

Instruction Manual
6 Stitch Model 540

Sew with Confidence



Sonata™
by Jo-Ann

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by Jo-Ann

This booklet has been written for you, to help you use and enjoy fully your sewing machine.

Before you start to use this machine, please take a few minutes to study this booklet. You will find it will be time well spent in understanding your machine.

If you have any questions regarding the use of your sewing machine please do not hesitate to contact your local Jo-Ann Fabrics, House of Fine Fabrics or Showcase of Fine Fabrics store.

SEWING MACHINE

Record in space provided below the Model No. and Serial No. of this appliance.

The Model No. and Serial No. are located at the rear of arm.

Model No. 540 F

Serial No. _____

Retain these numbers for future reference.

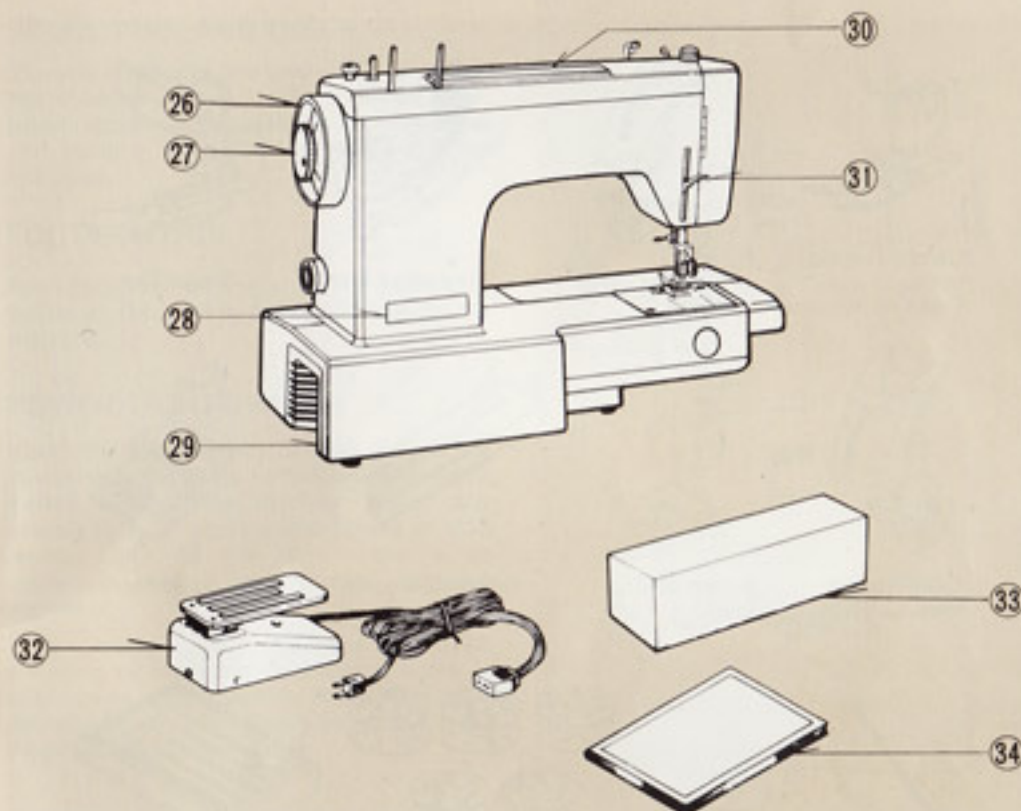
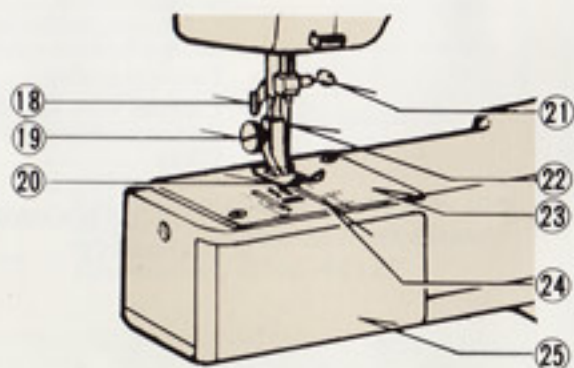
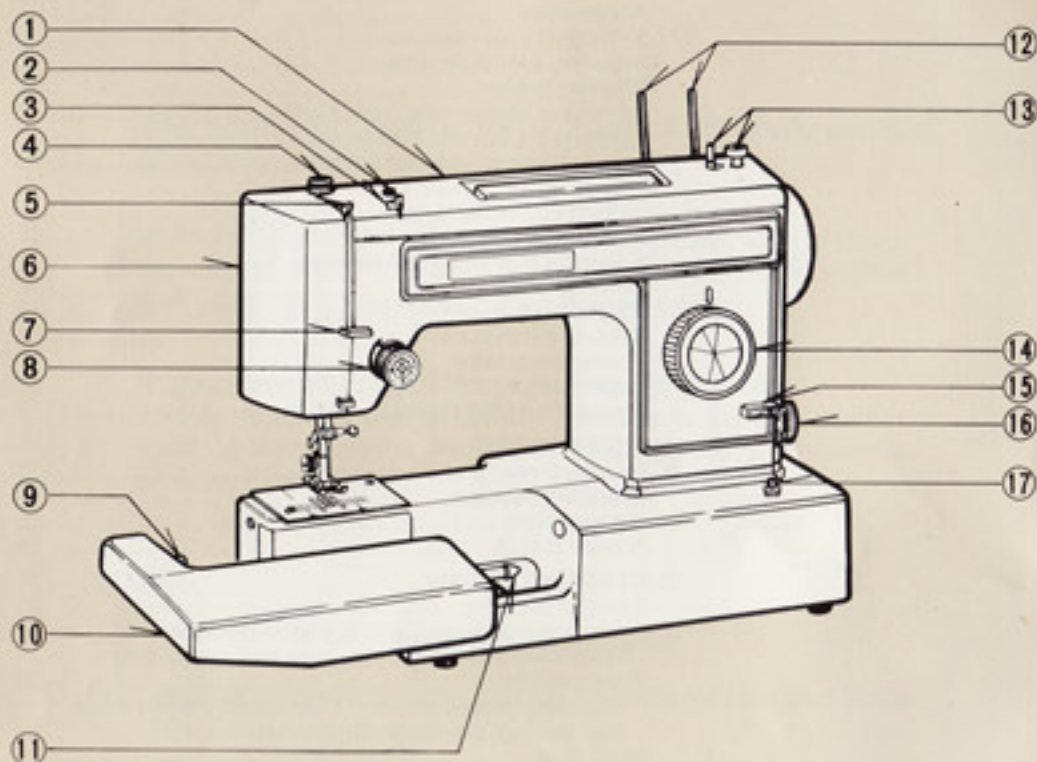
Fabri-Centers of America, Inc.
23550 Commerce Park Road
Cleveland, Ohio 44122

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1. KNOWING YOUR SEWING MACHINE

MACHINE IDENTIFICATION



- | | |
|-------------------------------|------------------------------|
| 1. Top cover | 18. Thread cutter |
| 2. Bobbin winder tension disc | 19. Presser foot thumb screw |
| 3. Thread guide | 20. Presser foot |
| 4. Pressure regulator | 21. Needle clamp screw |
| 5. Take-up lever | 22. Needle |
| 6. Face cover | 23. Needle plate |
| 7. Face cover thread guide | 24. Feed dogs |
| 8. Top thread tension control | 25. Shuttle cover |
| 9. Guide pin | 26. Hand wheel |
| 10. Extension table | 27. Clutch knob |
| 11. Guide pin | 28. Identification plate |
| 12. Spool pins | 29. Electric cord receptacle |
| 13. Bobbin winder | 30. Carrying handle |
| 14. Stitch selector | 31. Presser foot lever |
| 15. Reverse stitch lever | 32. Foot control |
| 16. Stitch length dial | 33. Accessory box |
| 17. Light/power switch | 34. Owner's manual |

ACCESSORIES



Standard zigzag foot
(Fitted on machine)



Straight stitch foot



Blind stitch foot



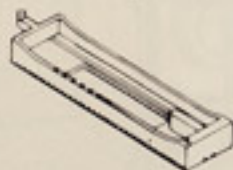
Zipper foot



Stretch stitch foot



Button sewing foot



Buttonhole guide



Roller foot



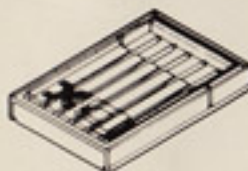
Thread spool pin



Felt disc



Bobbin



Needles



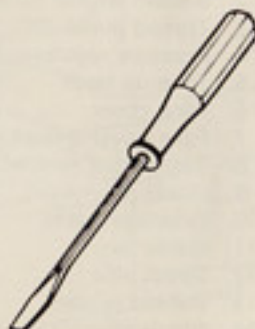
Darning plate



Buttonhole opener
(Seam ripper)



Screwdriver (small)



Screwdriver (large)

SETTING UP YOUR MACHINE

SPOOL PINS AND DISCS

You will find spool pins and discs packed in the accessory box. Using a screwdriver, attach spool pins securely on the top cover and position discs over the spool pins as indicated.

FOOT CONTROL

Push foot control plug into the connector socket at the bottom right-hand side of the machine.

POWER/LIGHT SWITCH

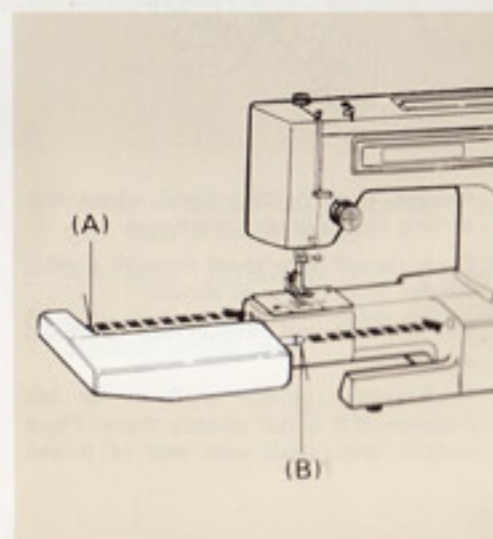
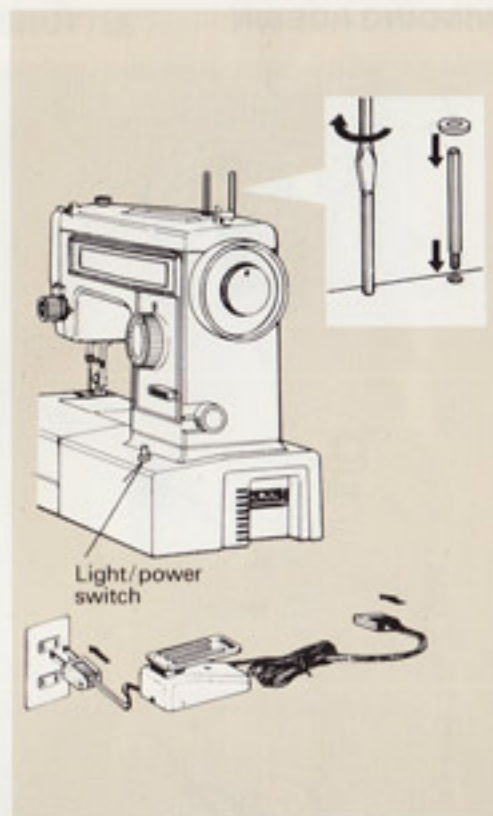
Your machine will not operate unless the power/light switch is turned on. This same switch controls the machine power and sewing light. If you are interrupted or stop sewing, turn off the switch—this is an important safety feature that prevents accidents.

