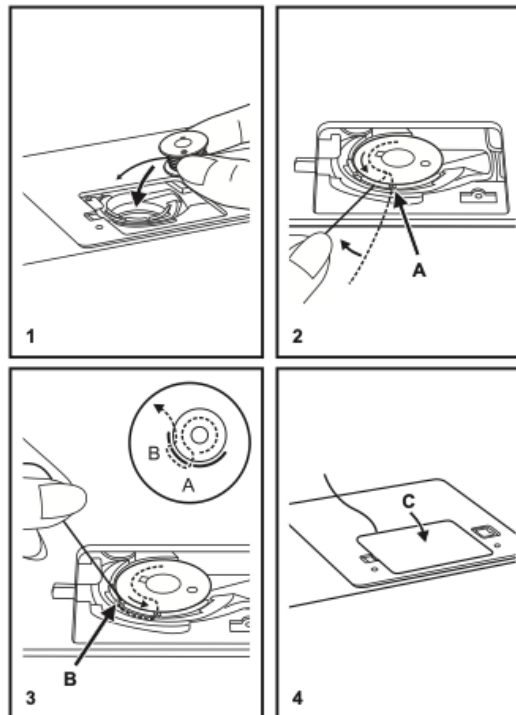
## □ Inserting the Bobbin

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

1. Insert the bobbin in the bobbin case with the thread running counterclockwise direction (arrow).
2. Pull the thread through the slit (A).
3. Draw the thread clockwise until it slips into the notch (B).
4. Pull out about 15 cm (6 inches) of thread and attach the bobbin cover plate. (C)

### **Attention:**

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



## □ 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)

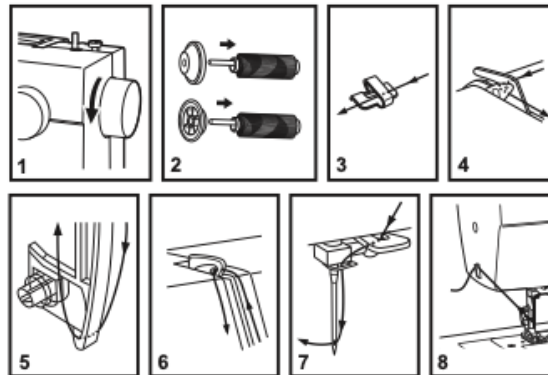
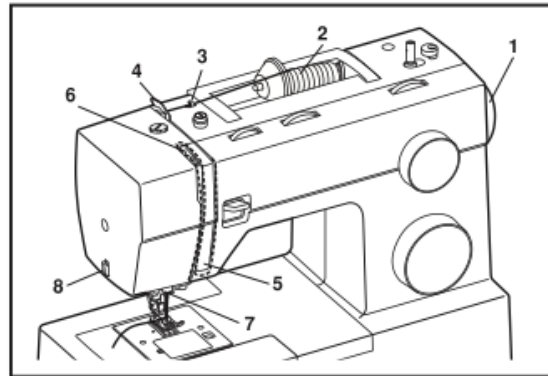
- Draw thread from spool through the upper thread guide (3) and pulling thread through pre-tension spring as illustrated. (4)

- 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 the thread behind the horizontal thread guide, and then 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)



## □ Raising the Bobbin Thread

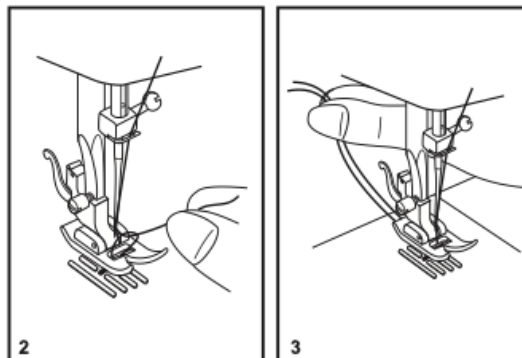
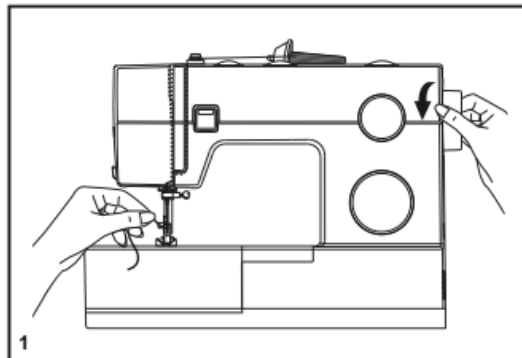
Hold the upper thread with the left hand. Turn the handwheel (1) towards you (counterclockwise) lowering, then raising needle.

**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)



## □ **Stitch Width Dial & Stitch Length Dial**

### **Function of stitch width dial**

The maximum zigzag stitch width for zigzag stitching is 6mm; however, the width can be reduced on any patterns. The width increases as you move zigzag dial from "0" - "6". (1)

### **Function of stitch length dial while zig-zag stitching**

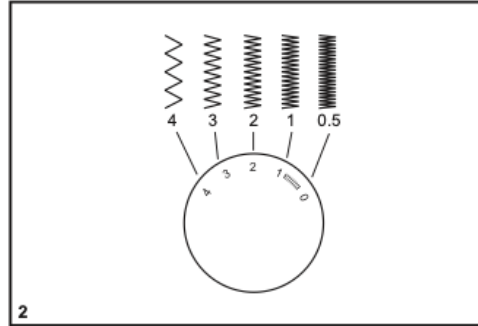
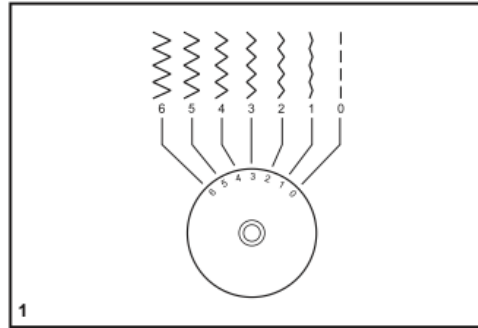
Set the Pattern Selector Dial to zig-zag.

