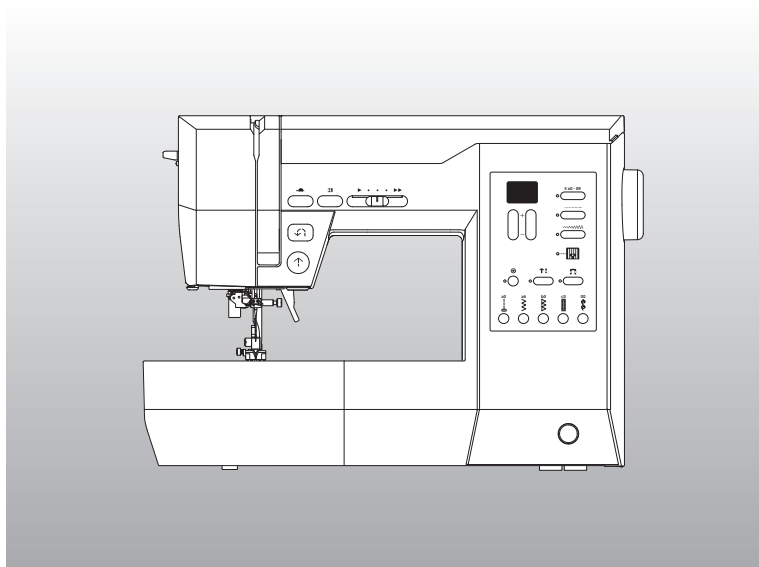


# STA-300



## Instruction Manual

**HappyJapan**

# INSTRUCTION MANUAL

---

This sewing machine is intended for household use.

## IMPORTANT SAFETY INSTRUCTIONS

When using a 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:

Never leave unattended when plugged in. Always unplug this machine from the electric outlet immediately after using and before cleaning.

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

1. Do not allow to be used as a toy. Close attention is necessary when this sewing machine is used by or near children.
2. Use this sewing machine only for its intended use as described in the instruction manual. Use only attachments recommended by the manufacturer as contained in the instruction 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 the sewing machine to the nearest authorized local dealer 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. Keep fingers away from all moving parts. Special care is required around the sewing machine needle.
6. Always use the proper needle plate. The wrong plate can cause the needle to break.
7. Do not use bent needles.
8. Do not pull or push fabric while stitching. It may deflect the needle causing it to break.
9. Switch the sewing machine off ("0") when making any adjustments in the needle area, such as threading needle, changing needle, threading bobbin, or changing presser foot, etc.
10. 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.
11. Never drop or insert any object into any opening.
12. Do not use out doors.
13. Do not operate where aerosol (spray) products are being used or where oxygen is being administered.
14. To disconnect, turn the power switch to the off position ("0"), then remove plug from outlet.
15. Do not unplug by pulling on cord. To unplug, grasp the plug, not the cord.
16. If the power cord of this appliance is damaged, it must be replaced with a special cord by your authorized local dealer.
17. Don't use the machine if it's wet.
18. If the LED lamp is broken, it must be replaced by the manufacturer or its local dealer in order to avoid a hazard.
19. Never place anything on the foot control.
20. Keep the instruction at a suitable place that close to the machine, and hand it over if you give the machine to a third party.

## **SAVE THESE INSTRUCTIONS**

This sewing machine is not to be used by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.  
Children being supervised not to play with the appliance.

# SERVICING OF DOUBLE-INSULATED PRODUCTS

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 be done only by qualified service personnel. Replacement parts for a double-insulated product must be identical to the parts they replace. A double-insulated product is marked with the words "DOUBLE INSULATION" or "DOUBLE INSULATED." The symbol "□" (square within a square).



## **Do not dispose of electrical appliances as unsorted municipal waste, use separate collection facilities.**

Please note that on disposal, this product must be safely recycled in accordance with relevant National legislation relating to electrical/electronic products.

Contact your local government for information regarding the collection systems available.

When replacing old appliances with new ones, the retailer may be legally obligated to take back your old appliance for disposal free of charge.

If electrical appliances are disposed of in landfills or dumps, hazardous substances can leak into the groundwater and get into the food chain, damaging your health and well-being.

- \* In order to always provide you with the latest sewing performance, we may change the appearance, design, or accessories of this sewing machine without prior notice as necessary.
- \* Please note that it is prohibited to reproduce the contents of the "Instruction Manual" without permission.
- \* The contents of the "Instruction Manual" may be changed without prior notice as necessary.
- \* If you notice any suspicious points or errors regarding the contents of the "Instruction Manual," please contact your local dealer.
- \* Please contact your local dealer for information on repairs, warranty, and sold separately items for this sewing machine.

## INFORMATION FOR EMBROIDERY UNIT

This sewing machine can sew beautiful embroidery by attaching the embroidery unit. (Sold separately)

The embroidery unit can sew many embroideries such as one-point embroideries, large-size embroideries and can sew letter embroidery. (Built-in patterns are vary depending on the model.)

For models that support USB flash memory, you can also save the supported embroidery data to a USB flash memory and load it into an embroidery unit.

Ask for your local dealer for more information of the embroidery unit.

- When you attach the embroidery unit, turn off the power switch of sewing machine and lower the drop feed lever to the left.
- After attaching the embroidery unit to the sewing machine, turn on the machine.
- Adjust the thread tension correctly. Turn the thread tension regulator and set it to "3" position.

### NOTE:

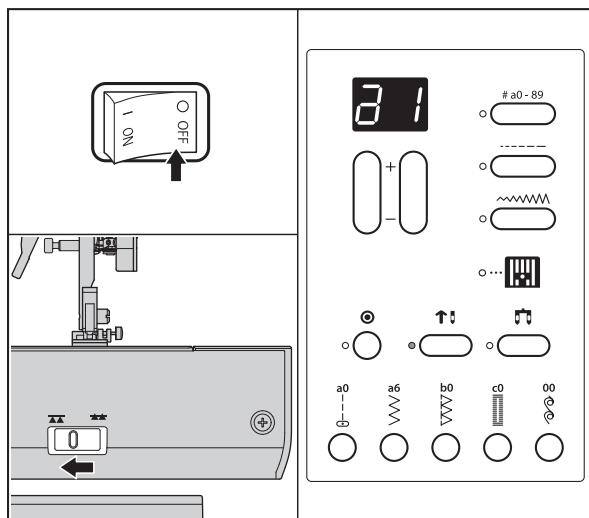
The instruction manual of the embroidery unit may say to set to the thread tension regulator to the right end of the line after "AUTO", but set it to "3", for this sewing machine.

- You can do the following operation on the sewing machine;
  - Start/Stop
  - Slow
  - Needle up-down
  - Speed control
  - Bobbin winding

If you attach the embroidery unit, the needle stop position will be set to the up position. Also, the needle position will set to the left.

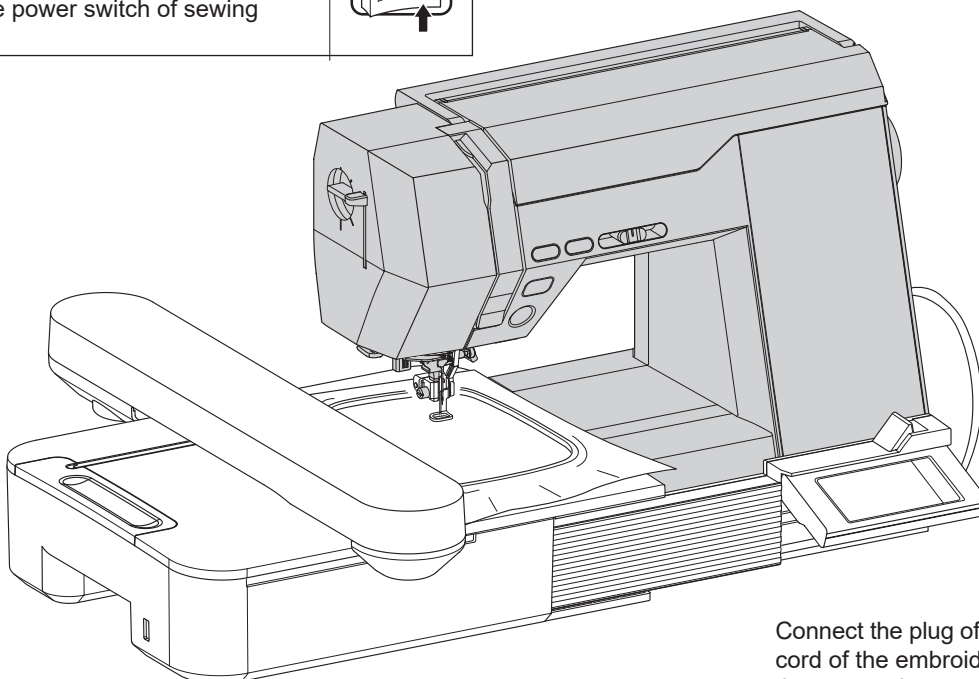
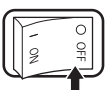
Refer to the instruction manual provided with the embroidery unit for more instruction.

After embroidery sewing, raise the drop feed lever to the right.



### CAUTION: To prevent injury to persons.

When you attach the embroidery unit, turn off the power switch of sewing machine.



Connect the plug of connecting cord of the embroidery unit to the connecting port of sewing machine.

