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SAVE THESE INSTRUCTIONS

Servicing should be performed by an authorized service representative.

This product is intended for household use.

You will need this manual for the safety warnings and precautions, assembly, operating, inspection, maintenance and cleaning procedures, parts list, and assembly diagrams. Keep your invoice with this manual. Keep this manual and invoice in a safe and dry place for future reference.

UNPACKING

When unpacking, check to make sure all parts as indicated are included. If any parts are missing or broken, please contact your retailer as soon as possible.

IMPORTANT SAFETY INSTRUCTIONS

GENERAL SAFETY RULES

Read and understand all instructions and warnings. Failure to follow all instructions or warnings listed in this manual may result in electric shock, fire, and/or other serious injuries. Save these instructions for future reference.



WARNING

- Do not allow this appliance to be used as a toy. Close attention is necessary when operating this appliance by children or near children.
- Use this appliance only for its intended purpose.
- Never operate this appliance if it has a damaged cord, plug or if it is not working properly, if it has been dropped or damaged or if it has been dropped in water.
- Never drop or insert any object into any opening. Never pour any liquids in the appliance.
- Keep fingers away from all moving parts. Special care is required around the sewing machine needle.
- Before connecting the power, make sure the voltage and cycles shown on electrical date plate of machine (or motor) confirm to your electrical power.

WORK AREA

- Keep your work area clean and well lit. Cluttered and dark work areas may contribute to accidents.
- Do not operate electric appliances in explosive atmospheres, such as in the presence of flammable liquids, gases, or dust. Electric appliances create sparks which may ignite the dust or fumes.
- Keep bystanders, children, and visitors away while operating electric appliances. Distractions may cause you to lose control.

WARNING

ELECTRICAL SAFETY

- Double insulated appliances are equipped with a polarized plug (one blade is wider than the other). The plug will fit in a polarized outlet only one way. If the plug does not fit fully in the outlet, reverse the plug. If it still does not fit, contact a qualified electrician to install a polarized outlet. Do not change or modify the plug in any way. Double insulation eliminates the need for the three wire grounded power cord and grounded power supply system.

DANGER

- Do not expose electric appliances to rain or wet conditions. Water entering an electric appliance will increase the risk of electric shock.

- Do not abuse the Power Cord. Never use the Power Cord to carry the appliance or pull the Plug from an outlet. Keep the Power Cord away from heat, oil, sharp edges, or moving parts. Replace damaged Power Cords immediately. Damaged Power Cords increase the risk of electric shock.

- This appliance is intended for indoor use only.

WARNING

PERSONAL SAFETY

- Be sure that the electrical voltage of the electrical outlet is the same as the rated voltage of the machine.

- Stay alert. Watch what you are doing, and use common sense when operating an electric appliance. Do not use an electric appliance while tired or under the influence of drugs, alcohol, or medication. A moment of inattention while operating an electric appliance may result in serious injuries.

- Avoid accidental starting. Be sure the power switch is off before plugging the unit in. Carrying electric appliances with your finger on power switch or plugging in electric appliances with the power switch on, invites accidents. Make sure you are prepared to begin work before turning the Power Switch "ON".

- It is recommended that you always wear eye protection. Wear ANSI approved safety impact eye glasses. ANSI approved safety impact eye glasses are available at your local hardware stores.

- Do not force the appliance. Use it only for the correct application. There are certain applications for which this Sewing Machine was designed for. Using it for other applications or using this product for a purpose for which it was not intended is not recommended and may cause serious injuries.

- Do not use this appliance if the power switch does not turn it on or off.

- Store idle electric appliances out of reach of children and other untrained operators. Electric appliances are dangerous in the hands of untrained users.
- Only use accessories that are recommended by the manufacturer for this appliance. Accessories that may be suitable for one appliance may become hazardous when used on other appliances.

SAFETY RULES

- Maintain all warning labels and nameplates on the sewing machine. They carry important safety information and should always be followed.



- Keep fingers and hands away from the Needle when you turn the Power Switch on, or while the sewing machine is being operated.
- Always disconnect the sewing machine from its electrical outlet before performing any services, maintenance, or cleaning.
- Before use, the sewing machine should be placed on a flat, stable table surface, capable of supporting the weight of the machine.
- Do not operate this appliance with any of its safety guards removed.
- Use caution when threading the machine. Certain parts are extremely sharp.
- Never use bent or dull needles. Shut off and unplug the sewing machine and promptly replace a bent or dull needle with one that is in proper working condition.
- Use only the handle to lift and move the machine.
- This machine should never be left unattended when plugged in. Always unplug the machine from electrical outlet immediately after using and before cleaning.
- Do not place or store this machine where it can fall or be pulled into a tub or sink. Do not reach for the machine if it has fallen into water. Unplug the machine immediately.



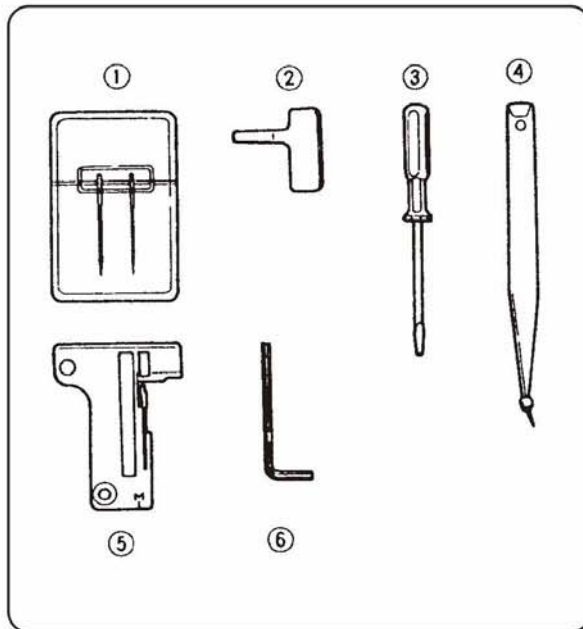
People with pacemakers should consult their physician(s) before using this product. Electromagnetic fields in close proximity maybe cause interference to heart pace-makers.

The warnings, precautions, and instructions discussed in this manual can not cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.

1. ACCESSORIES

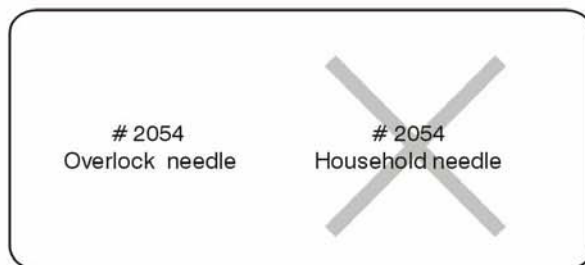
- 1. Needle set 1
- 2. Screwdriver (sheet metal) 1
- 3. Screwdriver (small size) 1
- 4. Tweezers 1
- 5. Rolled hemming throat plate 1
- 6. Hex-head wrench 1

See page 44 for optional accessories.



2. NEEDLE INFORMATION

- This overlock uses a flat shank industrial needle that eliminates the possibility of inserting the needle backwards.
- Do not attempt to use a standard household sewing machine needle of any size or type in this overlock.

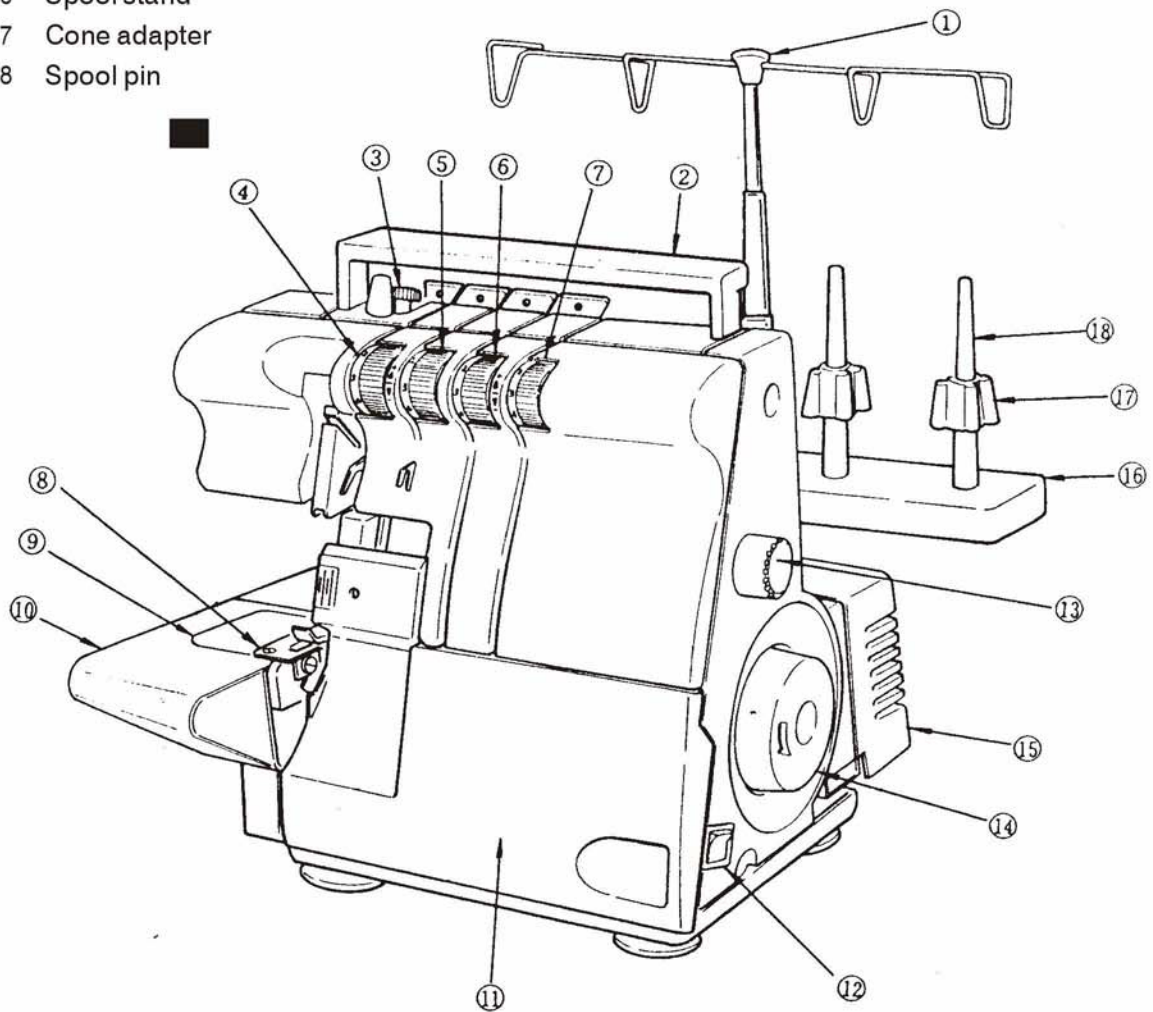


- Needles #2054 Size 14 have been provided with the machine. Regular point needles (#2054-42) for sewing woven fabrics and ball point needles (2054-06) are available for sewing knits. Both types are available in size 10, 12, 14 & 16.
- Refer to the chart on page 39 for selecting the correct needle for your sewing projects.

	Regular Point wovens #2054-42	Ball Point Knits #2054-06
Sizes available	10 12 14 16	10 12 14 16

3. PRINCIPAL PARTS

- 1 Thread guides and holder
- 2 Handle
- 3 Pressure regulating screw
- 4 Left needle thread tension dial (blue)
- 5 Right needle thread tension dial (green)
- 6 Upper looper thread tension dial (orange)
- 7 Lower looper thread tension dial (yellow)
- 8 Throat plate
- 9 Cylinder cover
- 10 Cloth plate
- 11 Looper cover
- 12 Power & light switch
- 13 Stitch length dial
- 14 Hand wheel
- 15 Motor cover
- 16 Spool stand
- 17 Cone adapter
- 18 Spool pin



4. HOW TO OPEN LOOPER COVER



Caution:

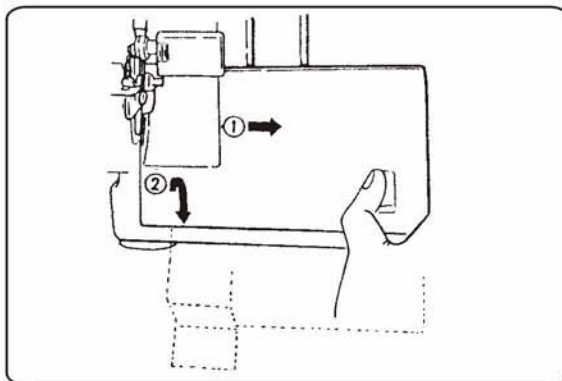
Be sure to turn off power switch.

- Push the cover to the right as far as it will go 1.
- Pull cover down toward you 2.



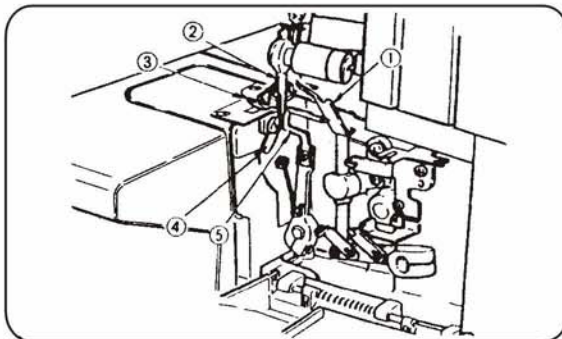
Caution:

Be sure looper cover is closed when sewing.



5. PRINCIPAL PARTS BEHIND LOOPER COVER

- 1 Upper looper
- 2 Movable upper knife
- 3 Presser foot
- 4 Stationary lower knife
- 5 Lower looper



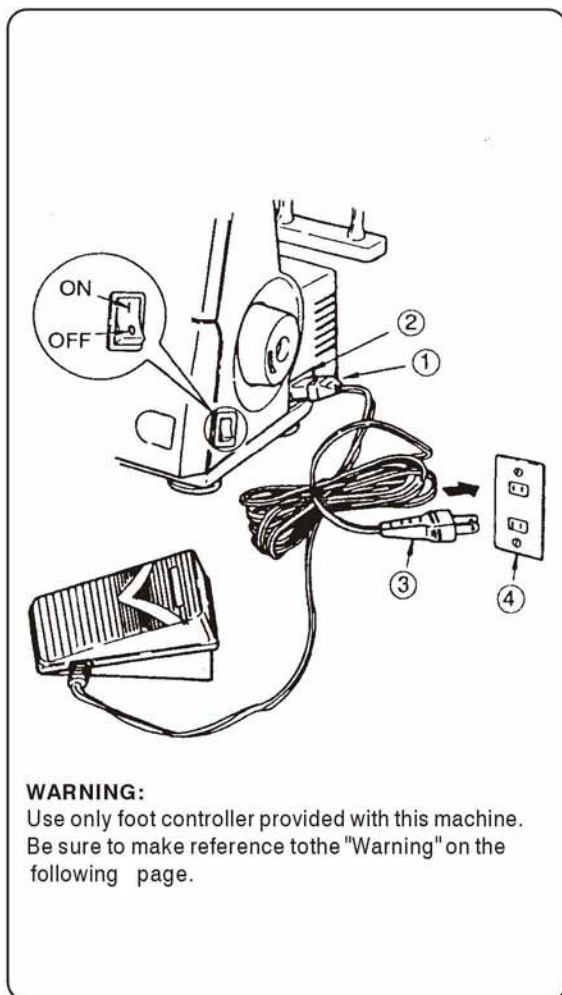
6. PREPARATION PRIOR TO SEWING

- Connect the controller/electric plug 1 to the machine receptacle 2.
- Plug power line 3 into electrical outlet 4.

- Power switch (used also for light switch)

Push "I" mark side to turn "ON"
Push "O" mark side to turn "OFF"

- To run the machine and control the speed, press the controller.
- The harder you press, the faster the machine will sew.
- To stop the machine from sewing, remove your foot from the controller.



WARNING:

Use only foot controller provided with this machine. Be sure to make reference to the "Warning" on the following page.

POLARIZED PLUG INFORMATION (FOR U.S.A. & CANADA ONLY)

This appliance has a polarized plug (one blade wider than the other). To reduce the risk of electrical shock, this plug is intended to fit in a polarized outlet only one way. If the plug does not fit fully in the outlet, reverse the plug. If it still does not fit, contact a qualified electrician to install the proper outlet. Do not modify the plug in any way.



