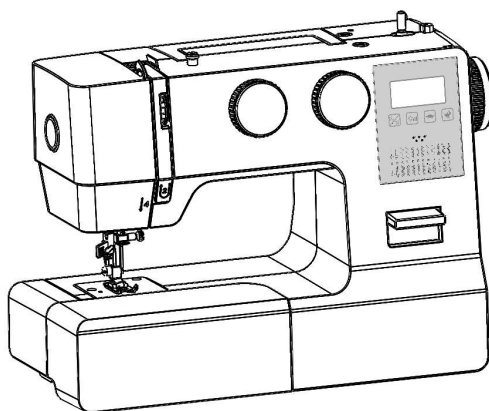


INSTRUCTION MANUAL



Note: Equipped with powerful servo motor, please slow down the speed when sewing heavy duty fabric to avoid any injury.

IMPORTANT SAFETY INSTRUCTIONS

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

Read all instructions before using this sewing machine.

DANGER-- To reduce the risk of electric shock:

1. Do not allow to be used as a toy. Close attention is necessary when this sewing machine is used by or near children.
2. This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.
3. Use this sewing machine only for its intended use as described in this manual. Use only attachments recommended by the manufacturer as contained in this manual.
4. Never operate this sewing machine if it has a damaged cord or plug, if it is not working properly, if it has been dropped or damaged, or dropped into water. Return the sewing machine to the nearest authorized dealer or service center for examination, repair, electrical or mechanical adjustment.
5. Never operate the sewing machine with any air openings blocked. Keep ventilation openings of the sewing machine and foot control free from the accumulation of lint, dust, and loose cloth.
6. Never drop or insert any object into any opening.
7. Do not use outdoors.
8. Do not operate where aerosol (spray) products are being used or where oxygen is being administered.
9. To disconnect, turn switch to the off ("O") position, then remove plug from outlet.
10. Do not unplug by pulling on cord. To unplug, grasp the plug, not the cord.
11. Keep fingers away from all moving parts. Special care is required around the sewing machine needle.
12. Never sew with a damaged needle plate as this can cause needle to break.
13. Do not use bent needles.
14. Do not pull or push fabric while stitching. It may deflect the needle causing it to break.
15. Switch the sewing machine off ("O") when making any adjustments in the needle area, such as threading needle, changing needle, threading bobbin, or changing presser foot, etc.
16. 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.
17. Attention the following to avoid injury:
 - switch off or unplug the appliance when leaving it unattended;
 - unplug the appliance before carrying out maintenance or replacing lamps.

CAUTION--Moving parts-To reduce risk of injury, switch off before servicing. Close cover before operating machine.

SAVE THESE INSTRUCTIONS

This product is for household use, or equivalent.

This appliance complies with EEC Directive 2004/108/EC covering the electromagnetic compatibility.



Please note that on disposal, this product must be safely recycled in accordance with relevant National legislation relating to electrical/ electronic products. If in doubt please contact your retailer for guidance.

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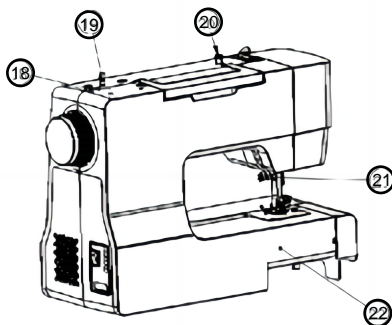
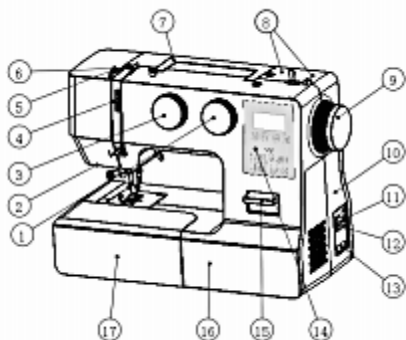
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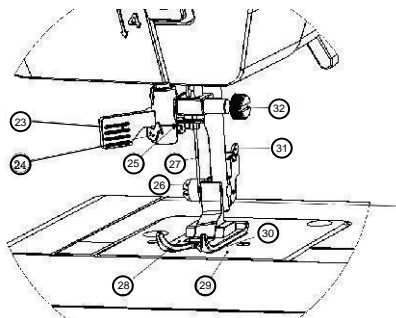
KNOWING YOUR SEWING MACHINE

Main parts

- 1 Stitch length dial
- 2 Thread cutter
- 3 Pattern selector dial
- 4 Thread tension control dial
- 5 Thread take up lever
- 6 Thread guide
- 7 Carry handle
- 8 Spool pins
- 9 Hand wheel
- 10 Belt cover
- 11 Appliance inlet
- 12 Power switch
- 13 Power socket
- 14 Operation screen
- 15 Reverse stitch lever
- 16 Front cover
- 17 Extension table (Accessory box)
- 18 Bobbin winder stopper
- 19 Bobbin winder spindle
- 20 Bobbin winder thread guide
- 21 Press foot lifter
- 22 Rear cover
- 23 Auto threader
- 24 Thread guide



- 25 Needle bar thread guide
- 26 Needle
- 27 Presser foot screw
- 28 Presser foot
- 29 Needle plate
- 30 Feed dogs
- 31 Presser foot holder
- 32 Needle clamp screw



KNOWING YOUR SEWING MACHINE

Accessories

1. Bobbins (3 pcs)
2. Needle box (Needle 3 pcs)
3. Multi-function screwdriver
4. Embroiderer plate
5. Buttonhole opener/Brush
6. Buttonhole foot
7. Guide presser foot
8. Zipper foot
9. Button fitting foot
10. Anti-skipping foot

The foot that comes on your sewing machine is called zigzag foot and will be used for the majority of your sewing.

Setting up your machine

Be sure to wipe off any surplus oil from needle plate area before using your machine the first time.

Power line cord/foot control connect and disconnect

Make sure that the sewing machine is turned off (the power switch is set to "O"), then connect the plug of the power line into the appliance inlet and your wall outlet. Before you disconnect power line cord and foot control, please make sure the sewing machine is turned off (the power switch is set to "o").

Sewing speed can be varied the foot control. The harder you press on the control, the faster machine runs.

NOTE: When foot control is disconnected, the machine will not operate.

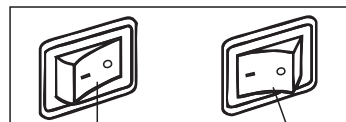
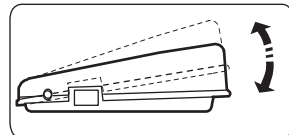
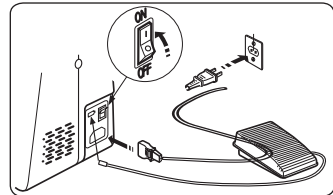
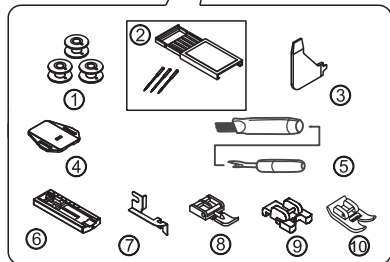
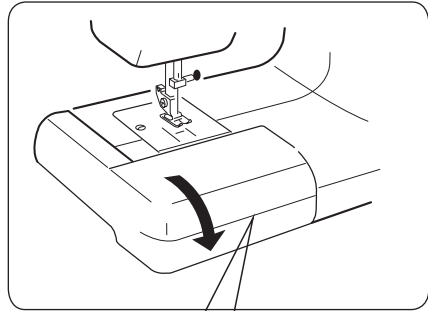


Always disconnect the machine from power supply by removing the plug from the wall-outlet.

Power/light switch

Your machine will not operate until the power/light switch is turned on. The same switch controls both the power and the light.

When servicing the machine, or changing needles, etc., machine must be disconnected from the power supply.



