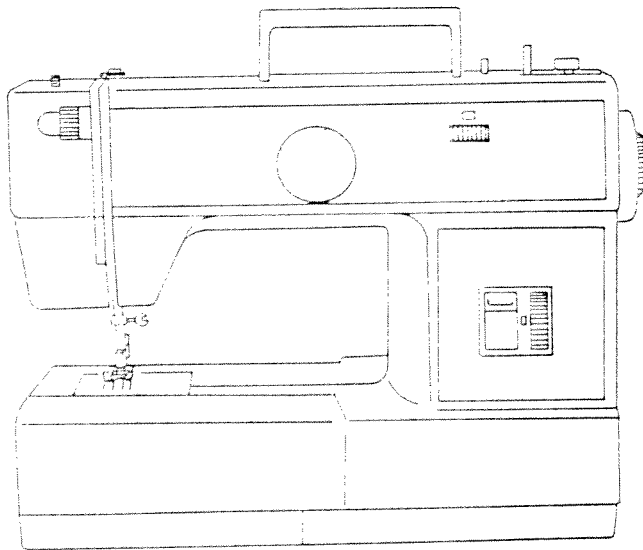


INSTRUCTION BOOK

MODEL 140 AND MODEL 160



IMPORTANT SAFETY INSTRUCTIONS

When using an electrical appliance, basic safety precautions should always be followed, including the following:

Read all instructions before using (this appliance)

DANGER To reduce the risk of electric shock:

An appliance should never be left unattended when plugged in. Always unplug this appliance from the electric outlet immediately after using and before cleaning.

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

1. Do not allow to be used as a toy. Close attention is necessary when this appliance is used by or near children.
2. Use this appliance only for its intended use as described in this manual. Use only attachments recommended by the manufacturer as contained in this manual.
3. Never operate this appliance if it has a damaged cord or plug, if it is not working properly, if it has been dropped or damaged, or dropped into water. Return the appliance to the nearest authorized dealer or service center for examination, repair, electrical or mechanical adjustment.
4. Never operate the appliance with any air openings blocked. Keep ventilation openings of the sewing machine and foot controller free from the accumulation of lint, dust, and loose cloth.
5. Never drop or insert any object into any opening.
6. Do not use outdoors.
7. Do not operate where aerosol (spray) products are being used or where oxygen is being administered.
8. To disconnect, turn all controls to the off ("0") position, then remove plug from outlet.
9. Do not unplug by pulling on cord. To unplug, grasp the plug, not the cord.

DANGER

1. Always unplug before relamping. Replace bulb with same type rated 15 watts.
2. Do not reach for an appliance that has fallen into water. Unplug immediately.
3. Do not place or store appliance where it can fall or be pulled into a tub or sink. Do not place in or drop into water or other liquid.

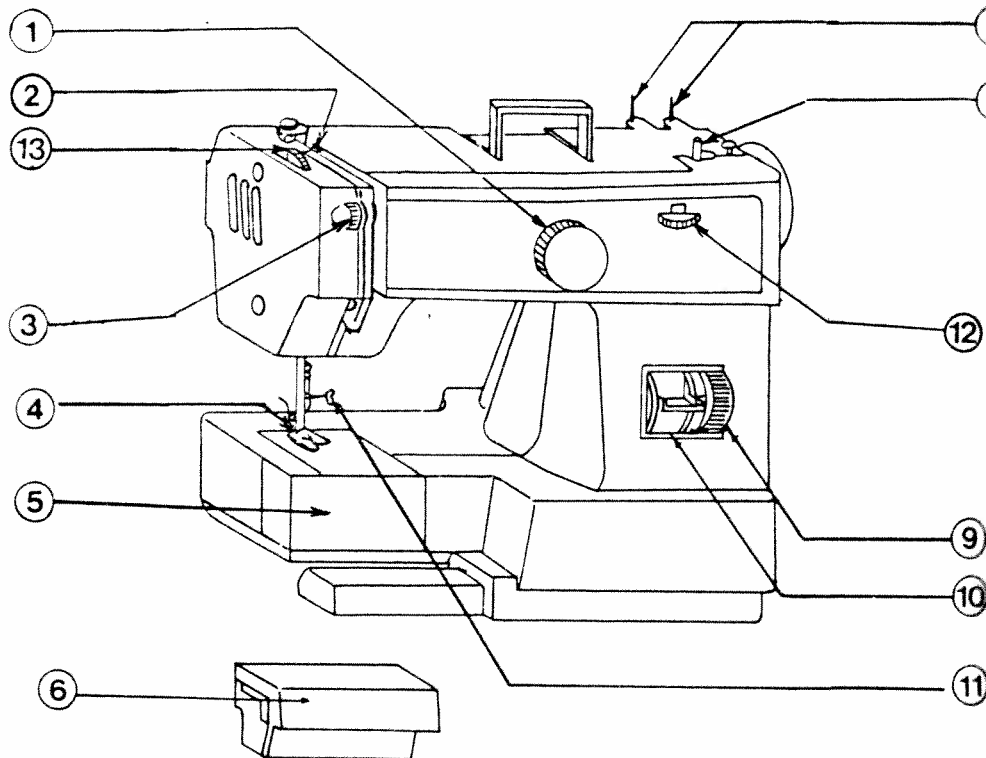
WARNING

1. Keep fingers away from all moving parts. Special care is required around the sewing machine needle.
2. Always use the proper needle plate. The wrong plate can cause the needle to break.
3. Do not use bent needles.
4. Do not pull or push fabric while stitching. It may deflect the needle causing it to break.
5. Unplug the sewing machine when making any adjustments in the needle area, such as threading needle, changing needle, threading bobbin, or changing presser foot, etc.
6. Always unplug sewing machine from the electrical outlet when removing covers, lubricating, or when making any other user servicing adjustments mentioned in the instruction manual.
7. Never operate on a soft surface such as a bed or couch where the air openings may be blocked.

