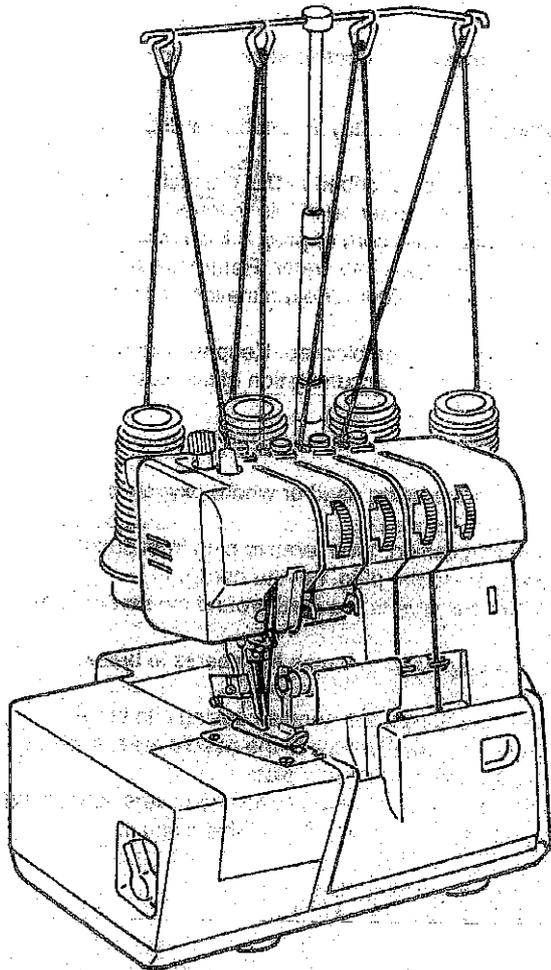


Empisal

COMPANION
OWNER'S MANUAL



Model 500D

OWNER'S MANUAL

This sewing machine is intended for household use.

IMPORTANT SAFETY INSTRUCTIONS

When using a sewing machine, basic safety precautions should always be followed, including the following.

Read all instructions before using.

DANGER - To reduce the risk of electric shock:

1. Never leave unattended when plugged in. Always unplug this machine from the electric outlet immediately after using and before cleaning.
2. Always unplug before relamping. Replace bulb with same type rated 10 Watts.

WARNING - To reduce the risk of burns, fire, electric shock, or injury to persons:

1. Do not allow to be used as a toy. Close attention is necessary when this sewing machine is used by or near children.
2. Use this sewing machine only for its intended use as described in this manual. Use only attachments recommended by the manufacturer as contained in this manual.
3. Never operate this sewing machine if it has a damaged cord or plug, if it is not working properly, if it has been dropped or damaged, or dropped into water. Return the sewing machine to the nearest authorized dealer or service center for examination, repair, electrical or mechanical adjustment.
4. Never operate the sewing machine with any air openings blocked. Keep ventilation openings of the sewing machine and foot controller free from the accumulation of lint, dust, and loose cloth.
5. Never drop or insert any object into any opening.
6. Do not use outdoors.
7. Do not operate where aerosol (spray) products are being used or where oxygen is being administered.
8. To disconnect, turn the power switch to the off position, then remove plug from outlet.
9. Do not unplug by pulling on cord. To unplug, grasp the plug, not the cord.
10. Keep fingers away from all moving parts. Special care is required around the sewing machine needle and knives.
11. Always use the proper needle plate. The wrong plate can cause the needle to break.
12. Do not use bent needles.
13. Do not pull or push fabric while stitching. It may deflect the needle causing it to break.
14. Switch the sewing machine off when making any adjustments in the needle area, such as threading needle or loopers, changing needle, knife, or needle plate.
15. Always unplug sewing machine from the electrical outlet when removing covers, lubricating, or when making any other user servicing adjustments mentioned in this manual.

SAVE THESE INSTRUCTIONS

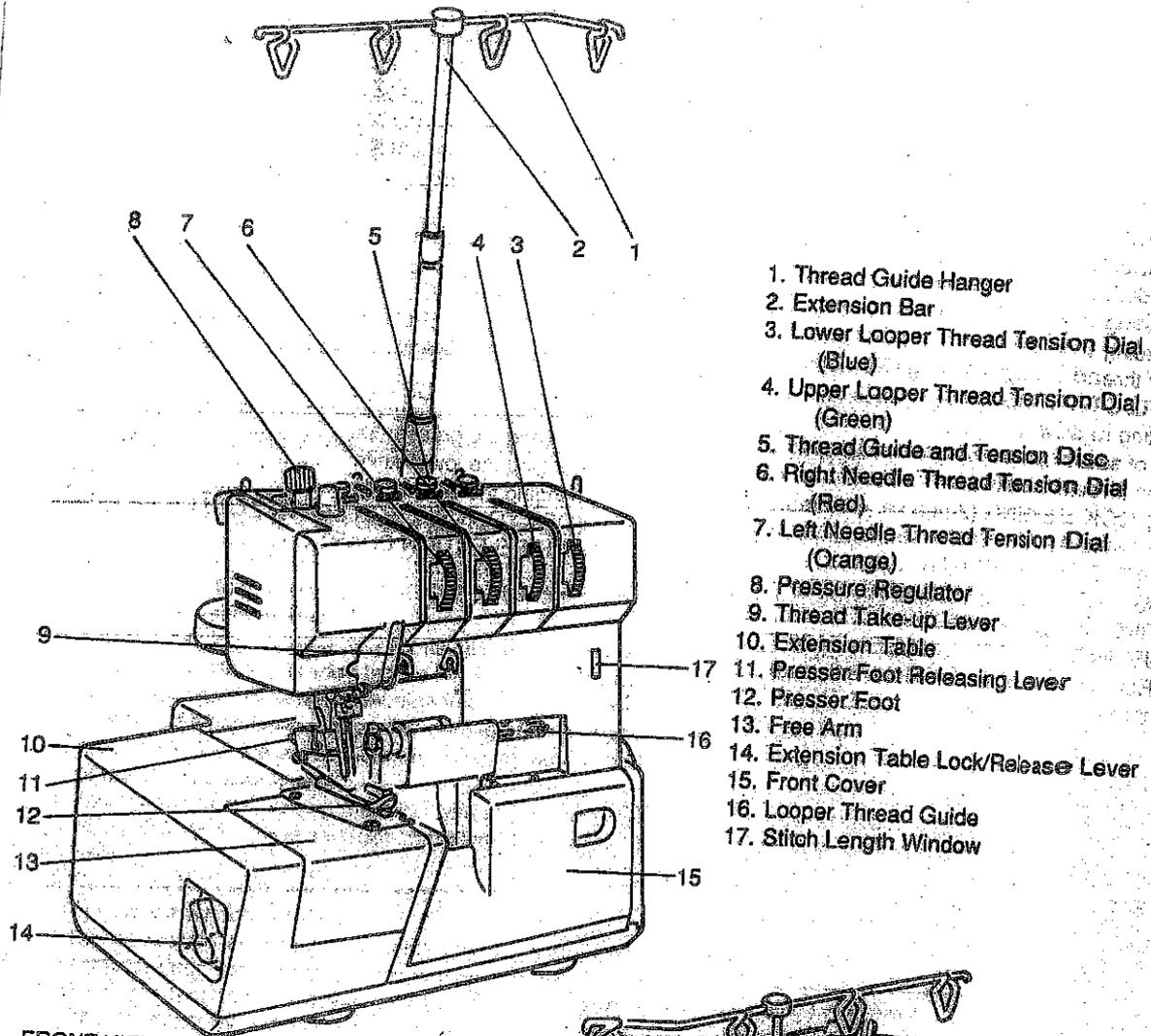
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SPECIFICATIONS

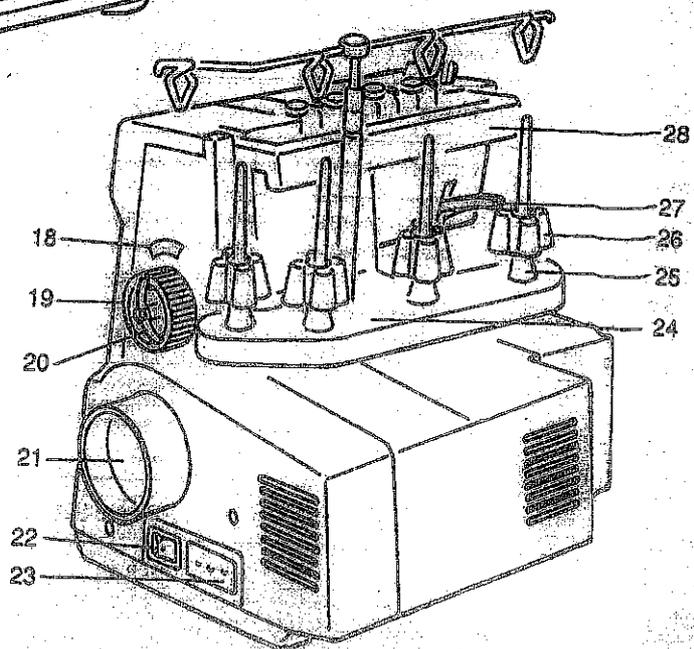
Stitch length	1-4 mm
Differential feed ratio	0.7-2.0
Seam width	Left needle: 6.2-7.2 mm, Right needle: 4.0-5.4 mm
Needle bar stroke	27 mm
Presser foot	Hinged, Snap on type
Presser foot lift	5 mm
Needle	Type 15 x 1, 705, 130 size 11, 14
Number of threads	4-3
Dimensions	Width: 290 mm x Depth: 230 mm x Height: 320 mm
Net weight	6.8 kg

GETTING TO KNOW YOUR SERGER

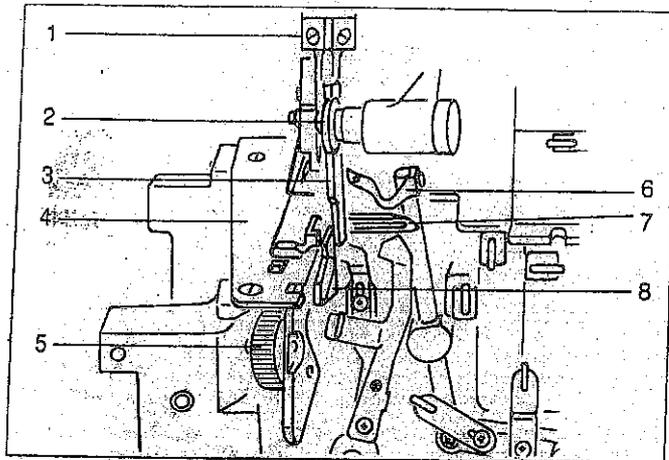


FRONT VIEW

18. Differential Feed Indicator
19. Stitch Length Regulator Dial (outside dial)
20. Differential Feed Regulator Dial (inside dial)
21. Hand Wheel
22. Light & Power Switch
23. Terminal Box
24. Spool Stand
25. Spool Pin
26. Spool Supporter
27. Presser Foot Lifter
28. Handle



