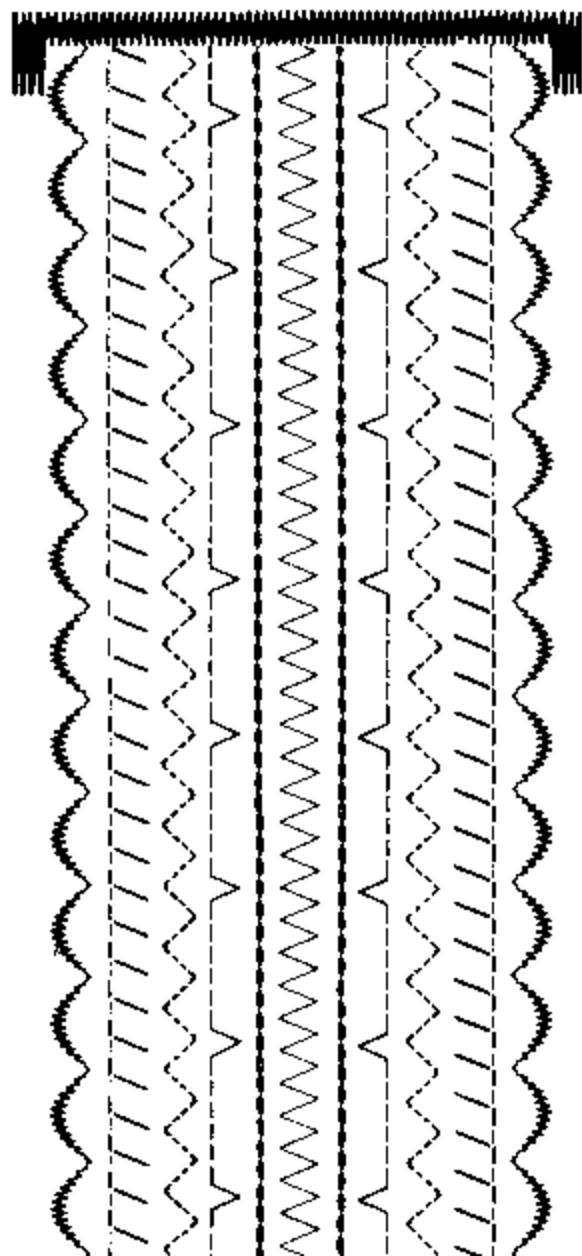


SINGER*

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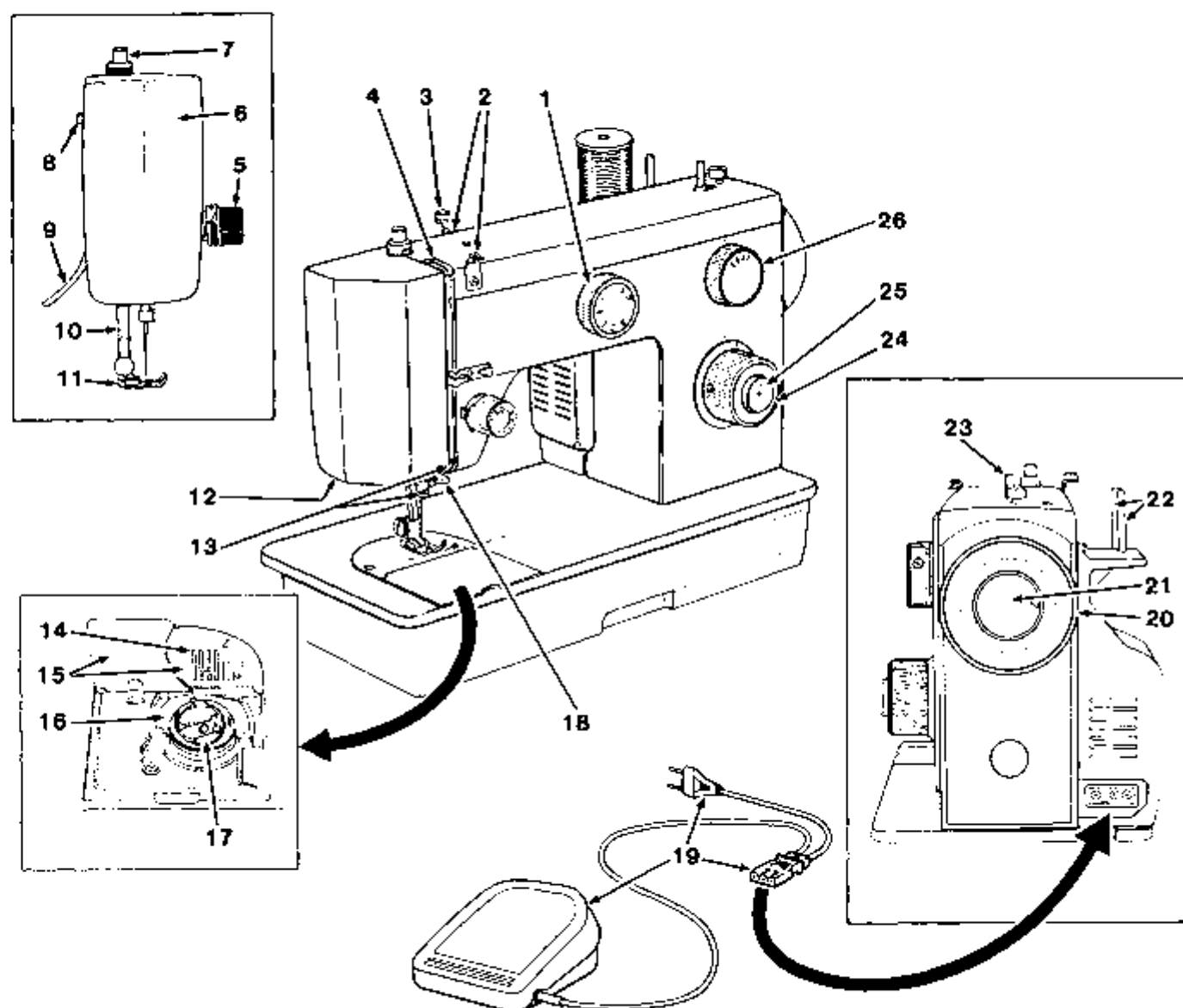


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Chapter 1. Getting to Know Your Machine



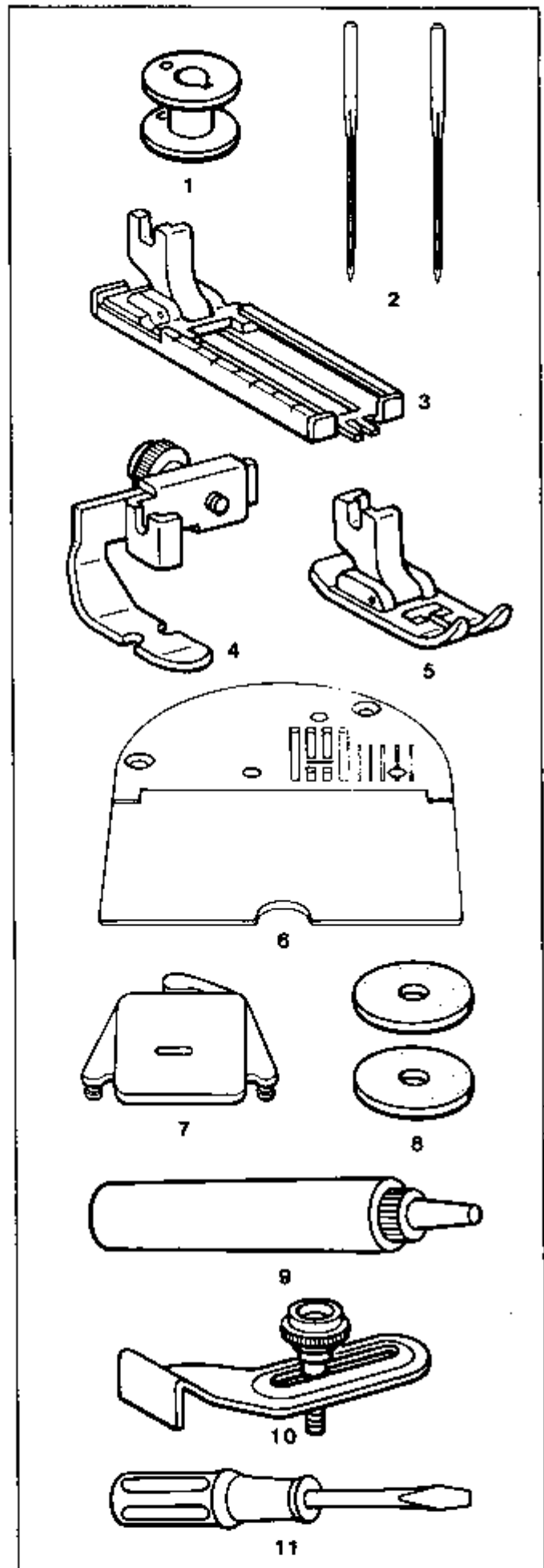
principal parts

- | | | |
|-------------------------------|--|---|
| 1. Pattern Selector | 10. Thread Cutter | 18. Needle Clamp |
| 2. Thread Guides | 11. General Purpose Presser Foot | 19. Electrical Connections & Speed Controller |
| 3. Bobbin Winder Tension | 12. Sewing Light | 20. Hand Wheel |
| 4. Take-up Lever | 13. Thread Guides | 21. Hand Wheel Knob |
| 5. Needle-Thread Tension Dial | 14. Feed | 22. Spool Pins |
| 6. Face Plate | 15. General Purpose Needle Plate & Cover Plate | 23. Bobbin Winder Spindle |
| 7. Pressure Regulator | 16. Bobbin Case Holder | 24. Stitch Length Selector |
| 8. Sewing Light Switch | 17. Bobbin Case | 25. Reverse Stitch Push Button |
| 9. Presser Foot Lifter | | 26. Stitch Width Selector |

accessories

The accessories that come with your sewing machine are designed to help you do many kinds of sewing easily.

1. **Transparent Bobbins** (No. 541090)
2. **Needles**
 - Style 2020 is used for general sewing.
 - Style 2045 is used for sewing knits, stretch fabrics and elastic.
3. **Buttonhole Foot** is used to make bar tack buttonholes in four steps.
4. **Zipper Foot** for inserting zippers and stitching corded seams.
5. **General Purpose Foot**, on your machine when delivered, is used for all utility and decorative sewing.
6. **General Purpose Needle Plate**, on your machine when delivered, is used with all presser feet.
7. **Snap-in Feed Cover** for darning.
8. **Felt (2)** to help thread unwind smoothly.
9. **Tube of Oil** for oiling the machine.
10. **Seam Guide** to help you keep seam allowances even.
11. **Screwdriver** for adjusting bobbin-thread tension.

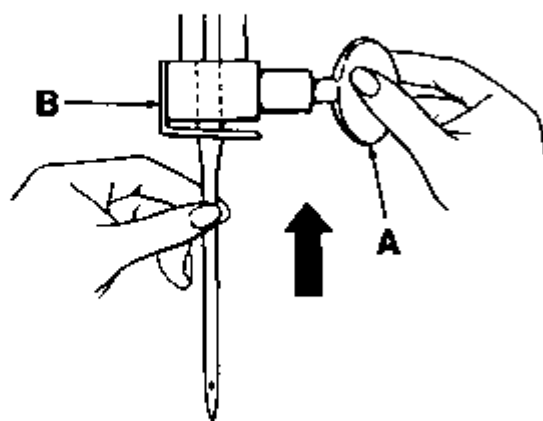


Chapter 2. Getting Ready to Sew

choosing and changing accessories

CHANGING THE NEEDLE

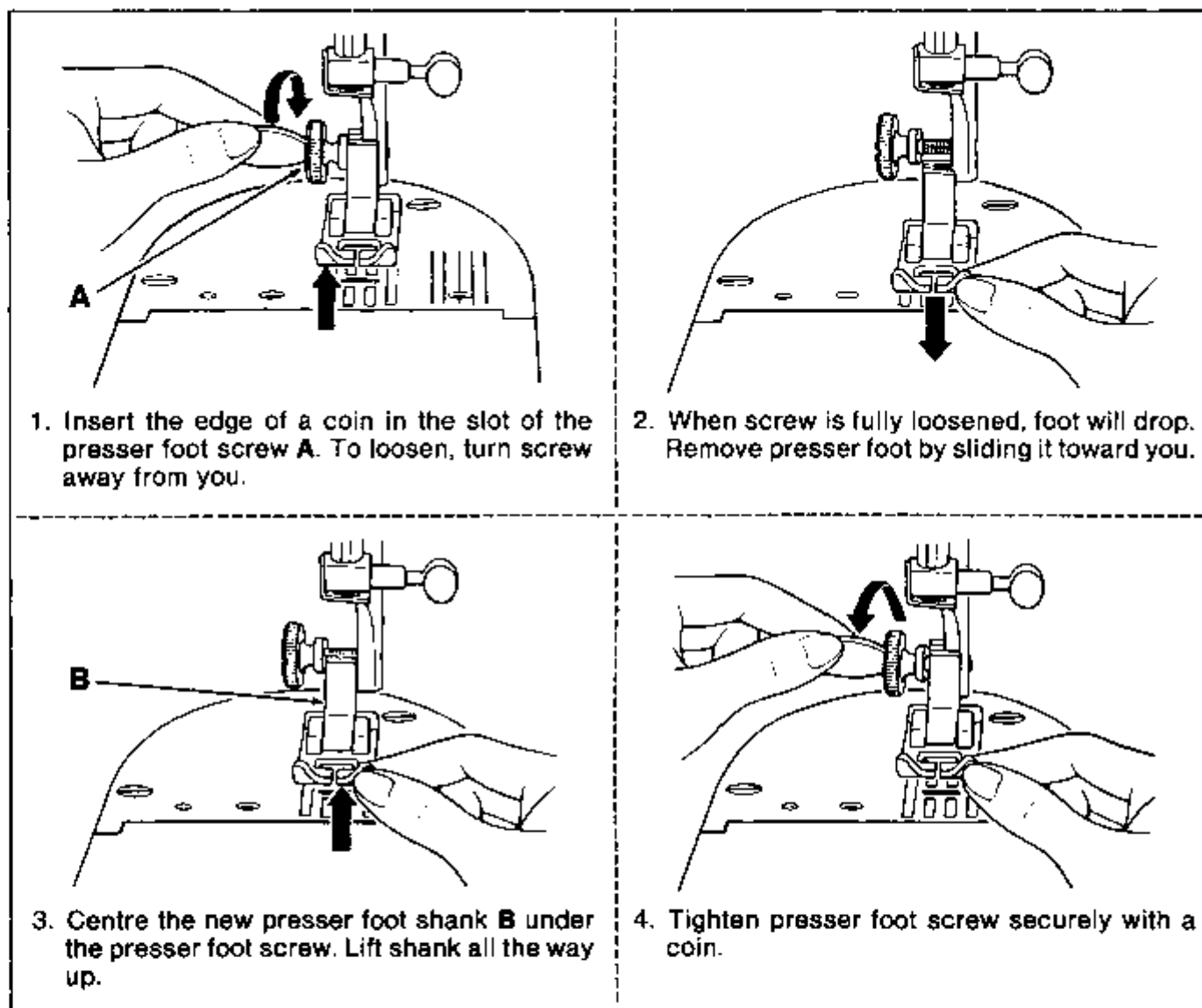
- Raise needle to its highest point by turning the hand wheel *toward you*. Loosen needle clamp screw **A** and remove the needle.
- Insert new needle up into clamp **B** as far as it will go, with the flat side of the needle to the back.
- Tighten needle clamp screw.



CHANGING PRESSER FEET

The general purpose foot is on your machine when delivered. To change to another foot, raise needle to highest position by turning the hand wheel *toward you*. Raise presser foot.

To Remove and Replace Foot



1. Insert the edge of a coin in the slot of the presser foot screw **A**. To loosen, turn screw away from you.

2. When screw is fully loosened, foot will drop. Remove presser foot by sliding it toward you.

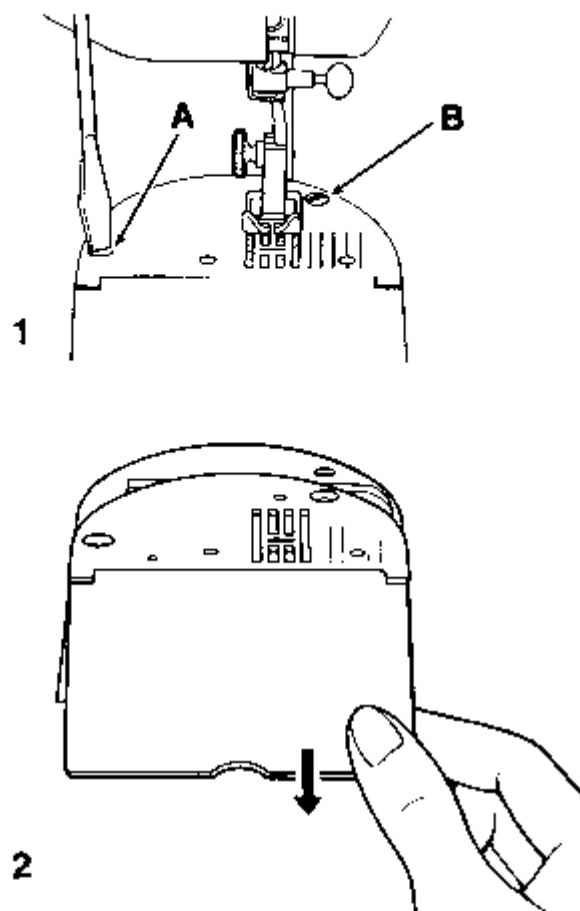
3. Centre the new presser foot shank **B** under the presser foot screw. Lift shank all the way up.

4. Tighten presser foot screw securely with a coin.

REMOVING AND REPLACING NEEDLE PLATE AND COVER PLATE

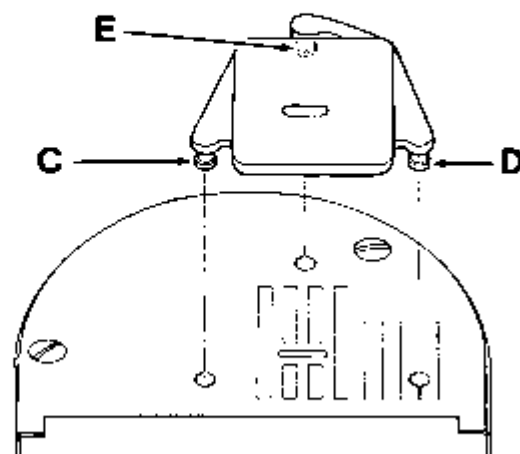
- Raise needle to highest position and raise presser foot.
1. Remove screws **A** and **B** using a large screwdriver.
 2. Remove the needle plate and cover plate by simply guiding it toward you.

To replace needle plate and cover plate, guide needle plate into position under the presser foot. Replace screws **A** and **B** using a large screwdriver and tighten securely.