Power/light switch "OFF"

Power/light switch "ON"

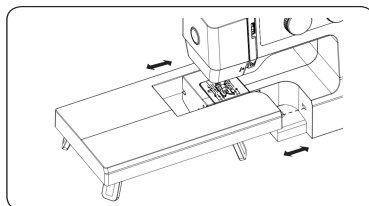
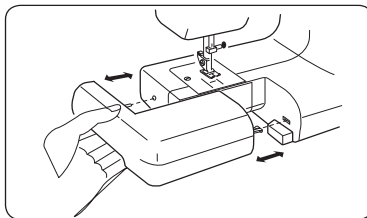
KNOWING YOUR SEWING MACHINE

Converting to free-arm sewing

Your machine can be used either as a flat-bed with extension table or as a free-arm model.

With the accessory box in position, it provides a working surface as a standard flat-bed model. To remove the accessory box, hold it firmly with both hands and pull it off to the left as shown. To replace, slide the extension table back into place until it clicks.

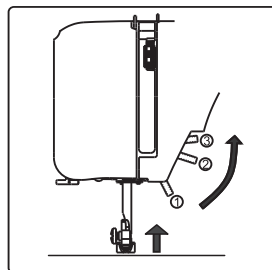
With the extension table removed the machine converts into a slim free-arm model for sewing children's clothes, cuffs, trouser legs, and other hard-to-reach places.



Presser foot lifter

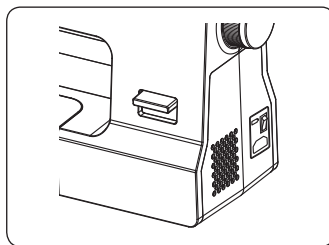
There are three positions for your presser foot.

1. Lower the presser foot to sew.
2. Raise the lifter to the middle position to insert or remove fabric.
3. Lift it to its highest position to change the presser foot or to remove thick fabric.



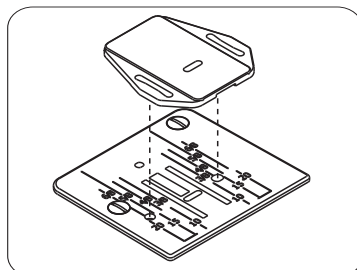
Reverse sewing lever

As long as you are pressing down this button while sewing, the machine will feed the fabric backwards.



Embroidery plate

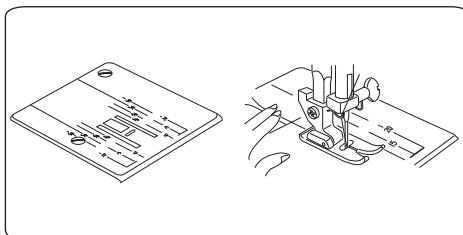
When free sewing or sewing buttons, install the embroidery plate as the right picture.



KNOWING YOUR SEWING MACHINE

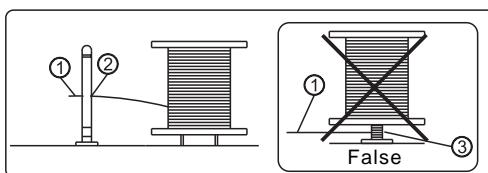
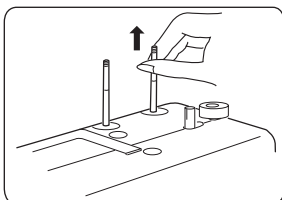
Seam guide line

The numbers on the needle plate indicate the distance between the center needle position and the indicating line. The numbers in the front indicate in Millimeters. The numbers in the back indicate in inches.



Setting spool pins

The spool pins are used for holding the spool of thread in order to feed thread to the machine. To use, pull up the spool pin. Push down for storage.

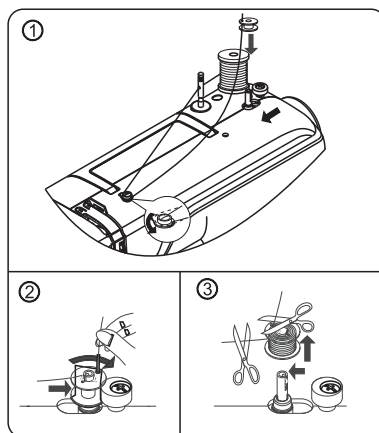


① Upper thread ② Hole ③ Tangle

NOTE: In case of using thread which has tendency to tangle around the spool pin, thread through the hole of spool pin as shown. The hole should face to the thread spool.

Winding the bobbin

1. Place a spool of thread on the spool pin. pull the thread out from the spool, through the hole of spool pin and place it through thread guide as shown in illustration. Put end of thread through the hole in bobbin as shown.
2. Push the bobbin wider shaft to far left position, if it is not already there. Place bobbin onto the bobbin wider shaft with end of thread coming from top of bobbin. Push bobbin winder shaft to the right until it clicks. Hold onto end of thread.
3. Start machine. Bobbin will automatically stop turning when completely filled. Push shaft to the left to remove bobbin and cut thread.



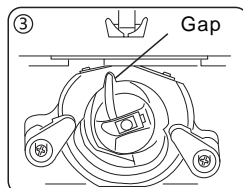
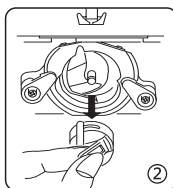
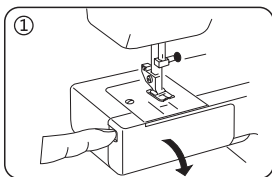
KNOWING YOUR SEWING MACHINE

Removing or replace the bobbin case

- 1.Refer to page 4 to remove the Extension table, raise the needle by turning the hand wheel toward you, then open the shuttle cover.
- 2.Take out bobbin case holding the latch.
- 3.When installing the bobbin case, the pin on the case should fit into the gap of the shuttle race.



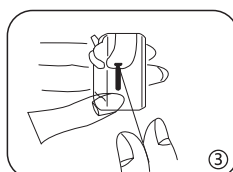
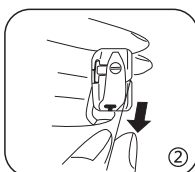
CAUTION Be sure to disconnect the power supply before operating the machine.



Threading the bobbin case

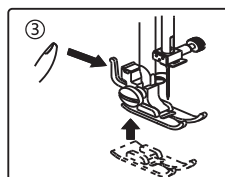
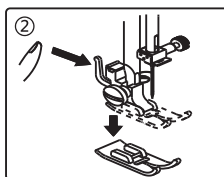
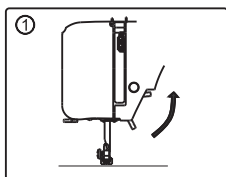
- 1.Install the bobbin into bobbin case. Make sure the thread unwinds in the direction of arrow.
- 2.Pull the thread into the groove in the bobbin case slot.
- 3.Now pull the thread under the tension spring and into the delivery eye.

NOTE: Leave about 10cm (4 inches) of the thread hanging out of the bobbin case. When you pull the thread, the bobbin should spin clockwise.



Changing the presser foot

- 1.Turn the hand wheel toward you to raise the needle to its highest position.
Raise the presser foot.
- 2.Press the lever on the back of the presser foot holder. The presser foot will drop off.
- 3.Place the presser foot so the pin on the foot lies just under the groove of the holder.
Lower the presser foot holder to lock the foot in place.



Attaching the seam guide(optional)

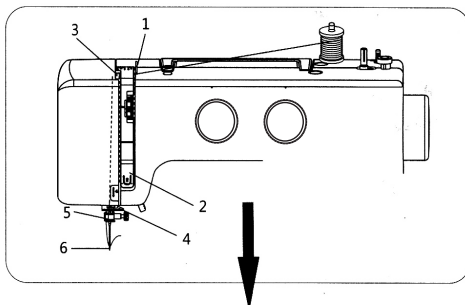
Attach the seam guide in the slot as illustrated.adjust according to need for hems pleats etc.