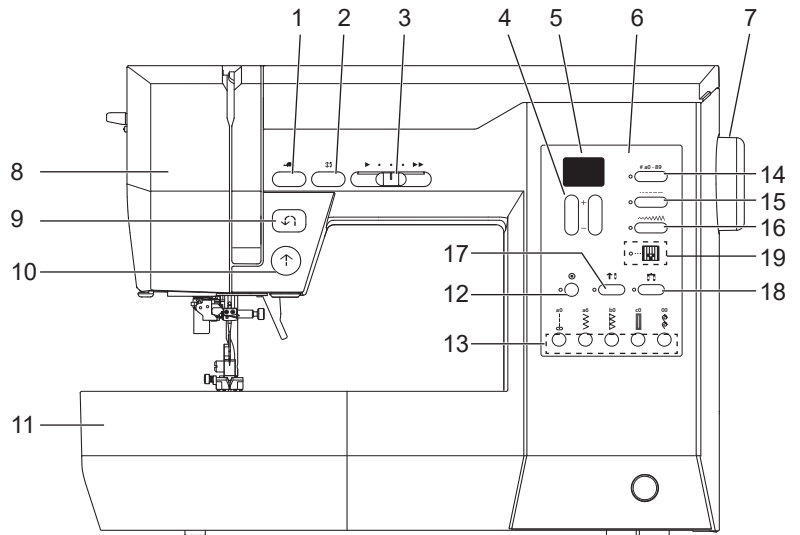


# CONTENTS

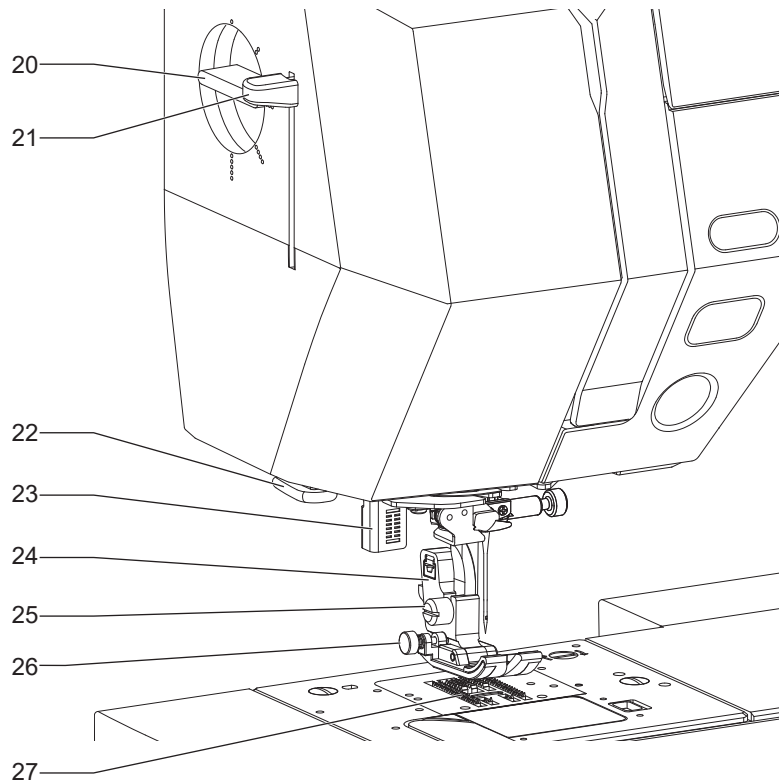
IMPORTANT SAFETY INSTRUCTIONS ....inside of the front cover	
INFORMATION FOR EMBROIDERY UNIT.....	2
MAIN PARTS.....	4
EXTENSION TABLE.....	7
ACCESSORIES.....	7
CONNECTING THE MACHINE.....	8
FOOT CONTROLLER.....	9
FUNCTION OF EACH PART.....	10
A. START/STOP BUTTON.....	10
B. REVERSE BUTTON.....	10
C. SLOW BUTTON.....	11
D. NEEDLE UP-DOWN BUTTON.....	11
E. SPEED CONTROL BUTTON.....	11
F. PRESSER FOOT LIFTER.....	11
G. DROP FEED LEVER.....	12
H. PRESSURE REGULATOR.....	12
I. HANDWHEEL.....	12
DUST COVER.....	13
TO SELECT A PATTERN.....	14
ADJUSTING THE THREAD TENSIONS.....	18
SETTING OF LED LIGHT and BEEP.....	19
BOBBIN SETTING.....	20
A. REMOVING THE BOBBIN.....	20
B. WINDING THE BOBBIN.....	20
C. INSERTING THE BOBBIN.....	22
THREADING THE MACHINE.....	23
A. PREPARING TO THREAD MACHINE.....	23
B. SETTING SPOOL OF THREAD ON SPOOL PIN.....	24
C. THREADING THE UPPER THREAD.....	24
D. THREADING THE NEEDLE EYE.....	26
CHANGING THE PRESSER FOOT.....	28
A. CHANGING THE PRESSER FOOT.....	28
B. REMOVING THE PRESSER FOOT HOLDER.....	29
FABRIC, THREAD AND NEEDLE TABLE.....	30
INSERTING THE NEEDLE.....	31
STARTING TO SEW.....	32
A. START AND END OF SEAM.....	32
B. REVERSE STITCHING.....	33
C. AUTO LOCK STITCH.....	34
D. TURNING CORNERS.....	34
E. SEWING HEAVY FABRIC.....	35
F. WIDTH OF SEAM ALLOWANCE.....	36
G. IF YOU WANT TO DRAW UP THE BOBBIN THREAD.....	36
STRAIGHT STITCH SEWING.....	37
A. STRAIGHT STITCH (No. a0, a1).....	37
B. STRAIGHT STITCH WITH AUTO-REVERSE STITCH (No. a2).....	38
STRAIGHT STITCH SEWING (WITH STRAIGHT STITCH NEEDLE PLATE).....	39
A. HOW TO REMOVE THE STANDARD NEEDLE PLATE.....	40
B. HOW TO ATTACH THE STRAIGHT STITCH NEEDLE PLATE.....	41
ELASTIC STITCH SEWING.....	42
ZIGZAG STITCH SEWING.....	43
HAND LOOK QUILTING STITCH.....	44
MULTI-STITCH ZIGZAG.....	45
A. MENDING.....	45
B. ELASTIC BAND SEWING.....	45
APPLIQUE.....	45
OVERCASTING-OVERLOCKING.....	46
A. USING THE OVERCASTING FOOT.....	46
B. USING THE REGULAR FOOT.....	47
BLIND HEM STITCHING.....	48
BUTTONHOLE SEWING.....	49
A. WHEN SEWING STRETCH FABRIC.....	50
SEWING ON BUTTONS.....	51
A. THREAD SHANK.....	52
AUTOMATIC BAR-TACK/DARNING.....	53
INSERTING ZIPPERS (CENTERED INSERTION / LAPPED INSERTION).....	54
A. CENTERED INSERTION.....	54
B. LAPPED INSERTION.....	55
SCALLOP STITCH.....	56
A. SCALLOP HEM.....	56
B. SCALLOP EDGING.....	56
PATCH WORK.....	57
DECORATIVE STITCHES.....	57
EYELET.....	58
PIN TUCK.....	59
QUILTING.....	60
A. JOINING THE PIECES OF FABRIC.....	60
B. QUILTING.....	60
TWIN NEEDLE SEWING.....	61
FREE ARM SEWING.....	63
MAINTENANCE.....	63
A. BOBBIN HOLDER.....	63
B. HOOK RACE AND FEED DOG.....	64
ERROR CODES.....	65
HELPFUL HINTS.....	66
SPECIFICATIONS.....	67

# MAIN PARTS

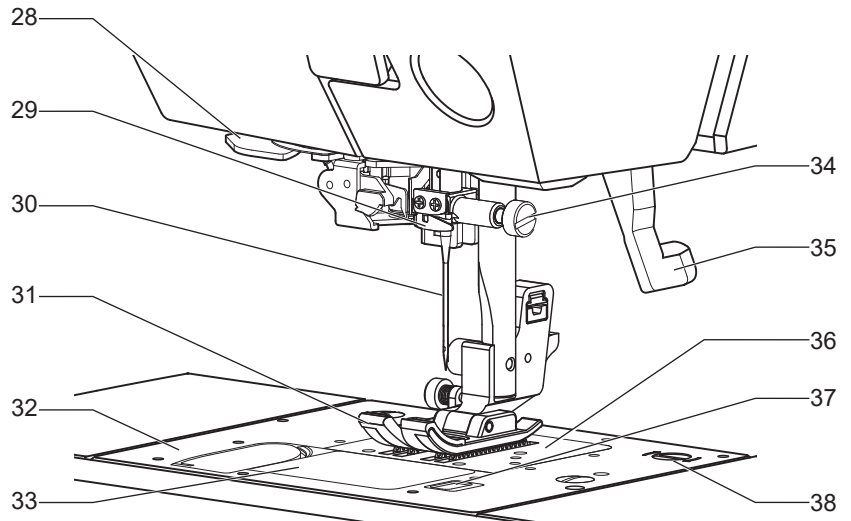
1. Slow Button
2. Needle Up-Down Button
3. Speed Control Button
4. Stitch Selection Buttons
5. Indicator
6. Control Panel
7. Hand Wheel
8. Face Plate
9. Reverse Button
10. Start/Stop Button
11. Extension Table (Accessory Case)
12. Lock Stitch Button
13. Direct Stitch Selection Buttons
14. Stitch Pattern Mode Button
15. Stitch Length Mode Button
16. Stitch Width Mode Button
17. Needle Stop Position Change Button
18. Twin Needle Button
19. Needle Plate Status Indicator



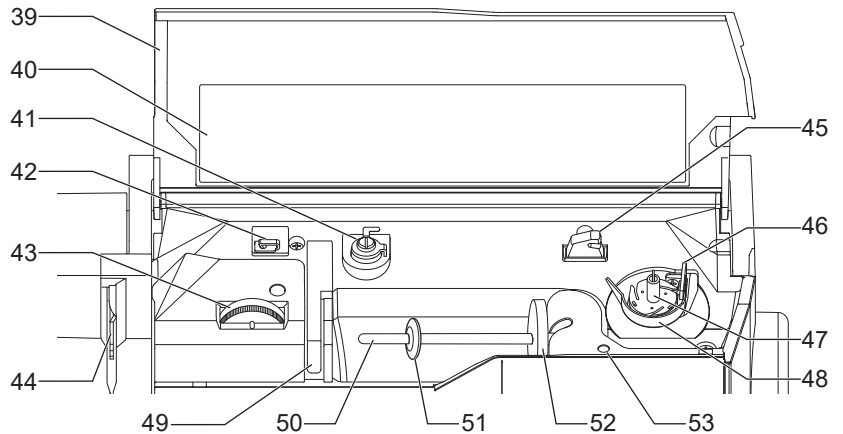
20. Pressure Regulator
21. Needle Threader Lever
22. Thread Cutter
23. Buttonhole Lever
24. Presser Foot Holder
25. Presser Foot Holder Screw
26. Lock Button
27. Feed Dog



- 28. Needle Threader Guide
- 29. Needle Bar Thread Guide
- 30. Needle
- 31. Presser Foot
- 32. Needle Plate
- 33. Bobbin Cover
- 34. Needle Clamp Screw
- 35. Presser Foot Lifter
- 36. Standard Needle Plate
- 37. Bobbin Cover Latch
- 38. Needle Plate Stopper Lever

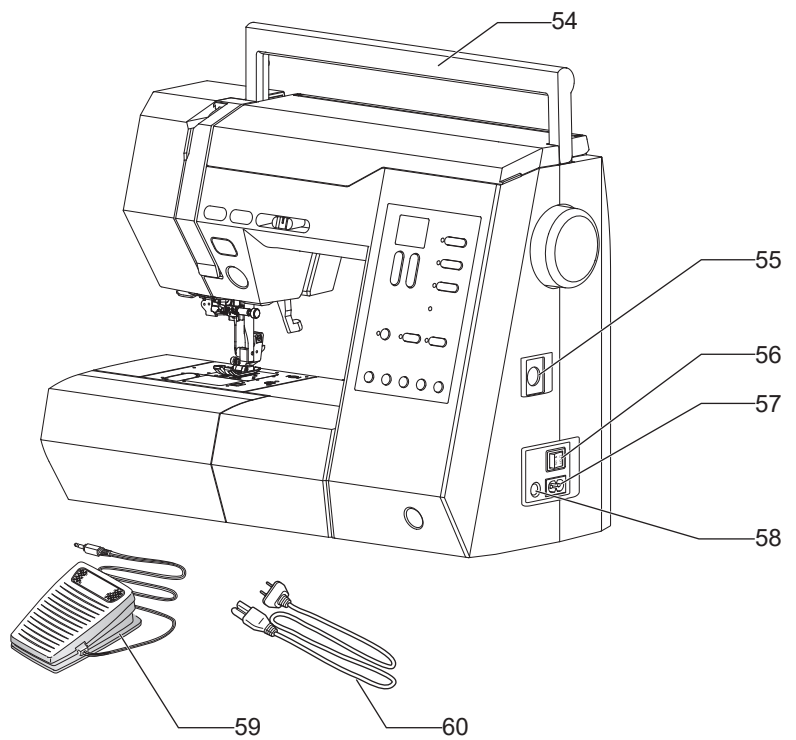


- 39. Top Cover
- 40. Pattern Chart
- 41. Bobbin Winder Thread Guide
- 42. Threading Guide
- 43. Thread Tension Regulator
- 44. Thread Take-up lever (Inside)
- 45. Thread Cutter
- 46. Bobbin Winder Stop
- 47. Bobbin Winder Spindle
- 48. Bobbin Guide
- 49. Thread Guide
- 50. Spool Pin
- 51. Small Spool Cap
- 52. Felt Washer
- 53. Auxiliary Spool Holder



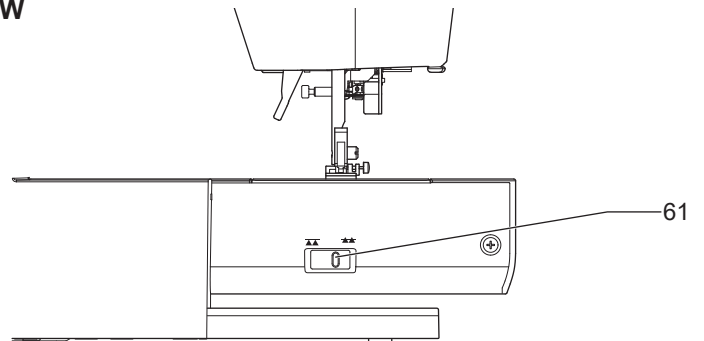
\* To open the top cover, lift up the front right side of cover.

- 54. Handle
- 55. Connecting Port for Embroidery Unit
- 56. Power Switch
- 57. Terminal Box
- 58. Foot Controller Jack
- 59. Foot Controller
- 60. Power Line Cord



- 61. Drop Feed Lever

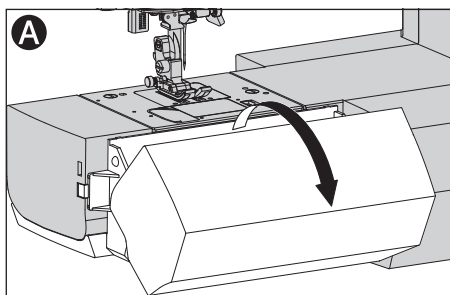
#### REAR VIEW



## EXTENSION TABLE

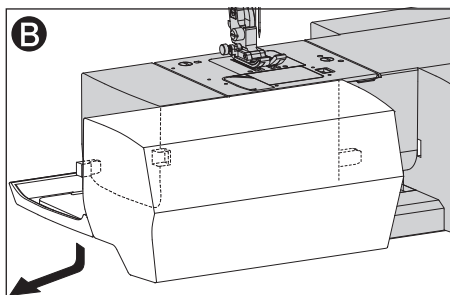
### A. OPENING THE ACCESSORY CASE

Hook your finger to upper front of accessory case and pull toward you.