When leaving your machine or when servicing or changing mechanical parts or accessories, your machine must be disconnected from the main supply by removing the plug from the socket-outlet.

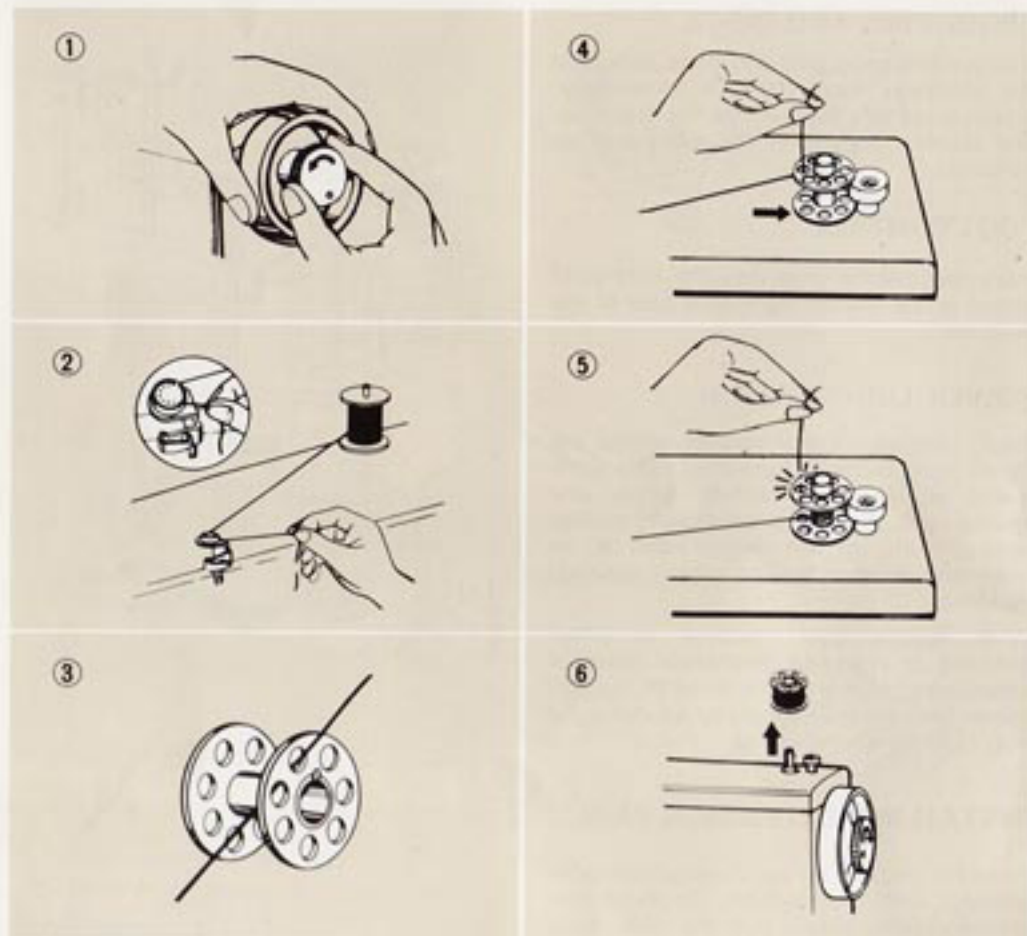
INSTALLING EXTENSION TABLE

For all flat-bed sewing use the extension table provided with the machine. To install the extension table, simply slide the table along the free arm until the two pins (A) and (B) enter fitting holes in the machine.

To utilize free-arm feature for sewing tubular material, remove the extension table from the machine by pulling it to the left. (see also page 32).



WINDING BOBBIN

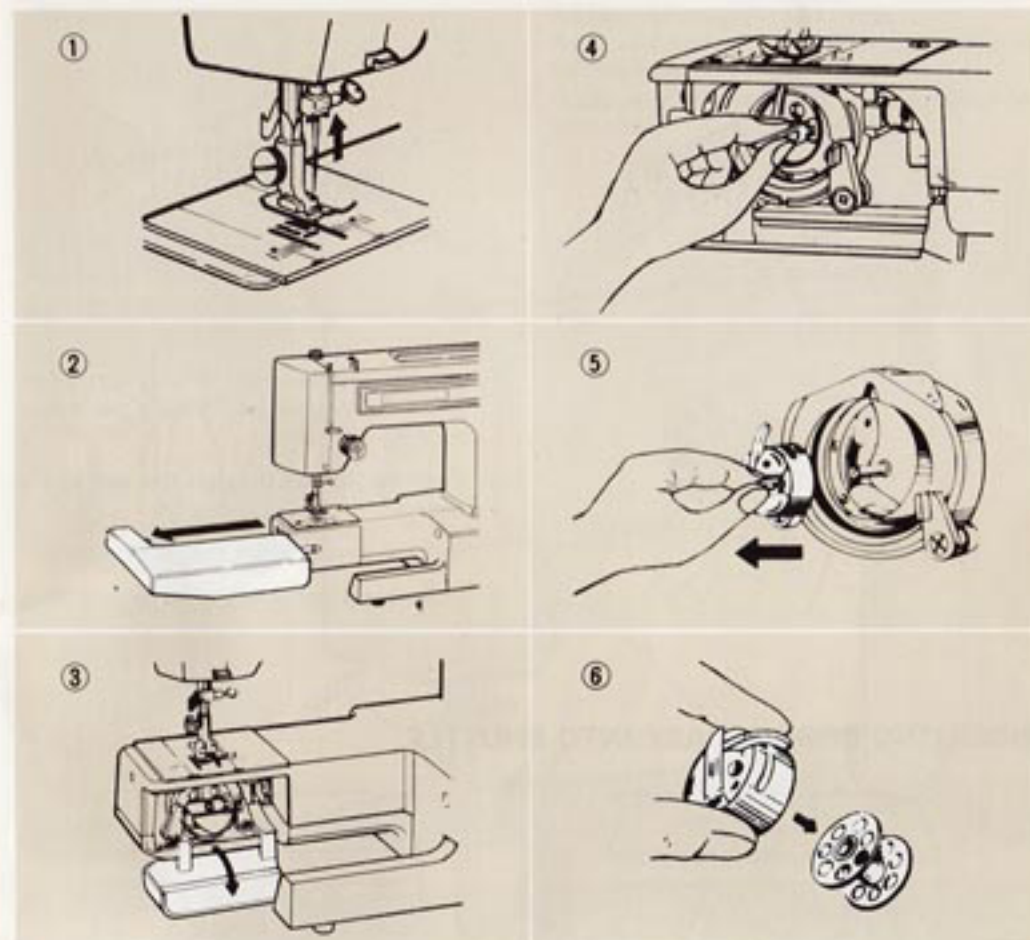


1. Release clutch holding hand wheel and turning clutch knob toward you.
2. Draw thread from spool through bobbin winder tension disc as shown.
3. Pull end of thread through hole in bobbin as shown.
4. Push bobbin winder shaft to far left position, if it is not already there. Place bobbin onto shaft with end of thread

5. Start machine. The thread that is held will snap. Bobbin will cease turning when completely filled. Push shaft to left to remove bobbin.
6. Tighten clutch knob and remove bobbin.

coming from top of bobbin. Push bobbin winder shaft to right until it clicks. Hold onto end of thread.

REMOVING BOBBIN CASE FROM SHUTTLE



1. Raise needle to its highest position rotating hand wheel toward you.
2. Remove the extension table from machine by pulling it to the left.
3. Open shuttle cover.

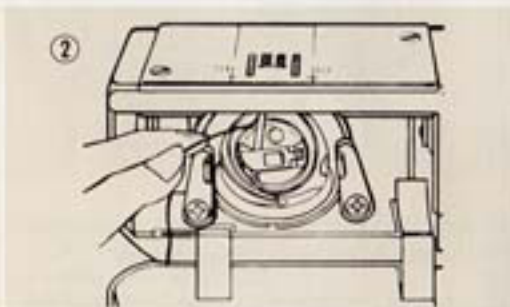
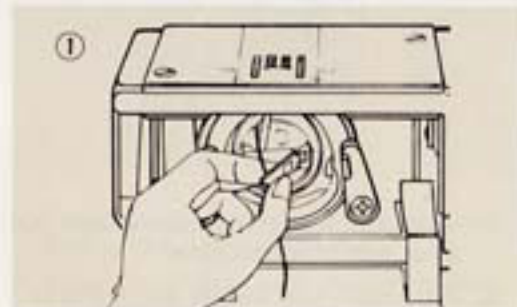
4. To remove bobbin case from shuttle, pull open latch of bobbin case.
5. Pull bobbin case straight out of shuttle.
6. Release the latch and bobbin will come out from bobbin case.