KNOWING YOUR SEWING MACHINE

Threading the machine

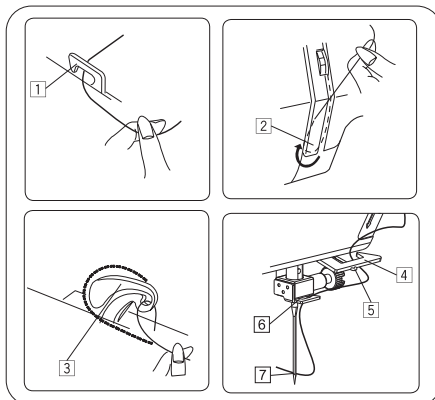
Raise take-up lever to its highest position by turning hand wheel toward you. Raise presser foot.

Place spool on spool pin as shown, with thread coming from the back of the spool.



1. Draw thread into thread guide using both hands.
2. Draw thread down into the tension area and around the check spring holder.
3. Firmly draw thread up and through take-up lever from right to left.
4. Then draw thread down and slip it into the lower thread guide.
5. Do not block the thread into double needle spring.
6. Draw thread down and slip it into needle bar thread guide.
7. Thread needle eye from front to back.

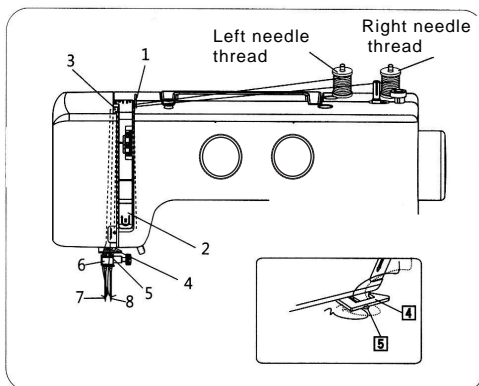
Note: Cut the thread end with sharp scissors for easier needle threading.



Twin needle

How to thread the double needle:

1. Use the bobbin to thread the left needle according to the way of threading single needle from step one to step four, then fix the thread into the double needle spring as point 5 in the right picture. Finally thread into the left needle eye from front to back.
2. Thread the right needle according to the way of threading single needle from step one to step seven.



Note: Be sure to thread the left needle firstly, then to thread the right needle.

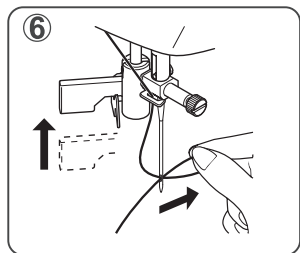
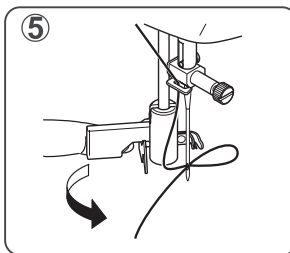
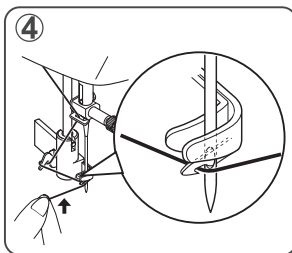
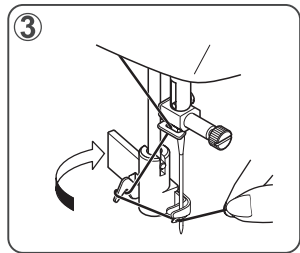
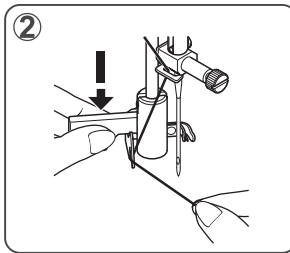
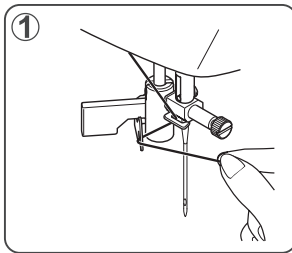
KNOWING YOUR SEWING MACHINE

Using automatic needle threader

Raise the needle to its highest position by rotating the hand wheel towards you.

1. Hook thread to thread guide as illustrated.
2. Pull down lever while holding the end of thread.
3. Rotate the lever to the rear of the machine.
4. Guide thread into hooked end and pull the thread upward.
5. Return the lever and needle will be threaded automatically.
6. Release the lever and pull thread away from you.

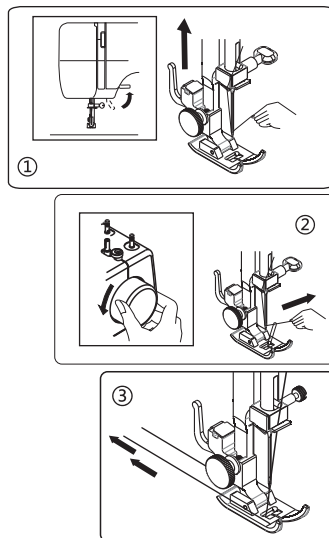
NOTE : For a smooth threading it is recommended you select straight stitching when using the needle threader.



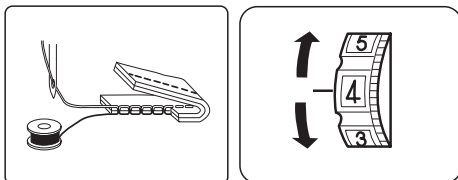
KNOWING YOUR SEWING MACHINE

Drawing up bobbin thread

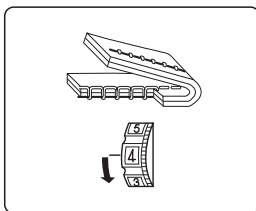
- ① Raise the presser foot and hold the needle thread lightly with your left hand.
- ② Turn the hand wheel slowly towards you with your right hand until the needle goes down and continue turning the hand wheel until the take-up lever is at its highest position. Lightly draw up the needle thread forming a loop of the bobbin thread.
- ③ Pull 15cm (6 inches) of both thread back and under the presser foot.



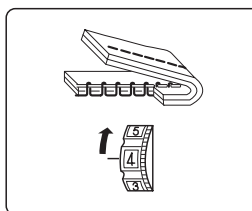
Balancing top thread tension



The top thread and the bobbin thread should interlock in the center of two layers of fabric in straight seams. Set the desired number of the thread tension dial at setting mark.



Tighten the needle thread tension by moving the dial to a higher number.



Loosen the needle thread tension by moving the dial to a lower number.

NOTE : In order to obtain better zigzag stitches, the top thread tension should be slightly weaker than the bobbin thread tension. That means, the top thread should appear slightly on the reverse side of the fabric, but the bobbin thread cannot appear on the top side of the fabric.

KNOWING YOUR SEWING MACHINE

Needle, thread and fabric chart

Your fabric will determine the choice of a needle and thread. The following table is a practical guide to needle and thread selection.

Always refer to it before a new sewing project. And be sure to use the same size and type of thread in the bobbin as in the top thread supply.

Kind	Fabric	Threads	Needle size
Light Weight	Crepe de chine, Voile Lawn, Organdy,orgette, Tricot.	Fine Silk, Fine Cotton, Fine Synthetic, Fine Cotton Covered Polyester.	9 or 11
Medium Weight	Linens, Cotton, Pique, Serge, Double knits, Percale.	50 Silk, 50-80 Cotton, 50-60 Synthetic 50-60 Cotton Covered Polyester.	11 or 14
Heavy Weight	Denim, Tweed, Gabardine, Coating, Drapery and Upholstery Fabric.	50 Silk, 40-50 Cotton, 40-50 Synthetic, 40-50 Cotton Covered Polyester.	14 or 16



CAUTION

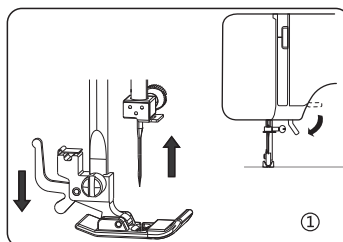
Always disconnect the machine from power supply by removing the plug from the wall-outlet.

Changing the needle

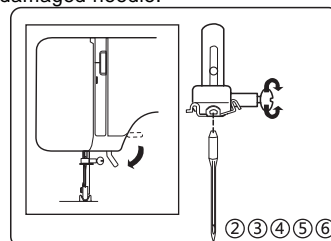
1. Raise the needle by turning hand wheel toward you and lower the presser foot.
2. Rotate the needle clamp screw toward you (counter-clockwise) to loosen the needle.
3. Remove the needle from the clamp.
4. Insert the new needle into the needle clamp with the flat side away from you.
5. When inserting the needle into the clamp, push it up as far as it will go.
6. Tighten the clamp screw clockwise firmly with the screwdriver.

