



TOYOTA

Series RS2000

RS2000-2D

Instruction manual 



Read the instruction manual.

Type designation

RS2000 series have several types. The types are shown in the nameplate as follow.

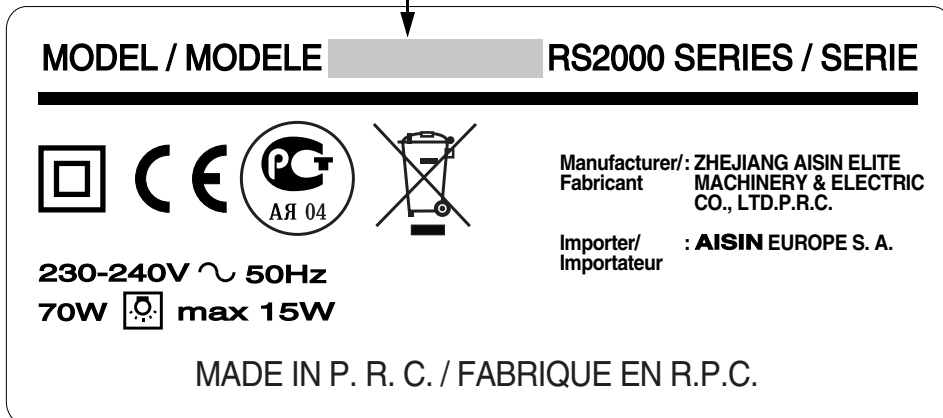
MODEL / MODELE (MODEL NAME) SERIES / SERIE

- RS2000 SERIES
- RS2000 LCD SERIES
- RS2000 EL SERIES

Nameplate

When calling for service, please note the MODEL and SERIES that is inscribed on the back of your sewing machine.

MODEL NAME



“IMPORTANT SAFETY INSTRUCTIONS”

When using the sewing machine, basic safety precautions should always be followed, including the following:

Read all instructions before using.

DANGER — — To reduce the risk of electric shock.

- 1 The sewing machine should never be left unattended when plugged in. Always unplug the sewing machine from the electrical outlet immediately after using and before cleaning.
- 2 Always unplug before relamping. Replace the bulb with same type rated 15 watts.
- 3 Do not reach for the sewing machine that has fallen into water. Unplug immediately.
- 4 Do not place or store sewing machine where it can fall or be pulled into a tub or sink. Do not place or drop into water or other liquid.

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 sewing machine is used by or near children.
- 2 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.
- 3 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 this sewing machine to the nearest authorized dealer or service center for examination, repair, electrical or mechanical adjustment.
- 4 Never operate the sewing machine 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 (“O”) position, then remove plug from outlet.
- 9 Do not unplug by pulling on cord. To unplug, grasp the plug, not the cord.
- 10 Keep fingers away from all moving parts. Special care is required around the sewing machine needle.
- 11 Always use proper needle plate. The wrong plate can cause the needle to break.
- 12 Do not use bent needles.
- 13 Do not pull or push fabric while stitching. It may deflect the needle causing it to break.
- 14 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.
- 15 Always unplug sewing machine from the electrical outlet when removing covers, lubricating, or when making any other user servicing adjustments mentioned in this instruction manual.
- 16 Never operate on a soft surface such as a bed or couch where the air openings may be blocked.
- 17 Appliance (230-240V) is provided with double insulation. Use only identical replacement parts. See instructions for servicing Double-insulate Products.

Servicing Double-Insulated Products (230V-240V)

In a double-insulated product, two systems of insulation are provided instead of grounding. No grounding means is provided on a double-insulated product nor should a means for grounding be added to the product. Servicing a double-insulated product requires extreme care and knowledge of the system and should only be done by qualified service personnel. Replacement parts for a double-insulated product must be identical to those parts in the product. The symbol is marked on the double-insulated product.

This sewing machine is intended for household use.

SAVE THESE INSTRUCTIONS

UK ONLY IMPORTANT PLEASE READ CAREFULLY

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

BLUE - NEUTRAL BROWN - LIVE (OR ACTIVE)

As the colours of the mains lead of this appliance may not correspond with the coloured markings identifying the terminals in your plug PROCEED AS FOLLOWS:

The earth plug pin is unnecessary. As the machine is designed under double insulation structure, the earth wire is removed from the machine. The wire coloured BROWN must be connected to the terminal marked L or A or coloured RED. The wire coloured BLUE must be connected to the terminal marked N or coloured BLACK. Neither core is to be connected to the earth terminal of a three-pin plug.

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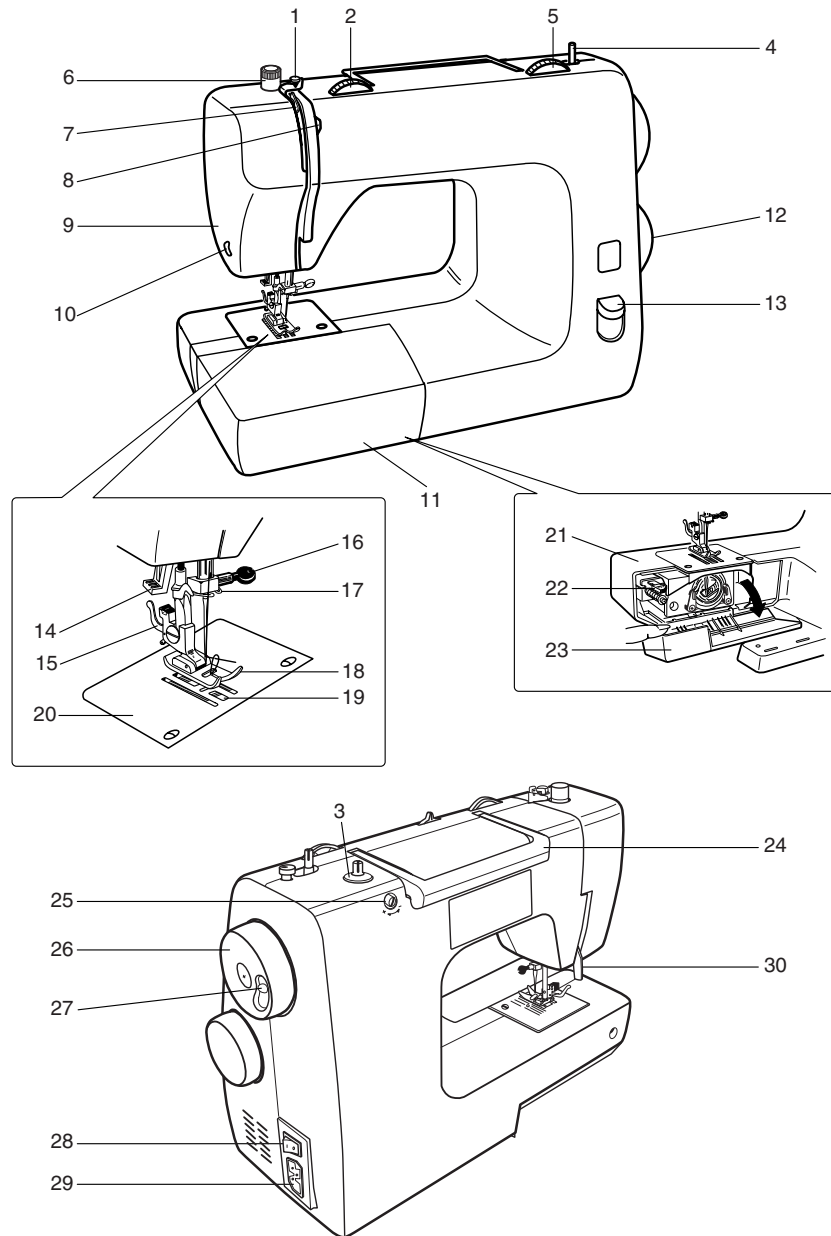
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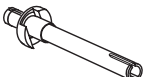
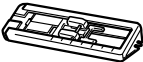
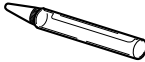
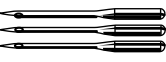


NAMES OF PARTS

Side dial type

- | | | |
|--|-----------------------------------|--------------------------------|
| 1. Pre-tension | 12. Pattern selection dial | 23. Shuttle cover |
| 2. Upper thread tension dial | 13. Reverse sewing lever | 24. Handle |
| 3. Spool pin (Removable) | 14. Needle threader lever | 25. Buttonhole stitch adjuster |
| 4. Bobbin winder shaft | 15. Foot release lever | 26. Handwheel |
| 5. Stitch length dial | 16. Needle clamp screw | 27. Declutch knob |
| 6. Presser foot pressure adjustment knob | 17. Needle guide for upper thread | 28. Power / Light Switch |
| 7. Take up lever | 18. Presser foot | 29. Plug socket |
| 8. Upper tension plate | 19. Feed dogs | 30. Presser foot lever |
| 9. Face cover | 20. Needle plate | |
| 10. Thread cutter | 21. Free arm | |
| 11. Extension table | 22. Drop feed lever | |

STANDARD ACCESSORIES

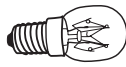
1  150022-352	4  719001-367	7  1921003-520	10  719001-364
2  950012-360	5  850001-513	8  150002-472	11  1921002-181
3  150022-390	6  1650009-842	9  #14 150002-481	

FOOT CONTROLLER



1921178-834 (EU)

LAMP E14 15W FITTED




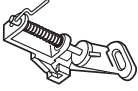

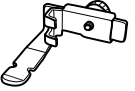

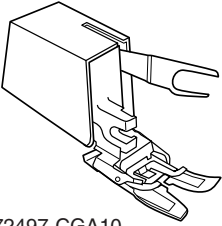


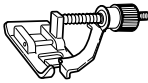
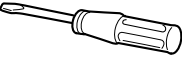


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OPTIONAL ACCESSORIES

12  150002-491	16  672409-CGA10	19  672466-CGA10	23  150002-360
13  1550002-184	17  672497-CGA10	20  150022-357	
14  679318-CGA10		21  1350002-369	
15  719001-363	18  672467-AGA10	22  2280002-359	

NAMES OF ACCESSORIES

Standard accessories

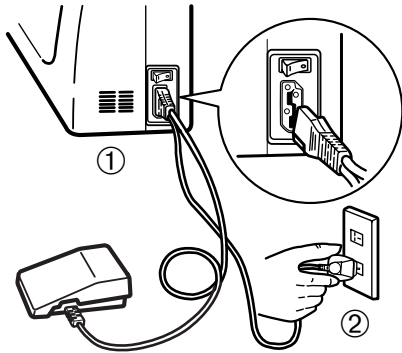
1. Zigzag sewing foot (on machine)
2. Zipper foot
3. Buttonhole foot
4. Buttonhole cutter
5. Needle plate screw driver
6. Oiler
7. Bobbins (3 pcs.)
8. Ball point needle (1 pc.)
9. Standard needle (3 pcs., #14)
10. Screw driver (small) (1 pc.)
11. Spool pin supplied (1 pc.) (on machine)

* Accessories are stored inside the extension table.

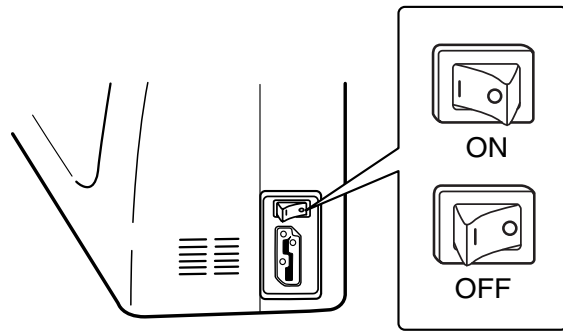
Optional accessories

12. Twin needle (1 pc.)
13. Extra spool pin (for twin needle sewing)
14. Quilting guide
15. Screw driver (large) (1 pc.)
16. Darning foot
17. Walking foot
18. Piecing foot
19. Open toe Appliqué foot
20. Overcasting foot
21. Blind stitch foot
22. Cleaning brush
23. Piping / Zipper foot

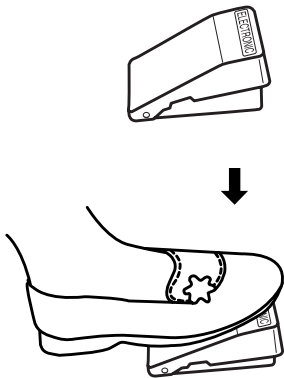
A



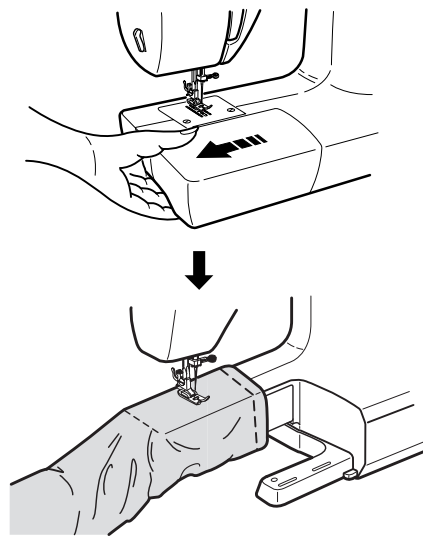
B



C



D



SETTING UP

Connecting foot controller and power cord (fig A)

1. Connect the plug of the foot controller to the plug socket.
2. Insert the power cord to an outlet.

Caution!

Be sure the voltage of the machine (information is on the back of the machine) correspond to power supply. The specifications vary from country to country.

Power / Light switch (fig B)

Turn the switch on to sew.
This switch controls both power and light.
The machine will not move without the Power / Light switch on.

Foot controller (fig C)

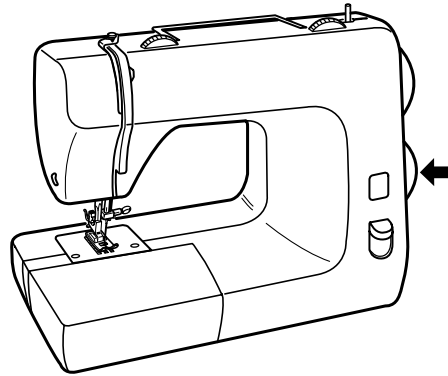
The more you press the foot controller, the faster the machine runs.