REAR VIEW

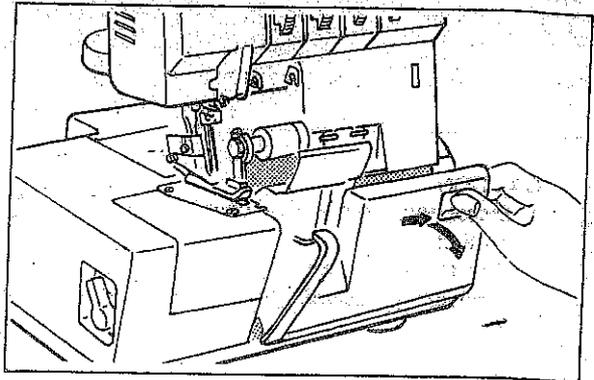


INSIDE OF FRONT COVER AND FREE ARM COVER

1. Needle Clamp
2. Upper Knife Holder
3. Upper Knife
4. Throat Plate
5. Seam Width Knob
6. Upper Looper
7. Lower Looper
8. Lower Knife

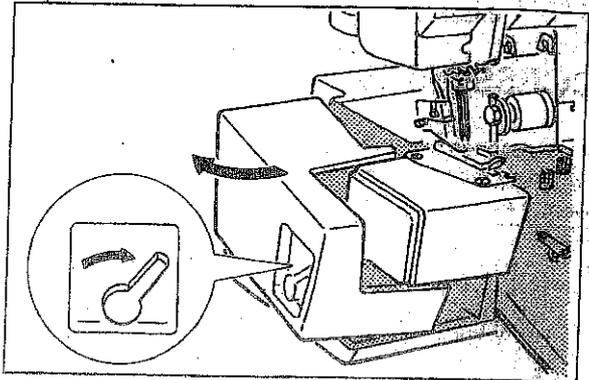
ACCESS TO THREAD GUIDES AND FREE ARM

1. Place thumb in hollow of front cover and slide it to the right as far as possible; pull cover down towards you.
2. To close, lift cover up and it will snap into place.
3. Be sure that the cover is properly closed before starting to sew.



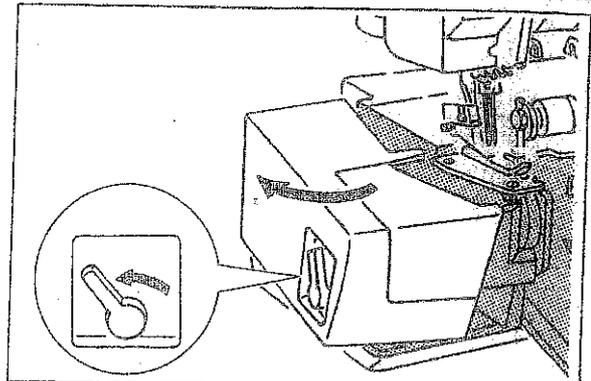
Opening the Extension Table

1. Turn lever located on left side of Extension Table towards front of machine.
2. Pull Extension Table out to open.
3. To close push shut and turn lever in opposite direction. This locks the Extension Table to Free Arm Cover.



Removing the Free Arm Cover

Swing Extension Table out with lever in locked position and Free Arm Cover will stay attached to the Extension Table.

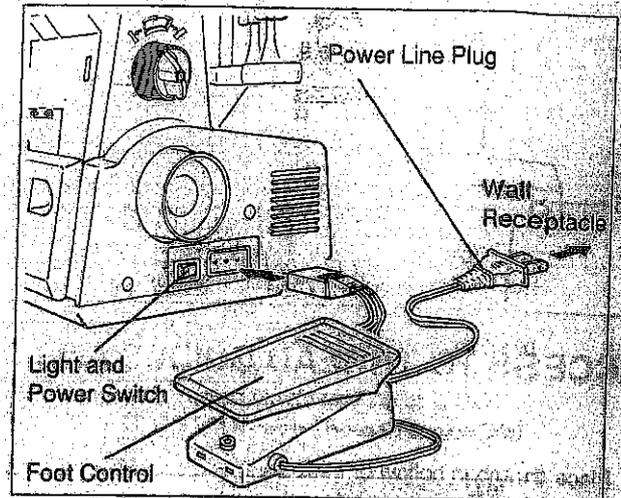


ELECTRICAL CONNECTION

Connect the electrical cord to the machine by inserting the three-hole plug into the terminal box located on the right side of the machine. Connect the cord plug into an electrical outlet.

The light and power switch is located alongside the terminal box. To turn power on, push on left side of switch.

Turning on the power lights up the stitching area. The machine will not operate unless the switch is on.



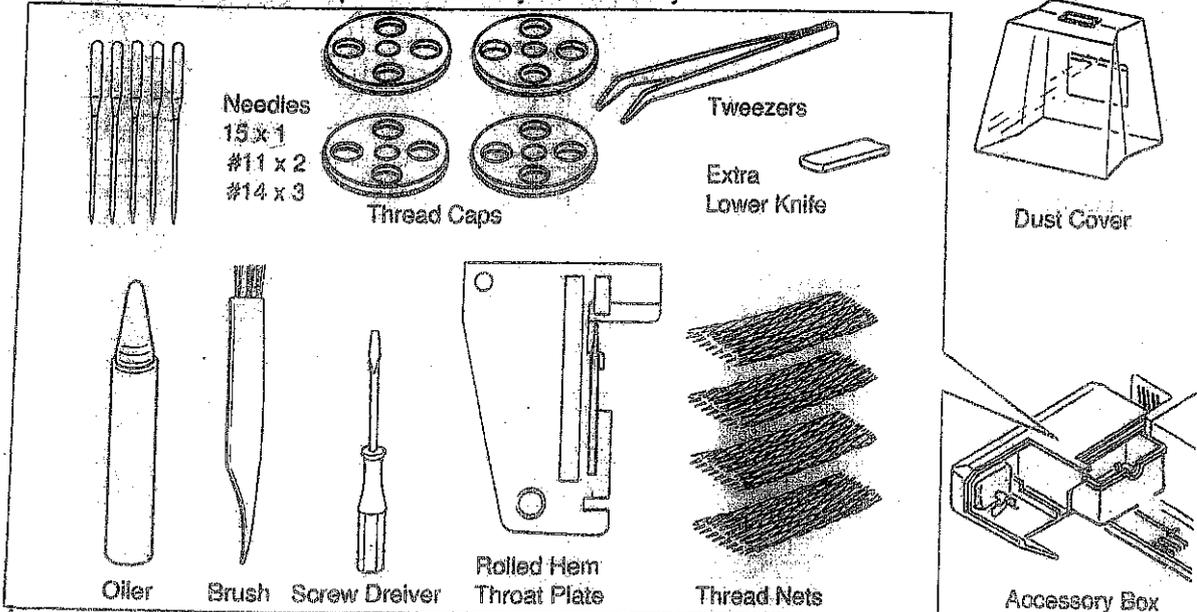
CAUTION

1. Disconnect the electrical cord from the wall outlet when machine is not in use or when it is being cleaned.
2. Turn the power switch to the "OFF" position before changing needles or throat plates, and before connecting the cord. This will help prevent accidents.

ACCESSORIES

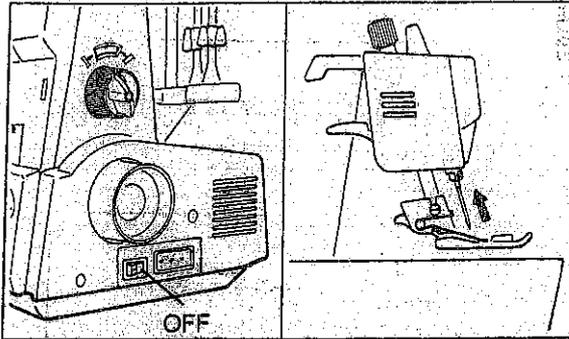
The accessories are provided in the accessory case located inside the extension table. And some accessories are provided on the base located under the extension table.

Open the extension table and pull the accessory case toward you.

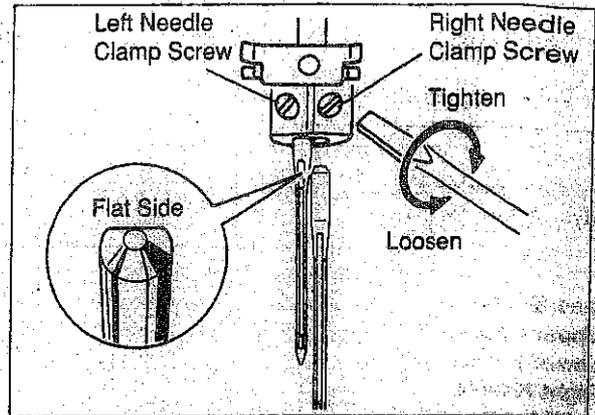


INSERTING THE NEEDLE

Select the proper type and size needle for fabric used.
(See below "NEEDLE, THREAD AND FABRIC CHART".)



1. Turn electrical power off.
2. Turn hand wheel towards you until the needle comes to its highest point.



3. Use the screw driver to loosen the Left and/or Right needle clamp screw, and remove the needle.
4. Place flat side of needle toward back of the machine, and insert in needle clamp as far as it will go.
5. Retighten the screw.

NEEDLE, THREAD AND FABRIC CHART

The chart shows size and type of thread, and needle size for various weights and types of fabrics. Size means the fineness of both needle and thread.

FABRICS		THREADS	NEEDLE SIZES
LIGHTWEIGHT: organdy, voile, taffeta, lawn, crepe.		Cotton #100 Silk #100 Spun #80-100 Tetron #90	#11
MEDIUM WEIGHT: gingham, satin, seersucker, linen, velveteen, gabardine, broadcloth.		Cotton #60-80 Silk #50 Spun #60-90 Tetron #60-80	#11, #14
HEAVY WEIGHT: denim, tweed, corduroy, pile fabrics.		Cotton #40-60 Silk #40-50 Spun #60-90 Tetron #50-60	#14
KNIT	tricot	Spun #60-80 Tetron #60-80 Woolly Nylon	#11
	jersey	Spun #60-80 Tetron #60 Woolly Nylon	#11, #14
	wool	Spun #60-80 Tetron #50-60 Woolly nylon Woolly Tetron	#14

THREADING THE MACHINE

The machine comes threaded from the factory and must be rethreaded for use.

When threading, be sure to follow the directions given below. The machine must be threaded in the proper sequence in order to sew. An illustration for correct threading is inside the front cover of the machine.