NOTE : Tighten snugly, but do not over tighten.

Helpful Hint: Placing a scrap of fabric under the presser foot and lowering the presser foot makes it easier to change the needle and will preclude dropping the needle into the needle plate slot.

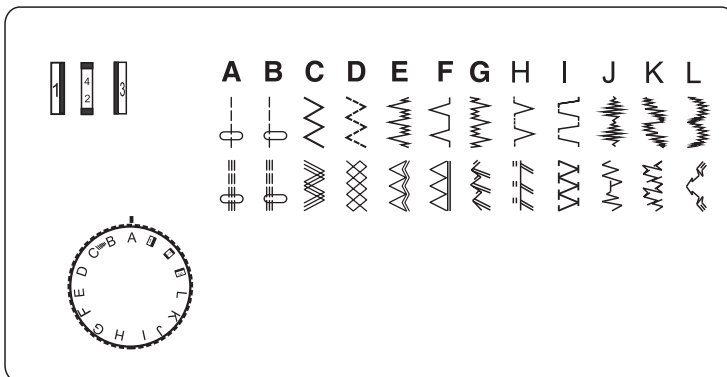


* Check your needles frequently for barbed or blunted points. Snags and runs in knits, fine silks and silk-like fabrics are permanent and are almost always caused by a damaged needle.



KNOWING YOUR SEWING MACHINE

Pattern selector dial



Raise the needle above the fabric and select the desired pattern at the setting mark by turning the pattern selector dial.

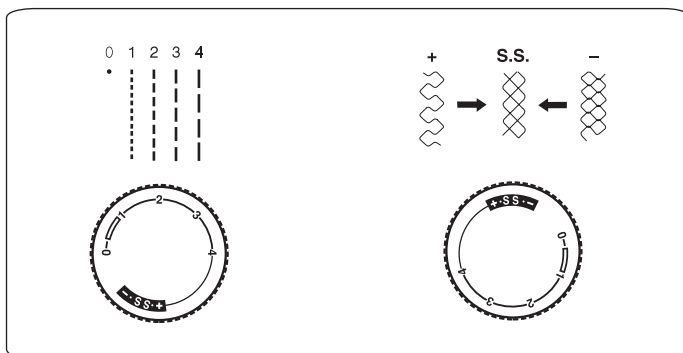
Selecting stretch stitch patterns

When sewing stretch, set the stitch length dial at " SS" .

When forward and reverse feeds become unbalanced depending upon the type of fabric, correct the hand as follows.

When patterns are compressed, correct it by turning the dial toward" +" .

When patterns are drawn out,correct it by turning the dial toward"-" .



Stitch length dial

The higher the number, the longer the stitch length. You can select the suitable stitch length for most fabric.

KNOWING YOUR SEWING MACHINE

Useful sewing tips

Various ways to achieve better sewing results are described below. Refer to these tips when sewing.

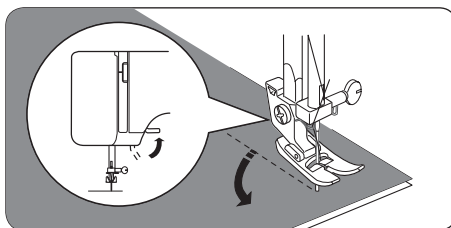
1.Trial sewing

Use different stitch width and length for trial sewing. When you have finished, select the best looking stitch width and length for correct sewing.

For the trial sewing, use a piece of fabric and thread that are the same as those used for your project, and check the thread tension and stitch length and width. Since the results differ depending on the type of stitching and the number of fabric layers sewn, perform the trial sewing under the same conditions that will be used with your project.

2.Changing the sewing direction

Stop the machine and turn the hand wheel toward you to bring the needle down into the fabric. Raise the presser foot. Pivot the fabric around the needle to change sewing direction as desired. Lower the presser foot and continue sewing.



3.Sewing curves

- 1).Stop sewing, and then slightly change the sewing direction to sew around the curve.
- 2).When sewing along a curve while using a zigzag stitch, select a shorter length in order to obtain a finer stitch.

4.Sewing thick fabrics

If the fabric does not fit under the presser foot

Raise the presser foot even higher to bring the presser foot to its highest position. Then feed the fabric under the presser foot. (See page 4 to Raise the presser foot.)

5.Sewing elastic fabric or the fabric that is easy to cause skipping stitches

Use round head needle and bigger stitch length. If necessary, add one layer of lining cloth under the fabric for better sewing.

6.Sewing thin fabric or silk

When sewing thin fabric or silk, the stitch may depart from correct direction or cannot feed the fabric correctly. If so, add one layer of lining cloth under the fabric for better sewing.

7.Sewing stretch fabrics

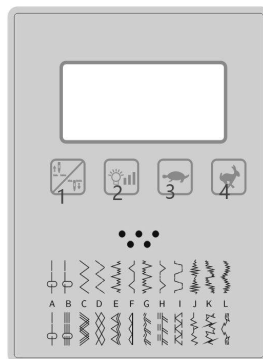
First, baste the piece of fabric together, and then sew without stretching the fabric.

8.Free arm sewing

When sewing tube fabric or the part cannot reach, use the free arm sewing function (For detail, refer to page 4).

Screen function introduction and operation

1. Voice report function
(Press button 1 and 2 can switch voice report function)
2. Error report function
(Switch on the voice report function)
3. LED brightness adjustment function
(Press button 2)
4. Sewing speed adjustment function
(Press button 3 or 4)
5. Up/down Needle position function
(Press button 1)

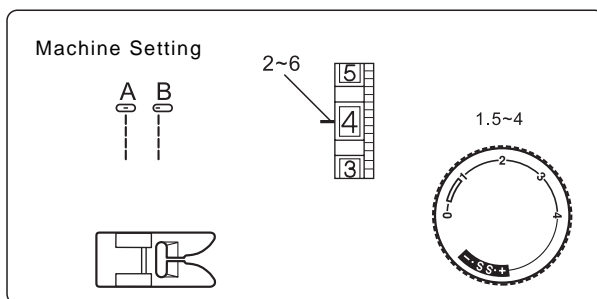


FYe320 Motor User Manual

ERROR CODE	CONTENT	REASON
Er01	No found needle position	The gap between magnet and needle stop sensor is too large; Stop pin sensor plug contact is not good or fall off; The needle stop sensor is damaged, replace the needle stop sensor; The magnet in handle wheel is lost.
Er03	Motor hall or phase error	Motor sensor plug not connected well; Motor not installed well; Hall broken.
Er04	Lock-rotor protection	Motor overloaded; Hook is stuck by thread or Fabric is over thick; Motor is not well connected.
Er05	Hardware over-current protection	Motor overloaded; Signal wire badly connected or broken.
Er07	Serial port communication timeout error	The wire between display and main board is not good or main board broken.

UTILITY STITCHES

Straight stitch

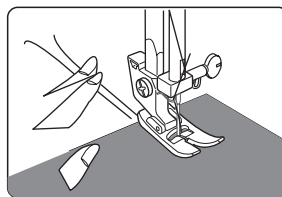


Raise the presser foot and position the fabric next to a stitching guide line on the needle plate.

Lower the needle into the fabric.

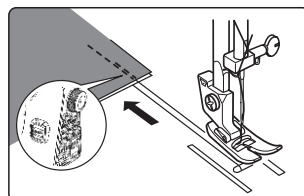
Lower the presser foot and smooth the thread towards the back. Depress the foot control.

Gently guide the fabric along the guide line letting the fabric feed by itself.

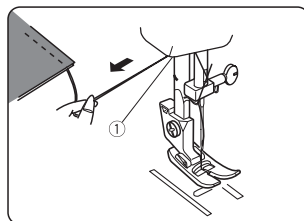


For fastening the ends of seams, press the reverse stitch button and sew several reverse stitches.