Extension table (fig D)

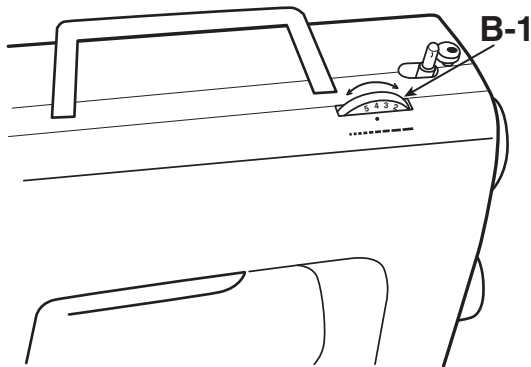
The machine converts into a free-arm model by removing the extension table.

1. Remove the table by pulling it off to the left, and the machine converts into a free-arm model. Free-arm is more convenient to sew trousers, sleeves, cuffs of T-shirts, blouses, etc.

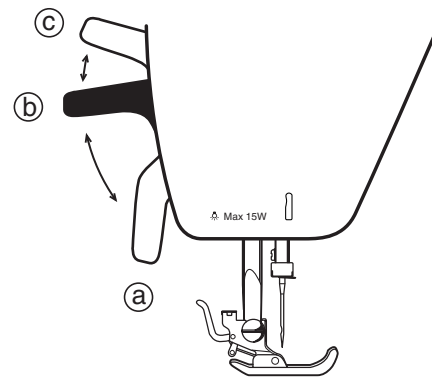
A



B



C



VARIOUS CONTROLS

Pattern selection dial (fig A)

To select stitch, be sure needle is at its highest position.

The required stitch is selected by turning the Pattern Selection Dial.

The Pattern Selection Dial can be turned either way.

Stitch length dial (B-1)

Stitch length can be easily changed by turning the Stitch Length Dial.

For shorter stitch, turn Stitch Length Dial to a lower number.

For longer stitch, turn to a higher number.

Standard stitch length is between 2 to 3.

Presser foot lever (fig C)

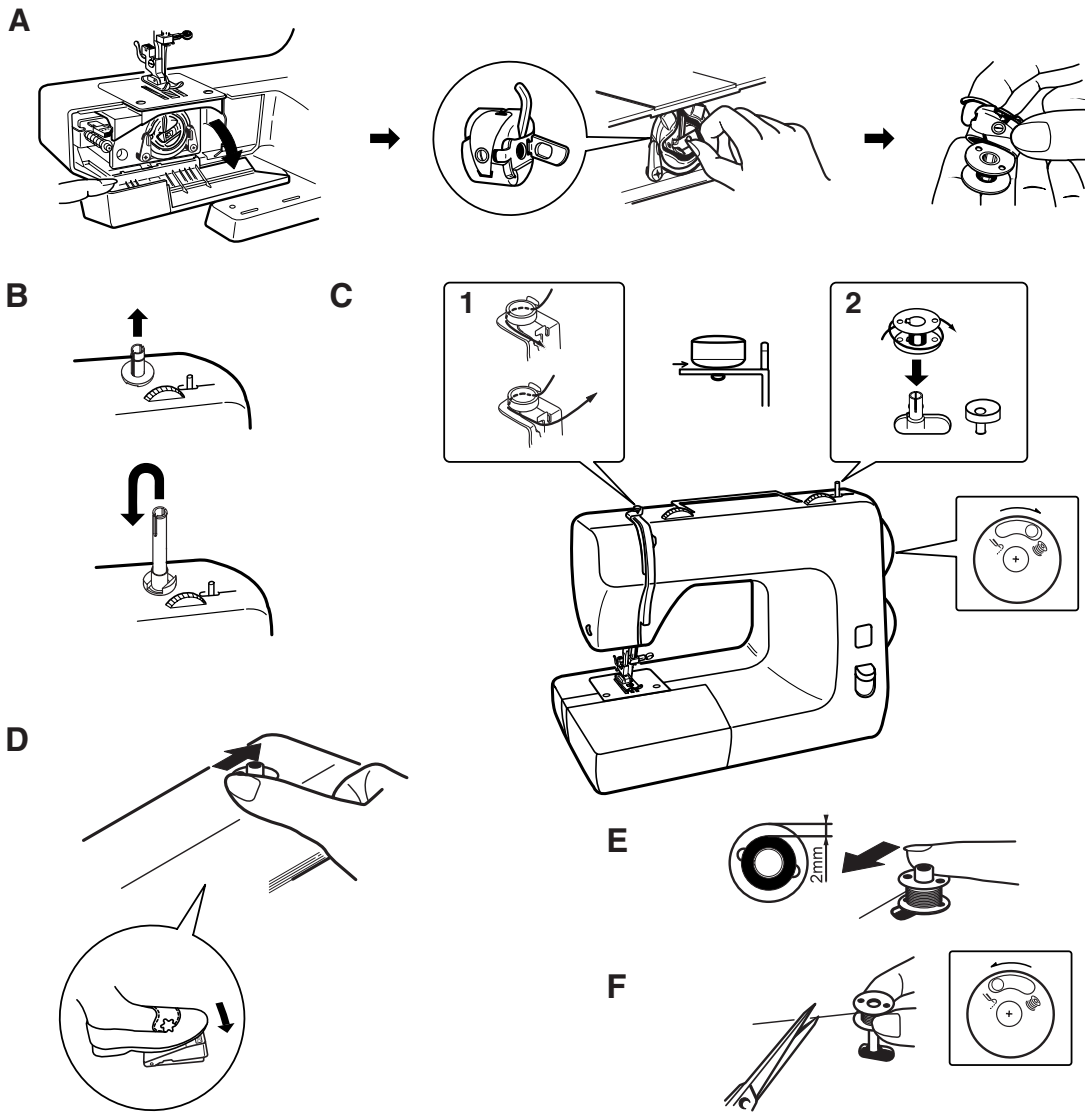
There are 3 positions for the presser foot lever.

1. To sew, the presser foot should be at the lowest position ①.
2. To insert or remove fabric, and to change presser foot, middle position ②.
3. To remove thick fabric, highest position ③.

* Raise presser foot lever up as far as it will go for position ③.

The lever will not stop at position ③.

Hold it in position ③.




THREADING THE MACHINE

Bobbin winding

1. Set the needle at its highest position by rotating the handwheel towards you. Open the shuttle cover. Hold the latch of bobbin case and pull it out. Release the latch and the bobbin comes out of the bobbin case easily. (fig A)


NOTE

Use a TOYOTA-exclusive bobbin.

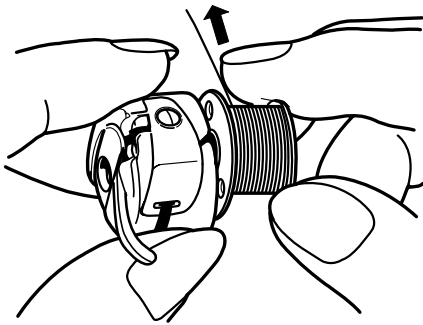
2. Pull out the spool pin. Insert the shorter side of spool pin into the machine as shown in (fig B).
3. Put a spool of thread on the spool pin. Draw thread from spool through thread guide as shown. (fig C-1)
4. Wind the end of thread from spool around the bobbin clockwise for several times. Place bobbin on to bobbin winder shaft. (fig C-2)
5. Move the declutch knob into the () direction.

Caution!

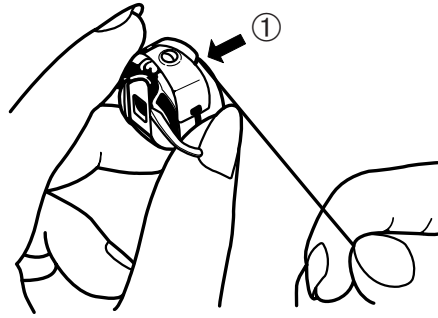
Never touch declutch knob while sewing or it may cause trouble.

6. Push bobbin winder shaft to right until it clicks. Press on foot controller to wind bobbin. (fig D)
7. When the bobbin is wound enough, (see fig E) stop the machine. Push bobbin winder shaft to the left, and remove bobbin.
8. Take the bobbin off the bobbin winder shaft, and cut the thread. (fig F)
9. Move the declutch knob into the () direction.
10. Always turn the handwheel towards you and listen for the "click" inside the handwheel, before sewing.