Warning:

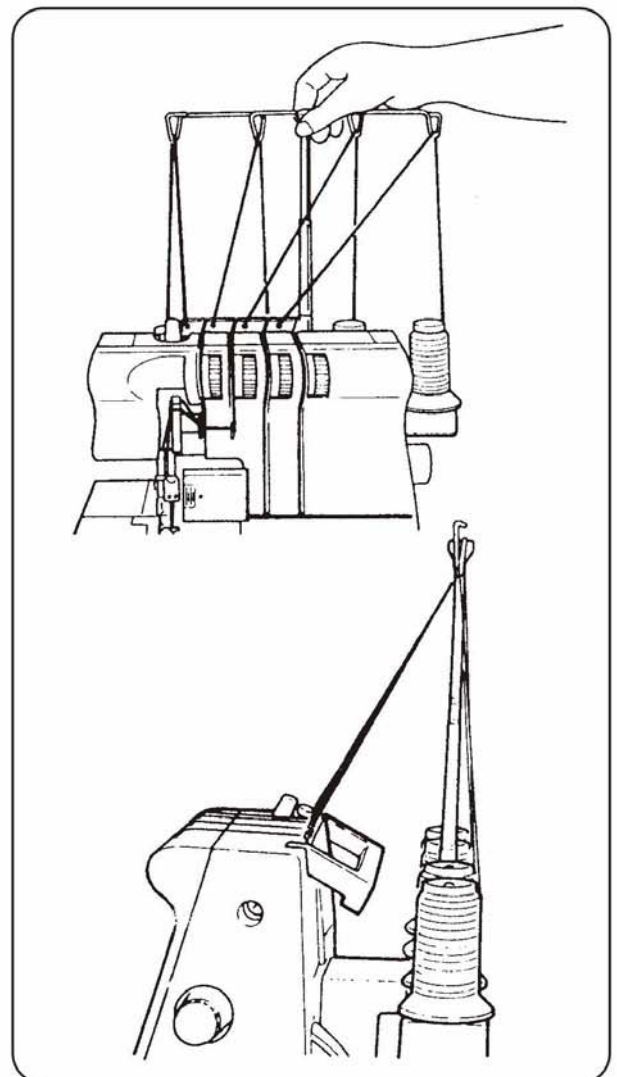
- Be sure that the electrical voltage of the electric outlet (wall receptacle) is the same as the rated voltage of the motor.
- Handle the foot controller with care and avoid dropping it on the floor. Be sure not to place anything on top of it when not in use.
- Disconnect the powerline plug from the electric outlet when changing needles, presser feet or throat plates, or when leaving the machine unattended. This eliminates the possibility of starting the machine by accidentally pressing the controller.
- Before cleaning your machine, disconnect the powerline plug from the electric outlet.

7. SETTING UP THE THREAD GUIDE HOLDER

- This machine is shipped with the thread guide holder in the lowered position.
- Fully extend the thread guide holder.
- The two joints on the telescope will click into place when they are correctly positioned.
- Center the thread guides above the spool pins.
- Place thread over the cone adapters on the spool pins.

Note:

If the machine is threaded, straighten the threads to prevent tangling.



8. HOW TO REMOVE AND INSERT NEEDLES

• TO REMOVE NEEDLE(S)



Caution:

Be sure to disconnect the machine from the electrical outlet before removing needle(s).

- Turn the hand wheel toward you until the needle is at its highest position.
- Loosen, but do not remove the needle set screw with the small screwdriver.
 - left needle set screw 1
 - right needle set screw 2
- Remove the needle(s).

• TO INSERT NEEDLE (S)



Caution:

Be sure to disconnect the machine from the electrical outlet before replacing needle(s).

- Hold the needle with the flat surface to the back.
- Insert the needle into the needle clamp as far as it will go.

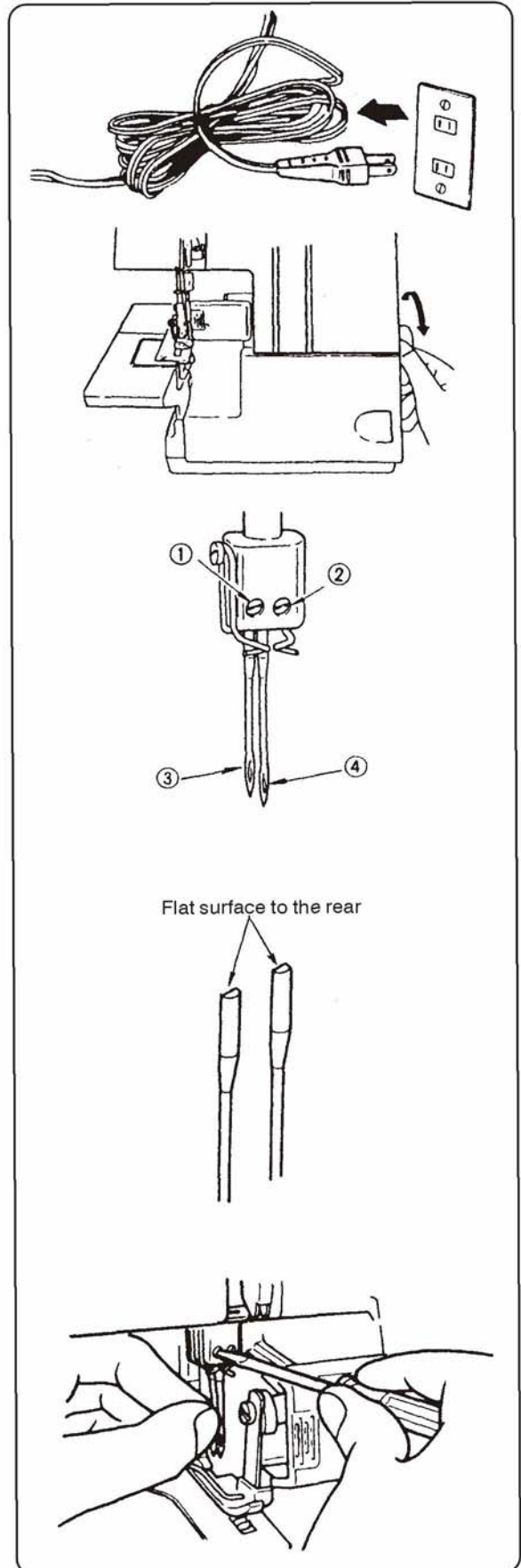
Note:

The left needle 3 will be slightly higher than the right needle 4

- Securely tighten the needle set screws.

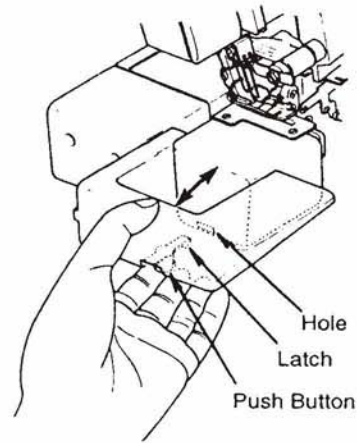
Note:

- * This machine uses #2054 needles. Refer to page 4 for additional needle information.
- * Remove the cloth plate or the cylinder cover if you find it difficult to remove and replace the needle.



9. HOW TO REMOVE AND REPLACE THE CLOTH PLATE

- Remove the cloth plate for free arm sewing (tubular work)
- To remove, pull the cloth plate to the left while pressing the push button on underside of the cloth plate upward.
- To replace, guide latch on the cloth plate into the hole in cylinder cover and push the cloth plate to the right as far as it will go.



10. HOW TO REMOVE AND REPLACE THE CYLINDER COVER



Caution:

Be sure to turn off the power switch.

- Removing the cylinder cover exposes the lower looper for easy threading and cleaning of the machine.
- The cylinder cover can be removed together with the cloth plate by pulling the cylinder cover to the left.
- To replace the cylinder cover together with the cloth plate, push the cloth plate with the cylinder cover attached, to the right as far as it will go.
- To remove the cylinder cover when the cloth plate is not fitted on the machine, it can be removed easily by lifting it upward while pulling to the left.
- To replace only the cylinder cover, place tab on top of the cylinder cover under the throat plate and press the cover downward and to the right.



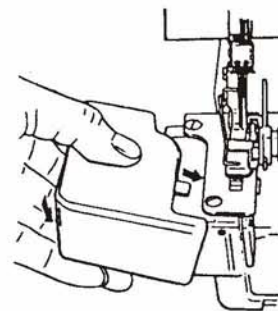
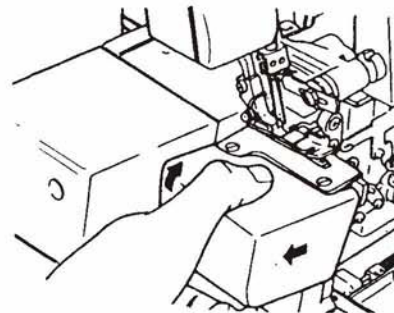
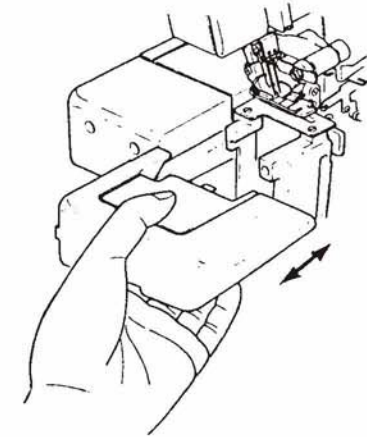
Warning:

Do not hold the cylinder cover when lifting or carrying the machine.



Caution:

Be sure the cylinder cover is replaced when sewing.



11. THREADING THE MACHINE

• THREADING DIAGRAM

- A color coded threading diagram is located inside the looper cover for quick reference.
- Thread the machine in the order 1 to 4 as shown.

• UNDERSTANDING THE COLOR CODE

- Left needle thread Blue 4
- Right needle thread Green 3
- Upper looper thread Orange 1
- Lower looper thread Yellow 2

• STITCH DIAGRAM

- Upper looper thread Orange 1
- Lower looper thread Yellow 2
- Right needle thread Green 3
- Left needle thread Blue 4

• TO THREAD THE MACHINE CORRECTLY

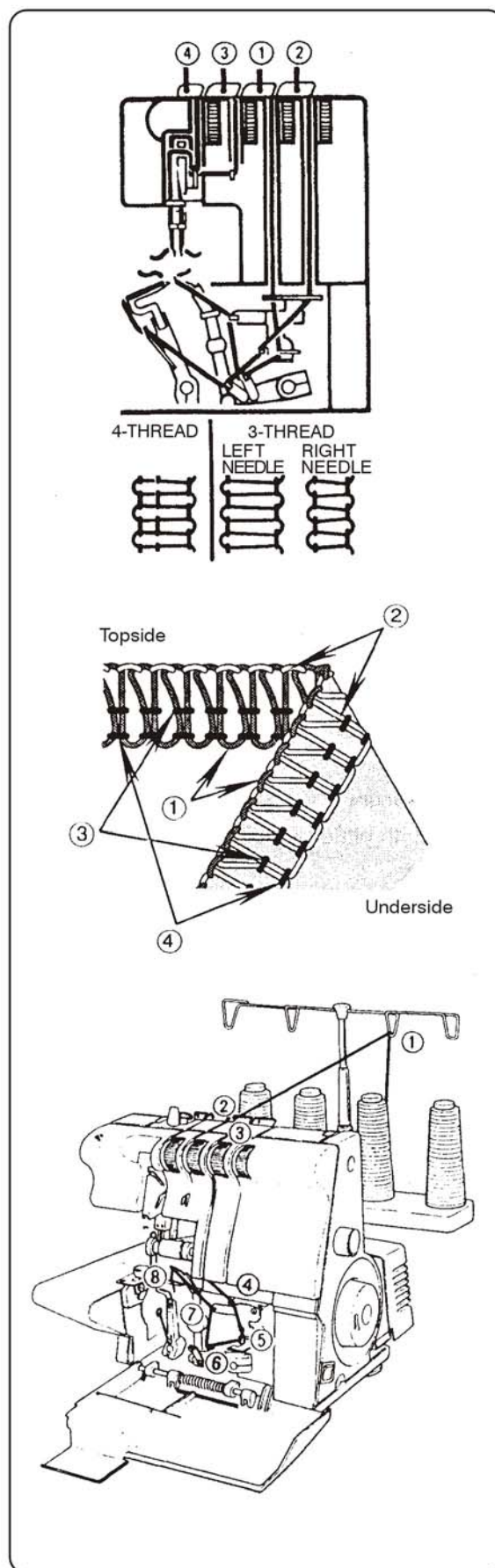


Caution:

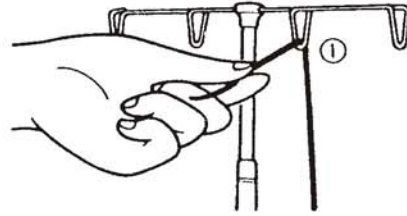
Be sure to turn off the power switch.

(1) Threading the Upper Looper (Orange)

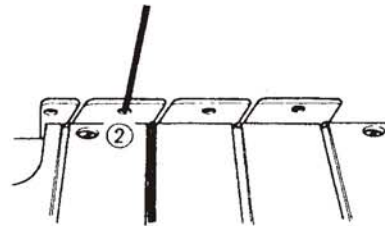
- Thread the upper looper as indicated 1 - 8 .



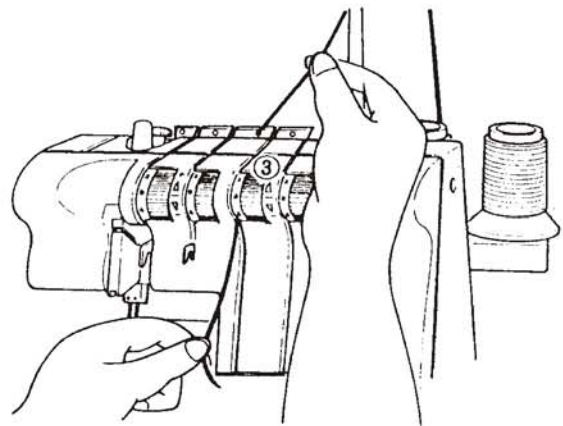
- Pass thread from the back to the front through the thread guide 1.



- Pass thread through hole 2 from front to back, then to the front through the right slot as shown.



- While holding the thread with your fingers, pass it between the tension discs and pull the thread down to make certain it is properly located in between the tension discs.

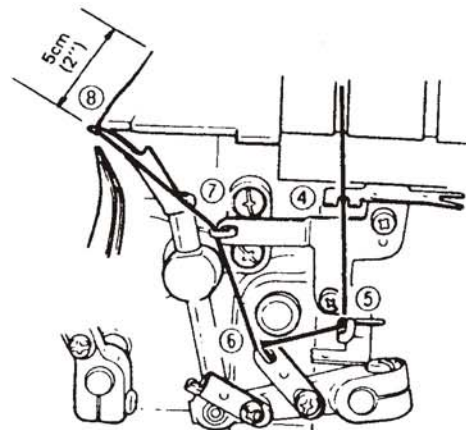


- Thread the looper area of the machine following the orange color coded thread guides 4 - 7.
- Thread the hole in the upper looper from front to back 8.

Note:

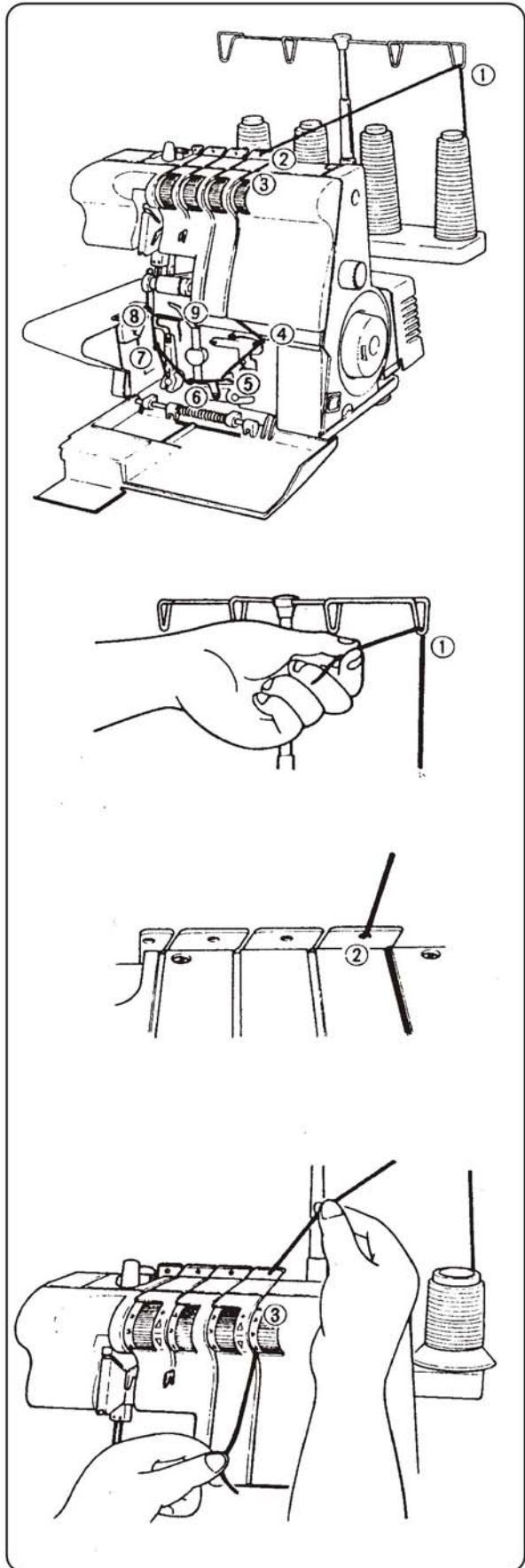
Use the tweezers provided in the accessory set to aid in threading the looper.