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

Standard zigzag stitches are usually achieved at "3" or below. (2)  
Dense zig-zag stitches are called satin stitches. (2)

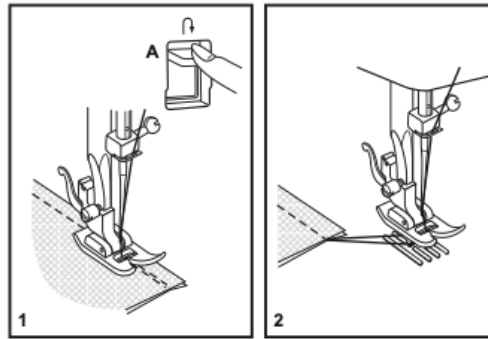
### **Function of stitch length dial for when straight stitching**

For straight stitch sewing, turn the Pattern Selector Dial to the straight stitch setting. 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". 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.



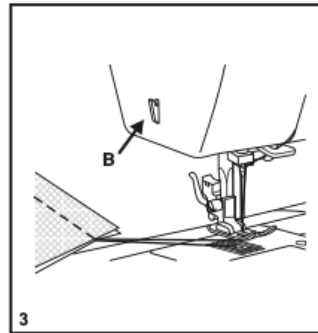
### □ Reverse Sewing

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, 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)

### □ Attaching the Presser Foot Shank

Raise the presser bar (a) with the presser foot lifter. Attach the presser foot shank (b) as illustrated. (1)

#### Attaching the presser foot

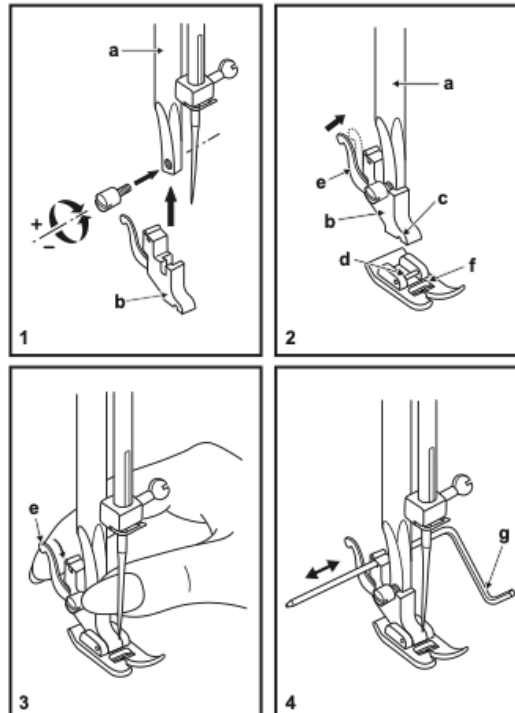
Lower the presser foot shank (b) using the presser foot lifter, until the cut-out (c) is directly above the pin (d). (2) The presser foot (f) will engage automatically.

#### Removing the presser foot

Raise the presser foot using the presser foot lifter. (3)  
Raise the lever (e) and the foot disengages.

#### Attaching the edge/ quilting guide

Attach the edge/ quilting guide (g) in the slot as illustrated. Adjust as needed for hems, pleats, quilting, etc. (4)



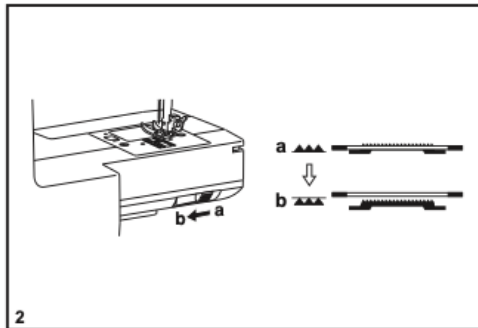
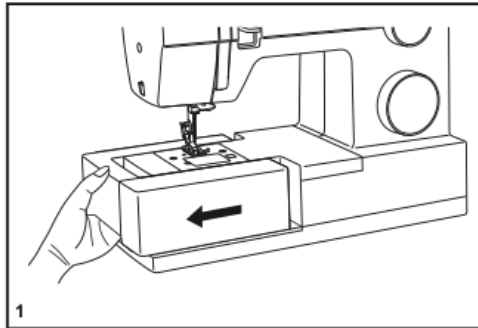
#### Attention:

Turn power switch to off ("O") when carrying out any of the above operations!

## □ How To Drop Feed Dog

For ordinary sewing, keep the feed dog up, for freehand embroidery, sewing on buttons and darning, drop the feed dog.

To raise (a) and lower (b) feed dog. (2)



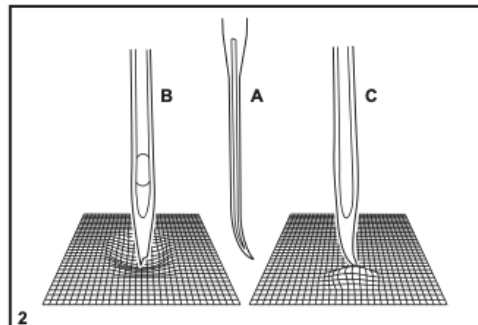
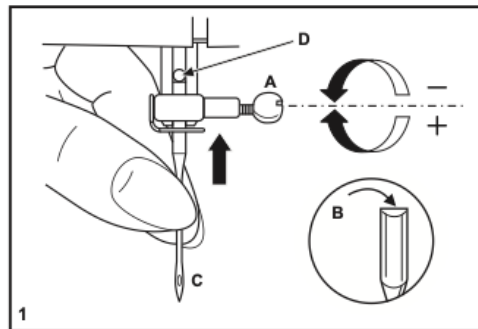
## □ Inserting & Changing Needles

Change the needle regularly, especially if it is showing signs of wear and causing problems. For best sewing results always use SINGER® Brand Needles.

Insert the needle as illustrated as follows:

- A. Loosen the needle clamp screw and tighten again after inserting the new needle. (1)
- B. The flat side of the shaft should be towards the back.
- C/D. Insert the needle as far up as it will go.