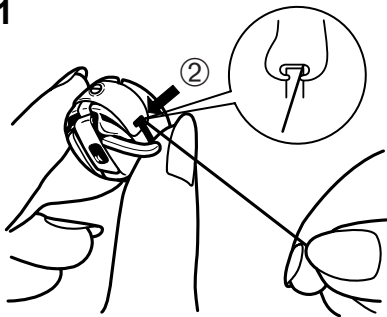
A



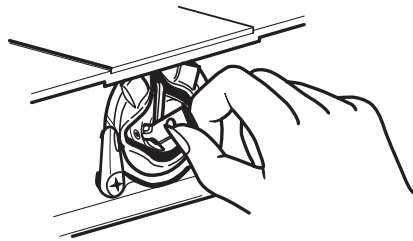
B



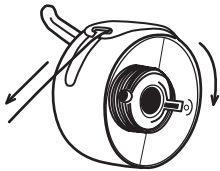
C-1



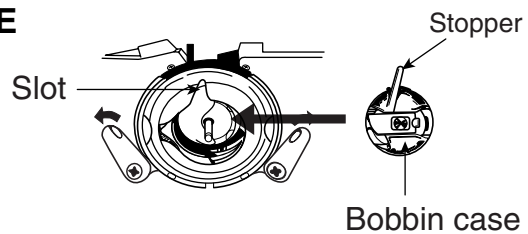
D



C-2

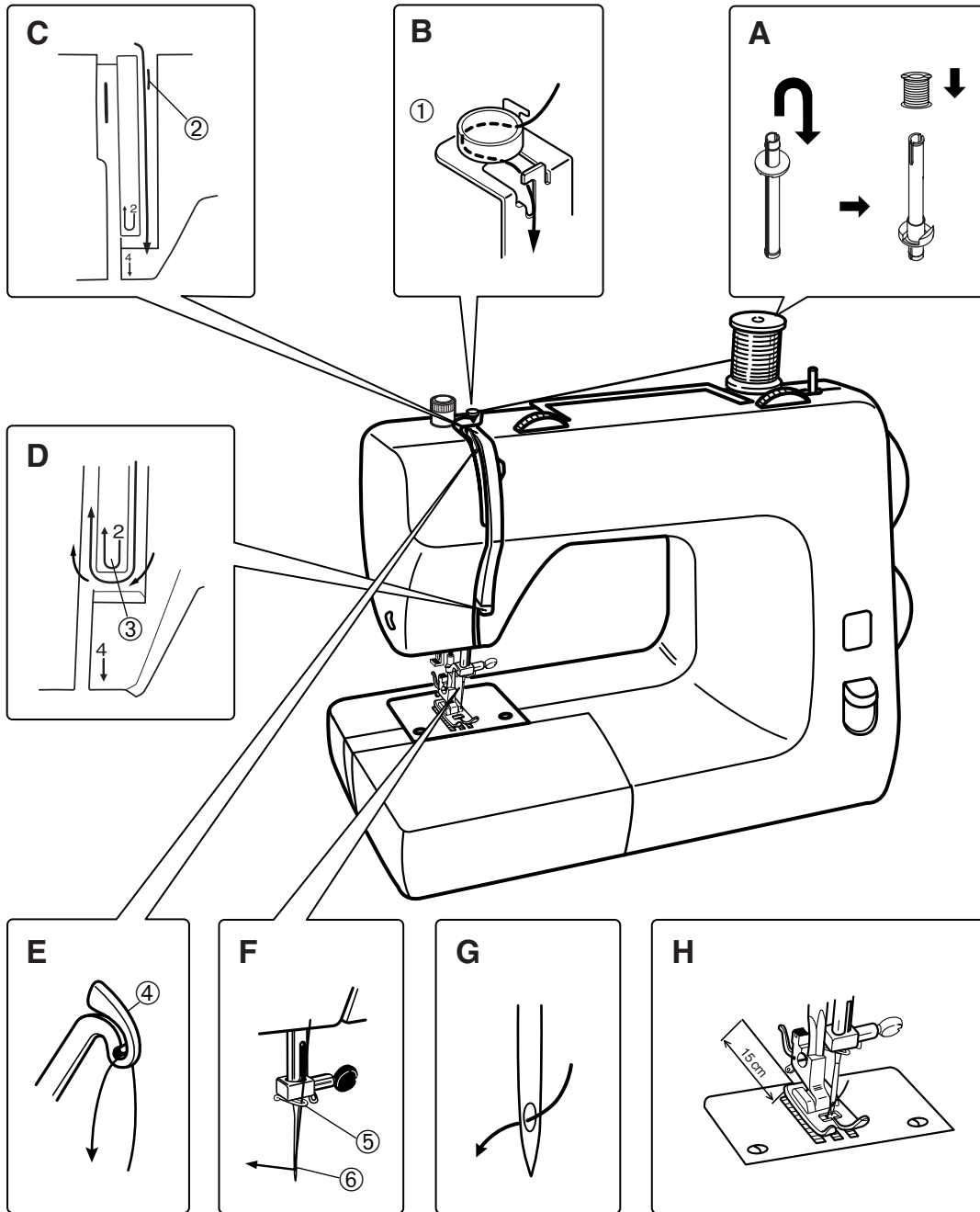


E



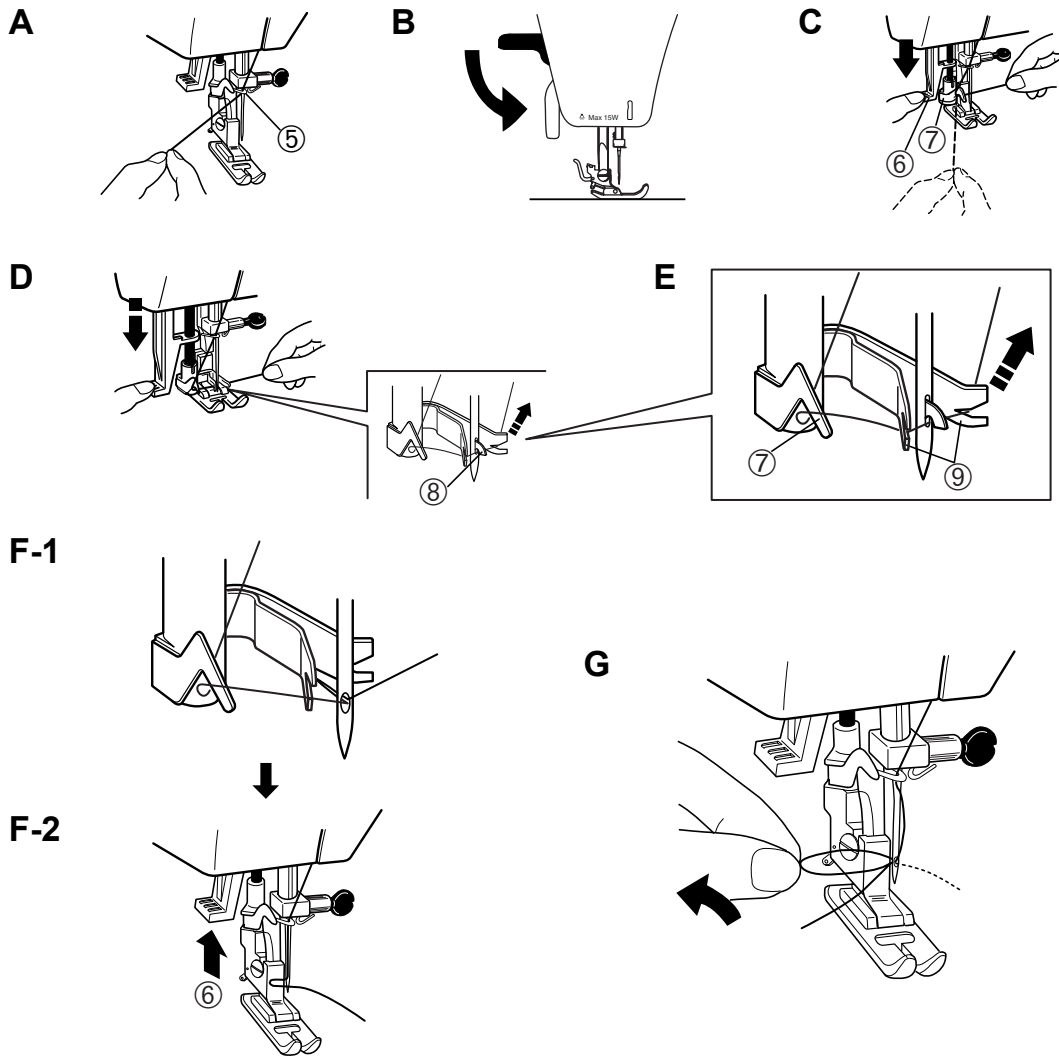
Bobbin threading

1. Place the bobbin in its case with the thread running clockwise. (fig A)
2. Guide the thread into the slot ① of bobbin case. (fig B)
3. Pull the thread to the left, and bring it under the tension spring then to delivery eye ②. (fig C-1)
 - * Make sure the thread runs clockwise when pulling the thread as shown in (fig C-2).
4. Raise the needle to its highest position, and raise the presser foot lever. Open shuttle cover.
5. Unwind about 10 cm of thread from the bobbin case.
6. Hold the bobbin case by the latch, push it into the shuttle race. Release the latch when the bobbin is fully inserted. (fig D)
7. Bobbin case stopper should always face upwards and fit into shuttle race way slot. (fig E)



Upper threading

1. Raise the presser foot lever.
Raise the **take-up lever** to its highest position by rotating the handwheel towards you.
2. Pull out spool pin and insert the shorter side into the machine.
Place a spool of thread on spool pin. (fig A)
3. Pass the thread through guide ①. (fig B)
4. Lead the thread through either side of the tension disc ②. (fig C)
5. Hook the thread under the guide ③. (fig D)
6. Thread **take-up lever** ④. (fig E)
7. Pass the thread through **needle guide** ⑤ (use left one). (fig F)
8. Thread the needle from front to back. (fig G)
9. Pull out about 15 cm of thread and place it under the presser foot. (fig H)



How to use needle threader

(When the machine is equipped with a needle threader.)

The needle threader can be used to thread the needle more easily.

1. Thread the machine to the needle guide ⑤ as referred on page 7. (fig A)
2. Lower presser foot lever. (fig B)
3. Bring the **needle** to its highest position by rotating the handwheel towards you.
4. Lower Needle threader lever ⑥. Hook Thread to guide ⑦ from the left side to the right. (fig C)
5. Lower needle thread lever to its lowest position so the hook passes through the needle eye. Bring thread from guide ⑦ to the right side under the hook ⑧. (fig D)
6. Take the thread under hook guide ⑨, and bring it up to the right, pressing the thread against the needle. (fig E)

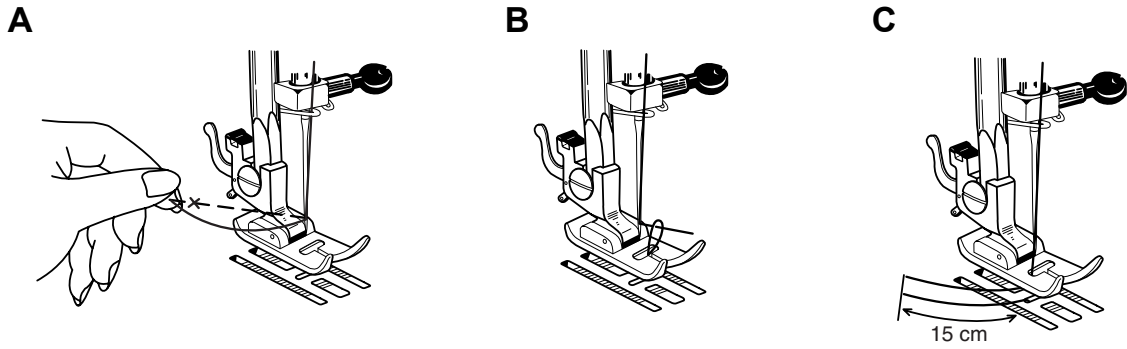
7. Slightly release the needle threader lever ⑥ and thread the needle eye. (fig F-1)
The thread is pulled by the hook and passes through the eye.
8. When the thread passed the needle eye, release the thread, and fully release the needle thread lever. (fig F-2)

NOTE

Repeat the above steps when the thread does not pass through the needle eye. Needle threader does not work correctly when needle is set incorrectly.

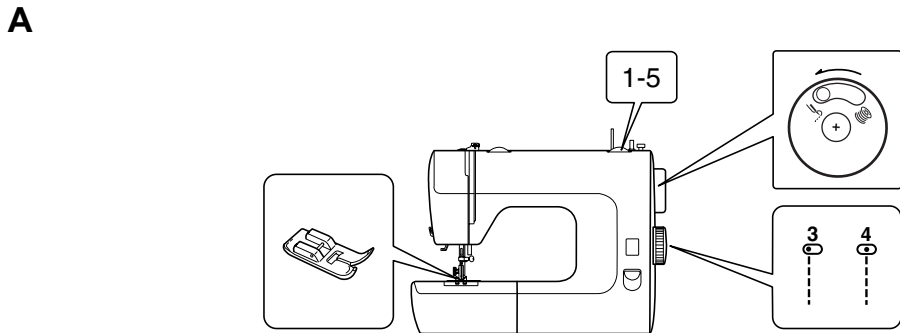
9. Pull out a loop of thread through needle eye. (fig G)

* Select the straight stitch before using the needle threader.



Bringing up lower thread with presser foot up


1. Loosely hold needle thread with one hand, rotate handwheel slowly towards you with the other hand, so the needle moves down and back again to its highest position. (fig A)
2. Pull upper thread slowly and pick up bobbin thread which will appear through the needle plate slot. (fig B)
3. Pull both threads together, place them under the presser foot leaving about 15 cm clear. (fig C)



SEWING BASICS

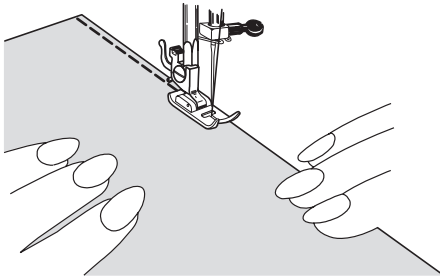
Straight stitching

Before sewing

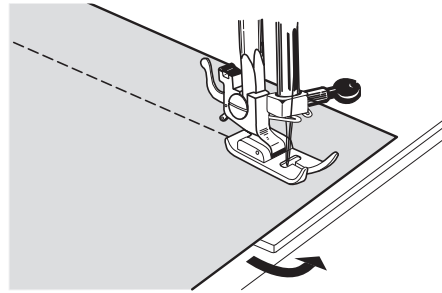
1. Be sure that the declutch knob in the handwheel is into the () direction.
2. Set **pattern selection dial** and **stitch length dial** as... (fig A)

Pattern selection dial	Stitch length dial
No. 3	1 - 5
No. 4	1 - 5

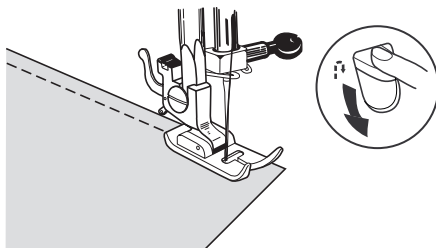
A



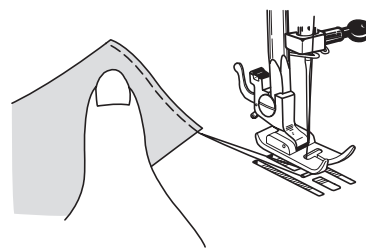
B



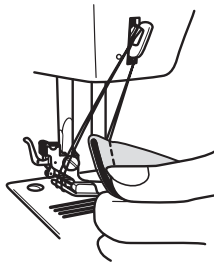
C



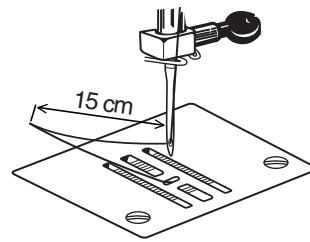
D-1



D-2



D-3



Straight stitching

Starting to sew (fig A)

3. Raise the needle to its highest position, and lift the presser foot lever.
4. Place fabric under the presser foot. Lower presser foot.
5. Press the foot controller lightly and sew forward, guiding the fabric by hand as it is fed. Do not push or pull the material.

※ Hold the threads for the first few stitches to avoid knotting on the under surface.

Turn a square corner (fig B)

To change sewing direction.

1. Stop the machine at the point you want to change sewing directions, with the needle in the fabric.
2. Raise the presser foot, turn the fabric to its new direction.
3. Lower the presser foot and begin sewing in the new direction.

Reverse sewing (fig C)

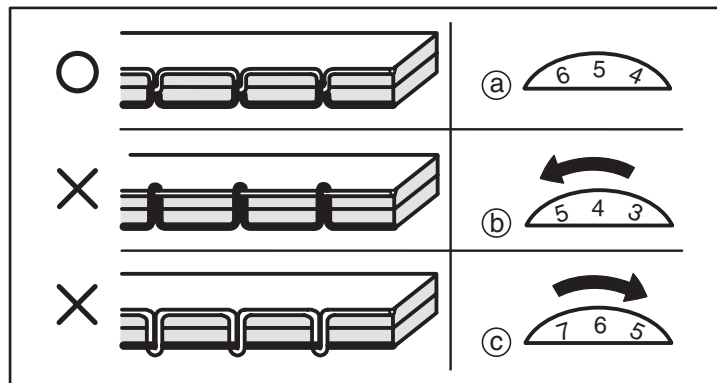
To reinforce seam, it is recommended to start or end with a few stitches in reverse sewing.

Push the reverse lever to sew reverse. Guide the fabric as it is fed. Do not pull the material.

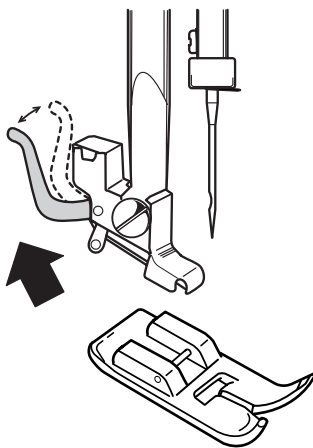
For reinforcement, a few stitches are enough. Release lever to return to forward sewing.