- Pull about 5 cm (2 inches) of thread through the looper and place to the back of the throat plate.



(2) Threading the Lower Loooper (Yellow)

- Thread the lower looper as indicated 1 - 9 .

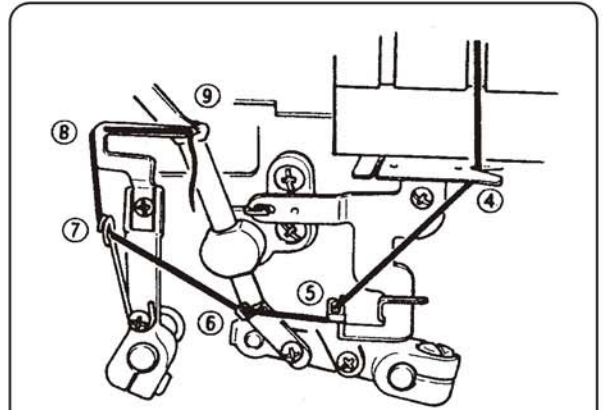


- Pass the thread from back to the front through the thread guide 1 .

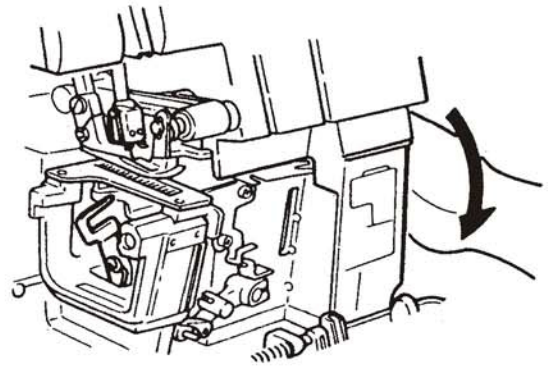
- Pass the thread through hole 2 from front to back, then to the front through right slot as shown.

- While holding the thread with your fingers, pass it between the tension discs 3 and pull the thread down to make certain it is properly located in between the tension discs .

- Thread the looper area of the machine following the yellow color coded thread guides 4 - 6 .



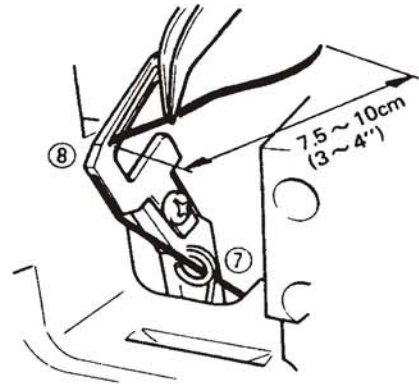
- Remove the cylinder cover (page 9) to expose the lower looper for threading.
- Turn the hand wheel toward you until the lower looper is at the far left.



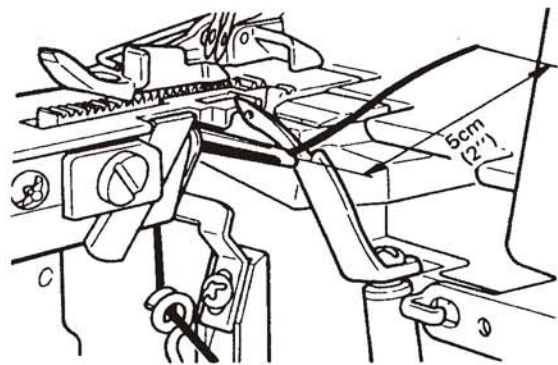
- Pull 7.5 - 10 cm (3 - 4 inches) of thread through the thread guide 7 .
- Insert the thread through the left end of the lower looper 8 .
- Drop the thread.

Note:

Use the tweezers that are in the accessory set to aid in threading the looper.

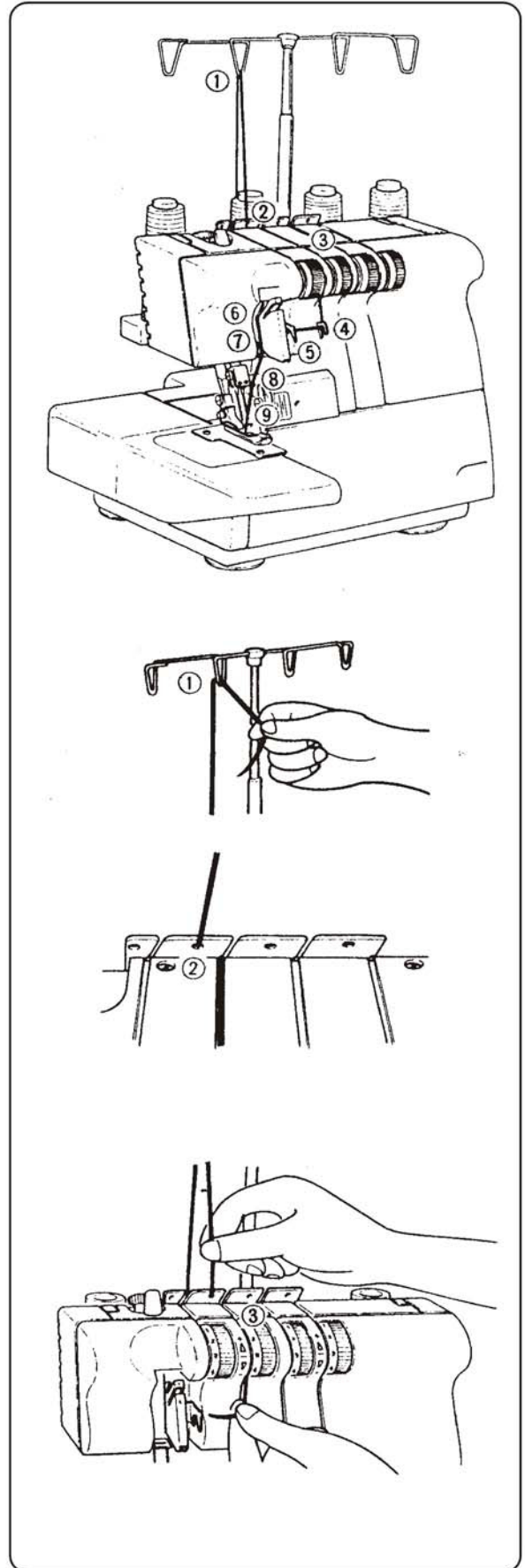


- Turn the hand wheel toward you until the lower looper is at the far right.
- Pick up the thread and pass it through the hole in the end of the looper 9 .
- The thread should be positioned in the groove of the lower looper.
- Pull about 5 cm (2 inches) of thread through the looper and place it over the top of the upper looper and to the back of the throat plate.



(3) Threading the Right Needle (Green)

- Thread the right needle as indicated 1 - 9.



- Pass the thread from back to the front through the thread guide 1.

- Pass the thread through hole 2 from front to back, then to the front through right slot as shown.

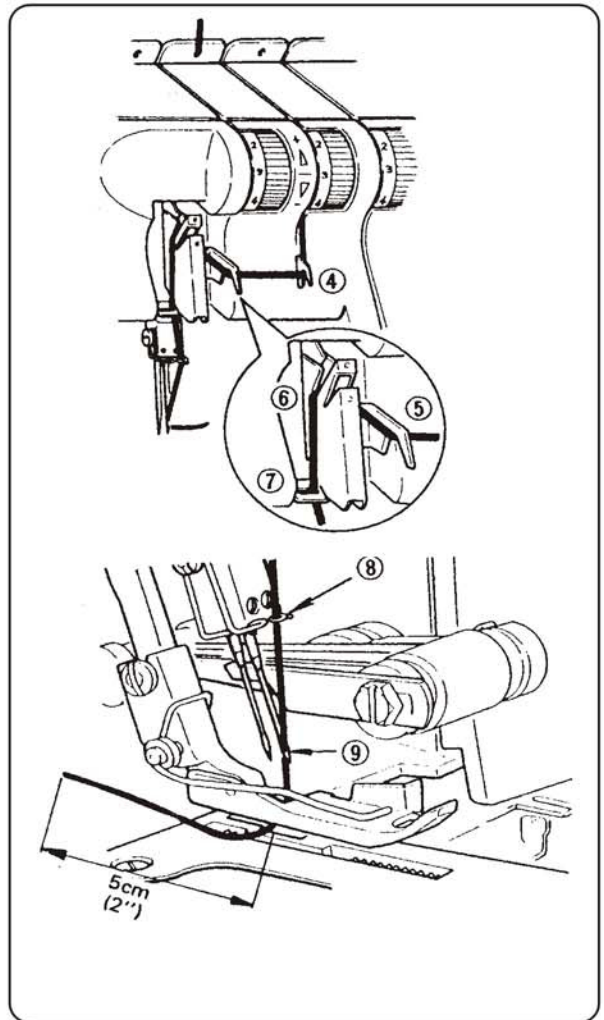
- While holding the thread with your fingers, pass it between the tension discs 3 and pull the thread down to make certain it is properly located in between the tension discs.

- Continue to thread points 4 - 8 .

Note:

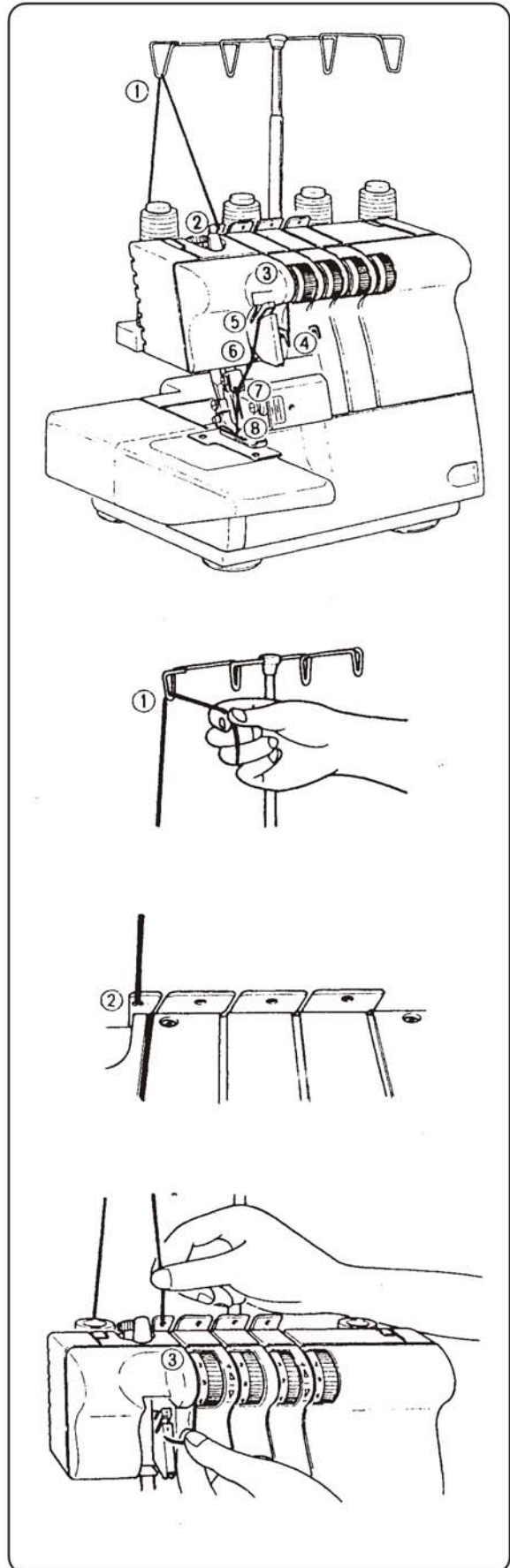
Be sure to pass the thread through the upper thread path of the thread guide 6 .

- Thread the eye of the right needle 9 .
- The needle may be easier to thread when the upper knife is disengaged and placed in the non-operating position (see page 23).
- Be sure to engage the knife before sewing.
- Place the thread to the back, under the presser foot.

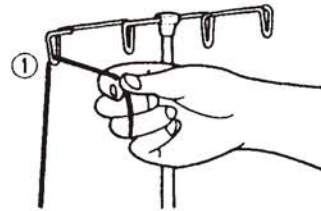


(4) Threading the Left Needle (Blue)

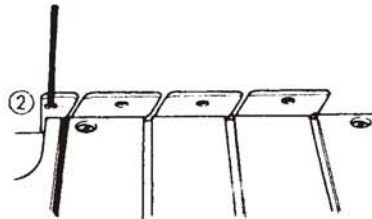
- Thread the left needle as indicated 1 - 8 .



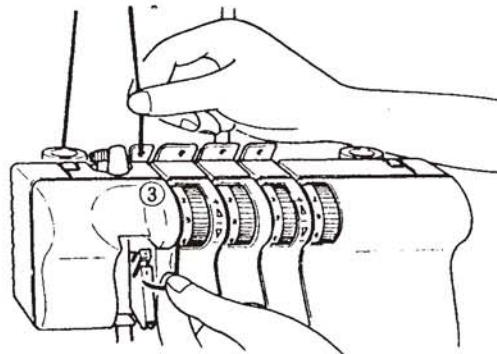
- Pass thread from the back to the front through the thread guide 1 .



- Pass thread through hole 2 from front to back, then to the front through the right slot as shown.



- While holding the thread with your fingers, pass it between the tension discs 3 and pull the thread down to make certain it is properly located in between the tension discs.



- Continue to thread points 4 - 7 .

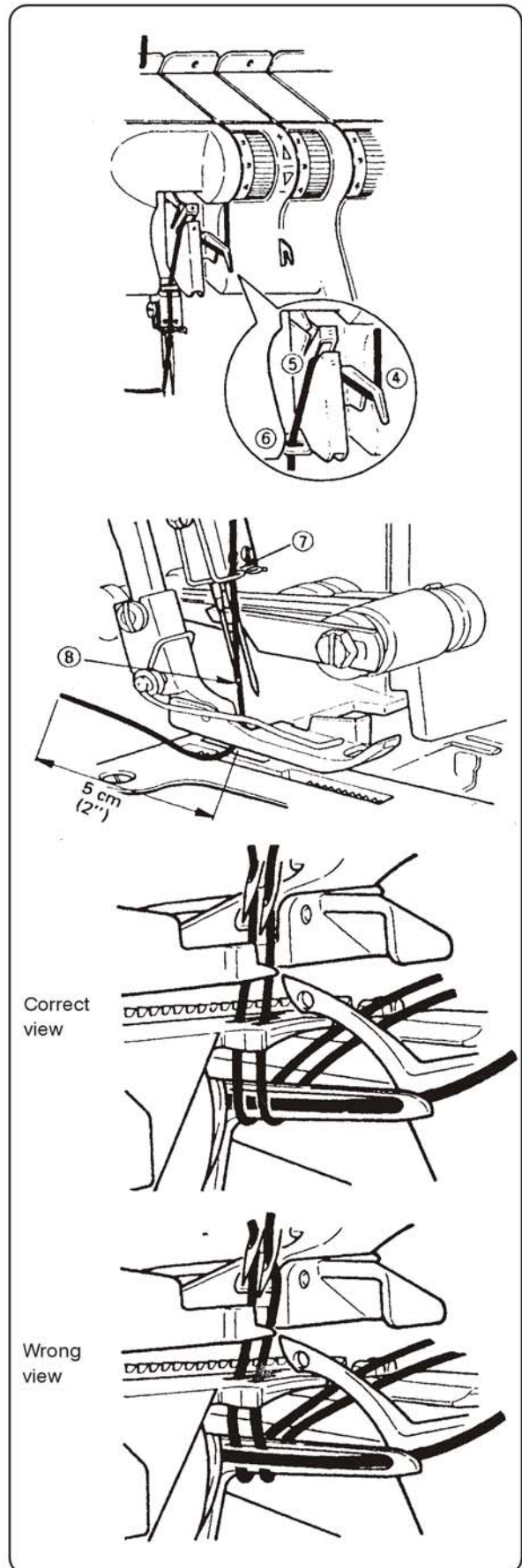
Note:

Be sure to pass the thread through the lower thread path of the thread guide 5 .

- Thread the eye of the left needle 8 .
- The needle may be easier to thread when the upper knife is disengaged and placed in the non-operating position (see page 17).- Be sure to engage the knife before sewing.
- Place the thread to the back, under the presser foot.