INSERTING BOBBIN INTO BOBBIN CASE



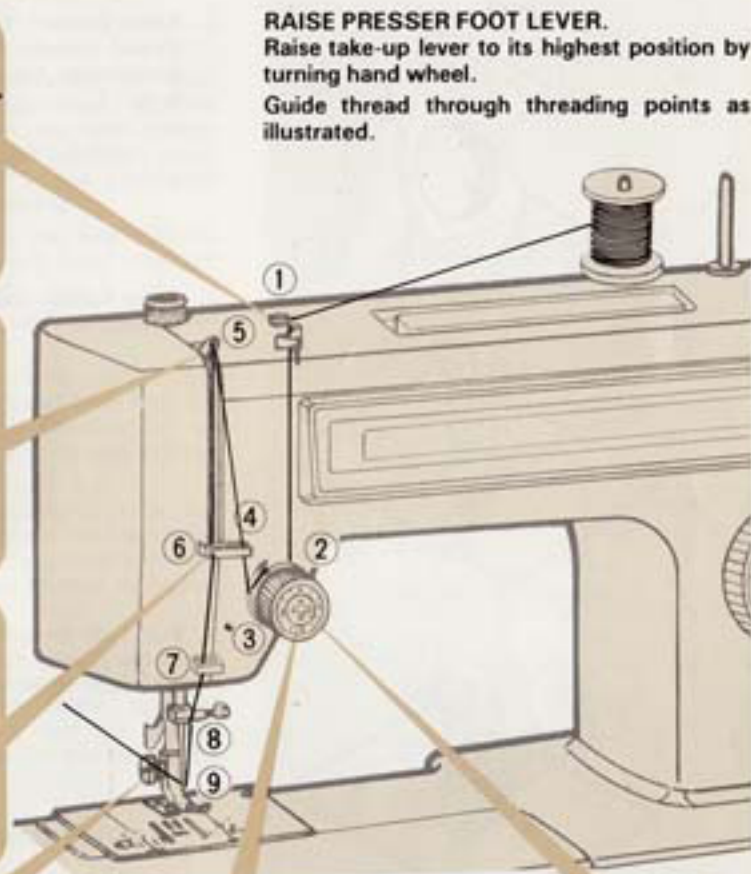
1. With the bobbin case in your left hand, place the bobbin into it with the thread running clockwise.
2. Feed the thread through the slot in the case.
3. Pull the thread under the tension plate.
4. Draw 3 to 4 inches of thread from bobbin.

INSERTING BOBBIN CASE INTO SHUTTLE



1. With locating pin straight up, hold the latch open, and slide the bobbin case on to the center spindle of the shuttle.
2. Make sure the locating pin fits into the locating groove at the top of the shuttle. Release the latch to lock the bobbin case into place.

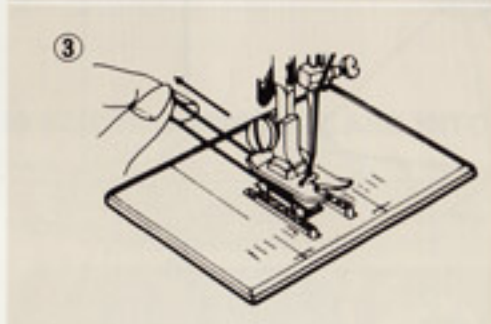
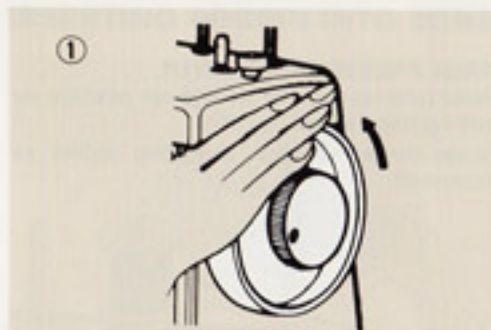
THREADING TOP THREAD



RAISE PRESSER FOOT LEVER.
Raise take-up lever to its highest position by turning hand wheel.
Guide thread through threading points as illustrated.



- (9) The needle must be threaded from front to rear.
- (2) Holding the spool stationary with the right hand pull the end of the thread between the tension discs. Pull the end of the thread taut so the spring wire loop passes up and past the top hook. The thread will slip into the hook.
- (3) Release thread and the spring wire loop will return to position with thread as shown.



PICKING UP BOBBIN THREAD

1. Raise presser foot lever. Hold needle thread loosely in left hand and rotate handwheel toward you one complete turn.
2. Bring bobbin thread up by pulling upper thread.
3. Pull both threads under and to the back of the presser foot, leaving 3 to 4 inches of thread clear.

If you can not pick up bottom thread by following above steps, then check:

1. Is thread through needle?
2. Is thread tangled around needle?
3. Is there 3 to 4 inches of thread coming out of bobbin case?
4. Is thread from bobbin case tangled?

ADJUSTING TOP THREAD TENSION

STRAIGHT STITCHING

The good looking appearance of your stitching is largely determined by the balanced tension of both top and bobbin threads. The tension is well balanced when these two threads 'lock' in the middle of layers of fabric you are sewing.

If, when you start to sew, you find that the stitching is irregular, you will need to adjust the tension control.

Make any adjustments with presser foot 'down'.

1. If the threads are locking on the top surface with the top thread lying flat, the top stitch is too tight. Tension can be decreased by turning the tension control to lower numbers.
2. If the reverse is happening with the threads on the underside of the fabric, the tension is too loose. This can be corrected by turning the tension control to higher numbers.

ZIGZAG STITCHING

The top thread may appear on the bottom depending on the thread, fabric, type of stitch and sewing speed, but the bobbin thread must never appear on the top of the fabric.

ADJUSTING BOBBIN THREAD TENSION

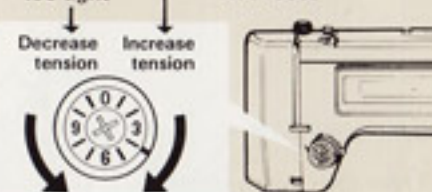
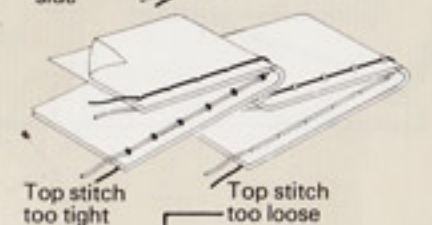
BOBBIN THREAD TENSION REQUIRES ADJUSTMENT LESS FREQUENTLY THAN THE TOP THREAD TENSION.

If the tension is well balanced, but the fabric puckers badly, both top and bobbin thread tensions may be too tight and have to be adjusted.

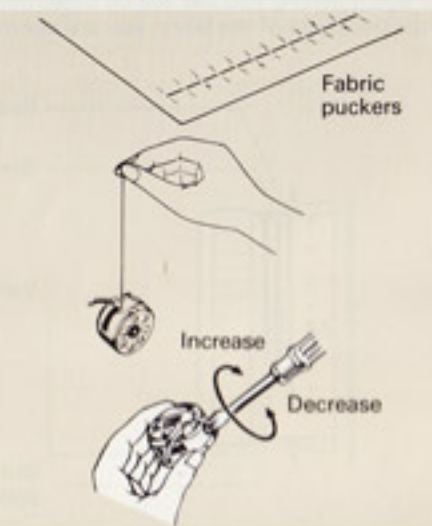
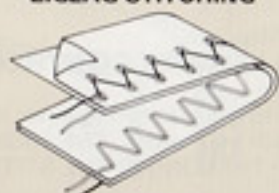
To test if the bobbin thread tension is correct, suspend the bobbin case by the thread and jerk it once. Correct bobbin tension will result in the thread unwinding only one inch or two. If too loose it will unwind continuously. If too tight the thread will not unwind at all.

When adjusting the tension on the bobbin case, make only slight adjustments with a screwdriver.

STRAIGHT STITCHING



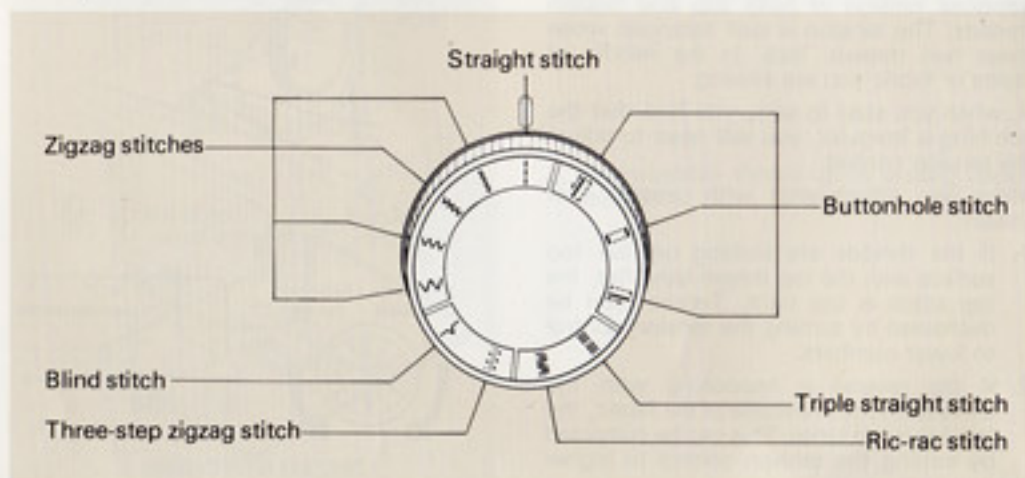
ZIGZAG STITCHING



STITCH SELECTOR

All of the stitches that are made by your machine are illustrated on the stitch selector. You can obtain your desired stitch by simply turning the dial.

Stitch patterns are color-coded to recommended setting ranges on stitch length dial.



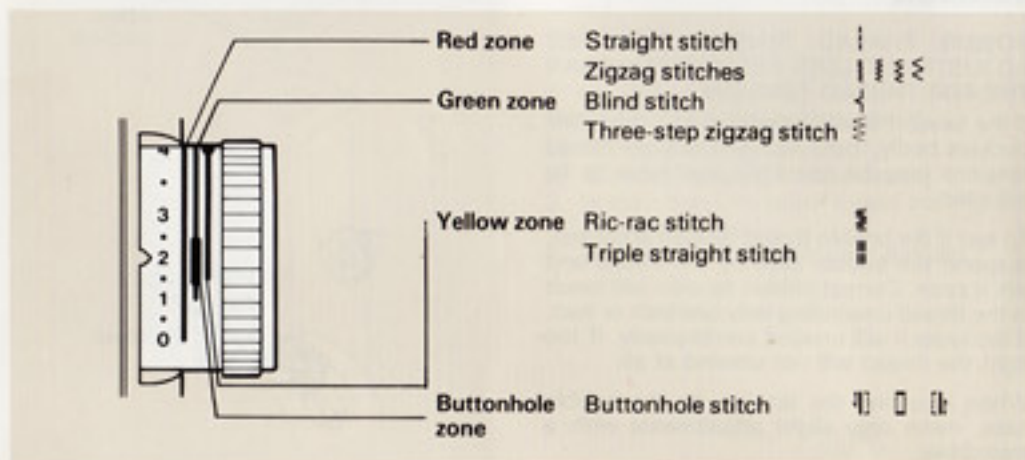
STITCH LENGTH CONTROL

The stitch length control regulates the length of the stitch you select. THE HIGHER THE NUMBER - THE LONGER THE STITCH.

The stitch setting you use will be determined by the thickness of the fabric you are sewing.

A longer stitch setting should be used for thicker fabric or more layers of fabric.