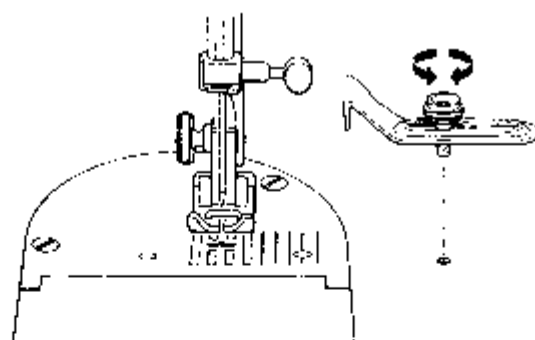
ATTACHING SNAP-IN FEED COVER

- Raise needle to highest position by turning handwheel *toward you*.
 - Raise presser foot.
- Slide snap-in feed cover away from you over needle plate until points **C** and **D** are positioned directly over holes in needle plate as illustrated. Snap in point **C**. Then push point **D** toward point **C** until it snaps into place. Push down on point **E** until it also snaps into place.
- To remove, lift up edges of feed cover.



ATTACHING THE SEAM GUIDE

Place screw in either hole to the right of the needle plate; line up straight edge of guide with the needle plate guideline for desired seam width, and tighten screw.



FABRIC WEIGHT TABLE

There are many types of fabric around the world, each manufactured with a specific fibre and weight. The fabrics below have been classified according to weight to give a small sample of what is available for purchase.

FIBRE AND CONSTRUCTION	FILMY	SHEER	LIGHT
SILK (Woven) (Knit)	Chiffon, Organza, Tulle	Net, Lace, Ninon	Velvet, Crepe de Chine, Shantung, Faille Jersey
RAYON (Woven) (Knit)	Tulle	Net, Lace	Velvet, Taffeta, Satin Ciré
COTTON (Woven) (Knit)	Voile, Tulle	Net, Lace	Challis, Organdy, Muslin, Batiste, Dimity, Lawn, Percale, Eyelet, Gingham, Piqué, Poplin Jersey
WOOL (Woven) (Knit)			Cashmere, Flannel, Mohair, Felt, Crepe Jersey
SYNTHETIC (Woven) (Knit)	Chiffon, Organza, Tulle	Net, Lace, Ninon, Crepe de Chine	Crepe, Velvet, Taffeta, Satin Raschel, Single Knit, Sweater Knit, Bonded Knit, Tricot, Ciré
SYNTHETIC BLENDS (Woven) (Knit)		Voile	Broadcloth, Batiste, Eyelet, Gingham, Poplin Single Knit
LEATHER			Kidskin, Patent, Chamois, Imitation- Leathers & Suedes, Leather, Suede
PLASTIC		Plastic Film	Plastic Film
VINYLS			

Refer to this table to determine the weight and type of fabric you will be using in order to select the correct needle and thread combination.

For correct needle and thread combination for your fabric, refer to the Fabric, Thread and Needle Table on the following pages.

MEDIUM	HEAVY	VERY HEAVY
Velvet, Crepe de Chine, Shantung, Suiting, Brocade		
Velvet, Taffeta, Satin, Crepe	Brocade, Taffeta, Satin, Crepe	
Velveteen, Corduroy, Velvet, Fleece, Velour, Terry, Chintz Stretch Velours Δ , Stretch Terry Δ Δ Usually contain some synthetic fibres also.	Corduroy, Denim, Ticking, Canvas, Linen, Drapery Fabric, Burlap	Denim, Duck, Canvas, Sailcloth, Upholstery Fabric
Suiting, Flannel, Gabardine, Felt, Serge, Mohair Jersey	Suiting, Tweed, Duffle	Coating, Blanketing
Velvet, Crepe, Taffeta, Satin Jacquard, Double Knit, Sweater Knit, Bonded Knit, Tricot, Spandex, Stretch Terry, Stretch Velour, Deep Pile, Fake Furs	Gabardine Double Knit, Helanca, Fake Furs	
Linen Type, Poplin, Corduroy, Gabardine Terry Knit	Denim, Gabardine, Drapery Fabric Double Knit	
Patent, Imitation-Leathers & Suedes, Leather, Suede, Reptile	Buckskin, Calfskin, Suede, Reptile	Upholstery Leather
Bonded Vinyl (Knit Back), Patent, Embossed, Printed	Upholstery Vinyl	Upholstery Vinyl

FABRIC, THREAD AND NEEDLE TABLE

Choosing the correct needle and thread for your fabric is of utmost importance. Correct choice will make the difference in the wear and appearance of your new garment. The Fabric Weight Table on the previous page, and the Fabric, Thread and Needle Table below are practical guides to needle and thread selection. Refer to them before starting a sewing project. Be sure to use the same size and type of thread in both needle and bobbin.

To select the correct needle and thread for your fabric, first refer to the Fabric Weight Table to determine the weight and type of material you are using.

Next, refer to the Fabric, Thread and Needle Table.

TYPE OF FABRIC	FILMY		SHEER		LIGHT	
	THREADS	NEEDLES	THREADS	NEEDLES	THREADS	NEEDLES
SILK	Fine Silk Fine Mercerized	2020-9	Fine Silk Fine Mercerized	2020-9	Fine Silk Fine Mercerized	2020-11 Woven ----- 2045-11 Knit
RAYON	Fine Silk Fine Mercerized	2020-9	Fine Silk Fine Mercerized	2020-9	Fine Silk Fine Mercerized	2020-11 Woven ----- 2045-11 Knit
COTTON	Fine Cotton Fine Mercerized	2020-9	Fine Cotton Fine Mercerized	2020-9	Medium Cotton Med. Mercerized	2020-11 Woven ----- 2045-11 Knit
WOOL					Fine Silk Fine Mercerized	2020-11 Woven ----- 2045-11 Knit
SYNTHETIC	Fine Synthetic	2020-9	Fine Synthetic	2020-9	Fine Synthetic	2020-11 Woven ----- 2045-11 Knit
SYNTHETIC BLENDS			Fine Synthetic	2020-9	Fine Synthetic	2020-11 Woven ----- 2045-11 Knit
LEATHER					Med. Mercerized Med. Synthetic	2032-11
PLASTIC			Fine Mercerized Fine Synthetic	2020-9	Fine Mercerized Fine Synthetic	2020-11
VINYLS						

Find the fabric you are using in Type of Fabric column at left (silk, rayon, etc.). Then locate the fabric weight column (filmy, sheer, etc.) for your fabric at top of table. Read across from Type of Fabric column to correct weight of fabric column. There, the correct thread and needle choice for your fabric will be found.

Example: If you are sewing a medium weight wool, find wool in Type of Fabric column. Read across to Medium (weight) column and you will see that a medium silk or mercerized thread and a size 2020-14 needle for woven fabric or size 2045-14 needle for knit fabric are to be used.

You should follow the recommendations in this instruction book and on the needle package for correct style and size of needle for different types and weights of fabric.

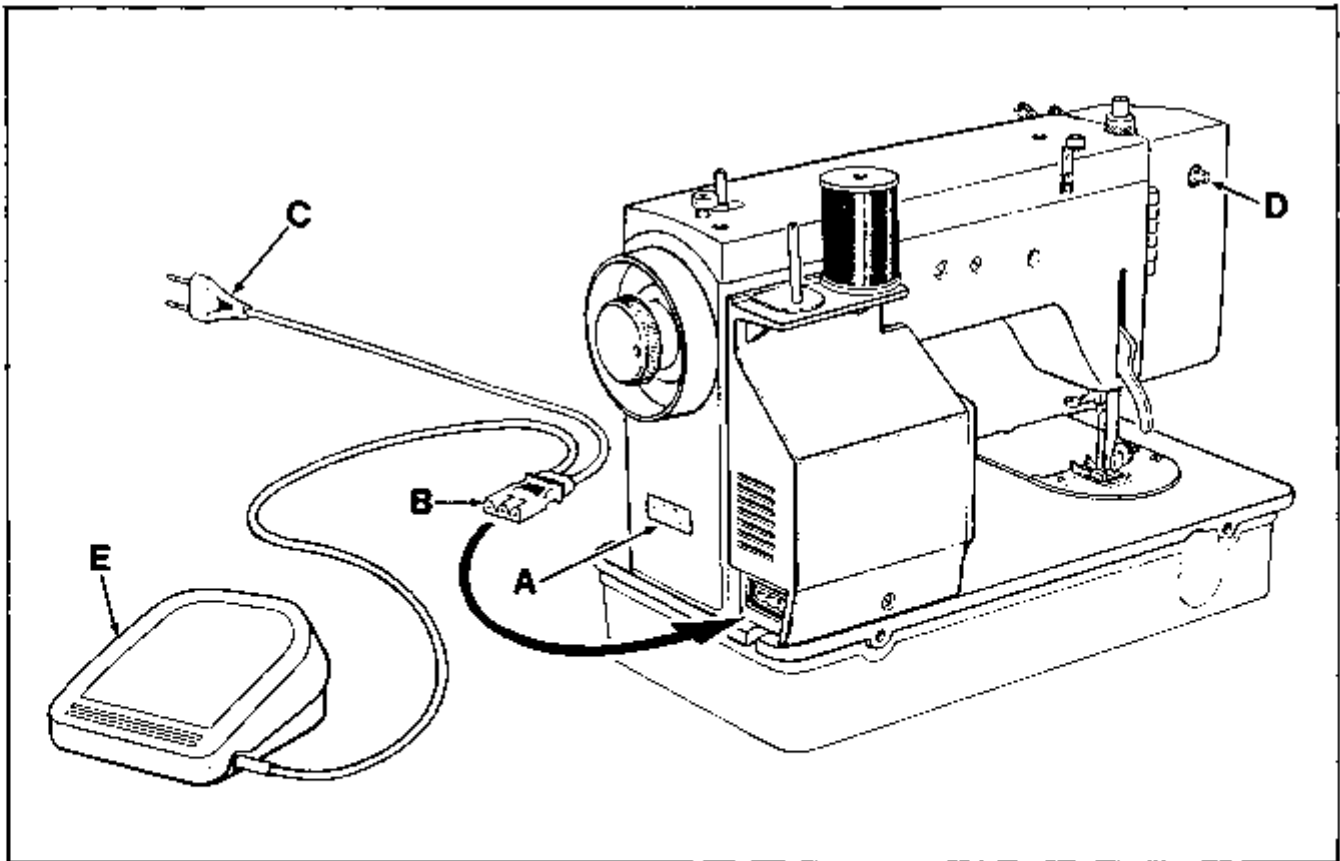
MEDIUM		HEAVY		VERY HEAVY	
THREADS	NEEDLES	THREADS	NEEDLES	THREADS	NEEDLES
Medium Silk Medium Mercerized	2020-11				
Medium Synthetic Medium Mercerized	2020-11	Heavy Synthetic Heavy Mercerized	2020-14		
Medium Cotton Medium Mercerized	2020-14 Woven ----- 2045-14 Knit	Heavy Cotton Heavy Mercerized	2020-16	Heavy Cotton Heavy Mercerized	2020-18
Medium Silk Medium Mercerized	2020-14 Woven ----- 2045-14 Knit	Heavy Mercerized	2020-16	Heavy Mercerized	2020-16
Medium Synthetic	2020-14 Woven ----- 2045-14 Knit	Heavy Synthetic	2020-16 Woven ----- 2045-16 Knit		
Medium Synthetic	2020-14 Woven ----- 2045-14 Knit	Heavy Synthetic	2020-16 Woven ----- 2045-16 Knit		
Medium Mercerized Medium Synthetic	2032-14	Heavy Mercerized Heavy Synthetic	2032-16	Heavy Mercerized Heavy Synthetic	2032-18
Medium Mercerized Medium Synthetic	2020-11	Medium Mercerized Medium Synthetic	2020-14	Heavy Mercerized Heavy Synthetic	2020-16

operating the machine

CONNECTING THE MACHINE

- Before plugging in your machine, be sure the electrical information on the side of the machine **A**, below the hand wheel, agrees with the range marked on your electrical meter.
- To run the machine and control speed, press the speed controller **E** with your foot. The harder you press, the faster the machine will sew.
- To turn on the machine, connect plug **B** to machine and plug **C** to your socket outlet.
- To turn on the sewing light, press or turn switch **D** as required. See illustration.

CAUTION: Disconnect the power line plug from the socket outlet when changing needles, feet or needle plates or when leaving the machine unattended. This eliminates the possibility of starting the machine by accidentally pressing the speed controller.



IMPORTANT - Machines for Great Britain and some other countries having similar wiring standards are shipped from the factory without a plug for connection to the mains.

The wires in this mains lead are coloured in accordance with the following code:

Blue: Neutral (N)

Brown: Live (L)

As the colours of the wires in the mains lead of this appliance may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

The wire which is coloured blue must be connected to the terminal which is marked with the letter **N** or coloured black.

The wire which is coloured brown must be connected to the terminal which is marked with the letter **L** or coloured red.

If a 13 amp (BS 1363) plug is used a 3 amp fuse must be fitted, or if any other type of plug is used a 5 amp fuse must be fitted either in the plug or adaptor or at the distribution board.

the bobbin thread

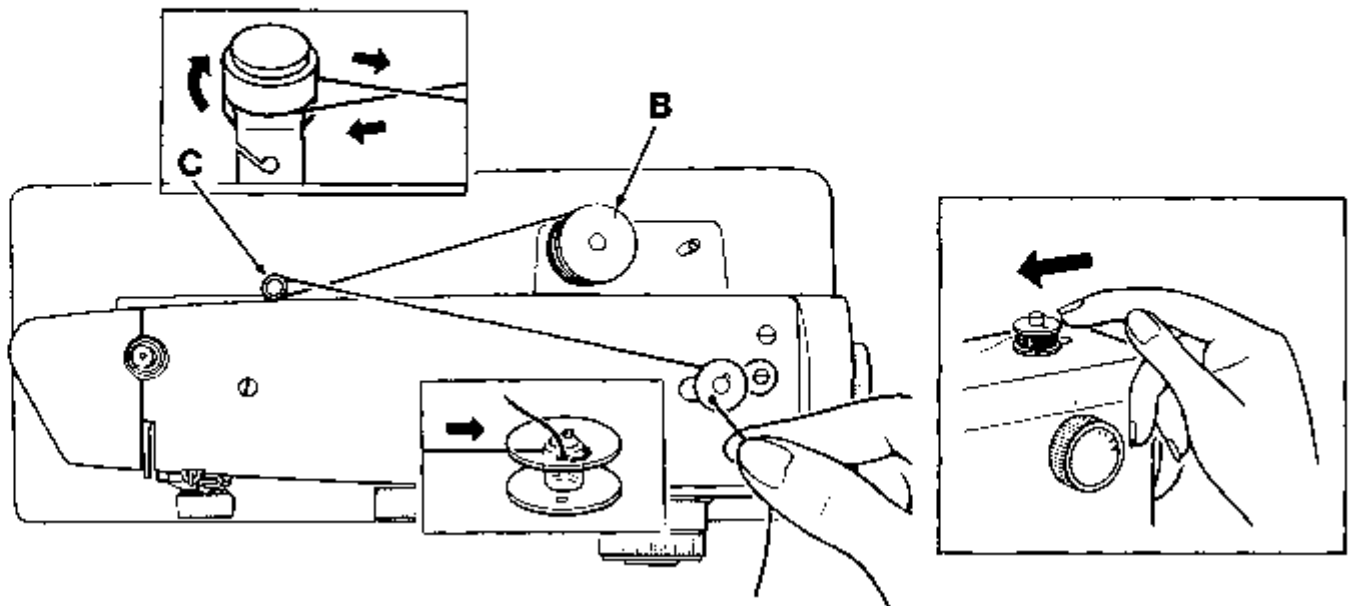
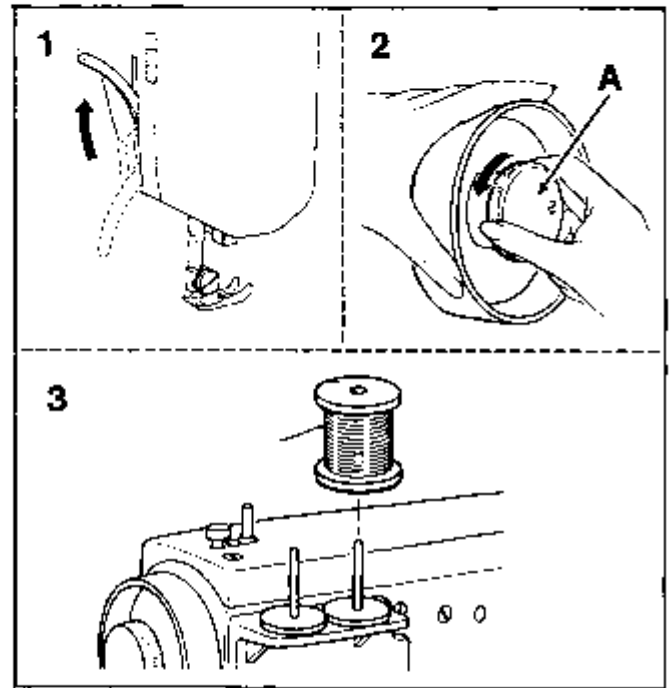
Your sewing machine uses two threads to form a stitch. The upper thread comes from the spool and is threaded through the eye of the needle. The lower thread comes from the bobbin. Wind the bobbin before threading the machine.

WINDING THE BOBBIN

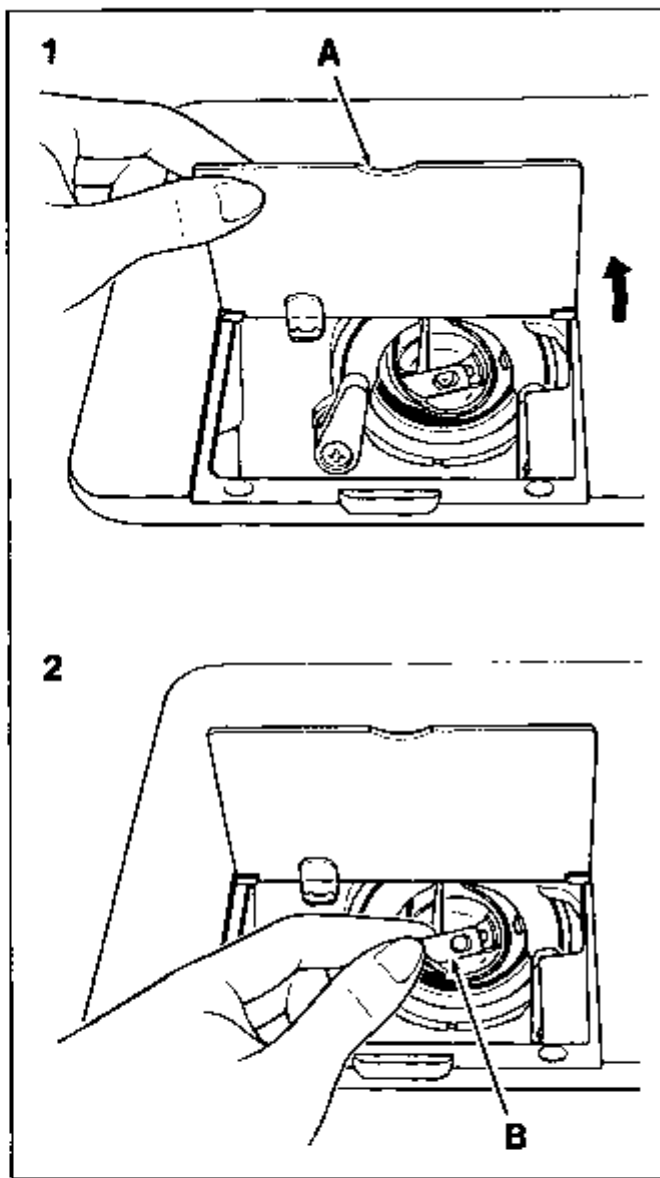
Preparation Steps

1. Raise the presser foot and turn hand wheel *toward you* until needle is in highest position.
2. Loosen hand wheel knob **A** by turning it *toward you* with the right hand while holding hand wheel with the left hand.
3. Place spool pin felts on pins.