• **IMPORTANT THREADING INFORMATION**

- Always thread the needle(s) last to prevent misthreading the lower looper.
- If the lower looper should come unthreaded.
 - 1) Unthread the needle(s)
 - 2) Thread the lower looper
 - 3) Thread the needle(s)



12. CHAINING OFF AND TEST SEWING

- When the machine is completely threaded, bring all of the threads over the throat plate and slightly to the left under the presser foot.
- Hold the threads and apply a slight tension.
- Turn the hand wheel toward you 2 or 3 complete turns to start the thread chain.
- Lower presser foot.
- Continue holding the chain and press on the foot control until the chain is 5 - 7.5 cm (2 - 3 inches) in length.

- Place fabric under the front of the presser foot and sew a test sample.

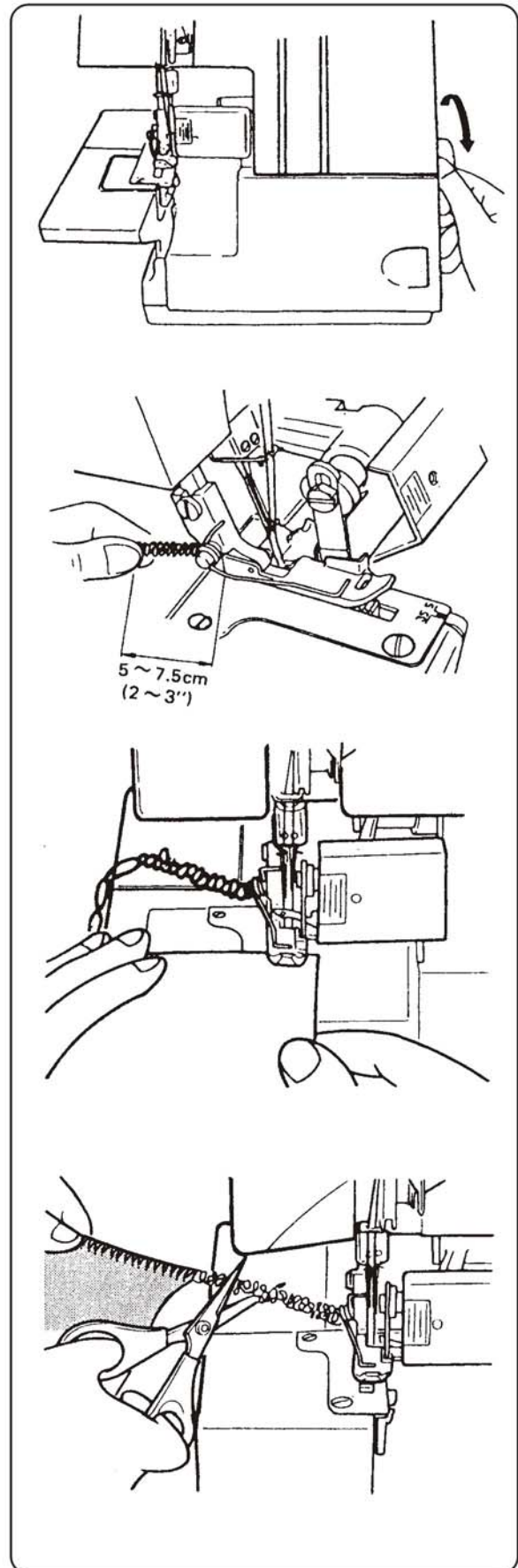
Note:

Do not pull on the fabric while sewing as this may deflect the needle, causing it to break.

- At the end of the sample, continue to run the machine with the presser foot down until the chain reaches 5 - 7.5 cm (2 - 3 inches) in length.
- Clip the thread chain.

Note:

- Anytime you have re-threaded the machine always chain off and sew a test sample to test tensions and make adjustments as necessary.



13. BASIC STITCH TYPES

- **4 THREAD OVERLOCK MOCK SAFETY STITCH**

- This machine is a four-thread overlock that uses two needles and two loopers to create a 5.7 mm (7/32 inch) wide four-thread mock safety stitch.

- **WIDE 3 THREAD OVERLOCK STITCH**

- When the right needle is removed, a wide 5.7 mm (7/32 inch) three-thread stitch is sewn.

- **NARROW 3 THREAD OVERLOCK STITCH**

- When the left needle is removed, a narrow 3.5 mm (9/64 inch) wide three-thread stitch is sewn.

Note:

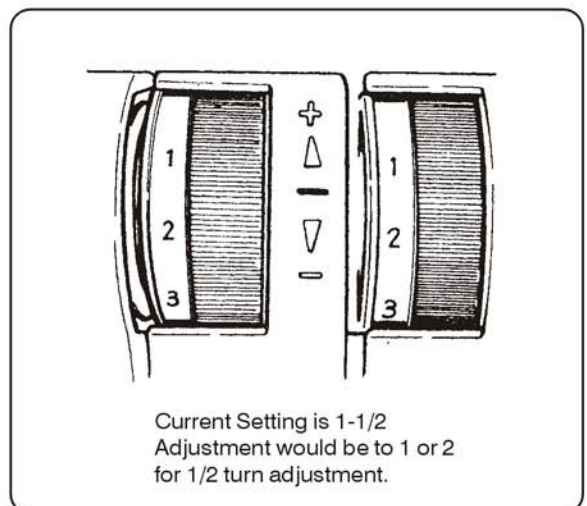
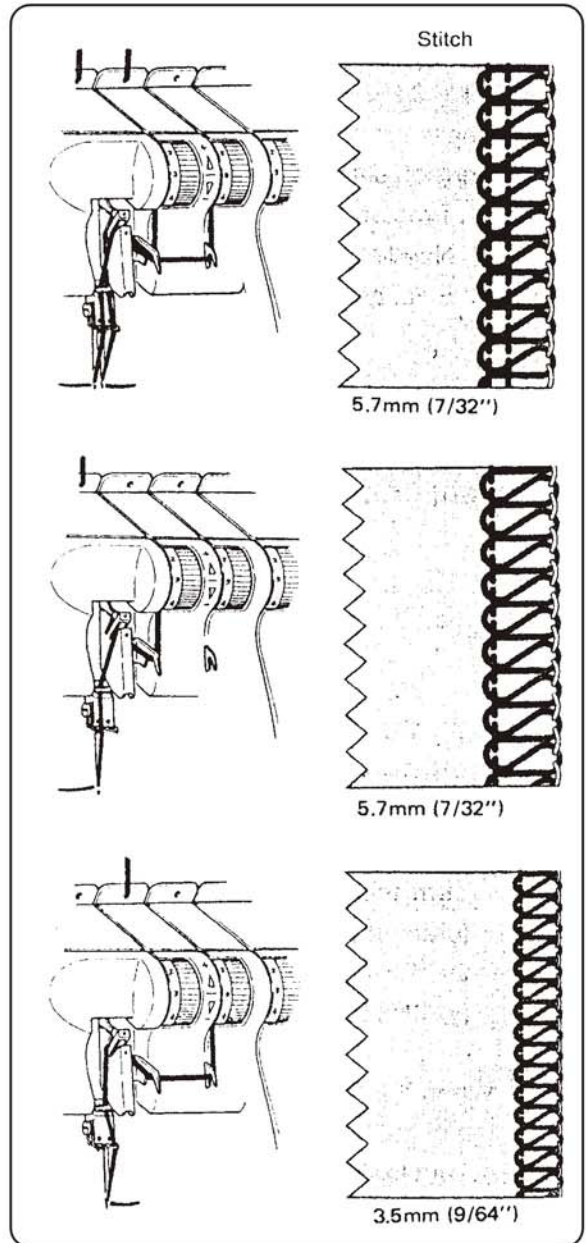
The stitch width can be increased by adjusting the knife (page 25).

- * The left needle stitch width can be increased from 5.7 mm (7/32 inch) to 7.2 mm (9/32 inch).

- * The right needle stitch width can be increased from 3.5mm (9/64 inch) to 5.0m (13/64 inch).

14. HOW TO ADJUST THE THREAD TENSION

- The thread tension dials on this machine are a one-turn system.
- As the number increases on the dial the thread tension becomes tighter.
 - 0 = lowest tension
 - 9 = highest tension
- Be sure the machine is correctly threaded otherwise proper thread tension cannot be obtained.
- When making adjustments to balance the tensions it is recommended that,
 - 1) Adjustments be made in no greater than half a number at a time.
 - 2) Sew a test sample after each adjustment.



• **SUGGESTED TENSION SETTINGS FOR 4 THREAD OVERLOCK MOCK SAFETY STITCH**

Note:

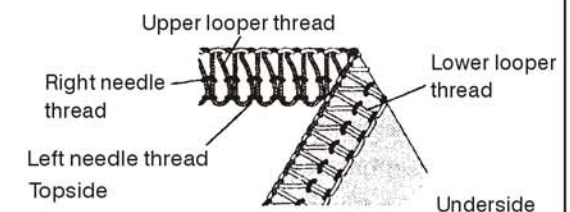
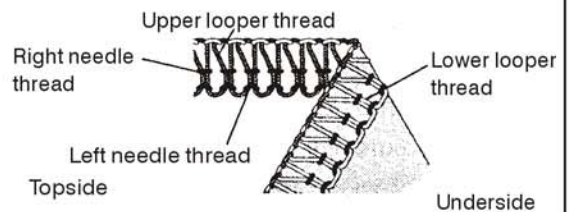
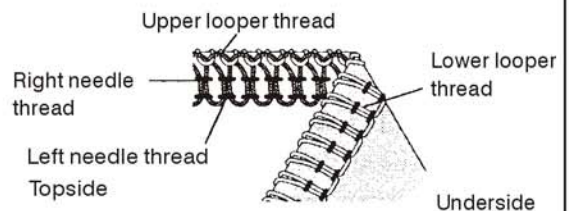
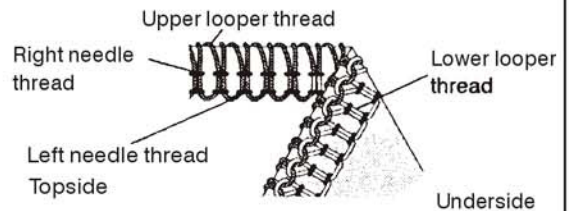
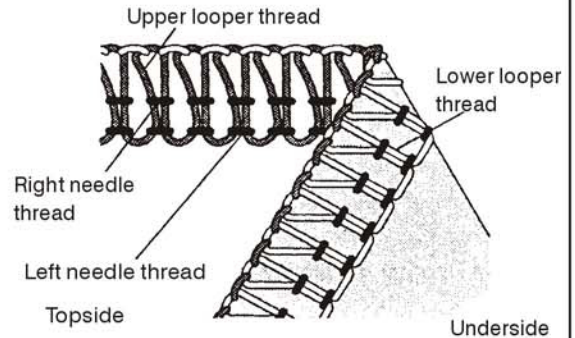
- * These are suggested tension settings only.
- * Tension settings are affected by;
 - 1) Type and thickness of fabric
 - 2) Needle size
 - 3) Size, type and fiber content of thread

• **CORRECT BALANCE OF THE 4 THREAD OVERLOCK MOCK SAFETY STITCH**

HOW TO BALANCE THE 4 THREAD OVERLOCK MOCK SAFETY STITCH

- When the upper looper thread lies on the under side of the fabric;
 - Turn the upper looper thread tension dial (orange) to a higher number
 - Or, turn lower looper thread tension dial (yellow) to a lower number.
- When the lower looper thread appears on the top of the fabric;
 - Turn lower looper thread tension dial (yellow) toward a higher number.
 - Or, turn the upper looper thread tension dial (orange) toward a lower number.
- When the left needle thread tension is too loose;
 - Turn the left needle thread tension dial (blue) toward a higher number.
- When the right needle thread tension is too loose;
 - Turn the right needle thread tension dial (green) toward higher number.

Fabric	Tension Dial			
	Blue	Green	Orange	Yellow
Light weight	3	2.5	1	2
Medium weight	4	3	1	2
Heavy weight	5	4	1.5	2.5



- **SUGGESTED TENSION SETTINGS FOR THE 3 THREAD OVERLOCK STITCH**

Note:

- * These are suggested tension settings only.
- * Tension settings are affected by;
 - 1) Type and thickness of fabric
 - 2) Needle size
 - 3) Size, type and fiber content of thread.

- **CORRECT BALANCE OF THE 3 THREAD OVERLOCK STITCH**

- **HOW TO BALANCE THE 3 THREAD OVERLOCK STITCH**

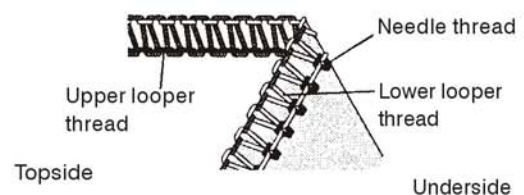
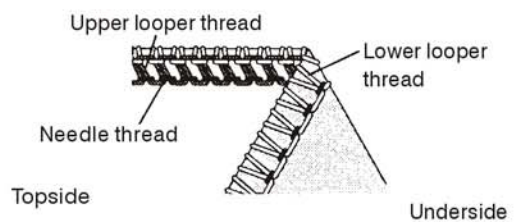
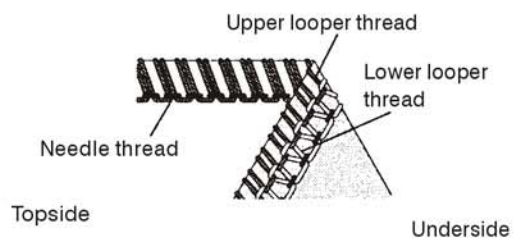
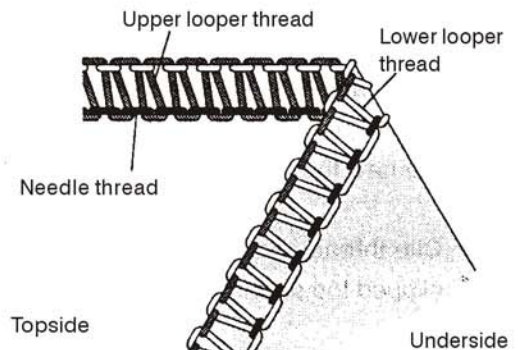
- When the upper looper thread lies on the under side of the fabric;
 - Turn the upper looper thread tension dial (orange) to a higher number.
 - Or, turn the lower looper thread tension dial (yellow) to a lower number.
- When the lower looper thread appears on the top;
 - Turn the lower looper thread tension dial (yellow) toward a higher number.
 - Or, turn the upper looper thread tension dial (orange) to a lower number
- When the needle thread is too loose, turn the needle tension dial (blue or green) to a higher number.

Left Needle/Wide 3 Thread Overlock Stitch

Fabric	Tension Dial			
	Blue	Green	Orange	Yellow
Light weight	3		1	2
Medium weight	4		1	2
Heavy weight	5		1.5	2.5

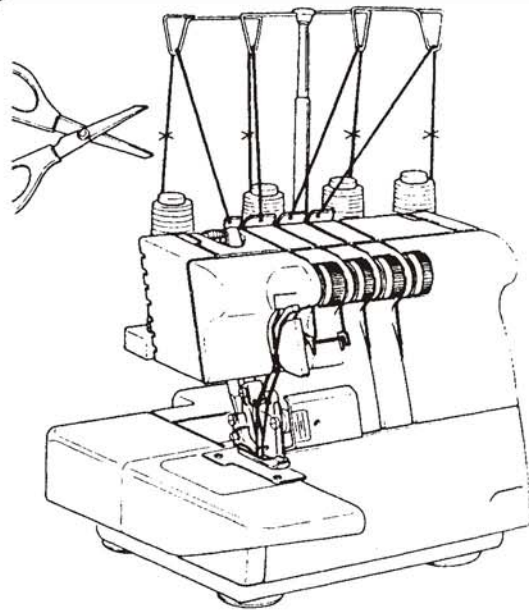
Right Needle/Narrow 3 Thread Overlock Stitch

Fabric	Tension Dial			
	Blue	Green	Orange	Yellow
Light weight		3	1.5	2
Medium weight		4	1.5	2
Heavy weight		5	2	2.5

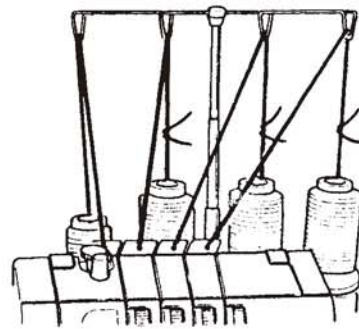


15. HOW TO CHANGE THREADS/TIE ON METHOD

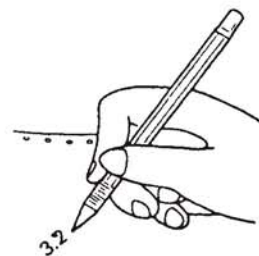
- To change thread type or color, clip the thread near the spool.



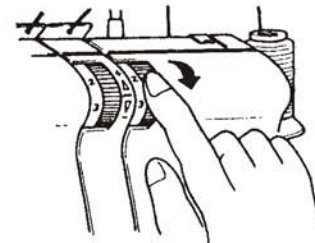
- Place a new thread on the stand.
- Tie the new thread and the old thread ends together.
- Clip thread tails to 2 - 3 cm (1 inch) length. If clipped too short, threads may come untied.
- Firmly pull both threads to test the knot security.



