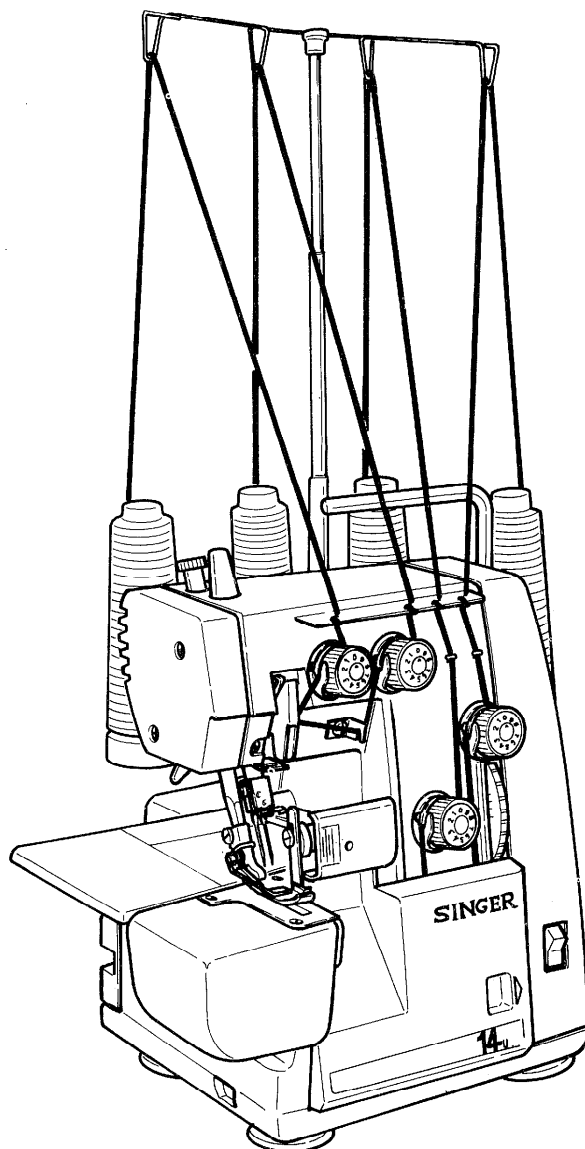


14_{U46B}

Operator's Guide



SINGER^{*}

14U46B

PREFACE

Thank you for your purchase of this sewing machine.

This machine will provide you with excellent performance in sewing from light to heavy material (lawn to denim). Please refer to this booklet for proper use and optimum service.

To get the most out of your sewing machine, read the entire operator's manual before attempting to operate the machine. Then familiarize yourself with the machine by following the operator's manual page by page.

Safety Cautions:

- Be sure that the electrical voltage of the socket outlet (wall receptacle) is the same as the rated voltage of the motor.
- Disconnect the power-line plug from the socket outlet when changing needles, presser foot or throat plate, or when leaving the machine unattended. This eliminates the possibility of starting the machine by accidentally pressing the speed controller.
- Do not pull the fabric while you are stitching as this may deflect the needle, causing it to break.
- Before cleaning your machine, disconnect the power-line plug from the socket outlet.
- Do not attempt to adjust the motor belt. Contact your nearest Service Center should any adjustment be required.
- Handle the foot controller with care and avoid dropping it on the floor. Be sure not to place anything on top of it.
- When sewing closely watch the area being sewn to avoid injuries from needles and knives.
- Use only the handle to lift and move the machine.

To ensure that you are always provided with the most modern sewing capabilities, the manufacturer reserves the right to change the appearance, design or accessories of this sewing machine when considered necessary without notification or obligation.

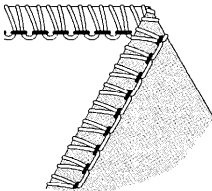
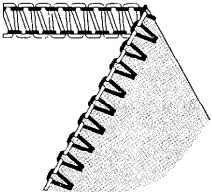
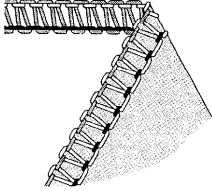
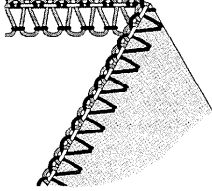
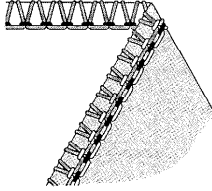
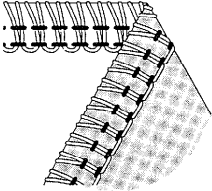
* A Trademark of THE SINGER COMPANY
Copyright © 1989 SINGER SEWING MACHINE COMPANY
All Rights Reserved Throughout The World

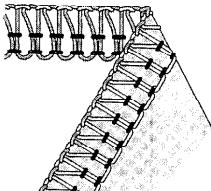
CONTENTS

	Page
1. Selection of stitches	2
2. Handy reference chart	4
3. Principal parts	5
4. Preparation for sewing	6
5. Preparation for threading	7
• Setting up the thread guide holder	7
• How to insert the needles	7
• How to open looper cover	8
• How to remove cylinder cover	8
• How to thread the machine	8
• How to change threads	9
• Chain off and test sew	9
6. How to sew two-thread overlock and overedge	10
7. How to sew three-thread standard overlock, flatlock and wrapped edge overlock	15
8. How to sew three-thread ultra-stretch mock safety stitch	19
9. How to sew four-thread ultra-stretch mock safety stitch	20
10. How to adjust stitch length	21
11. How to adjust overedge seam width	21
12. How to do rolled hemming	22
13. Free arm sewing (tubular work)	25
14. Seam guide lines	25
15. Edge guide	25
16. Three-thread flatlock stitch	26
17. Two-thread flatlock stitch	26
18. Two or three-thread blindstitching	27
19. Braiding by chaining-off	27
20. Two or three-thread pin tucking	28
21. Applying elastic	28
22. Turning square corners	29
23. How to replace stationary knife	30
24. How to exchange light bulb	30
25. How to adjust presser foot pressure	30
26. Reasons for poor stitches and how to make adjustment	31
27. Relationship between cloth, thread and needle	32
28. Accessories	33
29. Specification	33

1. Selection of stitches

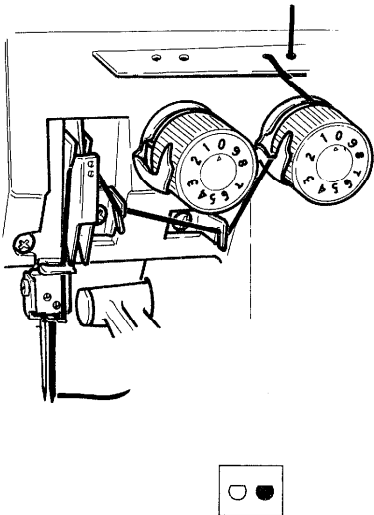
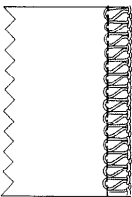
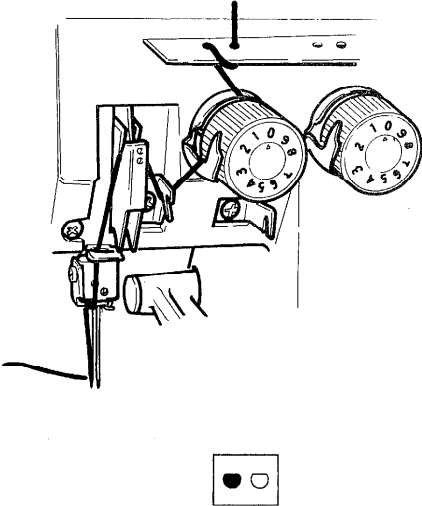
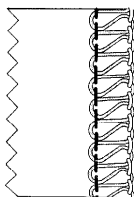
This machine is capable of producing various types of stitches according to the combination of needle positions, threading methods, tension adjustment and the use of convertible right looper/spreader.

Stitch Type		Reference Pages
① Two-Thread Wrapped Edge Overlock	 <p>1-needle 2-thread stitch is used for seaming lightweight or stretch fabrics. Also ideal for rolled hemming. Also, a 3.5mm and 5.7mm overlock seam width can be obtained by changing the needle position.*</p>	10 11 12 13
② Two-Thread Overedge	 <p>1-needle 2-thread stitch is used for overedging common fabrics. It is also ideal for flatlock (butted or lapped) seams and blind hemming. Also, a 3.5mm and 5.7mm overedge seam width can be obtained by changing the needle position.*</p>	10 11 12 14
③ Three-Thread Overlock	 <p>1-needle 3-thread stitch is used for overedging and seaming on common fabrics. Also, a 3.5mm and 5.7mm overlock seam width can be obtained by changing the needle position.*</p>	15 16
④ Three-Thread Flatlock	 <p>1-needle 3-thread stitch is used for butted or lapped seams and ornamental stitching with decorative thread. Also, a 3.5mm and 5.7mm flatlock width can be obtained by changing the needle position.*</p>	15 17
⑤ Three-Thread Wrapped Edge Overlock	 <p>1-needle 3-thread stitch is used for sewing narrow rolled hems or ornamental edges. Also, a 3.5mm and 5.7mm wrapped overlock seam width can be obtained by changing the needle position.*</p>	15 18
⑥ Three-Thread Ultra-Stretch Mock Safety Stitch	 <p>2-needle 3-thread stitch which is ideal for lightweight, extremely stretchy fabrics such as tricot and spandex.</p>	19













Stitch Type		Reference Pages
⑦ Four-Thread Ultra-Stretch Mock Safety Stitch	 <p>2-needle 4-thread stitch which is ideal for medium to heavy weight stretchy fabrics such as double knits and swim wear.</p>	20

*Depending on the needle position used, this machine can sew 2-thread and 3-thread standard width 3.5mm overedge and a 5.7mm wide overedge seams.

Also, for overedging heavyweight fabrics, the seam width can be increased still more by adjusting the position of stationary knife holder. (See page 21)

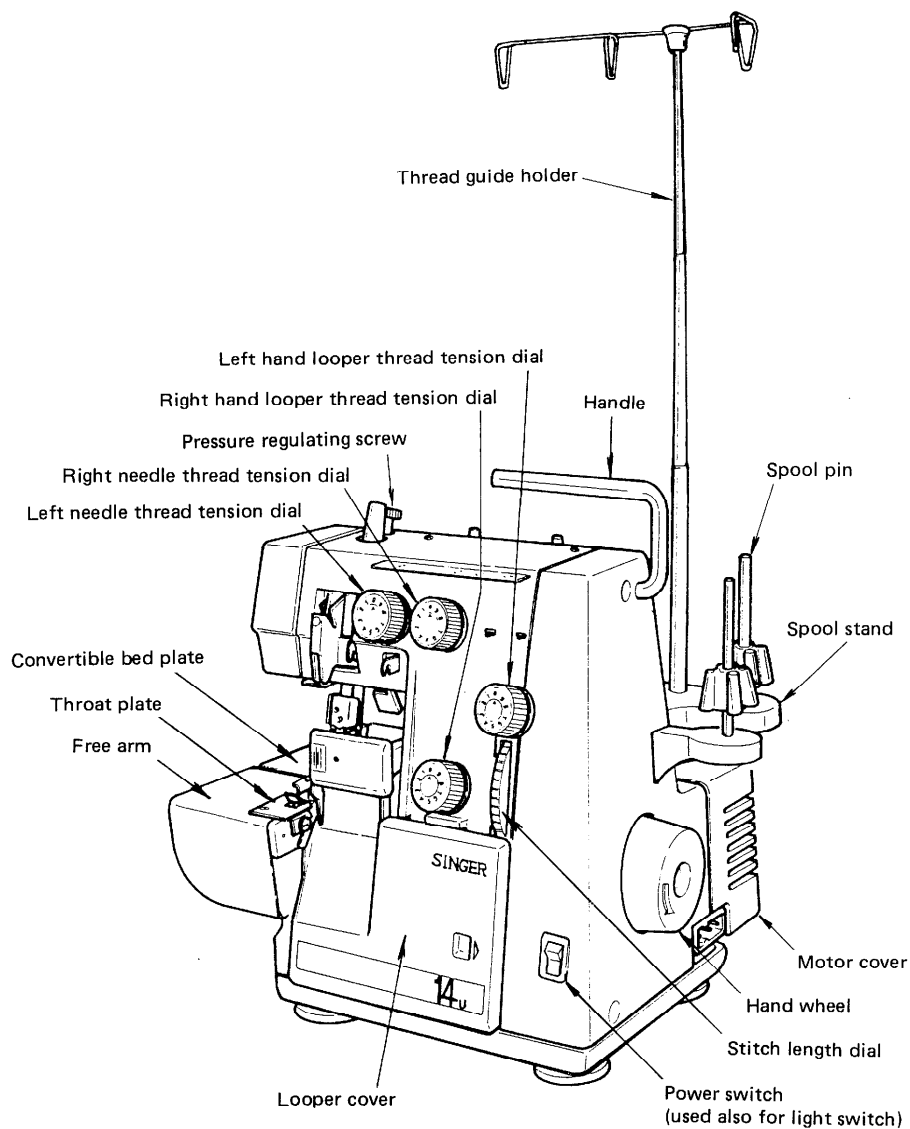
Overedge width	3.5mm	5.7mm
Needle used	Right needle	Left needle
Needle thread tension dial	Green	Blue
	 	 