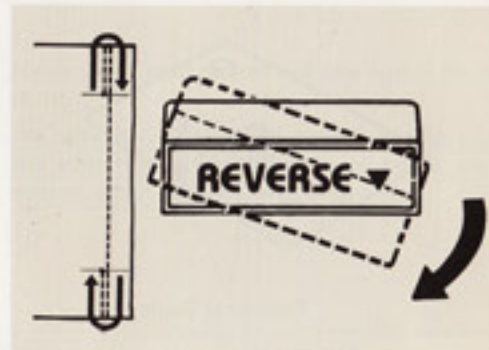
Recommended stitch length settings are indicated in three colors and color-coded with stitch patterns on the selector.



REVERSE STITCH CONTROL

It is best to begin and end seams with a few stitches taken in reverse. This is called back tacking. Back tacking fastens the ends of the seams firmly and prevents unravelling.

When reverse stitching is needed, turn the control clockwise and hold there during sewing. The fabric will immediately start feeding backwards and seam will be fastened.



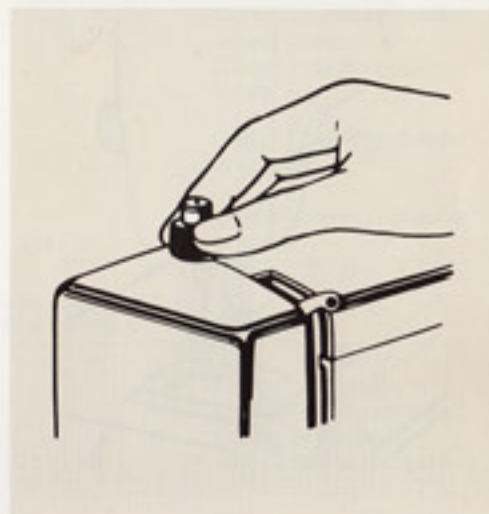
PRESSURE REGULATOR

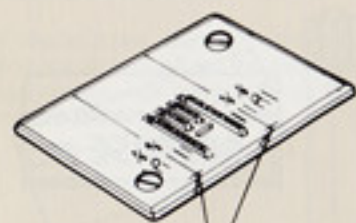
Push down the outer ring of the pressure regulator. This will release the pressure on the presser foot. To increase the pressure, push down inner pin until a suitable pressure is obtained.

Insufficient pressure may cause poor feeding of the fabric, skipped stitches, or difficulty in guiding the fabric. If feed dogs or presser foot marks appear on the fabric, reduce the pressure.

For ordinary sewing, the inner pin should be about half way down.

When sewing multiple thickness or heavy fabric, reduce the pressure. Increase pressure when sewing lighter weight fabrics.





Cornering Guide

SEAM GUIDES

Seam guides are printed on needle plate, at both sides of needle, to help you line up the fabric and keep it straight. The standard seam width is 5/8". So these lines are emphasized, easy to follow.

Also the cross lines are "cornering guides" to help when turning a square corner 5/8" from the fabric edge. (For details on cornering, see page 25.)

PRESSER FOOT LIFTING LEVER (TWO POSITION)

The Presser Foot Lifting Lever can be lifted to a second, higher position.

This will be found of great assistance when sewing thicker types of fabric.

For normal use, simply apply 'upward' pressure of the Presser Foot Lifting Lever, and the Presser Foot will 'lock' into the 'up' position (A), and allow your work to be placed under, and also removed.

For thicker fabrics, apply a little extra pressure to the Lever and the Presser Foot can be raised approximately an additional 1/4" (5 mm). It will however be necessary to 'hold' the Lifting Lever in this upper position (B) whilst you place or remove your work.

NEEDLES

The size of the needle should conform to the size of the thread and both should be suitable to the material. The same size and type thread should be used in the bobbin as on the upper part of the machine for ordinary sewing.

Never use a bent needle nor one with a blunt point.

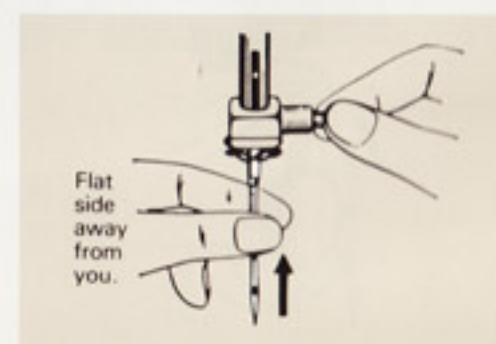
For successful sewing of stretch fabrics use the stretch stitch foot with gold shank and stretch stitch needles with blue shank.

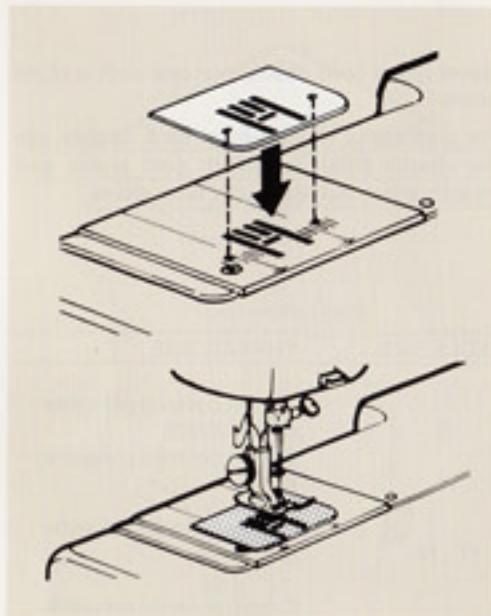
NEEDLE AND THREAD TABLE

FABRIC	NEEDLE SIZE	THREAD SIZE
NATURAL FABRICS		
Fine e. g. net, organdie, lace, lawn, voile, chiffon.	9	Cotton covered polyester or fine cotton
Lightweight e. g. gingham, muslin, fine poplin, taffeta, silk, seersucker.	11	Cotton covered polyester or silk
Mediumweight e. g. poplin, cotton, linen, corduroy, satin, brocade, velvet, lightweight wools, towelling.	11 - 14	Cotton covered polyester or cotton
Heavyweight e. g. sailcloth, twill, denim, canvas, upholstery, tweed, medium to heavyweight wools.	14 - 16	Cotton covered polyester or cotton
MAN-MADE FABRICS		
Jersey, stretch nylon, stretch towelling, knitwear.	Stretch Needle with Blue Shank	Polyester
BUTTONHOLES		
Fine and lightweight fabrics	11	Cotton or machine embroidery or polyester
Medium and heavyweight fabrics	11 - 14	Cotton or machine embroidery or polyester
DECORATIVE EMBROIDERY		
Fine and lightweight fabrics	11	Cotton or machine embroidery or polyester
Medium and heavyweight fabrics	11 - 14	Cotton or machine embroidery or polyester

CHANGING NEEDLES

Raise needle bar to its highest position by turning the hand wheel toward you. Loosen the needle clamp screw. Holding the needle with the flat side away from you, slip the needle into the needle bar. Make certain it is up as far as it can go. Tighten the needle clamp screw.





DARNING PLATE

There are a few times when you want to control the feeding of the fabric yourself. Raise needle to its highest position and raise presser foot. Attach darning plate over needle plate aligning two pins of darning plate with holes of needle plate. You may then determine the movement of the fabric yourself.



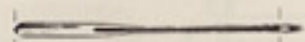
PRESSER FEET

To change the various presser feet, raise the presser bar to its highest position by lifting the presser foot lever (See page 14). Loosen the presser foot thumb screw, choose the proper foot, insert from the front. Lower the presser foot lever and tighten the screw using the large screw driver to make certain the foot is secure.

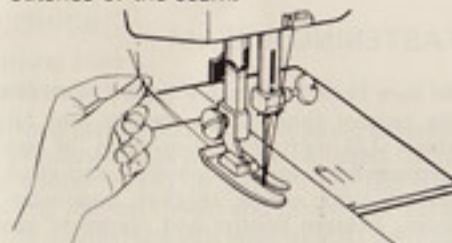
2. STARTING TO SEW

Now that you are familiar with the controls on your machine and with the accessories provided for the machine, you are ready to start to sew with your sewing machine. Below are some good habits to follow each time you sit down to sew:

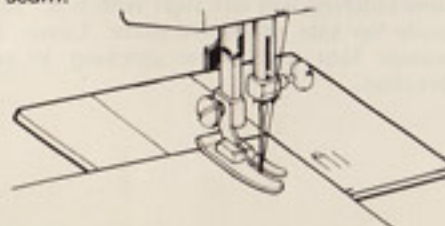
1. Check the needle-it should be straight, properly set and sharp on the point. It should be the correct size for the fabric and thread being used. Do not be afraid to change your needle frequently. Many of the new fabrics made of synthetic blends tend to dull the needles more easily than fabrics made of natural fibers.



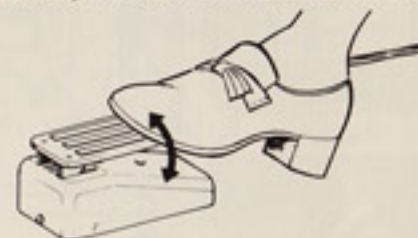
2. Before placing the material on the machine, see that the ends of the threads have been drawn about 3-4 inches to the rear of the machine. Hold on to threads during the sewing of the first 3 or 4 stitches of the seam.



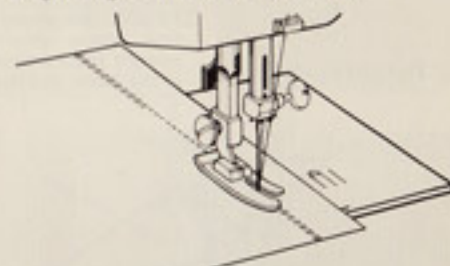
3. Test the machine stitch on a scrap of fabric you plan to use. The fabric should be double thickness. Adjust the machine for the length of stitch and tension suitable to your fabric.
4. Fabric should be placed under the presser foot with the bulk of the material to the left of the needle and the right edge of the material placed on the 5/8" seam marking on the needle plate when making a simple seam.



5. Run the machine at a slow even speed. The more pressure you put on the foot control, the faster the machine will sew.



6. Fasten each seam by back tacking at the beginning and end of the seam.

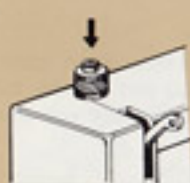


7. Finish sewing each seam with the needle at its highest point except turning a square corner. (See page 18.)
8. Guide the fabric gently with your hand. Never pull or hold the fabric in such a way that the normal feeding is altered.
9. When turning the hand wheel manually, always turn it toward you.



STRAIGHT STITCHING

Pressure regulator



See page 13.