Winding Steps



- Place thread spool on left spool pin with thread retaining slit **B** on top. (Break paper at the end of spool if necessary).
- Lead thread around bobbin winder tension disc **C**, as illustrated, and through small hole in bobbin from inside out.
- Snap bobbin onto spindle and push bobbin to right to engage bobbin winder.
- Hold thread end, as shown, and start the machine. Cut off thread end after a few coils have been wound.
- When required amount of thread has been wound (winding will stop when bobbin is full), stop the machine and cut connecting thread.
- Push bobbin to left and remove bobbin from spindle.
- Hold hand wheel and tighten hand wheel knob.



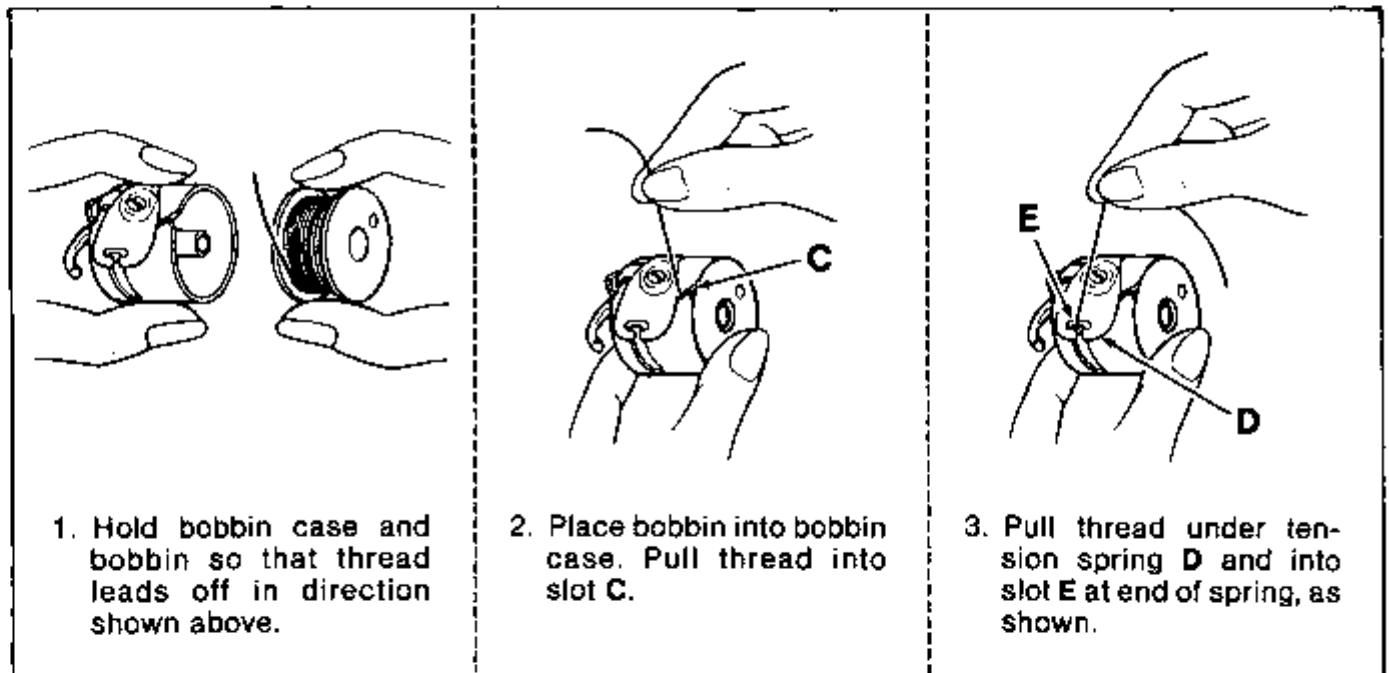
REMOVING THE BOBBIN CASE

When you prepare to sew, wind the bobbin first, then thread the machine.

To Remove the Bobbin Case and Bobbin —

- Turn hand wheel *toward you* to raise take-up lever to its highest position.
- 1. Lift up cover plate **A**.
- 2. Grasp bobbin case latch **B** and withdraw bobbin case.
- Release latch and bobbin will drop out of case.

THREADING THE BOBBIN CASE



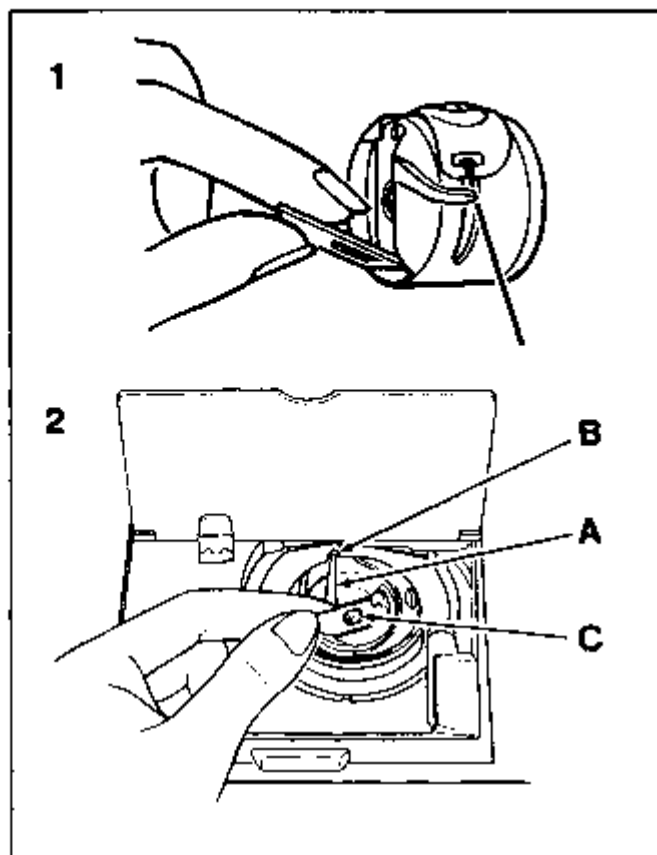
1. Hold bobbin case and bobbin so that thread leads off in direction shown above.

2. Place bobbin into bobbin case. Pull thread into slot **C**.

3. Pull thread under tension spring **D** and into slot **E** at end of spring, as shown.

REPLACING THE BOBBIN CASE

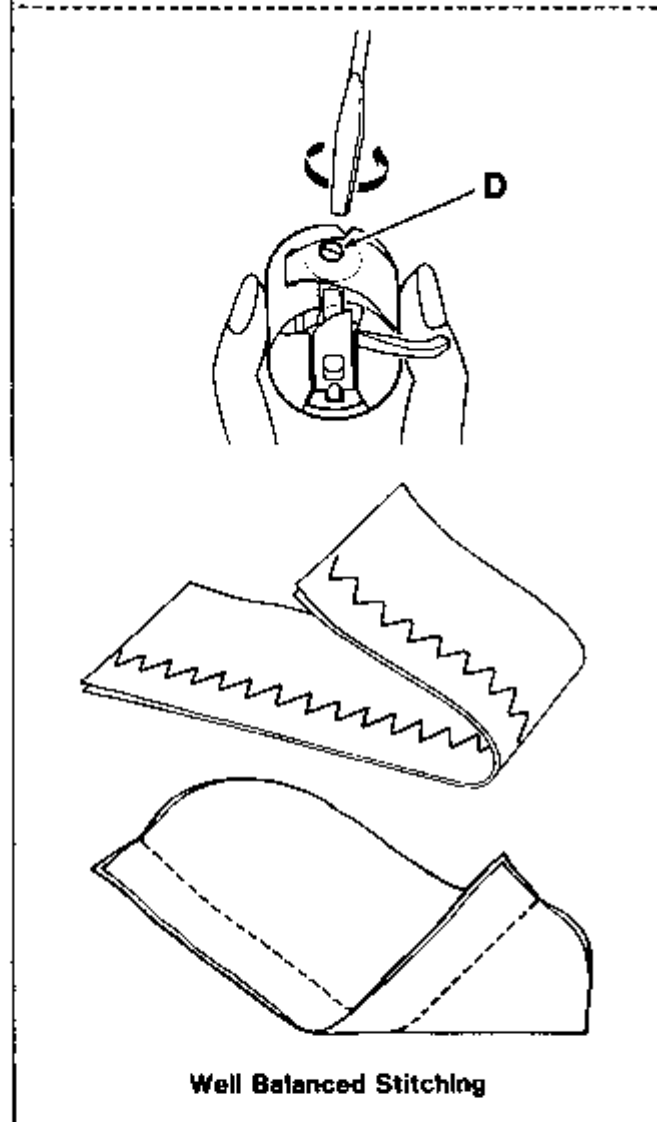
1. Hold bobbin case by latch, with about 7.5cm (3 inches) of thread leading off top of case.
2. Align protruding finger **A** with slot **B** and slide case on to stud **C**.
 - Release the latch and push case until it clicks into place. Allow 7.5cm (3 inches) of thread to hang free from bobbin case.
 - Close cover plate. Be sure thread does not get caught when cover plate is closed.



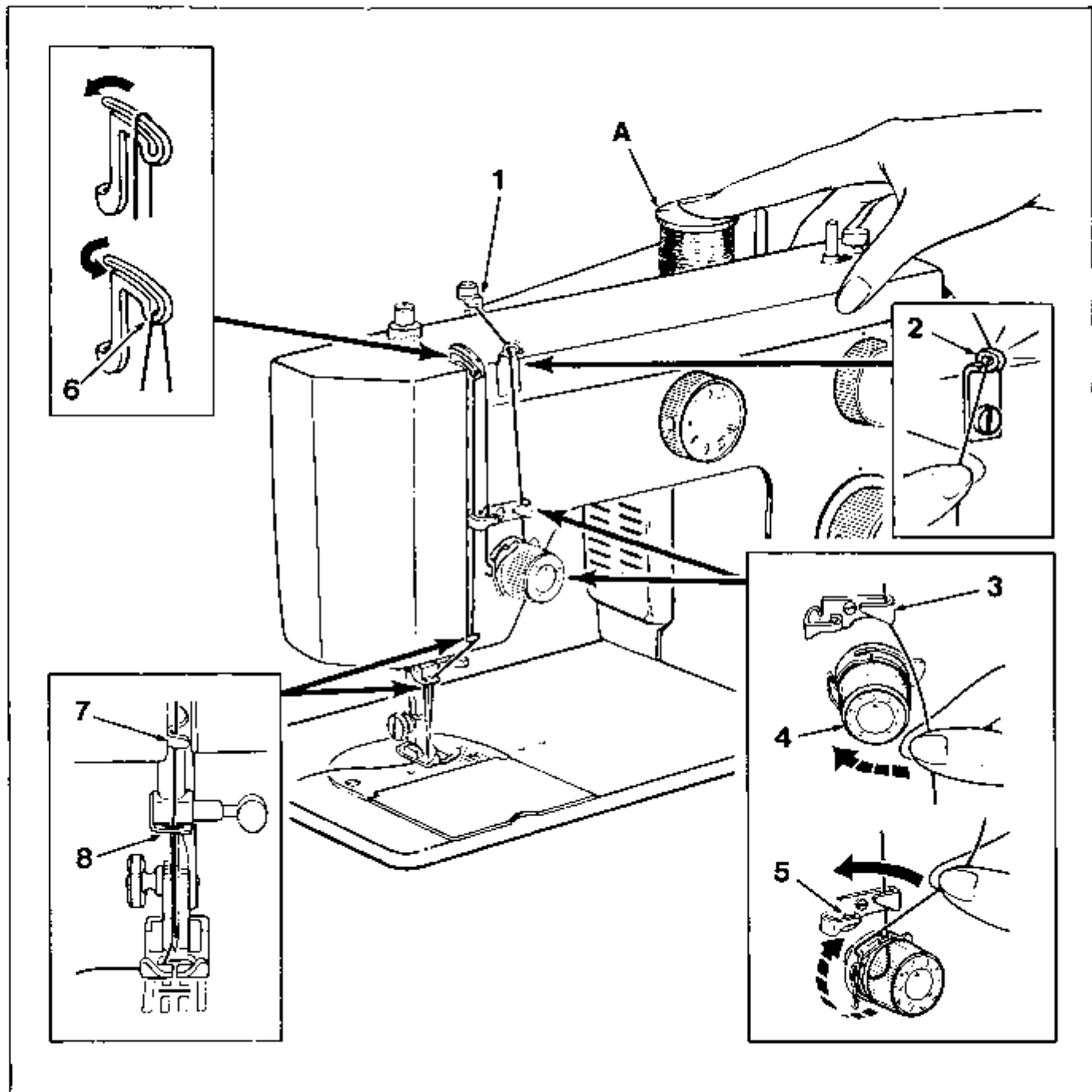
ADJUSTING BOBBIN-THREAD TENSION

The bobbin-thread tension has been set at the factory for most types of stitching. You may wish to adjust the bobbin-thread tension when straight stitching on fine fabrics or to balance an open zig-zag stitch. Bobbin and needle threads lock at the corner of each stitch when a zig-zag stitch is balanced. To adjust the bobbin-thread tension, follow the procedure below using two layers of scrap fabric.

- Raise the presser foot.
- Raise needle to highest position by turning the hand wheel toward you.
- Open cover plate and remove the bobbin case as instructed on page 12.
- Slowly turn screw **D** to the left, using the small screwdriver in your accessory box, until desired stitch appearance is reached.
- When stitching is completed, turn screw **D** to the right, back to original position, for all other sewing.



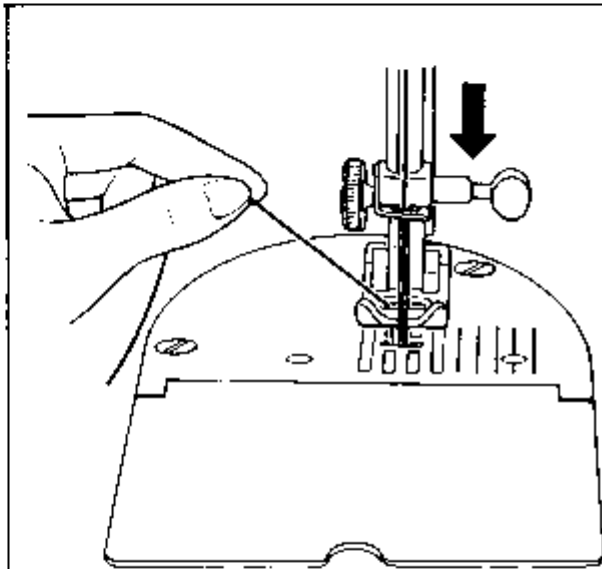
threading the machine



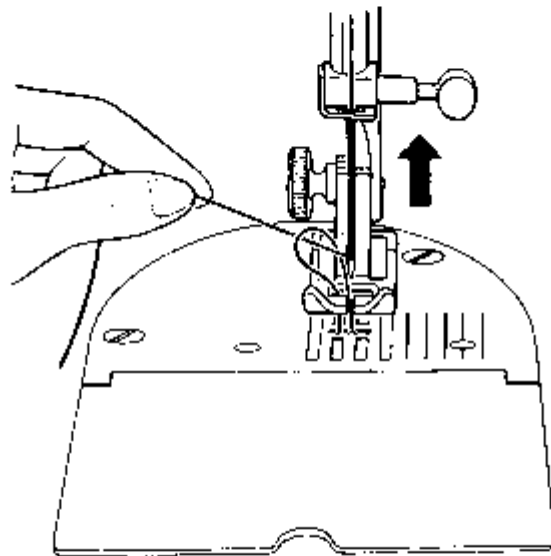
- Raise the presser foot to release tension discs and make sure needle is in highest position.
- Place spool pin felts from accessories over spool pins. Then place spool of thread on left spool pin over felt, keeping spool thread retaining slit A on top.
- Keep right hand on spool of thread to hold firmly in place while threading machine.
- Place thread through thread guide 1, as shown.
- Snap thread into thread guide 2.
- Pass thread through point 3.
- Thread the needle-thread tension 4. Slide thread over metal plate into tension discs. Lead thread under needle-thread tension and tension wire by firmly pulling thread up and over to the right.
- Pull thread to left behind point 5, guiding thread up toward take-up lever.
- Thread take-up lever 6, as illustrated. Then pass thread back down through point 5.
- Continue to guide thread through points 7 and 8, as shown.
- Thread needle from front to back and draw about 10cm (4 inches) of thread through eye of needle.

RAISING THE BOBBIN THREAD

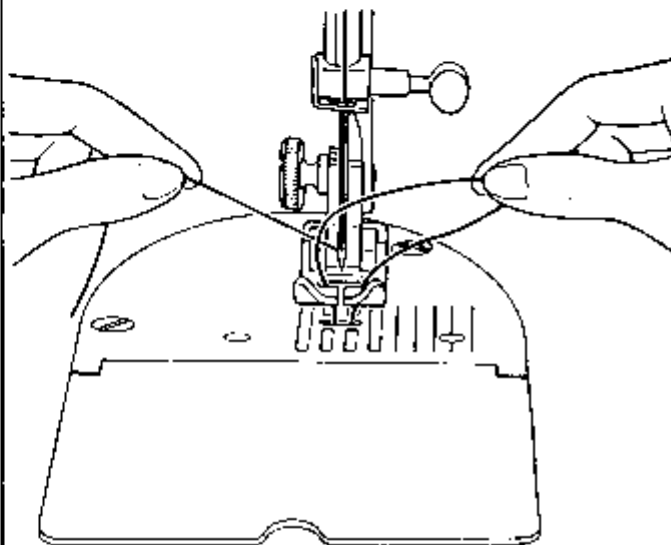
Now that you have wound the bobbin and threaded the needle, raise the bobbin thread through the hole in the needle plate.