2. Handy reference chart

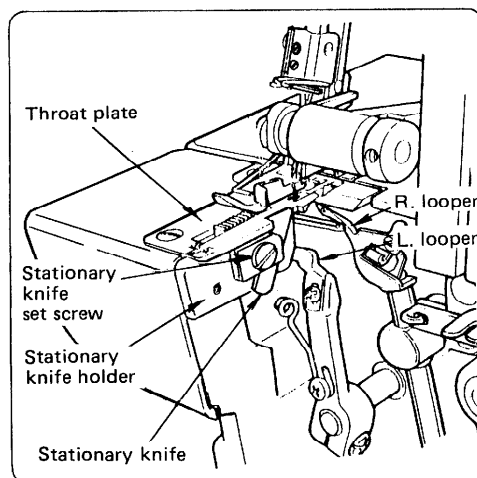
Stitch Type	Needle Positions	Tension Dial: Numbers shown are average settings on medium weight fabric with standard #80 Polyester thread				Right Looper or Spreader
		Blue	Green	Orange	Yellow	
① Two-Thread Wrapped Edge Overlock	3.5mm 		2.0		1.0	Spreader
	5.7mm 	2.0			0.5	Spreader
② Two-Thread Overedge	3.5mm 		1.0		5.5	Spreader
	5.7mm 	0.5			3.0	Spreader
③ Thread-Thread Overlock	3.5mm 		2.0	2.5	2.0	Looper
	5.7mm 	2.0		1.5	1.0	Looper
④ Three-Thread Flatlock	3.5mm 		0.5	5.0	8.5	Looper
	5.7mm 	0.5		3.5	8.0	Looper
⑤ Three-Thread Wrapped Edge Overlock	3.5mm 		3.0	0.5	7.5	Looper
	5.7mm 	2.5		0.5	8.5	Looper
⑥ Three-Thread Ultra-Stretch Mock Safety Stitch		4.0	1.5		1.0	Spreader
⑦ Four-Thread Ultra-Stretch Mock Safety Stitch		2.0	1.5	1.5	1.5	Looper

The thread tensions become tighter as the dials are turned to higher numbers. This is indicated throughout the manual. (+) symbol means tighter tension or higher number and (–) means looser tension or lower number. The tension settings shown on this page as well as throughout the operator's manual are suggested guides. Adjust thread tensions to suit the fabric and size of thread used. For best results make tension adjustments in small increments of no greater than half a number at a time.

3. Principal parts

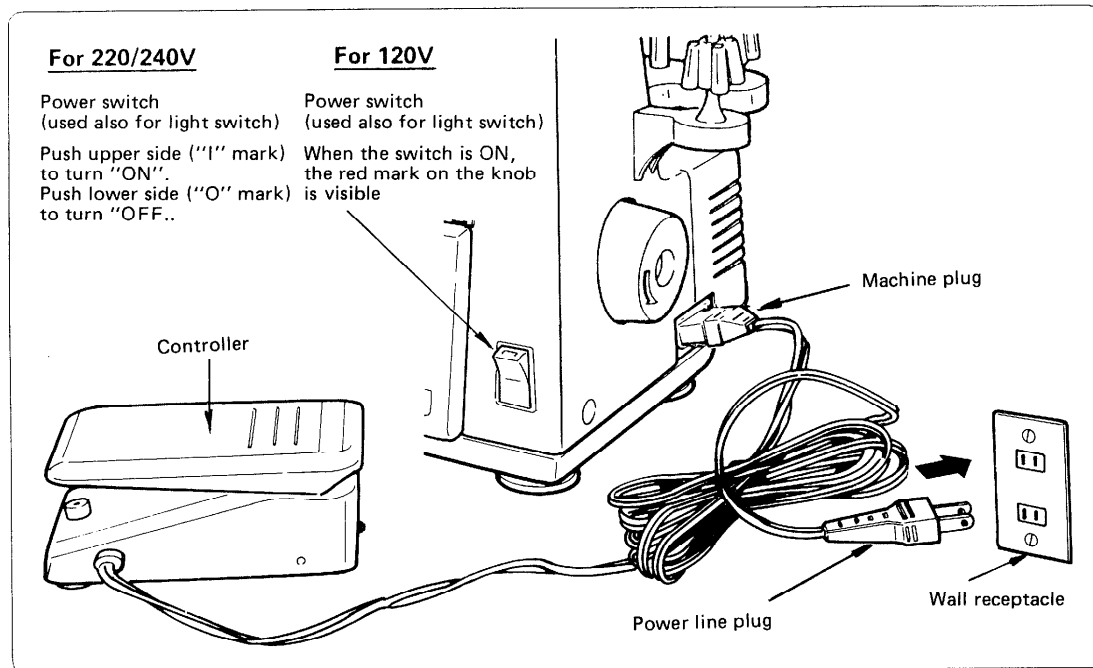


• Machine with looper cover opened



4. Preparation for sewing

Connect the machine plug to the electrical receptacle of your machine and the power line plug to the wall receptacle.



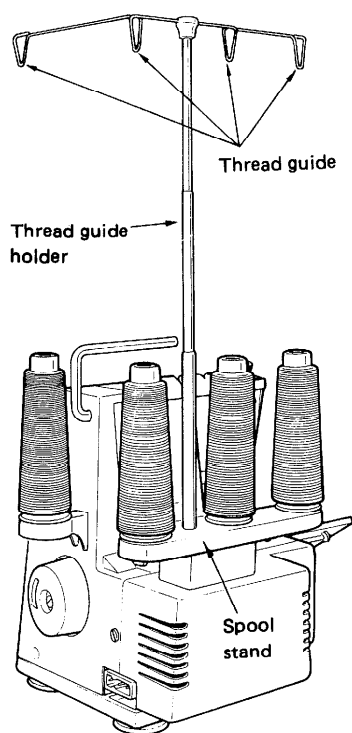
To run the machine and control the speed, press the speed controller. The harder you press, the faster the machine will sew. To stop the machine from sewing, remove your foot from the speed controller.

Caution:

- Be sure that the electrical voltage of the socket 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 power-line plug from the socket 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 speed controller.
- Before cleaning your machine, disconnect the power-line plug from the socket outlet.

5. Preparation for threading

- **Setting up the thread guide holder**



Extend the thread guide holder as far as possible and set the thread guides so that they are located right above the spool pins.

Place the thread on the spool stand as shown above.

- **How to insert the needles**

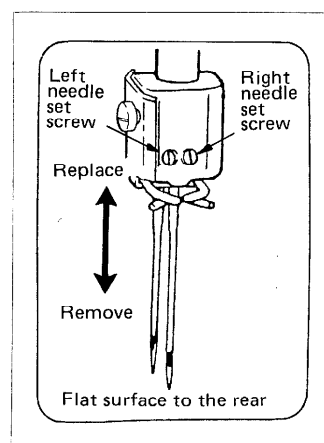
Use Singer needles Cat. No. 2054 available in sizes #14 and (#10)

To remove the needles:

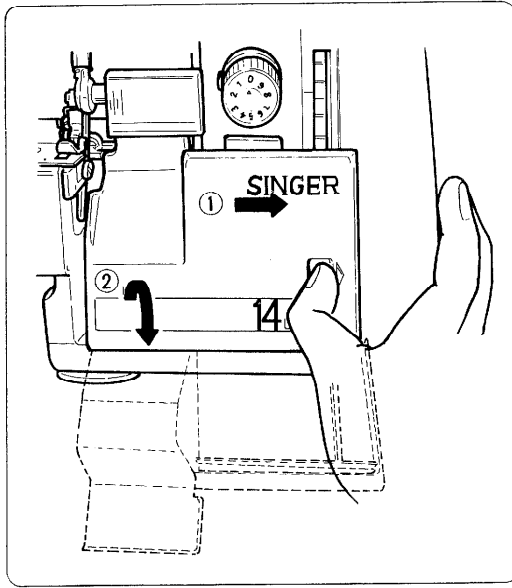
- Be sure the power line plug is disconnected from the wall receptacle.
- Turn the hand wheel toward you until the needle is at its highest position. Loosen the needle set screw with a screwdriver and remove needles.

To replace the needle:

- Insert the needles into the needle bar hole as far as they will go with flat surface to the rear and securely tighten the needle set screw.



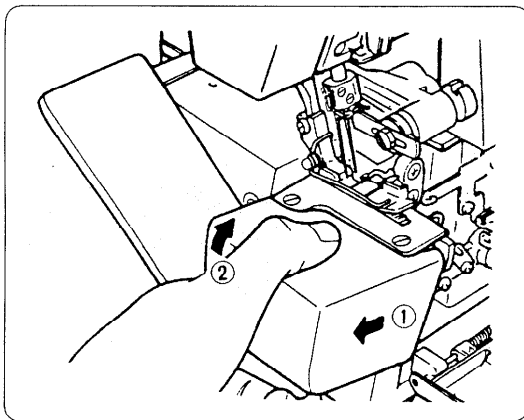
Note: When both the left and right needles are inserted, the left needle will be slightly higher than the right.



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

* Be sure looper cover is closed when sewing.

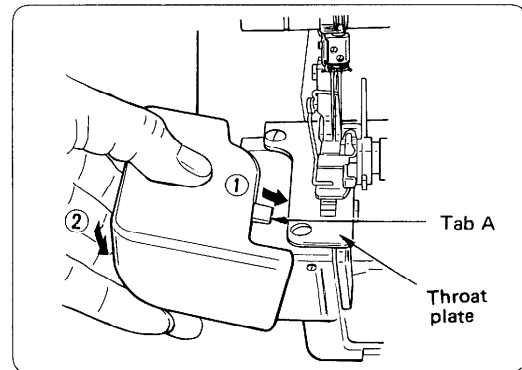
• How to remove cylinder cover



- ① While pulling the cylinder cover to the left,
- ② Lift cover upward and off the machine.

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

To replace cover



- ① Place tab **A** under the throat plate.
- ② Press cover downward to the right.

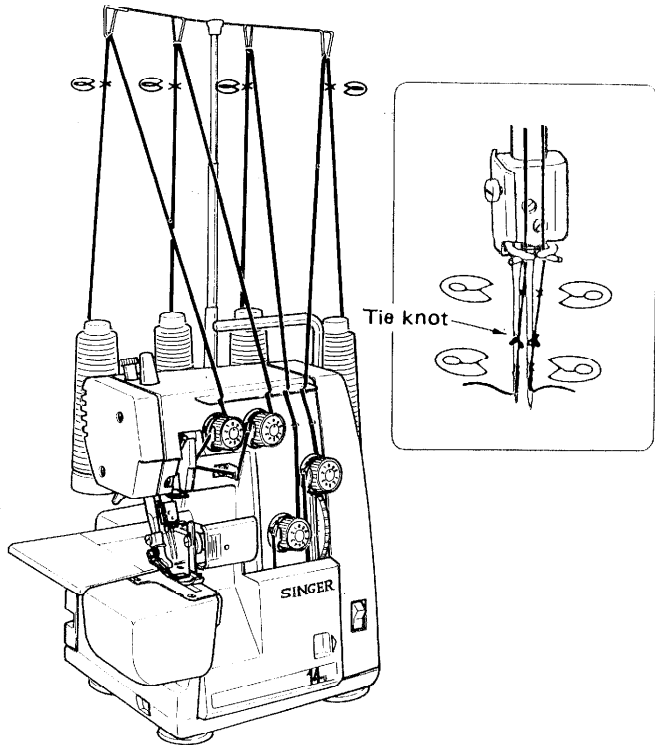
• How to thread the machine

To thread the machine correctly, simply follow the steps on the following pages making reference to the threading chart on the inner side of the looper cover showing the threading paths in different colors.