Presser foot



*Straight stitch foot

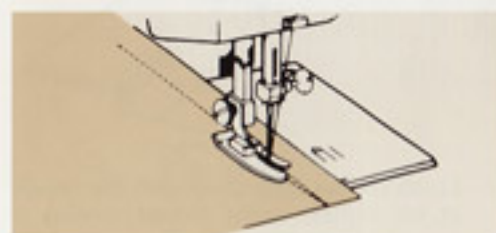
Stitch selector



Stitch length dial

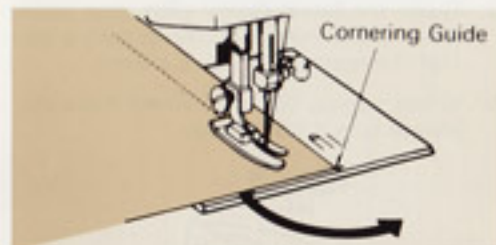


*Fit either the straight stitch or the zig-zag presser foot unless otherwise stated. However, the straight stitch presser foot will give greater control of the fabric and more even stitches.

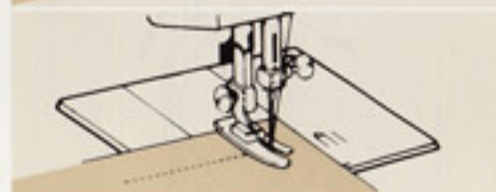


FASTENING A SEAM

Be sure both threads are drawn back under the presser foot. Lower needle into fabric about 1/2 inch from beginning of seam. Depress the reverse stitch lever and stitch in reverse until needle reaches beginning of seam. Release control and complete seam. When you reach the end, depress the reverse stitch lever and sew back (backtack) over 1/2 inch of completed seam.



Cornering Guide

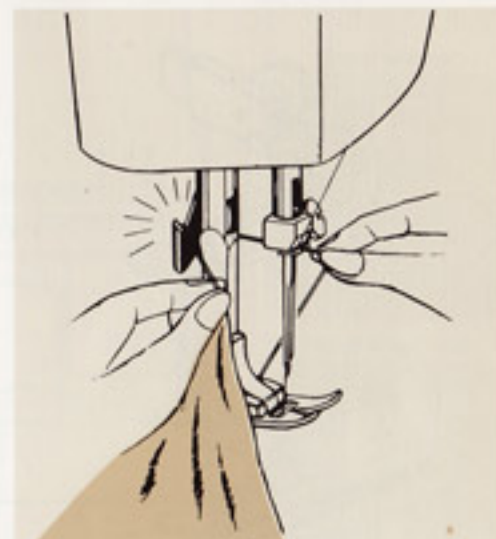


TURNING A SQUARE CORNER

To turn a square corner 5/8" from the fabric edge, stop stitching with the needle piercing the fabric, when reaching the cornering guide as shown. Raise the presser foot, turn fabric. New stitching line will align with 5/8" seam guide on side of needle plate. Lower the presser foot and begin stitching in new direction.

REMOVING FABRIC

First turn the handwheel toward you until the needle is at its highest position, then raise the presser foot, draw materials to the rear and cut off excess thread using the thread cutter located on the presser bar as shown.



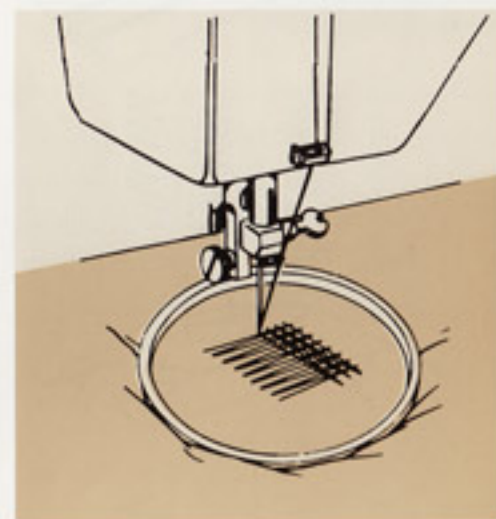
DARNING

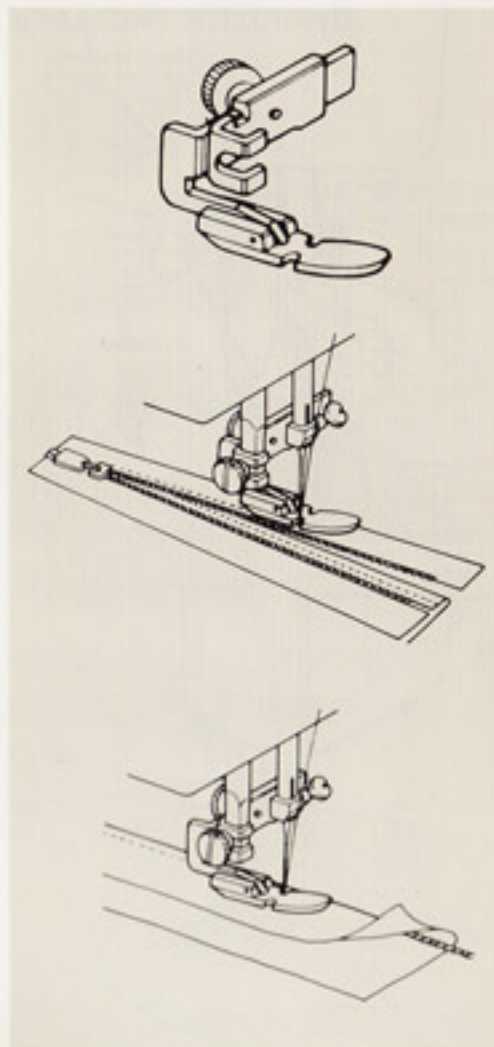
SETTINGS

Darning plate

No Presser Foot

Remove presser foot, stretch fabric between embroidery hoops with hole centered. Draw the bobbin thread up through the fabric by holding the top thread and taking one stitch at the spot where you wish to start darning. Lowering the presser bar, start sewing at a slow to medium speed. Move the fabric back and forth with a steady rhythm to cover the darning area. When it is covered, turn the fabric and sew another layer of stitching across the first layer of stitching.





INSERTING ZIPPERS, PIPING

SETTING

Use zipper foot, which is adjustable to allow you to sew to the right or left of the zipper or close to the cord.

INSERTING REGULAR ZIPPERS

To sew down the right side, release the screw at the back of the zipper foot and position the foot to the right of the needle so that the needle passes through the opening on the left side of the foot. Tighten the screw.

To sew down the left side, position the foot to the left of the needle.

PIPING

To pipe soft furnishings, cover cord with a bias strip of fabric and pin or tack it to the main piece of fabric.

Release the screw at the back of the zipper foot and position the foot to the left of the needle so that the needle passes through the opening on the right side of the foot. Tighten the screw.

ZIGZAG STITCHING

Pressure regulator



See page 13.

Presser foot



Zigzag foot

Stitch selector



Stitch length dial



SELECTING ZIG-ZAG WIDTH

By rotating the stitch selector control, it is possible to choose four different widths of zig-zag.

These are illustrated on the control dial which will produce the various zig-zag widths as shown in the diagram on the right.

Select the width most suitable for the article being sewn.



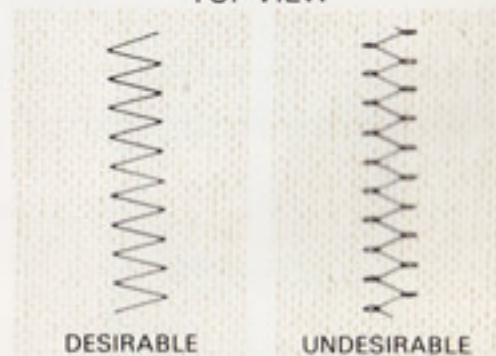
CHECKING THREAD TENSION OF ZIGZAG STITCHES

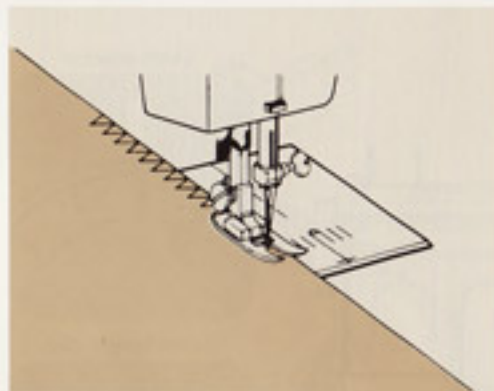
The easiest way to check tension is to sew a medium zig zag stitch on the fabric you will be using. Use the appropriate type of thread and needle as recommended on page 15.

Sew a line of zig zag stitches. The bobbin thread should not show on the top of the fabric.

Adjust the top tension if necessary to achieve the stitch indicated at left side of illustration.

TOP VIEW





OVERCASTING

Overcasting is simply finishing the raw edges of fabric to prevent fraying. In many cases the basic zig-zag stitch is adequate.

With the machine set to a suitable stitch length and width for the fabric, place it under the presser foot so that the needle pierces it just short of the outside edge. Worn edges of older garments can be sewn in the same manner to prevent further unravelling.

In some cases a stronger stitch may be desirable, in which case the 'three-step' zig-zag stitch should be used — see page 25.

SATIN STITCH

SETTINGS

Stitch Selector - Zigzag Stitch
Stitch Length Dial - Between 0 and 1

Closely spaced zigzag stitches are called satin stitches. This is an attractive stitch used for appliqué, or bar tacking, etc.

Whenever you are using this stitch, remember to loosen the tension of the top thread slightly. The wider the stitch you make, the looser the tension should be.

If you are stitching on a very soft fabric, use a backing of tissue paper or interfacing to produce a well formed stitch. Puckering of the material will be eliminated and the bobbin thread will not be visible on the right side of the fabric.

As with all special stitches, it is best to make a sample design on your fabric before starting to sew on the actual garment.

BAR TACKING

SETTINGS

Stitch Selector - Zigzag Stitch
Stitch Length Dial - Between 0 and 1

This stitch is similar to a very short satin stitch and is used to reinforce points of strain such as corners of pockets and straps on lingerie.

Sew 4 to 6 zigzag stitches at each point.

APPLIQUÉ

SETTINGS

Stitch Selector - Zigzag Stitch
Stitch Length Dial - Between 0 and 1

Select an applique design to be applied to your garment and baste it in place. Satin stitch around the raw edge of the applique completely covering the edge. You may want to do this with a contrasting color of thread.