Finishing sewing (fig D)

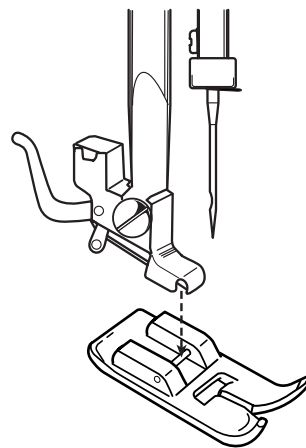
1. Stop pressing the foot controller. Turn the handwheel until the **needle** is at its highest position. Raise presser foot.
2. Draw out the fabric to the left. (fig D-1)
3. Cut threads with the cutter. (fig D-2)
4. Leave 15 cm of thread clear behind to prevent the thread from drawing out of the needle eye. (fig D-3)



A A-1



A-2



Adjusting thread tension

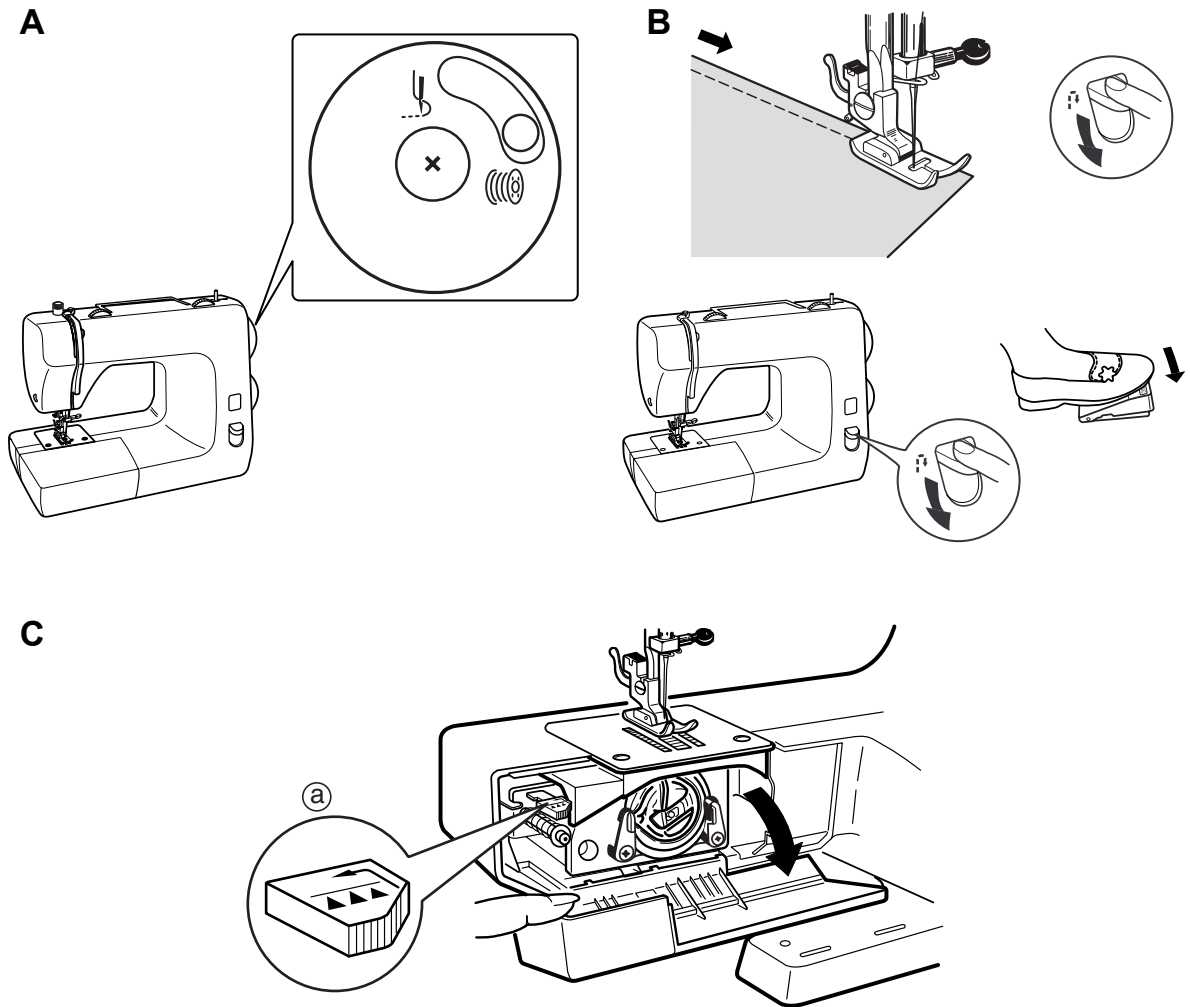
A good seam is formed when the tension is well balanced and both threads (upper thread and lower thread) are locked together in the center of the fabric. After you finish sewing, check if the upper thread and lower thread are equal.

Adjust the thread tension by turning the Upper Thread Tension Dial.

- Ⓐ : **Thread tensions are equal.** Both threads are locked in the center of the fabric.
- Ⓑ : **Upper thread tension is too tight.** Upper thread lies straight along the surface of the fabric. Correct the tension by turning the dial to a lower number.
- Ⓒ : **Upper thread tension is too loose.** Upper thread lies straight along the reverse side of fabric. Correct the tension by turning the dial to a higher number.

Changing foot

1. Set needle to its highest position by rotating the handwheel towards you. Move presser foot lever to the middle position.
2. Raise foot release lever and remove foot. (fig A-1)
3. Place the desired foot on the needle plate under the foot holder. Lower the presser foot lever so that the foot snaps on to the foot holder. (fig A-2)



Declutch knob (fig A)

The Declutch Knob is on the Handwheel. (fig A)
 When sewing, move the Declutch Knob into the (↓) direction.
 When winding bobbin, move the Declutch Knob into the (⊞) direction.

Reverse sewing lever (fig B)

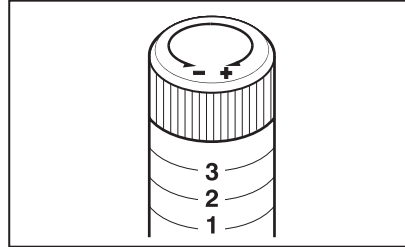
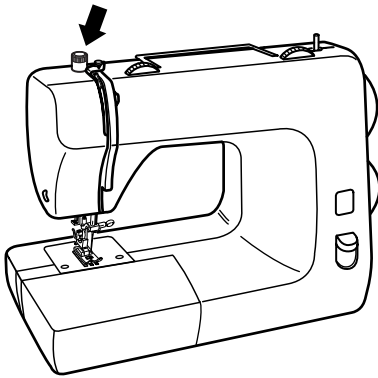
Reverse sewing is recommended to reinforce the seam.
 To Sew reverse, push the Reverse Sewing Lever as far as possible, and press on the foot controller lightly. Release the lever to return to forward sewing.

(When the machine is equipped with drop feed lever)

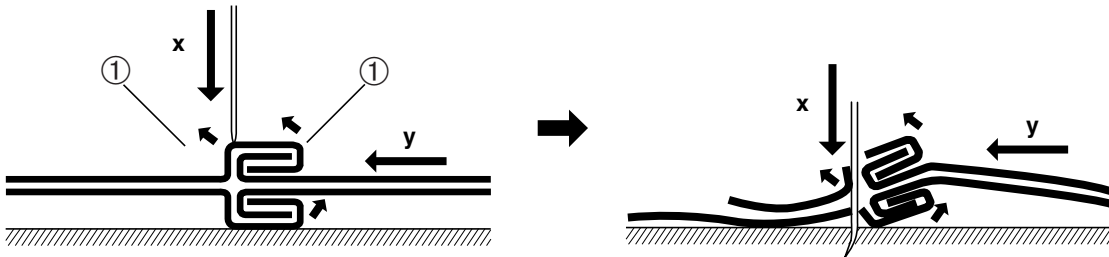
Drop feed lever (fig C)

Lowering the feed teeth will enable you to control the feeding of fabric by yourself. This can be used for button sewing, darning, and embroidery.
 Drop Feed Lever ⊕ is inside the shuttle cover.
 To lower the feed teeth, push the lever forward, then to the left.
 To release drop feed lever, push the lever to the right, and the feed teeth will return to their position.

A



B



(When the machine is equipped with presser foot pressure)

Presser foot pressure adjustment knob (fig A)

The presser foot pressure is adjusted by turning the dial at the top of the machine.

When sewing normal or heavy fabric : Turn the dial to 3.

When sewing thin or stretch fabric : Turn the dial to 2-3.

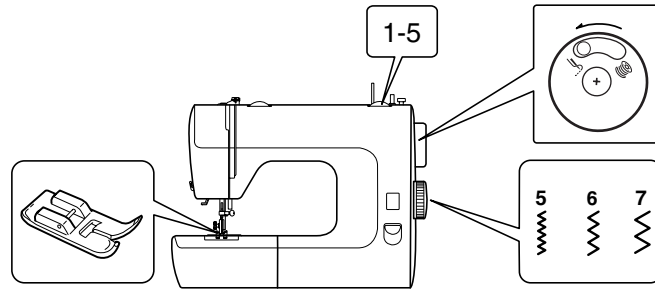
When darning : Turn the dial to 1-2.

**Thick fabric sewing
(Particularly Denim)**


When sewing thick fabric or the thick part of the fabric as shown in (fig B), it is important to sew slowly and use the proper needle size (refer page 34). Gently guide the fabric as you sew.

Especially, at the points that the thickness changes (fig B-①), sew slowly by rotating the handwheel by hand. This will prevent needle breaking and deflecting.

A



Zigzag stitching

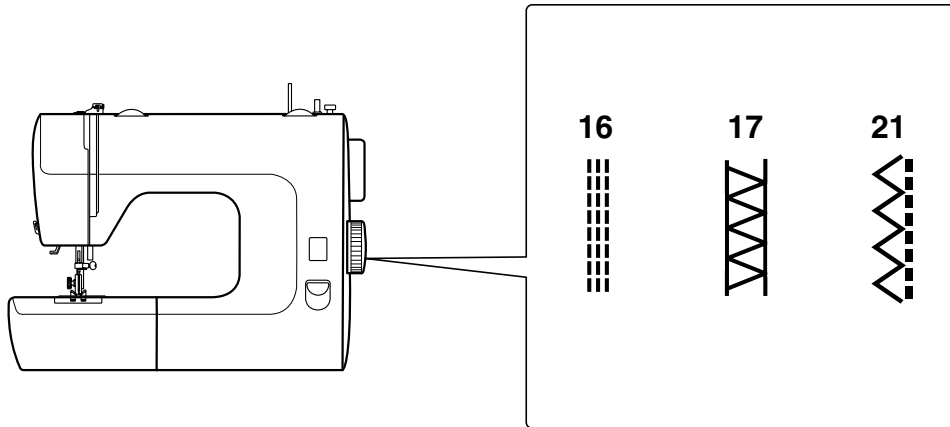
1. Be sure that the declutch knob in the handwheel is into the () direction.
2. Set **pattern selection dial** and **stitch length dial** as... (fig A)

* *Slightly loosen upper thread tension. Better looking zigzag stitches require less upper tension than straight stitching.*

3. Follow the steps as you did in straight stitching.

Pattern selection dial	Stitch length dial	Zigzag width
No. 5	1 - 5	2 mm
No. 6	1 - 5	3.5 mm
No. 7	1 - 5	5 mm

A

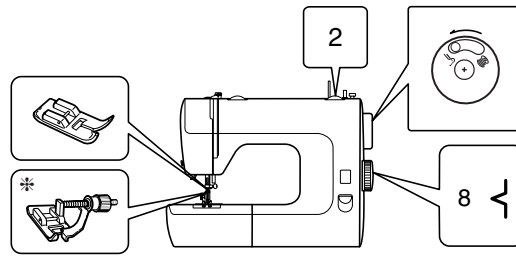


Stretch Stitching

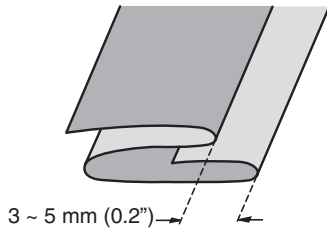
The following stitches shown (fig A) can be used with stretch and knit fabrics.

- (16) Straight stretch
- (17) Zigzag stretch
- (21) Decorative stitch

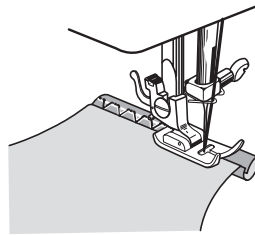
A



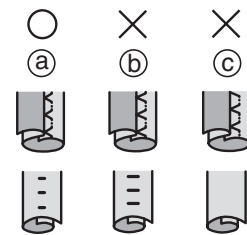
B



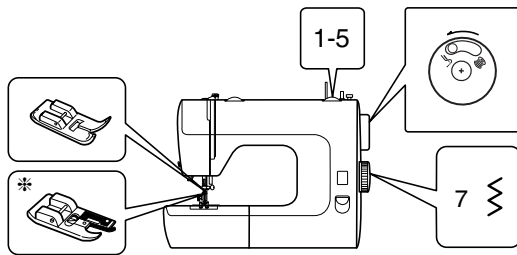
C



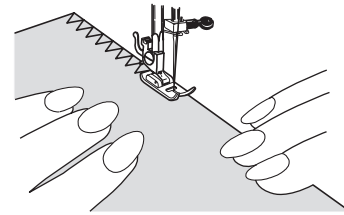
D



E




F



HOW TO USE BUILT IN STITCHES


Blind hem stitch

1. Be sure that the declutch knob in the handwheel is into the () direction.
 2. Set your machine as... (fig A)
Stitch length dial to 2
 3. Fold the material as shown in (fig B). Place it under the presser foot.
For neater finish, it is preferable to pin and press the hem before sewing.
 4. Sew on the fold, so that straight stitches are made on the hem edge, and the zigzag just catches only one or two threads of fold. (fig C)
(fig D) (a) : Correct seam
(b) : Needle catching edge of fold too much.
(c) : Needle is not catching edge of fold at all.
- * Use zigzag sewing foot or option foot (blind stitch foot).

Overcasting

For light-weight material:

Overcasting prevents edge of fabric from fraying.

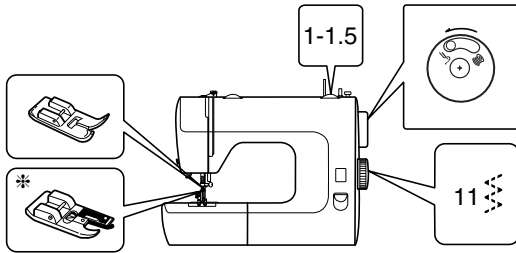
1. Be sure that the declutch knob in the handwheel is into the () direction.
2. Set **pattern selection dial** and **stitch length dial** as... (fig E)
3. Set the seam allowance under the presser foot with the edge of fabric in the line with side of the presser foot. (fig F)

NOTE

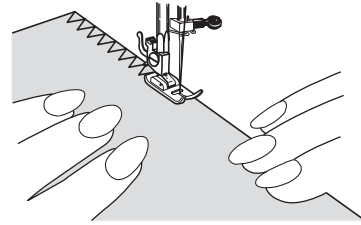
For thick fabric (particularly denim), use wide zigzag stitch, for light fabric, use narrow zigzag stitch.