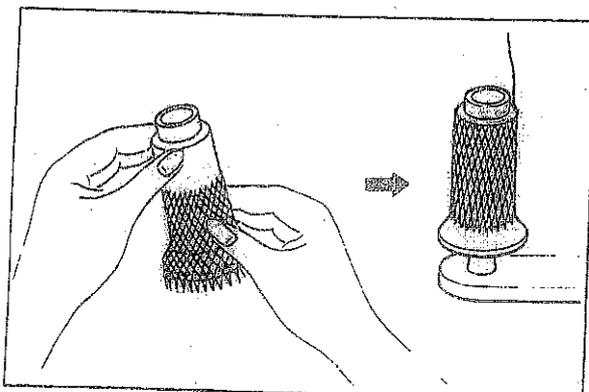
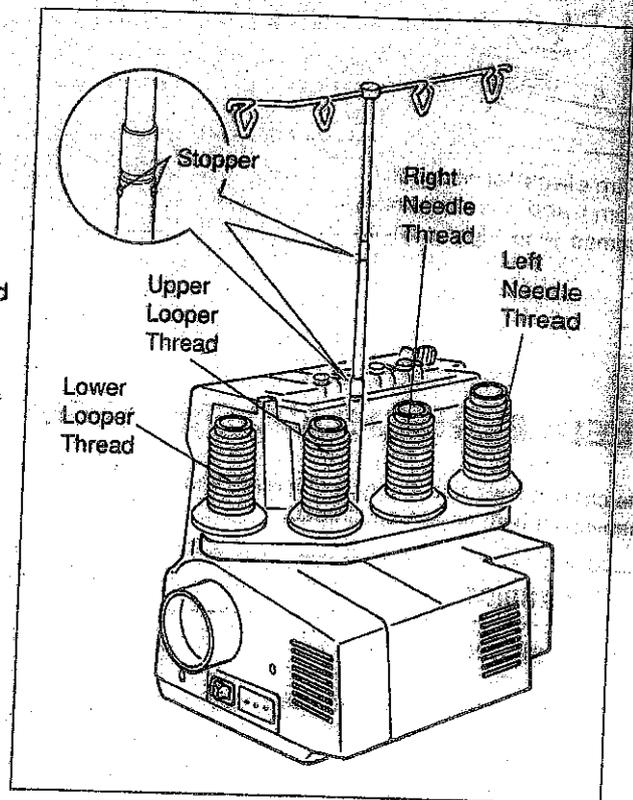
The thread guides are identified with color markings corresponding to the thread to which they belong. Always thread the upper and lower loopers before threading the needles.

Thread Sequence

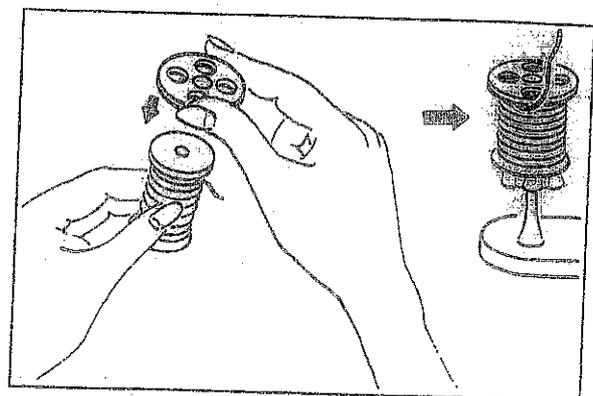
1. Upper Looper
2. Lower Looper
3. Right Needle
4. Left Needle

extension bar

1. Pull the Extension Bar up as far as it will go.
2. Rotate the Thread Guide Hanger so that the Thread Guides are right above the spool pins.
3. Place the spools or thread cones on spool pins.



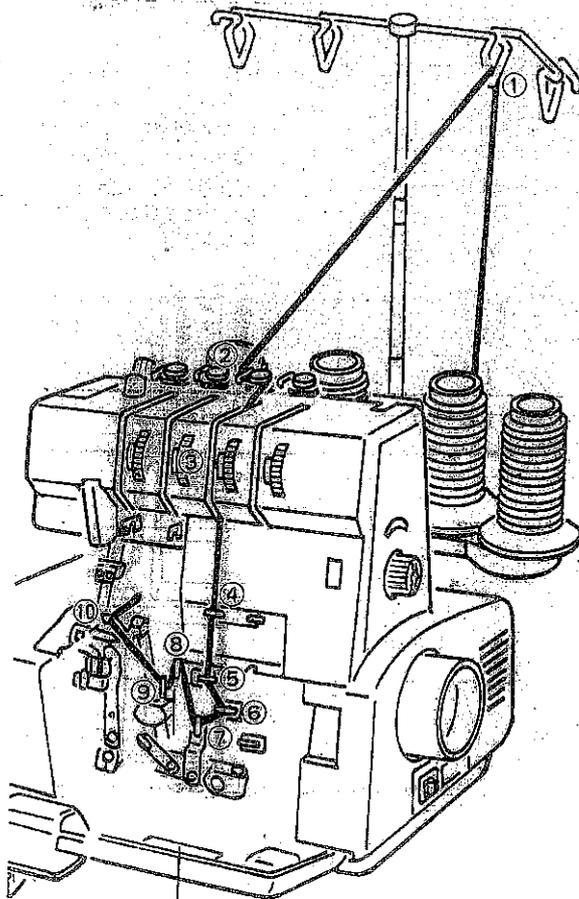
Thread spool nets are useful for synthetic threads which tend to drop off its holder. Cover the thread cones with the thread nets provided with the accessories. Bring thread end to the top of the machine.



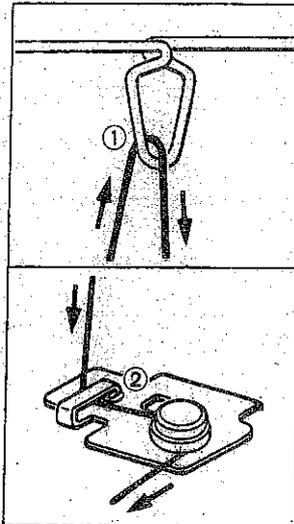
Thread caps are also provided with the accessories. They are used when sewing with regular spools. Insert the stem of cap into the spool hole. Opposite the end with notch.

threading the upper looper

Open the front cover and thread upper looper thread as illustrated below 1 to 10. Follow thread guides with green color markings on machine.

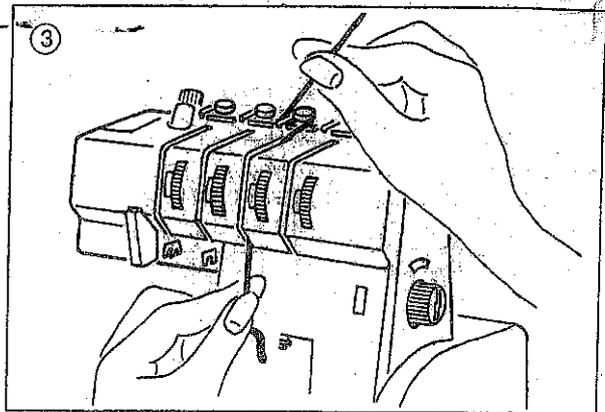


Threading chart



1. Pass thread through top guide from back to front.

2. Bring thread down and pass through thread guide and under Tension Disc.



3. Bring thread straight down through the slot so that it passes between the tension discs.

4. Hook thread into guide from the right side.

5. Hook thread from the left side.

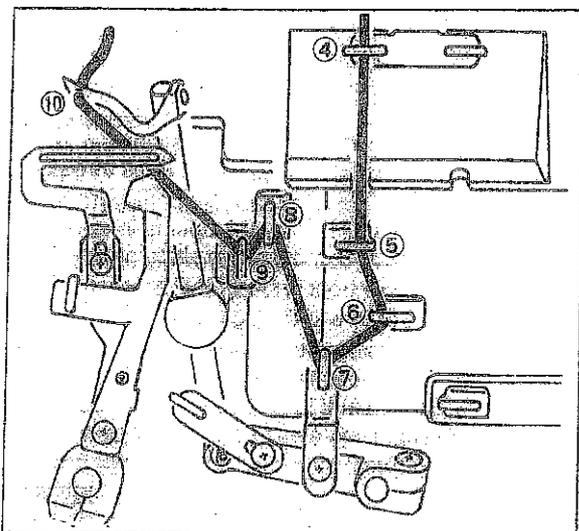
6. Hook thread from the right side.

7. Hook thread from the bottom side and pull thread up.

8. Hook thread from the top side.

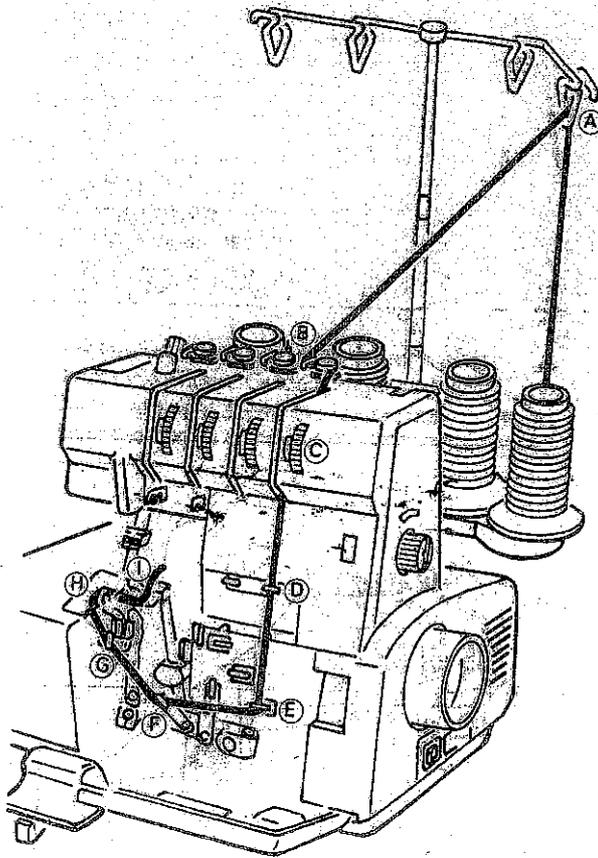
9. Hook thread from the bottom side and pull thread up.

10. Use tweezers to pass thread through the upper looper hole front to back. Pull at least 7 cm (3 inches) of thread through the upper looper.

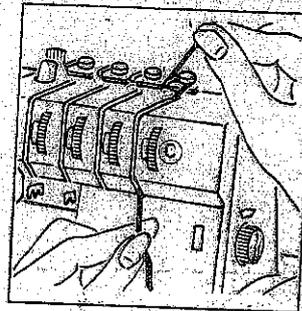


threading the lower looper

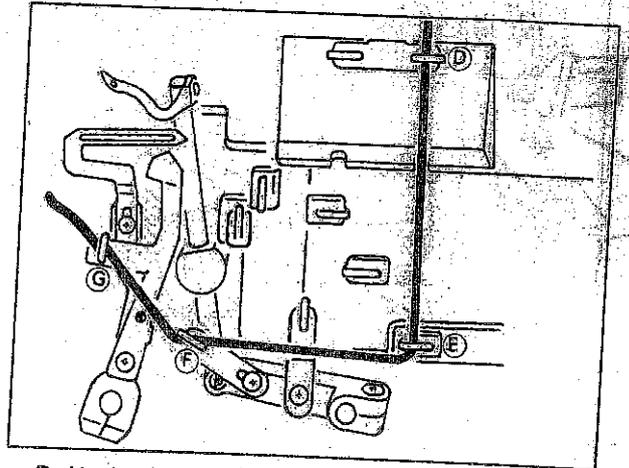
Remove the free arm cover and thread lower looper thread as illustrated below A to I. Follow thread guides with blue color markings on machine.