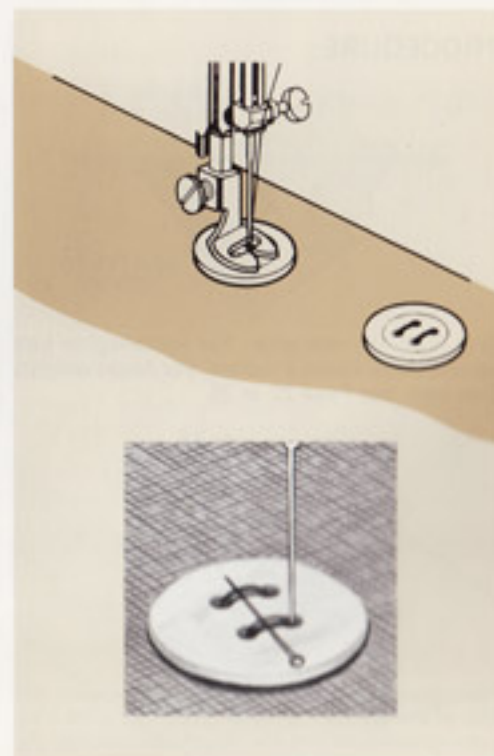
BUTTON SEWING

SETTINGS

Stitch Selector - Zigzag Stitch
Use Button Sewing Foot and Feed Cover Plate.

1. Fix the button on fabric at desired position with clear tape.
2. Align two holes of button with slot of presser foot and lower foot to hold the button securely.
3. Turn hand wheel manually until needle point is just above button.
4. Set stitch selector at desired zigzag stitch position so needle will enter one hole of the button.
5. Turn hand wheel again by hand so needle enters second hole. Reset stitch selector if necessary. Stitch a number of times.
6. Finish sewing with an extra two inches of thread remaining. Draw these threads to reverse side of garment and tie.

When sewing a flat button, place needle or pin between holes of button as shown to provide flexibility for buttoning.



BLIND HEM

Pressure regulator



See page 13.

Presser foot



Blind stitch foot

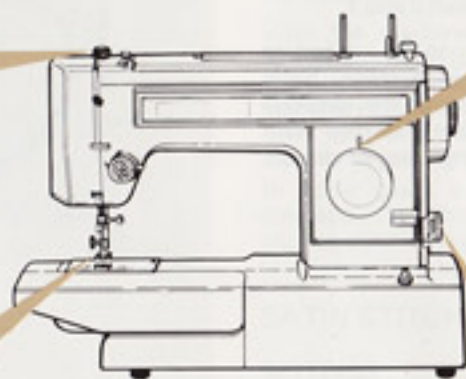
Stitch selector



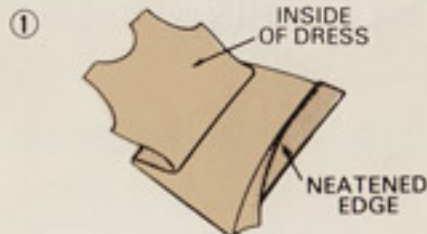
Stitch length dial



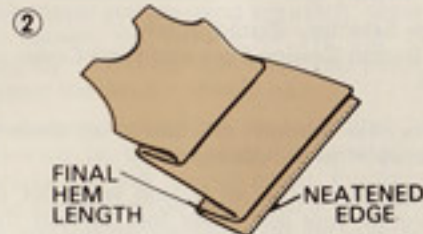
Within green zone



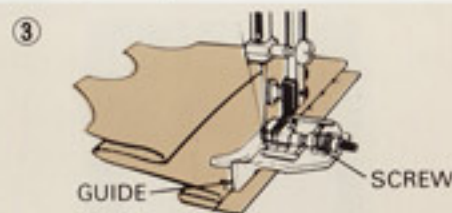
PROCEDURE



First finish the raw edge. For lightweights turn up and baste about 4 inches. For heavyweights Overcast, see Page 22 or 25.



Fold garment away from hem leaving 1/8" of hem edge extending.



Place garment under blind stitch foot with the fold of the garment against guide and slide it by turning screw so that the zigzag just catches the fold.



Press both sides of the finished hem. The right side of the garment will show only the blind stitches.

THREE-STEP ZIGZAG

Pressure regulator



See page 13.

Presser foot



Zigzag foot

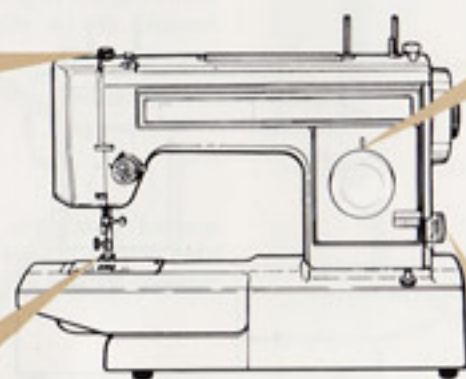
Stitch selector



Stitch length dial



Within green zone



This is a strong stitch because as its name implies, it makes three short stitches where the normal zig-zag makes only one.

For this reason it is highly recommended for overcasting all types of fabrics.

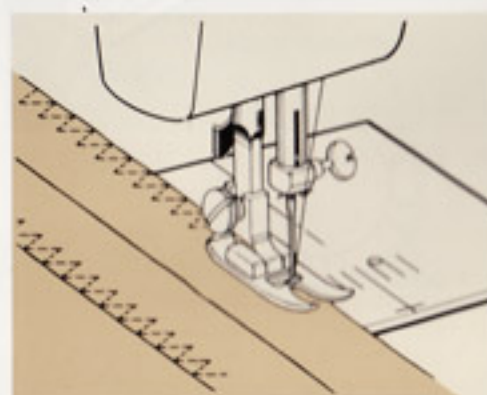
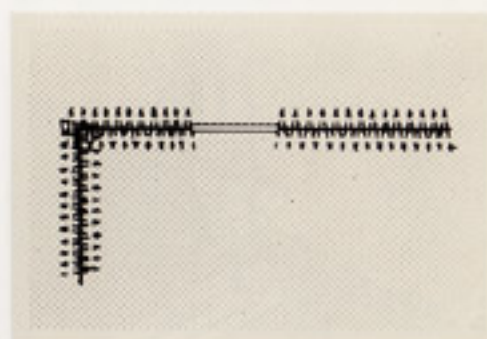
It is also ideal for mending tears, patching, sewing towelling, patch-work and attaching flat elastic.

MENDING A TEAR

Set stitch selector as shown above and stitch length within the green zone. Place beginning of tear under presser foot and sew, ensuring stitches catch either side of tear. When repairing three-cornered tears, stitch down each side to the centre.

OVERCASTING

Set machine as above and place fabric under the presser foot so that the needle just sews over the raw edge — see also page 21.



BUTTONHOLE MAKING

Pressure regulator

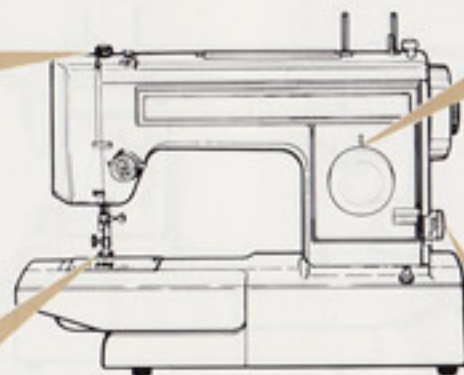


See page 13.

Presser foot



Zigzag foot and buttonhole guide



Stitch selector



Stitch length dial

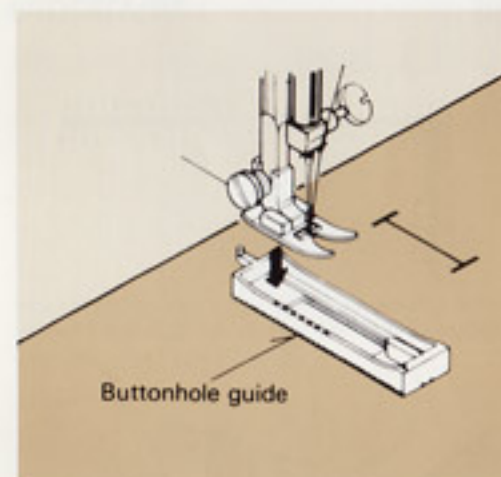


Within green buttonhole zone

PREPARATION

Carefully mark the buttonhole length on your garment. Mount the buttonhole guide onto the presser foot so that rear edge of presser foot is at the rear end of the guide as shown below. Place the fabric with the buttonhole marked under the buttonhole guide. Slide the guide forward so that the needle pierces the fabric at the beginning of the buttonhole.

You have been provided with a standard buttonhole guide for making buttonholes. Reproduction of the identical size buttonholes is facilitated with the aid of the graduations on the guide. Graduations act as reference mark.

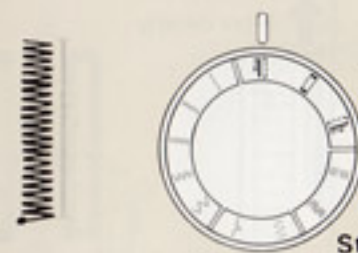


Buttonhole guide

PROCEDURE

1. Set stitch selector at . Stitch forward until you reach the front marking of your buttonhole. Stop sewing at the left stitch and then raise needle at its highest position.
2. Set stitch selector at and bartack several times. Stop sewing at the right stitch. Raise needle at its highest position as in step 1.
3. Set stitch selector at and continue sewing until needle reaches beginning of your buttonhole. Stop sewing at the right stitch and then raise needle as in steps 1 and 2.
4. Set stitch selector at again and bartack to complete buttonhole.

To make firm well stitched buttonholes in heavier fabrics, repeat only steps 1 and 3.



Step 1



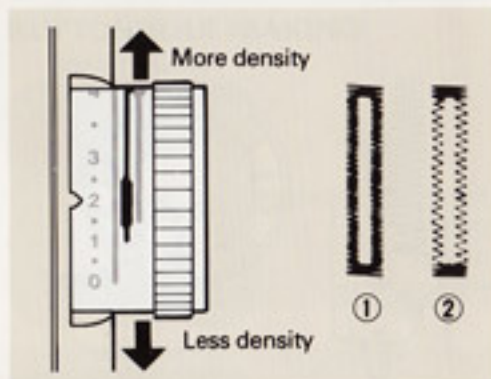
Step 2



Step 3



Step 4



ADJUSTING STITCH LENGTH

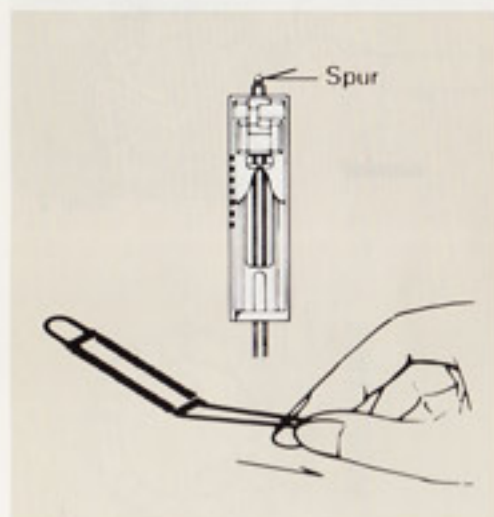
Depending upon the fabrics on which you are sewing, or your own preference in buttonholes, you may alter buttonhole stitch density by varying the original stitch length setting within the green zone.