SAVE THESE INSTRUCTIONS

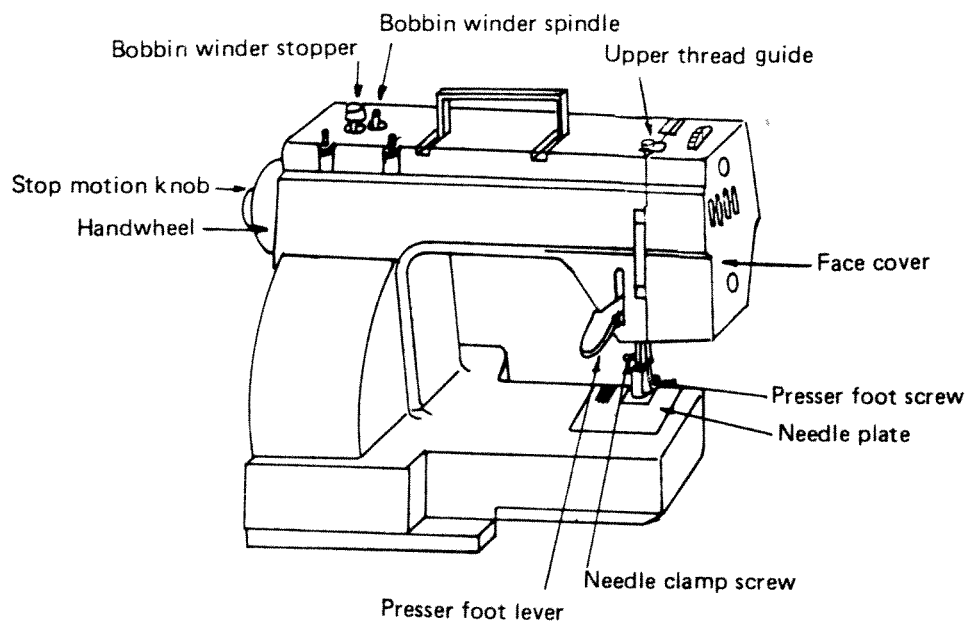
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Names of parts and their functions

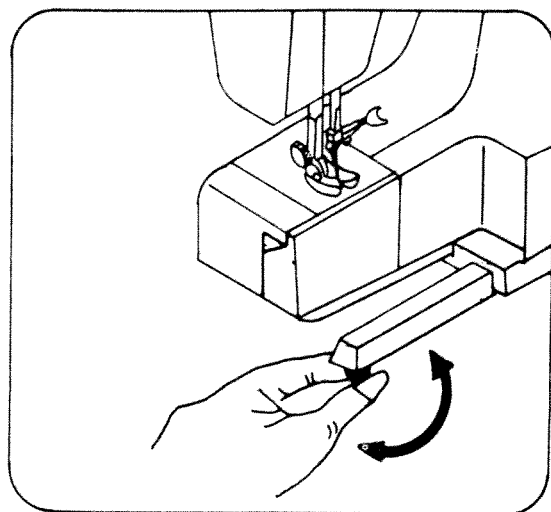


- | | |
|-------------------------|-----------------------------------|
| 1. Stitch selector | 7. Spool pins |
| 2. Thread take-up lever | 8. Bobbin winder spindle |
| 3. Thread tension dial | 9. Stitch length dial |
| 4. Presser foot | 10. Reverse button |
| 5. Shuttle cover | 11. Needle clamp screw |
| 6. Accessory tray | 12. Stitch width dial (model 160) |
| | 13. Presser foot pressure dial |

- * 1. Use a soft cloth to clean the machine.
2. Do not expose the machine to direct sunlight.



Levelling of machine



Accessories



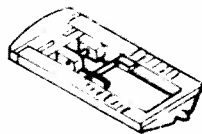
Bobbin



Felt washer



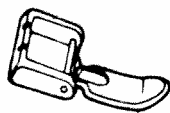
Zigzag foot
(on machine)



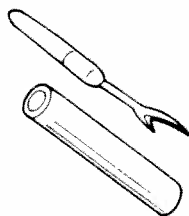
Buttonhole foot



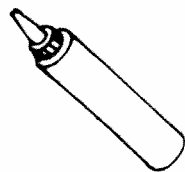
Blind stitch hem foot



Zipper foot



Seam ripper



Oiler



Screwdriver

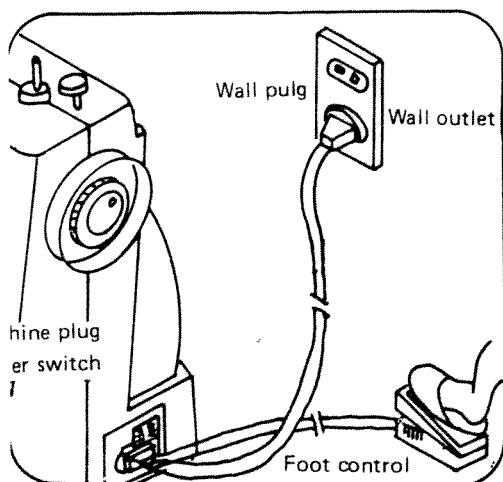


Needle

11 # 14

We reserve the right to change the machine equipment and the assortment of accessories without prior notice, or make modifications to the performance or design. Such modifications, however, will always be to the benefit of the user and the product.

Setting up your machine

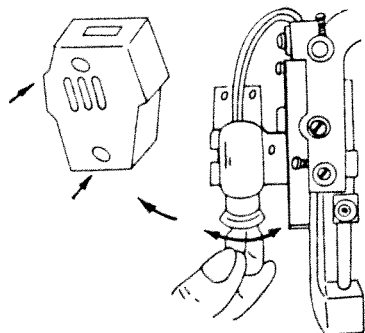


On the base of the machine there is a rating plate with information about voltage and frequency. Before you connect the machine to an electrical outlet make sure that the voltage indicated on the rating plate conforms to that of the electrical outlet.

1. Connect the machine plug.
2. Connect the wall plug.
3. Speed is controlled by means of the foot control.

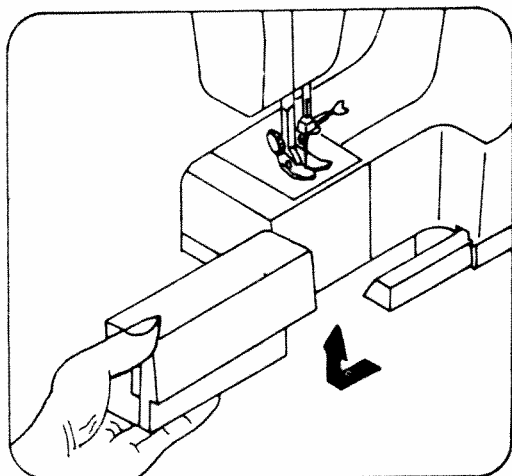
Changing light bulb

Sewing light



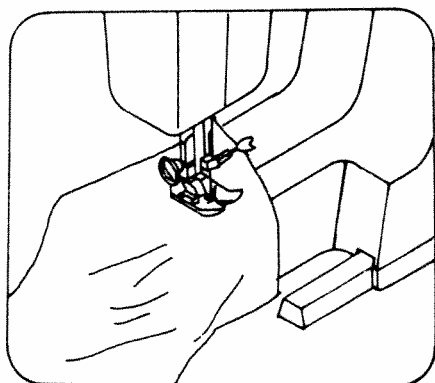
1. Open the face cover in the direction of the arrow.
2. Remove the bulb through turning it counter clockwise.
3. Install a new bulb through turning it clockwise.
4. Use a bulb with screw base 120 V/15 W (max.)