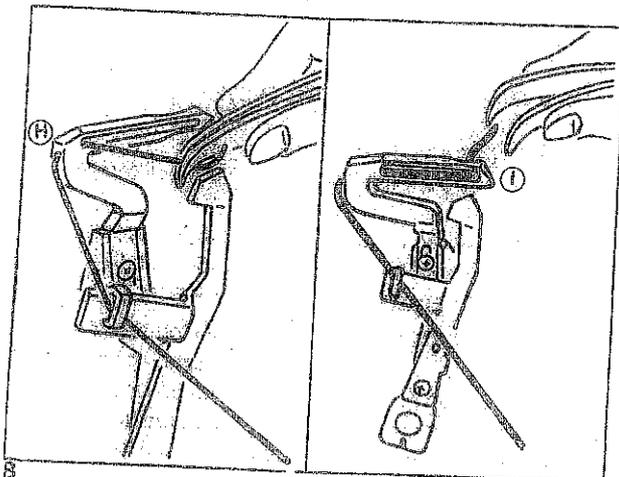
- A. Pass thread through guide from back to front.
- B. Bring thread down and pass through thread guide and under tension disc.



- C. Bring thread straight down along the slot so that the thread passes between the tension disc.



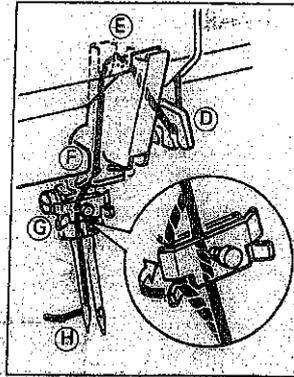
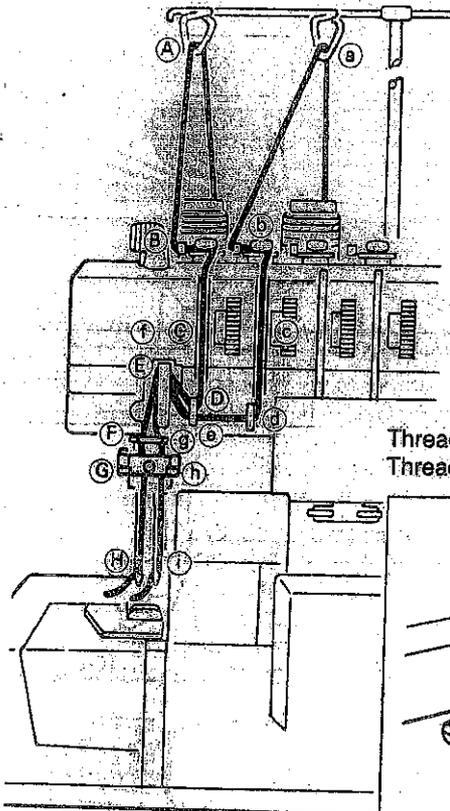
- D. Hook thread into guide from the left side.
- E. Hook thread from the right side and pull thread towards left.
- F. Hook thread from the bottom side.
- G. Hook thread from the bottom side and pull thread towards left.



- H. Turn hand wheel towards you until the lower looper is in extreme left side position. Pass thread through hole using the tweezers.
- I. Turn hand wheel until the lower looper is in extreme right position. Use the tweezers to pass thread through hole front to back. Pull at least 7 cm (3 inches) of thread through lower looper.

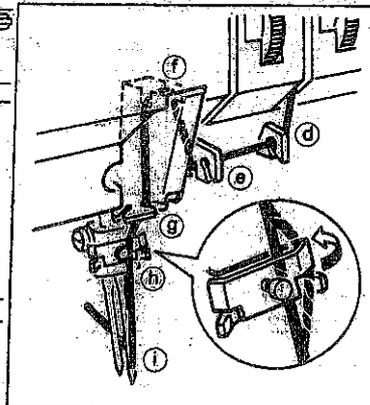
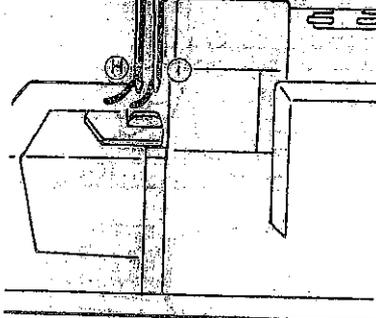
threading the left and right needles

Thread left needle as illustrated below in steps A to H.
Thread guides with orange color marking on machine.



- A- C. Thread same sequence as threading upper and lower looper thread.
- D. Hook thread into this side opening of guide and pull thread up.
- E. Hook into guide by sliding thread across top and down into hole.
- F. Hook thread into left side opening of guide.
- G. Pass thread through guide.
- H. Use the tweezers to pass through the needle eye front to back. Pull at least 7 cm (3 inches) of thread through the needle eye.

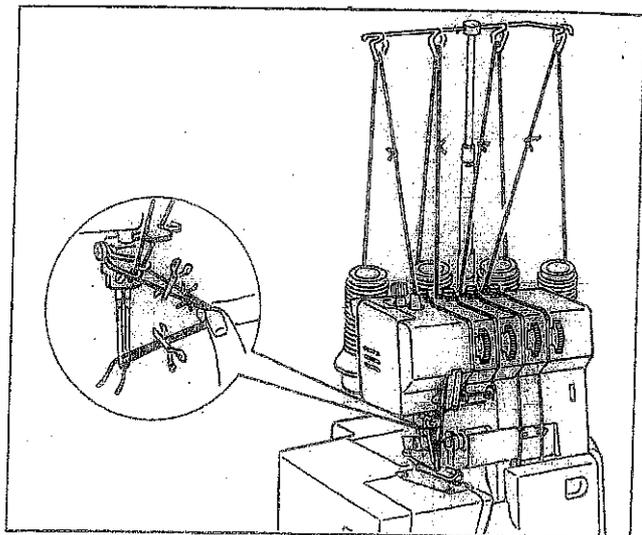
Thread right needle as illustrated below in steps a to i.
Thread guides with red color marking on machine).



- a- c. Thread same sequence as threading upper and lower looper thread.
- d. Hook thread into guide and pull it towards left.
- e. Hook thread into depth side opening of guide.
- f. hook into guide by sliding thread across top and down into hole.
- g. Hook thread into right side opening of guide.
- h. Pass thread through guide.
- i. Pass through needle eye front to back. Pull at least 7 cm (3 inches) of thread through the needle eye.

easy thread changing -Tying On method

1. Cut the thread near the spools.
2. Exchange the spool with a new one and tie end to remaining thread making knot as small as possible.
3. Note the numbers on each Thread Tension Dial.
4. Turn Thread Tension Dials to the smallest number.
5. Press Foot Control and run machine until upper and lower thread knot comes through looper hole.
6. Stop needle thread knot before passing through eye of needle. Pull needle threads near the needle eye and cut thread knots.
7. Pass threads through needle eye manually.
8. Return tension dials to original tension settings.

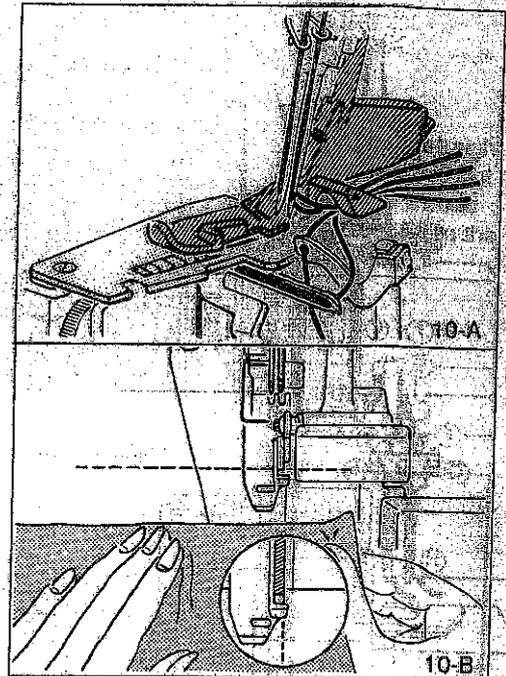


BEFORE STARTING TO SEW

When the machine is plugged in properly and threaded correctly it is ready for sewing. To insure good stitches, make several sewing tests using the same fabric and thread on which you will sew. Make the proper adjustments while test sewing.

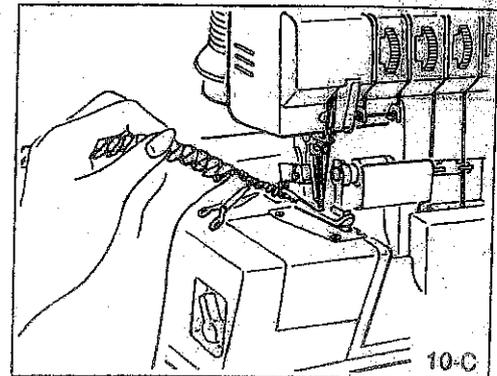
starting to sew

1. Pull all threads under the presser foot and toward the back. (fig. 10-A)
2. Lower the presser foot.
3. Turn hand wheel towards you 2 or 3 times and check the thread chain.
4. Press Foot Control lightly pulling threads towards back and make thread chain about 5 cm (2 inches).
5. Place a scrap of fabric under the toe of the presser foot at the position to be stitched. (fig. 10-B)
6. Hold end of thread with your left hand when starting to sew.



end of seam

1. When the needle reaches the end of seam, chain off by running the machine until the thread chain is 6-7 cm (2-3 inches) long.
2. Stop the machine and cut the thread chain remaining 3-4 cm (1-2 inches) to the machine. (fig. 10-C) Tie small knots in thread ends and treat with dot of seam sealant. Let dry and trim close to knot.
3. For neater finish, pull thread ends back through seam using hook or yarn needle.

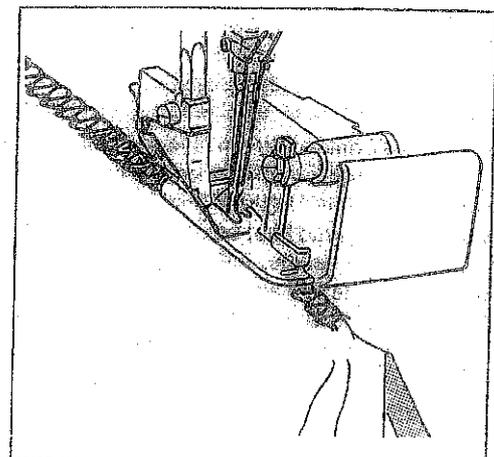


when thread breaks

If the thread breaks while sewing, remove fabric from machine and rethread as indicated below.

- Upper Loper Thread; turn hand wheel towards you until the upper looper is in the lowest position. Pass thread through the looper hole.
- Lower Loper Thread; cut the needle threads near needle hole; rethread the lower looper; rethread the needle/needles.

To begin sewing, place material 3-4 cm (1-2 inches) behind point where thread broke.

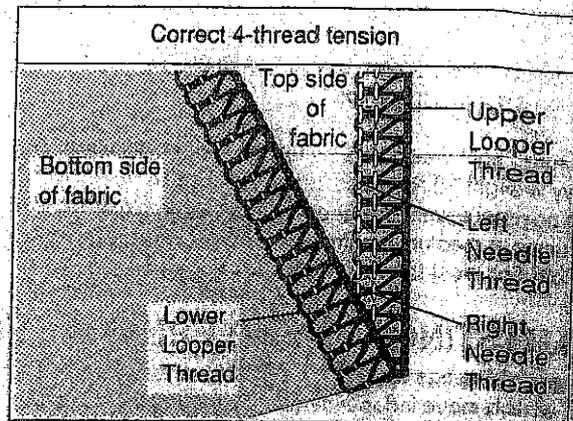


OVERLOCK SEWING (2-needle, 4-thread)

Your machine will sew overlock stitches and simultaneously trim the fabric. It is delivered from the factory preset to sew a 4-thread overlock stitch.