- * Use zigzag sewing foot or option foot (overcasting foot).

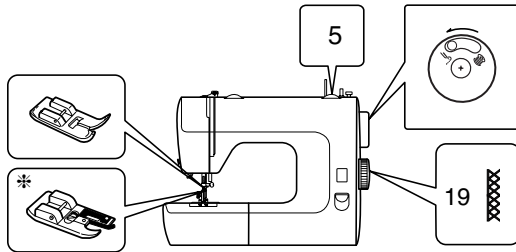
A



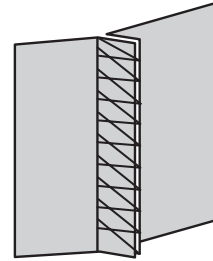
B



C



D



Overcasting

For thick and elastic material, or very fine material:

Overcasting prevents edge of fabric from fraying.

1. Be sure that the declutch knob in the handwheel is into the (↓) direction.
2. Set **pattern selection dial** and **stitch length dial** as... (fig **A**)
3. Set the seam allowance under the presser foot with the edge of fabric in the line with side of the presser foot. (fig **B**)

* Use zigzag sewing foot or option foot (overcasting foot).

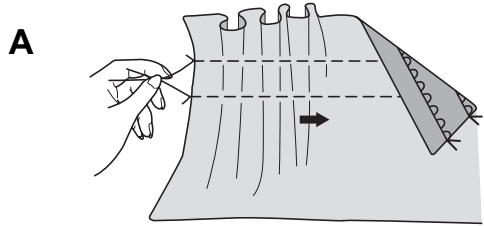
Overlocking

1. Be sure that the declutch knob in the handwheel is into the (↓) direction.
2. Set your machine as... (fig **C**)
Stitch length dial to 5
3. Put two pieces of fabric with the right sides together to sew. (fig **D**)

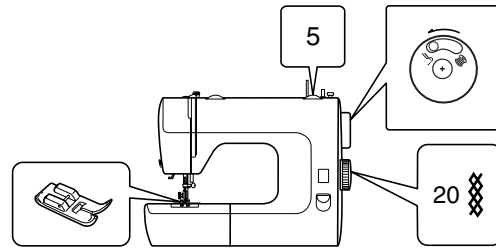
NOTE

To prevent edges from fraying, sew so that the right side stitches drop outside the edge of the fabric. Overlocking stitches can be used for overlocking.

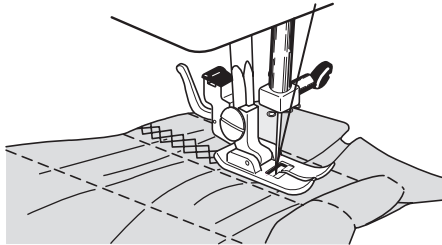
* Use zigzag sewing foot or option foot (overcasting foot).




B



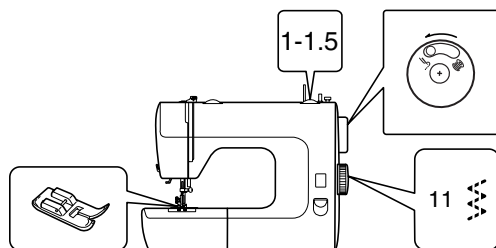
C



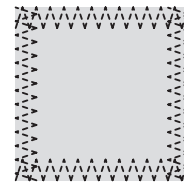
Smocking

1. Be sure that the declutch knob in the handwheel is into the () direction.
2. Sew two straight lines with very loose thread tension. Make knots in one end. (Long stitch)
3. Gather fabric towards the knots while holding the other end of lower thread. (fig A)
4. Set your machine as...(fig B)
Stitch length dial to 5
5. Sew smocking stitches on the gathered part between two straight stitches. (fig C)
6. Remove the straight stitches after finishing the smocking.

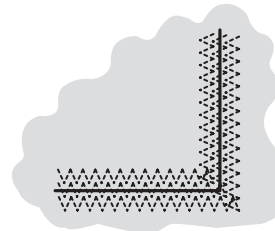
A




B



C



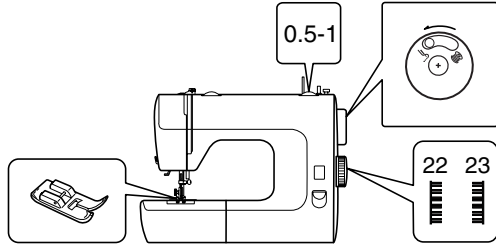
Mending

1. Be sure that the declutch knob in the handwheel is into the () direction.
2. Set your machine as... (fig A)
Stitch length dial between 1-1.5
3. Place a patch over the worn part. Sew along the edge of the right side of the patch.
4. Trim the worn part along the seam on the wrong side of fabric. (fig B)

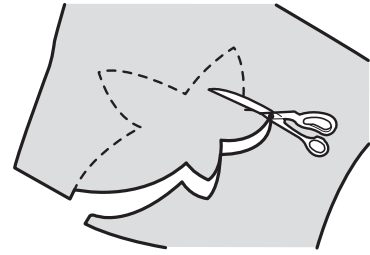
Mending a rip (fig C)

Set the machine in the same way as for mending. Sew the edges of tear together first. Then sew one more seam on each side (right side and wrong side) of the fabric.
A piece of fabric can be placed underneath to reinforce the rip.

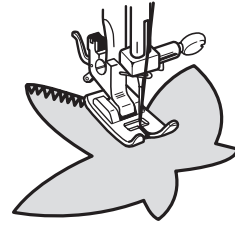
A




B



C

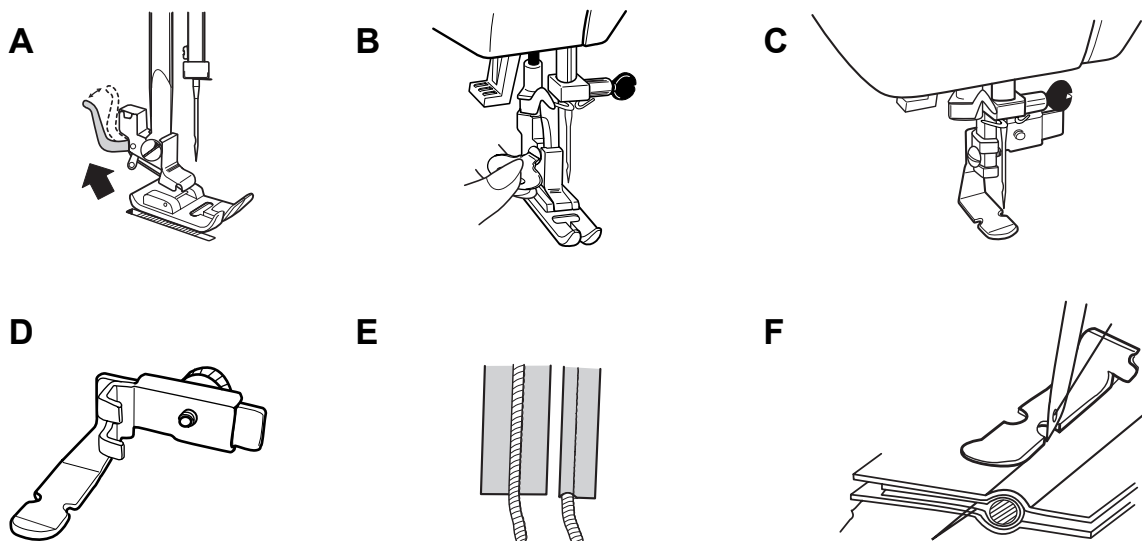


Applique work

1. Be sure that the declutch knob in the handwheel is into the () direction.
2. Set your machine as... (fig **A**)
Stitch length dial between 0.5-1
3. Draw a design on material for the applique, and cut it out. (fig **B**)
4. Lay stabilizer under the fabric and baste the cut out (or pin it) on the desired location.
5. Sew around the edge of the cut carefully. (fig **C**)

To change directions at corners or to sew very small circles:

Stop the machine with the needle pointing just away from the edge of the cut. Lift presser foot and turn the material. Lower presser foot and continue sewing.



Piping / Zipper Foot

The Piping / Zipper Foot can be used to set in a zip and can also be used when producing and attaching piping.

Use Straight stitch, normally set a stitch length 2.5 (medium stitch length).

Changing the Foot

NOTE

Switch off the power to the sewing machine before changing a presser foot. The sewing machine needle is a sharp object and could cause injury; take care when changing the presser feet. It would be a good idea to remove the needle, while changing feet, as a safety precaution.

Switch off the power.

- A. Raise the presser foot.
- B. Raise the needle to its highest position by rotating the handwheel towards you.
- C. Raise the foot release lever and remove the foot. (fig **A**)
- D. Use the needle plate screwdriver to loosen the screw of the presser foot holder and remove the foot holder from the needle bar. (fig **B**)
- E. Position the piping / zipper foot on to the needle bar from back to front. (fig **C**)
- F. Tighten the presser foot screw, using the needle plate screw driver.
- G. Loosen the adjusting screw and move the toe to the left or right of the needle, as desired. tighten the adjusting screw to hold the toe in position.

H. when you have finished using the piping / zipper foot;

- 1) Switch off the power to the sewing machine.
- 2) The needle and presser foot must be in the raised position.
- 3) Loosen the presser foot screw with the needle plate screw driver.
- 4) Remove the piping / zipper foot.
- 5) Position the presser foot holder and tighten the presser foot screw.
- 6) Clip on the general purpose foot.

Zipper Insertion / Sewing

Please refer to your instruction manual and / or tutorial DVD / Video.

Inserting Piping

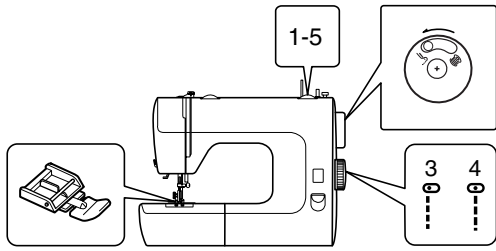
- Cut strips wide enough to cover the piping cord plus seam allowances.
- Mark the seam line on the article.
- Pin and baste the piping strip and cord to the article, along the seam line.
- Pin and baste the backing fabric in place.
- Stitch on the seam line as close to the piping cord as possible. Neaten and trim the seam allowance.
- Turn the article through to the right side.

NOTE

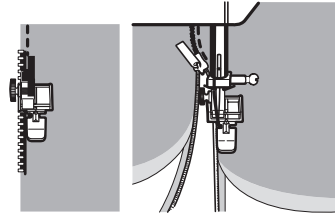
If you make the piping and sew it into a seam, the stitching should be closer to the cord to cover the 1st row of stitching (piping stitching).

* Piping / Zipper Foot is an optional accessory.

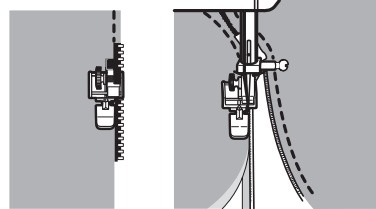
A




B



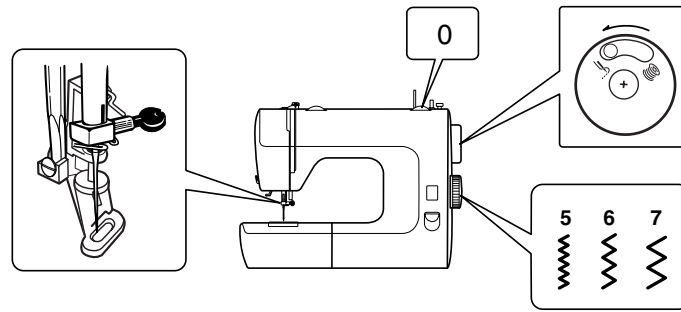
C



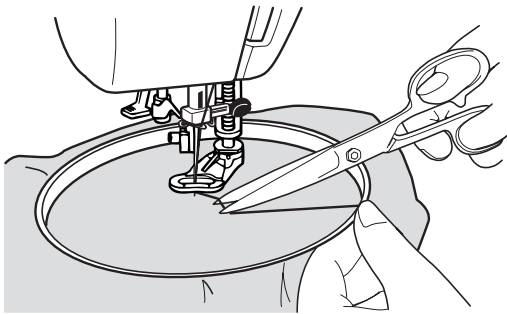
Zipper sewing

1. Be sure that the declutch knob in the handwheel is into the () direction.
 2. Set your machine as... (fig **A**)
Stitch length dial between 1-5
 3. Set the Zipper Foot on the right side of the needle. Sew the right side of the zipper. Guide the fabric carefully so that the zipper teeth of the right side are parallel with the left edge of the foot. (fig **B**)
 4. Re-set the Zipper Foot to the left side of the needle. Sew the left side of the zipper in the same way. (fig **C**)
- * Use zipper foot.

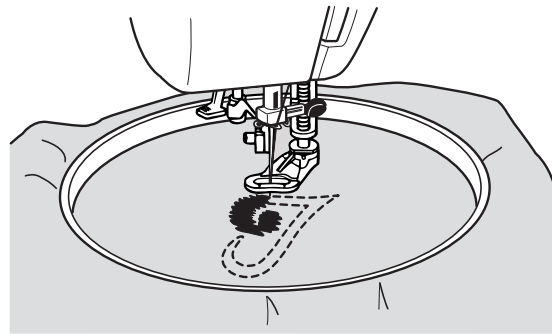
A



B



C



Free hand embroidery

1. Be sure that the declutch knob in the handwheel is into the (↴) direction.
2. Drop feed teeth. (see page 12)
3. Set your machine for SATIN STITCH (fig A) **Stitch length dial** to ZERO
4. Reduce upper thread tension slightly to prevent lower thread from being pulled up. Satin zigzag stitches requires less upper tension than straight stitching.