1. For more density, turn the dial away from you.
2. For less density, turn the dial toward you.

CORDED BUTTONHOLES

Hook filler cord (crotchet thread or buttonhole twist) to the spur, pull both ends of cord forward under the guide. Sew buttonhole in such a way that zigzag stitches cover the cord.

When stitching is completed, release cord from foot, pull ends of cord and snip off extra length.



TIPS ON BUTTONHOLING

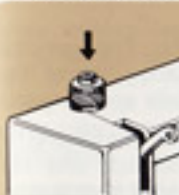
Always make a practice buttonhole on a scrap of fabric you plan to use. Try the buttonhole with the button you will use.

Always use an interfacing in area of garment where buttonholes are placed. Tissue paper or regular interfacing can be used. Tear paper away after stitching, if it is used.

For heavier weight fabrics, loosen your top thread tension slightly.

STRETCH STITCHES

Pressure regulator

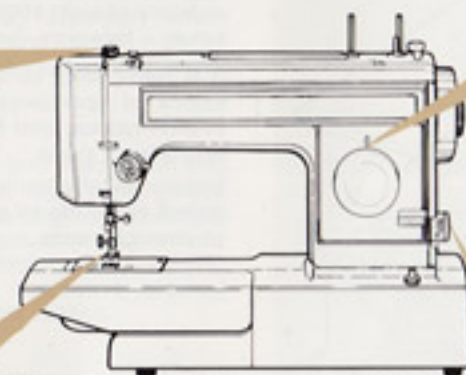


See page 13.

Presser foot



*Zigzag or stretch stitch foot



*When sewing stretch stitches on stretch fabric, use the stretch stitch foot with a gold shank. Fit the stretch stitch needle with a blue shank. When sewing stretch stitches on non-stretch fabrics, use zigzag presser foot and normal needles.

Stitch selector



Stitch length dial

Closer together

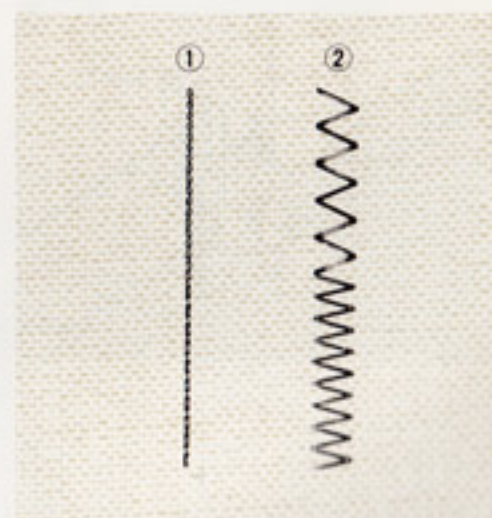


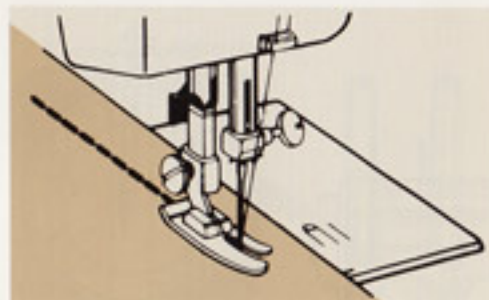
Stretch stitches, as their names imply, are mainly for use on stretch and knit fabrics such as stretch nylon, stretch towelling, jersey and cotton jersey; and for sewing together knitted garments. Stretch stitches are also often used on non-stretch fabrics.

1. Triple straight stitch
2. Ric-rac stitch

ADJUSTING STITCH LENGTH

Depending upon your preference in stitch patterns, you may make stretch stitches closer together without changing the balance of stitches by turning stitch length dial away from you within yellow zone.





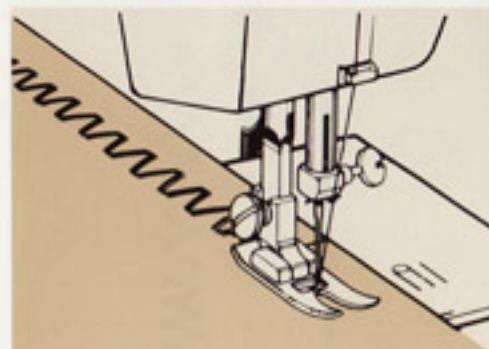
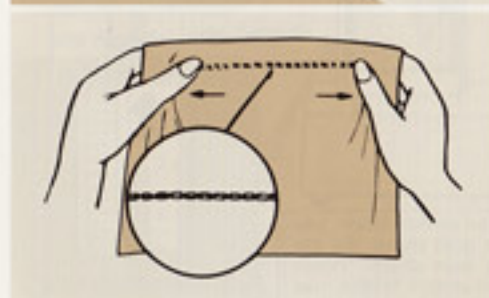
TRIPLE STRAIGHT STITCH

Stitch Selector - III

Triple straight stitch is far stronger than ordinary straight stitch because it locks three times — forwards, backwards and forwards.

It is particularly suitable for reinforcing the seams of sportswear in stretch and non-stretch fabrics, and for curved seams which take a lot of strain.

Use this stitch also to top-stitch round lapels, collars and cuffs to give a professional finish to your garments.



RIC-RAC STITCH

Stitch Selector - I

Ric-rac is a quick method of finishing a raw edge and providing a decorative top-stitch in one operation. It is ideal for edging neckbands, armholes, sleeves and hems.

SEWING LEATHER, SUEDE, PLASTIC AND VELVET

When sewing leather, suede, plastic and velvet, fit the roller foot to aid the smooth flow of fabric. However, especially when sewing softer leather and suede, better results may be achieved by using the normal zigzag foot.

LEATHER/SUEDE

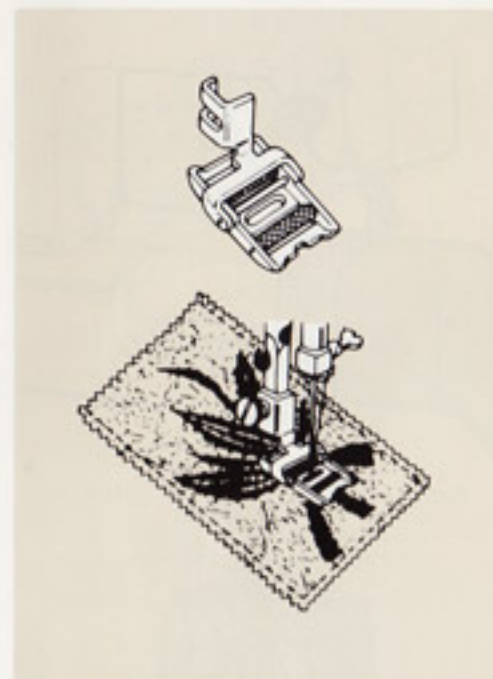
It is easy to sew leather and suede with this machine to make clothes, bags, belts, purses etc, but remember that a longer stitch length is usually required. You can seam, top-stitch, satin stitch, embroider, monogram, appliqué, patchwork, and apply decorative stitches just as you can with other fabrics.

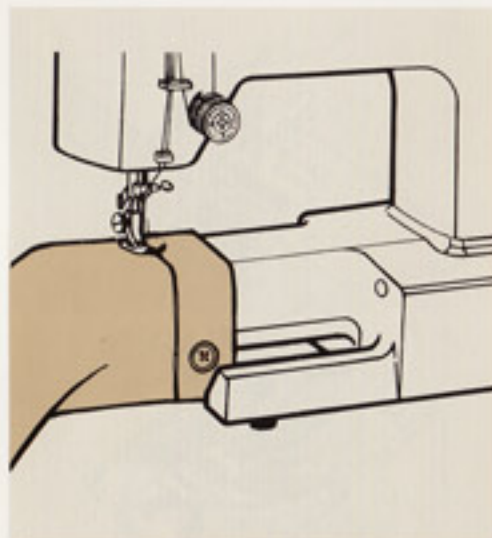
PLASTIC

For good results, use a longer stitch length and use only straight stitch or zigzag.

VELVET

Use the roller foot to prevent presser foot marks appearing on velvet. Otherwise sew as other fabrics.





FREE-ARM SEWING

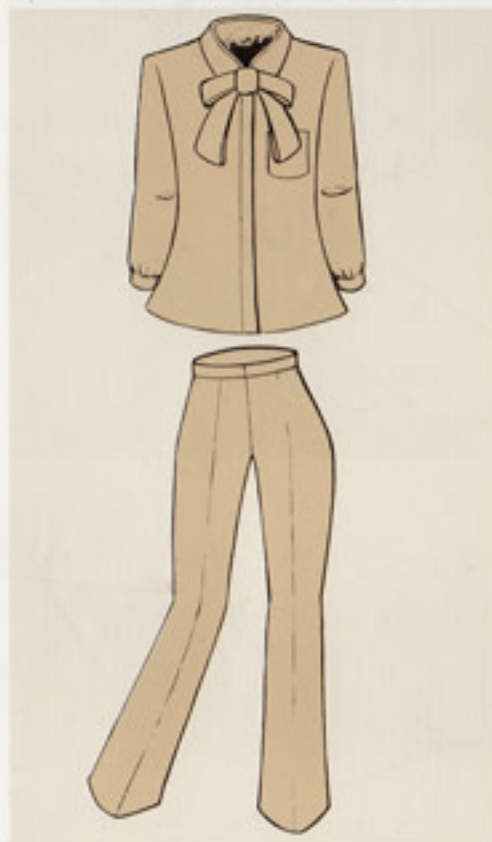
This dual-purpose machine can be used as a flatbed machine and as a freearm machine. To convert to freearm just remove the extension table as detailed on page 5.

The freearm enables you to sew tubular or cylindrical material which can be slipped onto the freearm as shown.

You can sew sleeves, cuffs, trousers, pajama legs, baby clothes, socks, etc.

Other advantages are:

1. Simpler mending at the elbows and knees of clothes.
2. Sewing-in sleeves more easily, particularly on smaller garments.
3. Appliqueing, embroidering or hemming around edges of cuffs or trouser legs.
4. Sewing-in elastic casings at the waistline.