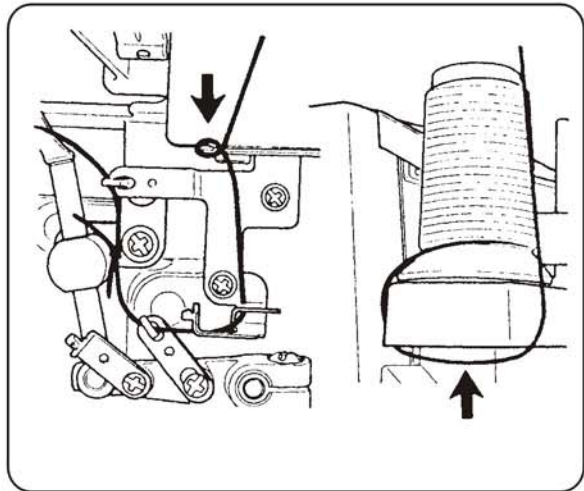
- Note tension dial settings.



- Turn the tension dials down until the dial stops.

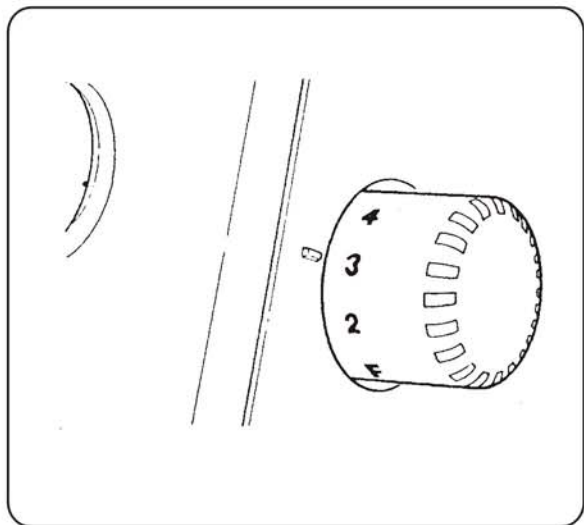


- Pull the threads through the machine one at a time.
- If the threads do not pull easily, check for tangles on thread guides or looping under thread stand.
- When pulling the thread through the needle, STOP when the knot is in front of the needle.
- Cut the thread, and insert it through the needle.
- Return tension dials to previous settings.



16. HOW TO ADJUST THE STITCH LENGTH

- The stitch length dial should be set on the 3mm (7/64 inch) setting for most sewing conditions.
- Adjust the stitch length to 4mm (5/32 inch) when sewing heavy weight fabrics.
- Adjust the stitch length to 2mm (5/64 inch) when sewing light weight fabrics to obtain excellent seams without puckering.



17. HOW TO DISENGAGE THE MOVABLE UPPER KNIFE



Caution:

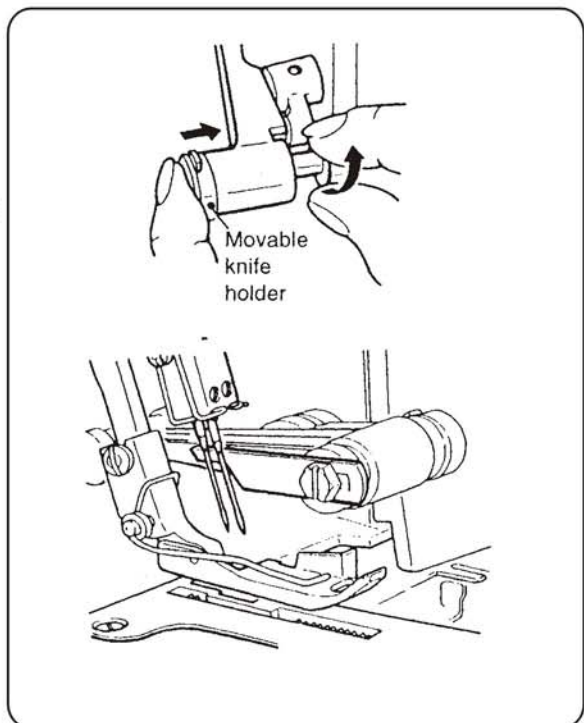
Be sure to turn off the power switch.

• TO PLACE THE MOVABLE KNIFE IN THE WORKING POSITION

- Open looper cover (page 6).
- Push the movable knife holder to the right as far as it will go.
- Turn the knob away from you until the knife clicks into a horizontal position.

Note:

If the knife stops in the up position,
Turn the hand wheel toward you until the knife clears the top of the machine.
Continue to rotate the knife to the horizontal position.

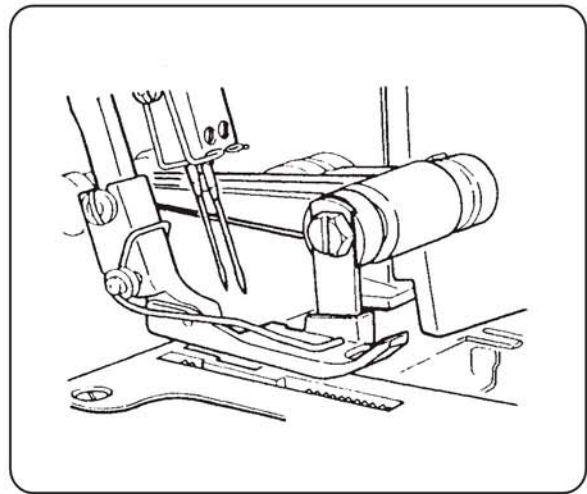


- **TO PLACE THE MOVABLE THE KNIFE IN THE WORKING POSITION**

- Open looper cover and push the movable knife holder to the right as far as it will go.
- Turn the knob up and toward you until the knife clicks into the operating position.



Caution:
Always close the looper cover before operating machine.

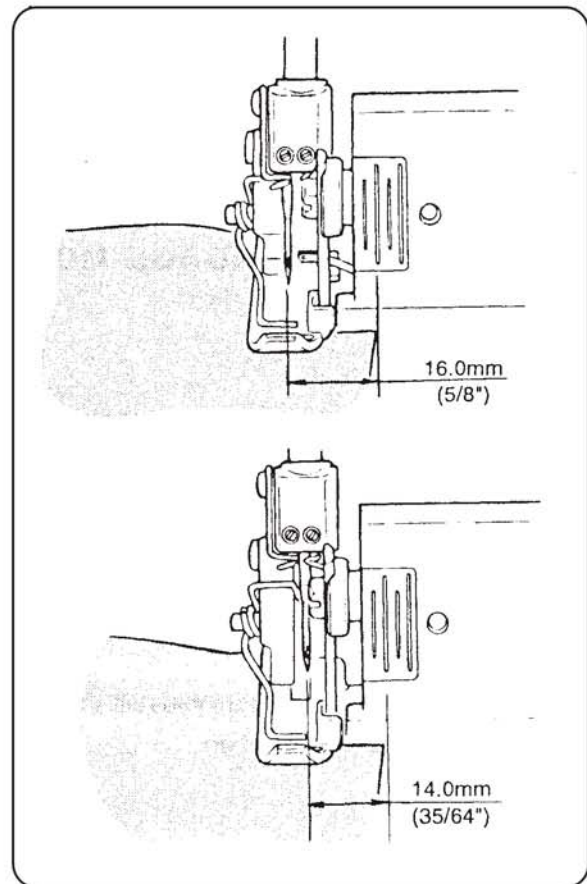


18. SEAM GUIDE LINES

- When the left needle is inserted, the thick line on the left of the looper cover is 16.0 mm (5/8 inch).
- When sewing with the right needle, the thick line on the left of the looper cover is 14.0 mm (35/64 inch).

Note:

All lines are 2.0 mm (5/64 inch) apart.



19. HOW TO ADJUST THE OVEREDGE SEAM WIDTH

- The machine is set to sew the four-thread stitch and three-thread left needle position stitch at a width of 5.7 mm (7/32 inch).
- The machine is set to sew the three-thread right needle position stitch at a width of 3.5 mm (9/64 inch).
- The 5.7 mm (7/32 inch) setting can be increased to 7.2 mm (9/32 inch) and the 3.5 mm (9/64 inch) setting can be increased to 5.0 mm (13/64 inch) by adjusting the stationary knife.



Caution:

Before making adjustments, be sure to turn off the power switch.

- Open the looper cover (page 6).
- Disengage the movable upper knife (page 23).
- Remove the cylinder cover (page 9).
- Loosen the 2 stationary knife holder set screws with the hex-head wrench provided in the accessories (1).
- Move the stationary knife holder to the right to increase the stitch width, or to the left to decrease the stitch width.
- Be sure to align the cutting edge of the stationary knife level with the top surface of the throat plate (2).
- Tighten set screws (3).
- Replace the cylinder cover (page 9).
- Return the movable knife to its original position (page 24).
- Test sew and adjust tensions as necessary to compensate for the increase or decrease in stitch width.

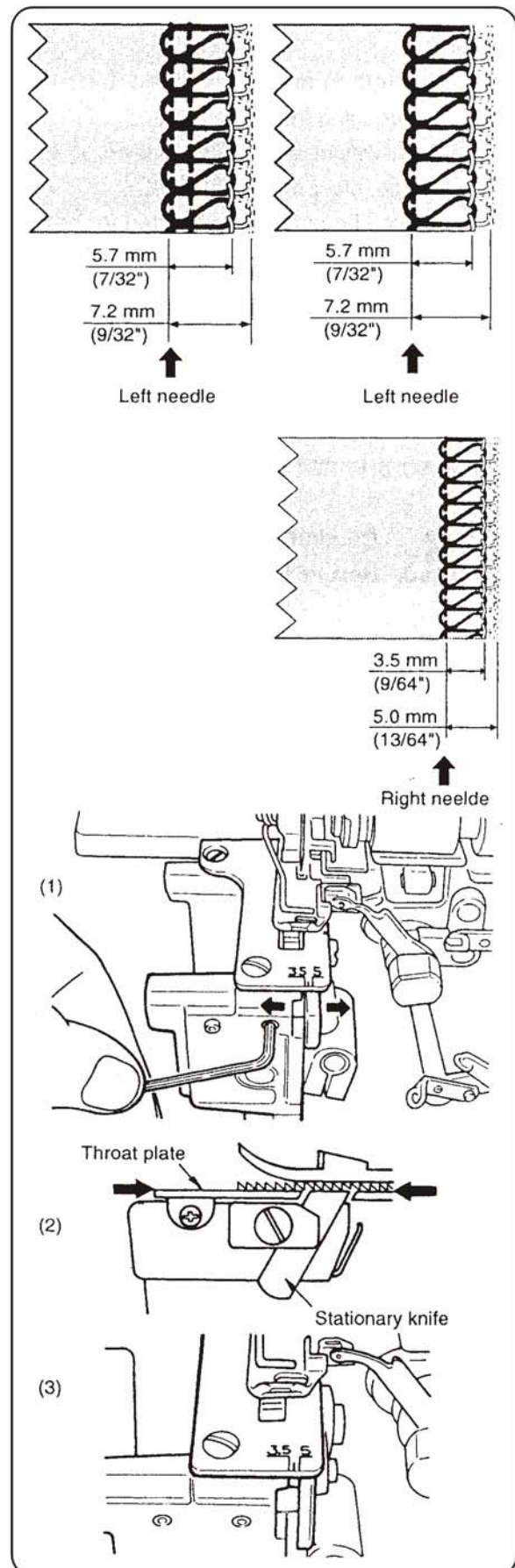
Note:

Do not set the overedge seam width below 3.5 mm (9/64 inch).



Caution:

Always close the looper cover before operating the machine.



20. HOW TO SEW A ROLLED HEM

- Rolled hemming is done by rolling and overedging the fabric edge.
- Light weight fabrics such as lawn, voile, organdy, crepe, etc. perform the best.
- Rolled hemming is not suited for heavy or stiff fabrics.

• MACHINE SET UP



Caution:

Be sure to turn off the power switch.

- Remove the left needle.
- Insert a #2054 size #10 or #14 needle in the right needle position.
- Turn the hand wheel toward you until the needle is at its highest position.
- Unscrew front throat plate screw (A)
- * Note: Do not remove rear throat plate screw pin.

- Install the rolled hemming throat plate being careful not to catch the threads between the plate and the machine.
- Replace throat plate screw.
- Open looper cover (page 6).
- Disengage upper knife (page 23).
- Remove the cylinder cover (page 9).
- Align the left edge of the stationary knife with the "M" mark on the rolled hemming throat plate.
- See page 25 for adjustment.

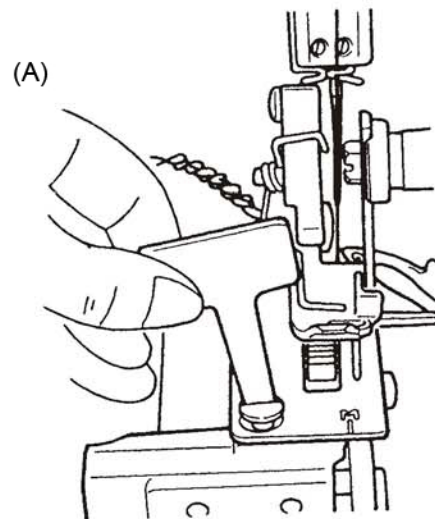
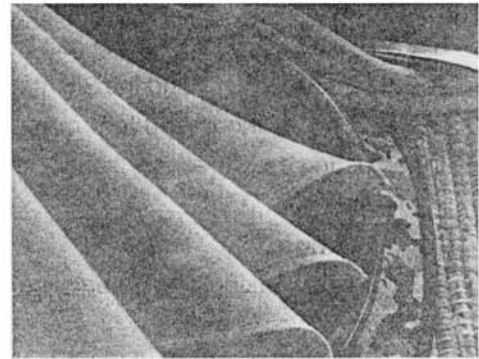
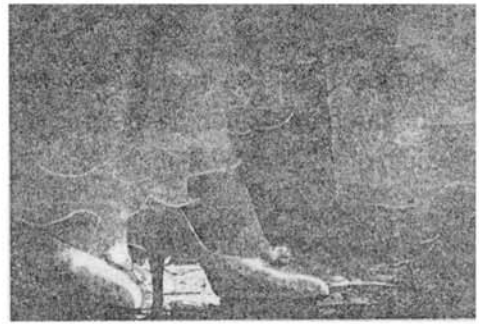
Note:

Be sure the stationary knife is not in contact with the edge of the rolled hemming throat plate.

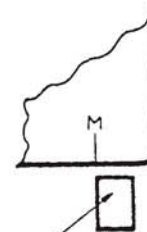


Caution:

Replace the cylinder cover, engage upper knife and close the looper cover.



* LOOSEN ONLY FRONT SCREW AS SHOWN ABOVE. DO NOT REMOVE THE PIN IN THE BACK OF THE PLATE

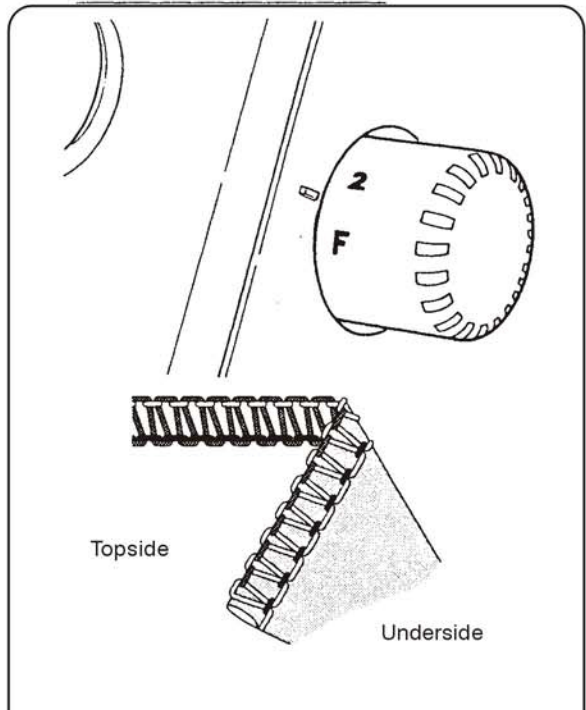


Stationary knife holder

- Set the stitch length dial to “2 - F” and a fine seam will be sewn.
- This machine can sew two types of rolled hems.

• **SUGGESTED TENSION SETTINGS FOR STANDARD ROLLED HEM**

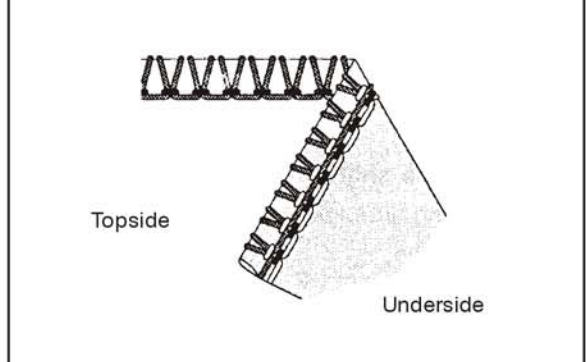
- Always sew a test sample and adjust tension balance if necessary.
- Adjust tension balance the same as for a narrow three-thread overlock stitch (page 21).