### B. REMOVING THE EXTENSION TABLE

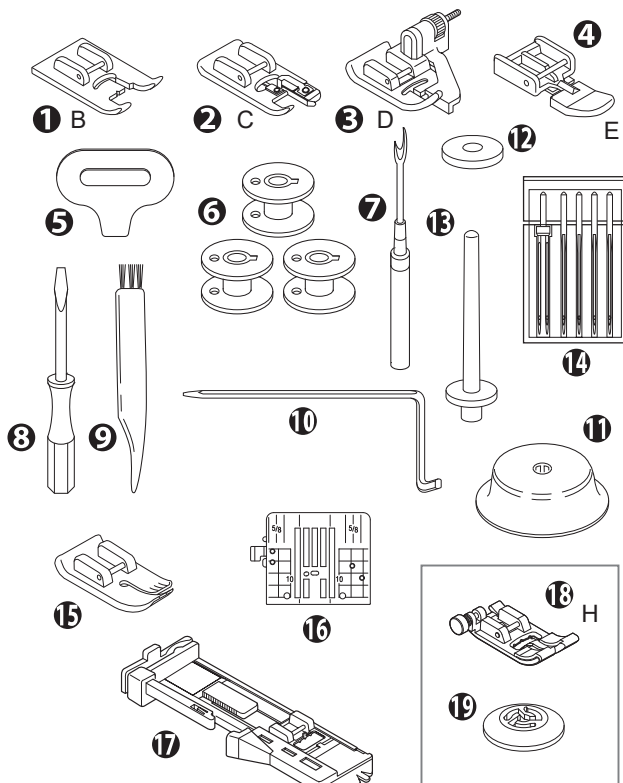
Hook your finger to the left bottom side of extension table and slide it to the left. To attach, insert to the right.



## ACCESSORIES

Accessories are provided in the accessory case.

1. Satin Foot (B)
2. Overcasting Foot (C)
3. Blind Foot (D)
4. Zipper Foot (E)
5. Driver for Needle Plate
6. 4 Bobbins (1 is in the machine)
7. Seam Ripper
8. Screw Driver
9. Brush
10. Quilting Bar
11. Spool Cap
12. Felt Washer
13. Auxiliary Spool Pin
14. Needle Pack
15. Straight Stitch Foot
16. Straight Stitch Needle Plate
17. Buttonhole Foot
18. Regular Foot (H) (On machine when delivered)
19. Small Spool Cap (On machine when delivered)



## CONNECTING THE MACHINE

1. Place machine on stable table.
2. Connect the power line cord to the machine by inserting the 2-hole plug into the terminal box.
3. Connect the power line plug to the electric outlet.
4. Turn on the power switch.



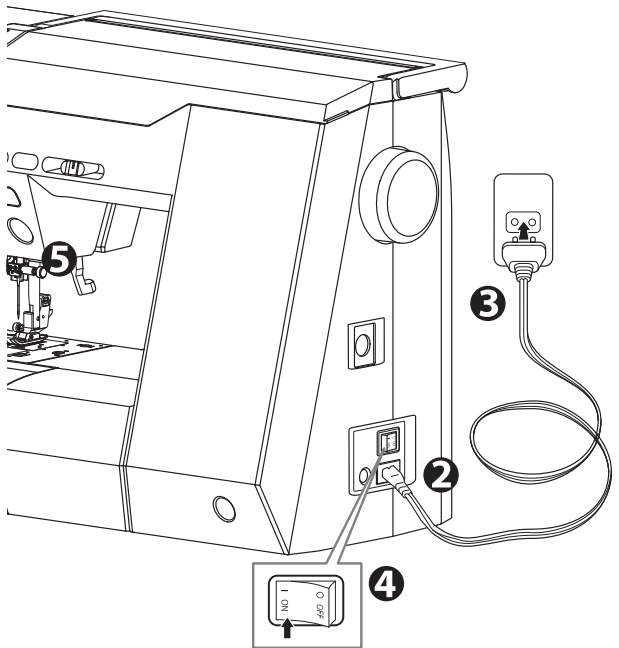
**DANGER: To reduce the risk of electric shock.**

Never leave unattended when plugged in. Always unplug this machine from the electric outlet immediately after using and before maintenance.



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

Do not unplug by pulling on cord. To unplug, grasp the plug, not the cord.



5. LED lights will light up when switch is turned on.
6. To disconnect, turn the power switch to the off position (Symbol **O**), then remove plug from outlet.

## FOOT CONTROLLER

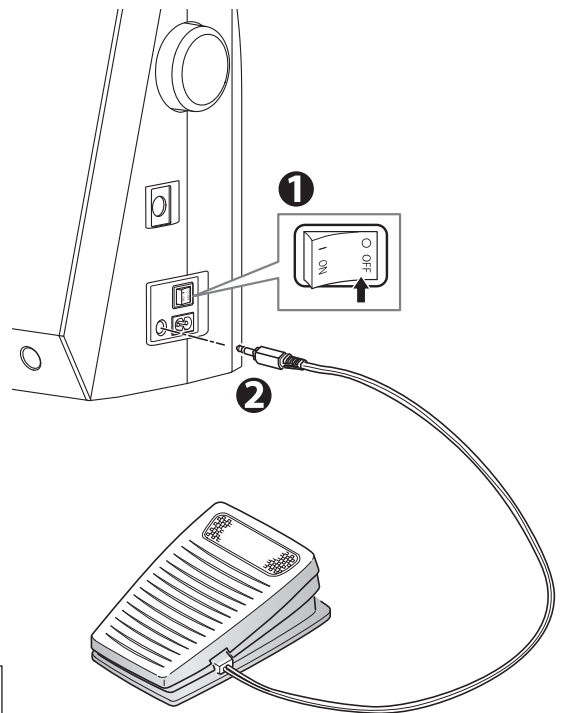
Use of foot controller will permit control of start, stop and speed with your foot.

When the foot controller is connected, start/stop button will be deactivated. (See page 10)

1. Turn off the power switch. (Symbol **O**)
2. Push foot controller plug into the jack on machine.
3. Place foot controller at your feet.
4. Turn on the power switch.
5. LED lights will light up when switch is turned on.
6. The harder you press the foot controller, the faster the machine will sew. The machine will stop when foot controller is released.

### NOTE:

- The speed control button adjusts the maximum speed. If you want to speed up, slide it to the right.
- The machine will not start unless the presser foot is lowered. (See page 11)



### Tap Function

When you press and release the foot controller quickly, the needle position will be changed.

**NOTE:** Needle stop position will not be changed.



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

1. Turn off the power when connecting the foot controller to the machine.
2. Handle the foot controller with care and avoid dropping it on the floor. Be sure not to place anything on top of it.
3. Use only foot controller provided with this machine. (Type C-9001 manufactured by CHIEN HUNG TAIWAN Ltd)

# FUNCTION OF EACH PART

## A. START/STOP BUTTON

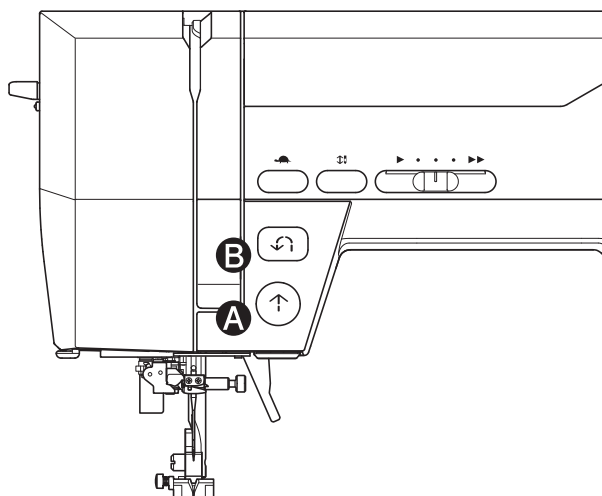
The machine will start running when start/stop button is pressed and will stop when pressed the second time. The machine will rotate slowly at start of sewing.

### MONITOR LAMP

**Green Light "ON":** Ready to sew or to wind the bobbin.

**Red Light "ON":** Presser foot is not in down position or buttonhole lever is not lowered or twin needle mode with straight stitch needle plate attached.

If the red light is on, the machine will not start even when start/stop button is pressed.



If you do not lower the buttonhole lever properly, the monitor lamp lights red, it sews 2 or 3 stitches and stops. (See page 49, 53)

If upper thread is not threaded, machine will stop after a few turns. (Upper thread sensor)

### NOTE:

- The upper thread sensor may also operate and stop the machine if the bobbin thread is not set correctly or if it runs out.
- When the foot controller is connected, start/stop button will be deactivated.

## B. REVERSE BUTTON

The machine will continue to sew in reverse at low speed while this button is pressed and stop when this button is released. See page 33.

### NOTE:

- When the foot controller is connected, the speed of the reverse stitch depending on the conditions when this button is pressed.

#### **While stepping on the foot controller ;**

the speed of reverse stitch doesn't slow down. Adjust the speed with the foot controller.

#### **While releasing the foot controller ;**

the speed of reverse stitch slows down.

- While stepping on the foot controller, sewing doesn't stop even if you release the reverse button. To stop sewing, release the foot controller.
- Depending on the speed, after you press the reverse button, the machine will sew half the stitch length and then the reverse stitch.



### C. SLOW BUTTON

**While sewing**, by pressing this button, machine will sew in slow speed. Pressing this button again, the speed will return.

### D. NEEDLE UP-DOWN BUTTON

Needle position will be changed up or down by pressing this button. Needle STOP position will be changed by pressing Needle Stop Position Change Button. (See page 14)

### E. SPEED CONTROL BUTTON

The machine will sew faster when the button is slid to the right (▶▶), and sew slower when button is slid to the left (◀).

#### NOTE:

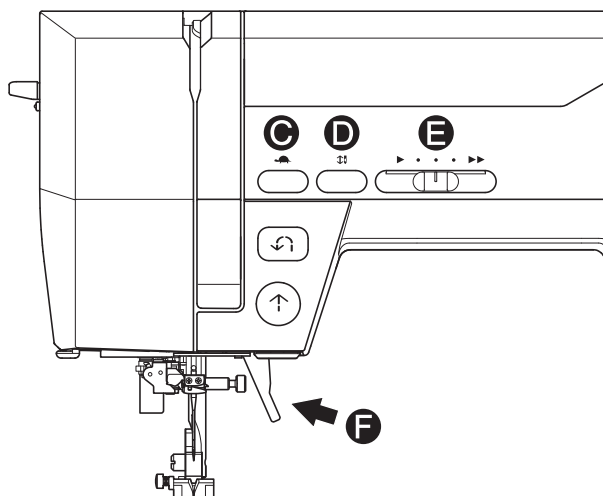
When the foot controller is connected, this button limit the maximum speed.

### F. PRESSER FOOT LIFTER

The presser foot is lifted up or down by this lever.

#### NOTE:

Machine will not start when the presser foot is lifted.  
(Except for bobbin winding)



## G. DROP FEED LEVER

### NOTE:

If you raise the feed dog, the feed dog will rise when you start sewing.

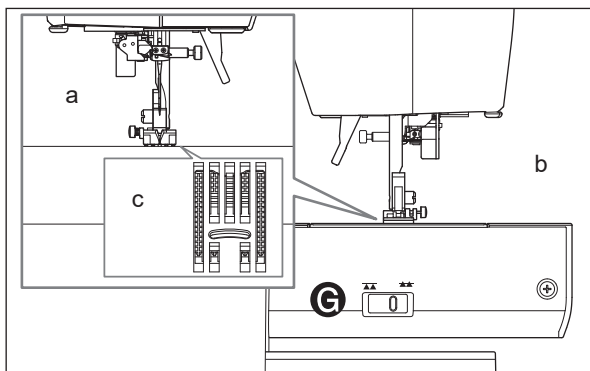
- a: View from frontward
- b: View from backward
- c: Feed dog

The feed dog project up through the needle plate, directly below the presser foot. Their function is to move the fabric being sewn. The drop feed lever controls the feed dog.

For ordinary sewing, move the lever to the right. This raises feed dog to their highest position. For most sewing, the lever should be in this position.

For darning or free motion embroidery or whenever fabric is to be moved by hand, move the lever to the left to lower the feed dog.

Also, lower the feed dog when embroidering using the sold separately embroidery unit. (See page 2)



## H. PRESSURE REGULATOR

The correct pressure allows fabrics to feed properly while sewing. The setting of the presser foot pressure is determined mainly by the weight of the fabric being sewn.

For lightweight fabrics such as sheers, batiste, voile, etc., the pressure is decreased. For heavyweight fabrics like denim or canvas, the pressure is increased.

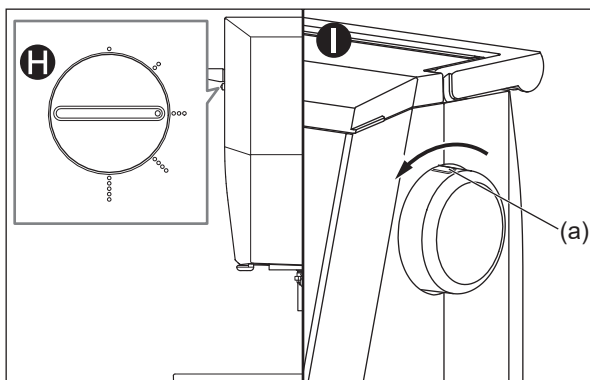
To increase the pressure, turn dial to 5. (ooooo)

To decrease the pressure, turn dial to 1. (o)

For most fabrics, turn dial to 3. (ooo)

Turn the dial after lowering the presser foot.