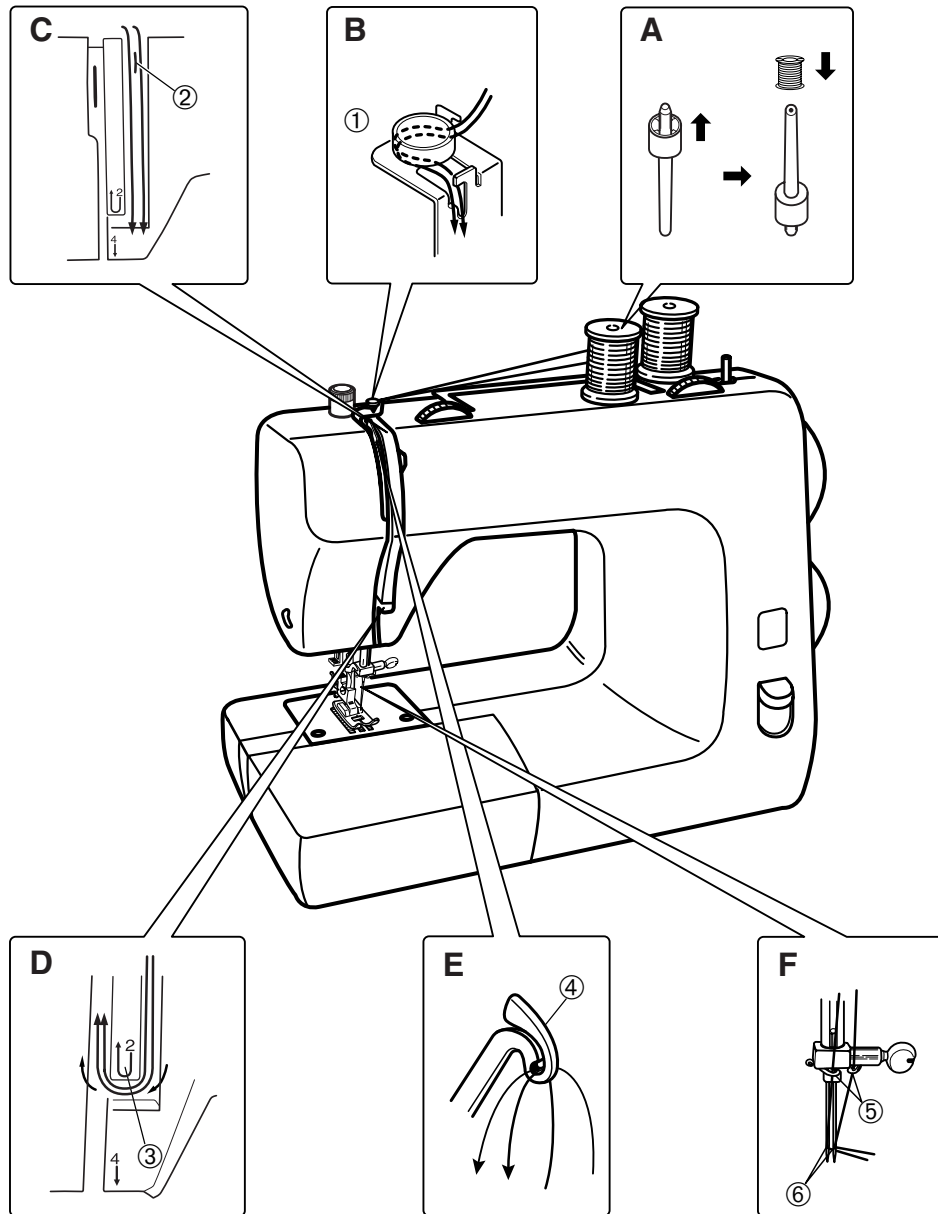
FOR GOOD EMBROIDERY

It is important to use the correct needle and threads. Use embroidery thread for upper thread, and a thinner thread of same kind and color for lower thread.

Needle	Thread
No. 9	120 - 100
No. 11	100 - 80
No. 14	60 - 50

5. Trace your design on the material and center it in an embroidery hoop. Make sure the material is taut.
Lay stabilizer underneath when embroidering thin fabric.
6. Pull out lower thread by turning the handwheel towards you while holding the upper thread lightly. Lower presser foot.
7. Pick up lower thread then make two or three stitches. Cut off excess threads. (fig B)
8. Start sewing along the outline of the design. Guide the hoop by hand. (fig C)
9. Sew several straight stitches at the end of the stitching for reinforcement.

- * Darning Foot is an optional accessory.
- * Embroidery hoop not include.



Twin needle threading

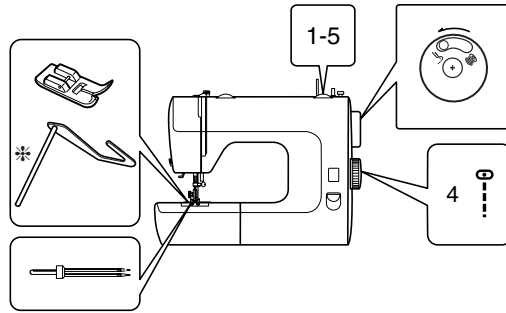
1. Set the extra spool pin on the machine. (The extra spool pin and twin needle are optional accessories and can be supplied with specified machines). Place a spool of thread on each spool pin. (fig A)
2. Thread the two threads in the same way for single needle (page 7), except the next 3 points at (fig C) and (fig F).
 - ① At the Tension disc, pass threads separately to the right and to the left. (fig C)
 - ② At the needle guide ⑤, pass threads through separate guides, one to the left guide, other to the right guide. (fig F)
 - ③ At the needle eye ⑥, the thread from the right needle guide should go through the right needle eye. The thread from the left side to the left needle eye. (fig F)

Caution!

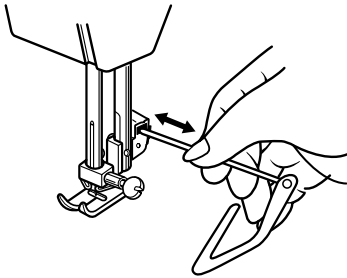
Remember to use less than 2.5 zigzag width.

Needle threader can not be used on twin needle threading.

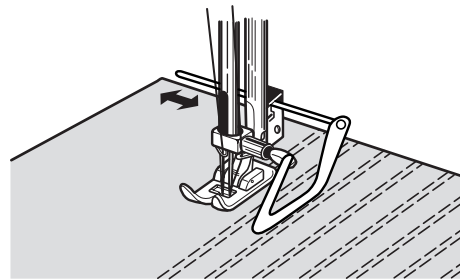
A



B




C



Pin tucking using twin needle

For light weight material

1. Be sure that the declutch knob in the handwheel is into the () direction.
2. Set your machine as... (fig A)

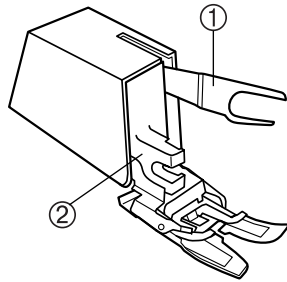
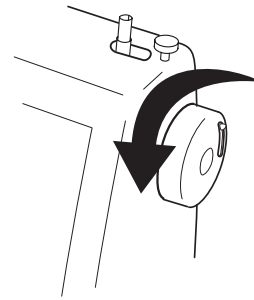
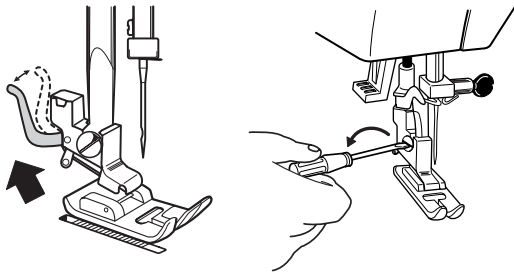
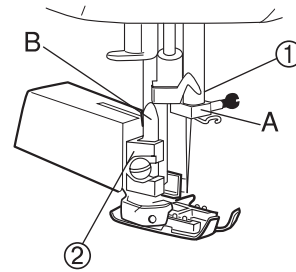
Stitch length dial between 1-5

3. Insert the Quilting Guide under the spring plate on the shank. (fig B)
4. Mark the first line with a pencil or tailors chalk, and sew.

For the second line, follow the stitches of the first line, using the Quilting Guide.

The intervals between the lines can be adjusted by moving the Quilting Guide in the direction of the arrow shown in (fig C).

* Quilting Guide is an optional accessory.

A**B****C****D**

Walking Foot

This walking foot is used only with straight or zigzag stitch.

A. Name of parts

- ① Holder for needle clamp
- ② Holder for needle bar

B. • Rotate the handwheel toward you and raise the needle to its highest position. And then turn off the power.

IMPORTANT: Make sure that the needle is at its highest position when attaching the walking foot.

C. • Lift the presser foot lever to raise the presser foot.

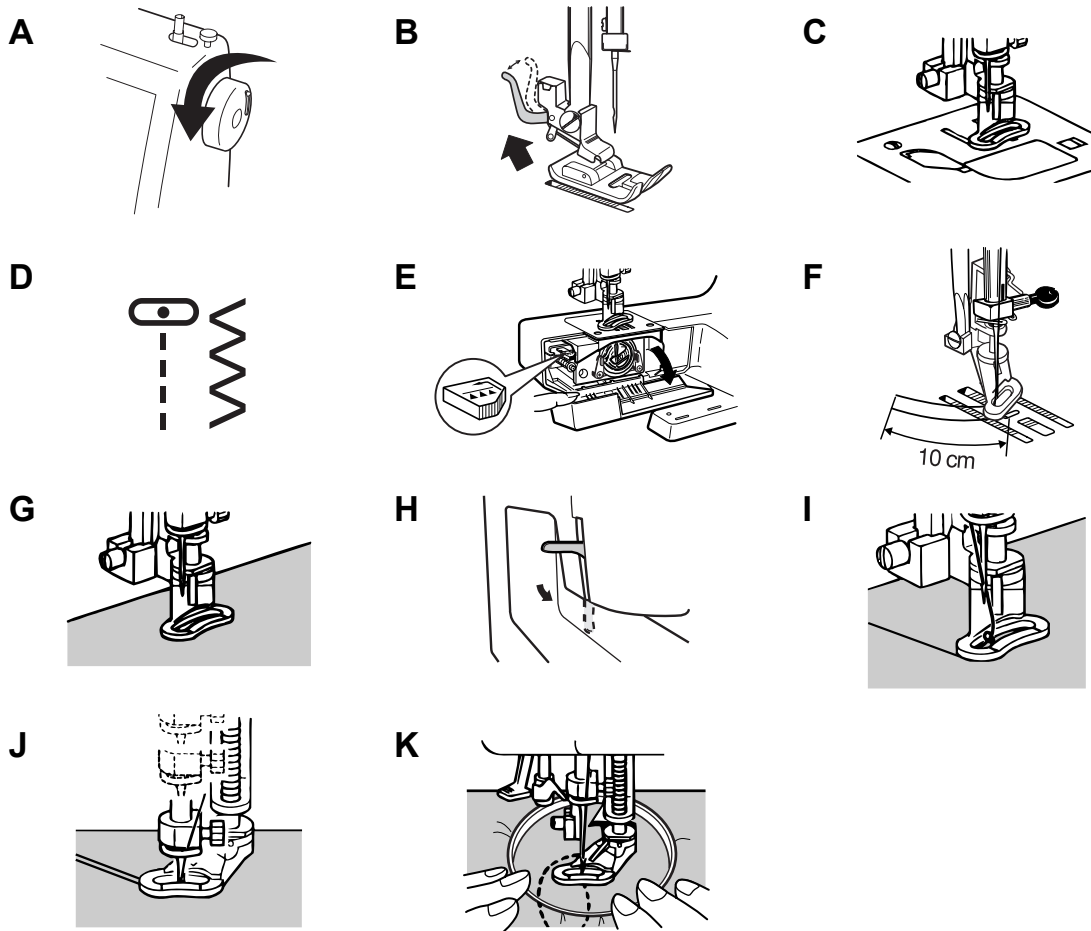
- Loosen the screw of the presser foot holder by using screw driver and remove the foot holder.

D. • Attach the holder ① to the needle clamp (A) and the holder ② to the needle bar (B). And then tighten the screw of the presser foot holder by using screw driver.

- Lower the presser foot lifter and tighten the screw of presser foot holder.

WARNING: To avoid injury, turn the handwheel slowly toward you and make sure that the needle does not hit the walking foot.

* Walking Foot is an optional accessory.