Remove the accessory tray



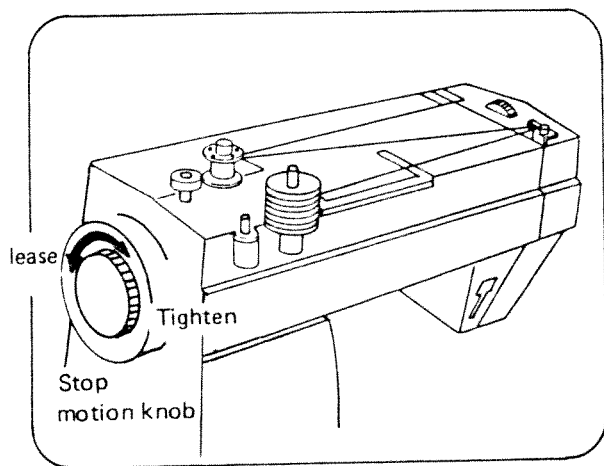
1. Hold the left part of the tray and pull out in the direction of the arrow.

Free arm

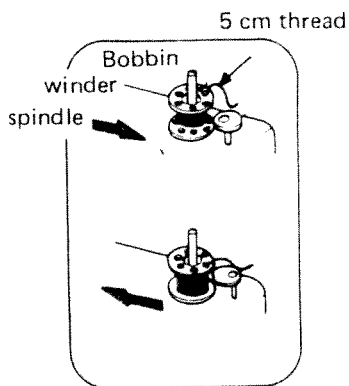


1. Keep the accessory tray on the machine when you want a large working surface. Remove the tray when you want to use the free arm.
2. The free arm is particularly useful for sewing cuffs, sleeves, pant legs and other tubular garments.
3. Slip e.g. a pants' leg over the free arm as illustrated.

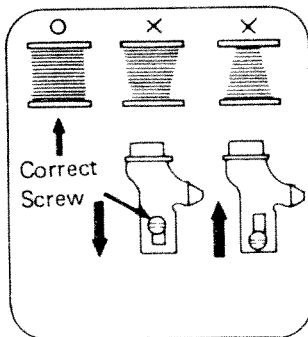
Bobbin Winding



1. Release the stop motion knob.
2. Follow the thread path as illustrated.
3. When the bobbin is full, the stop motion knob must be tightened.

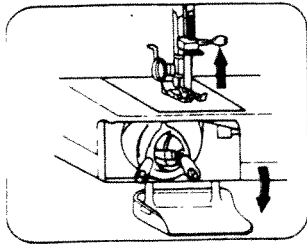


Push the bobbin winder spindle in the direction of the arrow. When the bobbin winding is completed, move the bobbin winder spindle back to its original position.

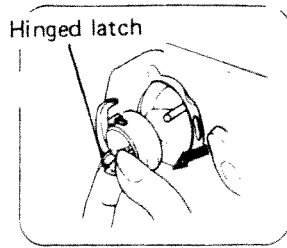


Should the bobbin winding become uneven loosen the screw on the upper thread guide and adjust up or down until the bobbin winding is balanced.

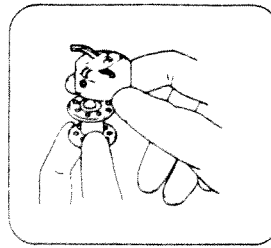
Removing the bobbin case and bobbin



1. Raise the needle to its highest position. Open the shuttle cover.

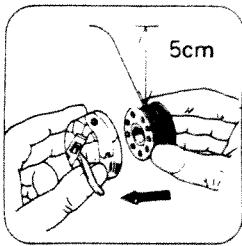


2. Open the latch on the bobbin case and pull the bobbin case out of the machine.

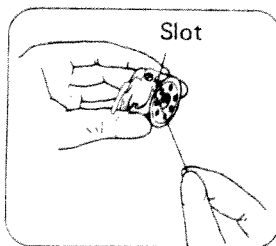


3. Release the latch and the bobbin will fall out.

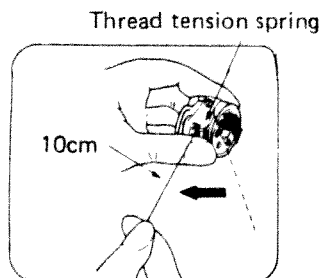
Inserting the bobbin



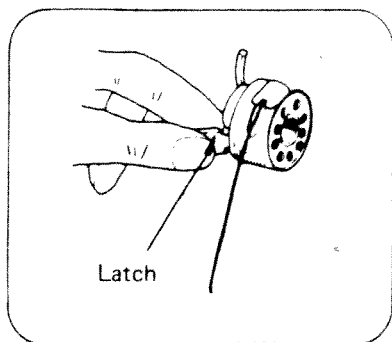
1. Pull out abt.5cm thread from the bobbin and insert the bobbin into the bobbin case as illustrated.



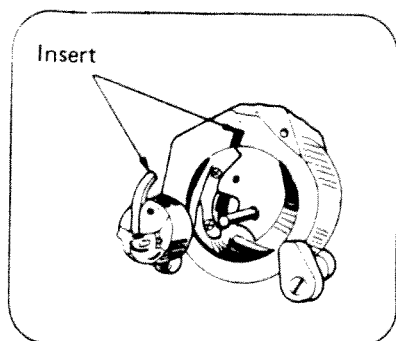
2. Guide the thread through the slot.



3. Pull the thread through the slot and under the tension spring and draw out about 10 cm thread

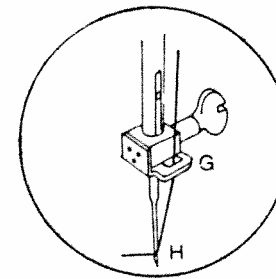
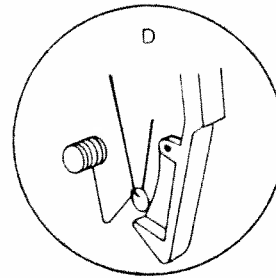
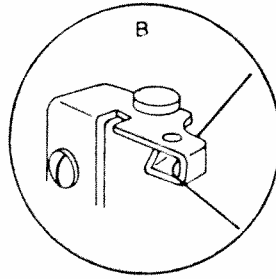
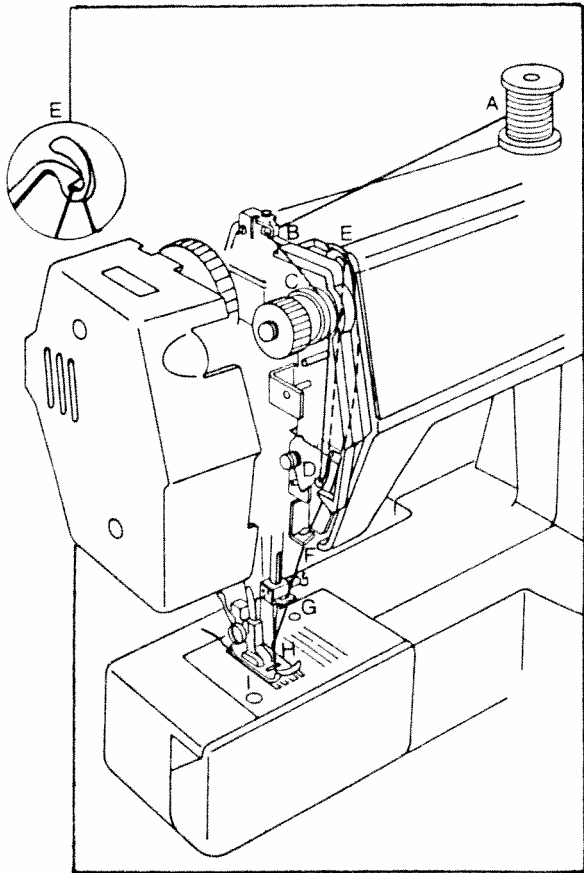