After sewing with different pressing pressure, please return to 3. (ooo)



## I. HANDWHEEL

When you turn the handwheel towards you, the needle will move up and down. Use this when you want to manually move the needle up and down, such as when sewing one stitch at a time.

When the needle is in the upper position, the mark (a) on the hand wheel will also be in the upper position.

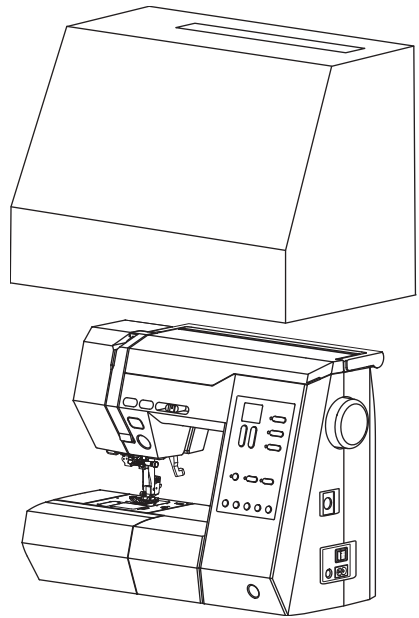
### NOTE:

Be sure to turn the handwheel toward you. Turning it in the opposite direction may cause the thread to become tangled.

## DUST COVER


---

Cover the machine with dust cover when it is not in use.



## TO SELECT A PATTERN

This machine has 120 patterns. (See page 15 "PATTERN CHART".)

When you turn on the machine, straight stitch () will be selected and indicated on the display.

### 1. INDICATOR

This indicator indicates three stitch modes.

#### A. Pattern Number

#### B. Stitch Length

#### C. Stitch Width

These modes are changed by pressing the each mode button (A-C).

The indicator light (a-c) of selected mode will turn on.

When you change the stitch pattern number, the stitch length and width will be re-set to pre-set length and width.

Therefore, you should select the pattern number first, and next, adjust the length and width.

#### D. LOCK STITCH BUTTON

When you press this button, machine will sew lock stitch at the beginning and end of the stitch. (See Page 34 for detail.)

#### E. NEEDLE STOP POSITION CHANGE BUTTON

At the end of seam, needle STOP position will be changed by pressing this button.

When the indicator light is turning on, needle will stop up position.

When the indicator light is turning off, needle will stop down position.

When you turn on the machine, needle stop position will be set up position.

#### F. TWIN NEEDLE BUTTON

Press this button when you use twin needle.

Stitch width will be reduced by this button.

This function prevents the accident that the needle hits the needle plate.

See page 61.

#### G. NEEDLE PLATE STATUS INDICATOR

When you attached the straight stitch needle plate, this indicator light (d) will turn on.

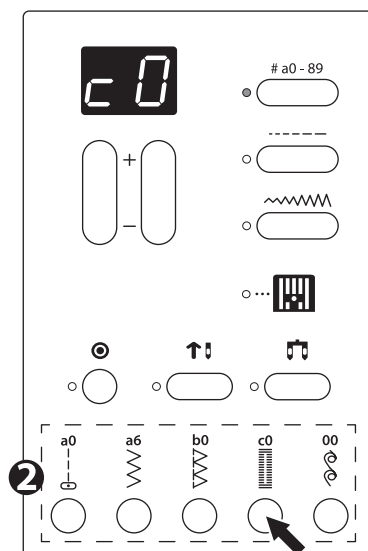
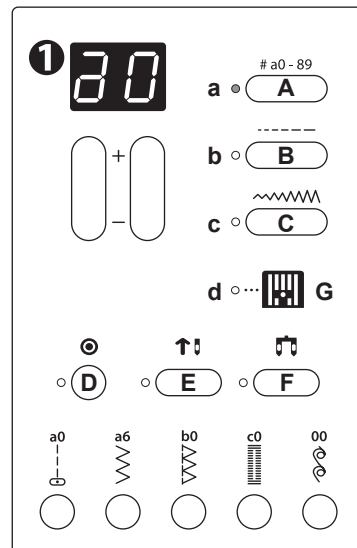
See page 39 for detail.

### 2. TO SELECT A BASIC PATTERN

You can select most basic stitch patterns directly.

Press the Direct Stitch Selection Button you want to sew.

Pattern mode light will turn on and selected pattern number will be indicated.



### 3. TO SELECT OTHER STITCH PATTERN

1. Press the Stitch Pattern Mode Button (A).

Indicator light will turn on and pattern number will appear on the display.

(If this mode has been selected already, it is need not to press this button.)

2. Select the pattern number you want to sew by pressing the stitch selection buttons (a-d).

a. Left side "+" button:

Group or the number of tens place increase.

b. Left side "-" button:

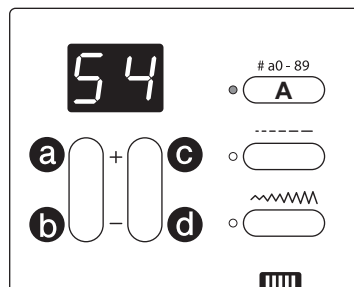
Group or the number of tens place is reduced.

c. Right side "+" button:

The number of ones place increase.

d. Right side "-" button:

The number of ones place is reduced.

































You cannot change the pattern number while sewing.

### 4. PATTERN CHART

All stitch patterns and numbers are described in below chart.

See next page if you want to change the settings (stitch length, stitch width) of these patterns.

#### UTILITY STITCHES

a0	a1	a2	a3	a4	a5	a6	a7	a8	a9	b0	b1	b2	b3	b4	b5	b6	b7	b8	b9
																			
c0	c1	c2	c3	c4	c5	c6	c7	c8	c9										
																			

#### DECORATIVE STITCHES

00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19
20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59
60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79
80	81	82	83	84	85	86	87	88	89										

## 5. STITCH LENGTH

When you select the pattern number, suitable stitch length will be preset automatically.

If you want to change this, adjust as follows.

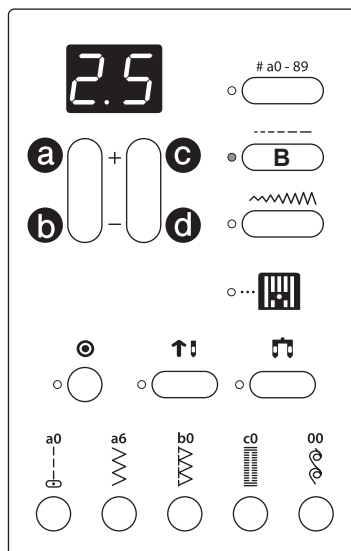
1. Press the Stitch Length Mode Button (B).  
Indicator light will turn on and stitch length will appear on the display.
2. Adjust the stitch length by pressing the stitch selection buttons (a-d).

For finer stitch length, press the “-” (b or d) button.  
For coarser stitch length, press the “+” (a or c) button.



### NOTE:

- Both the left and right + and - buttons work the same.
- You can adjust stitch length while sewing.
- When the maximum and minimum values are reached, a beep sounds to notify you. If you turn off beep, the notification sound will not sound. (See page 19)
- The maximum and minimum values vary depending on the pattern.
- When “-.-” is appeared on the indicator, the setting for that pattern cannot be changed.



## 6. STITCH WIDTH

When you select the pattern number, suitable stitch width will be preset automatically.

If you want to change this, adjust as follows.

1. Press the Stitch Width Mode Button (C).  
Indicator light will turn on and stitch width will appear on the display.
2. Adjust the stitch width by pressing the stitch selection buttons (a-d).

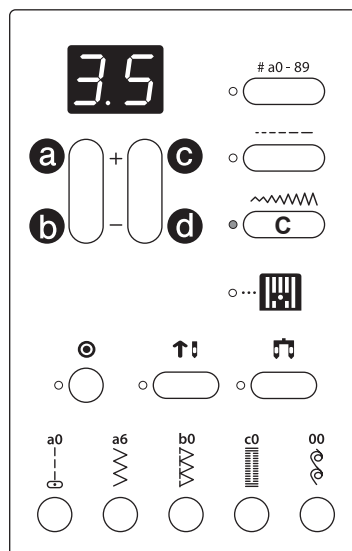
For narrower stitch width, press the “-” (b or d) button.

For wider stitch width, press the “+” (a or c) button.



### NOTE:

- Both the left and right + and - buttons work the same.
- You can adjust stitch width while sewing.
- When the maximum and minimum values are reached, a beep sounds to notify you. If you turn off beep, the notification sound will not sound. (See page 19)
- The maximum and minimum values vary depending on the pattern.
- When “-.” is appeared on the indicator, the setting for that pattern cannot be changed.



### NEEDLE POSITION

Straight stitches (No.a0, a1, a2, a4, a5) will change the needle position instead of the stitch width.

0.0: Left needle position

3.5: Center needle position

7.0: Right needle position

To move the needle position to the left, press the “-” (b or d) button.

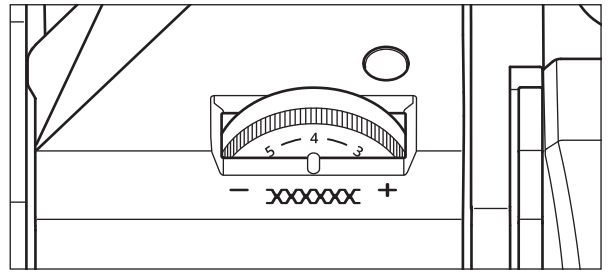
To move the needle position to the right, press the “+” (a or c) button.

### ⚠ CAUTION: To prevent injury to persons.

- When using the straight stitch foot, do not change the needle position from the automatic setting. It is dangerous for the needle to hit the presser foot.
- The needle position cannot be changed when the straight stitch needle plate is attached.

# ADJUSTING THE THREAD TENSIONS

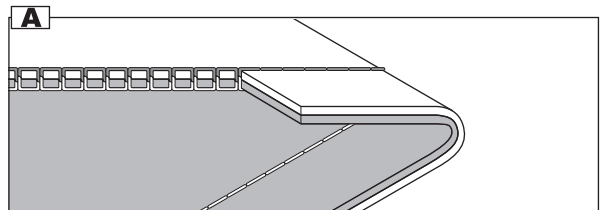
Normally, when thread tension regulator is set to "4", thread tensions will be satisfactory for most all sewing. If it is difficult to obtain correct tensions depending on the type of fabric and threads being used, adjust the thread tension regulator to settings shown below.



## Thread Tension Guide

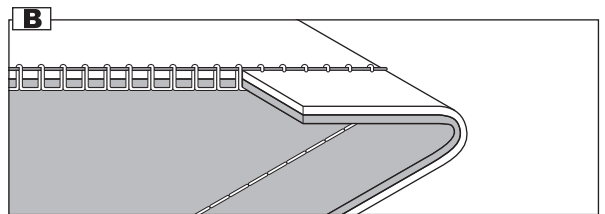
### A. Correct Thread Tensions

Upper and bobbin thread will lock approximately in the middle of fabric.



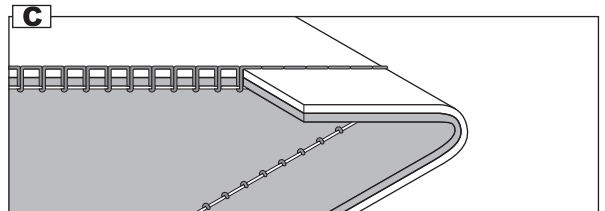
### B. When bobbin thread appears on right side of fabric.

Turn the regulator to the left (-).



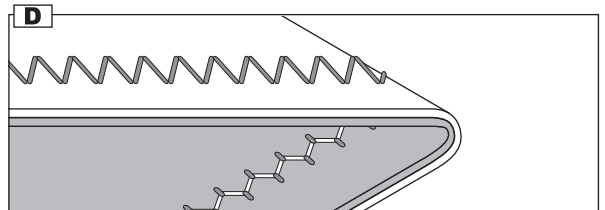
### C. When upper thread appears on the wrong side of fabric.

Turn the regulator to the right (+).



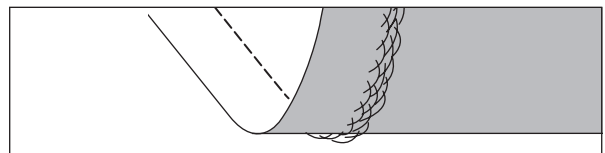
### D. Thread tension except for straight stitch

When sewing stitches other than straight stitch, the thread tension should be set to a slightly decrease tension than when sewing straight stitches. You will obtain a nicer stitch when upper thread appears on wrong side of fabric.