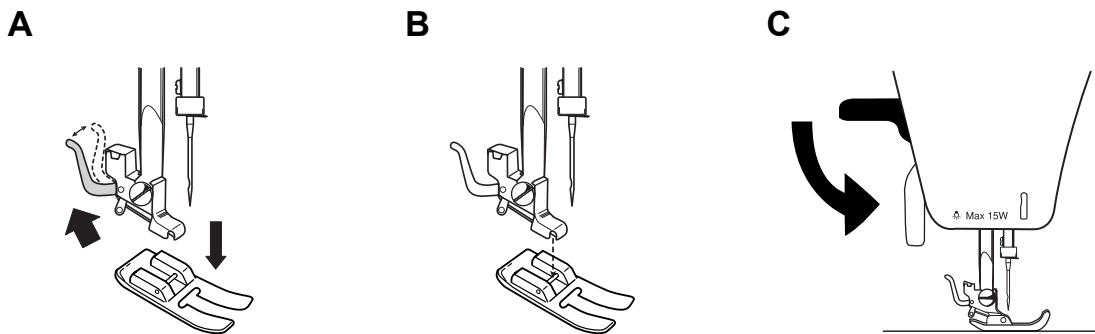
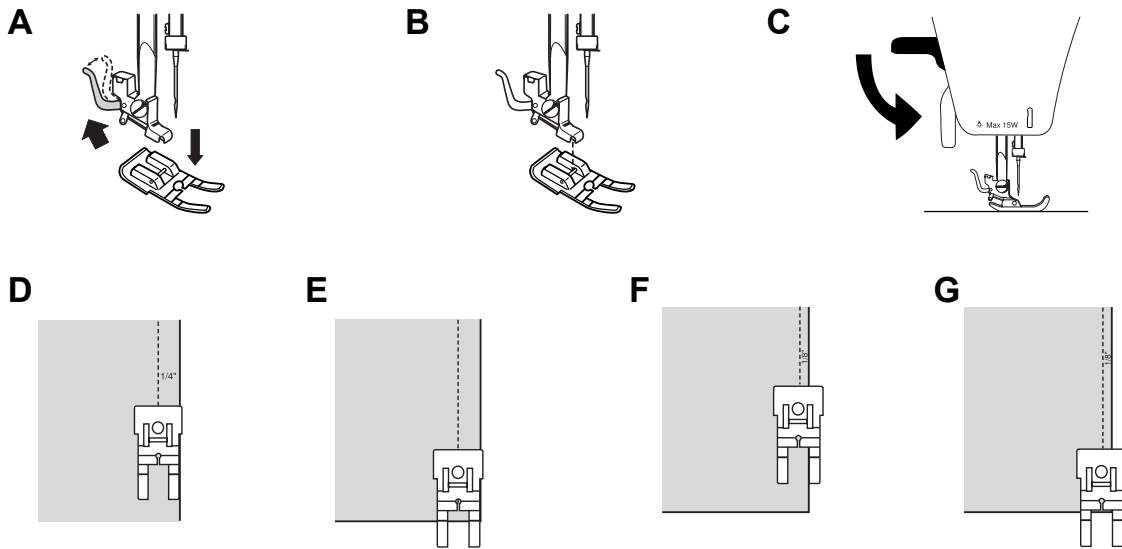
Darning Foot

- A. Rotate the handwheel toward you and raise the needle to its highest position. And then turn off the power.
- B. Lift the presser foot lever to raise the presser foot.
- C. Attach the darning foot.
- D. Select either straight (center needle position) or zigzag stitch.
- E. Lower the feed dog.
- F. Leave about 4 inches (10 cm) of lower thread tail after threading.
- G. Place the fabric under the presser foot.
- H. If the fabric does not slide under the presser foot, raise the presser foot.
- I. Turn the handwheel toward you to bring up the lower thread.
- J. By holding the lower thread gently, sew about 4 stitches.
 - For darning, cut off any excess threads.
 - For free-motion quilting, use a sewing needle to hide the excess threads underneath the quilting pieces. Trim any threads that are still showing.
- K. Use both hands to guide the fabric and keep it in its place.
 - Trace your design on the material and place it in an embroidery hoop.
 - Make sure the material is taut.
 - Lay a stabilizer underneath when embroidering on a thin fabric.
 - Guide the hoop with your hands.

IMPORTANT

Remember to raise the feed dog when you have finished.

- * Embroidery hoop not include.
- * Darning Foot is an optional accessory.



Piecing Foot

Use the 1/4" piecing foot whenever a 1/4" seam allowance is required.

- A.** Raise the foot release lever to remove the foot.
- B.** Place the piecing foot on the needle plate aligning needle holes.

C. Lower the presser foot lever so that the ankle snaps on the foot.

To stitch a 1/4" seam:

D. Align the edges of the fabrics with the right edge of the presser foot.

E. When pivoting at a corner, stop when the fabric edge is even with the front red line on the foot. Lower the needle into the fabric and pivot. Continue to stitch.

To stitch a 1/8" seam:

F. Align the edges of the fabrics with the inside edge of the right side of the presser foot.

G. When pivoting at a corner, stop when the fabric edge is even with the middle red line on the foot. Lower the needle into the fabric and pivot. Continue to stitch.

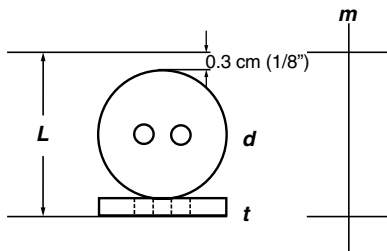
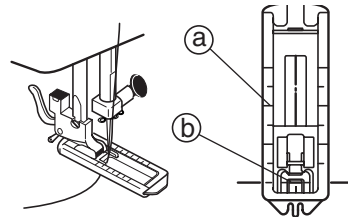
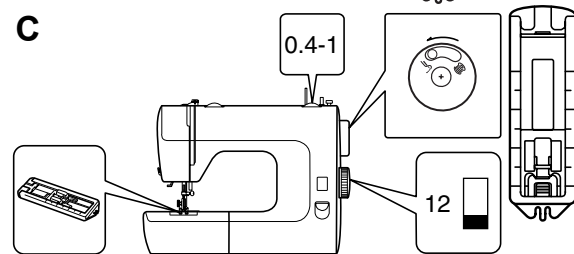
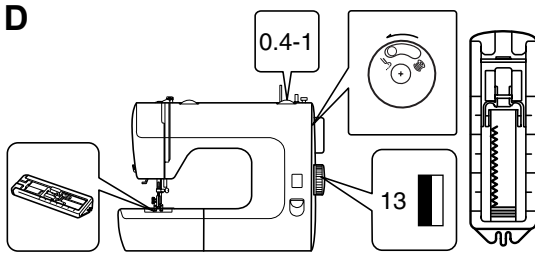
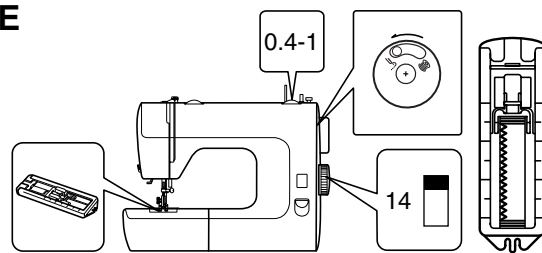
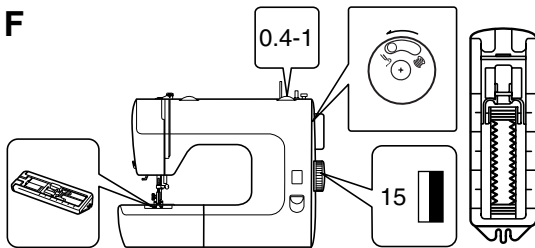
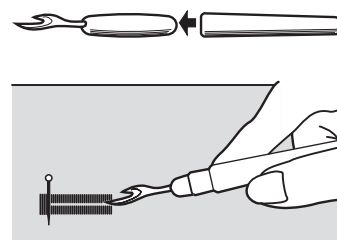
- * Piecing Foot is an optional accessory.
- * Always use straight stitch (center position).

Open Toe Appliqué Foot



Use the Open Toe Appliqué Foot when doing Appliqué or decorative stitches, to be able to see the stitching line better, and to allow the foot to feed smoothly over the build up of the satin stitching.

- A.** Raise the foot release lever to remove the foot.
- B.** Place the Open Toe Appliqué Foot on the needle plate aligning needle holes.
- C.** Lower the presser foot lever so that the ankle snaps on the foot.

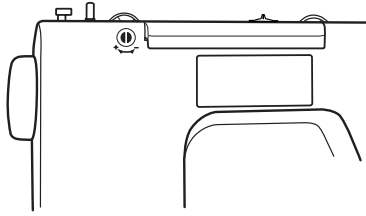
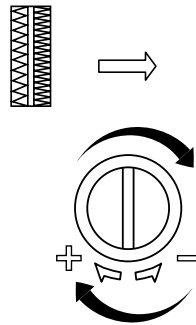
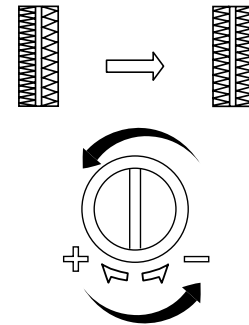
* Open Toe Appliqué Foot is an optional accessory.

A**B****C****D****E****F****G**

Making buttonhole

1. Be sure that the declutch knob in the handwheel is in the () direction.
2. Measure the diameter and thickness of the button. Add the thickness and 0.3 cm (for bar tacks) to diameter. Mark the size of the buttonhole on the fabric. (fig A)
- * For stretch fabrics, lay a piece of paper where the buttonhole will be placed.
3. Attach the Buttonhole Foot. Completely push back the sliding part  of buttonhole foot. Place material under the foot so that the marking of buttonhole passed through the center of foot. (fig B)
4. **STEP 1** (front bar tack) (fig C)
Set pattern selection dial to No. 12
Set stitch length dial between 0.4-1
 Lower the presser foot and sew 5-6 stitches. Stop the machine so the needle is at the left side of the stitches. Raise needle.
5. **STEP 2** (left side) (fig D)
Set pattern selection dial to No. 13
 Sew left side from front to back until it reaches the end of the marking. Stop the machine so the needle is at the left side of the stitches. Raise needle.
6. **STEP 3** (back bar tack) (fig E)
Set pattern selection dial to No. 14
 Sew 5-6 stitches. Stop the machine so the needle is at the right side of the stitches. Raise needle.
7. **STEP 4** (right side) (fig F)
Set pattern selection dial to No. 15
 Sew right side from back to front until it catches the front bar tack. Stop the machine so the needle is at the left side of the stitches. Raise needle and presser foot.
8. Remove the fabric from the machine. Place a pin through the bar tacks to prevent over-cutting. Cut the center of the buttonhole with a * Buttonhole Cutter. (fig G)

- * Included in accessories.
- * Use buttonhole foot

A**B****C**

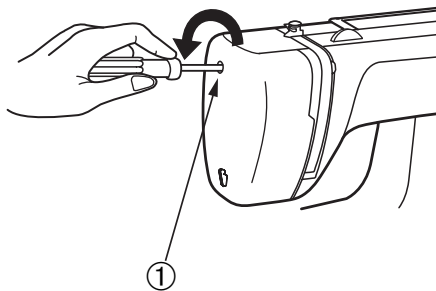
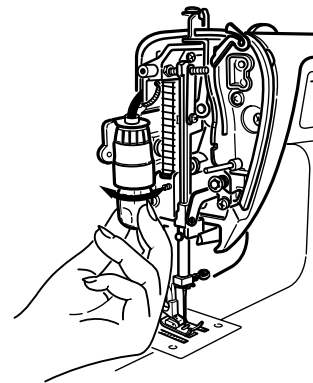
Adjusting stitch balance of buttonhole

Occasionally (especially on speciality fabrics) the stitch length shows differences in forward and reverse stitches of the buttonhole.

Stitch balance can be equalized by turning the Buttonhole Stitch Adjuster. (fig A)

1. If the stitches of the right side of the buttonhole (forward stitches) are too close together, turn the adjuster clockwise using a screw driver or a coin. (fig B)

2. If the stitches of the left side of the buttonhole (reverse stitches) are too close together, turn the adjuster counterclockwise. (fig C)

A**B**

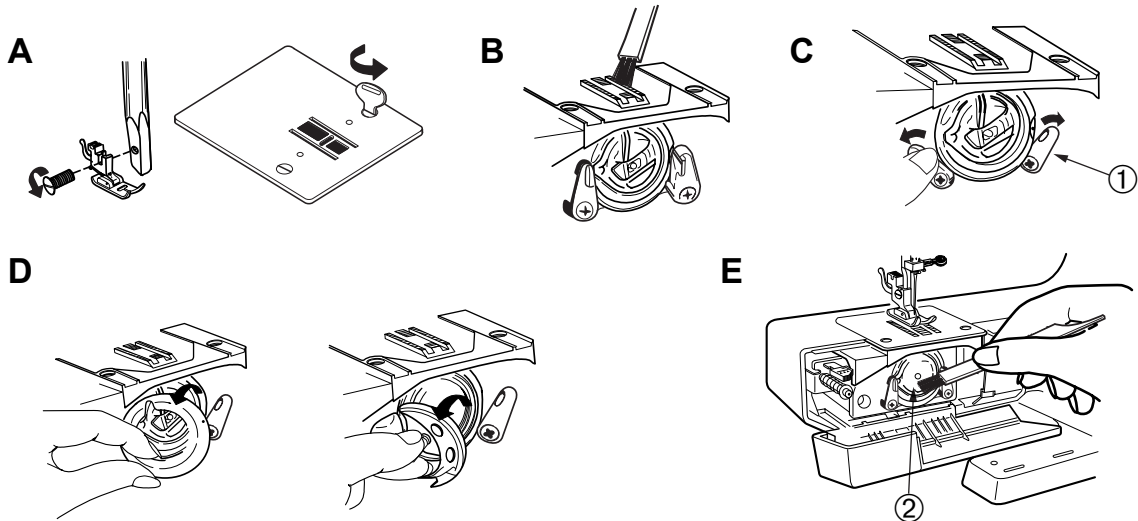
MAINTENANCE

Changing light bulb

Caution!

Disconnect power supply before carrying out maintenance. Make sure bulb is not hot.

1. Unplug the machine.
2. Loosen screw ①, and remove face cover. (fig A)
3. Remove bulb by unscrewing it in an anticlockwise direction.
4. Install a new bulb by screwing it in clockwise. (fig B)
5. Replace the face cover, tighten the screw.



Your machine requires cleaning and oiling for good sewing performance.
A machine which is used for a few hours a day needs to be cleaned and oiled once a month.

Caution!

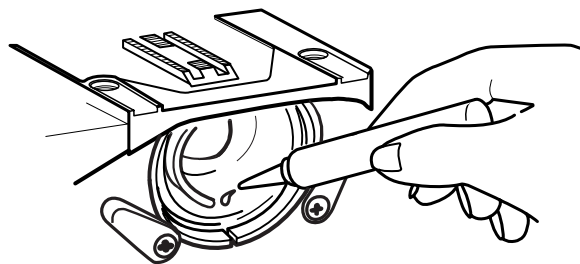
Disconnect power supply before carrying out maintenance. Needle in the raised position.