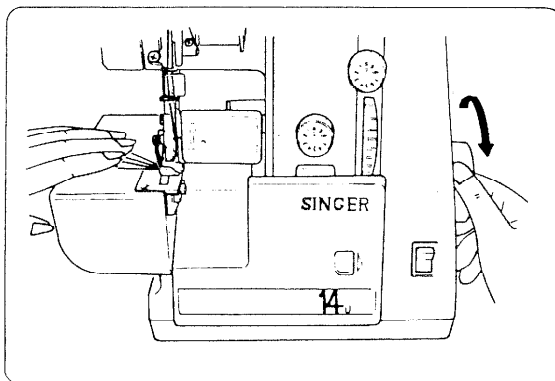
• How to change threads

When you wish to change the left needle thread, right needle thread, left looper thread or right looper thread with a different thread, the following steps will make the changing convenient.

- (1) Cut the thread near the spool and tie the end to the thread you wish to change to as shown in figure at right.
- (2) Raise presser foot.
- (3) Note tension reference numbers.
- (4) Turn the tension dials down toward the (—) mark until the dial stops and draw the thread out so that the tie knot of the threads extend about 5 cm (2 inches) from the presser foot. When drawing needle thread through the needle eye, stop the tie knot before the needle eye, cut the thread and pass it through the needle eye.
- (5) Return tension dials to reference numbers.

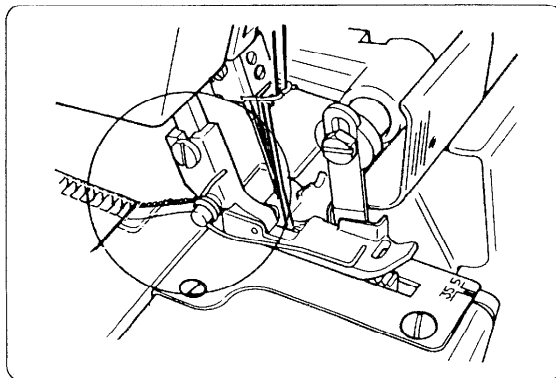


• Chain off and test sew



When the machine is completely threaded, turn the hand wheel toward you 2 or 3 turns while holding the 4 threads applying a slight tension as shown in figure at left.

After chaining off, make a test stitch on a sample of your fabric so that you can adjust the thread tensions correctly.



After completing the seam, chain off approx. 5 cm (2 inches) as shown in figure at left and cut thread with scissors.

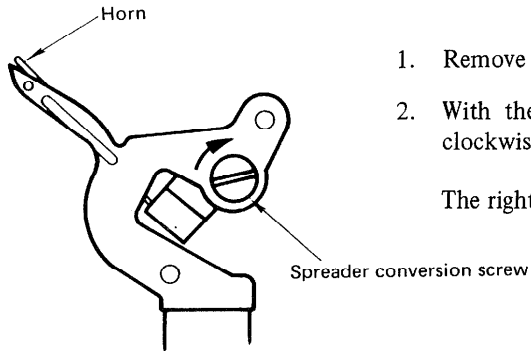
6. How to sew two-thread overlock and overedge

The 2-thread overlock and overedge is sewn with one needle, one looper and a spreader.

(1) Convert right looper into spreader

The right looper used in this machine can be easily converted into spreader.

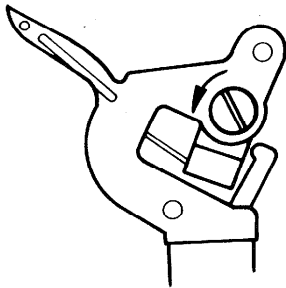
• Spreader



1. Remove right looper thread. (Orange thread path)
2. With the small screwdriver, turn spreader conversion screw clockwise as far as it will easily turn. Do not over turn.

The right looper will now serve as a spreader.

• Converting spreader back to right looper

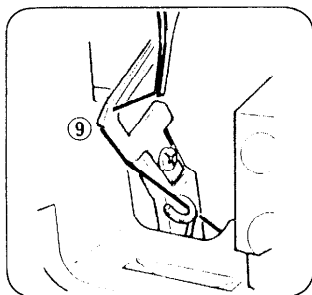
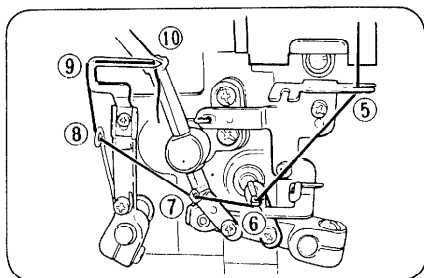


1. With the small screwdriver, turn spreader conversion screw counterclockwise as far as it will easily turn. Do not over turn.
The right looper will now serve its purpose of looper.
2. Thread the right looper.

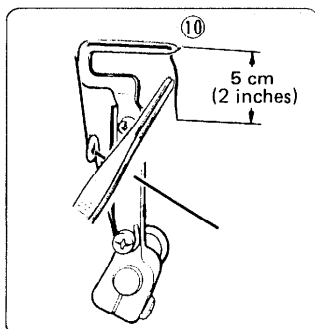
(2) Thread the left looper (yellow path)

Remove cylinder cover and thread left looper in the order ① to ⑩ shown below. (Yellow thread path) (See page 8 for cylinder cover removal)

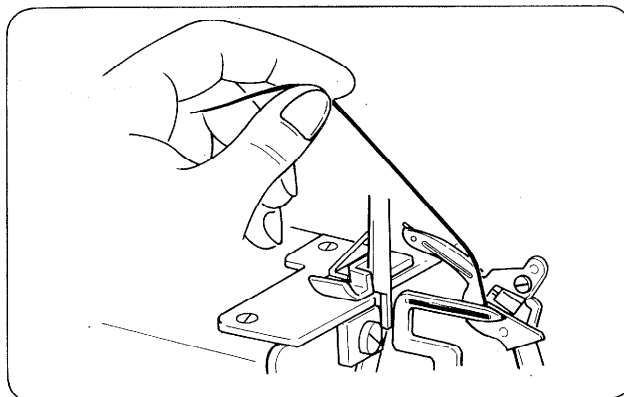
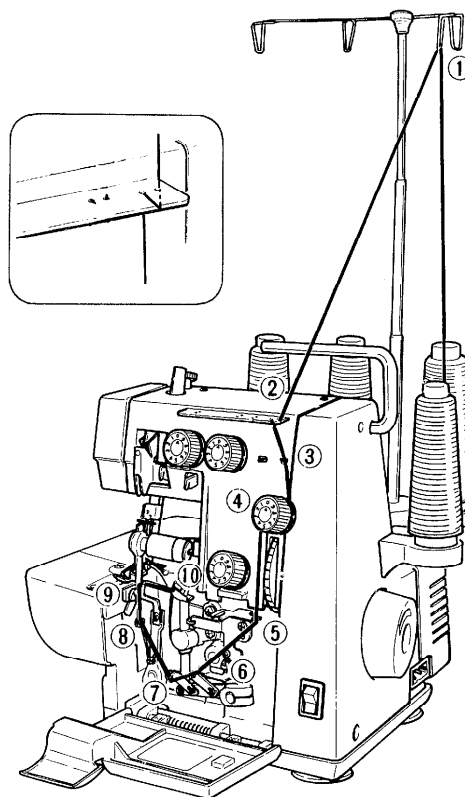
While holding thread with finger, wrap thread around tension disk clockwise till caught in hook and pull thread down to make certain it is properly located in between the tension discs.



Turn hand wheel toward you until left looper is at left as far as it will go and thread the looper thread hole ⑨ from left to right. (Use tweezers provided in your accessory set).



Turn hand wheel toward you until the looper is at right as far as it will go passing the thread under the throat plate, then using the tweezers, thread the looper thread hole ⑩ from front to back.



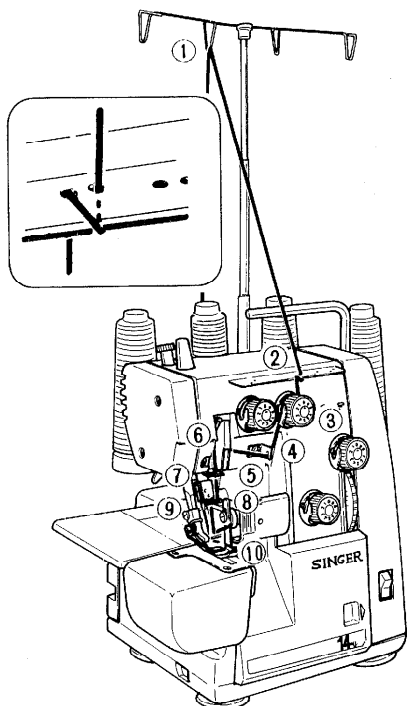
Place the thread over the top of the right looper and hold the thread while initially sewing.

(3a) Thread the right needle for standard 3.5mm stitch width



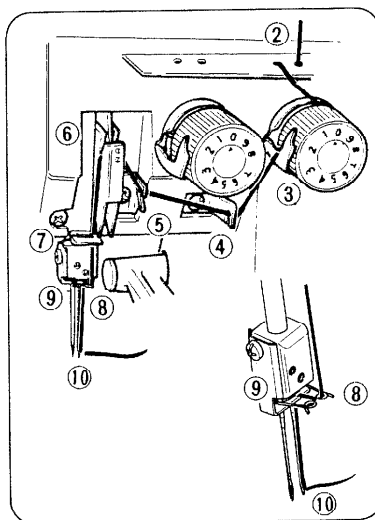
- To thread the right needle

Thread right needle thread in the order ① to ⑩ as shown. (Green thread path) For easy threading of needle ⑩, set movable knife in non-operating position.



While holding thread with finger wrap thread around tension disk clockwise till caught in hook and pull thread down to mark certain it is properly located in between the tension discs.

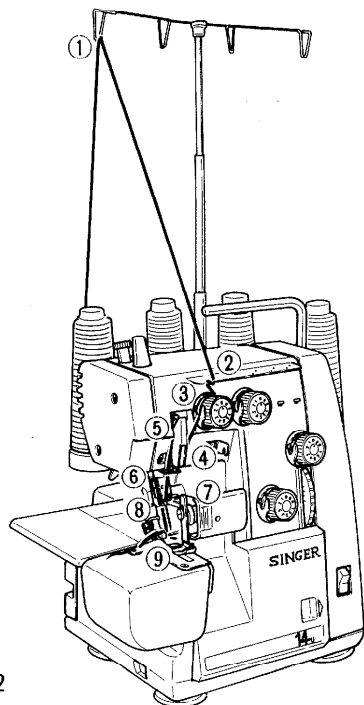
- Lower needle bar when threading ⑥ and ⑦.
- Use tweezers to thread needle eye ⑩.
- Draw about 5cm (2 inches) of thread from needle eye.