This machine can also sew 1-needle, 3-thread overlock stitch by removing one needle. (See page 13 "OVERLOCK SEWING 1-needle, 3-thread".)

The 2-needle, 4-thread stitch offers a stronger seam for some areas of your sewing. It is recommended for most woven fabrics and clothes that will receive harder wear and/or frequent washings.



FOUR THREAD TENSION

The stitch quality depends on proper balance between the four thread tensions. The tensions may require adjustment depending on the type of fabric, heaviness of fabric and size of thread used.

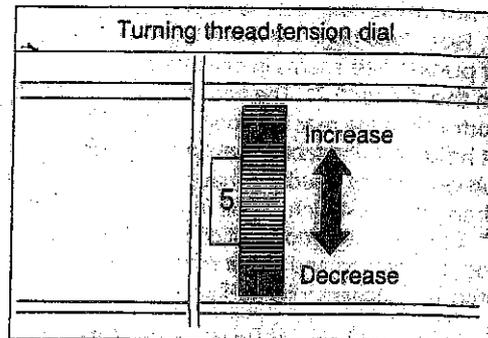
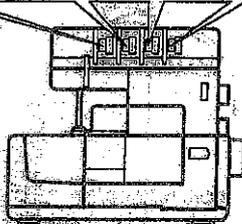
The table below is a guide for adjusting the thread tension.

Note: Be sure that the thread is passing between the tension discs.

Fabric	Left Needle Thread	Right Needle Thread	Upper Looper Thread	Lower Looper Thread
Light Weight	2.5-4.5	1.5-3.5	2.0-4.0	2.0-4.0
Medium Weight	2.5-4.5	1.5-3.5	2.0-4.0	2.0-4.0
Heavy Weight	2.5-4.5	1.5-3.5	2.0-4.0	2.0-4.0

NOTE:

This table is a guide for thread tensions when sewing with #80 to #90 polyester spun threads.



TO INCREASE, turn tension dial to a higher number.

TO DECREASE, turn tension dial to a lower number.

The charts below are illustrations of stitches needing adjustment in the thread tension.

Left needle thread is too loose. (Clearly visible on the bottom side of fabric.)	Right needle thread is too loose.	Upper looper thread crossed on bottom side of fabric.	Lower looper thread crossed on top side of fabric.
Increase Left Needle Thread Tension and/or Decrease Upper and Lower Looper Thread Tensions.	Increase Right Needle Thread Tension.	Increase Upper Looper Thread Tension and/or Decrease Lower Looper Thread Tension.	Increase Lower Looper Thread Tension and/or Decrease Upper Looper Thread Tension.

SETTING STITCH LENGTH

The stitch length can be adjusted between 1 and 4 mm.

- For shortest stitch, turn dial to 1. (fig. 12-A)
- For longest stitch, turn dial to 4.

As a rule, light weight fabrics take a shorter stitches. Heavy weight fabrics need longer stitches. Most normal sewing is done with stitch length dial set at 3. This produces a medium length stitch which makes a strong seam and is suitable for most fabrics.

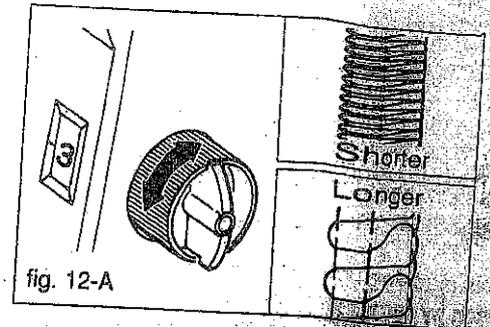


fig. 12-A

ADJUSTING THE DIFFERENTIAL FEED

This machine has two feed dogs - a front feed dog and a rear feed dog, which move independently and can be adjusted separately. This Differential Feed prevents waving in stretch fabrics and insures pucker-free seams in light weight woven fabrics.

The rear feed motion (main feed) is adjusted by turning the stitch length regulator dial. The front feed motion is adjusted by turning the differential feed regulator dial which is located inside the stitch length regulator dial. (fig. 12-B)

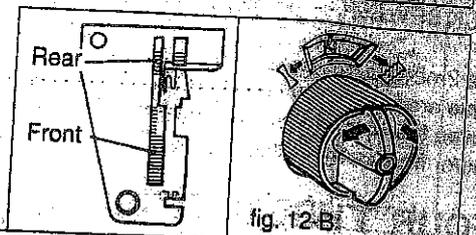


fig. 12-B

- For normal sewing, set the differential feed regulator dial to "N". Both feed dogs will move together and feed evenly.
- For pucker-free seams in delicate or closely woven fabrics, turn the dial to "0.7". The front feed dog motion will be shorter than the rear feed dog motion. The front feed dog will hold back the fabric enabling the rear feed dog to take it up behind the needle without any puckering. (fig. 12-C)
- When sewing stretch or knit fabrics, turn the dial towards "2". The front feed dog motion will be longer than the rear feed dog motion and in this manner the fabric can be sewn without stretching. (fig. 12-D)

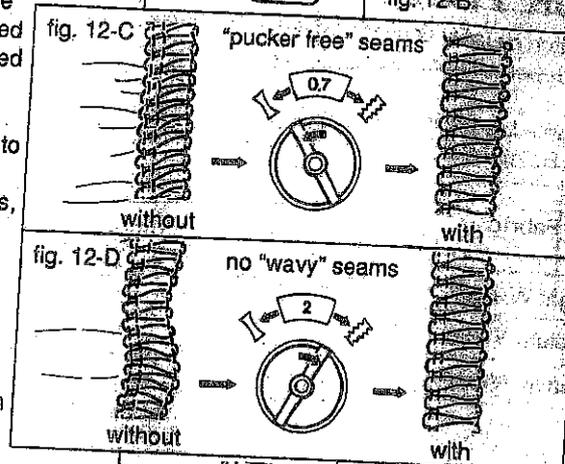


fig. 12-C

fig. 12-D

The differential feed can be used for gathering or lettuce edging.

- For gathering, set the dial towards "2". (fig. 12-E)
- For lettuce edging, set the dial towards "0.7". (fig. 12-F)

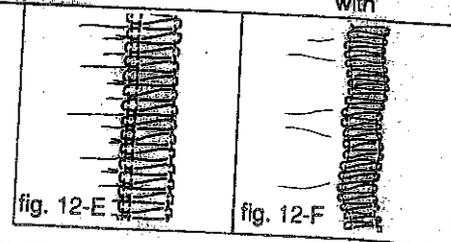


fig. 12-E

fig. 12-F

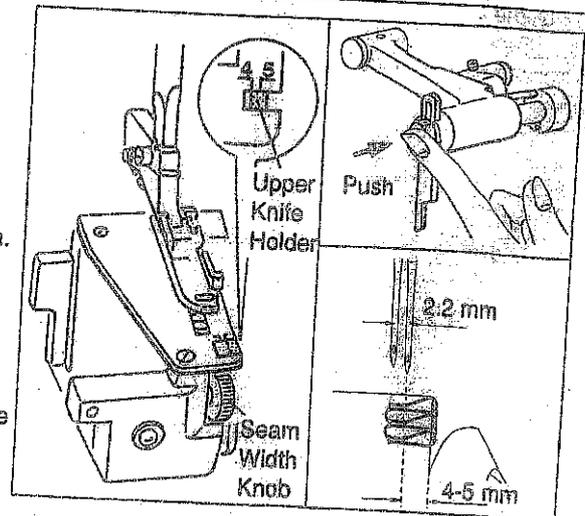
SETTING THE SEAM WIDTH

Overedge seam width can be adjusted from 6.2 mm (right needle 4.0 mm) to 7.2 mm (right needle 5.0 mm) stitch. Normally the machine is set at 6.2 mm which is the width most frequently used.

For heavy weight fabrics, set control knob to wider stitch.

1. Turn power switch off.
2. Open front cover and Free Arm Cover.
3. Push the Upper Knife Holder to the right and turn the Seam Width Knob downward to select wider stitch width. For smaller width turn knob in opposite direction.

When adjusting the width, use graduations on throat plate as guide and line up with left edge of lower knife holder. The numbers marked on the throat plate are the width to the right needle, and the distance between needles is 2.2 mm. Therefore the width to left needle is an additional 2.2 mm.

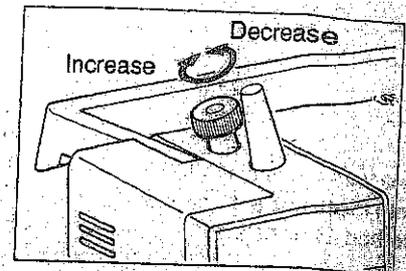


ADJUSTING THE PRESSURE ON FABRIC

The pressure on the foot can be adjusted for different weight fabrics. The fabric should move along smoothly and evenly without slipping. Stitches should be uniform in size.

The pressure on this machine is set for sewing medium weight fabrics.

- For sewing light weight fabrics, decrease the pressure (turn screw to left).
- For heavy weight fabrics, increase the pressure (turn screw to right).



OVERLOCK SEWING (1-needle, 3-thread)

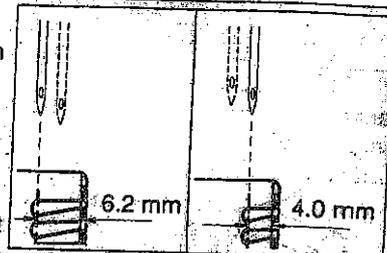
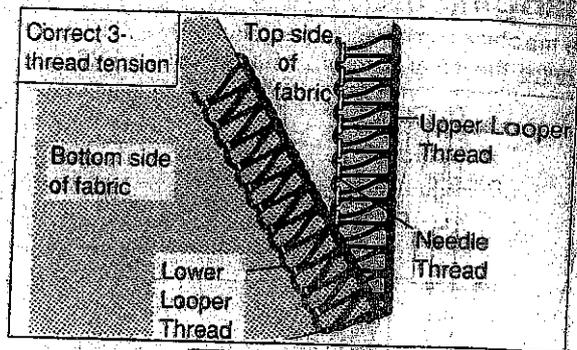
This machine can also sew 1-needle, 3-thread overlock stitching by removing either needle, depending on the seam width you desire.

This is the standard overlock stitch and is suitable for most fabrics.

To convert your machine to a wide 3-thread stitch (7.2 mm - 6.2 mm), snip the right needle thread just above the eye of the needle. Remove the thread from the "red" color coded thread guides. Remove the right needle and tighten the right needle clamp screw. This stitch width is suitable for sewing heavier fabrics.

To convert your machine to a narrow 3-thread stitch (5 mm - 4 mm), snip the left needle thread just above the eye of the needle. Remove the thread from the "orange" color coded thread guides. Remove the left needle and tighten the left needle clamp screw. This stitch width is suitable for sewing lightweight to medium weight fabrics.

Both seam widths can be adjusted by turning the seam width knob. (See page 12 "SETTING SEAM WIDTH".)



three thread tension

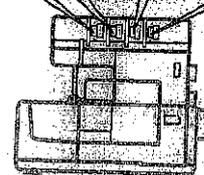
Use the chart to the right as a guide in setting tension.

Note: Be sure that the thread is passing between the tension discs.