Tension Dial			
Blue	Green	Orange	Yellow
	3.5	3.5	2.5

• **SUGGESTED TENSION SETTINGS FOR UPPER LOOPER THREAD WRAPPED ROLLED HEM**

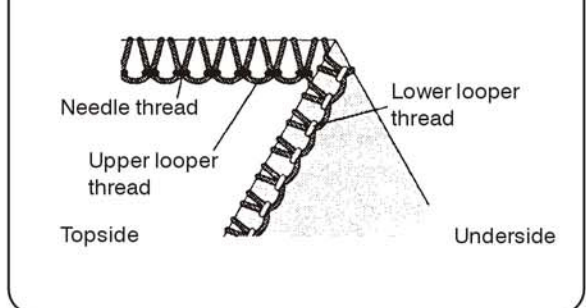
- For medium and heavy weight fabrics that are difficult to roll.
- Always sew a test sample and if necessary, adjust tension balance as instructed below.
- For a beautiful rolled hem thread the upper looper with wooly nylon and the needle and lower looper with light weight regular thread.



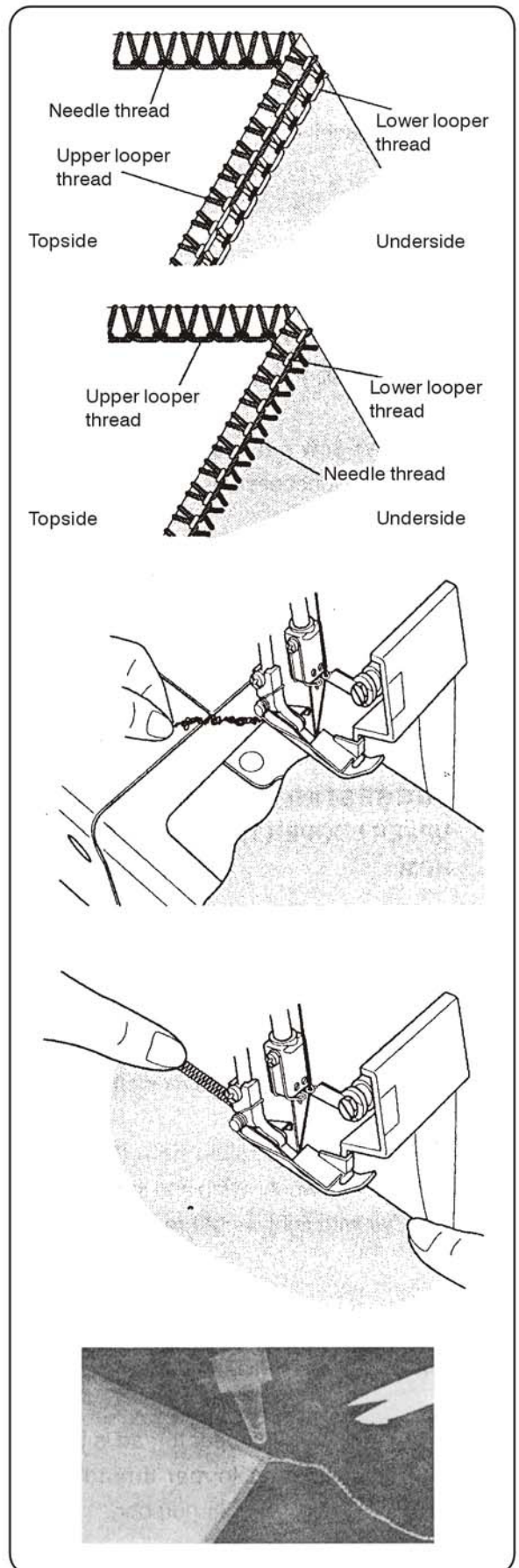
Tension Dial			
Blue	Green	Orange	Yellow
	3.5	1	5.5

• **HOW TO BALANCE THE UPPER LOOPER THREAD WRAPPED ROLLED HEM**

- When the upper looper thread is too loose;
 - Turn the upper looper thread tension dial (orange) to a higher number.



- When the lower looper thread is too loose;
 - Turn the lower looper thread tension dial (yellow) toward a higher number.
 - Or, turn the upper looper thread tension dial (orange) to a lower number.
- When the needle thread is too loose;
 - Turn the needle thread tension dial (green) to a higher number.



• **ADDITIONAL INFORMATION ABOUT ROLLED HEMMING**

- Hold the thread chain when you begin sewing to keep it from curling into the seam.

- Place a slight tension on the material in the sewing direction and a finer seam finish can be obtained.

- The minimum overedge stitch width that can be obtained for rolled hemming is approximately 1.5 mm (1/16 inch) since the cutting width cannot be set below 3.5 mm (9/64 inch).

• **TO SECURE THE ROLLED HEM THREAD CHAIN**

- Apply a small drop of liquid seam sealant to the end of the seam. Allow to dry, then cut the chain close to the stitches.

21. STITCH VARIATIONS AND SEWING TECHNIQUES

• HOW TO SEW A FLATLOCK DECORATIVE SEAM

- A flatlock stitch is achieved by adjusting the tension of the three-thread overlock stitch sewing the seam and pulling the fabric apart to flatten the seam.
- The flatlock stitch can be used as a construction and decorative stitch or for ornamentation only.

(1) Machine Set Up



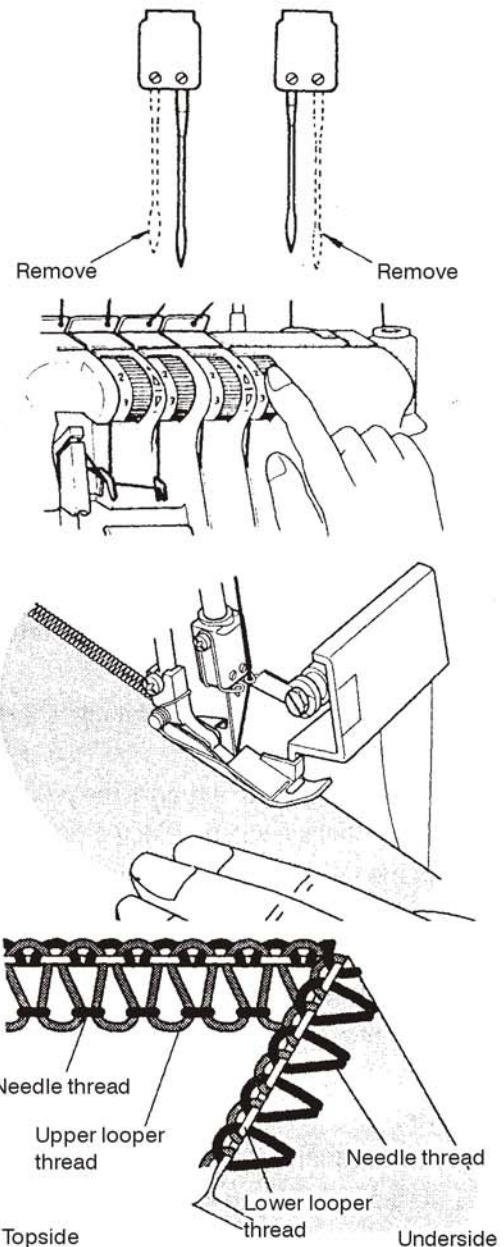
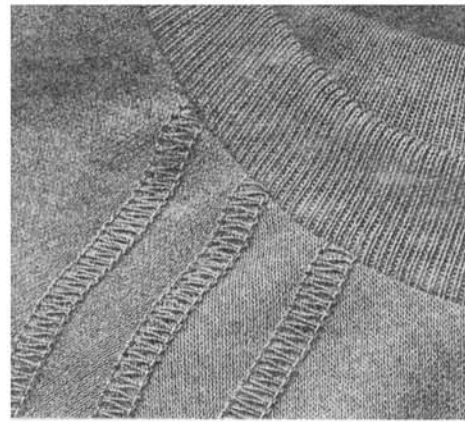
Caution:

Be sure to turn off the power switch.

- Remove the left or right needle (page 8).
- Begin with the machine threaded and tension balanced for the three-thread overlock stitch (page 21).
- Loosen the needle thread tension (green or blue) generously.
- Loosen the upper looper thread tension (orange) slightly.
- Tighten the lower looper thread tension (yellow) generously.

(2) Flatlocking a Seam

- Place the fabric wrong sides together to sew a decorative stitch on the right side of the garment.
- Sew the seam, trimming the excess fabric.
- The needle thread (green or blue) will form a V on the underside of the fabric.
- The lower looper thread will pull into a straight line at the fabric edge.



- Pull on opposite sides of the seam to pull the stitches flat.

(3) Decorative Flatlocking



Caution:

Be sure to turn off the power switch.

- Place the movable upper knife in the non-working position (page 23). The fabric is not trimmed on this stitch.



Caution:

Be sure the looper cover is closed when sewing.

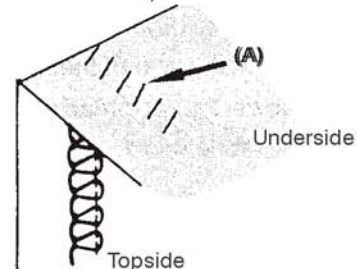
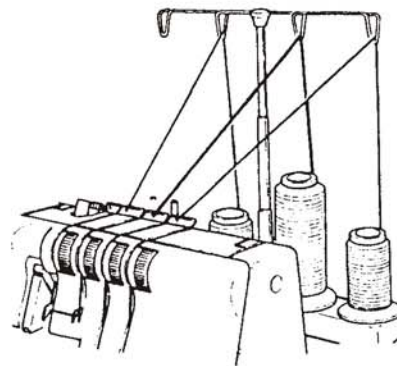
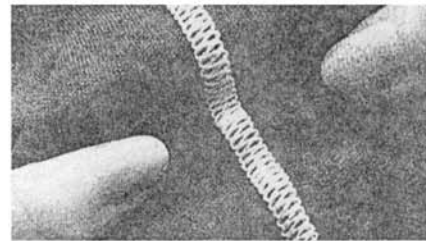
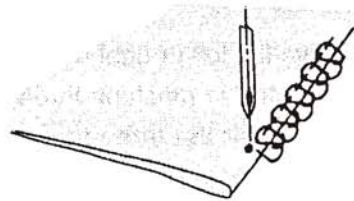
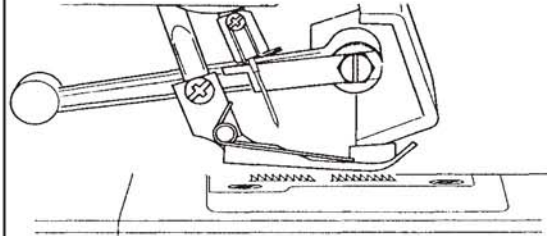
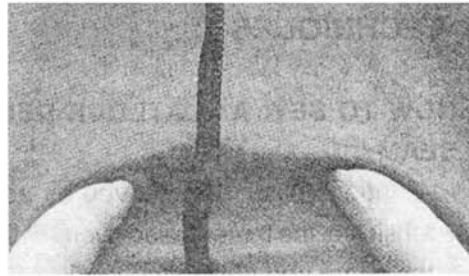
- Fold fabric wrong sides together.
- Position the fabric so the seam is sewn with part of the stitch extending off the fabric.
- Pull on opposite sides of the stitch to flatten.

(4) Additional Information about Flatlocking

- The tensions must be correctly adjusted for the fabric to pull flat.
- The upper looper thread is the prominent thread in the flatlock stitch. Place a decorative thread in the upper looper and inconspicuous threads in the lower looper and needle.
- For a ladder stitch, sew seam with right sides together. The needle thread will be the prominent thread that creates the ladder (A).

Note:

An optional Edge Guide is available (page 44) to aid in sewing a flatlock stitch.



• HOW TO SEW AN OVERLOCK BLIND HEM

The excess fabric is trimmed and the hem is sewn and the raw edges are overlocked in one operation. The overlock blind hem is best suited for sewing knit wear. It provides a durable finish that is almost invisible.



Caution:

Be sure to turn off the power switch.

- Remove the left needle and adjust machine for a narrow three-thread overlock stitch.

Note:

The three-thread flatlockstitch and also be used.

- Set the stitch length dial at 4 - 5.
- Fold the hem to the wrong side of the fabric, then back to the right side with 6mm (1/4 ") beyond the fold.
- Stitch on the extended hem edge, allowing the machine needle to barely catch the edge of the fold.

Note:

An optional blind hem foot (ULTRA HEM FOOT) is available (page 45).

HOW TO SEW PIN TUCKS

Sew decorative pin tucks on the fabric before cutting out the garment.



Caution:

Be sure to turn off the power switch.

- Remove the left needle and adjust the machine for a narrow three-thread overlock stitch.

Note:

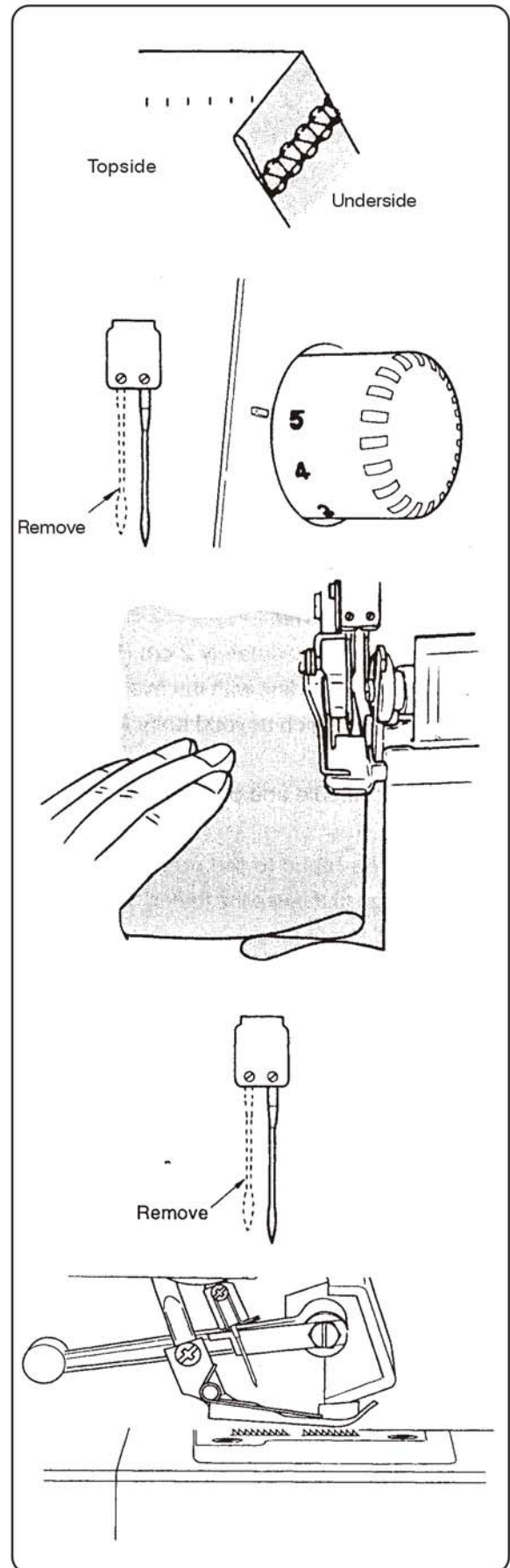
The rolled hem stitch can also be used for this technique.

- Place the movable upper knife in the non-operating position (page 23).
- Mark the fabric with the desired number of pin tucks using a water soluble fabric marker.



Caution:

Be sure the looper cover is closed when sewing.



- Fold the fabric with the wrong sides together and sew.

- Press the pin tucks in the same direction.

• TURNING SQUARE CORNERS

(1) Outside Corner

- Cut out approximately 2 cm (5/8 inch) from the corner, in line with the overedge seam edge.
- Sew one stitch beyond point (A) and stop.
- Raise the needle and presser foot.
- Pull the fabric to the rear of the machine just enough to release the thread caught on the finger of the throat plate.

Note:

The presser foot has been removed to show detail.

- Turn the fabric and lower the presser foot so that the knife is positioned in line with the cut edge.
- Pull slack threads up, then start to sew.