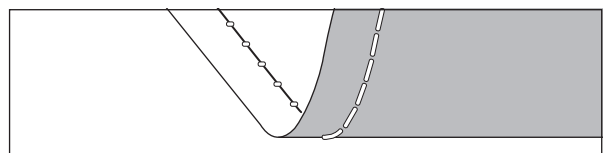


## Helpful Hints

If your sewing appears as shown on the right, (stitches on the right side of fabric are good but wrong side tends to look like a towel), it could be that the upper thread is not threaded correctly. See page 23 for correct threading.



\* Also, if the bobbin thread comes out on the front side of the fabric even though you turn the regulator to the left (-), the way of setting bobbin is wrong. See page 22 and set the bobbin correctly.

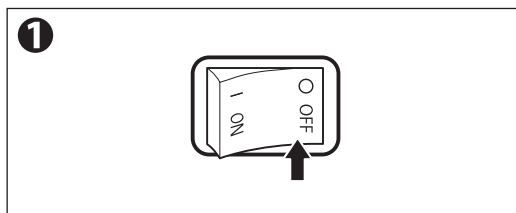




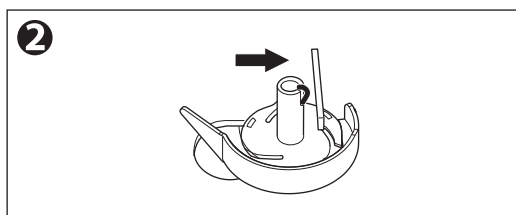
## SETTING OF LED LIGHT and BEEP

You can turn the LED light on and off. By switching the beep on and off, you can operate the machine without beeping.

1. Turn off the power switch. (Symbol **O**)



2. Push the bobbin winder spindle to the right.



3. Set each function as below.

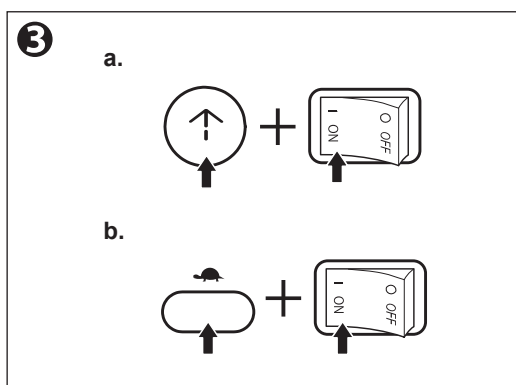
**a: LED light**

Turn on the power switch while pressing the Start/Stop Button.

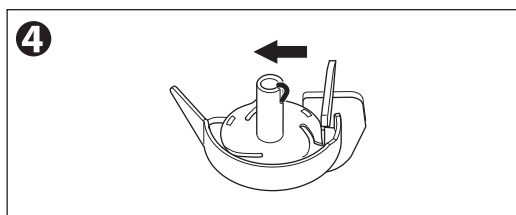
**b: Beep**

Turn on the power switch while pressing the slow button.

To perform both a and b operations at the same time, turn on the power switch while pressing both the start/stop button and the slow button.



4. Push the bobbin winder spindle to the left.



\* When the power switch is turned off and on again, it returns to the default settings (LED light : ON, beep : ON). At this time, press only the power switch.



**CAUTION: To prevent the accidents or the injury to persons.**

- If you turn off beep, the warning sound will not sound when you operate the machine incorrectly. Pay attention to operation.
- When turning on the power switch, do not press any unrelated buttons other than the start/stop button and the slow button. It may cause malfunction.

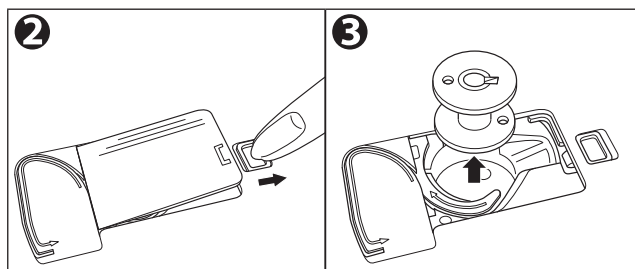
# BOBBIN SETTING

## A. REMOVING THE BOBBIN

1. Raise the presser foot lifter.
2. Pull the bobbin cover latch to the right and remove the bobbin cover.
3. Lift up the bobbin from the machine.

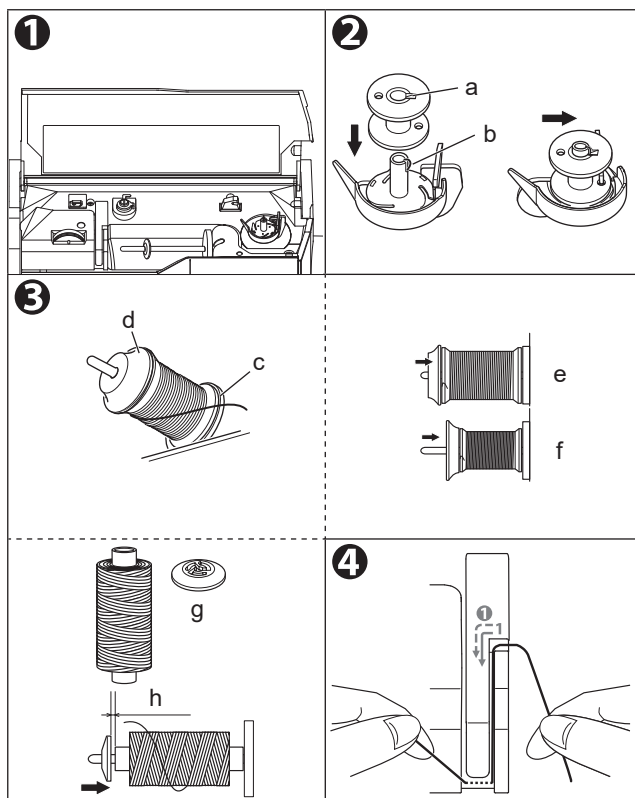
### NOTE:

Use the plastic bobbin dedicated to this model.

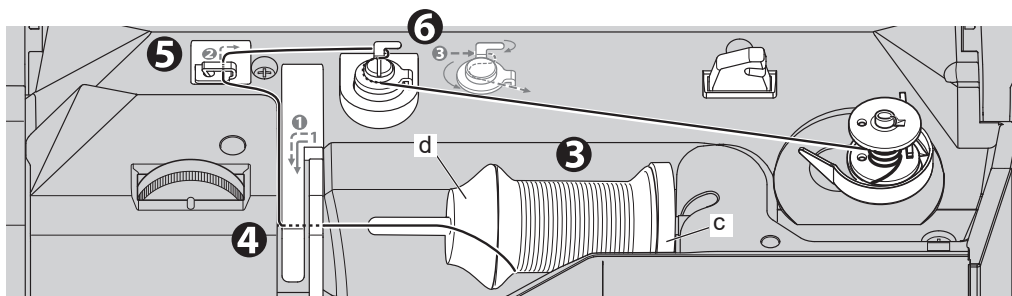
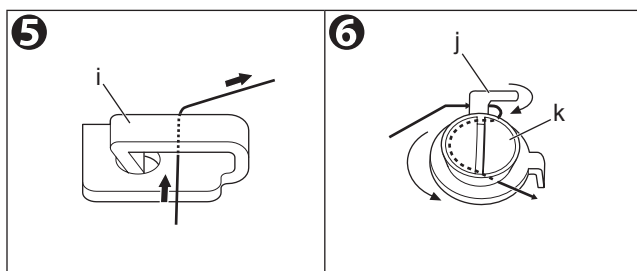


## B. WINDING THE BOBBIN

1. Open the top cover.
2. Place the bobbin on the bobbin winder spindle so that the groove (a) on the bobbin fits to the spring (b) on the spindle. Push bobbin to the right to engage bobbin winder.
3. Set the felt washer (c) to the right side of spool. Set the spool of thread on spool pin so that the thread unrolls from the front of the spool. Set the spool cap (d) on spool pin as far as it will go. Reverse spool cap direction according to the size of spool.  
 e: Large Spool f: Small Spool  
 Use the small spool cap (g) when you use cross wound thread. Leave small opening between cap and spool as illustrated (h) for smooth thread feeding.
4. Hold thread in both hands and hook thread to the guide from rear opening. Bring thread frontward and pass through the thread guide from right to left.



5. Bring thread backward and pass through the threading guide (i) from left to right.
6. Bring thread to the right and pass thread through the thread guide (j) from rear side. Pass thread under tension disc (k) in counter clockwise direction.



7. Hold the thread by your left hand and wind the thread to the bobbin 4-5 times clockwise.

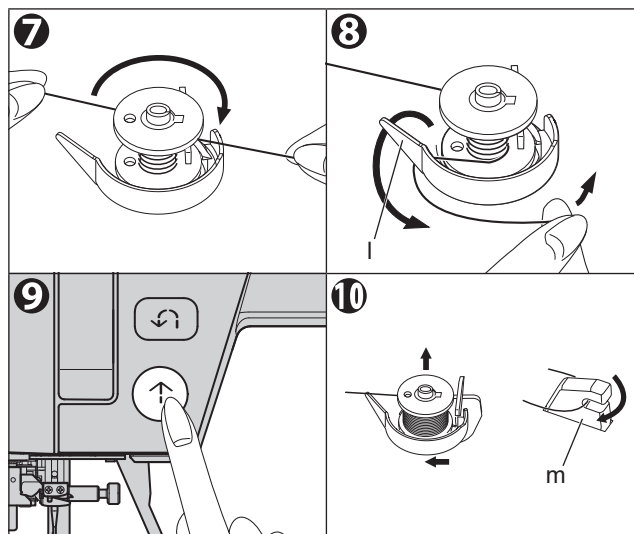
**NOTE:**

Be sure to wrap the thread clockwise. If you wind the thread in the opposite direction by mistake, the thread will not wind onto the bobbin.

8. Hook the thread under the front wing of the bobbin guide (l) from left to right and cut the thread.

9. Start the machine by pressing the start/stop button or pressing the foot controller. The bobbin winding will stop automatically when bobbin is full. (Release the foot controller.)

10. Push the bobbin and spindle to the left. Remove the bobbin from the spindle. Hook thread to the thread cutter (m).



## C. INSERTING THE BOBBIN

### **CAUTION: To prevent injury to persons.**

Turn off the power before carrying out the below operation.

1. Place bobbin into bobbin holder (a) with the thread unwinding counter clockwise.

#### **NOTE:**

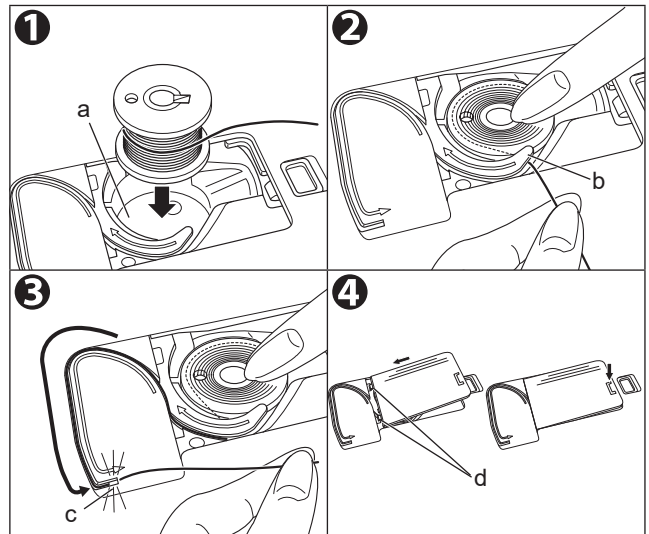
Be careful not to make a mistake in the direction of the thread.

2. Draw thread into notch (b) with holding the bobbin.
3. Pull thread along the groove from up to down. Pull thread to the right to cut the thread (c).
4. Replace the bobbin cover. Set the left tabs (d) into the holes in needle plate and push the right side of bobbin cover down until it clicks into place.