**Attention:**  
Turn power switch to off ("O") before inserting or removing the needle.



Needles must be in perfect condition. (2)

Problems can occur with:

- A. Bent needles
- B. Damaged points
- C. Blunt needles

## □ Troubleshooting Guide

Problem	Cause	Correction
Upper thread breaks	<ol style="list-style-type: none"> <li>1. The machine is not threaded correctly.</li> <li>2. The thread tension is too tight.</li> <li>3. The thread is too thick for the needle.</li> <li>4. The needle is not inserted correctly.</li> <li>5. The thread is wound around the spool holder pin.</li> <li>6. The needle is damaged.</li> </ol>	<ol style="list-style-type: none"> <li>1. Rethread the machine.</li> <li>2. Reduce the thread tension. (lower number)</li> <li>3. Select a larger needle.</li> <li>4. Remove and reinsert the needle. (flat side towards the back)</li> <li>5. Remove the reel and wind thread onto reel.</li> <li>6. Replace the needle.</li> </ol>
Lower thread breaks	<ol style="list-style-type: none"> <li>1. The bobbin case is not inserted correctly.</li> <li>2. The bobbin case is threaded wrong.</li> <li>3. The lower thread tension is too tight.</li> </ol>	<ol style="list-style-type: none"> <li>1. Remove and reinsert the bobbin case and pull on the thread. The thread should pull easily.</li> <li>2. Check both bobbin and bobbin case.</li> <li>3. Loosen lower thread tension as described.</li> </ol>
Skipped stitches	<ol style="list-style-type: none"> <li>1. The needle is not inserted correctly.</li> <li>2. The needle is damaged.</li> <li>3. The wrong size needle has been used.</li> <li>4. The foot is not attached correctly.</li> </ol>	<ol style="list-style-type: none"> <li>1. Remove and reinsert needle. (flat side towards the back)</li> <li>2. Insert a new needle.</li> <li>3. Choose a needle to suit the thread and fabric.</li> <li>4. Check and attach correctly.</li> </ol>
Needle breaks	<ol style="list-style-type: none"> <li>1. The needle is damaged.</li> <li>2. The needle is not correctly inserted.</li> <li>3. Wrong needle size for the fabric.</li> <li>4. The wrong foot is attached.</li> </ol>	<ol style="list-style-type: none"> <li>1. Insert a new needle.</li> <li>2. Insert the needle correctly. (flat side towards the back)</li> <li>3. Choose a needle to suit the thread and fabric.</li> <li>4. Select the correct foot.</li> </ol>
Loose stitches	<ol style="list-style-type: none"> <li>1. The machine is not correctly threaded.</li> <li>2. The bobbin case is not correctly threaded.</li> <li>3. Needle/ fabric/ thread combination is wrong.</li> <li>4. Thread tension wrong.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check the threading.</li> <li>2. Thread the bobbin case as illustrated.</li> <li>3. The needle size must suit the fabric and thread.</li> <li>4. Correct the thread tension.</li> </ol>
Seams gather or pucker	<ol style="list-style-type: none"> <li>1. The needle is too thick for the fabric.</li> <li>2. The stitch length is adjusted wrong.</li> <li>3. The thread tension is too tight.</li> </ol>	<ol style="list-style-type: none"> <li>1. Select a finer needle.</li> <li>2. Readjust the stitch length.</li> <li>3. Loosen the thread tension.</li> </ol>
Uneven stitches, uneven feed	<ol style="list-style-type: none"> <li>1. Poor quality thread.</li> <li>2. The bobbin case is threaded wrong.</li> <li>3. Fabric has been pulled.</li> </ol>	<ol style="list-style-type: none"> <li>1. Select a better quality thread.</li> <li>2. Remove bobbin case, thread and insert correctly.</li> <li>3. Do not pull on the fabric while sewing, let the feed dogs pull the fabric under the foot.</li> </ol>
The machine is noisy	<ol style="list-style-type: none"> <li>1. Lint or oil have collected on the hook or needle bar.</li> <li>2. The needle is damaged.</li> </ol>	<ol style="list-style-type: none"> <li>1. Clean the hook and feed dog as described.</li> <li>2. Replace the needle.</li> </ol>
The machine jams	Thread is caught in the hook.	Remove the upper thread and bobbin case, turn the handwheel backwards and forwards by hand and remove the thread.

# How to use the 2-Needle Overlock Stitch Machine

An overlock is a kind of stitch that sews over the edge of one or two pieces of cloth for edging, hemming, or seaming. Usually an overlock sewing machine will cut the edges of the cloth as they are fed through.

How to use the industrial overedge machines

Overedge machines *trim and overcast* in one operation. They are used to clean-finish raw edges, stitch stretchy seams in knits, or make sturdy, clean-finished seams in one step in wovens or knits.

- a. Choosing your machine and stitch type[Provide image showing stitch types: 3-thread serger, 4-thread overlock, and 5 or 6-thread superlock. Captions should say: "Sergers. 3 threads. For finishing raw edges in wovens or knits. Overlock, 4 threads. For making stretchy seams in knits. Superlock. 5 or 6 threads. For making sturdy, clean-finished seams with minimal stretch in wovens or knits. I believe there are stitch example images in the MO-6700 instruction manual][consider keeping a few machines permanently threaded as 3-thread sergers, one machine permanently threaded as a 4-thread overlock, and have a note on each machine listing the other stitch types each is capable of making, to be "available by special request. Please give at least 2 days advance notice."]
2. How to set up the machine
  - a. How to pull aside the foot
  - b. How to check the needle point and replace needle if necessary
  - c. How to tie on threads
  - d. How to pull through threads
  - e. How to reset foot and arrange threads (i.e. under foot)
3. How to operate the machine
  - a. "Go pedal" vs "presser-foot-lifting pedal"
  - b. Sew a chain, then feed in fabric pieces. DO NOT ALLOW PINS NEAR BLADE. If the blades hit a pin the machine will not be usable until a mechanic replaces the blades.
  - c. There is no backstitch: the stitch will hold by itself. When the piece is done, stitch off a chain and cut using trimmer [show image of trimmer]
4. How to identify and adjust for tension issues
  - a. [color-coded image of bad tensioned stitches with how to adjust. There's a diagram of this in my juki domestic overedge machine instruction manual, it shouldn't be too difficult to find one online to copy/paste here. The challenge will

be in adjusting it for all the different types of overedges you have, since I guarantee the 3 knobs vs 6 knobs will have them confused)