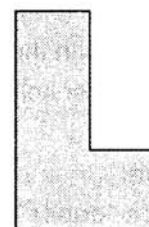
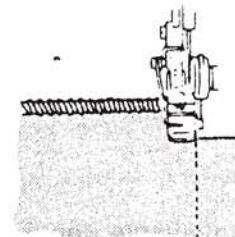
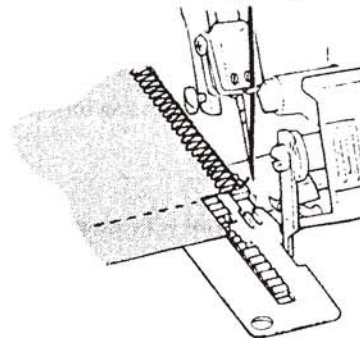
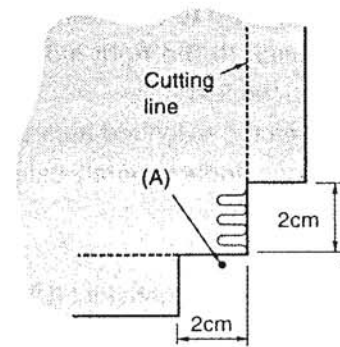
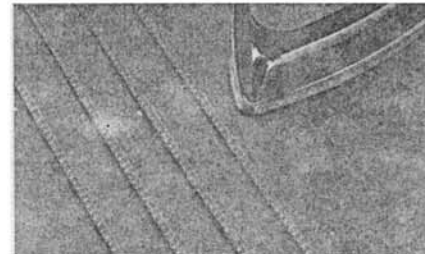
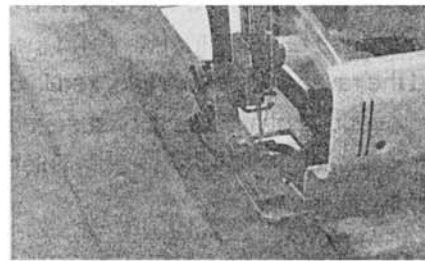
(2) Inside Corner



Caution:

Be sure to turn off the power switch.

- Cut fabric at seam edge



- Place movable upper knife in non-operating position (page 23).



Caution:

Be sure the looper cover is closed when sewing.

- Stitch on cut edge of fabric.
- Stop sewing before you reach the corner and fold the fabric to the left to straighten the corner.
- Continue to sew slowly holding the fabric edge in a straight line moving the fold as you sew.

• **PIN PLACEMENT**

- Insert pins to the left of the presser foot. The pins will be easy to remove and are away from the cutting action of the knives.



Caution:

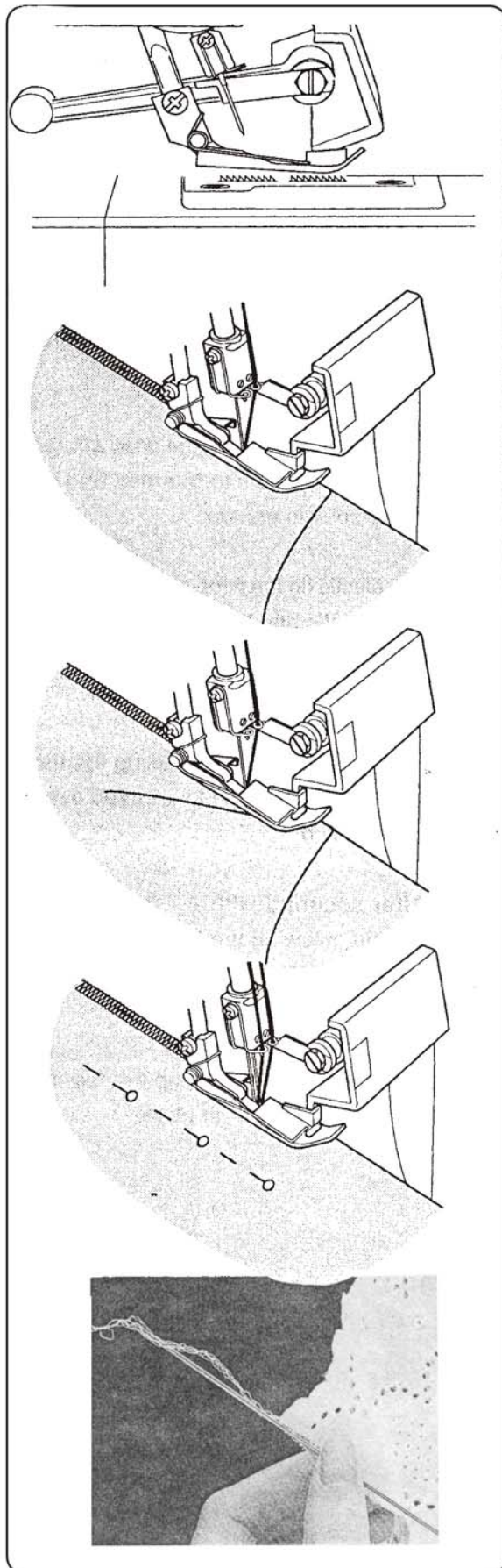
Sewing over pins will damage and/or destroy the cutting edge of the knives.

• **SECURING THE THREAD CHAIN**

- Thread a large eye, hand sewing needle (such as a tapestry needle) with the thread chain.
- Insert the needle into the end of the seam to secure thread.

Note:

To secure a rolled hem thread chain, see page 27.



• APPLYING ELASTIC



Caution:

Be sure to turn off the power switch.

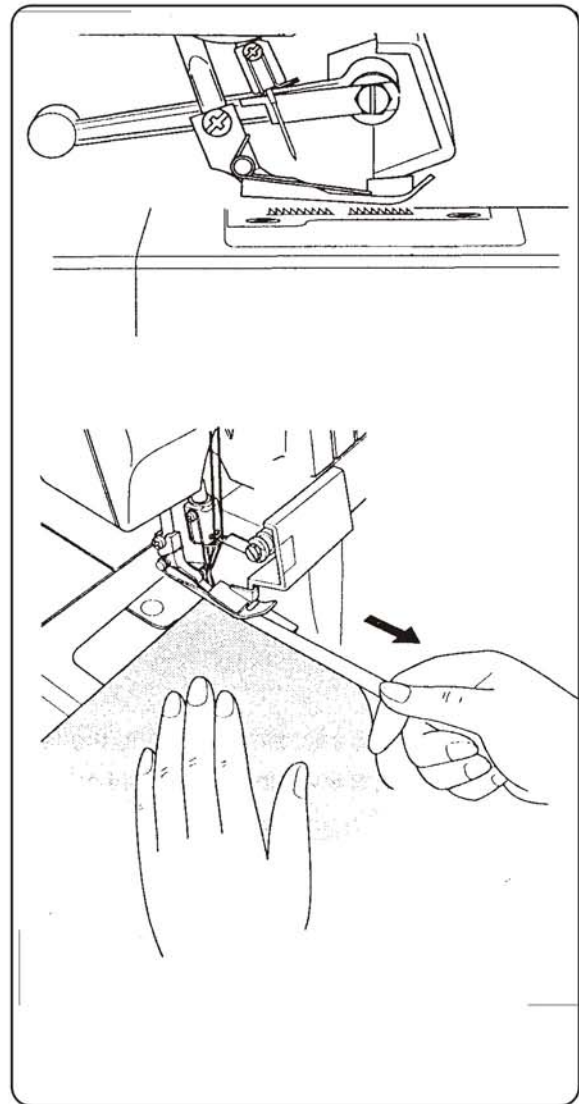
- Place the movable upper knife in the non-operating position (page 23).



Caution:

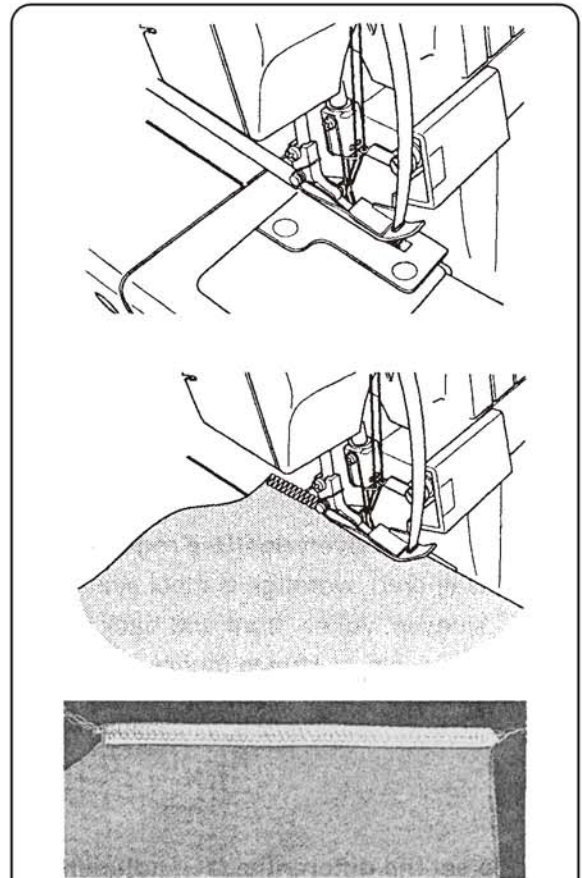
Be sure the looper cover is closed when sewing.

- Divide the elastic and the area where the elastic will be attached into quarters and mark with a water soluble marker.
- Lay elastic on the wrong side of the fabric making sure elastic and fabric edges are even.
- Line up with edge of throat plate.
- Elastic should be sewn using the three-thread overlock stitch or the four-thread overlock mock safety stitch.
- After securing with 2 - 3 stitches, continue sewing, allowing the fabric to feed through the machine while gently stretching elastic (a quarter at a time) with the right hand.
- Use the left hand to keep the fabric even with the edge of the throat plate.



• HOW TO REINFORCE A SEAM

- Inserting twill tape while overedge sewing will stabilize the seam.
- *Twill tape is available in various widths
- Insert the tape through the hole in the front of the foot.
- Position the tape under the foot to the back of the machine and sew the garment seam.
- The tape is attached as the seam is sewn.



• BRAIDING BY CHAINING OFF



Caution:

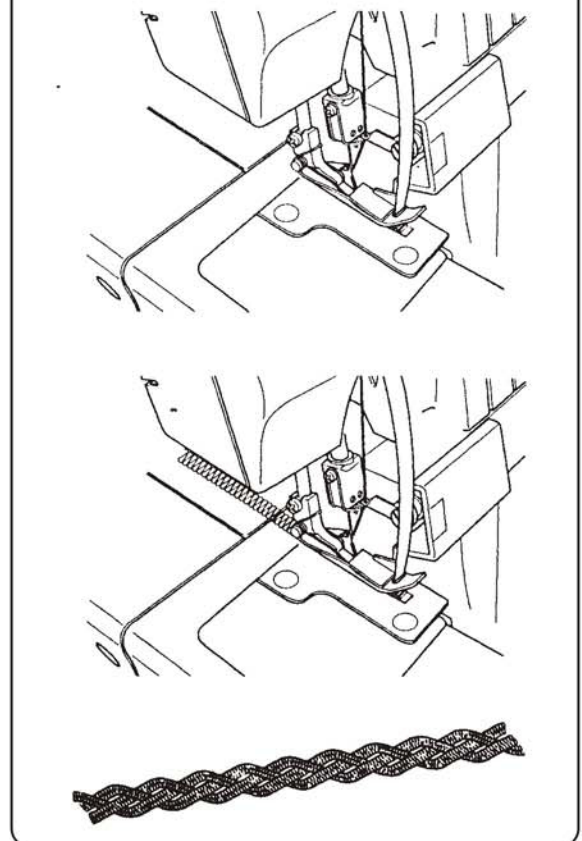
Be sure to turn off power switch.

- Place the movable upper knife in the non-operating position.
- Insert filler cord such as yarn or twill tape through the hole in the front of the foot.
- Position the filler cord under the foot and chain off the desired length.
- Chained off braids can be used individually or woven into 3 or 4 ply braids.



Caution:

Be sure the looper cover is closed when sewing.



• DIFFERENTIAL FEED

(with differential feed machine only)

- Differential feed is a system which “stretches” or “gathers” the fabric, when the amount of feed of front feed dog in relation to the rear feed dog is changed.
- The differential feed ratio ranges from 1:0.77 - 1:2.0. Adjustment is made by means of the differential feed adjusting lever as shown.
- Use of differential feed is very effective in overedging stretch fabrics and fabrics cut on the bias.

(1) Gathered Overedge(Use regular throat plate)

- Gathered overedge is most suited for shirring sleeves, yokes, front and back bodices, skirt hems, etc. in stretch fabrics such as knits and jersey before assembling into garment.

To set the differential feed adjusting lever



Caution:

Be sure to turn off the power switch.

- Open looper cover and loosen differential feed adjusting lever thumb screw.
- Slide adjusting lever downward below the center mark, as required, to gather, and tighten the thumb screw.

Note:

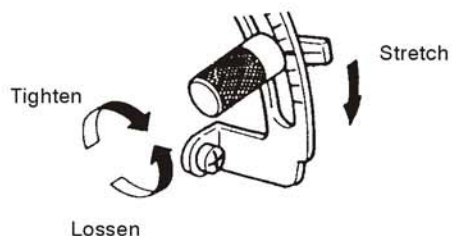
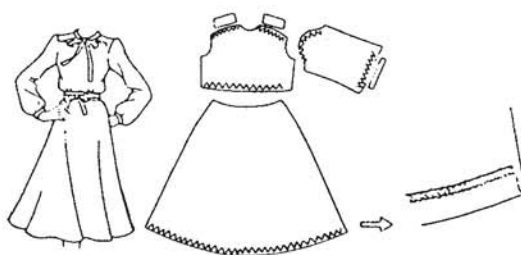
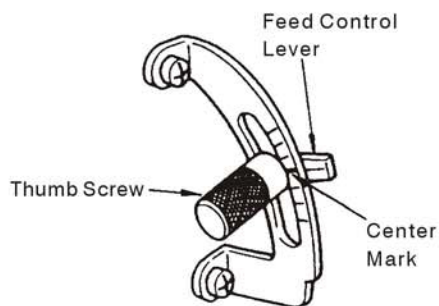
The setting position of the lever will differ depending on the material being sewn and the amount of feed for shirring.

- When the differential feed adjusting lever is set to maximum gathering ratio, the stitch length will automatically change to 3mm (7/64inch) if previous setting was higher than setting “3”.
- Be sure to reset the differential feed adjusting lever to the center mark for normal overedge stitching.



Caution:

Be sure the looper cover is closed when sewing.



(2) Stretch overedge

(Use regular or rolled hemming throat plate)

- Stretch overedge is ideal for sewing decorative collars, sleeves, skirt hems, etc. on loosely knit and woven fabrics.

To set the differential feed adjusting lever



Caution:

Be sure to turn off the power switch.

- Open the looper cover and loosen the differential feed adjusting lever thumb screw.
- Slide the adjusting lever upward above the center mark, as required, to stretch, and tighten the thumb screw.



Caution:

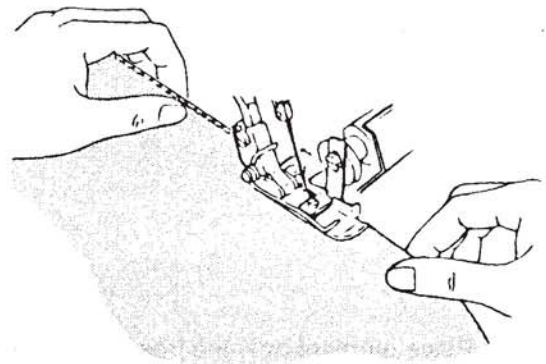
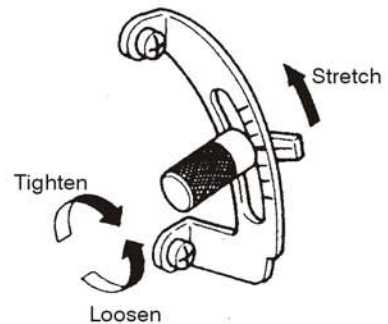
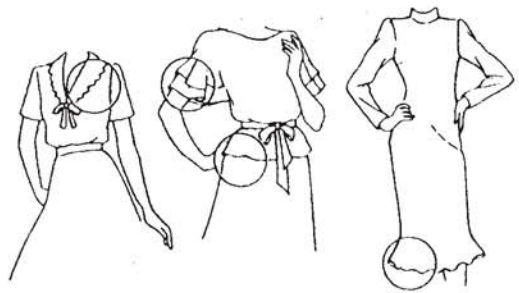
Be sure the looper cover is closed when sewing.

- To sew a seam, apply gentle tension to the fabric by holding the seam lightly in front and back of the presser foot.