Raise the presser foot and remove the fabric, drawing the threads to back.



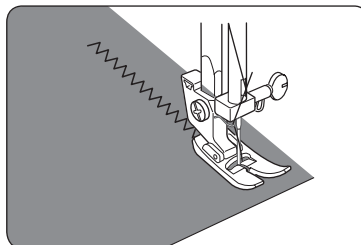
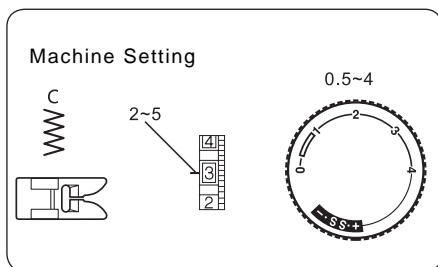
The threads are cut the proper length for starting the next seam.



UTILITY STITCHES

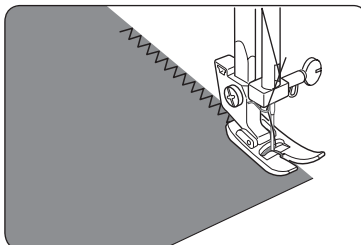
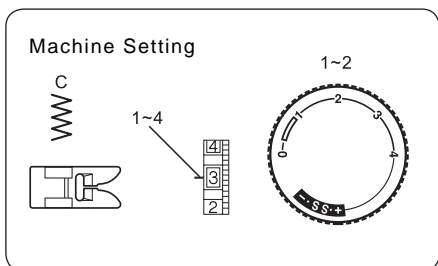
Zigzag stitch

Simple zigzag stitching is widely used for overcasting, sewing on buttons etc.



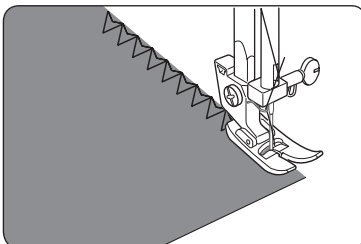
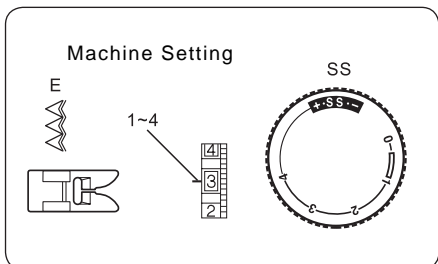
Overlock stitch

This type of stitch is used on the seam allowance to prevent fabrics from fraying at raw edges.



Overedge stitch

Overedge stitch will be done most successfully when the right side stitches of zigzag fall slightly off the edge of the fabric.



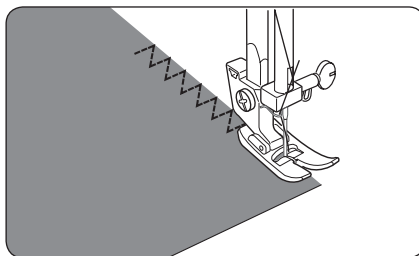
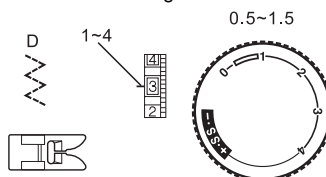
UTILITY STITCHES

Tricot stitch

Place the fabric under the presser foot so that the edge will be slightly inside the right hand side of the presser foot.

Guide the work so the right hand stitches fall at the edge of the fabric.

Machine Setting

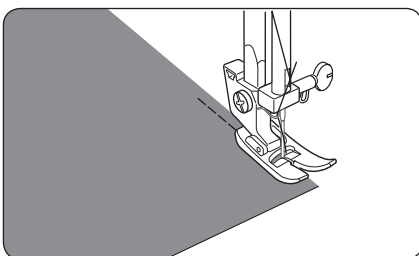
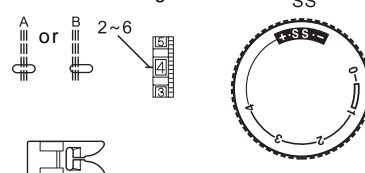


Triple strength stitch

The stitch is sewn with two stitches forward and one stitch backward forming a seam that does not rip easily.

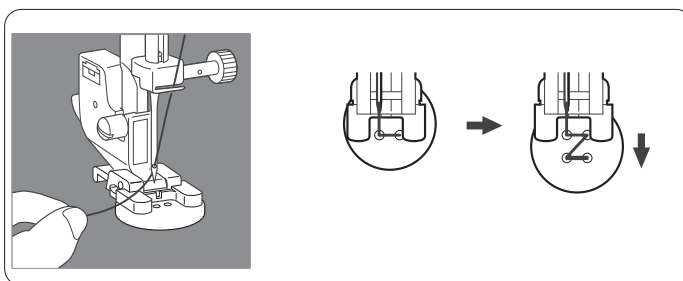
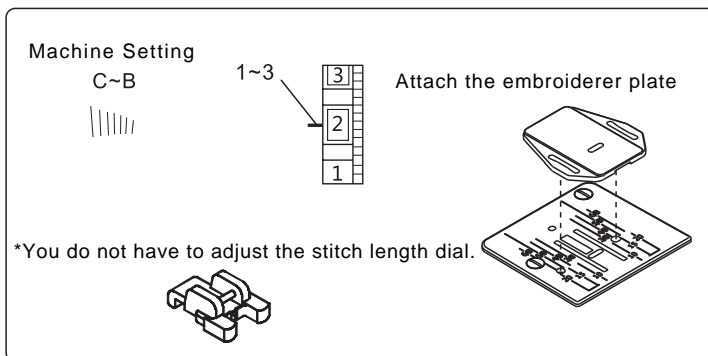
Garments should be basted for fitting before seaming.

Machine Setting



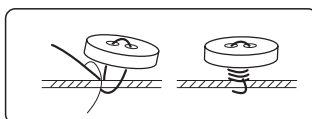
UTILITY STITCHES

Sewing buttons



Position your fabric and button under the presser foot. Lower presser foot. Turn the handwheel to make sure needle clears both left and right openings of button. Adjust width if required. Sew 10 stitches across.

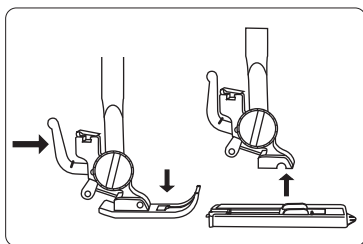
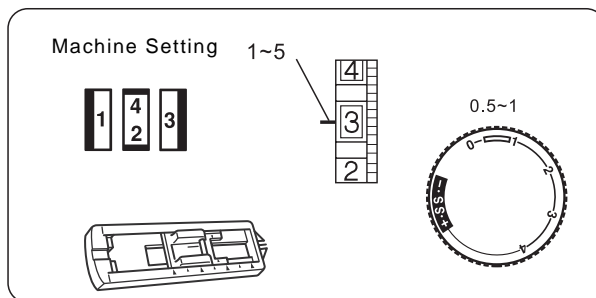
When attaching four-hole buttons, first sew the two holes closest to you. Then, slide the button so that the needle goes into the two holes toward the rear of the sewing machine, and then sew them in the same way.



To secure thread, cut the upper thread with 25cm of excess, wind it around the thread between the button and the fabric, and then tie it tightly.

UTILITY STITCHES

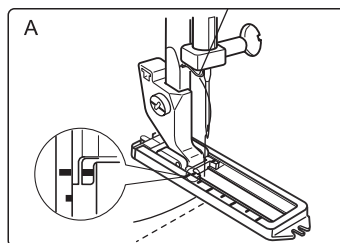
Buttonhole stitch




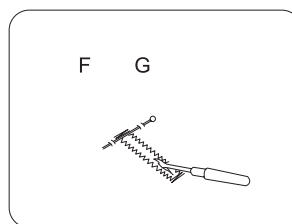
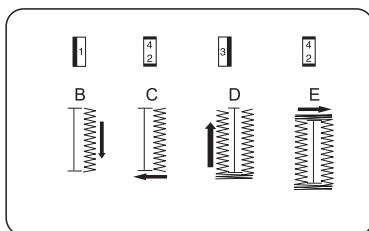
Replace the buttonhole foot.