3. CARING FOR THE MACHINE

CLEANING AND OILING

Fig. 1 Cleaning the feed dogs with a brush.

To insure the best possible operation of your machine, it is necessary to keep the essential parts clean at all times. Open shuttle access cover and remove needle plate with large screw driver. Then using a small brush, remove the lint that accumulates in the shuttle area and around the feed dogs.

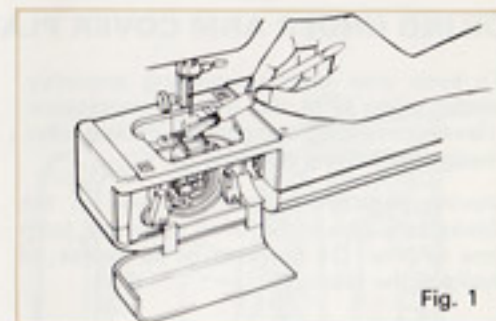


Fig. 1

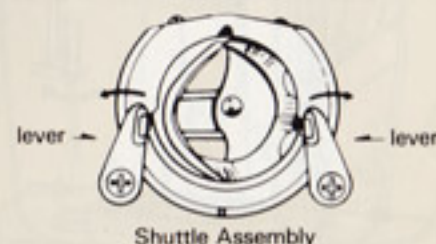
Fig. 2 Parts of the Shuttle Assembly

To Clean the Shuttle Area:

1. This area must be kept free of dust, lint and occasional tangled thread. Raise the needle bar to its highest point and remove the bobbin case.
2. Push levers of shuttle race aside and lift shuttle race cover and shuttle out.
3. Clean the shuttle race with small brush.
4. Put a drop of oil on the center pin of the shuttle and shuttle race (see arrows on two bottom illustrations).

To Replace Shuttle Assembly:

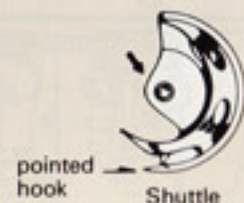
1. Position shuttle race as illustrated so that race is forming half moon on the left side of the machine.
2. Hold shuttle by center pin and position shuttle so as to form a half moon on the right side. Pointed hook will be on the bottom.
3. Place shuttle race cover into place over shuttle assembly.
4. Snap the levers into position.



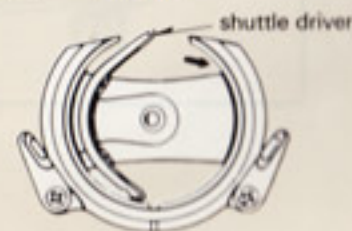
Shuttle Assembly



Shuttle Race Cover



Shuttle



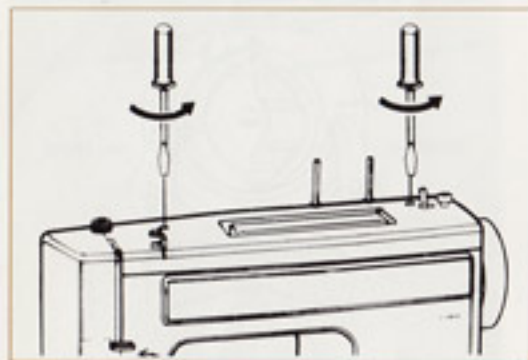
Shuttle Race

Fig. 2

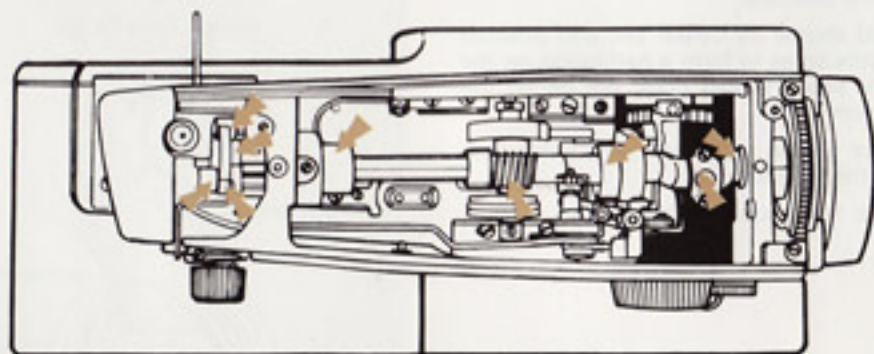
OILING UNDER ARM COVER PLATE

To keep your machine running smoothly, proper oiling is of the utmost importance. It is recommended that you use good quality, recognised sewing machine oil.

Moving parts indicated by arrows in the illustrations should be oiled sparingly from time to time. Do not over-oil as excess oil may soil the fabric.



Remove arm cover plate to oil points indicated by arrows in top of machine head. Use one to two drops of sewing machine oil at each part. To remove cover plate, loosen up two top screws and lift the cover plate as illustrated below.



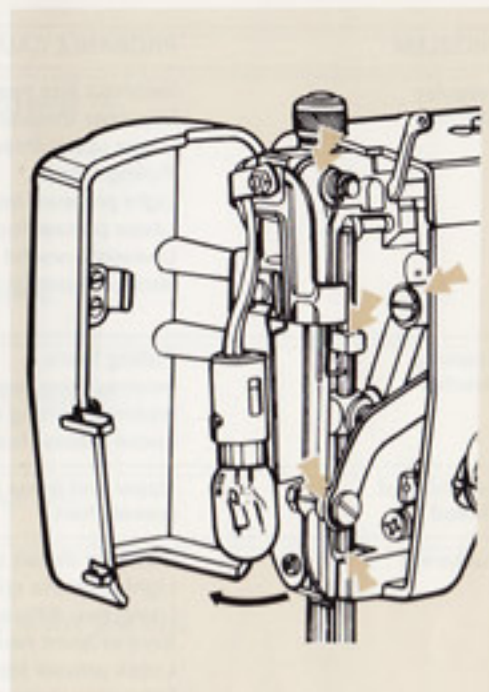
OILING IN FACE COVER PLATE

Swing hinged face cover plate open to oil points indicated at the end of machine head.

CHANGING LIGHT BULB

Push up on the bulb slightly and turn bulb to the left. Withdraw bulb from socket. Push in new bulb and turn to the right.

Disconnect from mains supply before changing a bulb. Do not use a bulb of more than 15 watts.



4. PROBLEM SOLVING

PROBLEM	PROBABLE CAUSE
Irregular Stitches	<p>Incorrect size needle.</p> <p>Improper threading.</p> <p>Loose upper thread tension.</p> <p>Pulling fabric.</p> <p>Light pressure on presser foot.</p> <p>Loose presser foot.</p> <p>Unevenly wound bobbin.</p> <p>Nicks or burrs at hole of needle plate.</p>
Breaking Needles	<p>Pulling fabric.</p> <p>Incorrect size needle.</p> <p>Incorrect setting of needle.</p> <p>Loose presser foot.</p>
Bunching of Thread	<p>Upper and lower threads not drawn back under presser foot.</p>
Puckering	<p>Incorrect thread tension(s).</p> <p>Light pressure on presser foot.</p> <p>Using two different sizes of or kinds of thread.</p> <p>Bent or blunt needle.</p> <p>Loose presser foot.</p> <p>Fabric too sheer or soft.</p>
Skipping Stitches	<p>Incorrect size needle.</p> <p>Bent or blunt needle.</p> <p>Incorrect setting of needle.</p> <p>Tight upper thread tension.</p> <p>Light pressure on presser foot.</p>
Breaking Upper Thread	<p>Starting to stitch too fast.</p> <p>Improper threading.</p> <p>Tight upper thread tension.</p> <p>Incorrect size needle.</p> <p>Sharp eye in needle.</p> <p>Nicks or burrs at hole of needle plate.</p>
Breaking Bobbin Thread	<p>Improper bobbin case threading.</p> <p>Lint in bobbin case or shuttle.</p>
Fabric not Moving	<p>Light pressure on presser foot.</p> <p>Threads knotted under fabric.</p>
Machine Jamming (Knocking Noise)	<p>Thread caught in shuttle.</p>

CORRECTION

Choose correct size needle for thread and fabric (page 15).
 Rethread machine (page 9).
 Tighten upper thread tension (page 11).
 Do not pull fabric; guide it gently.
 Increase pressure on presser foot (page 13).
 Reset presser foot (page 16).
 Rewind bobbin (page 6).
 Replace needle plate, or polish off burrs completely.

Do not pull fabric; guide it gently.
 Choose correct size needle for thread and fabric (page 15).
 Reset needle (page 15).
 Reset presser foot (page 16).

Draw both threads back under presser foot (page 10).

Reset thread tension(s) (page 11).
 Increase pressure on presser foot (page 13).
 Upper thread and bobbin thread should be same size and kind.
 Insert new needle (page 15).
 Reset presser foot (page 16).
 Use underlay of tissue paper when stitching.

Choose correct size needle for thread and fabric (page 15).
 Insert new needle (page 15).
 Reset needle (page 15).
 Loosen upper thread tension (page 11).
 Increase pressure on presser foot (page 13).

Start to stitch at a medium speed.
 Rethread machine (page 9).
 Loosen upper thread tension (page 11).
 Choose correct size needle for thread and fabric (page 15).
 Insert new needle (page 15).
 Replace needle plate, or polish off burrs completely.

Check bobbin case threading (page 8).
 Clean bobbin case and shuttle (page 33).

Increase pressure on presser foot (page 13).
 Place both threads back under presser foot before beginning to stitch (page 10).

Remove bobbin case and clean shuttle (page 33).

WARRANTY

FULL 25 YEAR WARRANTY ON SEWING MACHINE HEAD

We will repair without charge defects in material or workmanship which appear in the sewing machine head within 25 years from the date of purchase of the machine from us.

FULL TWO YEAR WARRANTY ON ELECTRICAL EQUIPMENT OF SEWING MACHINE

We will repair without charge defects in material or workmanship which appear in the electrical equipment of the sewing machine, including motor, wiring, switch and speed control within two years from the date of purchase of the machine from us.

FULL 90-DAY WARRANTY ON ALL PARTS AND MECHANICAL ADJUSTMENTS

We will without charge replace any parts and provide mechanical service (except for normal maintenance) necessary for proper operation of the sewing machine for a period of 90 days from the date of purchase of the machine from us.

To obtain warranty service described above, simply return the machine to any JO-ANN FABRICS, HOUSE OF FINE FABRICS, or SHOWCASE OF FINE FABRICS store in the United States. This warranty does not apply if the machine is used outside the United States, and does not cover failure caused by abuse or lack of maintenance. The sewing machine is warranted only in normal household (non-commercial) use.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

**Fabri-Centers of America, Inc.
23550 Commerce Park Road
Cleveland, Ohio 44122**