The illustrations below are examples of stitches which need adjusting.

Fabric Weight	Needle Thread (Left or Right)	Upper Looper Thread	Lower Looper Thread
Light	(Left)	2.0-4.0	2.0-4.0
	(Right)	1.5-3.5	2.5-5.0
Medium	(Left)	2.0-4.0	2.0-4.0
	(Right)	1.5-3.5	2.5-5.0
Heavy	(Left)	2.5-4.5	2.0-4.0
	(Right)	1.5-3.5	2.5-5.0

NOTE:
This table is a guide for thread tensions when sewing with #80 to #90 polyester spun threads.



Needle thread is too loose. (Clearly visible on the bottom side of fabric.)	Upper looper thread crossed on bottom side of fabric.	Lower looper thread crossed on top side of fabric.
Increase Needle Thread Tension and/or Decrease Upper and Lower Looper Thread Tension.	Increase Upper Looper Thread Tension and/or Decrease Lower Looper Thread Tension.	Increase Lower Looper Thread Tension and/or Decrease Upper Looper Thread Tension.

NARROW AND ROLLED HEMMING

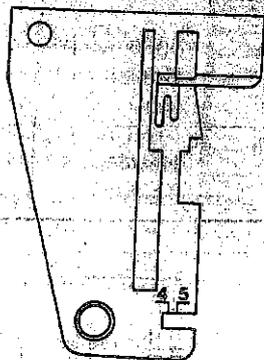
By changing the throat plate to "Rolled Hem Throat Plate" and using right needle only, the machine trims fabric, folds back the edge and sews a narrow hem (overedge). The width of the narrow overedge is 1.5 mm (about 1/16") and is used for overedging light and medium weight fabrics.

Two variations of the rolled overedge hem can be sewn with this machine by changing the thread tension. Both methods are used with light and medium weight fabrics.

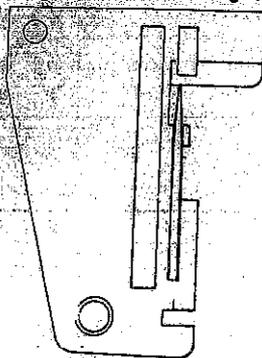
Method B gives a softer finish by pulling the interlocking threads to the wrong side.

changing the throat plate

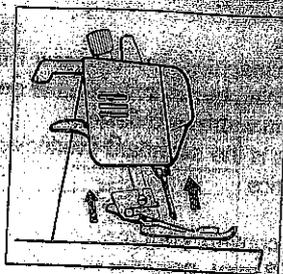
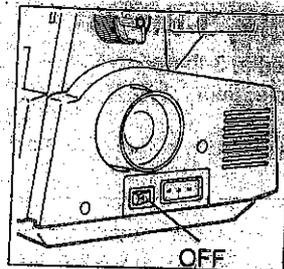
The machine comes with a standard overedge throat plate set to the machine. Change the throat plate when sewing rolled overedge.



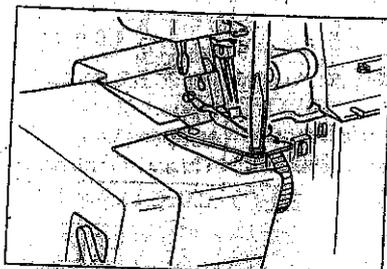
Standard Overedge Throat Plate



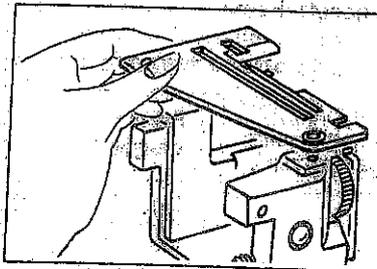
Rolled Hem Throat Plate



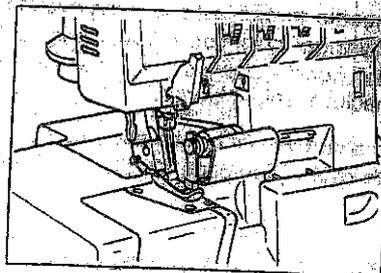
1. Turn power switch off.
2. Turn hand wheel toward you until needle is at its highest point.
3. Lift presser foot bar.
4. Clear stitches off the stitch fingers.



5. Open Extension Table and Free Arm Cover (See page 3).
6. Loosen the front side screw.



7. Lift the Throat Plate off and replace with Rolled Hemming Plate. (Be sure that thread is not caught under plate.)

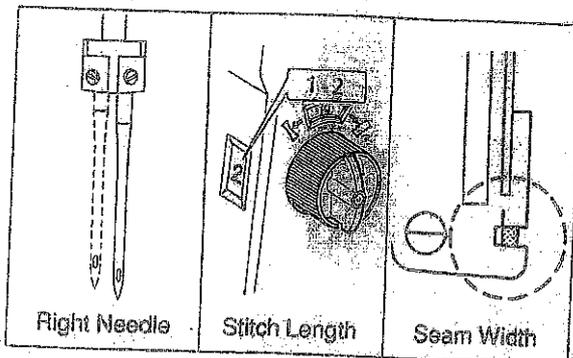


8. Retighten the screw and replace Free Arm Cover.

setting controls

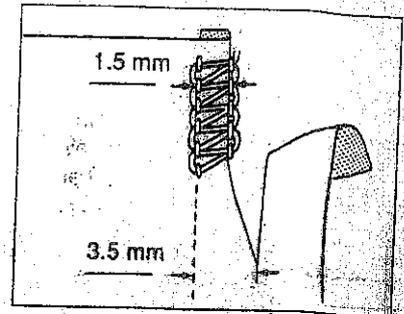
Set the controls as follows.

1. Use right needle only. (Remove the left needle.)
2. Fabric, Thread & Needle Size
Refer to Page 5 "NEEDLE, THREAD & FABRIC CHART" for selecting suitable thread and needle sizes for sewing on light and medium weight fabrics.
3. Stitch Length Regulator
Set stitch length between 1 and 2 mm.
4. Seam width knob
The seam width for sewing rolled overedge is normally 1.5 mm (about 1/16"). Turn seam width knob and adjust so that the left side of Lower Knife Holder is aligned with the mark of the Rolled Hem Throat Plate. (See page 12).



sewing

Pull the excess threads gently toward the back and begin sewing. Although the stitch width is set at 1.5 mm, you will actually need 3.5 mm (about 1/8") to provide enough fabric for the fold back.

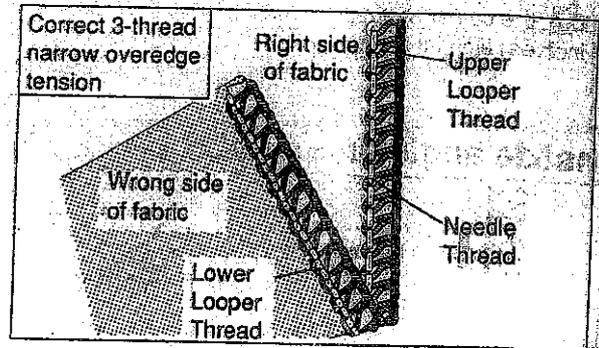
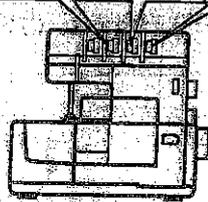


thread tension - Method A

Use the chart below as a guide in setting tension. The tension adjustments for Method A are the same as 1-needle, 3-thread overlock. See page 13 if adjustments are needed.

Fabric	Needle Thread (Right)	Upper Looper Thread	Lower Looper Thread
Light & Medium	1.5-3.5	2.0-4.0	2.0-4.0

NOTE:
This table is a guide for thread tensions when sewing with #80 to #90 polyester spun threads.



ROLLED OVEREDGE - Method B

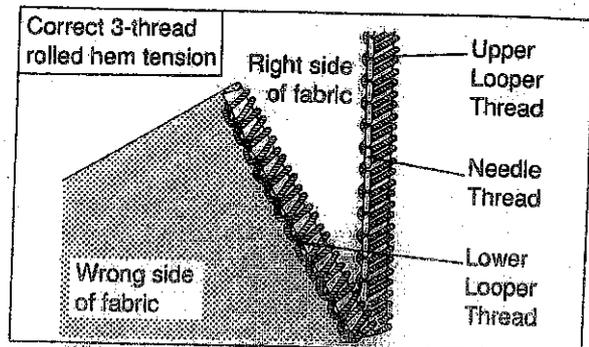
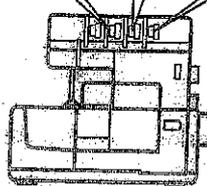
The upper looper thread encases the edge fabric in Method B rolled overedge hem creating a softer finish. Settings and sewing of Method B rolled overedge hem are the same as the Method A rolled overedge except for thread tension. (See below)

thread tension - Method B

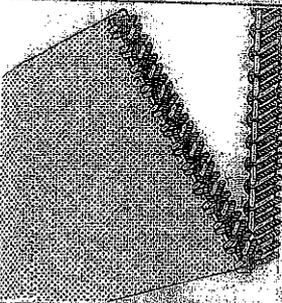
Regulate the tension dials using guide below.

Fabric	Needle Thread (Right)	Upper Looper Thread	Lower Looper Thread
Light & Medium	1.5-3.5	2.0-4.0	4.0-7.0

NOTE:
This table is a guide for thread tensions when sewing with #80 to #90 polyester spun threads.

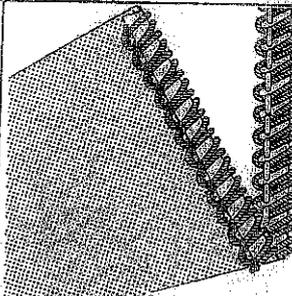


Needle thread is too loose.



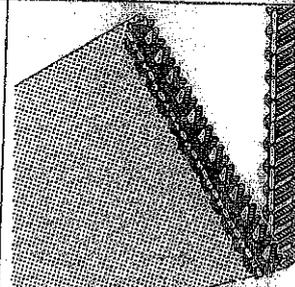
Increase Needle Thread Tension and/or Decrease Upper Thread Tension.

Upper looper thread is too loose.



Increase Upper Looper Thread Tension.

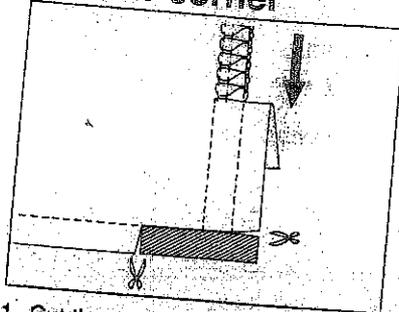
Lower looper thread is too loose.



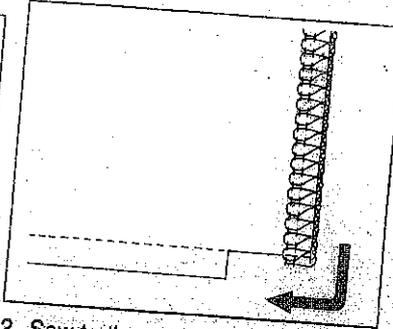
Increase Lower Looper Thread Tension and/or Decrease Upper Looper Thread Tension.