*Before you sew the actual buttonholes on the actual garment, make several practice buttonholes on a fabric sample.


*Use interfacing on stretch fabrics.





A. Select , draw both thread to the left under the foot.
Insert the garment under the foot.



B. Lower the needle at the starting point. Then lower buttonhole foot. Sew the needed length on the left side of buttonhole and stop the machine.

C. Raise the needle to its highest position by turning the hand wheel, then select .

D. Raise the needle to its highest position and select , sew the right side of buttonhole the same length as the left side and stop the machine.

E. Raise the needle and select , and sew five of the bartack stitches.

F. Raise the presser foot and draw out the fabric, cut both top thread and bobbin thread leaving about 10cm of thread ends, and tie it on the wrong side of the fabric.

G. Cut open the buttonhole with seam ripper.

UTILITY STITCHES

Buttonhole stitch

Tips:

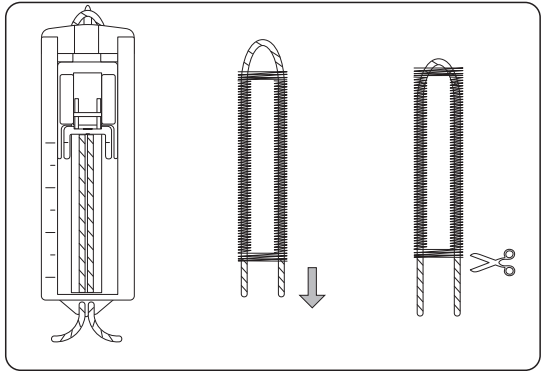
Slightly reduce the upper tension to produce better results.

Use backing material for fine or stretchy materials.

We recommend placing a pin across the end of the buttonhole as a precaution against cutting the stitches with the seam ripper.

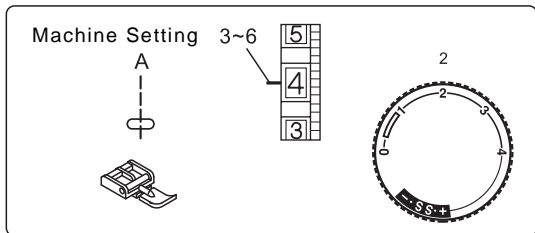
It is advisable to use gimp cord for stretch or knit fabrics. The zigzag should sew over the gimp.

The lines on the buttonhole foot can be used as guides when sewing multiple buttonholes.



1. Lift the presser foot, pull the gimp cord and come round the protruding point on back of the buttonhole foot.
2. Pull the gimp cord under the foot to the front.
3. Fix the gimp cord to the protruding point on front of foot.
4. Turn the needle down to the starting position on fabric, put down the presser foot.
5. Sew the buttonhole according to page 17.
6. Pull the gimp cord straightly.
7. Cut the gimp cord.

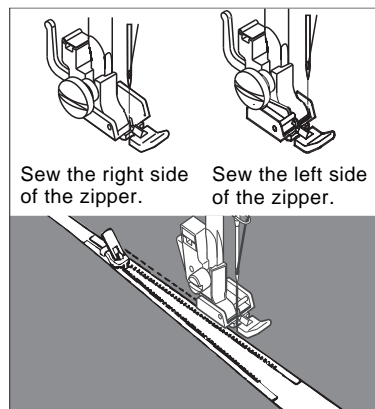
Zipper application



Attach the zipper foot.

When sewing the right side of the zipper, attach the zipper foot as the illustration in right.

When sewing the left side of the zipper, attach the zipper foot as the illustration in right.



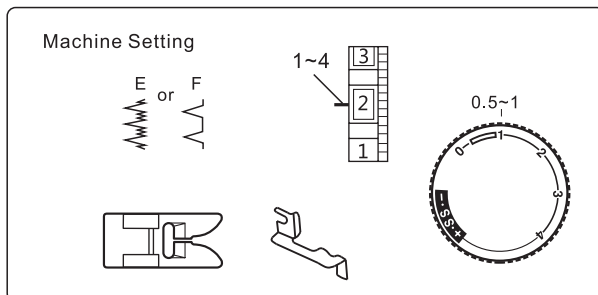
Helpful hint:

During zipper inserting, ensure that the needle do not touch the zipper. Otherwise it will cause needle break or even injury.

UTILITY STITCHES

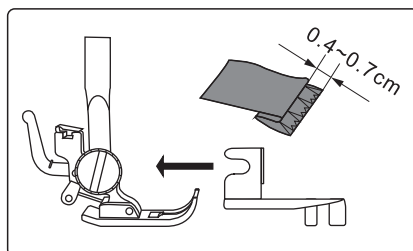
Blind stitch

Helpful hint: Please thread the needle firstly before install the Guide foot.



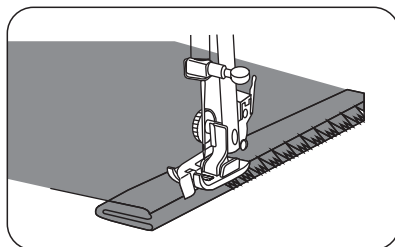
Fold up the fabric as illustrated.

Lower the presser foot, then loosen the foot holder screw to place the hem guide between the screw and the shank of foot holder. Tighten the screw making sure the wall of hem guide is placed in the middle of the toes of the presser foot.

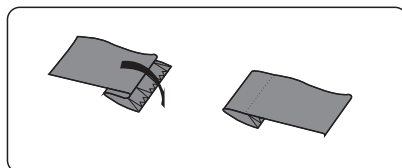


Raise the presser foot and place the fabric under the foot so that the soft fold rests against the wall of hem guide.

Lower the foot, then stitch slowly for better control so that the zigzag stitches fall on the hem allowance and pierce the soft fold. While sewing, make sure the soft fold runs along the wall of hem guide.

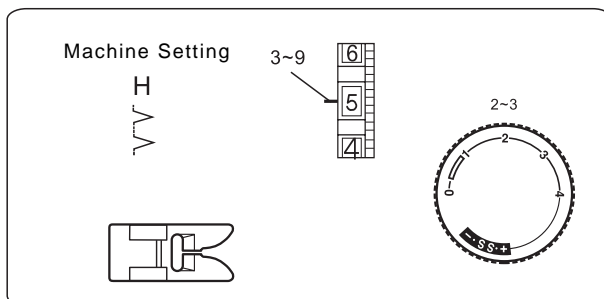


Spread the fabric flat with the right side facing up.

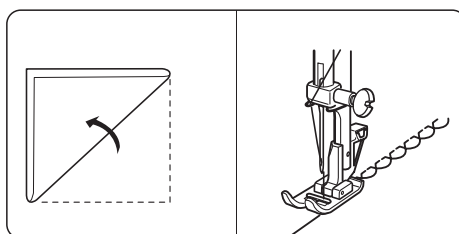


DECORATIVE STITCHING

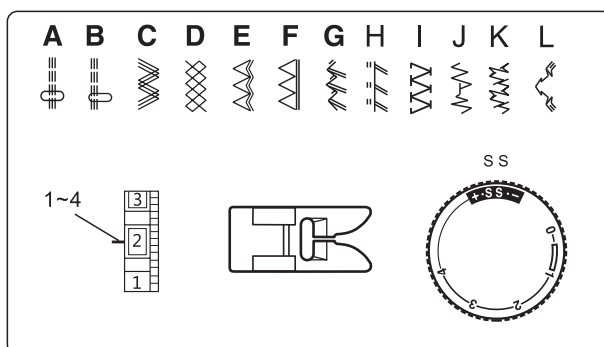
Shell tuck stitch



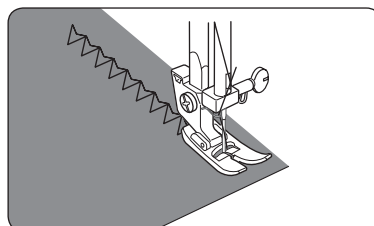
Place the folded edge along the slot of foot. the needle should fall off the edge of the fabric on the right forming a tuck.