## **JUKI OVERLOCK MO-6714S OVERLOCK-AS-A-SERGER GUIDE**



### **JUKI OVERLOCK/OVERLOCK AS A SERGER**



## 1. What is this Machine? What kind of projects/functions are compatible?

- Overlock sewing machines, one of the most widely used in industry, are used for edging, hemming, and seaming a wide variety of light to medium weight materials (everything from stretchy to stiff).
  - Overlocks sew over the edge of the material to create a finished look and to prevent fraying.
  - Overlocks also come equipped with a trimming blade that will cut the material (to the right of the edge) as it sews, creating a clean and overcast edge.
  - Overlock stitches are extremely versatile; they can be used for construction, reinforcement, or even decoration..

*Tip: Overlocking is also referred to as "overedging", "merrowing", or "serging".*

- An overlock sewing machine differs from a lockstitch (plainstitch) sewing machine in that it uses **loopers** fed by multiple thread cones rather than a bobbin.

### **What are Loopers?**

- Loopers serve to create thread loops that pass from the needle thread to the edges of the fabric so that the edges of the fabric are contained within the stitch
- Loopers operate beneath the machine (replacing the bobbin) as arms that carry the thread to be picked up by the needle.
- Loopers can be found on overedge, chainstitch, coverstitch, and flatlock machines, and usually indicate a stretch stitch.

Loopers:



[Image: Lower looper]

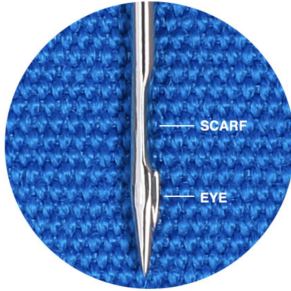


[Image: Upper looper]

## 2. Needles

The Juki Overedge uses a DCx27 needle. Our standard needle in the Specialty Sewing Lab is a DCx27- size 80/12 (semi-ballpoint).

- The needle should be inserted with the long groove facing you and **the scarf of the needle (the smaller groove) facing away from you.**



*[Image: Sewing needle with scarf and eye labeled]*

- The size range suitable for this machine includes: #9-#18.

### 3. Compatible Thread Types:

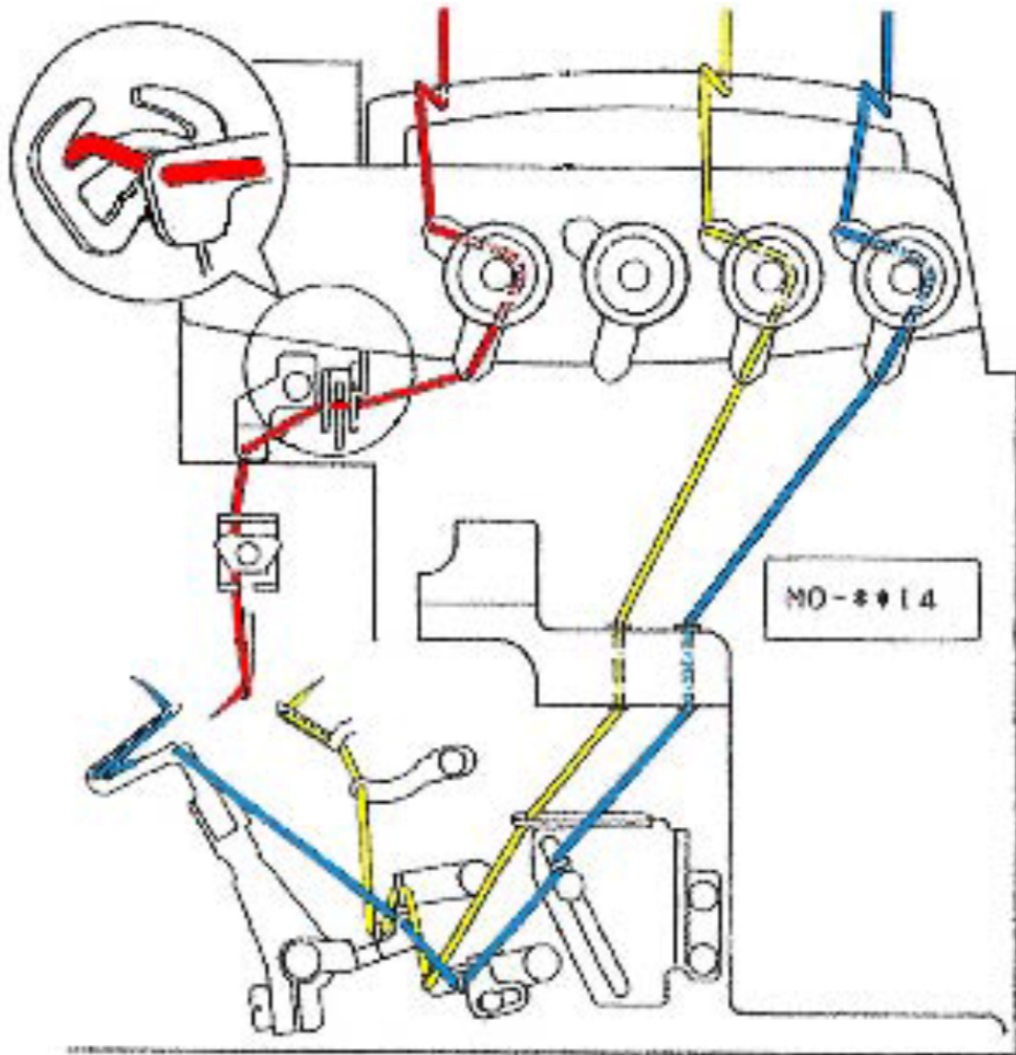
Refer to the [Thread Buying Guide](#) for more information on different thread types.