1. Raise the needle to its highest position and pull the thread to the front. Open the latch and hold it.

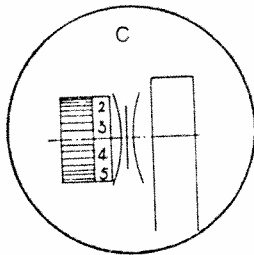


2. Hold the latch open, put the bobbin case on the centre pin in the shuttle and release the latch.

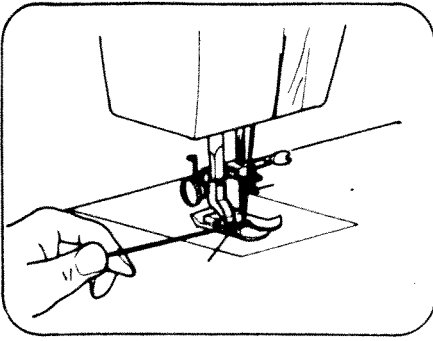
Thread the machine from A to I as per illustration.



Twin needle threading

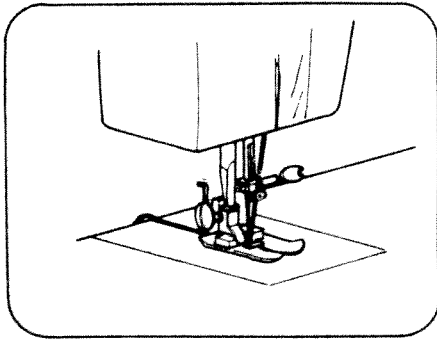


Bringing up the bobbin thread

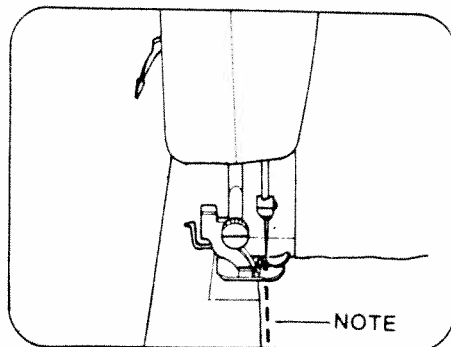
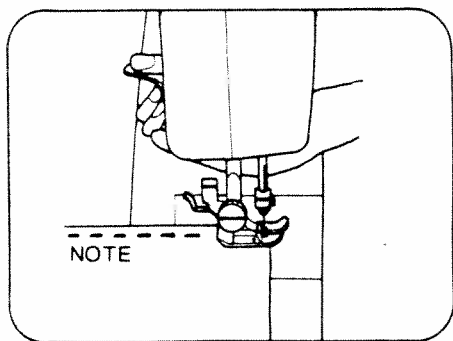


1. Hold the upper thread with your left hand and turn the handwheel slowly towards you until the needle enters the needle hole and comes up again. Stop turning the handwheel when the take-up lever has reached its highest position.

Pull the upper thread lightly and the bobbin thread is brought up in a loop.



2. Pull out both threads and bring them under the presser foot to the rear of the machine.

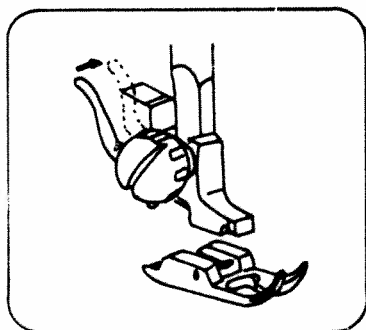


1. Let the needle enter the fabric and raise the presser foot. Turn the fabric around the needle in the new direction.
2. Lower the presser foot and continue to sew.

Changing presser foot

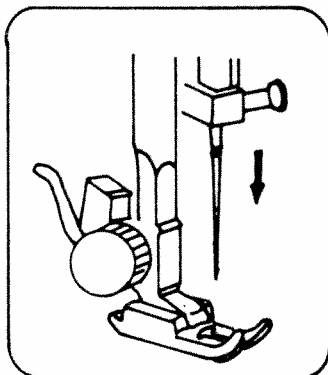
The presser feet are of the snap-on type.

Remove the presser foot



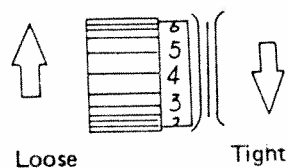
1. Raise the needle to its highest position.
2. Raise the presser foot lifter.
3. Press the lever on the back of the foot holder and the presser foot will be released.

Attaching the presser foot

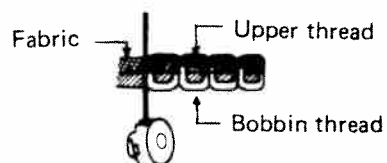


1. Place the presser foot on the stitch plate so the pin on the foot is exactly under the groove of the foot holder.
2. Lower the presser foot lifter and the presser foot snaps on.

Adjusting thread tension

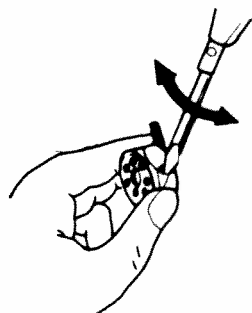
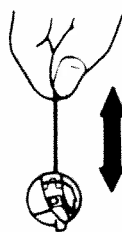
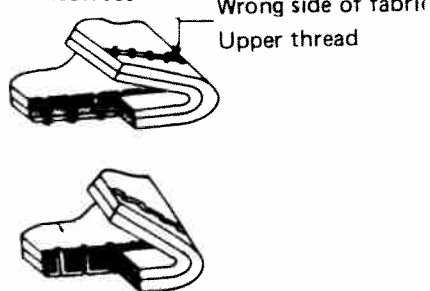


Correct

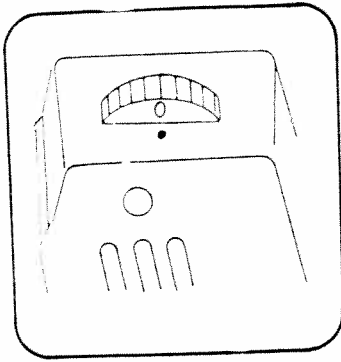


The upper thread tension is adjusted through turning the thread tension dial.