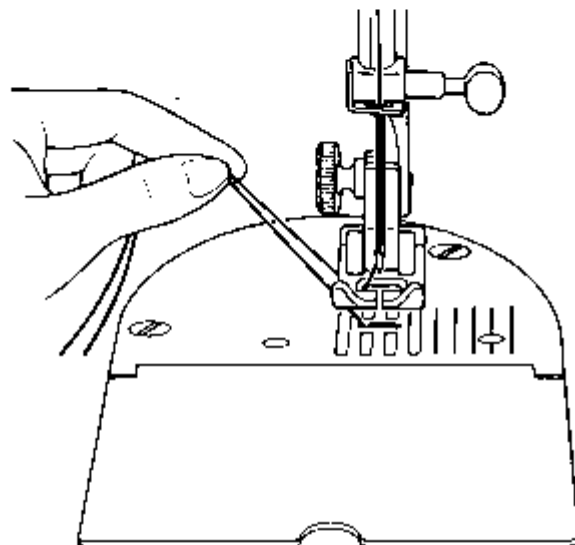
1. Hold needle thread lightly with left hand and turn hand wheel slowly *toward you* so that needle enters needle plate.



2. Continue turning hand wheel and holding needle thread until needle rises and brings up bobbin thread in a loop.



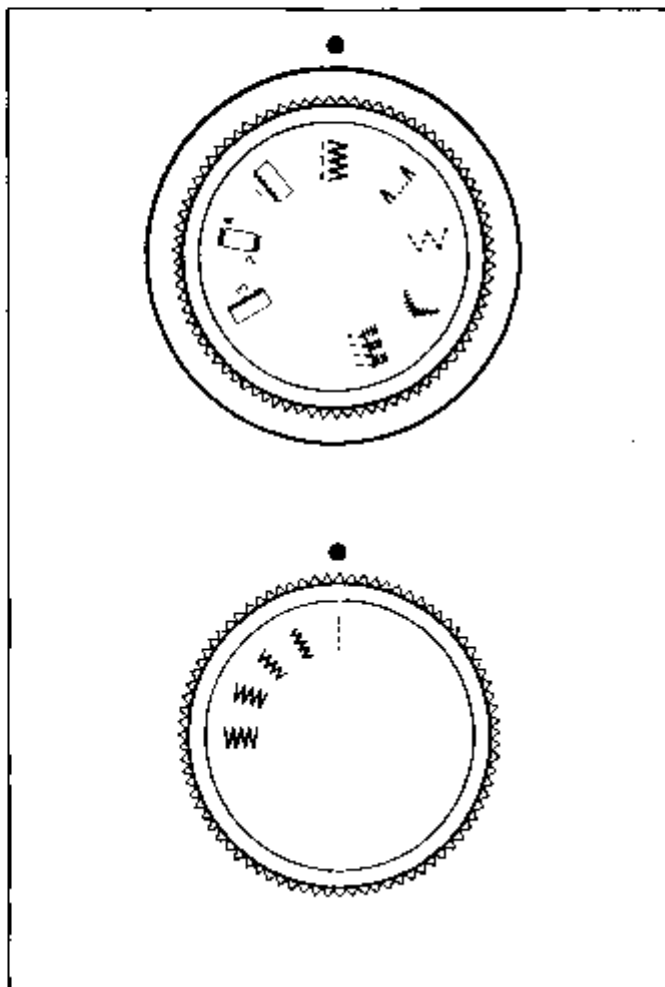
3. Undo the loop with your fingers.



4. Place both needle and bobbin threads under the foot and draw them to back of machine.







Chapter 3. Straight Stitching

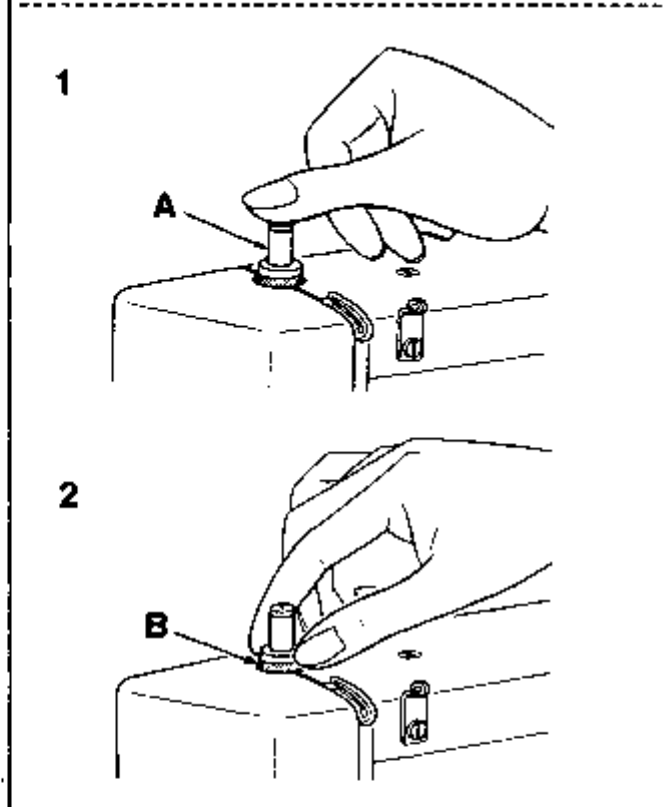
adjusting machine stitch to suit your fabric



Before you move the selectors to set your machine for straight stitching, turn the hand wheel *toward you* until the needle is above the needle plate.

SETTING SELECTORS

- Pattern Selector: 
- Stitch Width:     
- Stitch Length: 1.5-4 to suit fabric



REGULATING PRESSER FOOT PRESSURE

The pressure regulator adjusts the pressure that the presser foot exerts on the fabric. Correct pressure is important because it enables the fabric to feed smoothly and evenly, without being marked.

The normal setting is being used when the pressure regulator is in the middle position. The normal setting is an all-purpose setting that can be used for sewing a wide variety of fabrics of different weights and textures.

Lower the foot before setting pressure

1. **To increase** pressure, slowly press down on pressure regulator **A** until desired pressure is reached.
2. **To release** pressure regulator, press down on the round base **B**.

ADJUSTING STITCH LENGTH

The stitch length dial controls the length of stitches. The numbers around the edge of the dial express stitch length in mm; *the lower the number, the shorter the stitch*. Generally, shorter stitches are best for lightweight fabric, longer stitches for heavy fabric. The area from 0 to 1 is used for the adjustment of zig-zag satin stitching (see page 22).

Setting the Dial

- Turn dial so that stitch length desired is positioned under ● symbol.
- **To shorten stitch length**, turn dial to the left toward a lower number.
- **To lengthen stitch length**, turn dial to the right toward a higher number.

For reverse stitching, depress push button located in centre of dial, hold in until reverse stitching is completed, then release push button.

Note: Reverse stitching cannot be done when using a stretch stitch pattern.

NEEDLE-THREAD TENSION

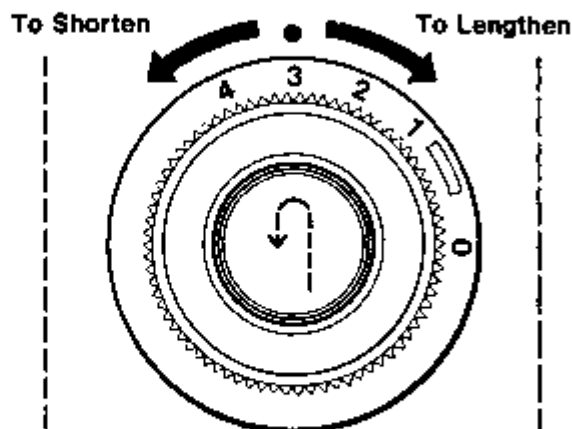
Correct tension is important because too much or too little will weaken your seams or cause your fabric to pucker. Make a test sample with the fabric and the thread you plan to use and examine it. A well balanced stitch, as shown in illustration **A**, will have the needle and bobbin threads locked between the two layers of fabric with no loops on top or bottom and no pucker. The tension dial regulates the degree of tension on your needle thread. Set it according to the type of thread and fabric you use. The numbers on the dial eliminate guesswork.

If the fabric puckers **B**, decrease tension. If the stitches in your test sample look loose **C**, increase needle-thread tension.

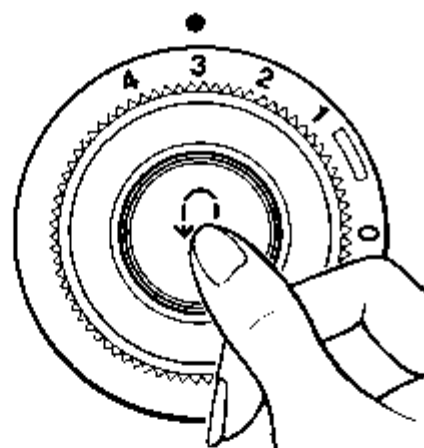
- **To decrease tension**, turn dial to lower number.
- **To increase tension**, turn dial to higher number.

BOBBIN-THREAD TENSION

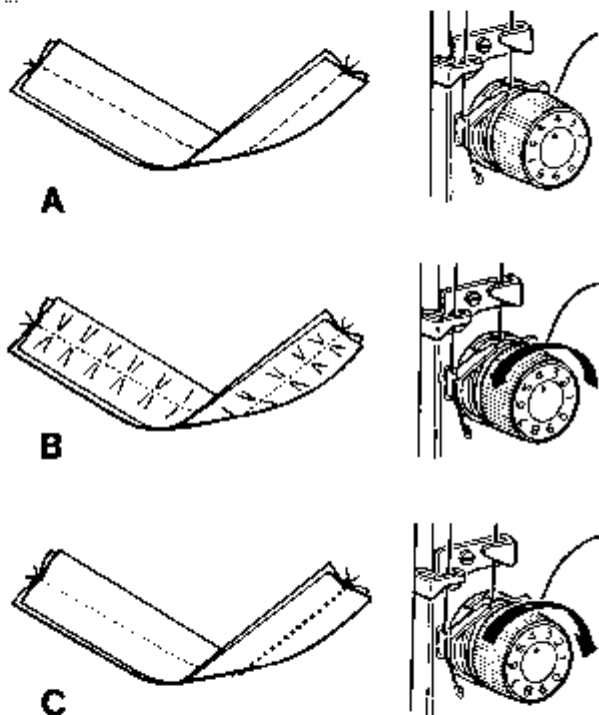
For information on adjusting bobbin-thread tension, refer to page 13.





Adjusting Stitch Length

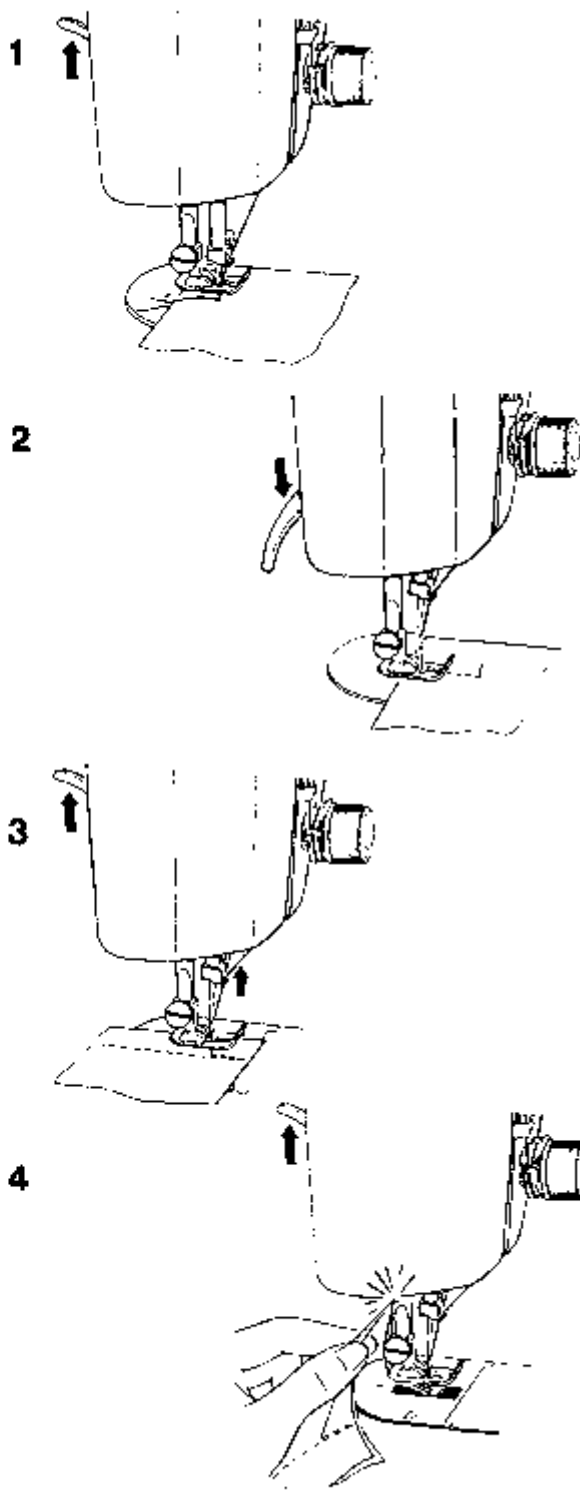


Reverse Stitch Push Button



sewing a seam

- Pattern Selector: 
- Stitch Width: 
- Stitch Length: To suit fabric
- General Purpose Needle Plate
- General Purpose Foot



1. Raise presser foot. Pull thread back under presser foot leaving at least 10cm (4 inches) of thread.
2. Position needle approximately 1.3cm (1/2 inch) from fabric edge. Then lower presser foot and backstitch almost to the edge of the fabric for reinforcement by stitching in reverse direction. For additional information on reverse stitching refer to page 17. Stitch forward to end of seam and stop machine before the end of stitching line. (Do not sew beyond edge of fabric).

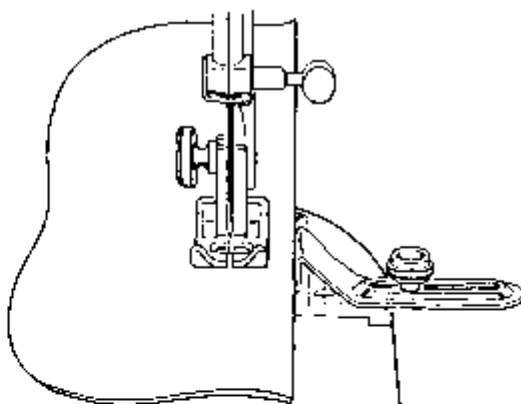
CAUTION: Do not pull the fabric while you are stitching as this may deflect the needle causing it to break.

3. Raise needle by turning hand wheel toward you. Press reverse stitch push button, and back stitch 1.3cm (1/2 inch) to reinforce end of stitching.
4. Raise needle by turning hand wheel toward you. Raise foot and remove fabric by drawing it to the back and to the left. Cut threads on thread cutter at rear of presser bar.

KEEPING THE SEAM STRAIGHT

For extra help in keeping the seam straight, you may wish to use the seam guide. Because it allows you to guide stitches evenly between 1.3cm (1/2 inch) and 3.2cm (1-1/4 inches) from the fabric edge, it is particularly useful for very narrow or very wide seams.

CAUTION: Because of the up and down movement of the needle, you must work carefully and watch the sewing area when operating the machine.



applications

ZIPPER INSERTION

How the zipper is inserted will depend on the type of garment and the location of the zipper. With the adjustable zipper foot, you will find it easy to sew an even line of stitching close to the zipper.

The zipper foot can be used either to the left or right of the needle, depending on where the bulk of the garment is placed.

Adjusting the Zipper Foot






- Set machine for straight stitching.
- Attach the zipper foot as instructed on page 4.

When the zipper is to the *right* of the needle:

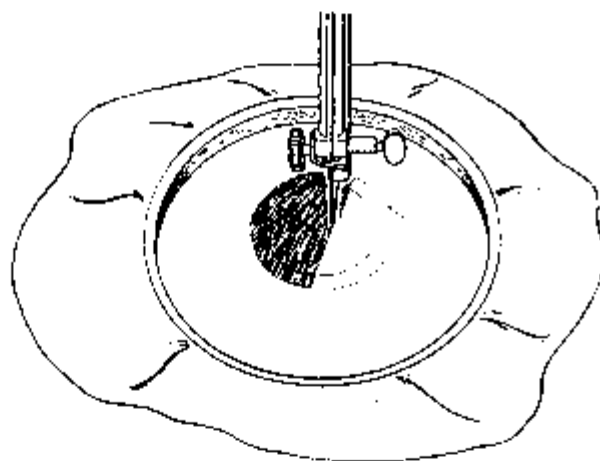
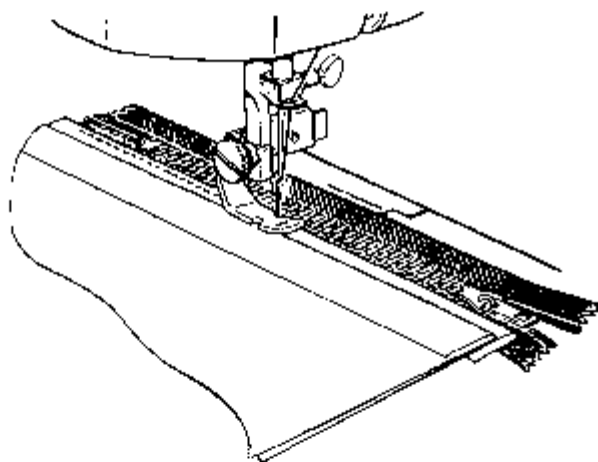
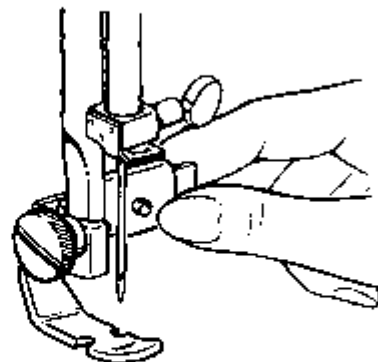
- Loosen the thumb screw at the back of the foot, and slide the foot to the *left* of the needle.
- Check the position of the foot by turning the hand wheel to lower the needle into the side notch of the foot, making sure it clears the foot.
- Lock the foot into position by tightening the thumb screw.
- Lower presser bar. Make sure the needle clears the foot on all sides of the notch.

When the zipper is to the *left* of the needle, adjust the foot to the *right* of the needle in the same way.