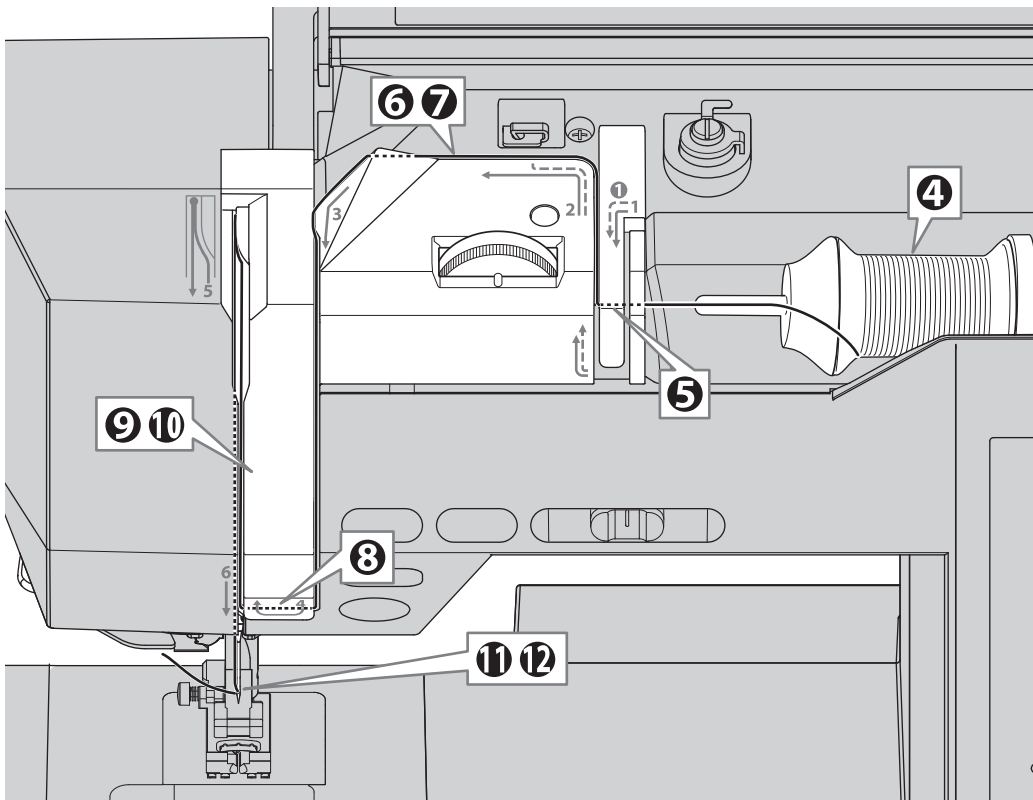
#### **NOTE:**

This machine can start to sew without drawing up the bobbin thread.

If you want to draw up the bobbin thread, see page 36.



# THREADING THE MACHINE



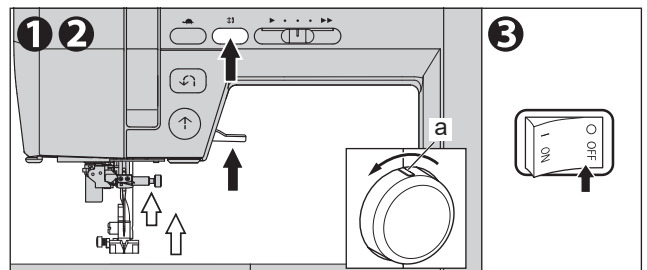
## A. PREPARING TO THREAD MACHINE

1. Raise the presser foot lifter.
2. Raise the needle to its highest position by pressing the needle up/down button or turning the hand wheel toward you.

When the needle is definitely up, the mark (a) on hand wheel will also be at the top.  
Be sure to check that the mark is on top.

(Keep this position until needle eye threading.)

3. Turn off the power switch. (Symbol **O**)



**CAUTION:** To prevent injury to persons.  
Failure to turn off the power switch may result in injury.

## B. SETTING SPOOL OF THREAD ON SPOOL PIN

4. Open the top cover and set spool as below.

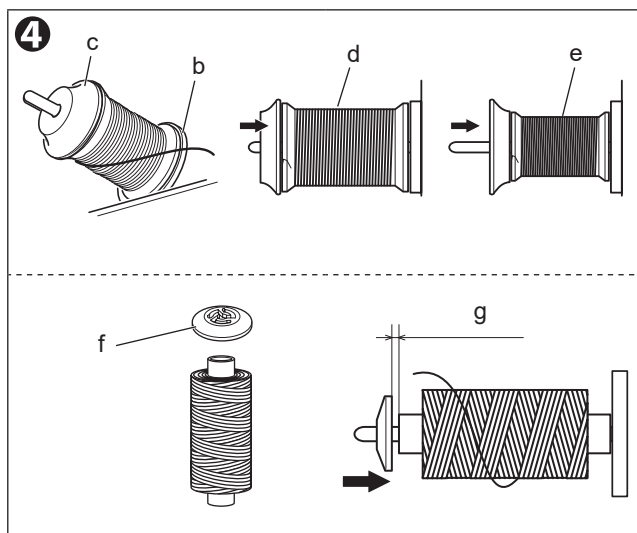
- Pull up the left end of spool pin.
- Set the spool of thread on spool pin so that the thread unrolls from the front of the spool.
- Set the spool cap on spool pin as far as it will go. (See illustration.)

b: Felt Washer c: Spool Cap

Reverse spool cap direction according to the size of spool.

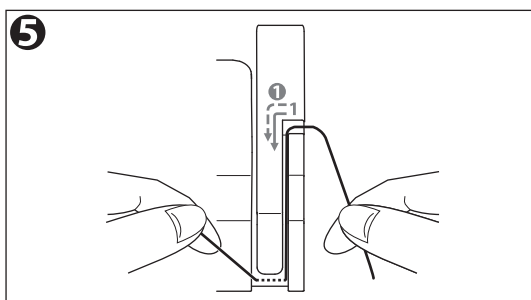
d: Large Spool e: Small Spool

Use the small spool cap (f) when you use cross wound thread. When using the spool cap (c), the thread may not be cut by the thread cutter or the thread tension may not be adjusted properly. Leave small opening between cap and spool as illustrated (g) for smooth thread feeding.



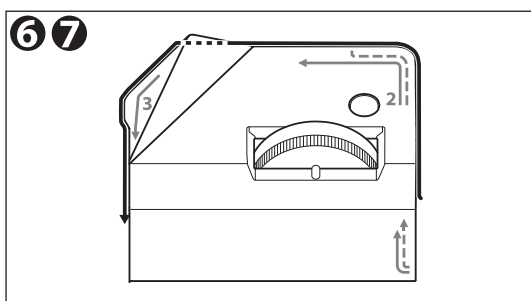
## C. THREADING THE UPPER THREAD

5. Hold thread in both hands and pass thread to the guide from rear opening and pass through front opening from right to left.

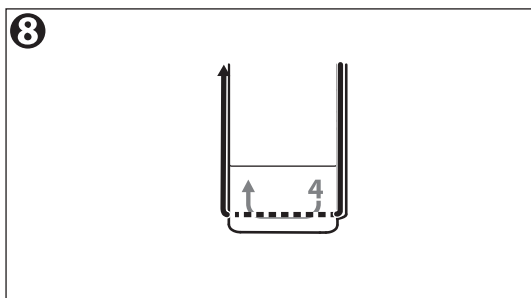


6. Bring thread backward and pass through from right to left.

7. Bring thread to the left and pull down thread toward you along the slit.



8. Bring thread right to left and pull up thread.

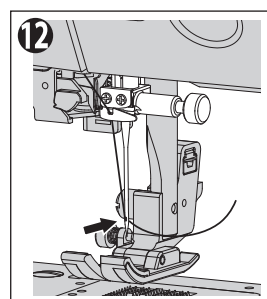
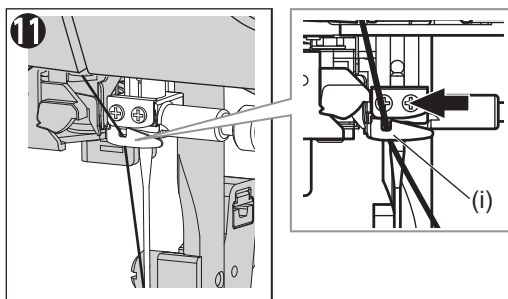
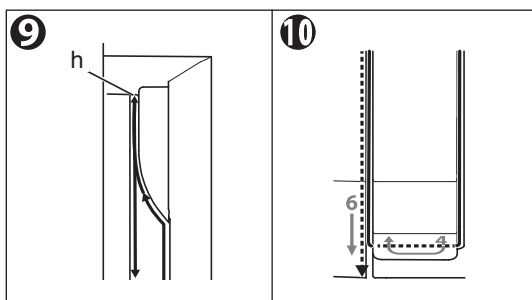


9. To thread the take-up lever, follow the arrow and pull the thread from bottom to top so that the thread hits (h).

10. Pull thread downward along the slit.

11. Draw thread through the needle bar thread guide (i) from right side opening.

12. Pass through needle eye from front to back.  
See next section for instructions on how to use needle threader.



## D. THREADING THE NEEDLE EYE

### NOTE:

The needle threader is used for needle sizes 11/80 - 16/100 and thread sizes 50- 100.



### CAUTION: To prevent the accidents or the injury to persons.

- Do not put your fingers under the needle.
- Make sure the needle is installed correctly. If it is not installed correctly, threading may not be possible or it may cause malfunction. (See page 31)
- Do not rotate the hand wheel when needle threader lever is lowered.
- Needle threader cannot be used when using special threads such as transparent nylon threads.

#### 1. Raise the presser foot lifter and the needle.

When the needle is definitely up, the mark (a) on hand wheel will also be at the top.

Be sure to check that the mark is on top.

#### 2. Turn off the power switch. (Symbol **O**)



### CAUTION: To prevent injury to persons.

Failure to turn off the power switch may result in injury.

#### 3. Pass the thread through the groove (b) of the needle bar thread guide from the right side when facing the front.

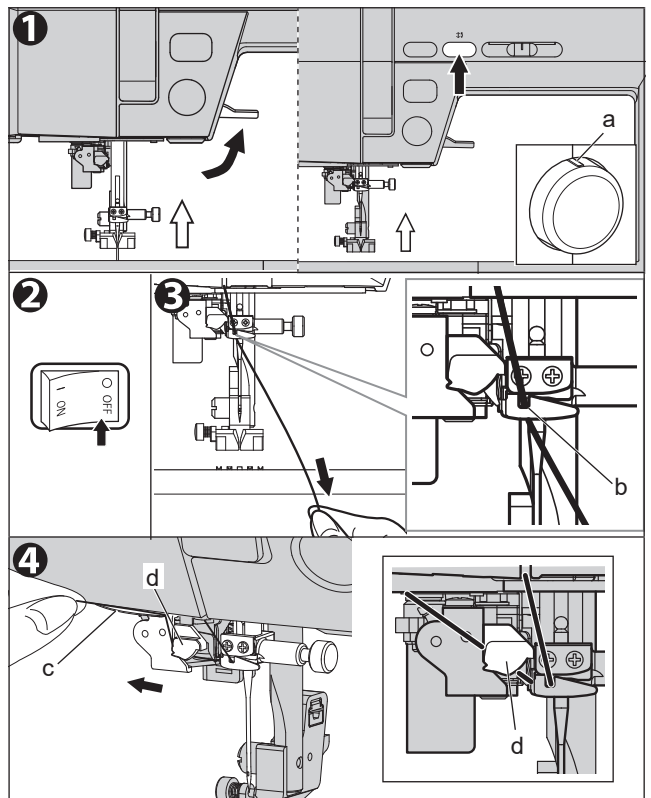
Pull thread from needle bar thread guide and continue gently pulling thread downwards until you reach the front of the extension table.

#### 4. Pull up the thread and pass it through the needle threader guide (c) from right to left.

At this time, if the thread is pulled taut, it will automatically pass through the thread holder (d).

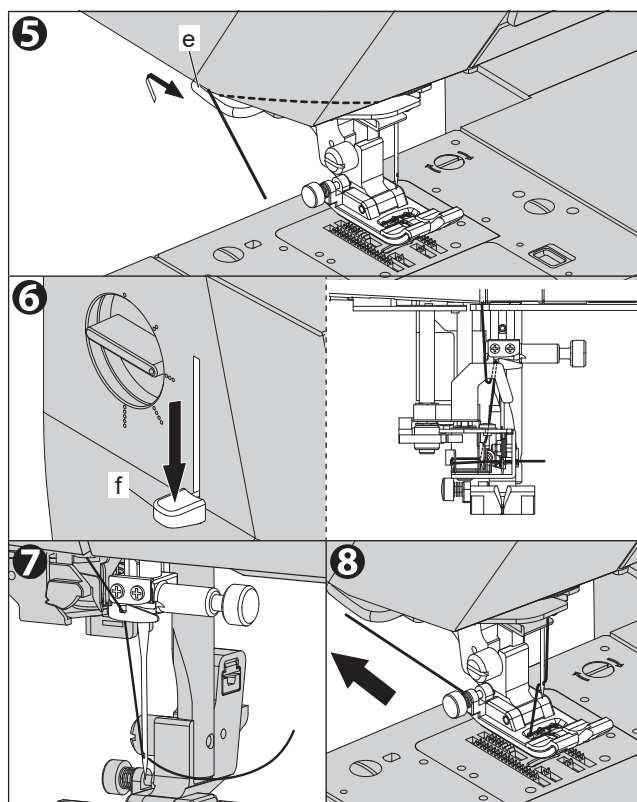
### NOTE:

Make sure that the thread passes through the thread holder (d). If the thread does not pass through the thread holder, it will not enter the eye of the needle.