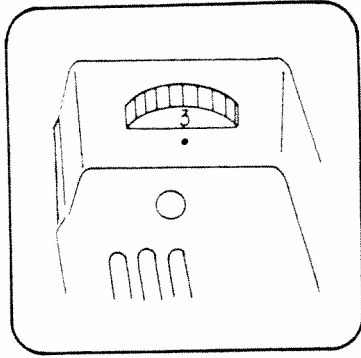
Incorrect



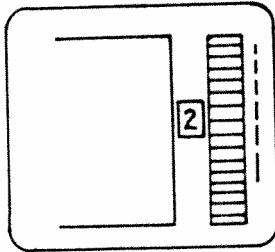
The lower thread tension can be adjusted through turning the screw on the bobbin case slightly to the right (clockwise) to increase the tension. Turn to the left (counter-clockwise) to loosen the tension.



1. Move the lever to the pressure you want. For light, elastic fabrics choose setting 1, medium fabrics 2 and heavy fabrics 3.
2. Too low pressure can result in poor feeding, skipped stitches or difficulties in guiding the fabric.
3. When darning or sewing free-hand embroidery the pressure must be released. Set at 0.

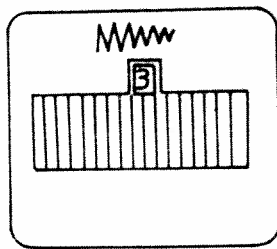


Stitch length and stitch width



Stitch length

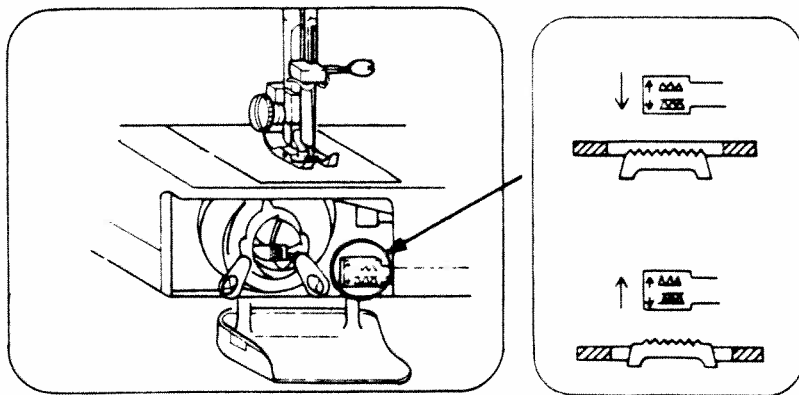
With this dial the stitch length can be set between 0 and 4.



Stitch width (model 160)

With this dial you can set the stitch width steplessly between 0 and 4.

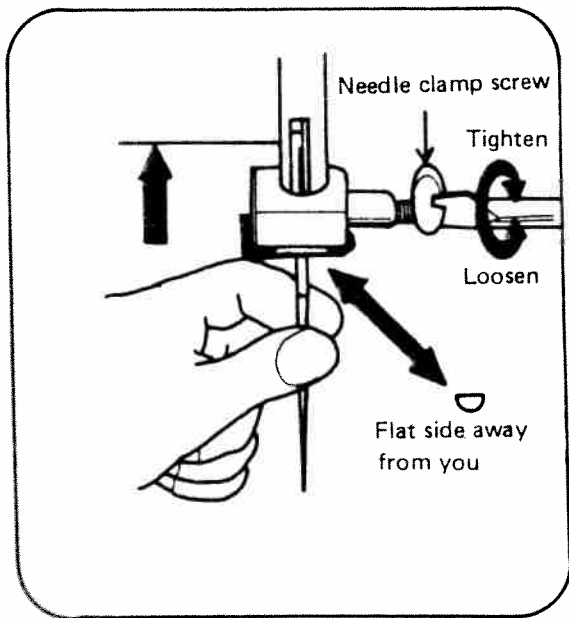
Drop feed



Push downwards to lower the feed dog.

Push upwards to raise the feed dog.

Changing needle



1. Raise the needle to its highest position.
2. Loosen the needle clamp screw and remove the needle.
3. Turn the flat side of the needle away from you and insert the needle as far it will go.
4. Tighten the needle clamp screw securely.






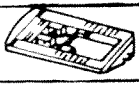










Chart – fabric, needle and thread

This chart gives you some useful hints for sewing in different fabrics.















Fabrics		Needle size	Thread type
Light	Tricot, silk, tulle, chiffong Organdie, taffeta, lawn	60-70(8-10)	Light cotton or synthetic thread
Medium	Cotton, poplin, satin, velvet, wool, light corduroy, gabardome	80 (12)	Cotton or synthetic thread
Heavy	Denim, tweed, corduroy, cashmere, coat material	90-100(14-16)	Heavy cotton or synthetic thread

Note! Always use the same size on upper and lower thread.

Recommended settings – Model 160

Stitch	Stitch selection		Stitch length	Stitch width	Presser foot	Rem
A	Straight stitch		0-4	0		
A	Zigzag		0-4	0-4		
B C D	Buttonhole		0,2 0,4	4		
E	Overlock stitch		4	0-4		
F	Smocking stitch		4	0-4		
G	Pullover stitch		4	0-4		
H	Reinforced straight stitch		4	0		
H	Reinforced zigzag		4	0-4		
I	Overcast stitch		0,7-1	0-4		
J	Three-step zigzag		0,5-2	0-4		
K	Blind stitch		2-3	0-4		
	Free-hand embroidery	Stitch A	0	0-4		Drop feed dog

Recommended settings – Model 140

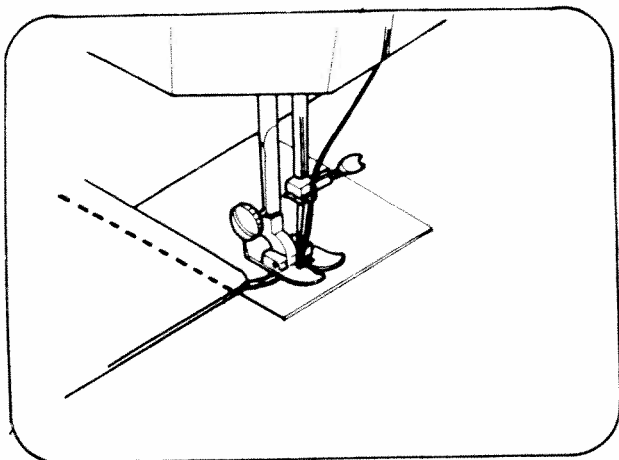
Stitch	Stitch selection		Stitch length	Presser foot	Rem
A	Straight stitch		0-4		
B-F	Zigzag		0-4		
G H I	Buttonhole		0,2-0,4		
J	Blind stitch		2-3		
K	Three-step zigzag		0,5-2		
L	Overlock stitch		4		
M	Reinforced straight stitch		4		
	Free-hand embroidery		0		Drop feed dog