DARNING WITH AN EMBROIDERY HOOP

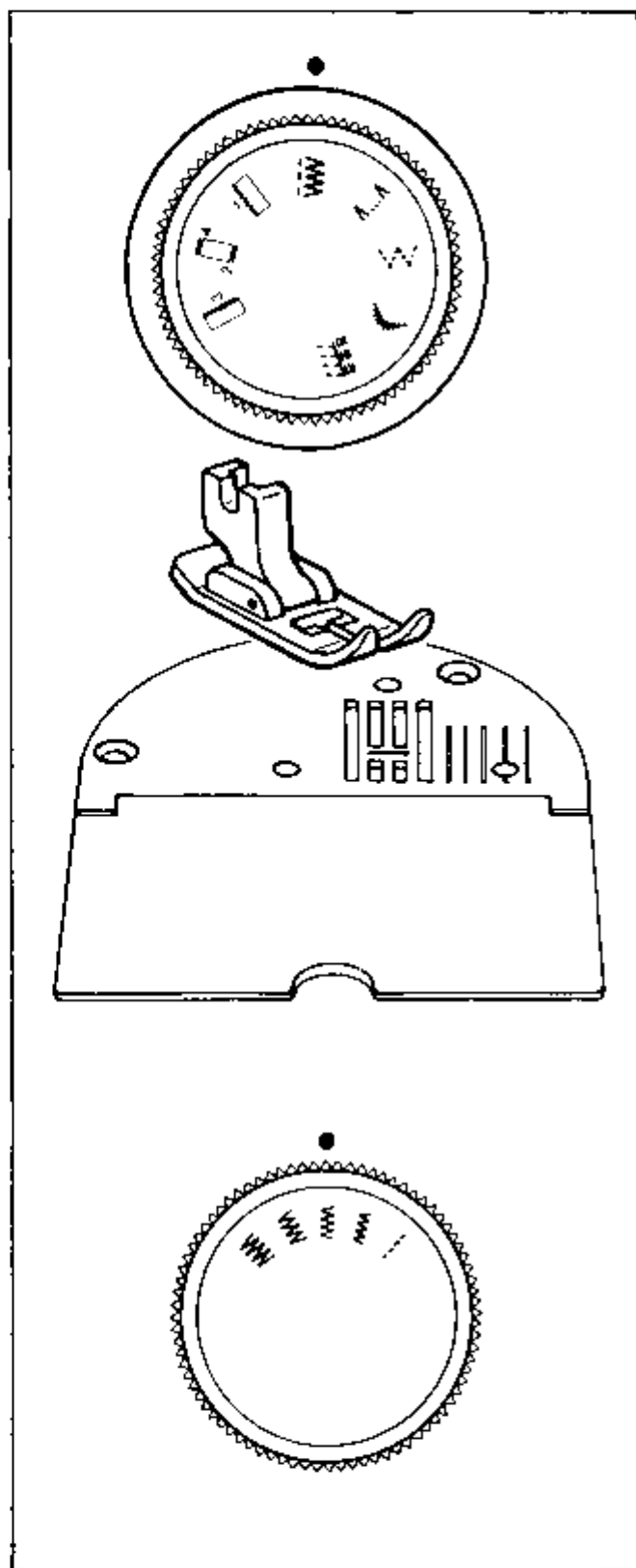
- Pattern Selector: 
- Stitch Width:    
- No Presser Foot
- Snap-in Feed Cover
- Embroidery Hoop Designed for Machine Use

- Position work under needle and lower presser bar.
- Hold needle thread loosely with left hand, turn hand wheel toward you, and draw bobbin thread up through fabric. Hold both thread ends and lower needle into fabric.
- Stitch across opening, moving hoop under needle at a slight angle from lower left to upper right. Keep lines of stitching closely spaced and even in length. When opening is filled, cover area with crosswise lines of stitching.



Chapter 4. Basic Zig-Zag Stitching

adjusting machine stitch to suit your fabric




You can do functional as well as decorative zig-zag stitching with your sewing machine.


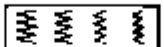
setting selectors

PATTERN SELECTOR

Before turning selector, make sure needle is out of the fabric.


For plain zig-zag stitching:

- Turn pattern selector to  aligning symbol under ● mark.

-
- Pattern Selector: 
 - Stitch Width: 
 - Stitch Length: 1-4 to suit fabric
 - General Purpose Needle Plate
 - General Purpose Foot
-

STITCH WIDTH SELECTOR

Before turning selector, make sure needle is out of the fabric.

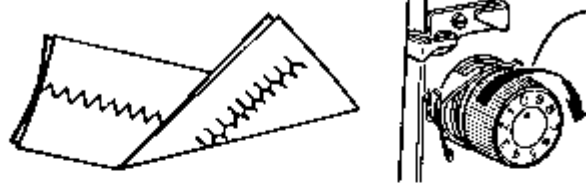
To produce a plain zig-zag or a decorative stitch, the stitch width selector is turned from its straight stitch position  to any of its other four positions. The further you turn the selector toward the right, the wider your stitch will be.

ADJUSTING NEEDLE-THREAD TENSION

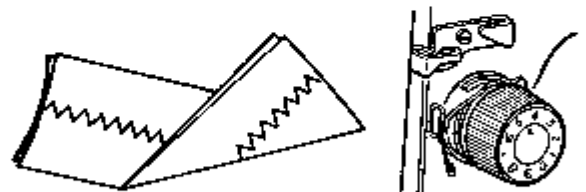
Zig-zag stitching requires less needle-thread tension than straight stitching.

Make a test sample with the fabric and thread you plan to use so that you can adjust the tension properly. The stitches should lie flat against the fabric without causing the fabric to pucker.

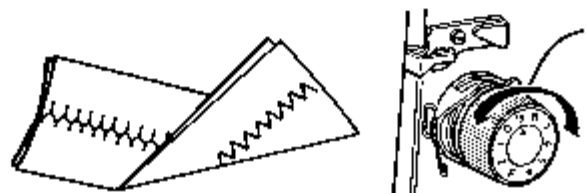
If the stitches are not flat and the fabric is puckered, lower the needle-thread tension by turning the dial to a lower number.



Too Little Tension



Correct Tension



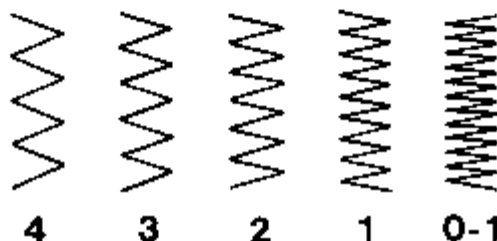
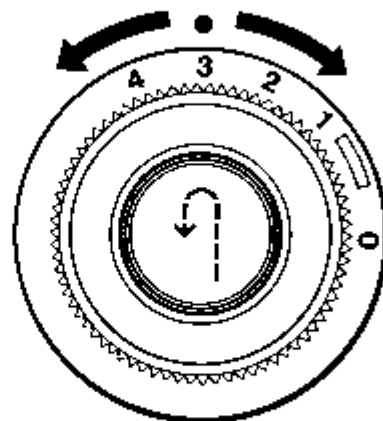
Too Much Tension

ADJUSTING STITCH LENGTH

Any stitch length setting from 1 to 4 will give you an open zig-zag stitch.

The higher the number, the more open, or farther apart your stitches will be.

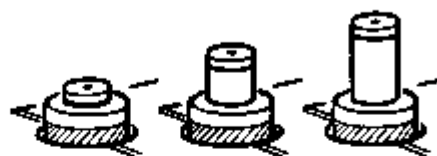
The area between 0 and 1 on the dial is used for the adjustment of zig-zag satin stitching, a series of closely spaced plain zig-zag stitches that form a smooth, satin-like surface. (Refer to page 22 for information on satin stitching.)

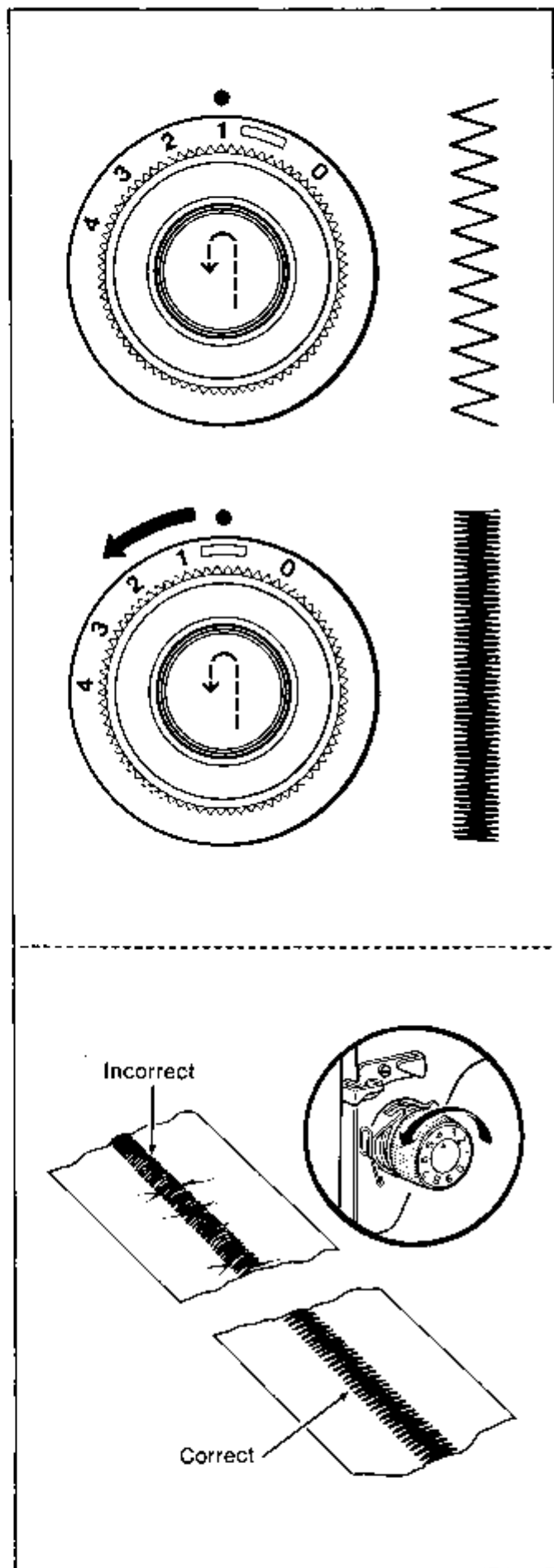


Stitch Length Setting

ADJUSTING PRESSER FOOT PRESSURE

See page 16 under "Straight Stitching".










satin stitching

When you wish to produce a satin stitch, make a test sample first so you can adjust stitch length and thread tension properly. Soft fabric may require a backing to ensure a firm stitch. Crisp organdy, lawn or a fusible interfacing are suitable for this purpose.

Accessory and Selector Settings

- Pattern Selector: 
- Stitch Width:     ⋮
- Stitch Length: 0 to 1
- General Purpose Needle Plate
- General Purpose Foot

ADJUSTING STITCH LENGTH

- Turn stitch length selector dial to 1.
- Run the machine at a slow speed and slowly turn stitch length dial toward the left until stitches are closely spaced and form a smooth surface.

ADJUSTING NEEDLE-THREAD TENSION

Satin stitching requires less tension than straight stitching or open zig-zag stitching. Furthermore, the wider the stitch, the lighter the tension on the thread must be. Notice the stitching on your sample. If the fabric is puckered, lower the needle-thread tension by turning the tension dial to a lower number.


applications

APPLIQUÉ

Appliqué adds beauty and interest to clothing and household linens. You can create your own design, trace a simple outline from a colouring book, or use a motif cut from a printed fabric. Fabric of similar or different textures combine equally well.

A closely spaced plain zig-zag stitch, commonly referred to as a satin stitch, is used for appliqué work. Although you may vary stitch width to accommodate fabric weave and texture, never allow the stitch to be too wide.

Make a test sample to help you decide which of the following methods is best for your fabric and design.

-
- Pattern Selector: 
 - Stitch Width: To suit fabric
 - Stitch Length: Between 0 and 1
 - General Purpose Needle Plate
 - General Purpose Foot
-

Preparation

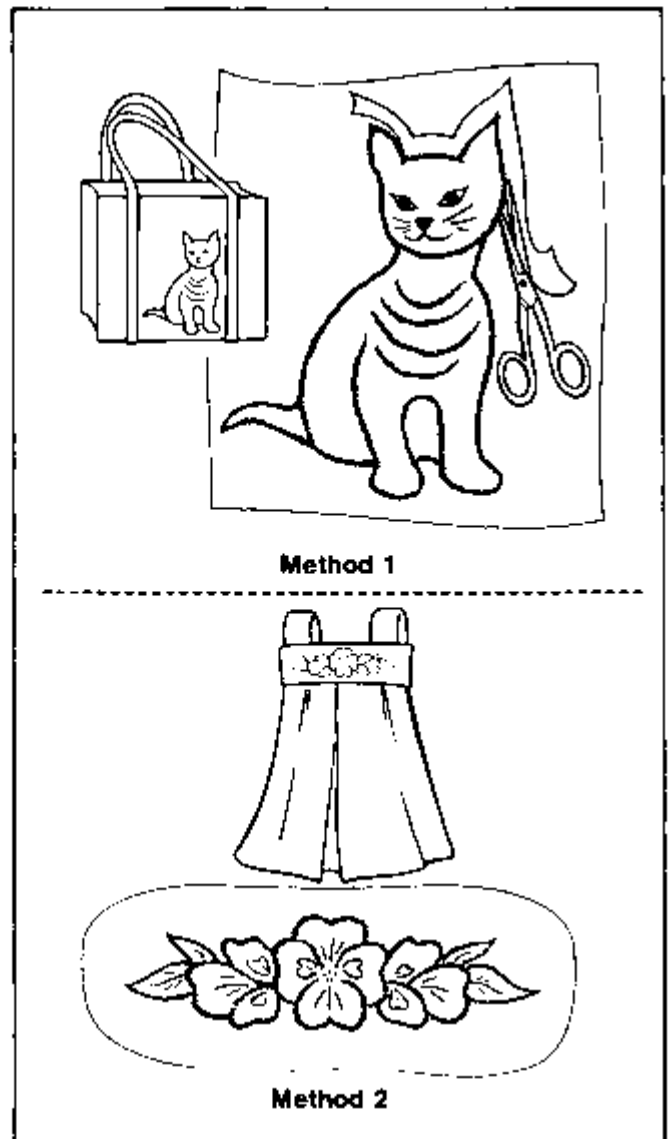
- Baste appliqué design to fabric and outline the design with a short, straight stitch.
- Remove basting and press.

Method 1 - Trimming after Stitching

- Set machine as code recommends.
- Outline the entire design with satin stitching.
- Cut away the fabric or the outer edges of the stitching with embroidery scissors.

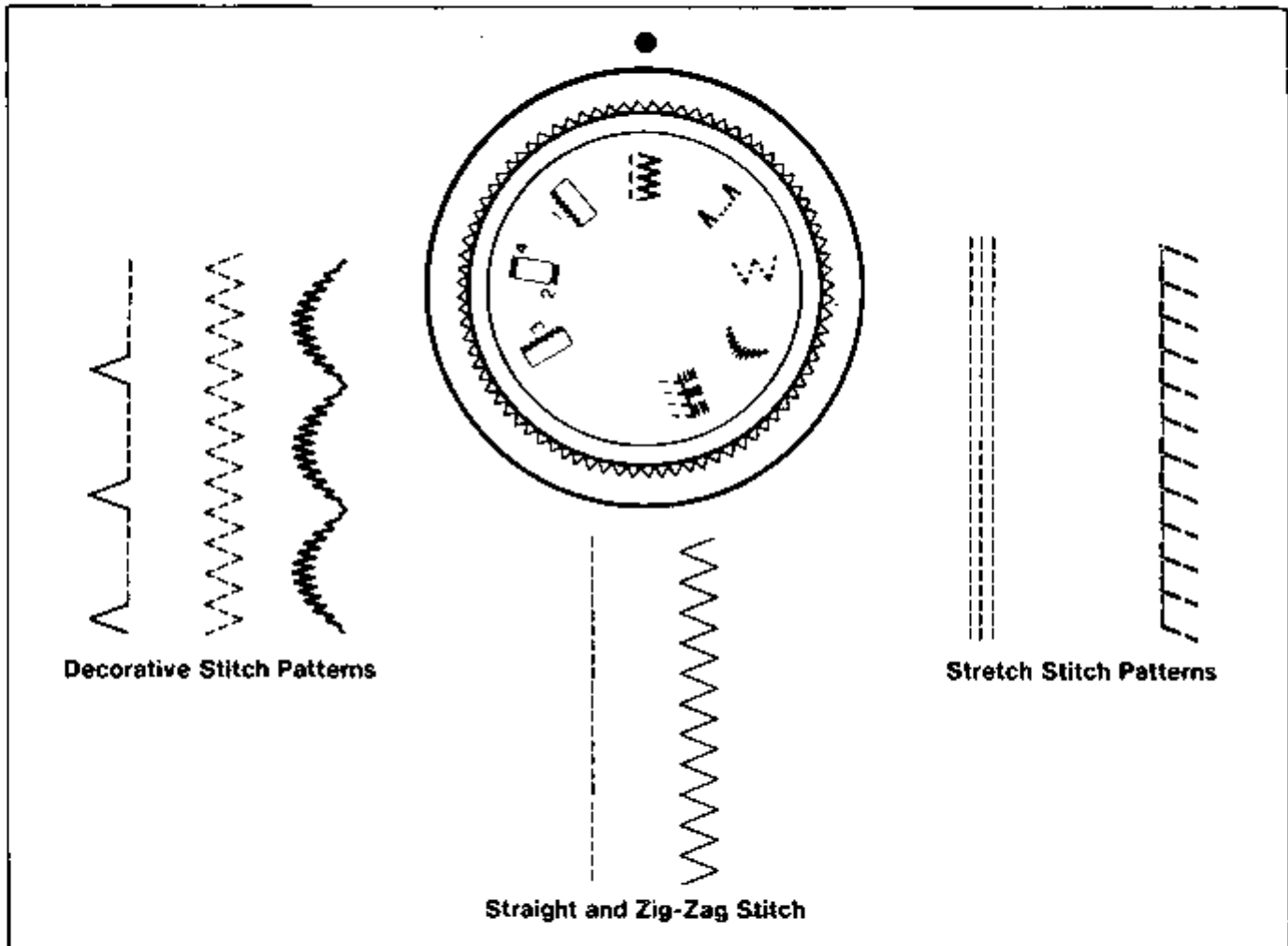
Method 2 - Stitching after Trimming

- Trim outside fabric edges close to straight stitch outline of design.
- Set machine as code recommends.
- Overedge the design with satin stitching. This step will produce a smooth, lustrous finish that requires no additional trimming.



Chapter 5. Machine Stitch Patterns

setting selectors



In addition to straight stitch and zig-zag stitch, your machine can produce a variety of stitch patterns. There are two types of stitch patterns built into your machine:


- **decorative stitch patterns**, illustrated above, are produced by side-to-side movement of the needle.
- **stretch stitch patterns**, illustrated above, are produced by both the side-to-side movement of the needle and the back-and-forth movement of the feed.

Refer to chart on page 27 for further information on machine settings and applications for the stitch patterns on your machine.

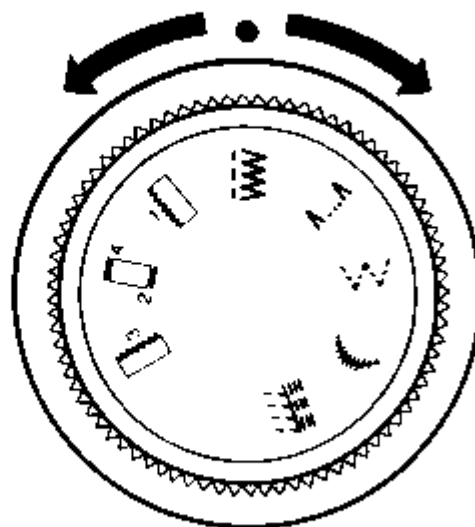
SELECTING A PATTERN

Before moving pattern selector, make sure needle is above fabric.