*Tip: Decorative threads (metallics, reflective, and fine yarns) are only recommend for the loopers.*

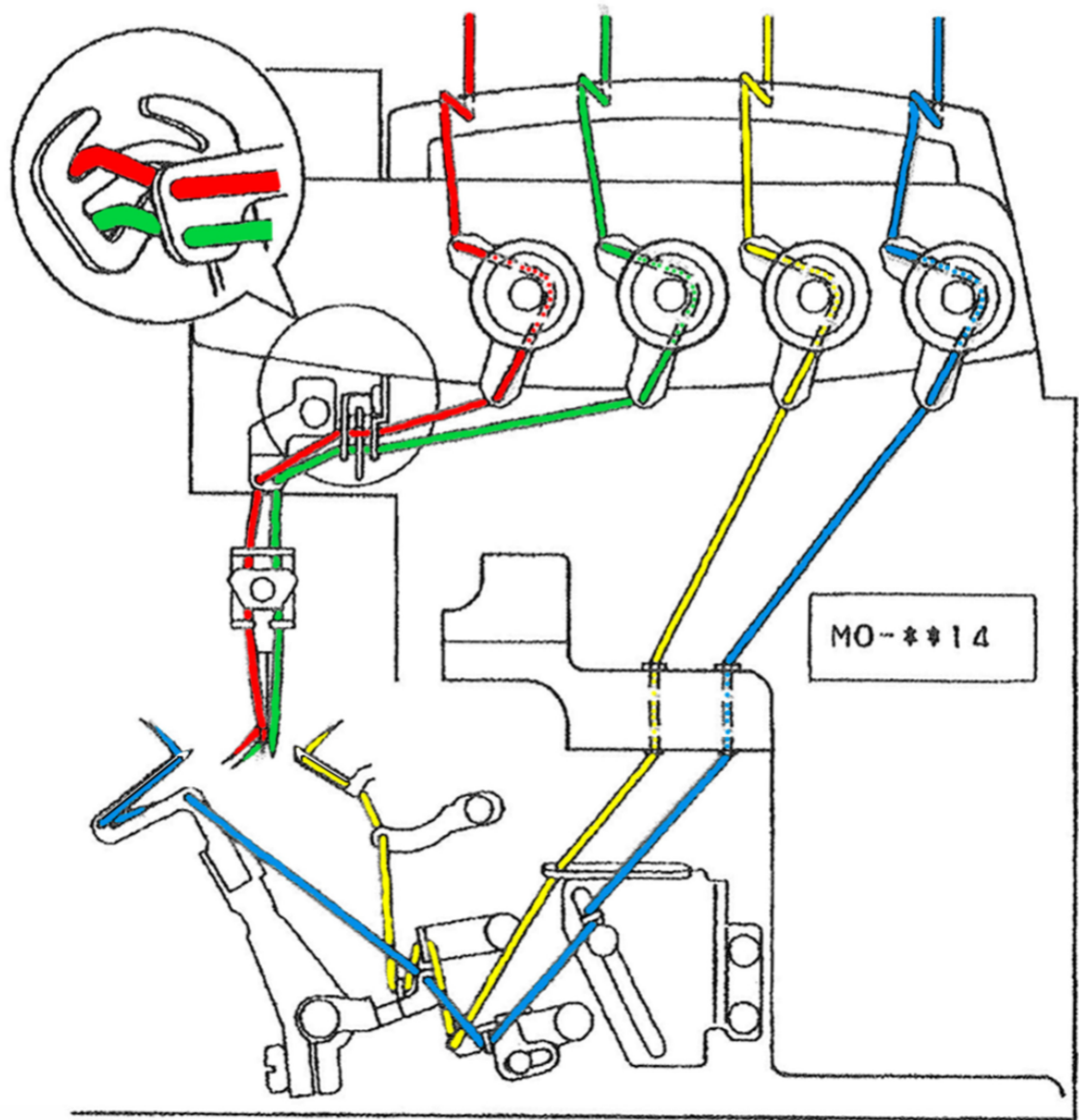
- All-Purpose Polyester Thread- Mara 120 to 150 or Tex 20-30
- Cotton
- Nylon
- Woolly Nylon- threading woolly nylon requires that you first thread the machine with regular thread, [tie-on](#), and pull through.

4.

5. 3-Thread: Overlock Threaded as a Serger Diagram



6. 4-Thread Overlock Threading Diagram



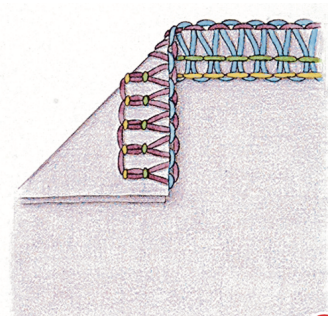
## 7. 4-Thread vs. 3-Thread

### 4-Thread Overlock

*When is it used?*

Overlock stitches are generally used for making a seam by using multiple threads to “lock-in” the edge of the fabric. A 4-thread overlock thread would be preferred for certain projects because:

- It’s the strongest serging stitch on the overlock machine, so it’s best for seaming (apparel under heavy use/wear).
- Durable while still being flexible



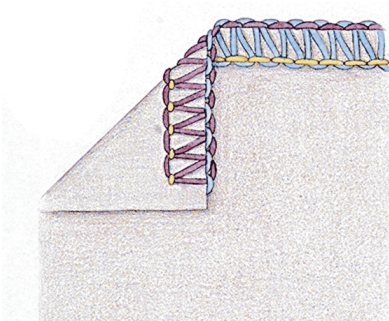
[Image: [Example of a 4-thread serge](#)]

### 3-Thread Overlock/Serger

*When is it used?*

This stitch is very similar to the 4-Thread overlock stitch, but only uses 1 Needle instead of 2. For the most part it can be used interchangeably with the 4-thread, though it does have a few differences:

- It’s less bulky
- It isn’t quite as strong as the 4-thread, so it’s ideal for finishing edges and seam allowances.
- It’s also ideal for seaming wovens and knit that aren’t under heavy wear.