Note:

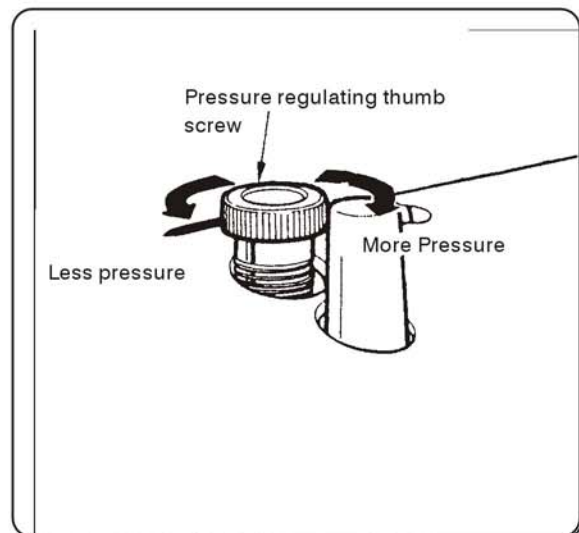
If the amount of “stretch” is not correctly set in relation to the fabric being sewn, the fabric may shift away from the needle resulting in an improperly sewn overedge seam. In such cases, reset the differential feed adjusting lever closer to the center mark.

- Be sure to reset the differential feed adjusting lever to the center mark for normal overedge stitching.



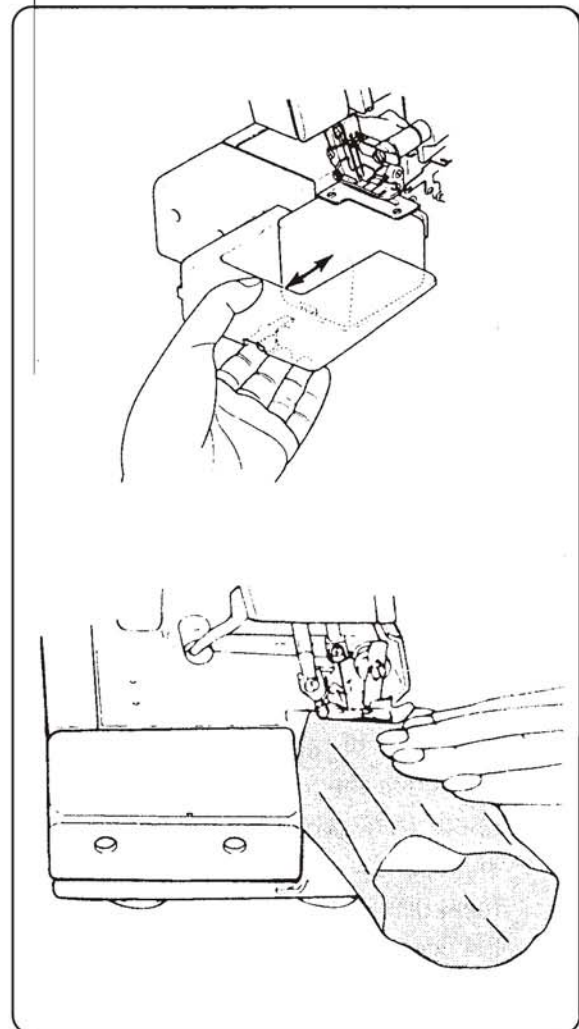
22. HOW TO ADJUST THE PRESSER FOOT PRESSURE

- The presser foot pressure of the machine is pre adjusted for sewing medium weight fabrics.
- It may be necessary to adjust the pressure to sew different weights of fabrics by turning the pressure regulating screw.
For light weight fabric..... decrease the pressure.
For heavy weight fabric... increase the pressure.



23. FREE ARM SEWING (tubular work)

- This machine becomes a free arm machine simply by removing the cloth plate and is especially suited for sewing hard to reach garment areas such as armholes and overcasting trouser cuffs.
(See page 9 for removal of cloth plate.)



- Place garment over the free arm and sew.

24. RELATIONSHIP BETWEEN CLOTH, THREAD AND NEEDLE

Type of Fabric	Type of Thread	Needle Singer Cat. No. 2054
Light Weight Lawn, Organdy, Voil, Crepe, etc.	Cotton #100 Silk #100 Spun #80 - #90 Tetron #80 - #100	#10
Medium Weight Muslin, Seersucker, Satin, Gabardine, Broadcloth, etc.	Cotton #60 - #80 Silk #50 Spun #60 - #80 Tetron #60 - #80	#10, #14
Heavy Weight Oxford, Denim, Tweed, Corduroy, Serge	Cotton #40 - #60 Silk #40 - #60 Spun #60 - #80 Tetron #50 - #80	#14, #16
Knit Tricot Jersey Wool(woven,knit)	Spun #80 - #90 Tetron #60 - #80	#10, #14
	Spun #60 - #80 Tetron #60 - #80 Cotton #60 - #80	#10, #14
	Spun #60 - #80 Tetron #50 - #60 Woolly nylon Woolly tetron	#10, #14

Note:

For additional needle information see page 4.

25. MACHINE MAINTENANCE

- An overlock requires more maintenance than a conventional machine mainly due to two reasons,
 - 1) A lot of lint is produced due to the cutting action of the knives,
 - 2) An overlock runs at a very high speed and needs to be oiled frequently to lubricate the internal working parts.

• CLEANING THE MACHINE



Danger:

Before cleaning your machine, disconnect the power line plug from the wall receptacle.

- Clean the lint from the looper and knife area often with a dry lint brush.

• OILING THE MACHINE



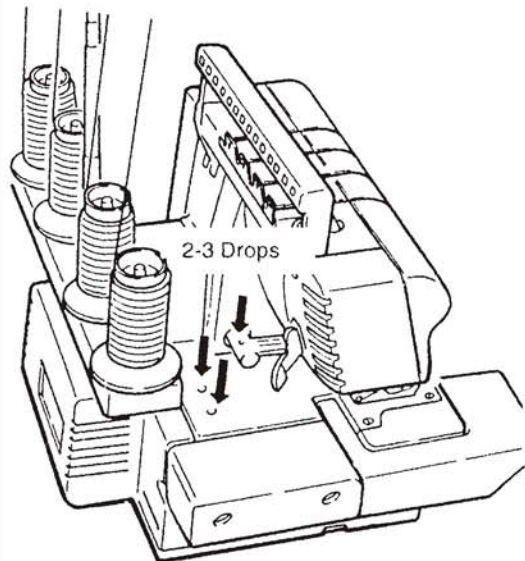
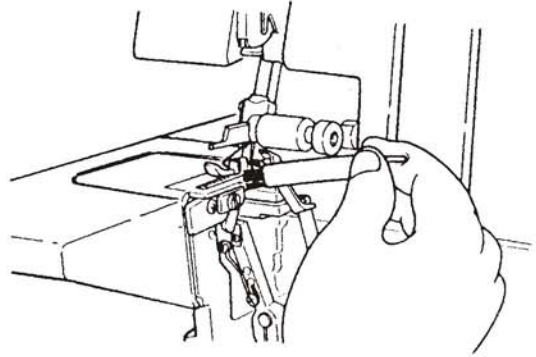
Danger:

Before lubricating your machine, disconnect the power line plug from the wall receptacle.

- The oiling points shown in the diagram should be oiled periodically.

IMPORTANT NOTE:

Use sewing machine oil. Do not use any other oil or it might result in damage.



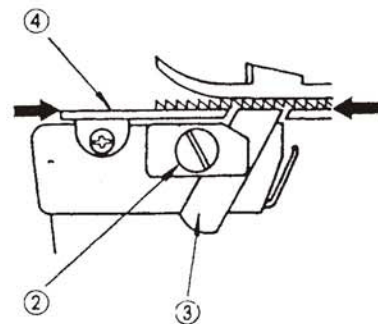
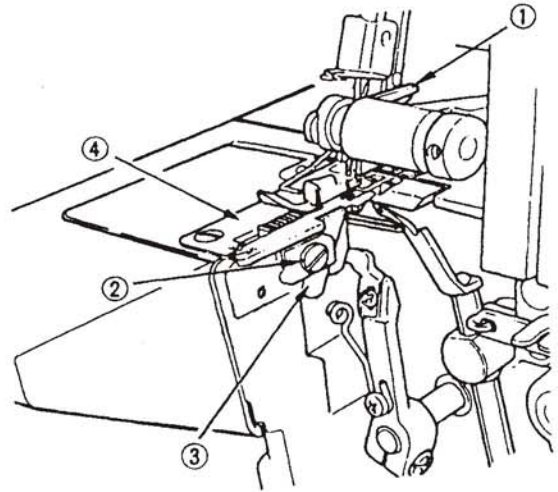
• HOW TO REPLACE THE STATIONARY KNIFE



Danger:

Before replacing the stationary knife disconnect the power line plug from the wall receptacle.

- The stationary knife should be changed when it becomes blunt.
- The stationary knife can be replaced according to the directions provided, however if there are any difficulties experienced, consult your service agent representative to make the adjustments.
- Be sure that the power line plug is disconnected from the electrical source.
- Open the looper cover and set the movable upper knife 1 in the non-operating position (page 23).
- Loosen the stationary knife clamping plate set screw 2 and remove the stationary knife 3.
- Place a new stationary knife in the groove of the stationary knife holder, align the cutting edge level with the top surface of the throat plate 4.
- Tighten the stationary knife clamping plate set screw 2.
- Return the movable upper knife 1 to its operating position.



• **HOW TO EXCHANGE LIGHT BULB**

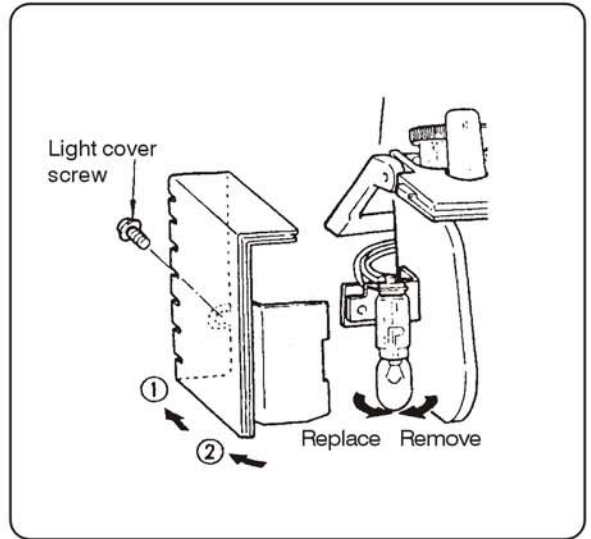


Danger:

Always unplug the machine from the wall receptacle before relamping.

- Replacement lamps can be obtained from your service agent or from a local electrical store. Take the failed bulb for reference to obtain an identical replacement.

- Remove light cover screw and while pushing the cover lightly to the rear, swing cover to the left and remove from machine as shown in the illustration. Turn bulb to the left to remove. To replace the bulb, push bulb into the socket and turn the bulb to the right to tighten.



Caution:

Be sure the light bulb has cooled off before replacing with a new one.



Warning:

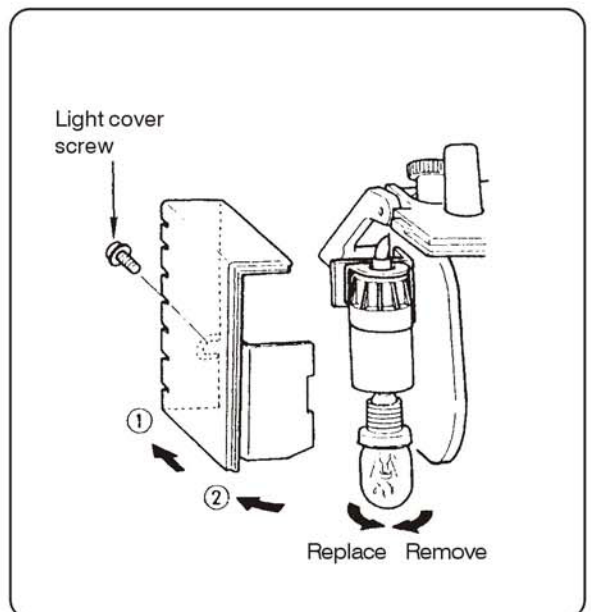
Replace the light cover first before connecting the power line plug.

- If the voltage indicated on the electrical rating plate of your machine is 200-240V, ask for a light bulb conforming to following specification.

Edison type (screw type) 200-240V, 15W

- Glass shape: T-22
- Lamp cap: E14
- Overall length: 56mm

- Remove the light cover screw and while pushing the cover lightly to the rear, swing cover to the left and remove from machine as shown in the illustration. Turn the bulb to the left to remove. To replace, screw the bulb into the socket turning it to the right.



26. TROUBLESHOOTING CHART

Problem	Solution	Page
Fabric does not feed well	- Lengthen stitch length	23
	- Increase presser foot pressure for heavy weight fabric	38
	- Decrease presser foot pressure for light weight fabric	38
Needle breaks	- Insert needle correctly	8
	- Do not pull fabric while sewing	18
	- Tighten needle set screw	8
	- Use a larger needle on heavy fabrics	39
Thread breaks	- Check threading	10 - 17
	- Check for tangled or caught thread	22
	- Insert needle correctly	8
	- Insert new needle, current needle may be bent or have a blunt point	8
	- Use a high quality thread	39
	- Loosen thread tension	19 - 21
Stitches skip	- Insert new needle, current needle may be bent or have a blunt point	8
	- Tighten needle set screw	8
	- Insert needle correctly	8
	- Change type or size of needle	4
	- Check threading	10 - 17
	- Increase presser foot pressure	38
	- Use a high quality thread	39
Irregular stitches	- Balance thread tension	19 - 21
	- Check for tangled or caught thread	22
	- Check threading	10 - 17
Fabric puckers	- Loosen thread tension	19 - 21
	- Check for tangled or caught thread	22
	- Use high quality light weight thread	39
	- Shorten stitch length	23
	- Decrease presser foot pressure for light weight fabrics	38
Irregular trimming	- Check alignment of knives	41
	- Replace one or both knives	41
Fabric jams	- Close looper cover before sewing	6
	- Check for tangles or caught thread	22
	- Compress thick layers of fabric with conventional machine before sewing with overlock	
Machine does not operate	- Connect machine to power source	6

27. SPECIFICATION

Item	Specification
Sewing speed	1,300 spm maximum
Stitch length(feed amount)	1 - 5 mm (Standard: Rolled hemming F - 2, ordinary overedge 3)
Differential feed ratio	1:0.77- 1:2.0 (with differential feed machine)
Overedge stitch width	Rolled hemming 1.5 mm, ordinary overedge 3.5 - 7.2 mm
	(Standard: 3.5mm)
Needle bar stroke	27mm
Presser foot rise	5 mm
Needle	Singer Cat. No. 2054 (#10), #14
Number of threads	4
Machine dimensions	Width 326 mm X Depth 272 mmX Height 270 mm
Weight	6.1 kg

FEIYUE YAMATA SERGERS

LIMITED 25 YEARS MANUFACTURER'S WARRANTY NEW OVERLOCK/SERGER MACHINE HEAD

The overlock/serger head and any of its parts other than those covered by either of the separate warranties below or those subject to normal wear and tear are warranted to be free from manufacturing defects for a period of 25 years from the date of purchase. If any manufacturing defect appears in the overlock/serger head or in its parts other than those parts covered below or those subject to normal wear and tear within 25 years of purchase, free replacement parts will be provided. Shipping and labor costs are not included in this warranty. However, during the first 90 days from date of purchase, we will repair any manufacturing defect in your overlock/serger machine without charge to you for parts or labor. Shipping & handling is not included.

LIMITED 2-YEAR WARRANTY MOTORS, LIGHT ASSEMBLY, WIRING, SWITCHES, SPEED CONTROL AND ELECTRONIC COMPONENTS

The electric parts of the overlock/serger are warranted to be free from manufacturing defects for a period of two (2) years from the date of purchase. If any manufacturing defect appears in these parts within two years of purchase, free replacement parts will be provided. Shipping and labor costs are not included in this warranty. However, during the first 90 days from date of purchase, we will repair any manufacturing defect in your overlock/serger machine without charge to you for parts or labor. Shipping & handling is not included.

LIMITED 90-DAY WARRANTY ADJUSTMENTS, BELTS, RINGS, BULBS, ATTACHMENTS

Within 90 days of purchase we will provide required adjustments, and replace defective belts, light bulbs, or attachments at no charge. We will repair any manufacturing defect which appears in your overlock/serger machine within 90 days from date of purchase without charge to you for parts or labor. Shipping & handling is not included.

GENERAL

Warranties may only be used by the original consumer owner of the overlock/serger machine. They are not transferable to any subsequent owners. Service under these warranties may only be obtained within the 48 contiguous states, Alaska and Hawaii.

Service under the above warranties may be obtained by returning the overlock/serger machine with this warranty document, proof of purchase and a properly issued RMA to China Feiyue USA Inc. You can get contact and additional information at <http://www.feiyueyamata.com>

This overlock/serger machine is warranted only in normal household (non-commercial) use. These warranties do not cover failures caused by abuse, lack of maintenance, misuse, or events beyond our control. These warranties give you specific legal rights, and you may also have other rights which vary from state to state.

Any implied warranty, including without limitation the warranties of merchantability or fitness for a particular purpose, applicable to this overlock/serger machine is limited in duration to the duration of this written warranty. To keep your machine operating properly, we recommend that you follow the operating instructions and periodically have your machine serviced and tuned by a qualified sewing machine technician.