When you turn the pattern selector, one of seven stitch patterns is available to you.

Turn stitch width selector to , then rotate the pattern selector as required, until the desired stitch pattern symbol is positioned under the ● symbol above the selector.

● symbol above the selector.

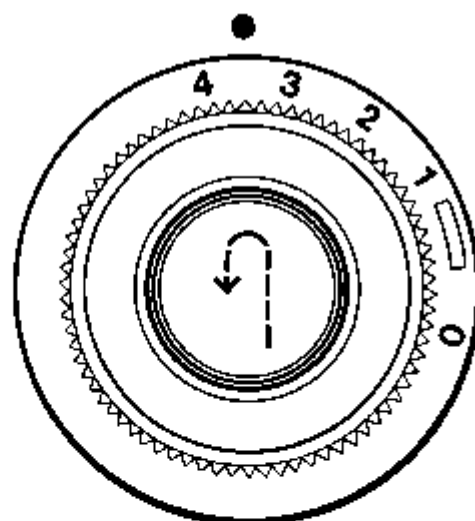


ADJUSTING STITCH LENGTH

When you are preparing to do pattern stitching, make a test sample with the fabric and thread you plan to use so that you can adjust the stitch length correctly.

Any stitch length setting from 1 to 4 will give you an open stitch pattern of whichever decorative stitch pattern you select. The higher the number, the more open, or farther apart, your stitch will be. The area between 0 and 1 of the selector is used for the fine adjustment of satin stitching (see page 22).


For stretch stitch patterns, stitch length is controlled with a setting between 3 and 4 on the stitch length selector. Simply rotate it until the space between 3 and 4 is under the symbol ● above the dial.

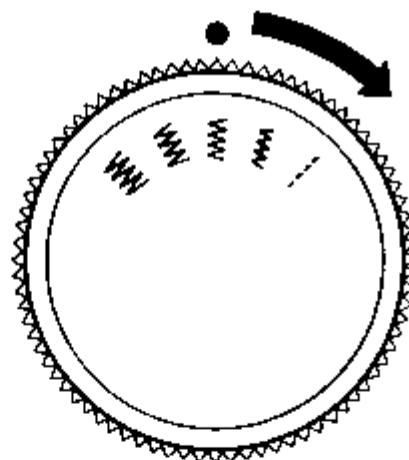


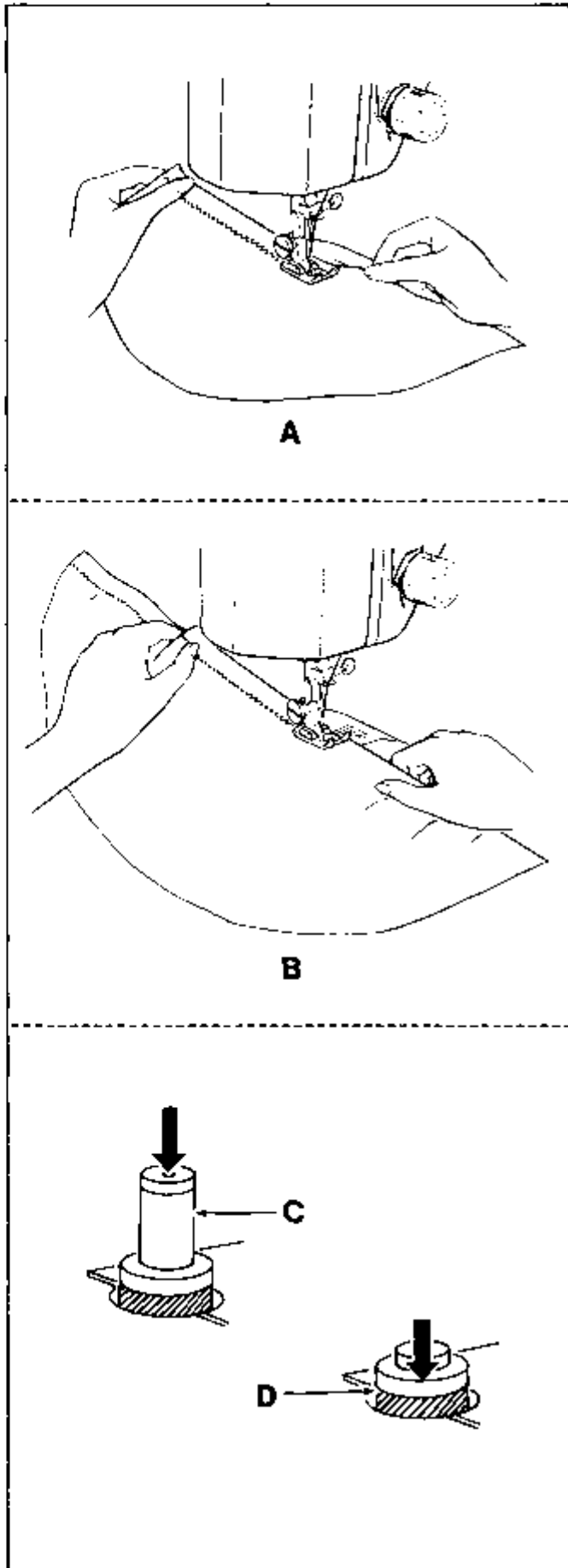
Setting for Stretch Stitch Pattern

ADJUSTING WIDTH OF THE DESIGN

Before turning stitch width selector, always raise needle above fabric.

To produce a stitch pattern, the stitch width selector must be turned from  toward the right. The further you turn the dial toward the right, the wider your stitch will be.





GUIDING AND SUPPORTING FABRIC

Most fabric of stretch or knit construction need only to be guided in front of the presser foot when you use one of the stretch stitches. Some fabric — nylon tricot and elasticized fabric, for example — do require support while being stitched.

- For nylon tricot and similar synthetic knits, apply **gentle** tension by holding the seam in front and back of the presser foot as you sew (illustration A).

- For elasticized fabric, stretch lace, and knits with an unusual amount of elasticity, apply **firm** tension in front and back of the presser foot to stretch the seam as the stitches are being placed (illustration B).

CAUTION: Do not pull the fabric while you are stitching as this may deflect the needle, causing it to break.

ADJUSTING PRESSURE WHEN SEWING KNIT AND STRETCH FABRIC



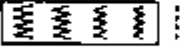
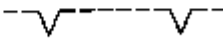

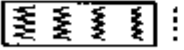





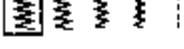


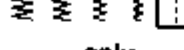


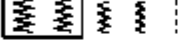
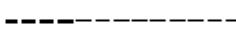

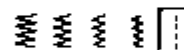

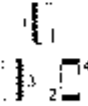

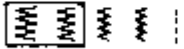
Some knit and stretch fabric, because of their structure, require either more or less than normal presser bar pressure to feed smoothly and evenly.

- For nylon tricot, ciré and similar hard surface synthetic knits, increase pressure by pressing down on pressure regulator C until desired pressure is reached.

- To release pressure regulator, press down on round base D.

STITCH PATTERN CHART

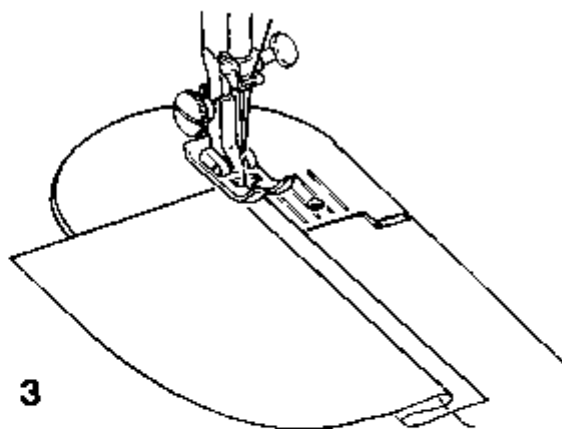
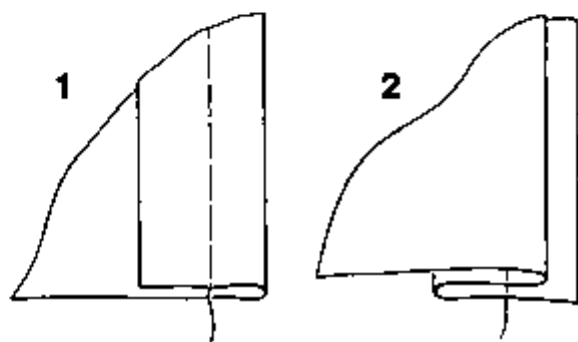
The table below will help you to select the correct pattern for your fabric and sewing job.

Stitch Pattern	Pattern Selector	Stitch Length	Stitch Width	Where to use
 Zig-Zag		.5 - 4		Used for general purpose stretch sewing, bar tacks, finishing seams, embroidery and appliqué.
 Blindstitch		1 - 2.5		For finishing hems and making ladder seams.
 Multi-Stitch Zig-Zag		.5 - 1		Lets you mend, join and reinforce without bulk. Ideal for bar tacking.
 Crescent		.5 - 1		Makes well formed scallops for edgings and tucks.
 Straight Stretch Δ		3 - 4	 only	Ideal for plain seams that stretch and for repairing and reinforcing seams.
 Slant Overedge Δ		3 - 4		Sweater and swimsuit construction. Overcast seams in bulky knits and stretch terry cloth.
 Straight Stitch		1 - 4		Used for general purpose sewing and topstitching.
 Buttonholes		 (Coloured Bar)		Used for making buttonholes.



Δ SLOW speed is recommended for sewing Stretch Stitch patterns. This stitch is designed for strength and permanence and cannot readily be ripped out without risk of fabric damage.

BLINDSTITCH

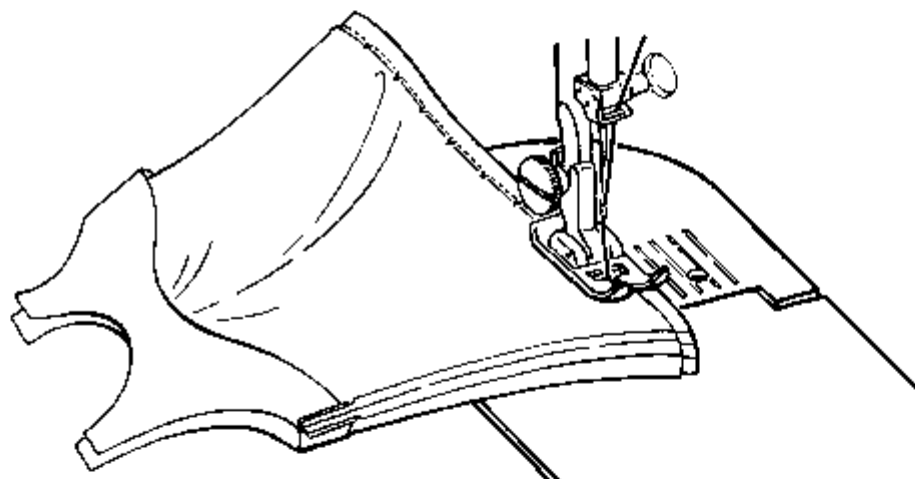
The blindstitch has many practical and functional uses. Its most common use provides a durable hem finish. However, the creative ways that one might apply this stitch are unending.



Blindstitch Hems

- Pattern Selector: 
- Stitch Width: 
- Stitch Length: 1 to 2.5
- General Purpose Needle Plate
- General Purpose Foot


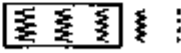
1. Prepare hem in the usual way. It is advisable to baste the hem. Place the basting at least 1.3cm (1/2 inch) below the edge of the hem allowance.
2. With the wrong side of the work uppermost, turn the hem under, creating a soft fold from the top edge of the hem.
3. Position the hem under the presser foot. Stitch so that the straight stitches fall on the hem allowance and the sideward stitches pierce the soft fold of the work. Adjust stitch width, if necessary.



MULTI-STITCH ZIG-ZAG

The multi-stitch zig-zag is an extremely versatile stitch. Use it to mend, join or reinforce without bulk. With this stitch you may attach elastic and stretch lace, construct lingerie and swimsuits and finish seams. There are many other useful applications for the multi-stitch zig-zag.

Bar Tacks

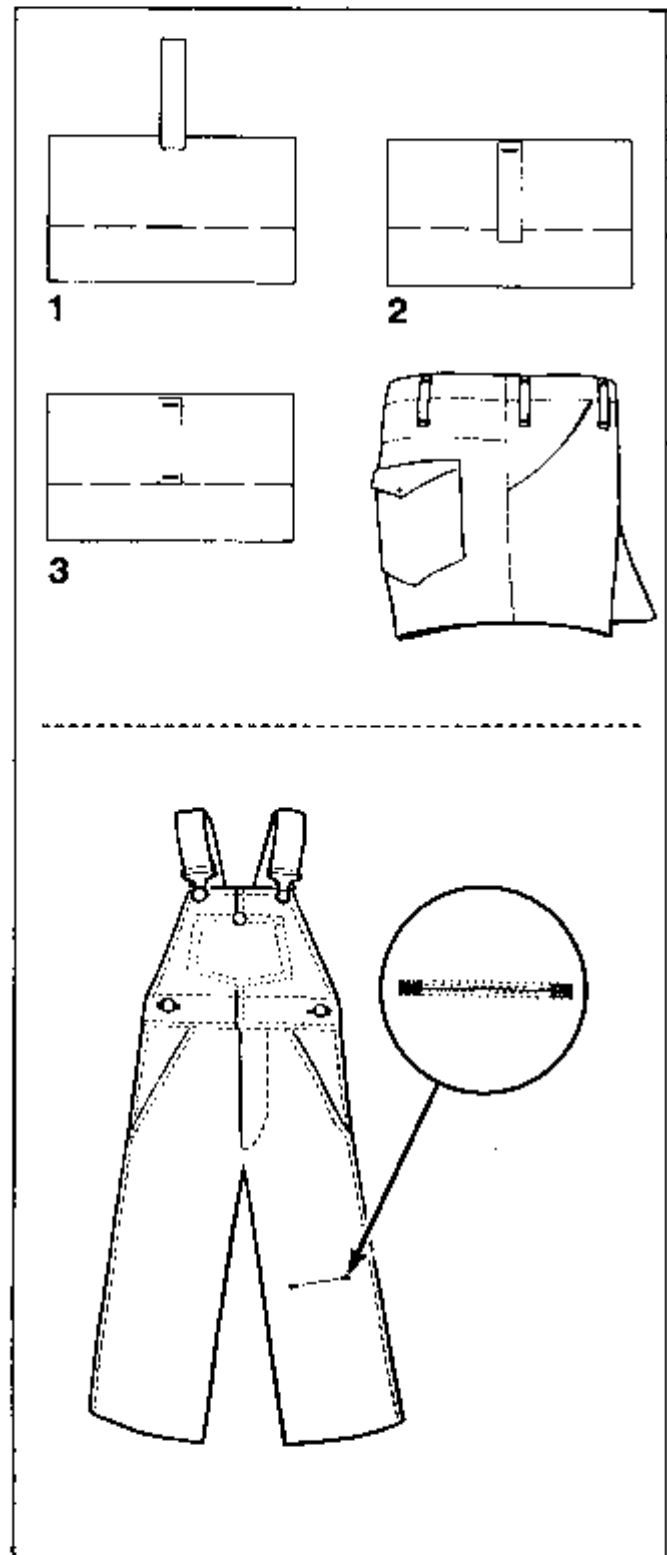
- Pattern Selector: 
- Stitch Width: 
- Stitch Length: 0
- General Purpose Needle Plate
- General Purpose Foot

Make a test sample, using scraps of your material, and duplicating all garment thicknesses.

1. Mark position for the finished end of belt loop on the fabric.
 - Place belt loop, wrong side up. Straight stitch with cut end 3mm (1/8 inch) from edge of garment; do not stitch beyond edges of the belt loop. Trim the end close to the stitching and press.
2. Fold belt loop back on the stitching line and press.
 - Set your machine according to the code above.
 - Stitch 3mm (1/8 inch) from the fold using the multi-stitch zig-zag stitch.
3. Fold over second part and bar tack.

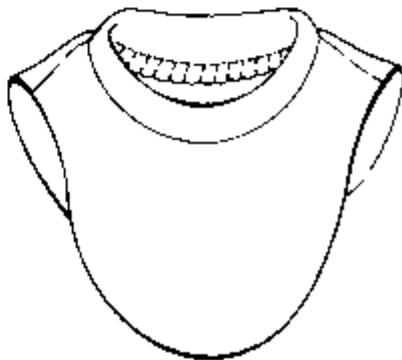
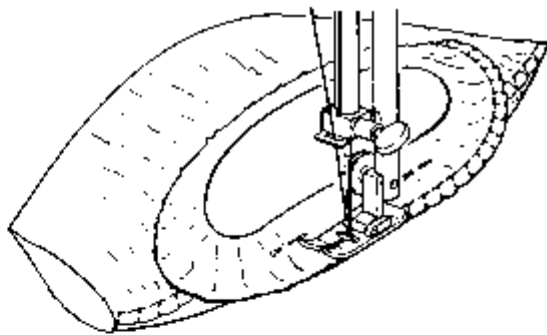
Mending a Tear

- Trim ragged edges.
- Place underlay on the wrong side of tear for reinforcement. Hand baste underlay in place.
- Stitch on the right side, using a stitch length between 1 and 2, bringing the edges of the tear together. Shorten stitch length at ends and corners to give extra strength.
- Trim underlay.


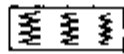


SLANT OVEREDGE STITCH

Although the slant overedge stitch may be used creatively, it is primarily applied in finishing seams, hems and facing edges. Use it to overedge seams that require stretch such as crotch seams. It is particularly helpful in ski suit, snowsuit and swimsuit construction.