[Image: [Example of a 3-thread overlock/serge](#)]

## 8. Threading/Orientation Script

### Beginning:

- In the Specialty Sewing Lab, this machine is threaded with Mara 120 thread in several different colors.
- While learning this machine, it's recommended to use a different color for each thread to understand what each needle and looper is doing.
- Using different colored thread is also necessary for troubleshooting potential tension issues, as you can see which thread's tension may be too loose or too tight. (refer to tension issues for more information).

### 1. Threading Loopers:

- Start by threading the **Upper Looper**, beginning at the far right of the machine, starting at the first thread spool.
- Then move to the left thread, the **Lower Looper**.
  - *Tip: Each thread path has accompanying color coded dots to lead you through the steps of each thread guide.*
- To access the threading of the loopers, be sure to remove the metal cover near the bottom of the machine by sliding it towards the right and then downwards towards yourself.
- These first 2 threads should end with threading the loopers and leaving a tail up and behind the needles.
  - *Tip: To reach the various holes of the loopers, open up the left section of the machine by pressing against the metal tab.*
  - *You can also move the looper to be more accessible by turning the handwheel located on the right side of the machine away from yourself.*

2. Threading Needles: *The other two thread paths present an option. The Overlock machine can be threaded with all four threads, or only 3 threads as a Serger.*

- Like the loopers, there are accompanying colored dots to lead you through the steps of threading the needles.
- The final step of threading this machine should end with threading the eye of the needle and leaving a tail of a couple inches. *Tip: if you're unable to reach the eye of the needle, move the handwheel to the right of the machine away from you until the eye of the needle is able to be accessed.*

a. To thread the machine as a serger (3 threads)

- Simply remove the right needle of the machine
  - To replace needle, use a screw or hex screw (depending on the model) to loosen the screw by turning it to the left.
  - Once loose, pull needle straight down to remove (*tip: turn handwheel away from yourself to raise needle bar*).
  - Replace needle with the short groove, *the scarf*, facing away from yourself. Hold needle in place and re-tighten screw.
- Disregard the right needle thread path and leave it unthreaded.

## 9. Settings

How to change stitch length on the overedge:

- Changing the stitch length determines how close the stitches are to one another. A smaller numbered stitch length = a closer/tighter overlock and vice versa.
- To change the stitch length:
  - Open the cover on the left side of the machine (exposing the area under the throat plate).
  - Locate the black button and push and hold it in.
  - Using your right hand, turn the hand wheel until you feel the black button “click” all the way in. This is where the stitch length was set.
  - Still holding in the black button, turn the handwheel until the size number you want aligns with the dash on the machine (numbers indicate stitch length in millimeters)
  - Release the button and close up the machine.

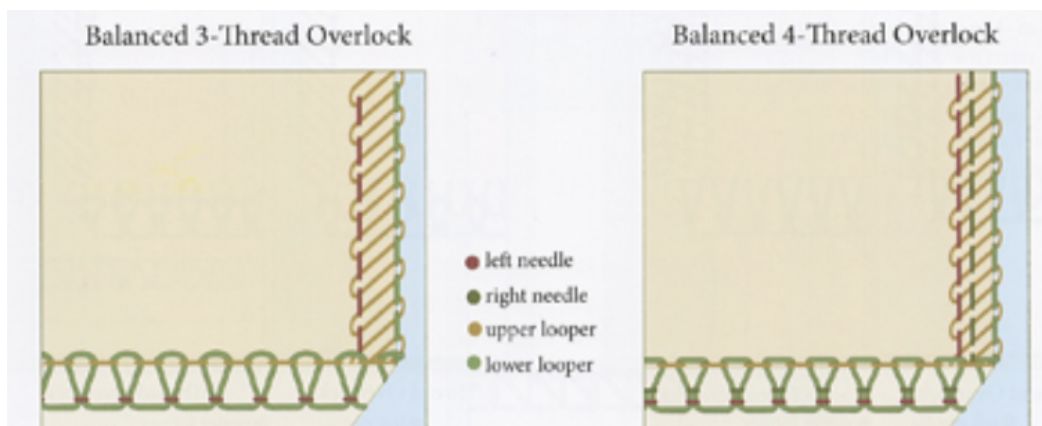
## 10. Safety

When using the overlock machine, it is imperative that you **remove pins before feeding through your material**. If you leave the pins in the fabric they could get caught by the blade and damage the machine and send metal shards flying that could hit your eyes (not fun).

### 11. Tension/Tips/Tricks/Problem Solving

**\*\*If you're experiencing a sewing issue, before you change anything...  
CHECK YOUR THREADING! Oftentimes a simple rethreading will solve the  
issue.\*\***

Correct Tension Example:



[Image: [Example of correct 3-thread & 4-thread overlock tension](#)]

Tension Tips:

- Loosen tension for **heavier fabrics**, as they need more thread to cover.