Or (3b) Thread the left needle for 5.7mm width (blue path)(page 12)

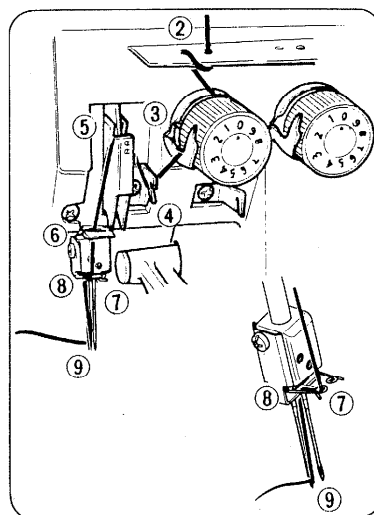


Thread left needle thread in the order ① to ⑨ as shown. (Blue thread path) For easy threading of needle ⑨, set movable knife in non-operating position. (See page 21 for setting movable knife to non-operating position)

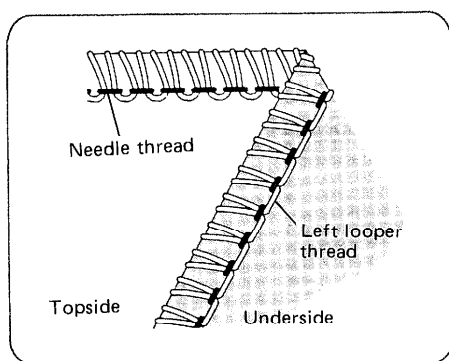


While holding thread with finger wrap thread around tension disk clockwise till caught in hook and pull thread down to mark certain it is properly located in between the tension discs.

- Lower needle bar when threading ⑤ and ⑥.
- Use tweezers to thread needle eye ⑨.
- Draw about 5cm (2 inches) of thread from needle eye.



(4) Correct thread tensions for 2-thread wrapped edge overlock.



Be sure the threads are correctly threaded otherwise proper tension cannot be obtained.

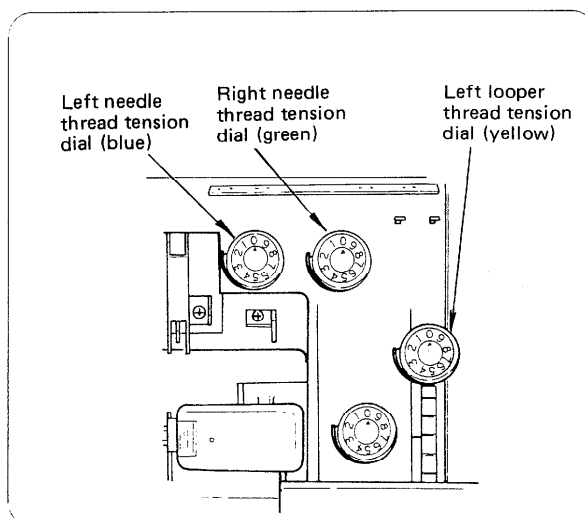
Set each tension dial to settings shown below and test sew on a sample of your fabric.

- When using right needle for sewing normal width overedge seams, be sure to remove left needle.

Fabric	Tension Dial			
	Blue	Green	Orange	Yellow
Light weight		2.0	Spreader	1.0
Medium weight		2.5	Spreader	1.0
Heavy weight		3.5	Spreader	1.5

- When using left needle for sewing wide overedge seams, be sure to remove right needle.

Fabric	Tension Dial			
	Blue	Green	Orange	Yellow
Light weight	2.5		Spreader	0.5
Medium weight	3.0		Spreader	0.5
Heavy weight	4.0		Spreader	0.5



Adjust thread tensions to suit your fabric making reference to table below. Make adjustments in increments of no greater than half a number at a time.

When looper thread is too tight or needle thread is too loose

Needle thread

Left looper thread

Topside

Underside

Turn looper thread tension dial (yellow) toward the (—) mark.
Or, turn needle thread tension dial (blue or green) toward the (+) mark.

When looper thread is too loose

Needle thread

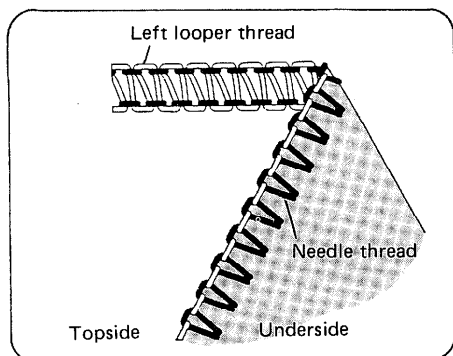
Left looper thread

Topside

Underside

Turn looper thread tension dial (yellow) toward the (+) mark.

(5) Correct thread tensions for 2-thread overedge



Be sure the threads are correctly threaded otherwise proper tension cannot be obtained.

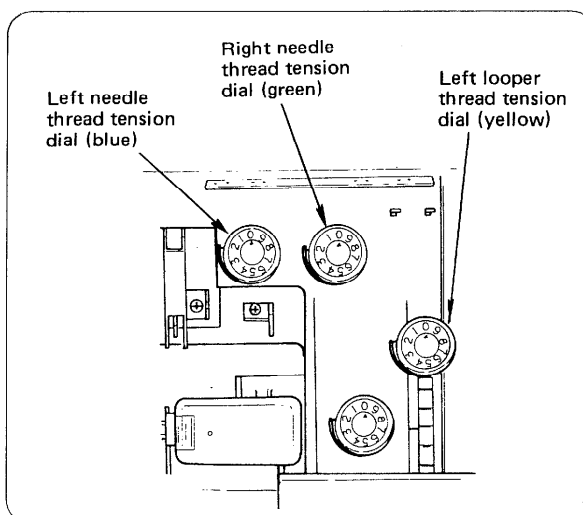
Set each tension dial to settings shown below and test sew on a sample of your fabric.

- When using right needle for sewing normal width overedge seams, be sure to remove left needle.

Fabric	Tension Dial			
	Blue	Green	Orange	Yellow
Light weight		0.5	Spreader	5.5
Medium weight		1.0	Spreader	5.5
Heavy weight		1.5	Spreader	6.5

- When using left needle for sewing wide overedge seams, be sure to remove right needle.

Fabric	Tension Dial			
	Blue	Green	Orange	Yellow
Light weight	0.5		Spreader	3.0
Medium weight	0.5		Spreader	3.0
Heavy weight	1.0		Spreader	4.0



Adjust thread tensions to suit your fabric making reference to table below. Make adjustments in increments of no greater than half a number at a time.

When looper thread lies on the underside of fabric

Turn looper thread tension dial (yellow) toward the (+) mark.
Or, turn needle thread tension dial (blue or green) toward the (–) mark.

When looper thread appears on the top

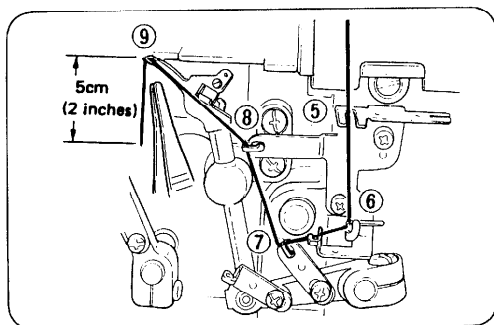
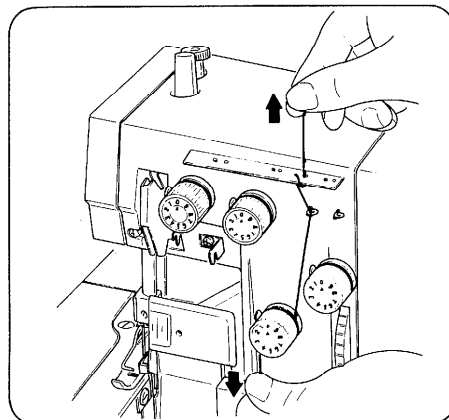
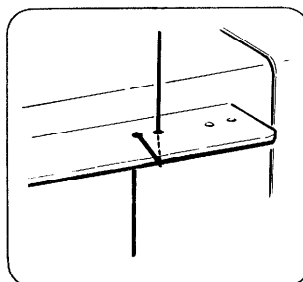
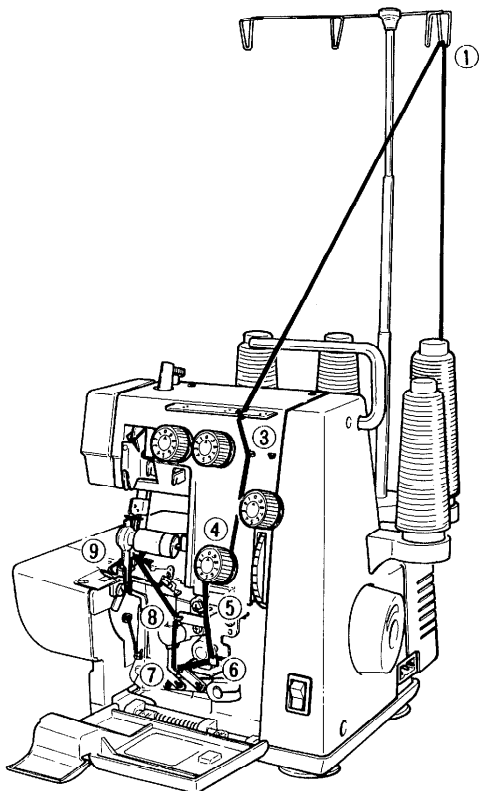
Turn looper thread tension dial (yellow) toward the (–) mark.
Or, turn needle thread tension dial (blue or green) toward the (+) mark.

7. How to sew three-thread standard overlock, flatlock and wrapped edge overlock

The 3-thread standard overlock, flatlock and wrapped edge is sewn with one needle and two loopers.

(1) Thread the right looper.

Open looper cover. Thread the right looper in the order ① to ⑨ as indicated in the figure below. (orange thread path)



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

- Use tweezers provided in the accessory set when threading looper thread hole ⑨.
- Draw about 5cm (2 inches) of thread from the looper thread hole.

(2) Thread the left looper (yellow path) (see page 11)

(3a) Thread the right overedge needle for 3.5mm width (green path)

Or (3b) Thread the left overedge needle for 5.7mm width (blue path)

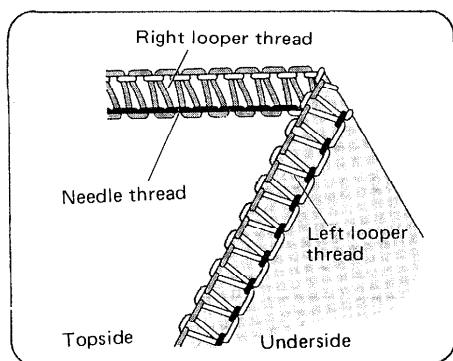


(see page 12)



(see page 12)

(4) Correct thread tensions for 3-thread standard overlock.



Be sure the threads are correctly threaded otherwise proper tension cannot be obtained.

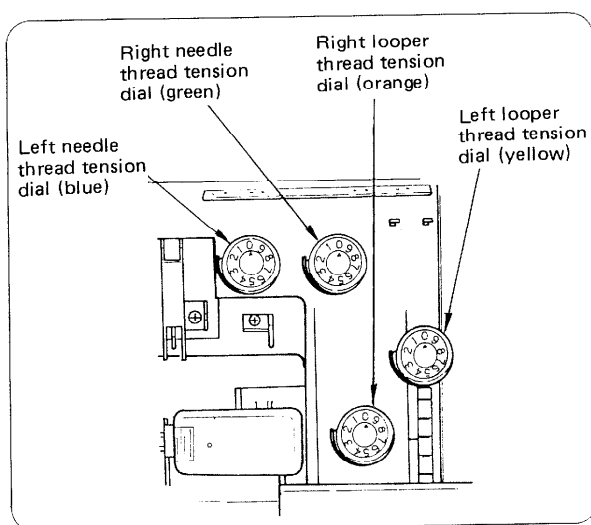
Set each tension dial to settings shown below and test sew on a sample of your fabric.

- When using right needle for sewing normal width overedge seams, be sure to remove left needle.

Fabric	Tension Dial			
	Blue	Green	Orange	Yellow
Light weight		1.5	2.0	2.0
Medium weight		2.0	2.5	2.0
Heavy weight		2.0	3.0	2.0

- When using left needle for sewing wide overedge seams, be sure to remove right needle.