5. Hook the thread to the thread cutter (e) from back to front. Pull and cut thread.
6. Lower the needle threader lever.  
Push the needle threader lever (f) all the way down.  
The needle threader equipment will go down and it will pass the thread through the needle eye.
7. Release the needle threader lever.  
The condition of the thread passing through the eye of the needle is;
  - A. looped:  
Pull the loop and pull out the thread end.
  - B. getting caught in the threader:  
Remove the caught thread from the threader and pull out the end of the thread.
8. Pass the thread under the presser foot, and pull it back about 10 cm.



# CHANGING THE PRESSER FOOT

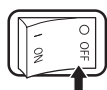
The presser foot must be changed according to the stitch you sew, or work you do.

## A. CHANGING THE PRESSER FOOT

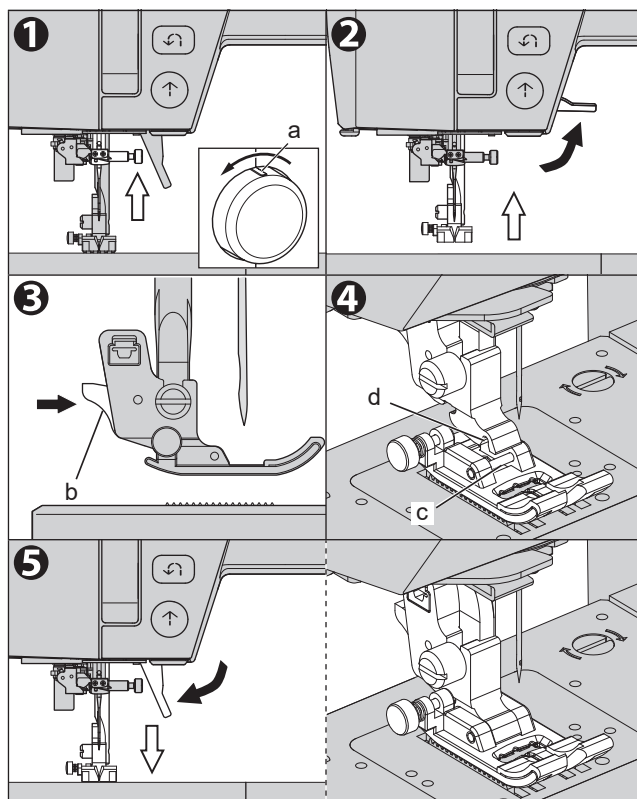
Use the appropriate presser foot for each sewing pattern or purpose. See page 37, confirm the presser foot for each pattern.

### CAUTION: To prevent injury to persons.

Turn off the power switch before you change the presser foot.



1. Turn the hand wheel toward you until the needle is at its highest point.  
The mark (a) of hand wheel comes to the top.
2. Raise the presser foot lifter.
3. Remove the presser foot by pushing the presser foot release lever (b) toward you.  
Presser foot will come off.
4. Place desired foot with its pin (c) directly under the slot (d) in presser foot holder.
5. Lower the presser foot lifter and the presser foot will snap into place.  
The pin fits in the slot.  
If it does not fit completely, try pressing the presser foot release lever.



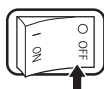
## B. REMOVING THE PRESSER FOOT HOLDER

Remove the presser foot holder when you clean the machine or attaching extra foot (option).



### CAUTION: To prevent injury to persons.

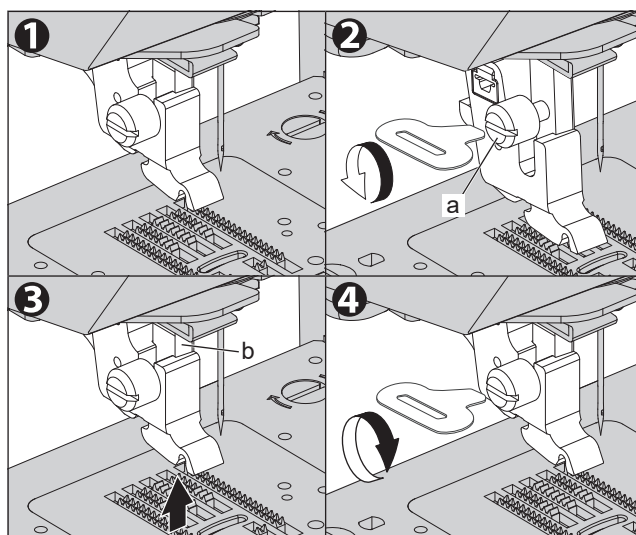
Turn off the power switch before carrying out the below operation.



1. Remove the presser foot.  
See the previous section "CHANGING THE PRESSER FOOT".
2. Loosen the presser foot holder screw (a) and remove the presser foot holder with driver for needle plate.  
Presser foot holder will come off.
3. To replace the holder, pull up the holder as far as it will go from bottom of presser bar (b).
4. Tighten the presser foot holder screw with driver for needle plate.

### NOTE:

Do not tighten too strongly using a commercially available large screwdriver. It will be the cause of the failure.



## FABRIC, THREAD AND NEEDLE TABLE

Select thread size and needle size according to the type of fabric and thickness.

Type of Fabric		Thread Size	Needle Size
<b>Light Weight</b>	georgette, organdy, voile, taffeta, silk, etc.	Ctn #80 - 100 Silk 60 - 80 Syn 80 - 100	9/70-11/80
<b>Medium Weight</b>	gingham, pique, linen, cotton, satin, thin corduroy, velvet, etc.	Ctn 50 - 80 Silk 50 Syn 50 - 80	11/80-14/90
<b>Heavy Weight</b>	gabardine, tweed, denim, quilted fabric, corduroy, etc.	Ctn 30 - 50 Silk 50 Syn 30 - 60	14/90-16/100
<b>Stretch</b>	double knit, tricot, spandex, jersey, etc.	Syn 50 - 80 Silk 50 Thread for knit	11/80-14/90 Needle for knit and synthetic fabric

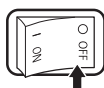
Use a Home sewing machine needle.

# INSERTING THE NEEDLE

Putting a cloth over the needle plate prevents you from dropping the needle into the machine.

## **CAUTION: To prevent injury to persons.**

Turn off the power before carrying out the below operation.



1. Turn the hand wheel toward you until the needle is at its highest point.

The mark (a) of the hand wheel comes to the top.

2. Lower the presser foot lifter.

3. While holding the needle with your left hand, loosen the needle clamp screw with the included screwdriver

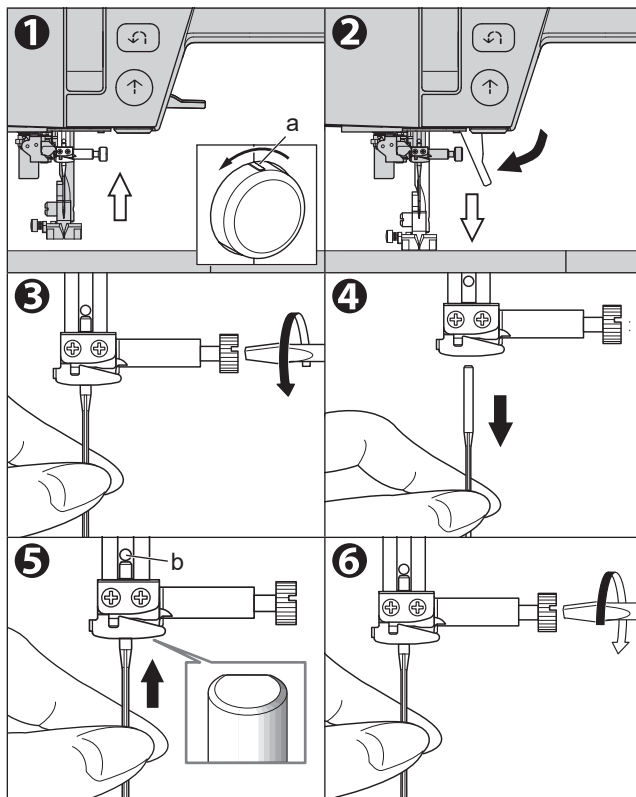
4. Remove the needle.

5. Insert new needle into needle clamp with the flat side to the back and push it up as far as it will go.

**CAUTION:** Make sure the needle touches the pin (b).

6. After lightly tightening the needle clamp screw with your fingers, tighten the screw with the included screwdriver.

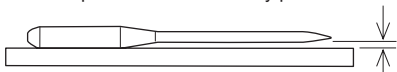
**CAUTION:** Do not over-tighten with a commercial screwdriver.



## **CAUTION: To prevent injury to persons.**

- Do not use a bent needle or a needle with a collapsed tip.

Before installing the needle, place the needle on a flat surface such as a needle plate and check for any problems.



- If the needle is not installed correctly, threading or sewing may not be possible, the needle may break, or the machine may malfunction.

# STARTING TO SEW

Turning on the machine, the straight stitch  (center) is selected.

## A. START AND END OF SEAM

1. Check the presser foot [Regular Foot (H)].  
See page 28 for changing the presser foot.

### NOTE:

When sewing straight stitch on thin or stretchy fabrics, you can use the straight stitch needle plate and the straight stitch foot to achieve a beautiful finish. See page 39.

2. Raise up the needle by pressing the needle up-down button or turning the hand wheel toward you.
3. Place the fabric under the presser foot and lower the presser foot.  
The monitor lamp turns on green.
4. Hold back upper thread and press the start/stop button or press the foot controller.  
Keep holding thread after sewing a few stitches.  
Lightly guide the fabric while sewing.

You can regulate the sewing speed by sliding the speed control button even during sewing. Also, you can reduce the sewing speed by pressing the slow button.

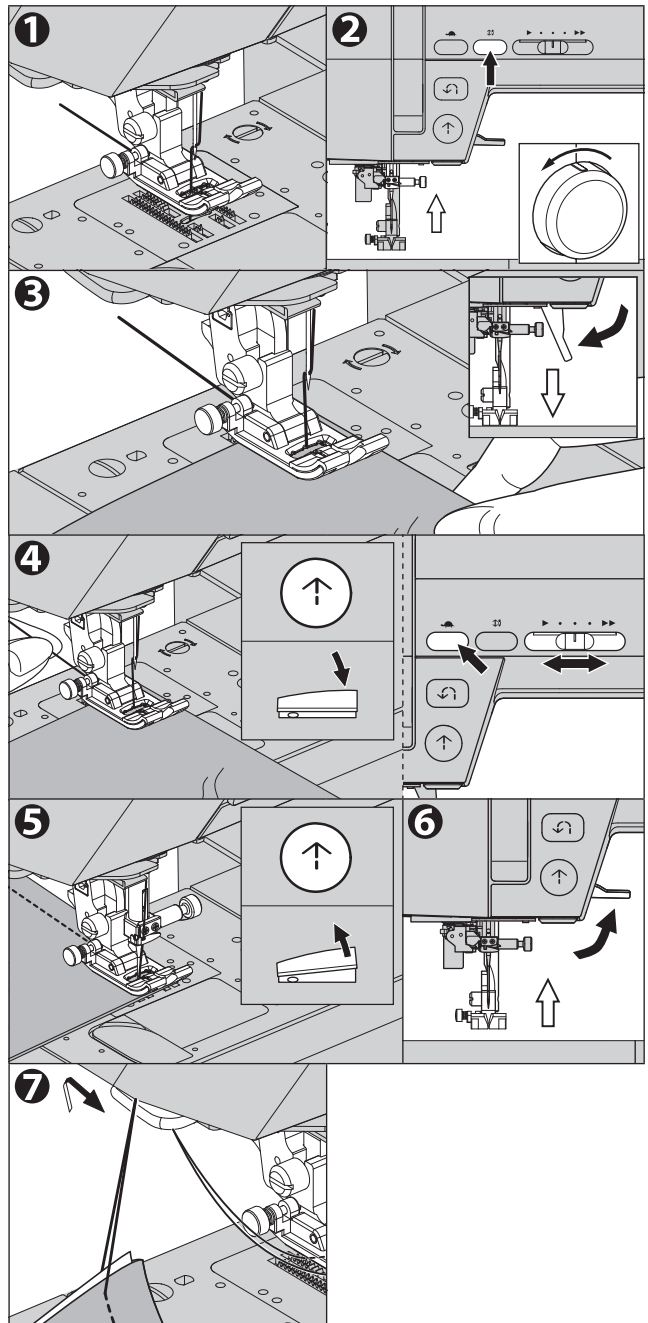
### CAUTION: To prevent injury to persons.

- Pay attention to the point of the needle.
- Do not pull or push strongly as the cloth is automatically fed by the machine.

5. When you reach end of seam, press the start/stop button to stop sewing or release the foot controller.  
The needle stop position depends on the setting of the needle stop position change button.
6. Raise the presser foot lifter.
7. Remove the fabric and cut threads with the thread cutter, back to front.