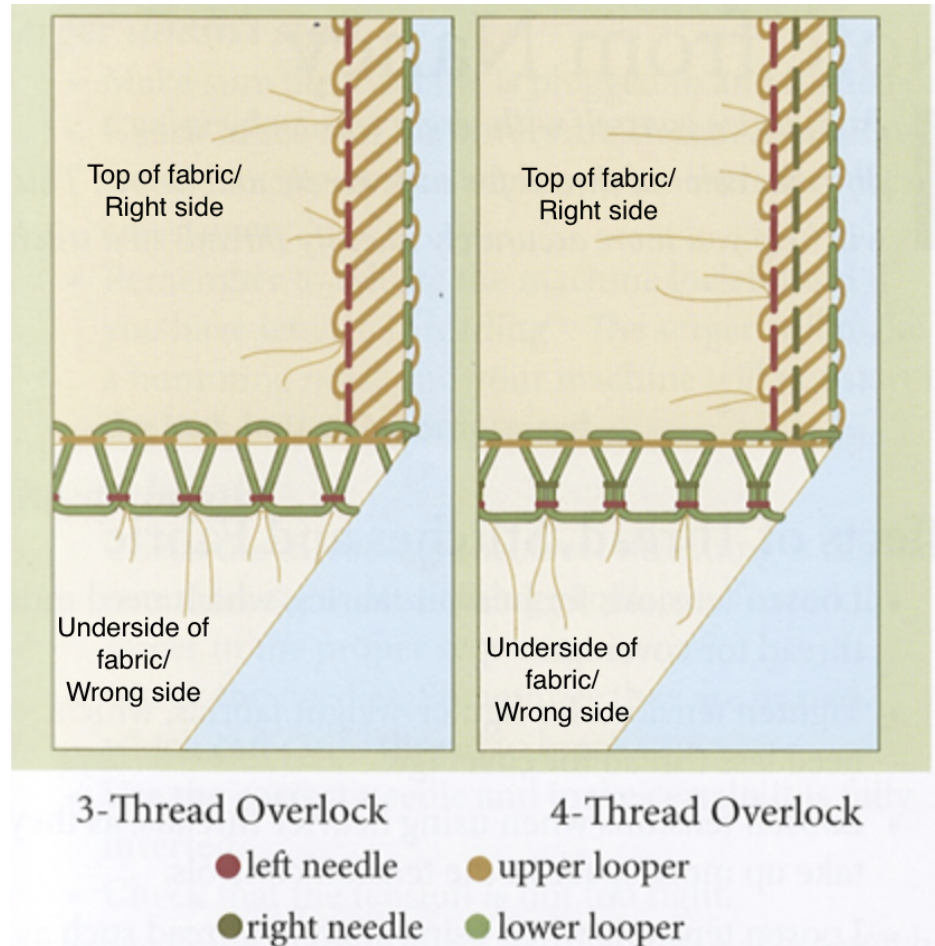


- Tighten the tension for **lighter weight fabrics** as they need less thread to cover
- For **heavier weight threads**, loosen the tension as they take up more space
- Reduce tension when using **wooly nylon**, as it stretches when passing through tension discs.

Tension Issues:

**1. Is your fabric puckering?**

- a. Loosen the needle tension. This works the same on the plainstitch machine.

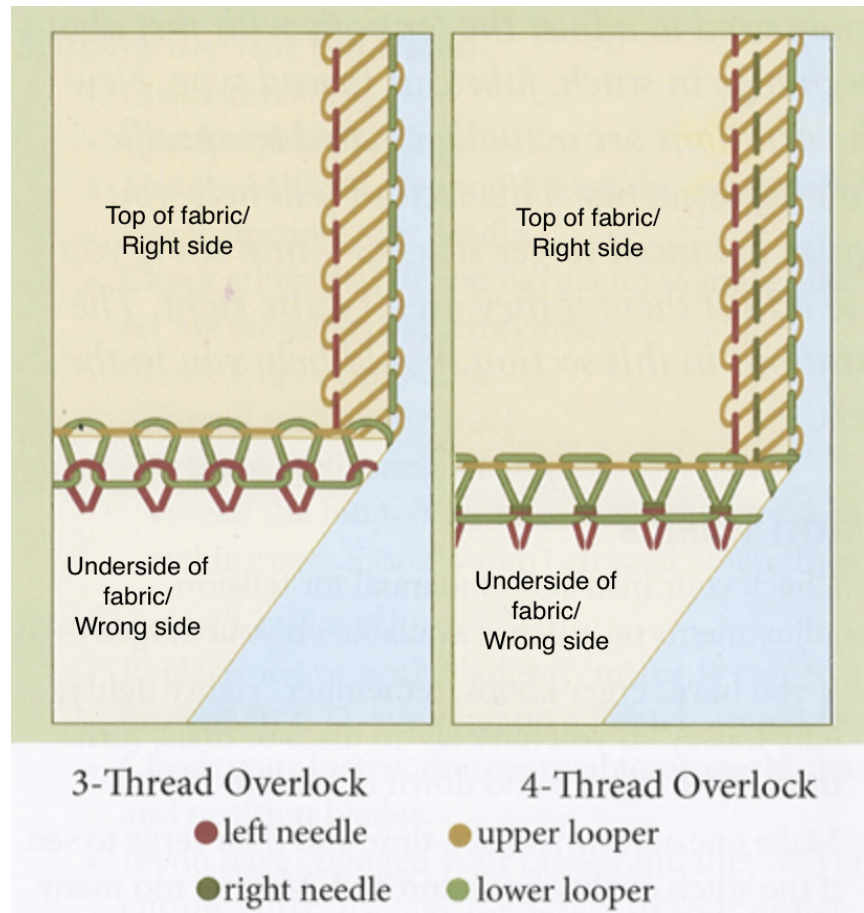


[Image: [Example of tight needle tension causing puckering.](#)]

**2. Are loops forming on the underside of the fabric? Weak seam?**

If you can see your needle thread beginning to form loops on the underside of the fabric, your top tension may be too loose.