TURNING CORNERS

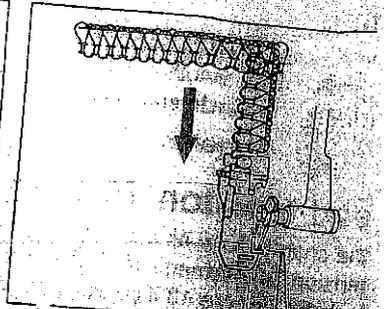
outside corner



1. Cut the corner about 5-6 cm (2-3 inches) along the cutting line.

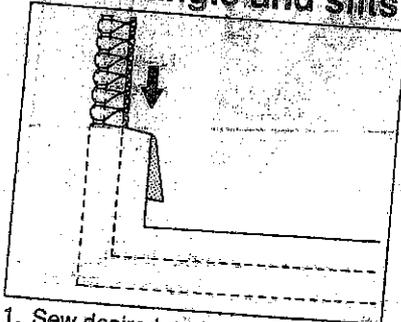


2. Sew to the end of fabric and stop machine.
3. Raise needle and presser foot.
4. Pull fabric slightly towards the back and pull out tangled thread from Throat plate.

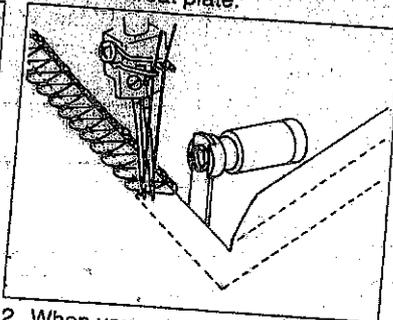


5. Turn fabric and position the fabric by lining up the cut line and knife. Lower the Presser Foot.
6. Resume sewing.

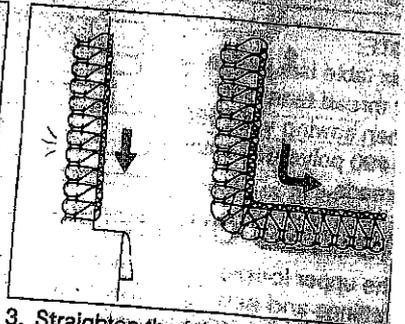
Inside angle and slits



1. Sew desired seam line until approach the corner.



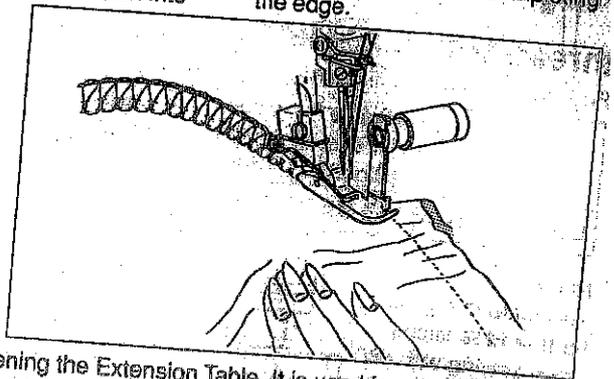
2. When you approach the corner, slow down and allow the knife to make one more small notch into the corner.



3. Straighten the fabric out in front of the knife and stitch completing the edge.

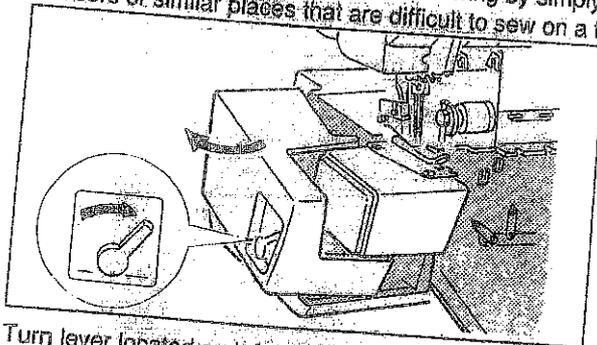
outside curves

The machine can continue sewing when rounding a curve. There is no need to stop the machine and pivot. Push excess fabric toward the presser foot giving the machine more fabric and continue sewing as if sewing a straight seam.

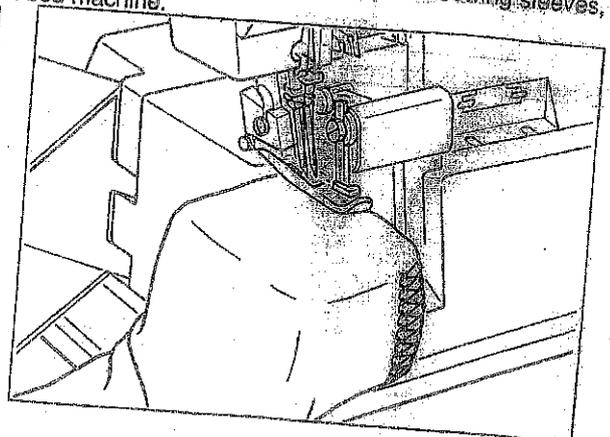


FREE ARM SEWING

This machine will convert to free arm sewing by simply opening the Extension Table. It is used for sewing sleeves, trousers or similar places that are difficult to sew on a flat bed machine.



Turn lever located on left side of extension table to the front of machine and swing table out.

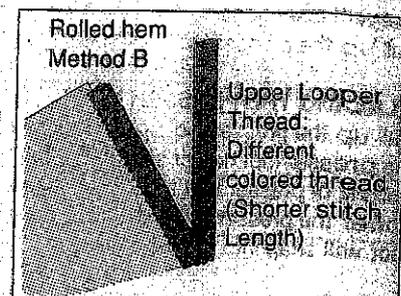
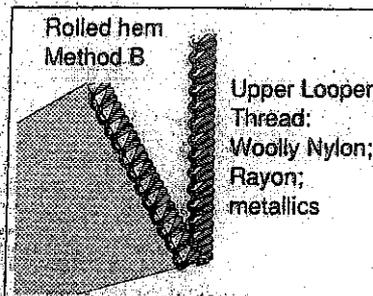
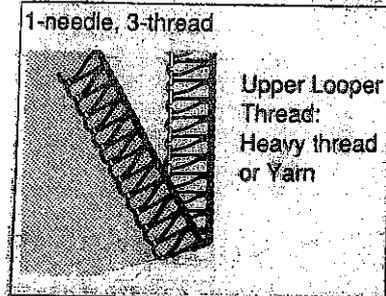


DECORATIVE OVERLOCK

When you change the Upper Looper Thread to heavier thread or yarn, you can produce decorative overlock stitching.

Try using various types of thread to create attractive combinations experiment with different tension adjustments to produce a variety of decorative effects.

examples;

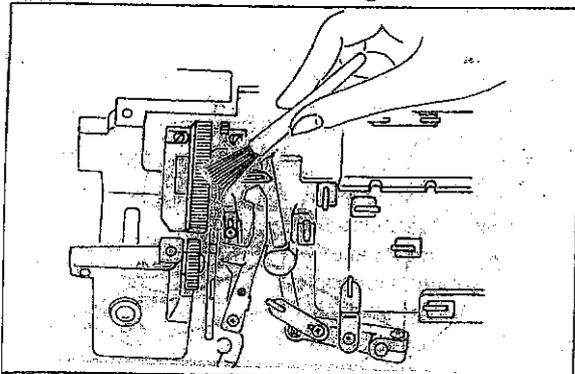


CLEANING AND MAINTENANCE

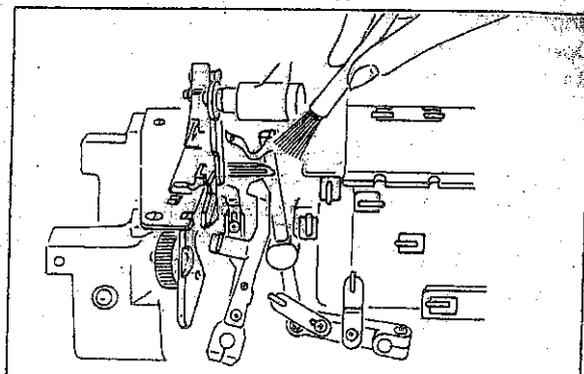
cleaning

Fabric, thread scraps and dust may accumulate around moving parts and effect the functioning of machine. Unplug cord and clean machine with the brush provided with the accessories.

Brush around the fabric feed dog

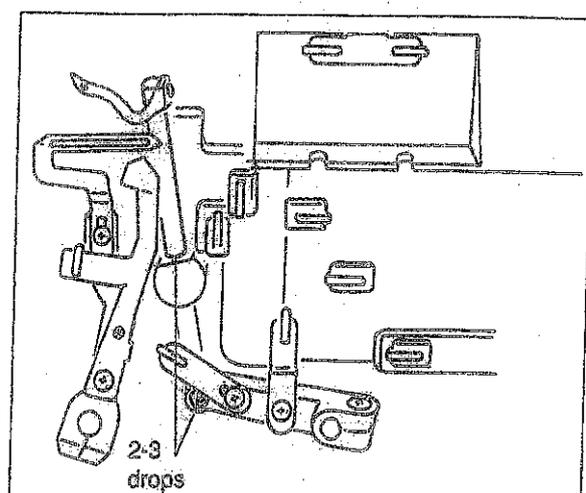
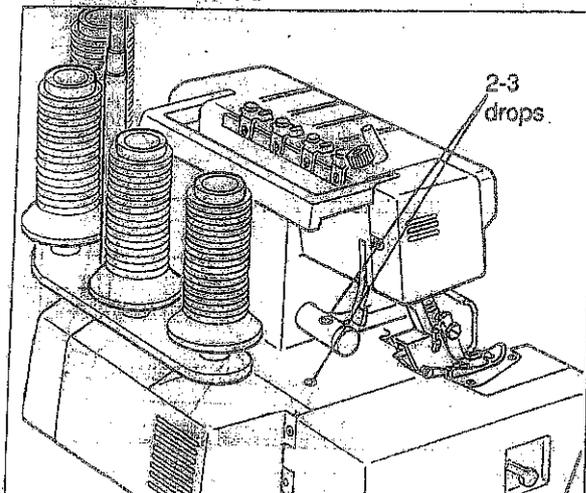


Brush inside of the front cover



oiling

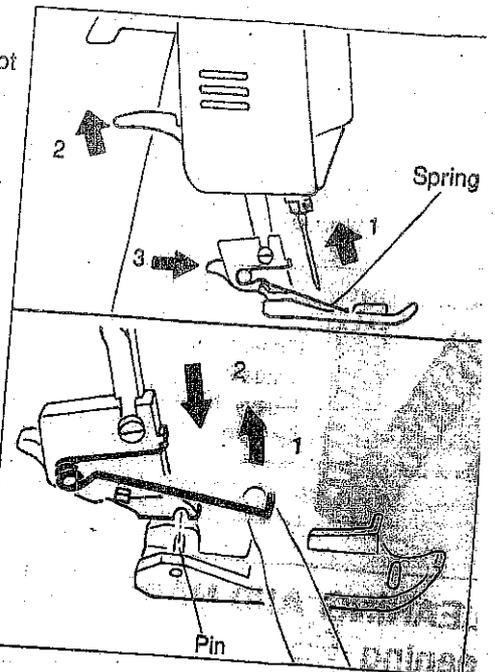
Critical parts used in this machine are made of special material that does not require oiling. Only the parts indicated with arrows shown below need oiling. Depending on use these should be oiled once or twice a month.



removing the presser foot

The presser foot can be removed easily by pulling the presser foot releasing lever.