Cleaning

1. Remove foot and needle. Remove needle plate with needle plate screw driver. (fig A) (needle up position)

2. Brush off all dust and lint on feed teeth with a cleaning brush. (fig B)
3. Open shuttle cover and turn latches of shuttle ① outwards. (fig C)
4. Remove shuttle hook cover. Remove shuttle hook. (fig D)
5. Clean shuttle race ② with a cleaning brush and soft cloth. (fig E)
6. Replace hook.
7. After maintenance, replace needle plate, needle and presser foot.

F



Caution!

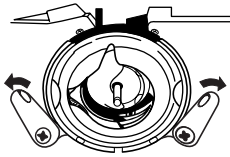
Disconnect power supply before carrying out maintenance.

Oiling

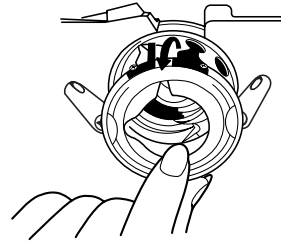
Use oil manufactured specially for sewing machine use.
Other oils will eventually cause mechanism to jam.

Apply a drop of oil to part of shuttle where friction occurs. (fig F)

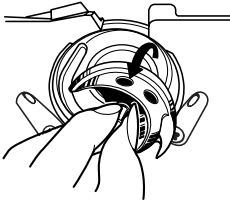
A



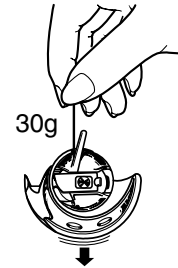
B



C



D



TROUBLE SHOOTING

Lower thread tension adjustment

If your machine skips stitches or loops stitches, it may require tension adjustment.

To check the lower thread tension, follow these steps.

Checking bobbin case tension

The needle must be in the raised position.

1. Push latches of the shuttle to the outside, as shown in (fig A).
2. Remove shuttle hook cover as shown in (fig B).
3. Remove shuttle hook. (fig C)

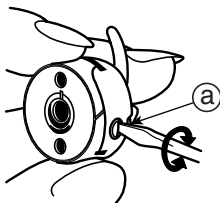
4. Suspend bobbin, bobbin case, and shuttle hook all together and hold the bobbin thread as illustrated in (fig D).

When the bobbin case tension is correct, the thread should slide down with light resistance.

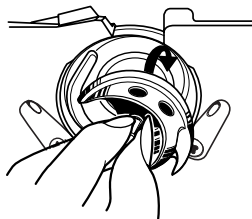
When the bobbin case tension is too tight, the thread does not slide down, or the thread jerks.

When the bobbin case tension is too loose, the thread easily slides down with no resistance.

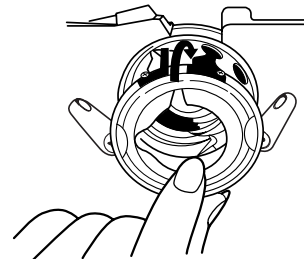
E



F



G



Lower thread tension adjustment

When the bobbin case tension is correctly adjusted, it is easy to balance the upper thread tension.

Adjusting bobbin case tension.

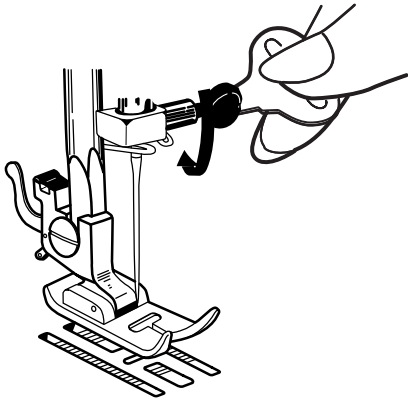
Needle in the raised position.

1. Turn screw @ (on the bobbin case) for tension adjustment. (fig E)

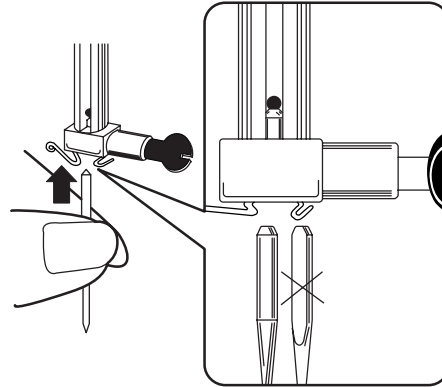
Turn the screw to the left to loosen tension.
Turn the screw to the right to tighten tension.

2. Replace the shuttle hook.
Lay the machine on its back to make it easier. (fig F)
3. Replace shuttle hook cover. (fig G)
4. Push latches towards inside.
5. Close shuttle cover.

A
A-1



A-2



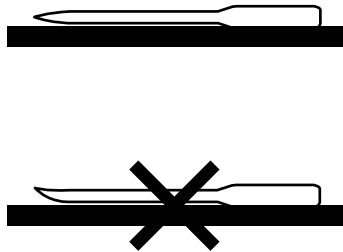
Changing needle (fig A)

1. Set the needle in the highest position by turning the handwheel toward you. Loosen needle clamp screw by using the needle plate screw driver. Take out the needle. (fig A-1)

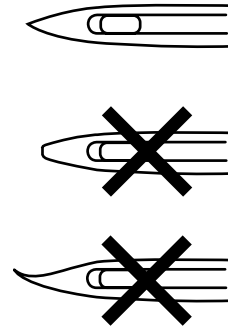
2. Insert a new needle with the flat side away from you. Push the needle into the clamp until it stops. Firmly tighten needle clamp screw with screw driver. (fig A-2)

B

B-1



B-2

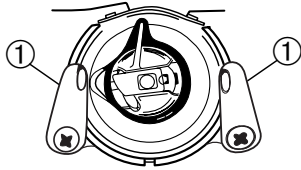


Checking needle (fig B)

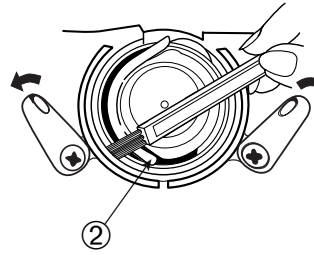
Using defective or worn needles not only causes stitch skipping, breakage of needles or snapping of thread. It can also damage shuttle and needle plate.

1. Always use a straight and sharp needle. (fig B)
B-1 Straight shaft
B-2 Sharp point

A



B



Cleaning the shuttle race

Thread stuck between shuttle hook and shuttle race causes sudden rapid running or sudden stopping of the machine. In this case you should proceed as follows:

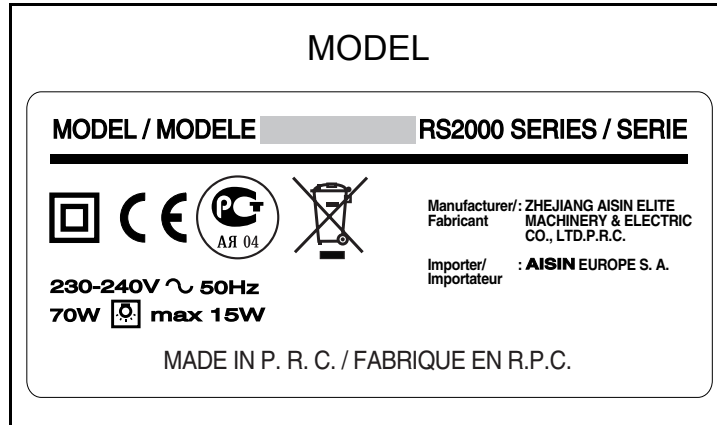
1. Lift presser foot and remove bobbin case.
2. Push latches ① towards outside and remove shuttle hook cover and shuttle hook with fingers. (fig **A**)
3. Clean the shuttle race ② and shuttle hook, and re-assemble them. (fig **B**)

Trouble chart

PROBLEM	PROBABLE CAUSE	CORRECTION
Breaking lower thread	Thread not wound evenly on the bobbin or not drawn up correctly	P. 5, P. 7
	Lower thread tension too tight	P. 30
	Lint is stuck in the bobbin case and inside the tension spring	Remove lint and fluff with a cleaning brush
Skipping stitches	Needle not fully inserted	P. 31
	Needle bent or blunt	P. 31
	Size or type of needle and thread not suitable for the material	P. 34
	Incorrect upper threading	P. 7
	Too much oil on the machine	P. 29
Irregular stitches	Incorrect size of needle for the material	P. 34
	Upper thread tension is too loose	P. 11
	Incorrect lower thread tension	P. 30
The material not fed correctly	Pattern selection dial not set correctly	P. 35
	Feed teeth are down	P. 12
	Lint is stuck in the feed teeth	P. 32
Noisy machine	Check the thread in shuttle, even the slightest amount of thread inside the shuttle may cause noise or binding, use material like tooth pick or cotton swab to clean	P. 32
The material puckers	Upper or lower thread tension is too tight	P. 11, P. 30
	Stitch too long for material	P. 35
	Thread too thick	P. 34
	Incorrect threading of upper or lower thread	P. 7, P. 6
Breaking needle	Needle not correctly inserted	P. 31
	Needle bent	P. 31
	Needle clamp screw too loose	P. 31
	Upper thread tension too tight	P. 11
	Needle too fine for the material	P. 34
	Dials have been changed while the needle was down in the material	P. 35

* If trouble is still apparent in the machine, please contact where you purchased or our web site (Europe only).
Do not try to correct fault by yourself.

When calling for service, please note the MODEL NAME that is inscribed on the back of your sewing machine.



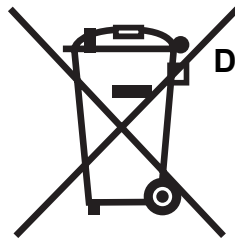
FABRIC, THREAD AND NEEDLE TABLE

FABRIC	THREAD			NEEDLE			REMARKS
	European Cotton	Mercerized Cotton	Cotton Covered Polyester, Silk, Nylon	European 705	U.S. Size 15 x 1	Point Style	
VERY SHEER: Lace, Voile, Chiffon, Net	70	60	Silk, Nylon	65-70	9	Regular	Loosen upper tension one or two points
SHEER: Blouse, Crepe Lawn, Organdy, Taffeta	50-70	60	Silk, Nylon	65-70	9	Regular	
LIGHT-WEIGHT: Crepe, Wool, Brocada, Velvet	30	60	Silk	75-80	11	Regular	
MEDIUM: Wool, Silk, Linen, Velveteen, Cotton, Faille, Terrycolth	30	50	Silk	80-90	11-14	Regular	
HEAVY: Denim, Duck, Sailcloth	30	Heavy Duty	C.C.Poly	100	16	Regular	
EXTRA HEAVY: Upholstery, Canvas, Awning	30	Heavy Duty	C.C.Poly	120	19	Regular	
[KNITS]							
LIGHT-WEIGHT: Tricot	50-70	60	Silk, Nylon	70	9	Ball Point	
MEDIUM-WEIGHT: Jersey, Double knit	30	50	Silk, Nylon C.C.Poly	70-80	9-10	Ball Point	
HEAVY-WEIGHT: Double knit	30	50	Silk, Nylon C.C.Poly	80-90	11-14	Ball Point	
FAKE-FURS, VELOURS	30	Heavy Duty	C.C.Poly	90-100	14-16	Ball Point	
[LEATHER]							
VINYLS FILMS	30	50	C.C.Poly	90	14	Wedge	
LIGHT-TO-MEDIUM-WEIGHT	30	50	C.C.Poly	90-100	14-16	Wedge	
HEAVY LEATHER	30	Heavy Duty	C.C.Poly	100-110	16-18	Wedge	
[DECORATIVE TOUCHES]							
TOP STITCHING	Silk twist			100-110	16-18	Regular	
MACHINE EMBROIDERY	Size 50-70			65-80	9-11	Regular	

1	2	3	4	5	6	7	8	9	10	11	12
13	14	15	16	17	18	19	20	21	22	23	24

NAME OF STITCH PATTERNS

- | | | |
|--------------------------------------|-----------------------|-----------------------|
| 1. Scallop | 9. Stretch blind hem | 17. Zigzag stretch |
| 2. Domino stitch | 10. Serpentine stitch | 18. Overlock |
| 3. Straight stitch (left position) | 11. Mending stitch | 19. Overlock stitch |
| 4. Straight stitch (center position) | 12. Buttonhole | 20. Honeycomb |
| 5. Zigzag 2.2 mm | 13. Buttonhole | 21. Decorative stitch |
| 6. Zigzag 3.5 mm | 14. Buttonhole | 22. Applique stitch |
| 7. Zigzag 5.0 mm | 15. Buttonhole | 23. Applique stitch |
| 8. Blind stitch | 16. Straight stretch | 24. Fagoting stitch |



DO NOT THROW AWAY!

RECYCLING

We are committed to the protection of the environment. We strive to minimize the environmental impact of our products by continuously improving product design and our manufacturing methods.

At end of life please dispose of this product in an environmentally responsible way.

The crossed-out wheeled bin symbol featured above and on the product's data-plate means that this product falls under the scope of the E.U. "Waste Electrical and Electronic Equipment" (WEEE) directive and "Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment" (ROHS) directive and should not be disposed of with your household waste. At end of life, you must ensure that this product is disposed of in accordance with national and local legislation and that it is sorted as Category 2 "Small Domestic Appliances" WEEE. You may be liable under local and national laws for improper disposal of this product. Please consult the web, or a competent national or local body, for the return and collections systems available to you and the locations of your nearest recycling points. If you purchase a new product direct from us we will take your old product back, irrespective of the brand, if it is a like for like sale.

As an individual you can make a positive impact on reuse, recycling and other forms of recovery of WEEE. This will reduce use of landfill and minimize the environmental impact of the products you use.

Hazardous substances in electronic and electrical products can have a harmful impact on human health and on the environment.

TOYOTA

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