Overedged Seams

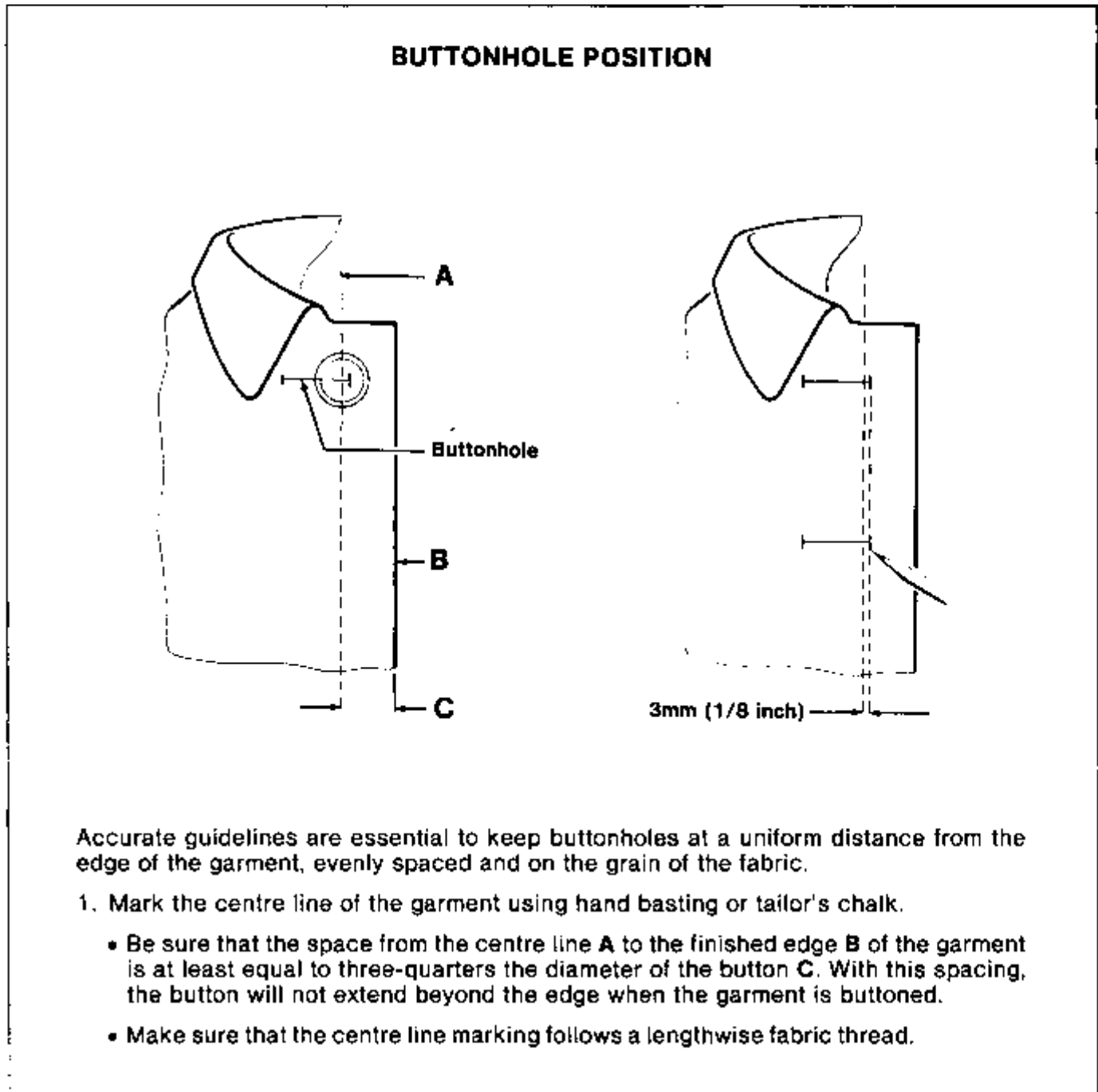
- Pattern Selector: 
- Stitch Width: 
- Stitch Length: 3-4
- General Purpose Needle Plate
- General Purpose Foot

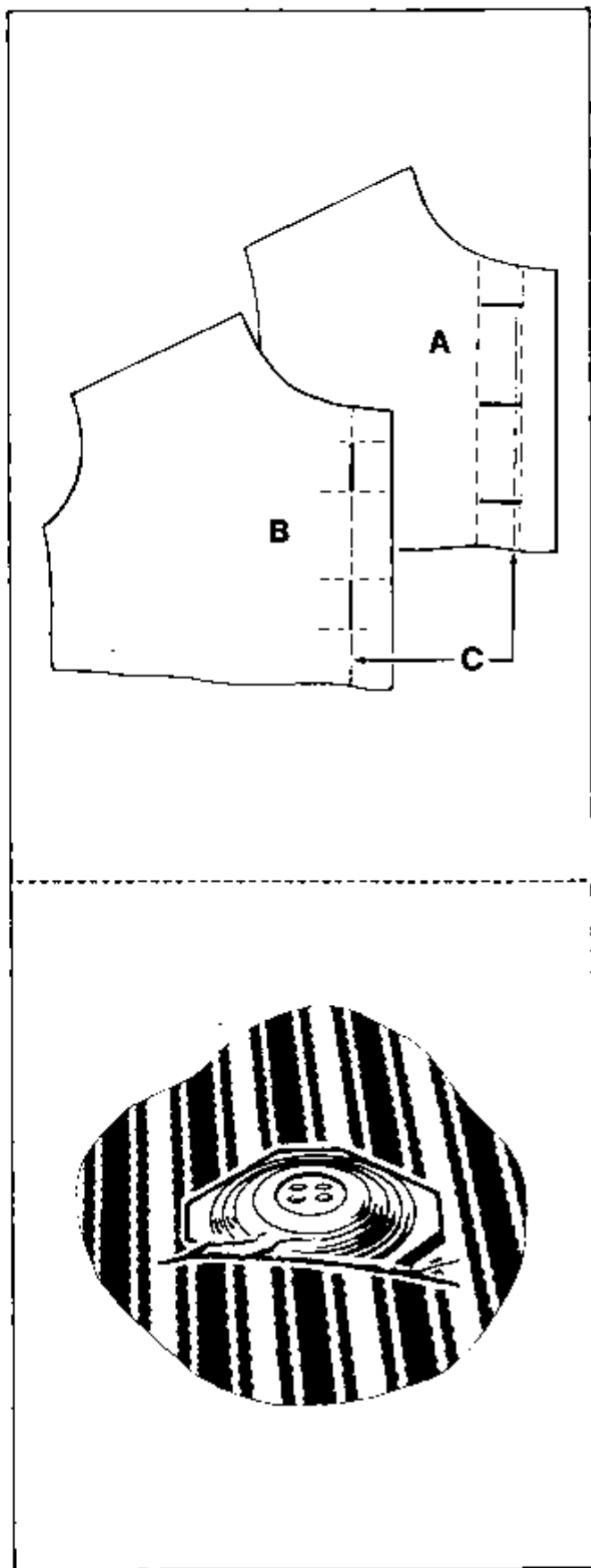
Make a test sample to determine the suitability of an overedge seam finish for your garment. Duplicate the grain or direction of knit of your garment seam. Adjust thread tension to suit fabric. Use an appropriate needle in the machine for a synthetic knit. (See Fabric, Thread and Needle Table on page 8.)

- Baste the garment together on the seam line allowing for 1.5cm (5/8 inch) seam allowance and fit in the usual way.
- After making any necessary adjustments, trim seam edge evenly to a scant 5mm (1/4 inch) from seam line basting.
- Place trimmed seam under the foot so that the straight stitches fall on the basted seam line and slanted stitches fall over the seam edge.

Chapter 6. Buttonholes

Your new machine comes complete with a built-in four-step buttonhole system. Before sewing on your garment, always make a test buttonhole duplicating the number of thicknesses of fabric and interfacing, if appropriate.





2. Mark a position guideline for each buttonhole.

- **Horizontal buttonholes A** are placed to extend 3mm (1/8 inch) beyond the centre line of the garment **C**, so that the buttons will be in the centre of the figure when the garment is fastened.
- Horizontal buttonhole guidelines should follow a crosswise fabric thread and be longer than the finished length of the buttonhole.
- Mark ends of each buttonhole vertically.
- **Vertical buttonholes B** are placed so that the centre line **C** of the garment is in the centre of the buttonhole, as shown.
- Mark the ends of each buttonhole horizontally across the centre line basting and use the centre line marking as the buttonhole guide when stitching.

BUTTONHOLE LENGTH

- The buttonhole length should be just long enough to allow the button to slip through the opening without stretching it.
- Buttonhole length is not automatically gauged with the buttonhole foot. It is necessary to estimate the length by measuring the width plus thickness of the button.
- To make sure the measurement is correct, cut a slit in a scrap of fabric equal to the diameter of the button you intend to use.
- Increase length of opening until button slips through easily.

FOUR-STEP BUTTONHOLING

- Pattern Selector: As illustrated
- Stitch Width: Red Area
- Stitch Length: ■ (Coloured Bar)
- General Purpose Needle Plate
- Buttonhole Foot

Preparation

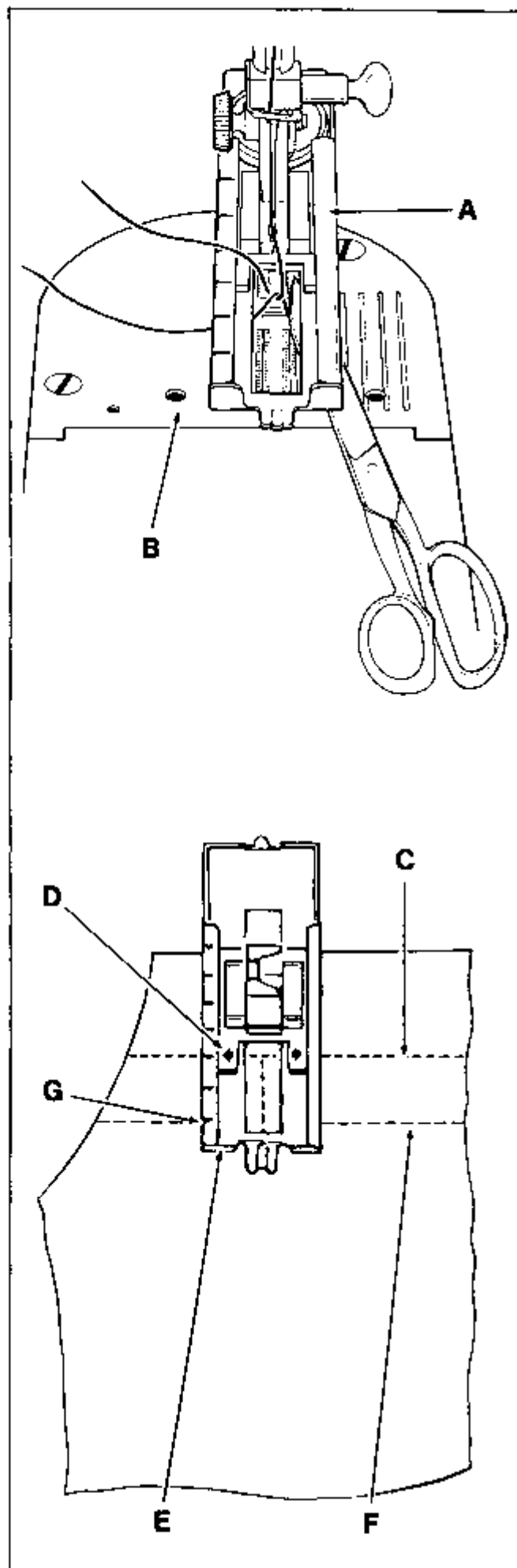
- Attach buttonhole foot to the machine. Refer to page 4 for additional information on changing Presser Feet.

1. Raise presser foot lifter. Hold upper thread lightly with left hand and turn hand wheel slowly *toward you* until needle enters the plate. BE CAREFUL THAT YOU DO NOT RUN THE MACHINE DURING THIS PROCEDURE. Continue turning hand wheel and holding upper thread until needle rises. Tighten your hold on upper thread and bring up lower thread in a loop. Release upper thread. Slide scissors *between foot A and plate B* and draw both upper and lower threads diagonally toward the back of the foot, leaving approximately 10cm (4 inches) of thread.

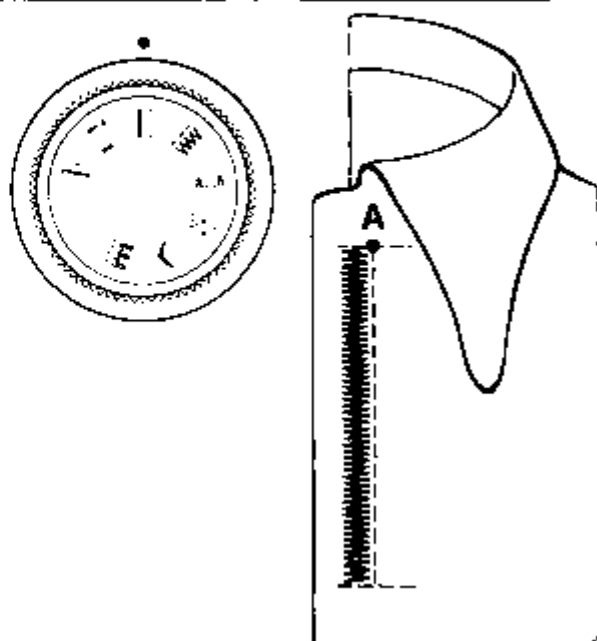
- Set machine according to above code.

2. Place fabric with buttonhole marking lines under foot. Align bar tack marking line **C** with notches on the solid white section of foot **D**.

3. Then slide metal section of foot **E** until bar tack marking line **F** is aligned with last red line on left of foot **G**.

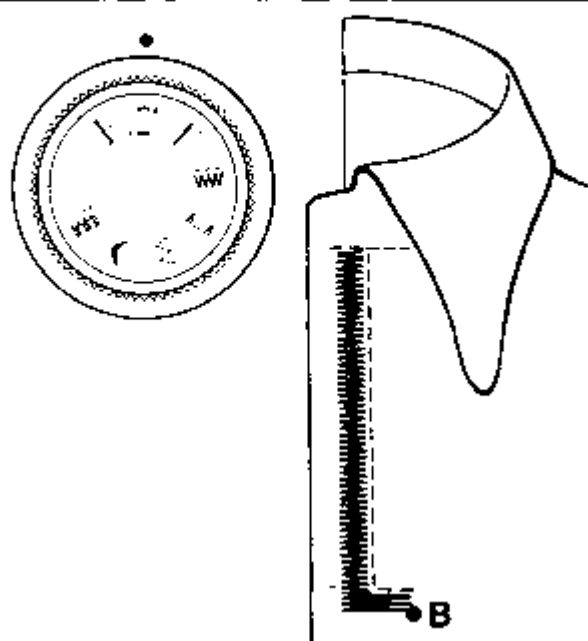


FOUR-STEP BUTTONHOLING PROCEDURE



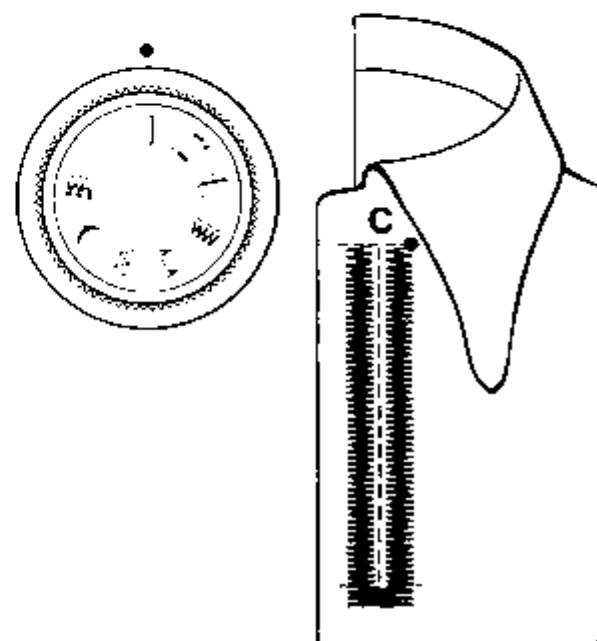
Step 1: Side Stitching

Turn pattern selector to buttonhole step 1. With buttonhole foot properly positioned, as described on page 33, position needle in fabric at point **A**. Lower the foot and stitch until needle reaches the last red line on foot.



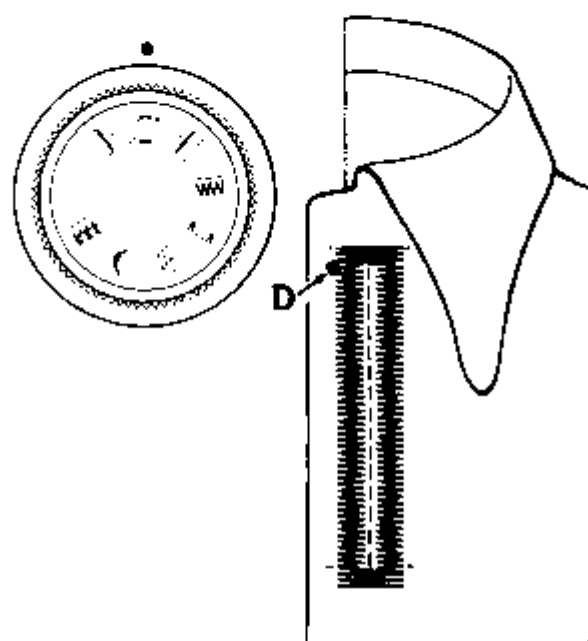
Step 2: Bar Tack

Raise needle above the fabric by turning hand wheel *toward you*. Turn pattern selector to the right to buttonhole step 2. Take at least four stitches ending at point **B**.



Step 3: Side Stitching

Raise needle above fabric. Turn pattern selector to the right to step 3. Stitch to the end of buttonhole at point **C**.




Step 4: Bar Tack

Raise needle above the fabric. Turn pattern selector to the left to step 4. Take four stitches ending at point **D**.