1. Turn the hand wheel towards you until the needle is at its highest point.
2. Lift up the presser foot by raising the presser foot lifter.
3. Pull the presser foot releasing lever towards you, and presser foot will disengage.
4. Pull up the presser foot spring and remove the presser foot.



REPLACING THE PRESSER FOOT

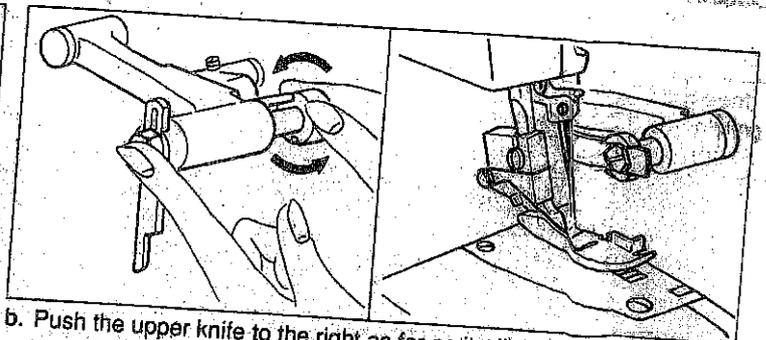
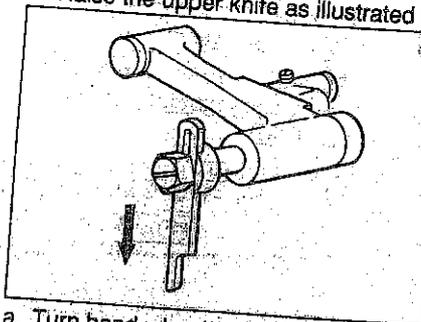
1. Pull up the presser foot spring and place the presser foot below the presser foot holder so that the pin on the foot fits into the hollow of presser foot holder.
2. Lower the presser bar with the presser foot lifter and the presser foot will snap into place.

Optional Presser Feet: Blindhemming Foot and Elastic Application Foot. See your dealer for availability.

changing the lower knife

Exchange the Lower Knife as shown below when it becomes dull. An extra knife is provided with the accessories.

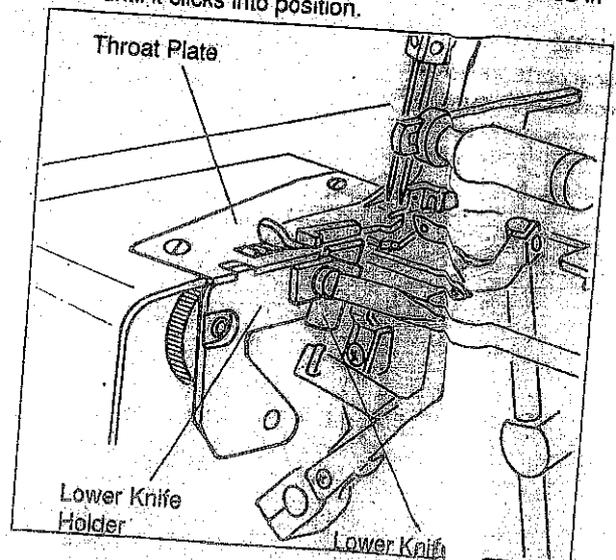
1. Unplug the machine.
2. Open the front cover.
3. Raise the upper knife as illustrated below.



- a. Turn hand wheel towards you until the upper knife is at its lowest point.

- b. Push the upper knife to the right as far as it will go and turn knob in opposite direction until it clicks into position.

4. Loosen the Lower Knife Screw and take out the knife.
5. Install new knife by inserting it into the groove of the knife holder. Be sure that the tip of the lower knife is lined up with the surface of Throat Plate, and tighten screw.
6. Return the Upper Knife to cutting position by pushing knife holder to right and turning knife towards you until it clicks into position. Close the front cover.

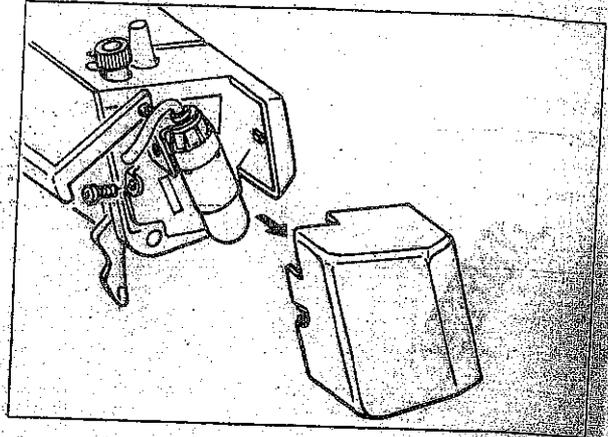


The upper knife is made of special hard material and should not require replacement under normal use. If it should chip or need replacement, call for your dealer.

changing the sewing light

If the sewing light does not light when power switch is turned on, replace the bulb.

1. Unplug sewing machine from the wall receptacle.
2. Remove the Light Cover by loosening the screw.
3. Remove the bulb.
4. Replace with new bulb of same size wattage and size.
5. Replace the Light Cover.



BEFORE YOU CALL FOR SERVICE

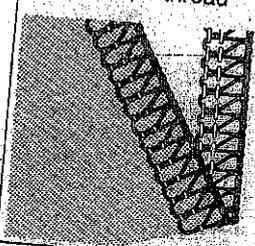
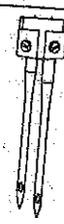
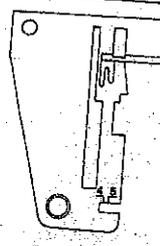
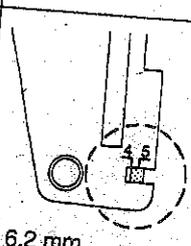
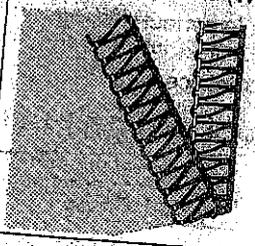
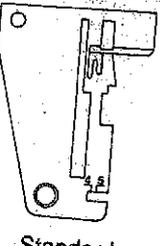
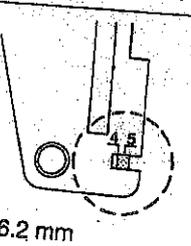
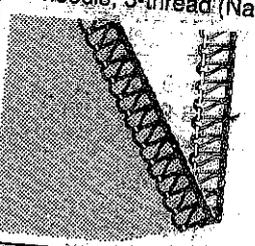
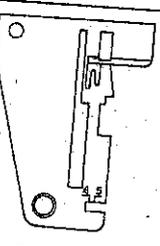
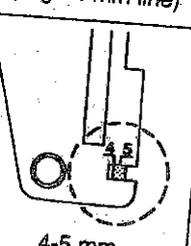
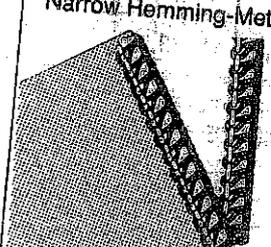
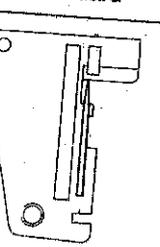
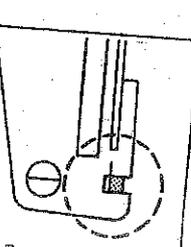
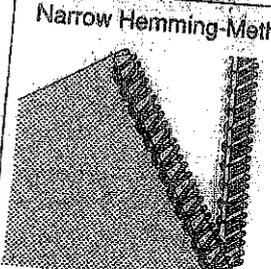
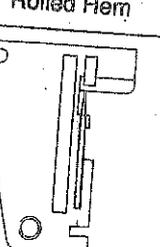
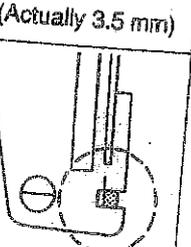
Your new overlock sewing machine was carefully inspected and tested at the factory and was in perfect working order when shipped.

Under normal conditions, if you carefully follow instructions for threading, operating and maintenance, your machine will give you years of trouble-free service.

Occasional difficulties are usually caused by a condition that can be easily remedied with a minor adjustment. Some possible problems, their causes and corrections are given here.

PROBLEM	CAUSE	CORRECTION	REF. PAGE
THREAD BREAKS	<ul style="list-style-type: none"> • Needle inserted incorrectly • Thread tensions are too tight • Bent or blunt needle • Machine not properly threaded • Threads are caught in incorrect guide 	Reset needle Loosen thread tensions Insert new needle Rethread machine Rethread machine	5 11, 13, 15 5 6-9 6-9
MACHINE SKIPS STITCHES	<ul style="list-style-type: none"> • Bent or blunt needle • Needle inserted incorrectly • Pressure on foot insufficient • Incorrect needle size or type • Machine incorrectly threaded • Tensions set too high 	Insert new needle Reset needle Increase pressure Insert correct needle Rethread machine Loosen thread tensions	5 5 13 5 6-9 11, 13, 15
NEEDLE BREAKS	<ul style="list-style-type: none"> • Pulling fabric while sewing • Incorrect size needle or thread for fabric being sewn • Needle inserted incorrectly 	Do not pull fabric Choose correct needle and thread Reset needle	10 5 5
MACHINE DOES NOT FEED PROPERLY	<ul style="list-style-type: none"> • Pressure on presser foot insufficient 	Increase pressure	13
FABRIC PUCKERS	<ul style="list-style-type: none"> • Lower knife is dull • Stitch length not suitable for fabric • Differential feed not suitable • Thread tensions are too tight • Seam width not suitable for fabric 	Change lower knife Readjust stitch length Readjust differential feed Loosen thread tensions Readjust seam width	18 12 12 11, 13, 15 12
LOOSE STITCHES OR LOOPS FORMED	<ul style="list-style-type: none"> • Tensions not adjusted properly 	Check thread tensions	11, 13, 15
MACHINE RUNS HEAVILY	<ul style="list-style-type: none"> • Dirt or lint in stitching mechanism 	Clean the machine	17
MACHINE WILL NOT SEW	<ul style="list-style-type: none"> • Cord not plugged into electrical outlet • Light and power switch not on 	Check plug Turn on the switch	4 4

STITCH SELECTION CHART

STITCH (Correct thread tension)	NEEDLE	THROAT PLATE	SEAM WIDTH	STITCH LENGTH
2-needle, 4-thread 	 Both	 Standard	 6.2 mm (align 4 mm line)	1-4 mm Refer to Page 11 for Tension Adjustment.
1-needle, 3-thread (Wider) 	 Left	 Standard	 6.2 mm (align 4 mm line)	1-4 mm Refer to Page 13 for Tension Adjustment.
1-needle, 3-thread (Narrower) 	 Right	 Standard	 4-5 mm	1-4 mm Refer to Page 13 for Tension Adjustment.
Narrow Hemming-Method A 	 Right	 Rolled Hem	 1.5 mm (Actually 3.5 mm)	1-2 mm Refer to Page 15 for Tension Adjustment.
Narrow Hemming-Method B 	 Right	 Rolled Hem	 1.5 mm (Actually 3.5 mm)	1-2 mm Refer to Page 15 for Tension Adjustment.