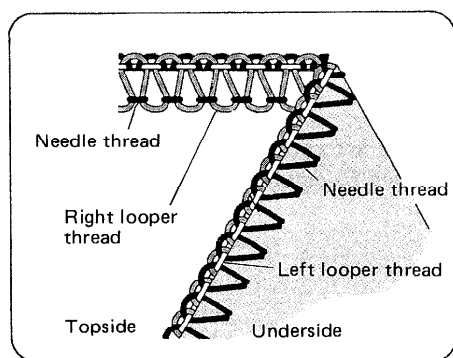
Fabric	Tension Dial			
	Blue	Green	Orange	Yellow
Light weight	1.5		1.0	1.5
Medium weight	2.0		1.5	1.0
Heavy weight	2.5		2.0	1.0



Adjust thread tensions to suit your fabric making reference to table below. Make adjustments in increments of no greater than half a number at a time.

<p>When right looper thread lies on the underside of fabric.</p> <p>Needle thread Right looper thread Left looper thread Topside Underside</p> <p>Turn right looper thread tension dial (orange) toward the (+) mark. Or, turn left looper thread tension dial (yellow) toward the (-) mark.</p>	<p>When left looper thread appears on the top.</p> <p>Left looper thread Right looper thread Needle thread Topside Underside</p> <p>Turn left looper thread tension dial (yellow) toward the (+) mark. Or, turn right looper thread tension dial (orange) toward the (-) mark.</p>	<p>When needle thread is too loose.</p> <p>Right looper thread Left looper thread Needle thread Topside Underside</p> <p>Turn needle thread tension dial (blue or green) toward the (+) mark.</p>
---	---	--

(5) Correct thread tensions for 3-thread flatlock.



Be sure the threads are correctly threaded otherwise proper tension cannot be obtained.

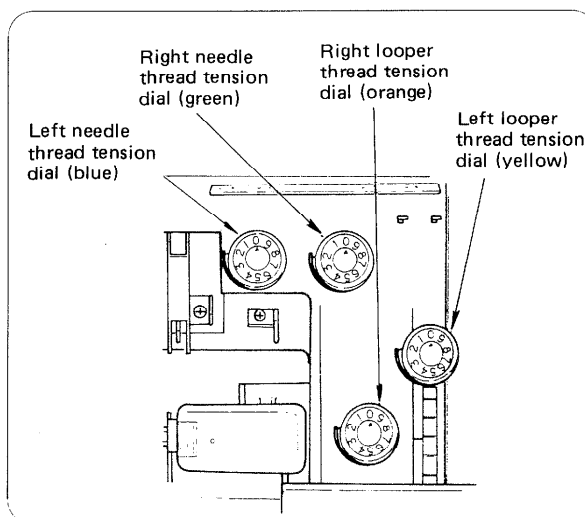
Set each tension dial to settings shown below and test sew on a sample of your fabric.

- When using right needle for sewing normal width overedge seams, be sure to remove left needle.

Fabric	Tension Dial			
	Blue	Green	Orange	Yellow
Light weight		0.5	5.0	8.0
Medium weight		0.5	5.0	8.5
Heavy weight		1.0	6.0	9.0

- When using left needle for sewing wide overedge seams, be sure to remove right needle.

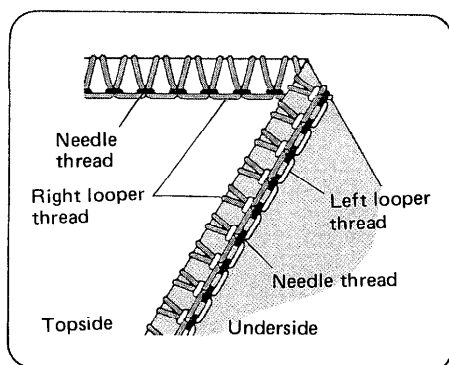
Fabric	Tension Dial			
	Blue	Green	Orange	Yellow
Light weight	0.5		3.0	8.0
Medium weight	0.5		3.5	8.0
Heavy weight	0.5		3.0	8.0



Adjust thread tensions to suit your fabric making reference to table below. Make adjustments in increments of no greater than half a number at a time.

<p>When left looper thread is too loose.</p> <p>Right looper thread Needle thread Left looper thread Topside Underside</p> <p>Turn left looper thread tension dial (yellow) toward the (+) mark. Or, needle thread tension dial (blue or green) toward the (-) mark.</p>	<p>When right looper thread is too loose.</p> <p>Right looper thread Needle thread Left looper thread Topside Underside</p> <p>Turn right looper thread tension dial (orange) toward the (+) mark. Or, turn needle thread tension dial (blue or green) toward the (-) mark.</p>	<p>When needle thread is too loose.</p> <p>Right looper thread Needle thread Left looper thread Topside Underside</p> <p>Turn needle thread tension dial (blue or green) toward the (+) mark. Or, turn right looper thread tension dial (orange) toward the (-) mark.</p>
---	--	--

(6) Correct thread tensions for 3-thread wrapped edge overlock.



Be sure the threads are correctly threaded otherwise proper tension cannot be obtained.

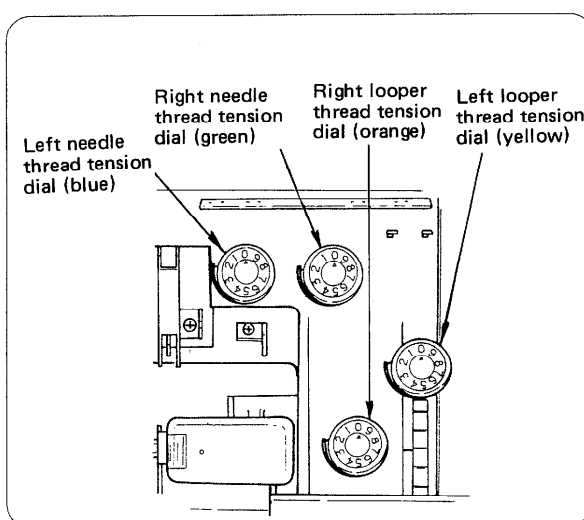
Set each tension dial to settings shown below and test sew on a sample of your fabric.

- When using right needle for sewing normal width overedge seams, be sure to remove left needle.

Fabric	Tension Dial			
	Blue	Green	Orange	Yellow
Light weight		2.0	0.5	7.5
Medium weight		3.0	0.5	7.5
Heavy weight		3.0	0.5	7.5

- When using left needle for sewing wide overedge seams, be sure to remove right needle.

Fabric	Tension Dial			
	Blue	Green	Orange	Yellow
Light weight	2.0		0	7.5
Medium weight	2.5		0.5	8.5
Heavy weight	3.0		0.5	8.5



Adjust thread tensions to suit your fabric making reference to table below. Make adjustments in increments of no greater than half a number at a time.

<p>When right looper thread is too loose.</p> <p>Needle thread Right looper thread Left looper thread Topside Underside</p> <p>Turn right looper thread tension dial (orange) toward the (+) mark.</p>	<p>When left looper thread is too loose.</p> <p>Needle thread Right looper thread Left looper thread Topside Underside</p> <p>Turn left looper thread tension dial (yellow) toward the (+) mark. Or, turn right looper thread tension dial (orange) toward the (-) mark.</p>	<p>When needle thread is too loose.</p> <p>Right looper thread Left looper thread Needle thread Topside Underside</p> <p>Turn needle thread tension dial (blue or green) toward the (+) mark. Or, turn right looper thread tension dial (orange) toward the (-) mark.</p>
---	---	--

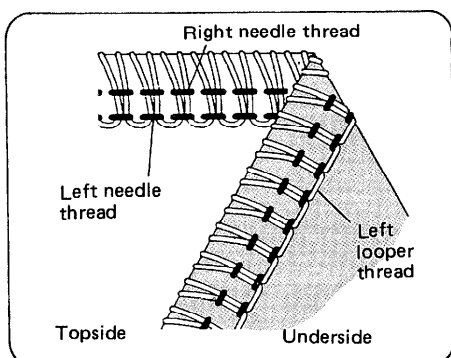
8. How to sew three-thread ultra-stretch mock safety stitch

The 3-thread ultra-stretch is sewn with two needles, one looper and a spreader.

- (1) Convert right looper into spreader (see page 10)
- (2) Thread left looper (yellow path) (see page 11)
- (3) Thread right needle (green path)
- (4) Thread left needle (blue path)
- (5) Correct thread tensions for 3-thread ultra-stretch



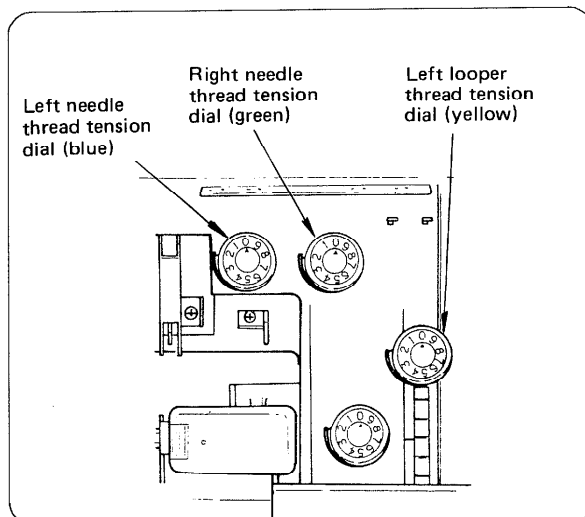
(see page 12)



Be sure the threads are correctly threaded otherwise proper tension cannot be obtained.

Set each tension dial to setting shown below and test sew on a sample of your fabric.

Fabric	Tension Dial			
	Blue	Green	Orange	Yellow
Light weight	2.5	1.5	Spreader	1.0
Medium weight	3.0	1.5	Spreader	1.0
Heavy weight	4.5	2.5	Spreader	1.0



Adjust thread tensions to suit your fabric making reference to table below. Make adjustments in increments of no greater than half a number at a time.

<p>When looper thread is too loose.</p> <p>Turn looper thread tension dial (yellow) toward the (+) mark.</p>	<p>When left needle thread is too loose.</p> <p>Turn left needle thread tension dial (blue) toward the (+) mark.</p>	<p>When right needle thread is too loose.</p> <p>Turn right needle thread tension dial (green) toward the (+) mark.</p>
---	---	--

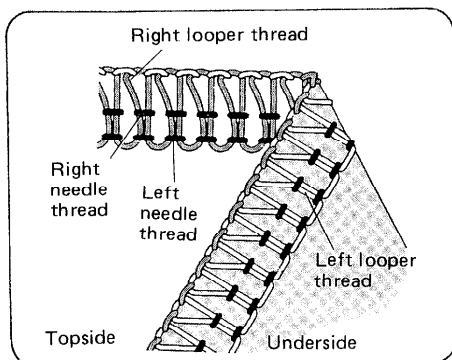
9. How to sew four-thread ultra-stretch mock safety stitch

The 4-thread ultra-stretch is sewn with two needles and two loopers.

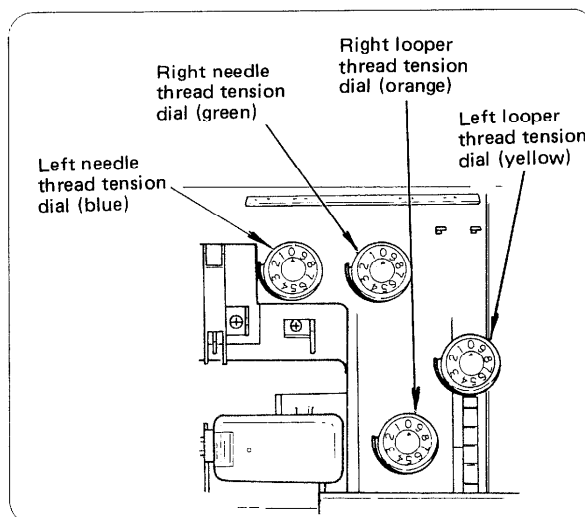
- (1) Thread right looper (orange path) (see page 15)
- (2) Thread left looper (yellow) (see page 11)
- (3) Thread right needle (green path)
- (4) Thread left needle (blue path)
- (5) Correct thread tensions for 4-thread ultra-stretch



(see page 12)



Be sure the threads are correctly threaded otherwise proper tension cannot be obtained.