Important advice

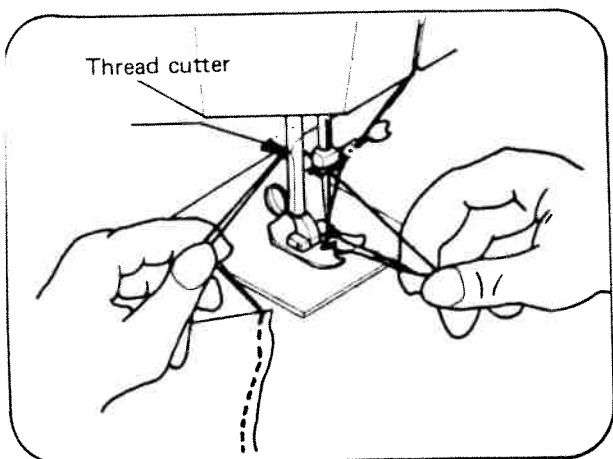
1. Always raise the take-up lever to its highest position when starting or stopping to sew.
2. Hold both threads abt. 10 cm to the rear of the machine during the first couple of stitches.
3. Ensure that there is enough fabric under the needle before you lower the presser foot.
4. Depress the foot control and start sewing.
5. It is advisable to test-sew on a scrap piece of the fabric you intend to use so you can change the settings, if necessary.

NOTE!

1. If you turn the handwheel manually always turn it towards you.
2. Guide the fabric lightly with your hand.
3. In order to prevent needle breakage always stop with the needle out of the fabric.



1. Sew to the end of the seam.
2. Press the reverse button and sew 3-4 stitches in reverse.
3. Raise the needle to its highest position.
4. Raise the presser foot and pull out the fabric to the rear of the machine.



5. Cut the thread by means of the thread cutter.

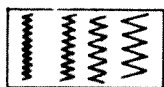
Straight stitching

1. This stitch is the most commonly used stitch.
2. The zigzag presser foot is used for both straight and zigzag stitching.
3. For light fabrics use a short stitch length.

Zigzag stitching



Stitch selector position
(model **160**)

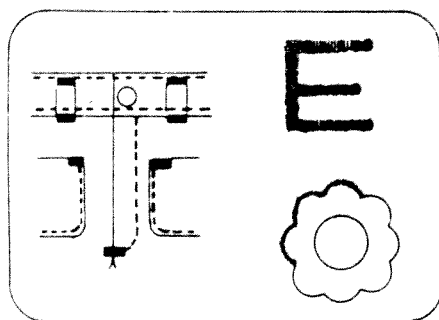


Stitch selector position
(model **140**)

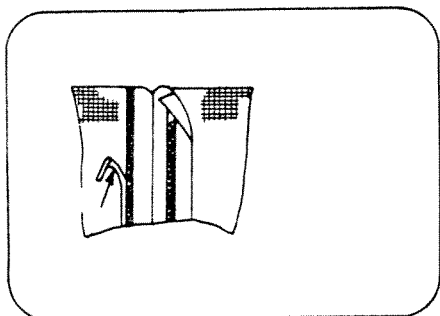
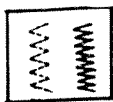
Model 160

Set the stitch width dial between 1 and 4 depending on which zigzag width you want.

Satin stitching, i.e. close zigzag, is used for monograms, decorative stitches, applique etc.

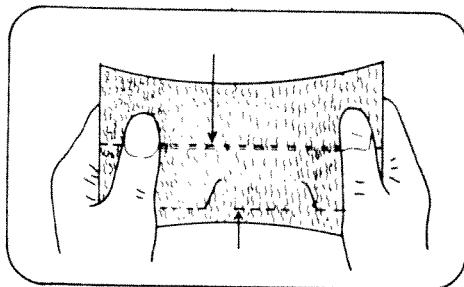


Overcasting



Use those stitches to overcast edges.
Be sure to trim the edges beforehand.

Reinforced straight stitching



Use this stitch with knits, tricot and other elastic fabrics. The reinforced straight stitch is very strong and thus useful for seams subjected to considerable strain.

Blind stitch hemming

Fold the fabric as illustrated with the wrong side up (1).

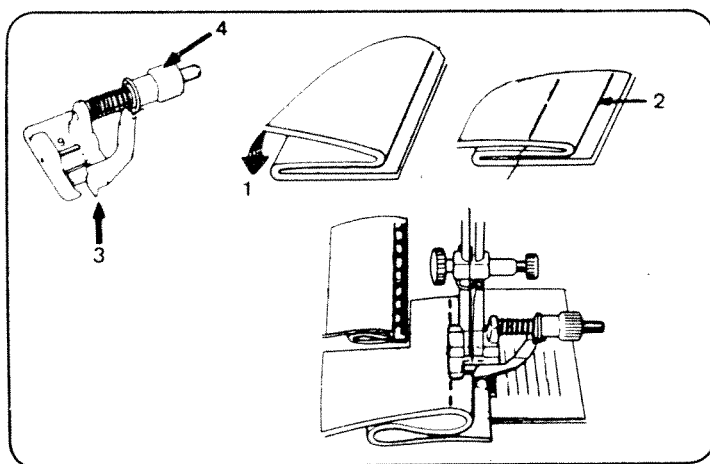
Place the folded fabric under the presser foot as shown.

Turn the handwheel towards you until the needle is in the far left position. Make sure that the needle only catches one thread of the folded edge (2). If not, re-position the fabric.

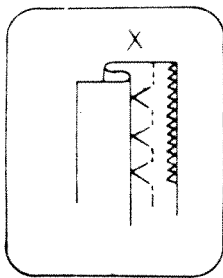
When the fabric is in the correct position, make sure that the edge guide on the presser foot (3) follows the folded edge (2) through turning the roller (4).

Continue to sew and guide the fabric carefully to ensure that it remains in the correct position against the edge guide (3).

Note! Some practice is needed in order to get the best possible result. Test sew on a scrap piece of your fabric and check the right side.

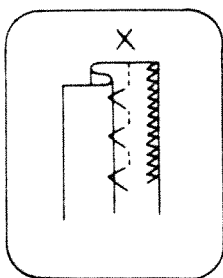


Adjust the stitch width (model **160**) and the edge guide on the presser foot in order to get the best possible result.