Stretch stitches

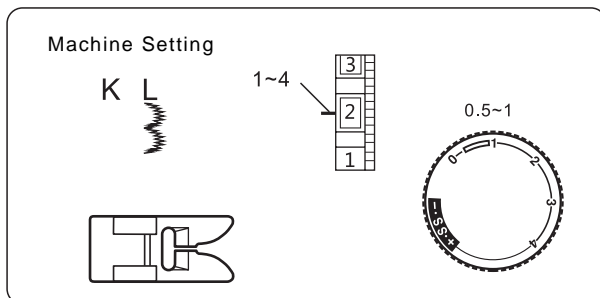


When forward and reverse feeds become unbalance depending upon the type of fabric, correct the balance by turning the stitch length dial as follows:
When patterns are compressed, correct it by turning the dial toward " + " .
When patterns are draw out, correct it by turning the dial toward "-".

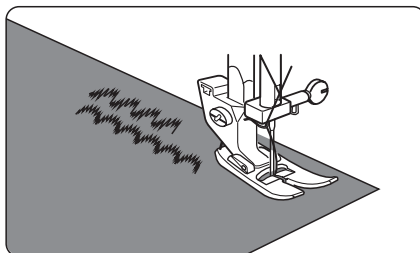


DECORATIVE STITCHING

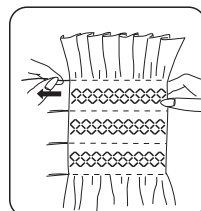
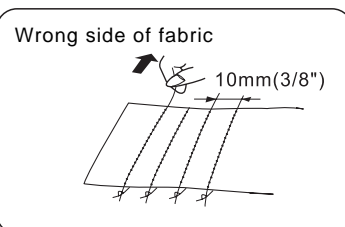
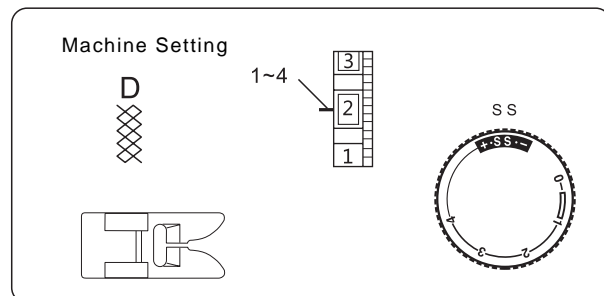
Decorative satin stitch



Sew a row of stitches and adjust the thread tension so the upper thread should appear on the reverse side of the fabric.
Test the stitch on actual fabric for the best results.



Smocking



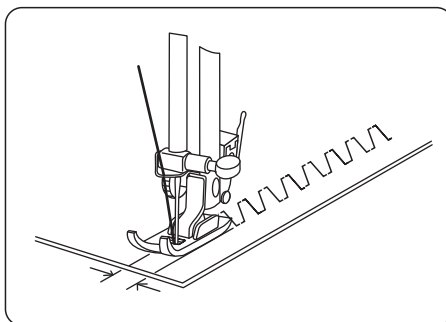
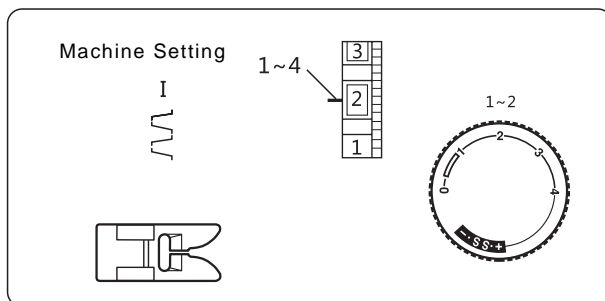
With the stitch length "4", sew straight stitching; lines 3/8 apart across the area to be smocked. Knot the threads along one edge, pull the bobbin threads and distribute the gathers evenly. Secure the thread at the other end. Sew the decorative stitch between the gathering stitches. Pull out the gathering stitches.

NOTE: Loosen the top thread tension to make gathering easier.

DECORATIVE STITCHING

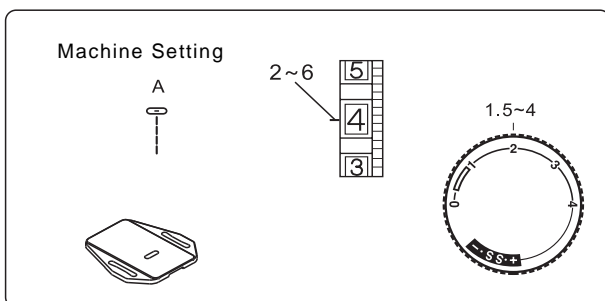
Box stitch

Use this stitch to join heavy weight interlining.
Overlap two raw edges together and use this stitch to join them.



Free seam

Can sew free-motion stitches with customer's own style.

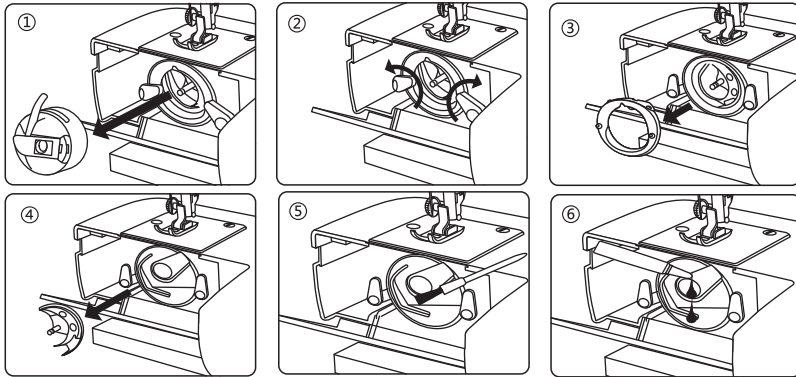


Note: Remove the presser foot and foot holder before free sewing.

CARE OF YOUR MACHINE

Dismantling and assembling shuttle race

To dismantle the shuttle race and oil the shuttle race



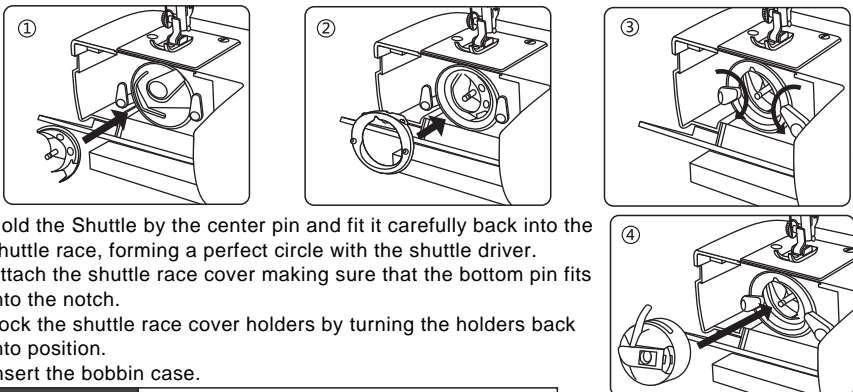
Raise the needle to its highest position and open the shuttle cover.

1. Open the hinged latch of the bobbin case and take it out of the machine.
2. Open the shuttle race cover holders.
3. Remove the shuttle race cover.
4. Remove the shuttle.
5. Clean the shuttle race with a brush and soft dry cloth.
6. Before assembling the shuttle race, oil the shuttle race using a few drops of fine quality sewing machine oil.

Note:

1. Use oil sparingly as over oiling will cause it to leak onto your fabric.
2. In case the machine does not work smoothly due to standing idle for some time, apply a few drops of kerosene at the oiling point, and turn the machine rapidly for a minute.
3. When the machine keeps working 4-8 hours or there is abnormal noise, apply 2-3 drops of sewing machine oil at the oiling point.

To assembling the shuttle race



1. Hold the Shuttle by the center pin and fit it carefully back into the shuttle race, forming a perfect circle with the shuttle driver.
2. Attach the shuttle race cover making sure that the bottom pin fits into the notch.
3. Lock the shuttle race cover holders by turning the holders back into position.
4. Insert the bobbin case.