Set each tension dial to settings shown below and test sew on a sample of your fabric.

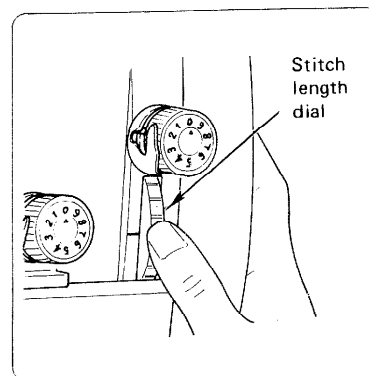
Fabric	Tension Dial			
	Blue	Green	Orange	Yellow
Light weight	1.5	1.5	1.0	1.5
Medium weight	2.0	1.5	1.5	1.5
Heavy weight	2.5	2.0	2.0	1.5

Adjust thread tensions to suit your fabric making reference to table below. Make adjustments in increments of no greater than half a number at a time.

<p>When right looper thread lies on the underside of fabric.</p> <p>Right looper thread Right needle thread Left needle thread Left looper thread Topside Underside</p> <p>Turn right looper thread tension dial (orange) toward the (+) mark. Or, turn left looper thread tension dial (yellow) toward the (-) mark.</p>	<p>When left looper thread appears on the top.</p> <p>Right looper thread Right needle thread Left needle thread Left looper thread Topside Underside</p> <p>Turn left looper thread tension dial (yellow) toward the (+) mark. Or, turn right looper thread tension dial (orange) toward the (-) mark.</p>
<p>When left needle thread tension is too loose.</p> <p>Right looper thread Right needle thread Left needle thread Left looper thread Topside Underside</p> <p>Turn left needle thread tension dial (blue) toward the (+) mark.</p>	<p>When right needle thread tension is too loose.</p> <p>Right looper thread Right needle thread Left needle thread Left looper thread Topside Underside</p> <p>Turn right needle thread tension dial (green) toward the (+) mark.</p>

10. How to adjust stitch length

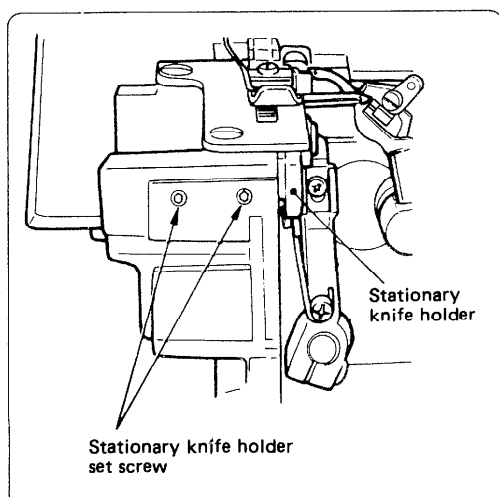
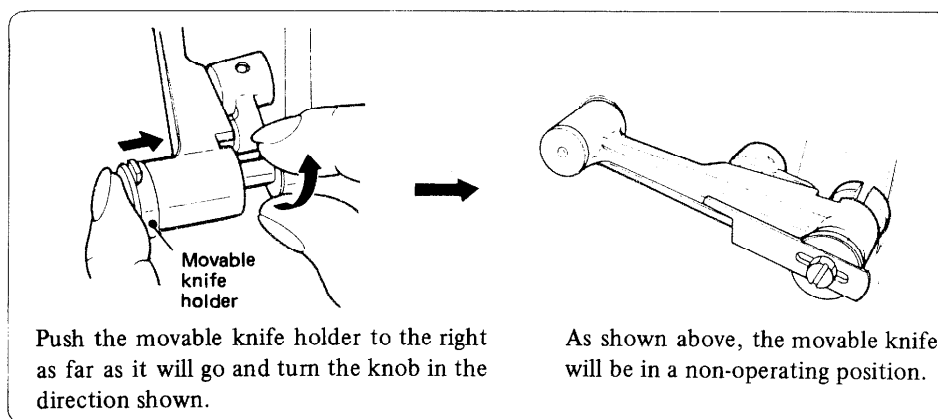
The stitch length dial on this machine is pre-set to 3mm for normal sewing condition. Since the adjustment can be made easily, adjust the stitch length to 4mm when sewing heavy weight fabrics such as quilting and to 2mm when sewing light weight fabrics such as lining fabric, crepe, etc. and you will obtain excellent seams without puckering.



11. How to adjust overedge seam width

Overedge seam width of this machine is set to 3.5 mm for normal sewing with right needle and 5.7 mm with left needle however it can be increased up to 5 mm for overedge heavy weight fabrics with right needle and 7.2 mm with left needle as instructed below.

- (1) Before making the adjustment, be sure that the power line plug is disconnected from the wall receptacle.
- (2) Open the looper cover. (See page 8).
- (3) Turn the hand wheel toward you, lower the movable knife as far as it will go and set it in the non-operating position as shown in figure below.
- (4) Remove the cylinder cover. (See page 8).



- (5) Loosen the 2 stationary knife holder set screws with the hex-head wrench provided in the accessories, move the stationary knife holder to the right or left and tighten the set screw. (When a wider seam is desired, move the holder to the right and when a narrower seam is desired, move the holder to the left but not narrower than 3.5mm mark on throat plate). Be sure to align the cutting edge of the stationary knife level with the top surface of the throat plate.
- (6) Replace the cylinder cover. (See page 8)
- (7) Return the movable knife to its original position.
- (8) Test Sew

12. How to do rolled hemming

This machine can do the 2 types of standard and right looper thread wrapped rolled hem stitching with a seam width of 1.5mm.

Always remove the left needle

1. Fabric, needle, thread and stitch length

Fabric: Light to medium weight (See page 32)

- Rolled hemming is done by rolling the fabric and overedging (seam width 1.5mm), and is not suited for heavy or stiff fabrics.

Needle: Singer Cat. No. 2054 (#10), #14.

Thread: A variety of thread combinations can be used for rolled hemming.

Stitch length adjustment (See page 21)

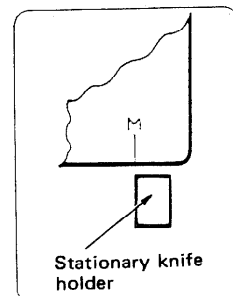
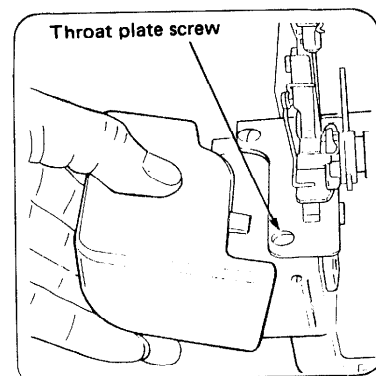
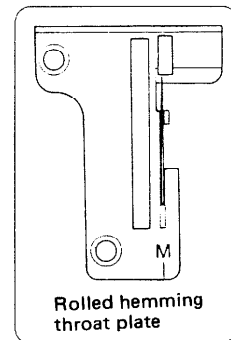
For rolled hemming, set the stitch length dial to “2” or “F” and a fine seam can be obtained.

2. How to exchange throat plate

A throat plate for rolled hem stitching has been furnished in the accessories for this machine. By exchanging the ordinary overedge throat plate on the machine with a rolled hemming throat plate by the following procedure, the machine can be used for rolled hem stitching.

1. First of all, always disconnect the power line plug from the receptacle.
2. Turn the hand wheel towards you until the needle is at its highest point.
3. Lift the presser foot.
4. Remove the cylinder cover. (See page 8)
5. Unscrew the throat plate screw (1) and remove the throat plate.
6. Install the rolled hemming throat plate and replace the screw (1).
7. Replace the cylinder cover (see page 8).

- Note:**
- When replacing the throat plate, be careful that the thread is not caught between the throat plate and machine.
 - Set seam width to the “M” mark on the rolled hemming throat plate.
 - To set seam width, align left edge of stationary knife holder with the “M” mark on the rolled hemming throat plate.
- Be sure the stationary knife is not in contact with the edge of throat plate.



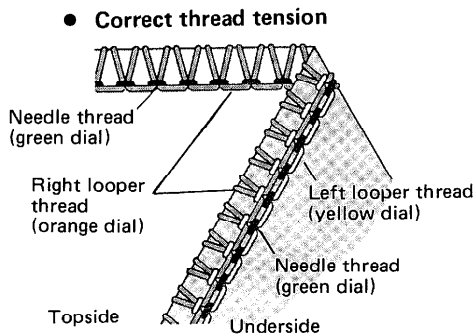
3. How to adjust thread tensions

(1) 1-needle 3-thread

- Standard rolled hem stitching

Tension Dial			
Blue	Green	Orange	Yellow
	1.0	2.0	2.0

- Right looper thread wrapped rolled hem stitching (rolled hem variation).

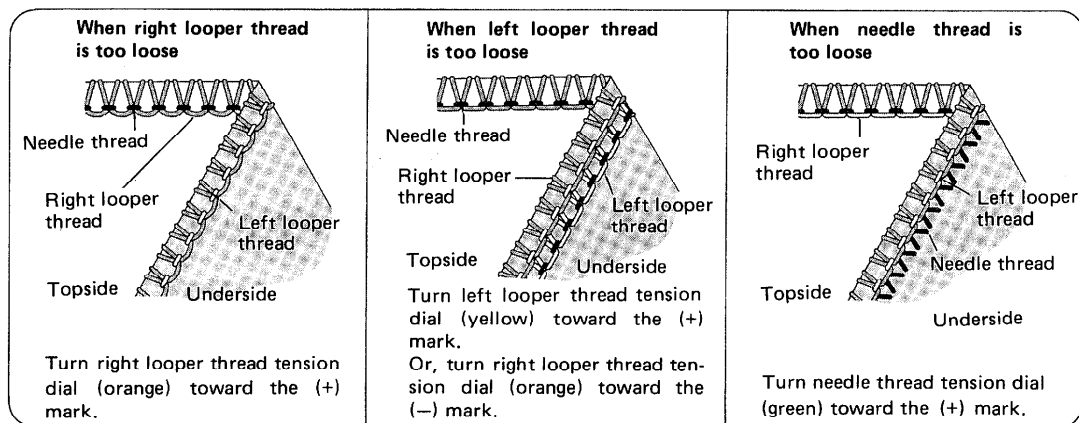


A beautiful seam can be obtained on hard-to-roll lightweight fabrics by this method of stitching.

To correctly adjust the thread tension, set the dials as follows from the standard thread tension dial settings.

- Turn the right looper thread tension dial (orange) one half graduation toward the (–) mark.
- Turn the left looper thread tension dial (yellow) 3 graduations toward the (+) mark.

Slight adjustment will give better thread tensions.



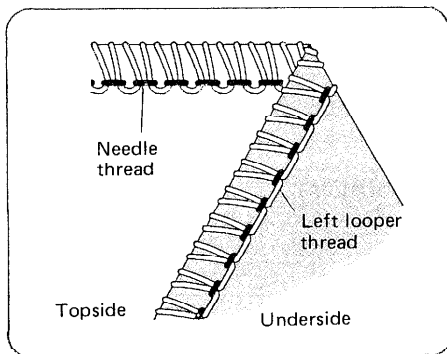
(2) 1-needle 2-thread

- Standard rolled hem stitching

Tension Dial			
Blue	Green	Orange	Yellow
	1.0	Spreader	3.0

- Left looper thread wrapped rolled hem stitching (rolled hem variation).