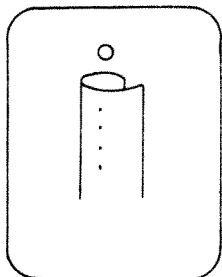
The needle fails to reach the folded edge

(A)



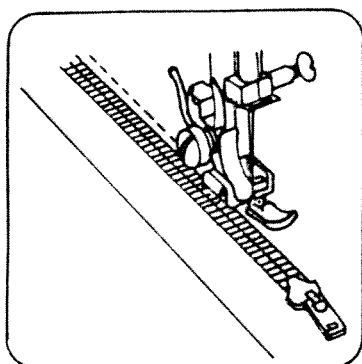
The needle enters the fabric too far to the left

(B)

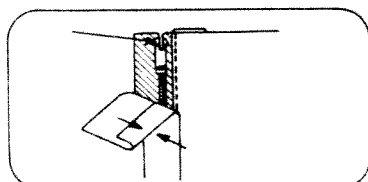


Correct result

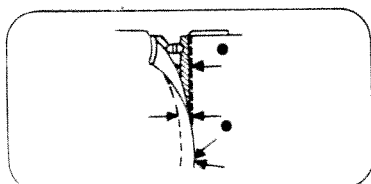
Zipper insertion



1. Select straight stitch and attach the zipper foot.
2. Position the zipper foot to the left of the needle.

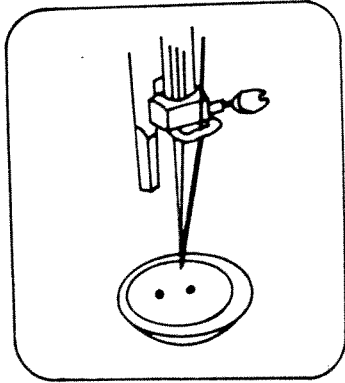


3. Place the zipper under the folded seam allowance with the zipper teeth as close to the fold as possible and stitch zipper to fabric close to the fold. Begin sewing at the bottom of the zipper.

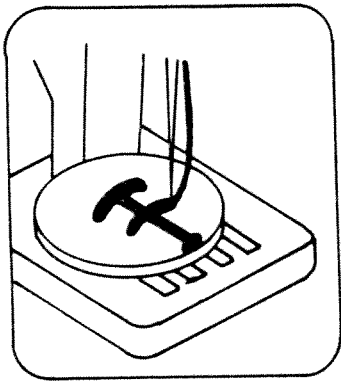


4. Position the zipper foot to the right of the needle. Before you begin to sew, mark the seam line. Sew the other side of the zipper. Begin stitching across the bottom and continue upwards.

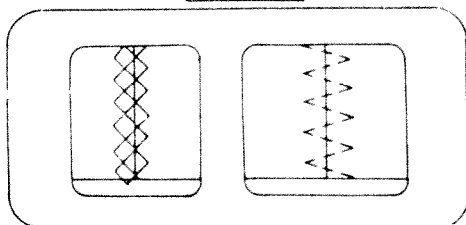
Sewing on buttons



1. Lower the feed dog
2. Remove the presser foot.
3. Position the button on the fabric and lower the presser bar.
4. Turn the handwheel towards you and make sure that the needle enters both holes of the button. You may need to readjust the stitch width.
5. Sew 6 to 8 stitches.
6. Pull both threads to the underside and tie.











Bridging stitches

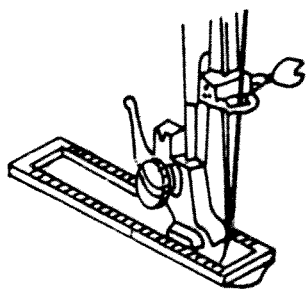


Use those to join two pieces of fabric edge to edge.

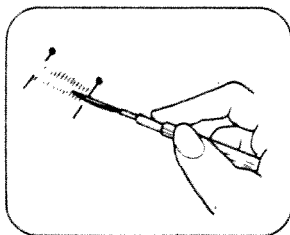
Buttonholes

Set the stitch length dial as per recommendation, the stitch width dial on 4 (model 160) and the thread tension dial within the area indicated on the dial.

	Step	Stitch selector
		1. Model 160 Select position B Model 140 Select position G 2. Sew the right column (in reverse) 3. Raise the needle
		4. Model 160 Select position C Model 140 Select position H 5. Sew 5-6 stitches 6. Raise the needle
		7. Model 160 Select position D Model 140 Select position I 8. Sew the left column 9. Raise the needle
		10. Model 160 Select position C Model 140 Select position H 11. Sew 5-6 stitches 12. Raise the needle



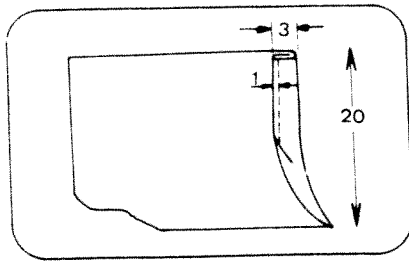
Attach the buttonhole foot and push the sliding part backwards before you start to sew.



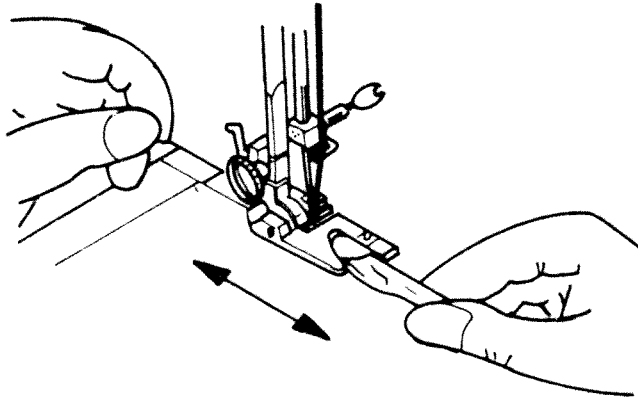
Cut the buttonhole in the centre using the seam ripper. Be careful when you cut.

Optional accessories

Rolled hem



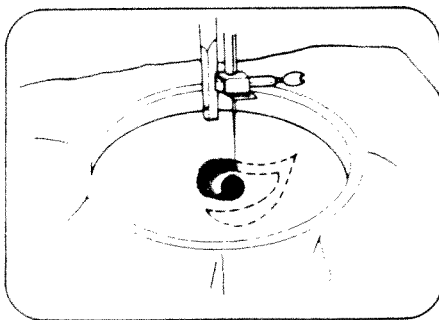
1. Raise the presser foot and the needle to the highest position. Change to the hemmer foot.
2. Fold the edge of the fabric abt. 3 mm and place the fabric under the presser foot. Secure the folded edge with a few stitches. Take out the garment and pull the hem into the hemmer foot through pulling the threads.



3. Lower the presser foot and sew the hem.
4. When sewing, guide the fabric a little to the left so that it really runs into the hemmer foot.
5. Make sure that the fabric does not move under the right part of the foot. The fabric must be fed smoothly and evenly into the curl of the hemmer foot so that the edge of the fabric runs freely through the groove under the foot.