- a. Tighten the needle tension

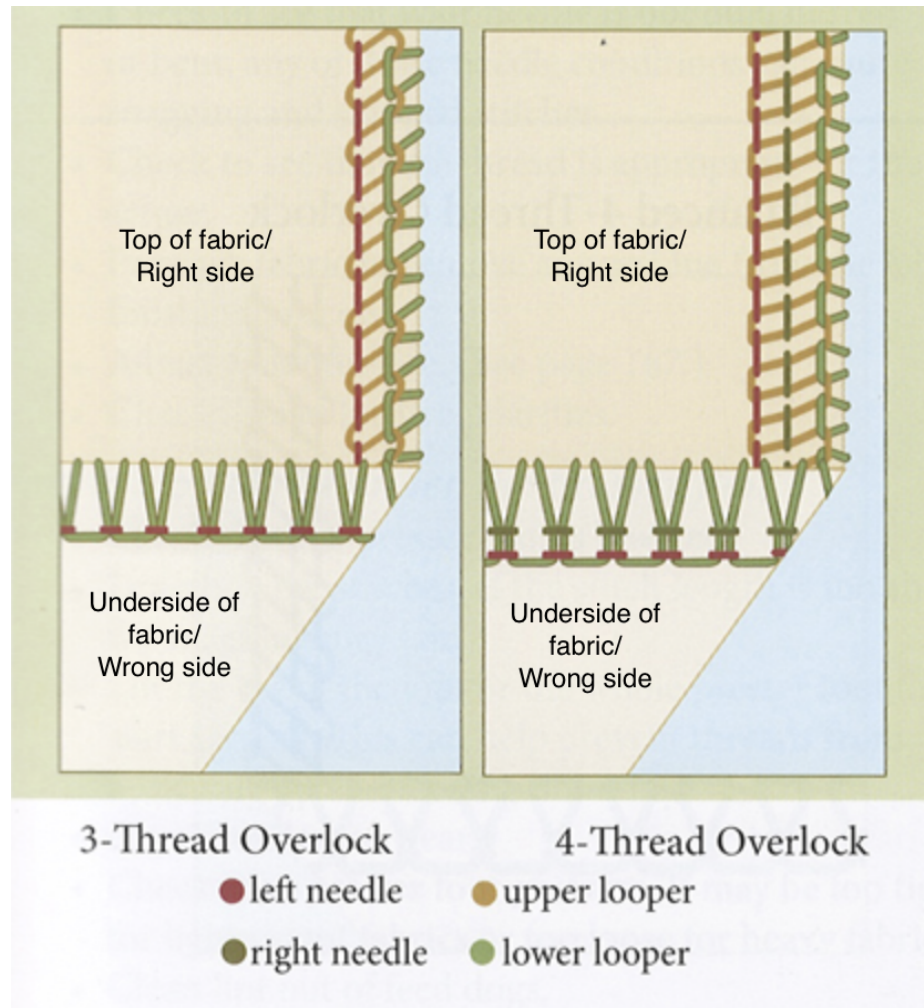


[Image: [Example of loose tension causing loops on underside of fabric](#)]

**3. Are the lower looper threads showing on the right side (top) of the fabric?**

- a. You may need to loosen the upper looper tension

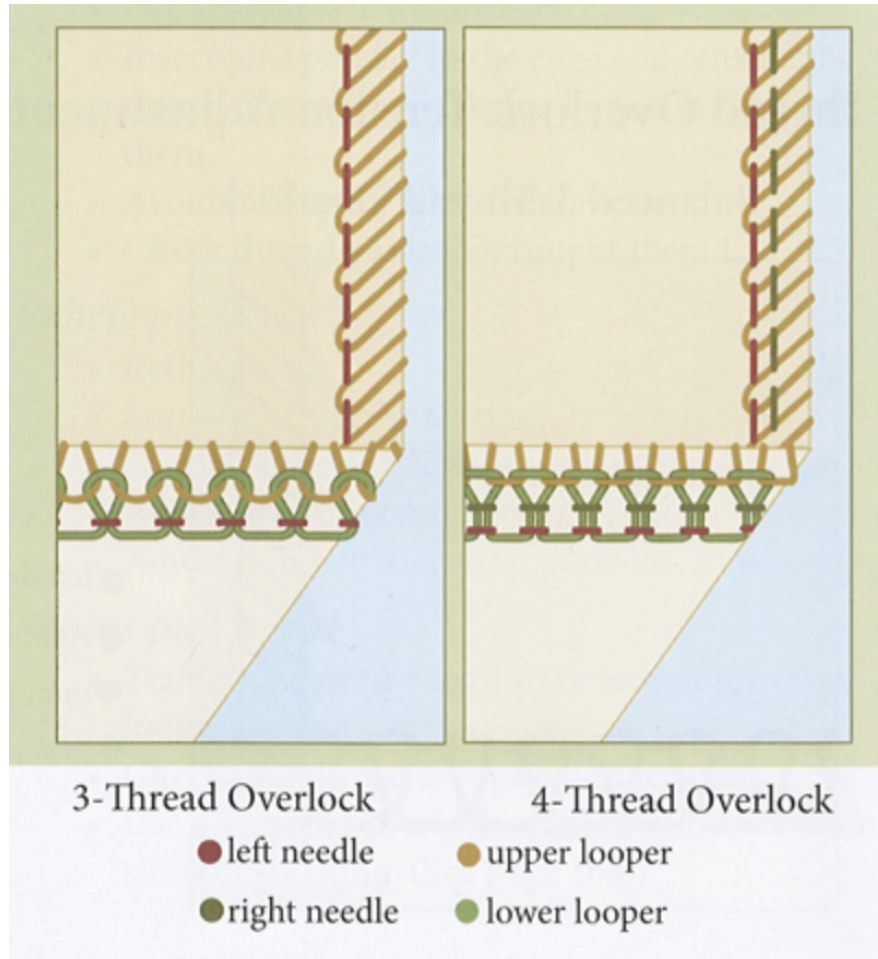
b. Or, you may need to tighten the lower looper tension



[Image: [Example of lower looper threads showing on top side of fabric](#)]

4. Are the upper looper threads being pulled to the underside of the fabric?

- a. You may need to tighten the upper looper tension
- b. Or, loosen the lower looper tension (I'll fix formatting here idk what's up).



[Image: [Example of upper looper threads showing on underside](#)]

## Skipped Stitched Troubleshooting

If your threading and tension appear to be correct, the issue may be with the needle.

1. *Was the needle put in correctly? Threaded correctly?*
  - a. Is the needle properly positioned all the way up? Loosen the needle screw, ensure that the needle is pushed up as far as it can go and retighten the needle.
  - b. Is the scarf of the needle (the small divet near the eye of the needle add photo) facing towards the back (away from you) with the long groove facing the sitter?
  
2. *Bent/Damaged needle?*
  - a. Run your finger over the point, do you feel a burr? This means it's damaged. Replace.
  - b. Run your finger over the point, is it dull? Replace.
  - c. Does the needle appear to be bent? Replace.
  - d. If nothing obvious still try putting in your own fresh needle. This alone may fix it.
  
3. *Are you using the correct needle and thread for the project?*
  - a. Different weights of fabric need different size needles. Sometimes just changing the needle size will solve the problem.

## 12. Locations in the UC and L Building

	4th Floor Rooms	5th Floor Rooms
<b>Overlock: Juki Model MO6714S</b>	400 402 405 406 412 418 (2) 428 431	500 504 506 (Open Workroom) 509 510 511 516 518 (Specialty Sewing Lab)