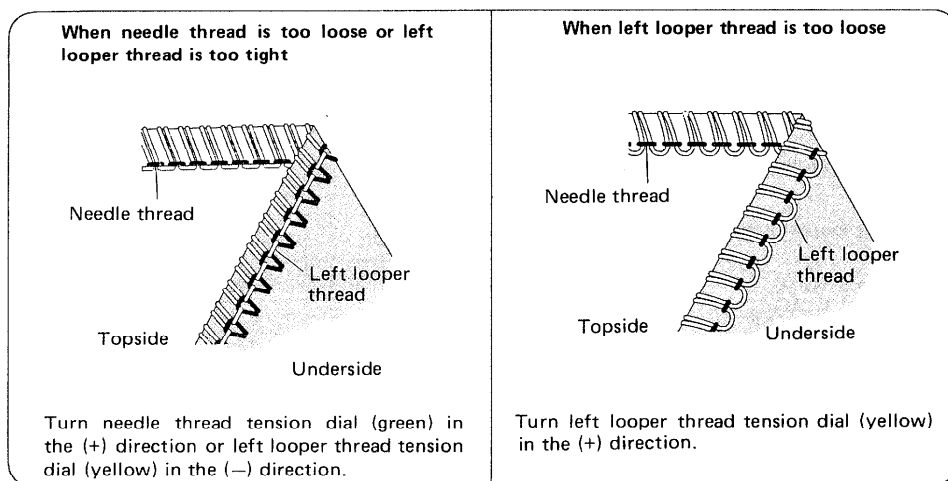
• **Correct thread tension**



A beautiful seam can be obtained on hard-to-roll light-weight fabrics by this method of stitching.

Tension Dial			
Blue	Green	Orange	Yellow
	2.0	Spreader	1.5

Make minor adjustments to obtain even better thread tensions.

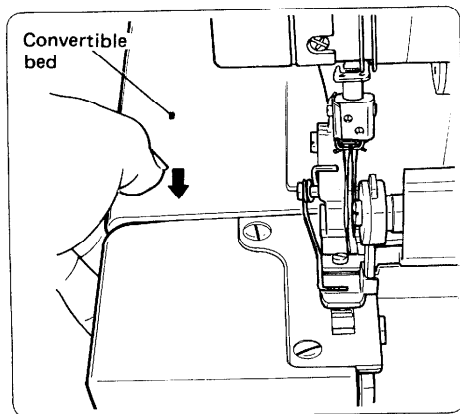


4. How to sew

Sewing

- Refer to “Chain off and test sew” on page 9.
- For rolled hemming, a better stitch quality can be obtained by pulling the fabric lightly in the forward direction to give slight tension to the fabric.
- When starting to sew, hold chained off thread end lightly to prevent it from being sewn into the seam.
- The minimum overedge seam width that can be obtained for rolled hem is approximately 1.5mm because the cutting width can not be set below 3.5mm.

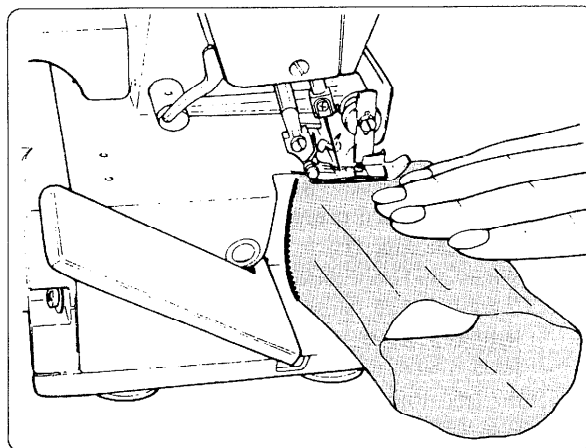
13. Free arm sewing (tubular work)



As shown in figure at left, this machine becomes a free arm machine simply by pushing the convertible bed plate down making tubular work such as sewing sleeves very easy.

This is especially convenient for finishing hard-to-reach areas such as arm holes and overcasting trouser cuffs.

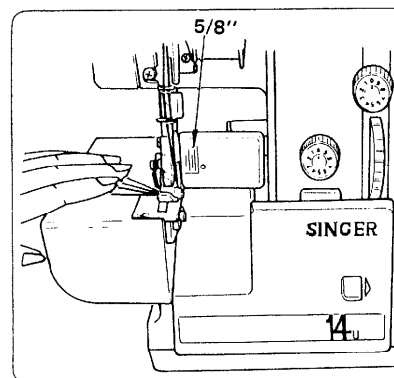
Slip tubular work onto the free arm and sew.



14. Seam guide lines

Use seam guide lines on looper cover to measure seam allowances.

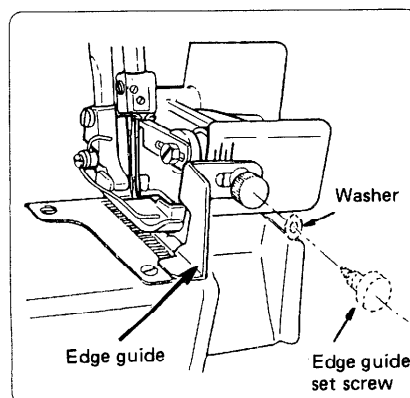
Thick line on extreme right is 5/8 inch from center of right needle. Other lines are 5/64 inch apart.



15. Edge guide (optional parts)

For ornamental and blind (overedge) stitching, use of the edge guide attachment is very convenient.

Attach edge guide as shown in figure.



16. Three-thread flatlock stitch

Flatlock stitch can be used for various applications.

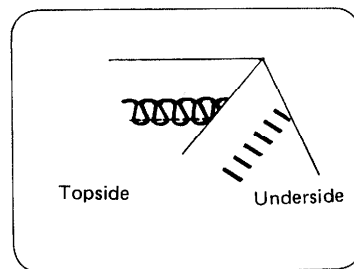
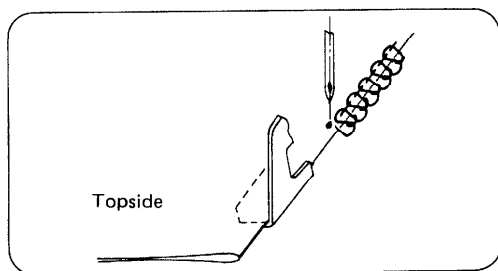
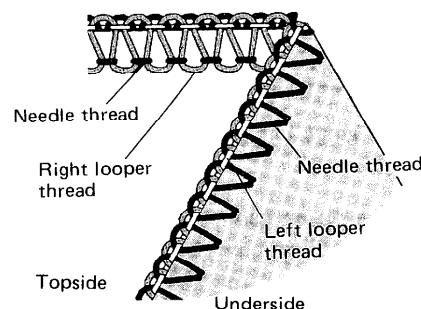
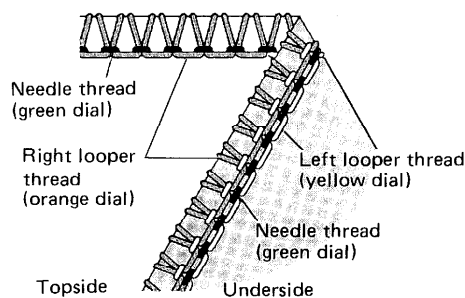
Preparation

- Use ordinary overedge throat plate.
- Use left or right needle.
- The right looper thread forms the decorative stitch, therefore fine and unobtrusive threads should be used for the needle and left looper.

Example: Right looper thread Wooly nylon or decorative thread
 Left looper thread extra fine
 Needle thread extra fine
 Stitch length 2–3

Note: If heavy thread such as pearl cotton is used in the right looper, you should skip the 2nd thread guide ⑤ as shown on page 15.

1. Set thread tensions to normal sewing condition for 1 needle, 3 thread overedge stitch and make a test sample. (See page 16)
 - When making above adjustment, the right looper thread tension should be adjusted as light as possible.
 - Make a test sample with two ply fabric.
2. Turn left looper thread tension dial (yellow) toward (+) mark so that the right looper thread will come as close as possible to the needle thread as shown in figure 1.
3. Turn needle thread tension dial (green) toward (–) mark so that right looper thread, left looper thread and needle thread will all come to the edge of fabric as shown in figure 2.
4. Open looper cover.
5. Turn hand wheel toward you to bring movable knife to its lowest position and place it in the non-operating position. (See page 21)
6. Attach edge guide to machine.
7. Fold fabric in half with the wrong sides together.
8. Place fabric under the foot with the fold resting against the wall of edge guide. Adjust edge guide so that it is positioned in the center of the seam width as shown in the sketch.
9. When stitching is completed, unfold fabric and press the stitching from the underside of the fabric.



17. Two-thread flatlock stitch

You can also flatlock with the 2-thread overedge stitch. Set tension as shown on page 14. Heavy decorative threads such as pearl cotton are not suggested for 2-thread flatlocking.

18. Two or three-thread blindstitching

Blindstitching provides a durable hem finish that is almost invisible. It is best suited for sewing cuffs on knit wear and skirt hems.

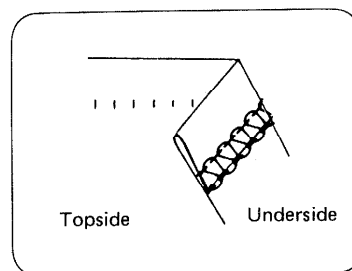
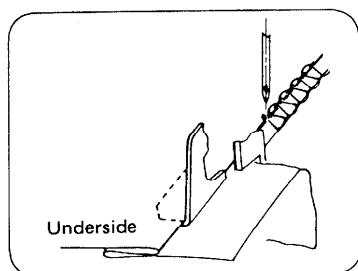
Preparation

Remove left needle.

Throat plate Ordinary overedge throat plate

Thread tensions Set tensions to normal sewing condition for 1 needle, 3 thread, overlock stitching (see page 16) or for 1 needle 2-thread overlock stitching. (See page 13)

Stitch length dial Set stitch length dial to 4–5.



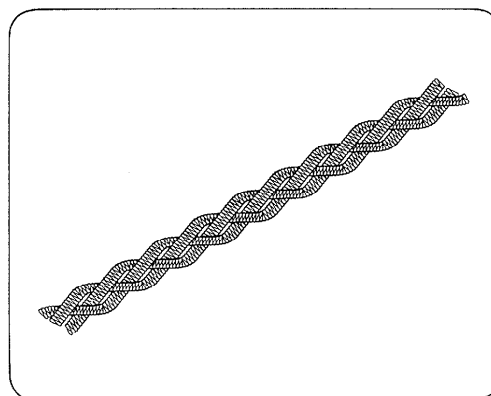
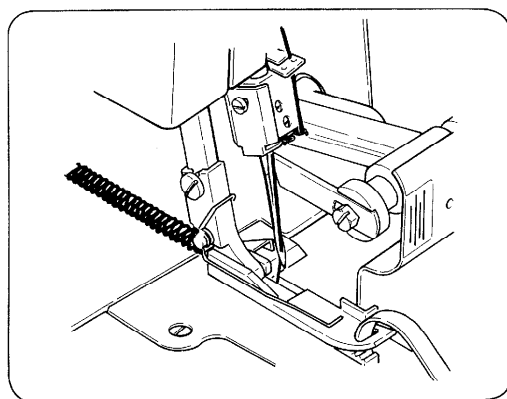
Fold hem to wrong side of fabric, then back to right side. Place raw edge of fabric under hem guide and place soft fold along edge of hem guide. Stitch making sure needle barely catches the fold. Adjust hem guide if necessary.

An optional blind hem foot is available from your Singer Dealer which makes blind hemming even easier.

19. Braiding by chaining-off

Chained-off braids can be used for making 3 ply or 4 ply braids.

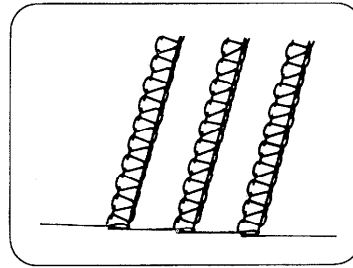
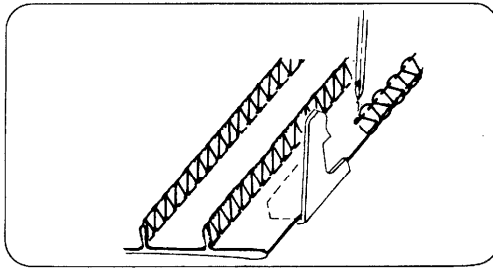
To make chained-off braids, place movable knife in the non-operating position. Insert filler cord such as yarn or twill tape through hole in foot and chain-off.



20. Two or three-thread pin tucking

Pin tucking is a useful decoration when sewing blouses and children's clothes. Pin tucking is accomplished before cutting out garment.