Optional accessories

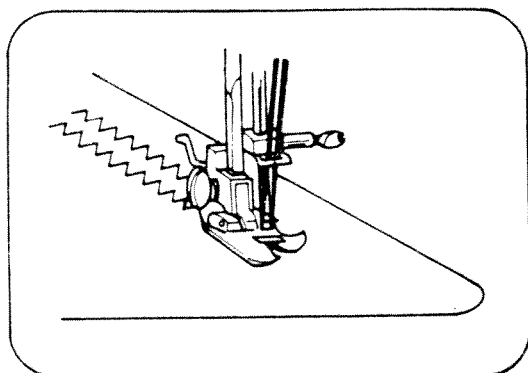
Free-hand embroidery



Remove the presser foot and the foot holder. Lower the feed dog.

Position the fabric in an embroidery hoop, stretching it as much as possible. Place the hoop under the needle and lower the presser bar.

Twin needle

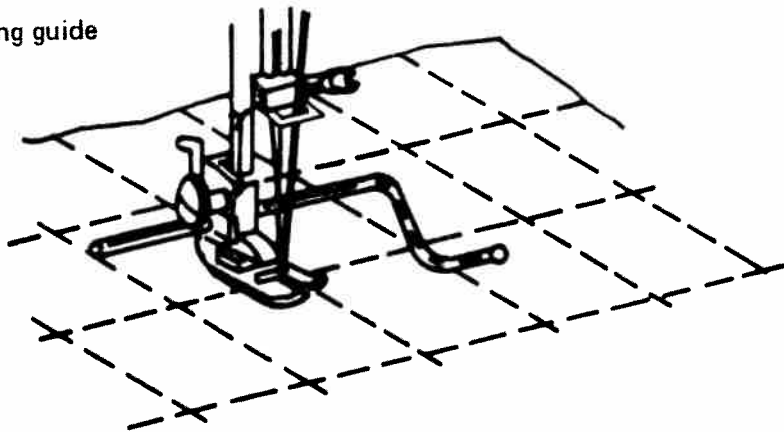


Thread the machine as for normal sewing but with two threads.

NOTE! The stitch width must NOT exceed 3 mm as otherwise a needle breakage will be the result.

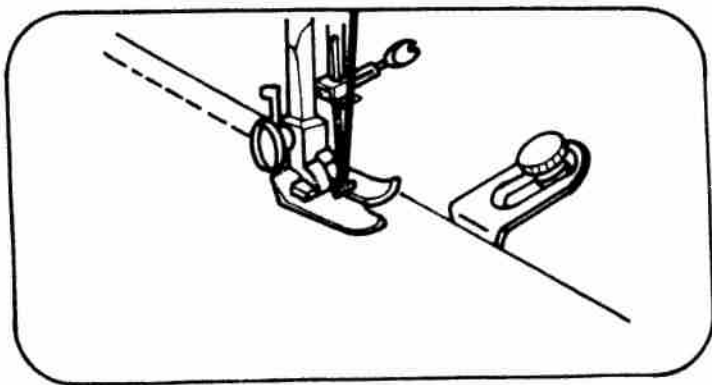
Optional accessories

Quilting guide



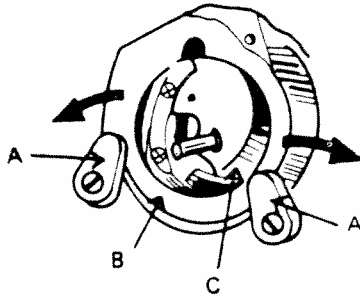
1. This attachment comes in handy when you want several rows of stitches on equal distance apart.
2. Attach the quilting guide to presser foot as shown.

Edge guide



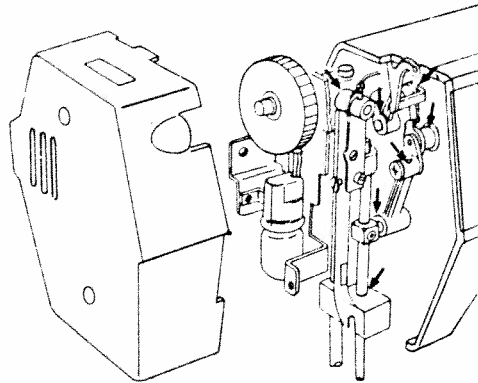
1. Use the edge guide when sewing a long seam at the same distance from the fabric edge.
2. Attach the edge guide to the right of the stitch plate and adjust the distance.
3. Run the machine with the fabric edge slightly touching the guide. Position the guide at an angle to sew a curved seam.

Maintenance (Cleaning and Oiling)

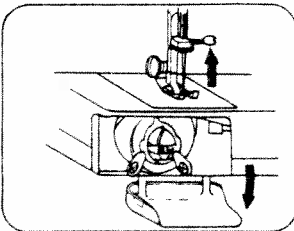


1. Raise the needle to its highest position.
2. Take out the bobbin case.
3. Turn the latch A as illustrated.
4. Remove the shuttle race cover.
5. Remove the shuttle.
6. Clean and oil the shuttle race and the shuttle. Assemble the parts in the reverse order.

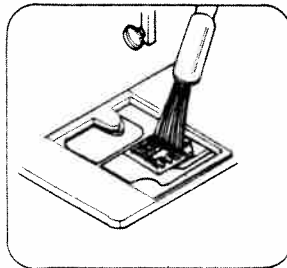
Cleaning shuttle race
(A) Latch
(B) Shuttle race cover
(C) Shuttle



Open face cover and oil the parts indicated.



Open the shuttle cover and oil the parts indicated.



Cleaning the feed dog.

Performance problems

Problem	Probable cause	Possible correction
Fabric does not move	<ul style="list-style-type: none"> - Feed dog down - Stitch length dial on 0 - Light presser foot pressure 	<ul style="list-style-type: none"> - Raise feed dog - Set dial between 1 and 4 - Increase pressure
Breaking needle	<ul style="list-style-type: none"> - Incorrect insertion of needle - Bent needle - Fabric is pulled - Needle, thread and fabric do not match 	<ul style="list-style-type: none"> - Re-insert needle - Replace needle - Do not pull fabric - Use correct needle and thread
Breaking upper thread	<ul style="list-style-type: none"> - Improper threading - Tight upper thread tension - Needle bent - Nicks or burrs on stitch plate opening 	<ul style="list-style-type: none"> - Re-thread machine - Loosen upper thread tension - Insert new needle - Polish of burrs or replace stitch plate
Breaking bobbin thread	<ul style="list-style-type: none"> - Tight bobbin thread tension - Improper threading - Incorrect insertion of needle - Lint or thread in shuttle 	<ul style="list-style-type: none"> - Loosen bobbin thread tension - Re-thread machine - Re-insert needle - Clean shuttle
Machine jamming Knocking noise	<ul style="list-style-type: none"> - No oil - Damaged needle - Thread caught in shuttle 	<ul style="list-style-type: none"> - Oil - Replace needle - Clean shuttle
Puckering	<ul style="list-style-type: none"> - Thread tension(s) too tight - Presser foot pressure too tight - Needle, thread and fabric do not match 	<ul style="list-style-type: none"> - Loosen tension(s) - Adjust pressure - Use correct needle and thread