Chapter 7. Twin-Needle Stitching

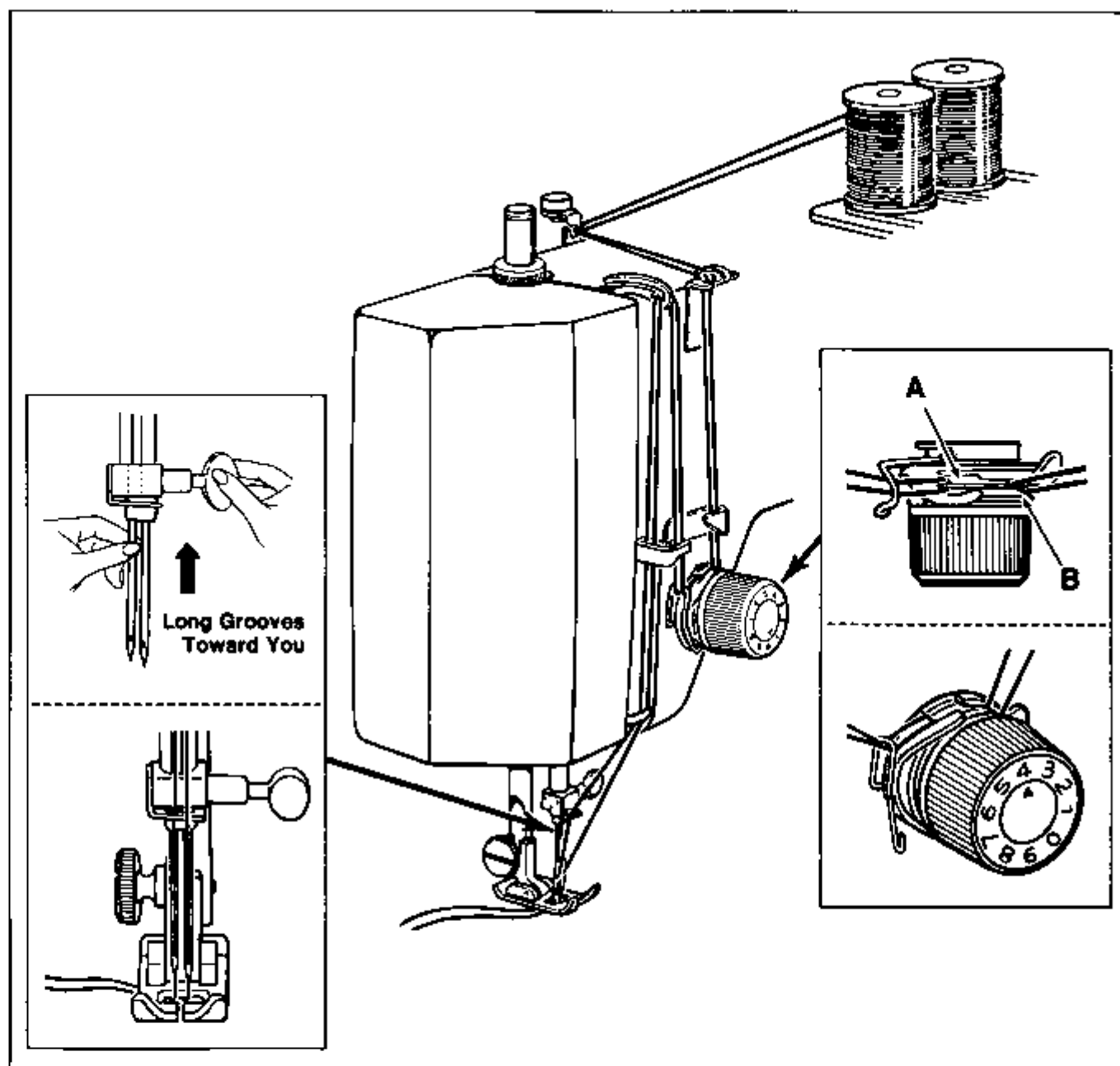
The twin-needle simultaneously produces two parallel, closely spaced lines of pattern stitching. You can stitch with either one or two colours of thread.

Twin-needles No. 2011 must be purchased separately at your local Sewing Centre.

- Pattern Selector: Stitch desired
- Stitch Width:  only Δ
- Stitch Length: .5 - 4 to suit fabric
- General Purpose Needle Plate
- General Purpose Foot

Procedure

- Insert twin-needle.
- Thread as for single-needle stitching, *except* pass thread between *centre* and *back* tension discs **A**, and through *left* eye of needle.
- Place second spool of thread on right spool pin and felt.
- Thread machine in usual way, *except* pass thread from second spool between *centre* and *front* tension discs **B**, as shown.
- Thread through remaining points, making certain to *omit the thread guide above the needle* and pass thread through *right* eye of needle.



Δ CAUTION: Do not use a stitch width greater than what is recommended. A wider stitch will result in needle breakage.

Chapter 8. Performance Checklist

Whenever sewing difficulty is encountered, review the sections of the instruction book that explain the operation you are performing to make sure you are using the machine correctly. If the problem still exists, the following checklist may help you to correct it.

If you still have difficulties, call your nearest Sewing Centre.

What To Do If:

Needle Breaks	Refer to Page:
Make sure...	
● Needle is fully inserted into needle clamp	4
● Needle is not being pulled to one side as fabric is removed from the machine	18
● Presser foot or accessory is securely fastened to presser bar	4
● Fabric is not being pulled while sewing causing needle to hit needle plate	26
Thread Breaks	
Make sure...	
● Machine is properly threaded	14
● Needle-thread tension is not too tight	17, 21, 22
● Thread is unwinding freely from spool	11, 14
● Bobbin case area is free of lint and loose thread ends	37
Machine is Noisy or Sluggish	
Make sure...	
● Bobbin case and feed area are free of lint and loose thread ends	37
Fabric Does Not Feed Properly	
Make sure..	
● Presser foot or accessory is correctly attached to machine	4
● Stitch length dial is correctly set	17, 21, 25
● Lint has not accumulated around feed	37
Skipped Stitches	
Make sure. .	
● Needle is correct style for machine and size for thread	8, 9
● Machine is correctly threaded	14
● Needle is securely fastened to needle bar	4
Fabric Puckers	
Make sure ..	
● Needle-thread tension is not too tight	17, 21, 22
Needle thread breaks while winding bobbin	
Make sure...	
● Machine is correctly threaded	11
● Thread is unwinding freely from spool	11
Thread does not wind onto bobbin	
Make sure ..	
● Bobbin winder spindle is pushed to right	11

Chapter 9. Caring for Your Machine

CLEANING AND OILING YOUR MACHINE

CAUTION: Before cleaning your machine, disconnect power line plug from your socket outlet.

Periodically, depending on usage, clean and oil your machine as follows, using one drop of oil on areas indicated:

• Top Interior Areas

To clean and oil top of machine, remove top cover. Using a large screwdriver, remove screws **A** and **B**. Periodically, apply a drop of oil only to areas indicated, after cleaning.

To replace top cover, align it over screwholes **A** and **B**. Using a large screwdriver, replace screws **A** and **B**.

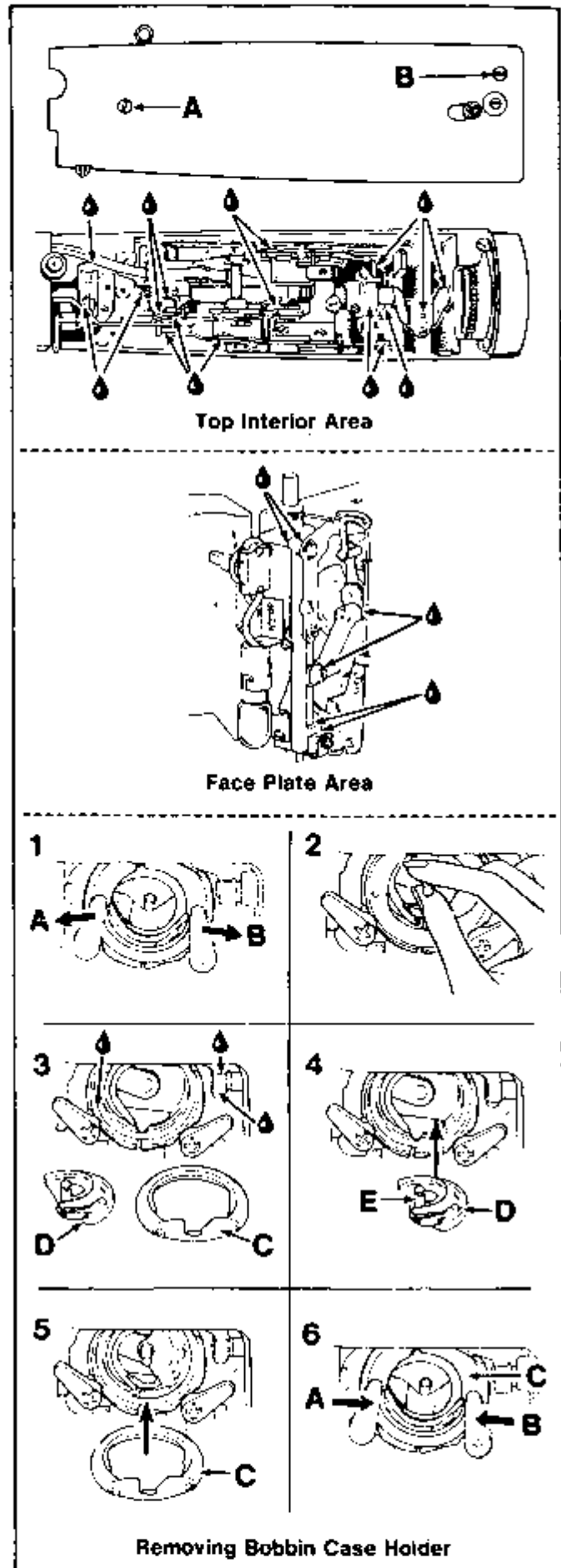
• Face Plate Area

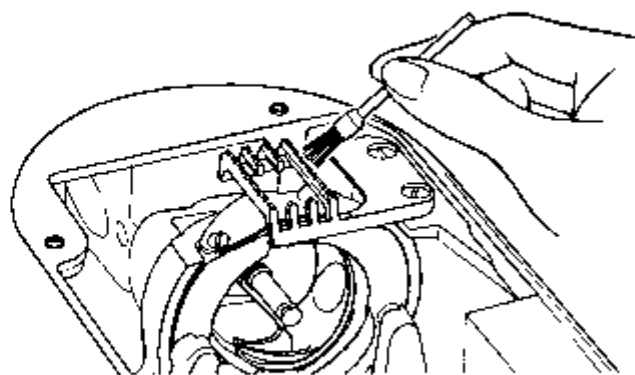
To clean and oil the front interior of machine, swing open face plate to left. With a soft cloth or lint brush, clean and oil points indicated by arrows. To close face plate, simply swing it back to right and snap it closed.

• Bobbin Case Holder

To clean and oil bobbin case holder:

- Tilt machine back. Remove cover, if necessary.
- Turn hand wheel until needle is at highest position.
- 1. Remove bobbin case and open latches **A** and **B**, as shown. For more information on removing and replacing bobbin case, refer to pages 12 and 13.
- 2. Remove part **C** and part **D** of Bobbin Case Holder, as shown.
- 3. Clean and oil areas indicated by arrows.
- 4. To replace bobbin case holder, insert part **D** with spindle **E** up, as shown.
- 5. Then fit part **C** into place with flat side up, as removed.*
- 6. Close latches **A** and **B** over part **C**.
 - Replace cover, if necessary.





- **Bobbin and Feed Areas**

To clean bobbin and feed areas, remove needle plate, as instructed on page 5. Using soft cloth or brush, clean area as illustrated. Replace needle plate, as instructed on page 5.

- **Exterior Areas**

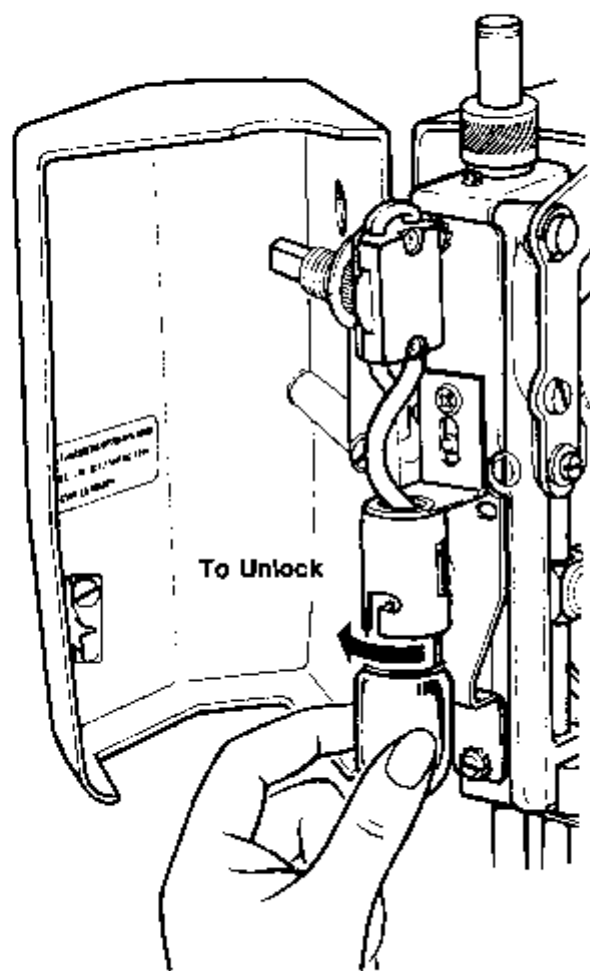
If necessary, a mild solution of soap and water may be used on exterior areas to remove stubborn stains. No other cleaning liquid or powder should be used.

CHANGING THE LIGHT BULB

CAUTION: Before changing light bulb make sure you have disconnected power line plug from socket outlet.

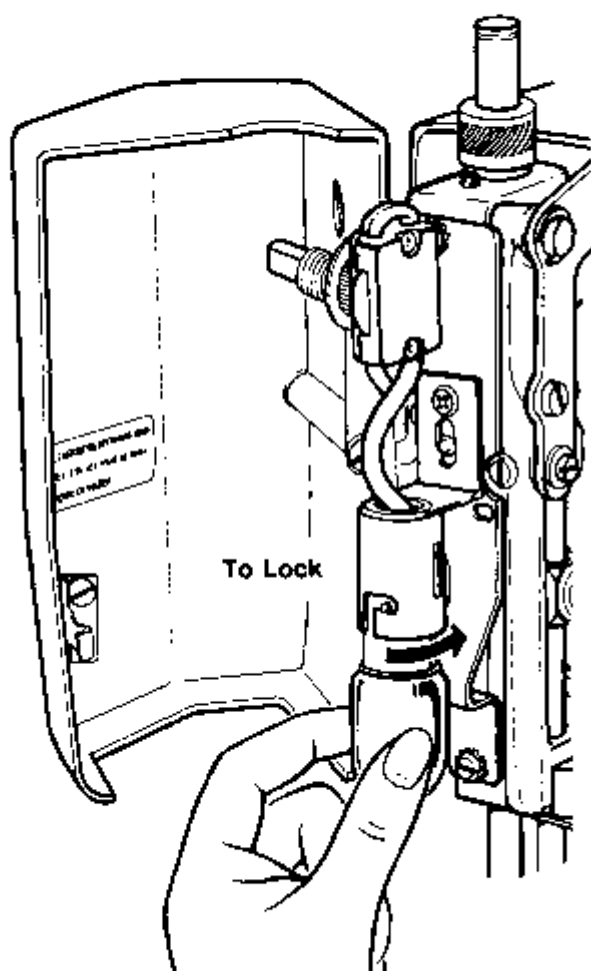
CAUTION: This machine is designed to use a 15 watt maximum bayonet base bulb only.

Removing Bulb



- Swing open face plate to left.
- Do not attempt to unscrew the bulb.
- Press it up into the socket and at the same time turn bulb over in direction shown to unlock the bulb pin and guide out of socket.

Replacing Bulb



- Press new bulb into socket, with bulb pins entering slot of socket.
- Turn it over in direction shown to lock bulb in position.
- Swing face plate back to right and snap it closed.

your personal measurements

This chart will enable you to keep a record of your measurements. You will need the assistance of someone to help you to take the measurements carefully with an accurate tape measure.

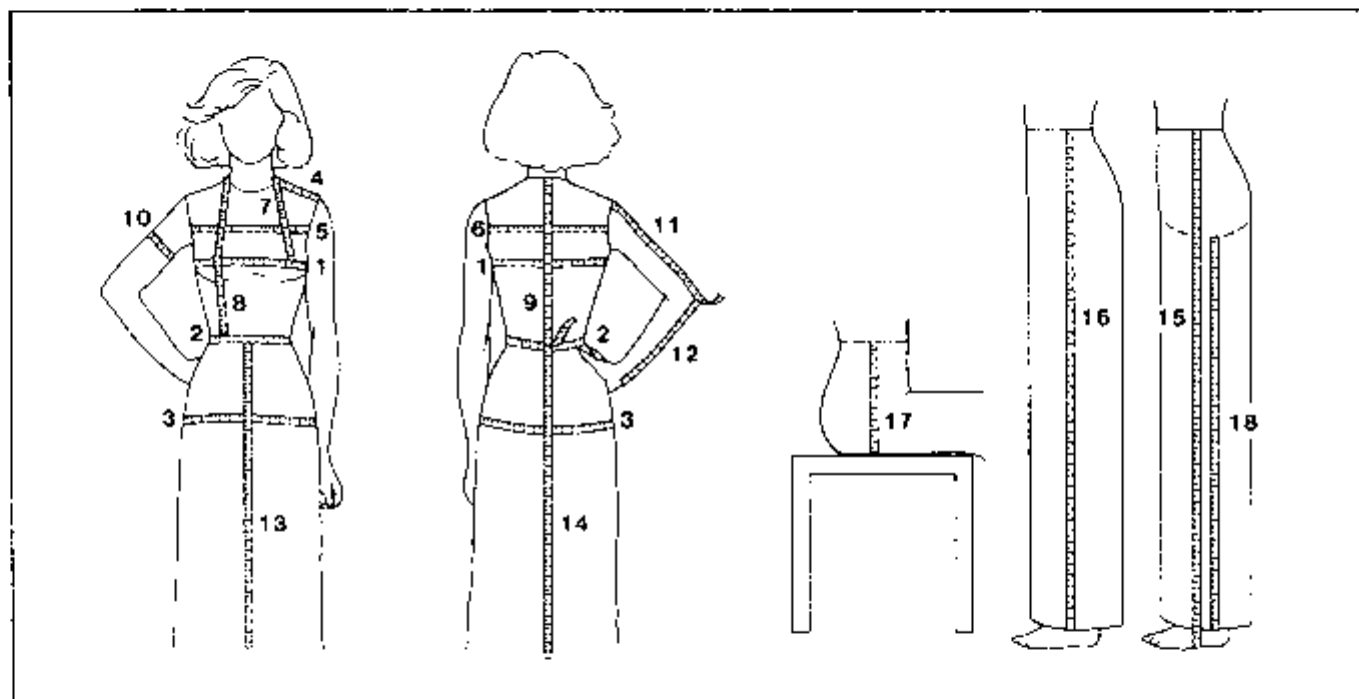
The illustrations show where tape measure should be placed when taking each measurement.

As a starting point, use a ribbon firmly but comfortably tied at the waist before taking measurements.

	cm	(inches)
1. Bust — Fullest part — slightly higher in back	_____	_____
2. Waist — Around natural waistline	_____	_____
3. Hip —cm (inches) below natural waistline (fullest part)	_____	_____
4. Shoulder — From base of neck to top of arm	_____	_____
5. Front Bodice Width — From arm hole to arm hole 13cm (5 inches) down from centre shoulder	_____	_____
6. Back Bodice Width — From arm hole to arm hole 10cm (4 inches) down from centre shoulder	_____	_____
7. Shoulder to Bust — From neck base at shoulder to point of bust	_____	_____
8. Front Waist Length — From neck base at shoulder over fullest part of bust to waistline	_____	_____
9. Back Waist Length — From the prominent bone at base of neck to natural waistline	_____	_____
10. Sleeve Width — Around arm at upper edge of underarm seam	_____	_____
11. Sleeve Length — Shoulder to elbow	_____	_____
12. Sleeve Elbow to Wrist	_____	_____
13. Front Skirt Length — Down centre from waistline to hem	_____	_____
14. Back Skirt Length — Down centre from waistline to hem	_____	_____

PANTS MEASUREMENT CHART

15. Full Length — Waist to floor at side seam	_____	_____
16. Pant Length — Waist to ankle	_____	_____
17. Crotch Depth (seated) — Waist to chair at side seam	_____	_____
18. Crotch Seam (standing) — Crotch depth 17 to be deducted from pant length 16	_____	_____



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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.