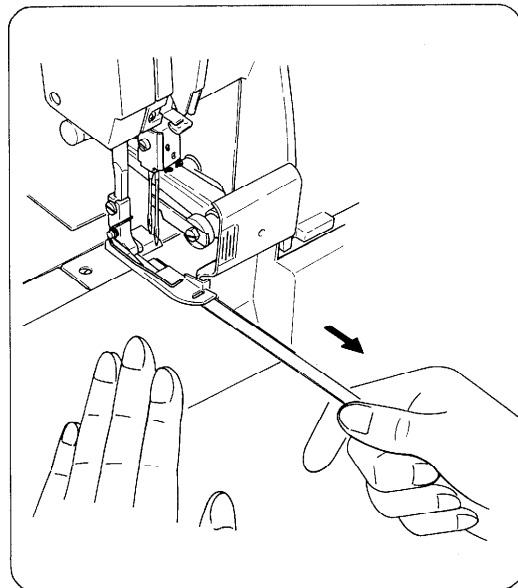
- Use ordinary overedge throat plate or rolled hemming throat plate.
- Remove left needle.
- Before sewing on your garment, always make a test stitch on a sample of your fabric so that you can adjust the thread tensions correctly for standard 1 needle, 3 thread overedge stitching, or 1 needle 2 thread wrapped edge overlock stitching.
- Place movable knife in non-operating position. (see page 21)
- Fold fabric in half with the wrong side facing up.
- Place fabric under the foot with the fold resting against the wall of edge guide.
- Adjust edge guide so that the stitches will just overcast the edge of the fold as shown in the sketch.
- Lower the foot and sew. When stitching is completed, press pin tuck to lay flat on one side.



21. Applying elastic

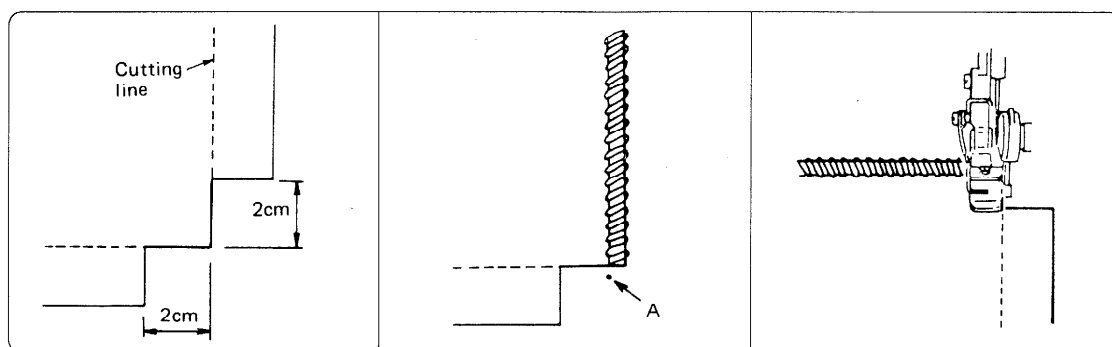
Elastic may easily be applied using the 3-thread overlock stitch or 4-thread mock-safety stitch.

- Knife in non-operating position. (see page 21)
- Divide elastic and area where elastic will be inserted into quarters and mark with a water-soluble marker.
- Lay elastic on wrong side of fabric making sure edges are even.
- Line up with edge of throat plate.
- After securing with 2-3 stitches, continue sewing, allowing fabric to feed through machine while gently stretching elastic (a quarter at a time) with right hand. Use free hand to keep fabric even with edge of throat plate.



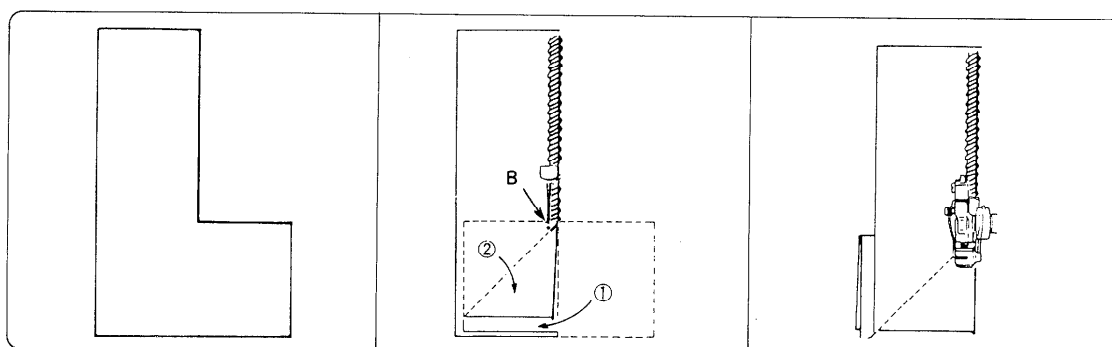
22. Turning square corners

Outside corner



1. Cut out approximately 2cm from the corner in line with the overedge seam edge.
2. Sew to point A, one stitch beyond edge of fabric and stop machine.
3. Raise needle and presser foot.
4. Pull fabric to the rear of machine just enough to release the thread caught on the finger of the throat plate.
5. Turn fabric and lower presser foot so that its finger is positioned on the edge of fabric.
6. Pull slack threads up, then start to sew.

Inside corner



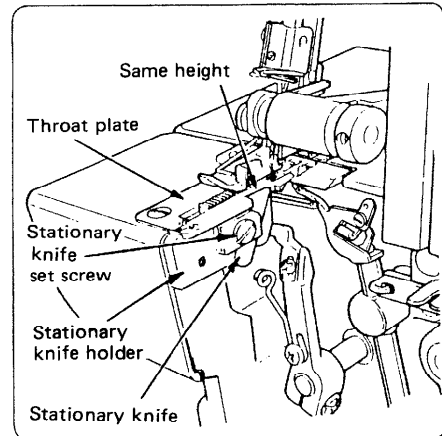
1. Cut fabric at seam edge.
2. Place movable knife in non-operating position.
3. Fold fabric as shown in sketch.
4. Sew to point B, as close as possible to the diagonal fold. Leave needle in fabric.
5. Raise presser foot, leaving the needle in the fabric.
6. Refold fabric so that the overedge is in line with the already sewn seam.

23. How to replace stationary knife

The stationary knife (available from your Singer Dealer) should be changed when it becomes dull.

The stationary knife can be replaced according to the following steps, however if there are any difficulties experienced, call your Singer representative to make the adjustment.

- (1) Be sure that the power line plug is disconnected from the wall receptacle.
- (2) Open the looper cover and set the movable knife in the non-operating position (see page 21).
- (3) Loosen the stationary knife set screw and remove the stationary knife.
- (4) 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 and tighten set screw.
- (5) Return the movable knife to its original position.

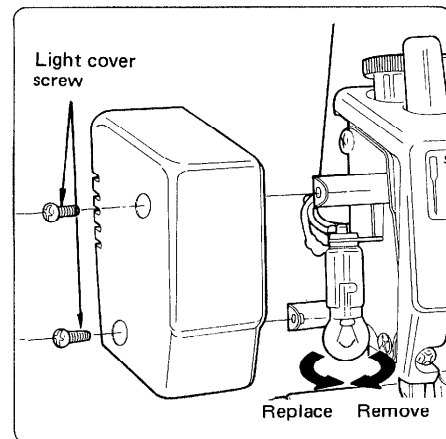


24. How to exchange light bulb

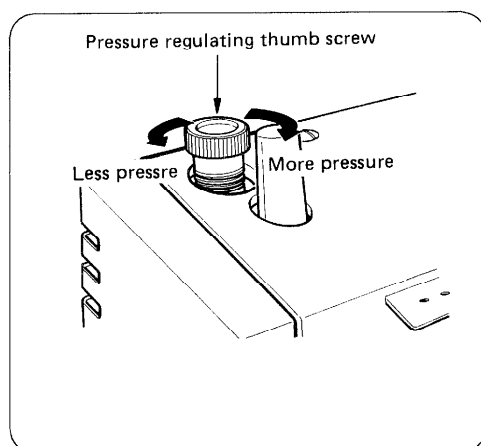
Light bulb (available from your Singer Dealer) is a bayonet type 12 volt, 6 watt bulb.

Disconnect power-line plug.

Remove light cover as shown in figure, turn bulb to left and remove. To replace, push bulb into socket and turn to right.



25. How to adjust presser foot pressure



The presser foot pressure of this machine is preadjusted at the factory to suit the sewing of medium weight fabrics.

It may become necessary to adjust the pressure in the case of delicate or heavy weight fabric.

For light weight fabric — Decrease the pressure (as shown at left).

Heavy weight fabric — Increase the pressure (as shown at left).

26. Reasons for poor stitches and how to make adjustment

Whenever sewing difficulty is encountered, make the adjustments as noted below.

Condition	Reason	Method of Adjustments (reference pages)
When the fabric is not feeding.	<ul style="list-style-type: none"> Insufficient presser foot pressure. 	<ul style="list-style-type: none"> Increase presser foot pressure (page 30).
When the needle breaks.	<ul style="list-style-type: none"> Needle not inserted properly. Fabric being pulled too hard. Loose needle set screw. 	<ul style="list-style-type: none"> Insert needle correctly or replace with correct needle (page 7). Do not pull the fabric by hand. Use hand only to guide the fabric. Tighten screw firmly.
When the thread breaks.	<ul style="list-style-type: none"> Incorrect threading. Bent needle or needle point damaged. Thread tension too tight. Thread tangled. Needle inserted incorrectly. 	<ul style="list-style-type: none"> Thread machine correctly (page 11, 12, 15) Replace needle (page 7). Adjust tension (page 13, 14, 16 ~ 20) Thread correctly (page 11, 12, 15) Insert needle correctly (page 7).
When stitches skip.	<ul style="list-style-type: none"> Needle bent or needle point damaged. Needle set loosely. Incorrect threading. Wrong needle used. Insufficient presser foot pressure. 	<ul style="list-style-type: none"> Replace needle (page 7). Set needle firmly in position (page 7). Thread machine correctly (page 11, 12, 15) Use Singer Cat. 2054, #14. Increase presser foot pressure (page 30).
When stitches are irregular.	<ul style="list-style-type: none"> Thread tension not balanced. 	<ul style="list-style-type: none"> Adjust tensions (page 13, 14, 16 ~ 20)
When fabric puckers	<ul style="list-style-type: none"> Thread tension too tight. Threading incorrect or tangled. 	<ul style="list-style-type: none"> Adjust tension (page 13, 14, 16 ~ 20) Rethread machine (page 11, 12, 15)
When the machine does not operate.	<ul style="list-style-type: none"> Power line plug not connected. 	<ul style="list-style-type: none"> Connect with power source.

27. 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), #14
Medium Weight Muslin, Sheersucker, Satin, Gabardine Broadcloth, etc.	Cotton #60 – #80 Silk #50 Spun #60 – #80 Tetron #60 – #80	#14
Heavy Weight Oxford, Denim Tweed, Corduroy Serge	Cotton #40 – #60 Silk #40 – #60 Spun #60 – #80 Tetron #50 – #80	#14
Knit Tricot Jersey Wool (woven, knit)	Spun #80 – #90 Tetron #60 – #80	(#10), #14
	Spun #60 – #80 Tetron #60 – #80 Cotton #60 – #80	#14
	Spun #60 – #80 Tetron #50 – #60 Wooley nylon Wooley tetron	#14

28. Accessories

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

29. Specification

Item	Specification
Sewing speed	1,300 spm maximum
Stitch length (feed amount)	1 ~ 5mm (Standard: Rolled hemming F ~ 2, ordinary overedge 3)
Overedge stitch width	Rolled hemming 1.5mm, ordinary overedge 3.5 ~ 7.2mm (standard 3.5mm)
Needle bar stroke	27mm
Presser foot rise	5mm
Needle	Rolled hemming Singer Cat. No. 2054 (#10), #14 Ordinary overedge Singer Cat. No. 2054 (#10), #14
Number of threads	4
Machine dimensions	width 257mm x depth 231mm x height 313mm
Weight	5.7 kg

Form U3895 (489)
Part No. 379230-002
Printed in Japan