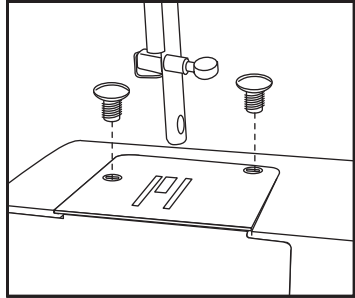
CAUTION

Be sure to disconnect the power supply before operating the machine.

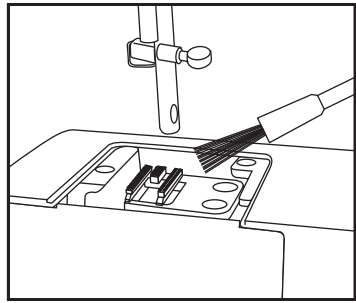
CARE OF YOUR MACHINE

Cleaning the feed dogs

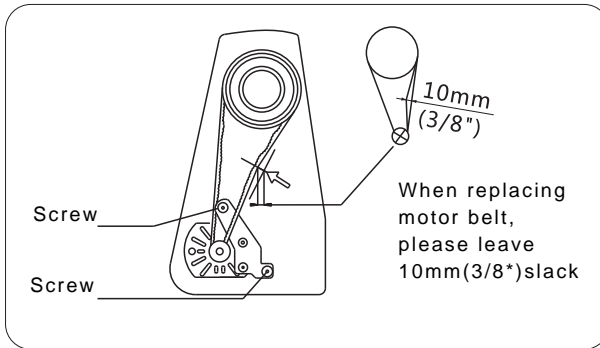
Remove the needle and the presser foot.
Remove the needle plate set screws and remove the needle plate.



With a brush, clean out dust and lint clogging on the feed dog teeth. Reset the needle plate.



Drive belt tension



To adjust the belt tension, take off the belt cover and loosen the fixing screws about one turn with a screwdriver.

This will allow the motor to move downward or upward. Then firmly tighten the screw, making sure the belt has the correct tension.

CAUTION: Do not tighten the belt too tightly.



CAUTION

Be sure to disconnect the power supply before operating the machine.

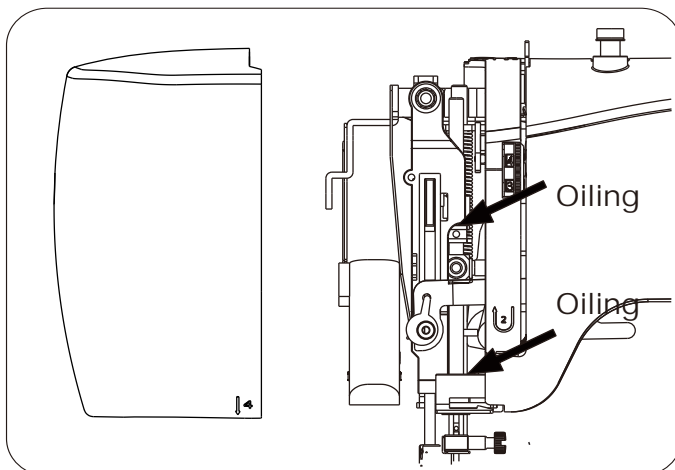
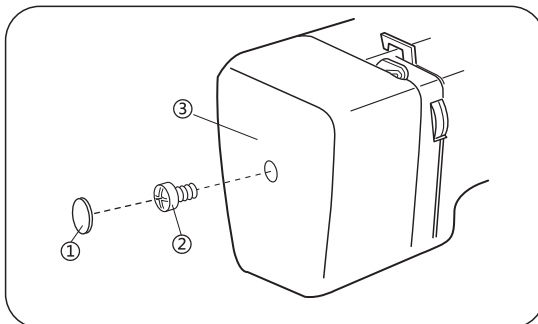
CARE OF YOUR MACHINE

Oiling the machine

- ① Face cover screw cap
- ② Face cover screw
- ③ Face cover

Remove the face cover

- 1.Face cover screw
- 2.Face cover



Apply a few drops of fine quality sewing machine oil to the point indicated by the arrows in the figures. For machine in constant use, oil two or three times a year.

In case the machine does not work smoothly due to standing idle for some time, apply a few drops of kerosene at the oiling point, and turn the machine rapidly for a minute.

Before oiling, wipe off oiling points.



CAUTION

Be sure to disconnect the power supply before operating the machine.

TROUBLESHOOTING

Trouble	Causes	Solution
Top thread broken	<ol style="list-style-type: none"> 1.Improper top threading. 2.Excessively tight top tension. 3.Blunt or bend needle. 4.Improper fixing of needle. 5.At start of sewing, top thread and bottom thread are not correctly fixed beneath the presser. 6.The thread is unsuitable 	<ol style="list-style-type: none"> 1.Threading the top thread again. (Refer to page7.) 2.Adjust the top tension. (Refer to page 9.) 3.Replace the needle. (Refer to page 10.) 4.Reinstall the needle. (Refer to page 10.) 5.Proper operation. (Refer to page 7、 9.) 6.Replace the proper thread. (Refer to page 10.)
bobbin thread broken	<ol style="list-style-type: none"> 1.The bobbin thread is not correctly threaded into bobbin case. 2.Cotton flock collected on shuttle race. 3.The bobbin is damaged and impossible to smoothly rotate. 	<ol style="list-style-type: none"> 1.Thread the bobbin thread again. (Refer to page 9.) 2.Clean the shuttle race.(Refer to page 24.) 3.Replace the bobbin. (Refer to page 6.)
Needle broken	<ol style="list-style-type: none"> 1.Improper fixing of needle. 2.Blunt or bend needle. 3.The needle clamp screw is loosening. 4.Excessively tight top tension. 5. Too thin needle. 	<ol style="list-style-type: none"> 1.Reinstall the needle. (Refer to page 10.) 2.Replace the needle. (Refer to page 10.) 3.Tight the needle clamp screw. 4.Adjust the top tension. (Refer to page 9.) 5.Replace the proper needle. (Refer to page 10.)
Skipping stitches	<ol style="list-style-type: none"> 1.Improper fixing of needle. 2.Blunt or bend needle. 3.The needle and (or) thread is unsuitable for the used fabric. 4.Improper top threading. 5.The needle is unsuitable. 	<ol style="list-style-type: none"> 1.Reinstall the needle. (Refer to page 10.) 2.Replace the needle. (Refer to page 10.) 3.Replace the proper needle and thread. (Refer to page 10.) 4.Threading the top thread again. (Refer to page 7.) 5.Replace the proper needle. (Refer to page 10.)
Seam puckering	<ol style="list-style-type: none"> 1.Excessively tight top tension. 2.Improper top threading. 3.Excessively thick top thread for the used fabric. 	<ol style="list-style-type: none"> 1.Adjust the top tension. (Refer to page9.) 2.Threading the top thread again. (Refer to page 7.) 3.Replace the proper thread. (Refer to page 10.)
Unsmooth feed	<ol style="list-style-type: none"> 1.Feed dog is wound by thread. 2.Thread jams. 	<ol style="list-style-type: none"> 1.Clean the feed dog. (Refer to page 25.) 2.Clean the clamping thread.
Not run of machine	<ol style="list-style-type: none"> 1.Not surely inserting power plug. 2.Clamping thread at shuttle race. 3.Failure to replace the bobbin winder shaft at original position after winding bobbin. 	<ol style="list-style-type: none"> 1.Check the power connector. (Refer to page 3.) 2.Clean the clamping thread. 3.Push the bobbin winder shaft to original position. (Refer to page 5.)
Thread jaming	<ol style="list-style-type: none"> 1.The presser foot lifter is not lower down when sewing. 2.Improper top threading. 3.Improper bobbin threading. 	<ol style="list-style-type: none"> 1.Lower down the presser foot lifter.(Refer to page 4.) 2.Threading the top thread again. (Refer to page 7.) 3.Threading the bobbin thread again. (Refer to page 9.)