### Upper Thread Sensor

If upper thread is broken or missing, machine will stop automatically.  
Rethread the upper thread and resume sewing.



## B. REVERSE STITCHING

Reverse stitching is used for reinforcing the beginning and ends of the stitch.

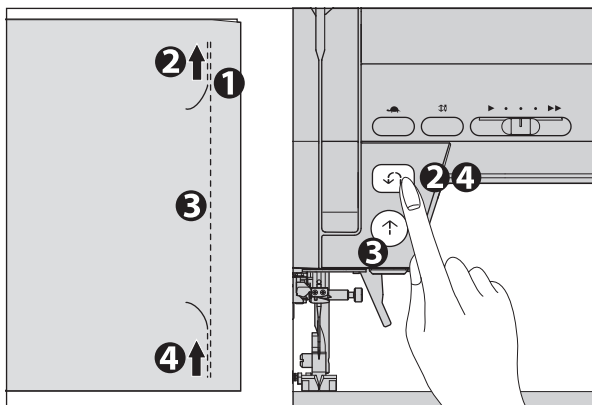
You can sew reverse stitch with the reverse button.

(The machine will continue sewing reverse stitching while you are pressing the button. When you release the button, reverse stitching will stop.)

1. Place the fabric in position where back stitching is to be made and lower the presser foot.
2. Press and hold the reverse button.  
Sew 4-5 reverse stitches.
3. Release the reverse button and press the start/stop button (or press the foot controller). Machine will change to forward sewing.
4. When you reach the end of seam, press and hold reverse button and sew 4-5 reverse stitches.

### NOTE:

- When the foot controller is connected and the pedal is pressed, machine will sew in reverse while this button is pressed. When released, machine will sew forward. (See page 10)
- Depending on the speed, after you press the reverse button, the machine will sew half the stitch length and then the reverse stitch.
- The pattern No.a2 has a built-in reverse stitch. See page 37, 39 to sew this stitch.

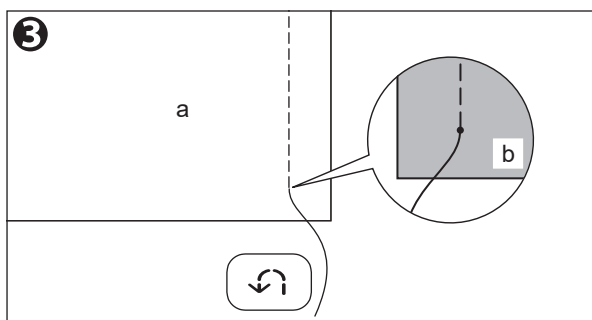
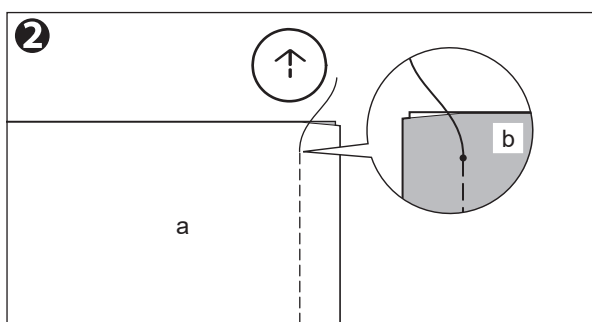
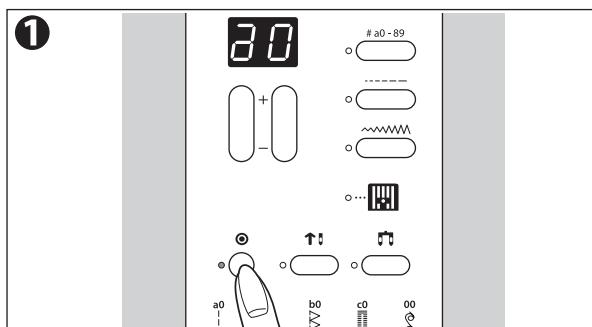


## C. AUTO LOCK STITCH

You can sew lock stitch at the beginning and end of the stitch.

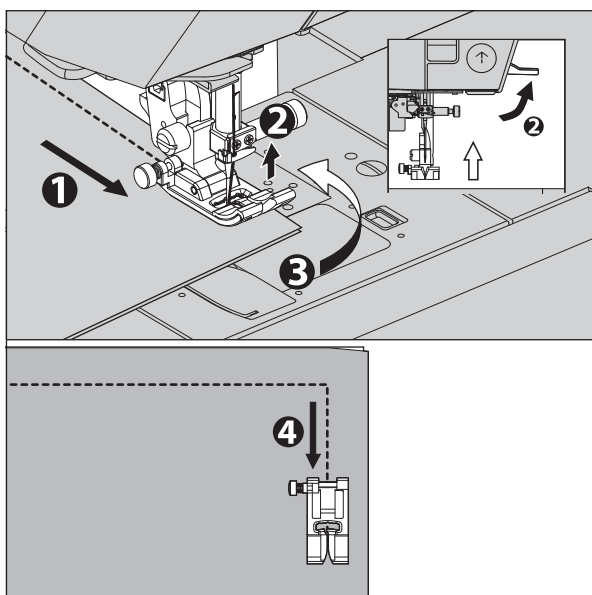
1. Press the lock stitch button.  
Indicator light will turn on.
2. Start to sew.  
Machine will sew lock stitch automatically and start to sew the selected pattern.  
a: Right side of fabric  
b: Wrong side of fabric
3. When you reach the end of seam, press the reverse button once.  
Machine will sew lock stitch and stop automatically.  
a: Right side of fabric  
b: Wrong side of fabric

If you want to cancel this function, press the lock stitch button again. Indicator light will turn off.



## D. TURNING CORNERS

1. Stop the machine when you reach a corner.  
If the needle stop position is up position, use the needle up-down buttons to lower the needle.
2. Raise the presser foot.
3. Use the needle as a pivot, turn fabric and set toward you want to sew.
4. Lower the presser foot and resume sewing.





## E. SEWING HEAVY FABRIC



**CAUTION: To prevent the accidents or the injury to persons.**

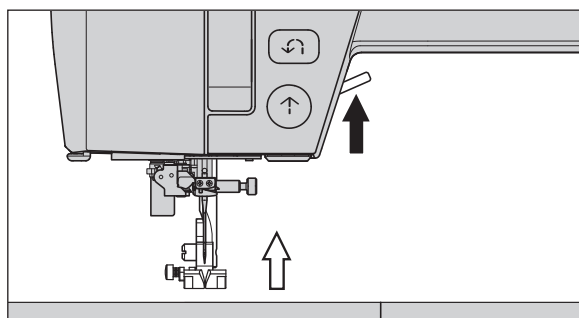
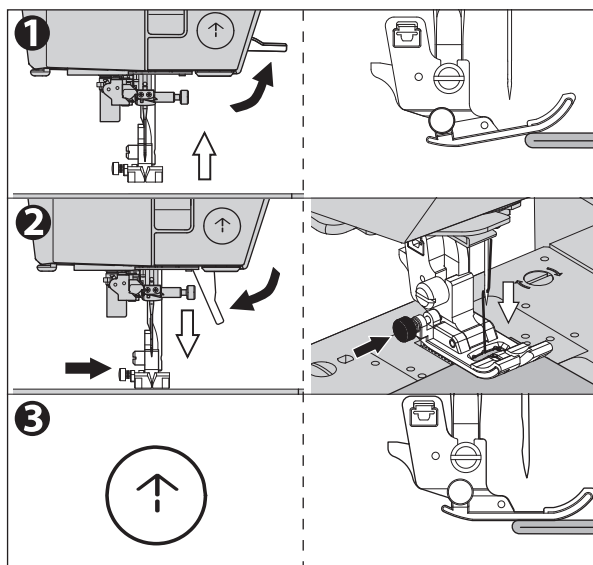
Forcing fabric with a thickness of 6 mm or more under the presser foot may cause the needle to break and cause injury.

### e-1. START SEWING THICK FABRIC

When sewing heavy fabrics, the toe end of presser foot tends to lift up and sewing cannot be started smoothly. In such case, set as follows.

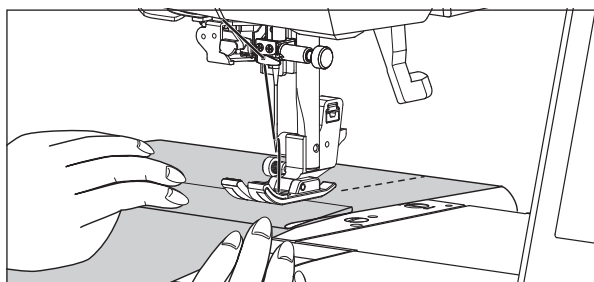
1. Raise the presser foot.
2. Push the lock button located on the left side of regular foot and lower the foot.
3. Start sewing.  
As presser foot hinge is locked, fabric will be fed smoothly.  
As sewing progresses, it will be unlocked automatically.

If you raise the presser foot lifter further and raise the foot further one step, you can easily sew a thick cloth. At this time, the raised presser foot is not fixed. When you release the presser foot lifter, the presser foot returns to the position raised in step 1.



### e-2. SEWING OVER OVERLAPPED AREAS

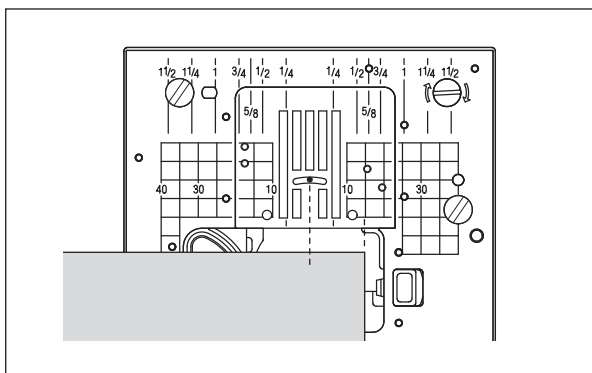
Guide the fabric with your hand when sewing the fabric overlaps or has differences.



## F. WIDTH OF SEAM ALLOWANCE

Guide lines on the needle plate indicate the distance from the center needle position.

To keep the width of seam allowance, guide fabric edge aligning this guide line.

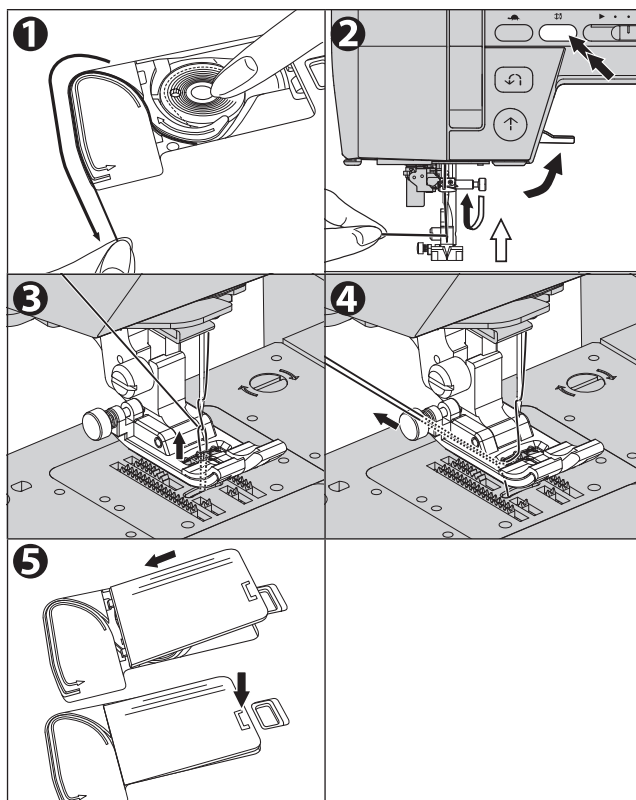


## G. IF YOU WANT TO DRAW UP THE BOBBIN THREAD

This machine can start to sew without drawing up the bobbin thread.

If you want to start sewing with longer bobbin thread, draw up the bobbin thread as follows.

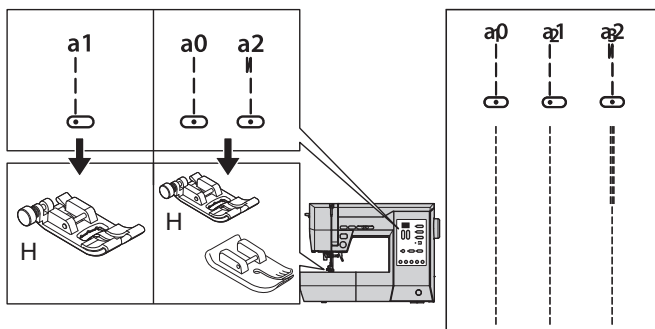
1. Insert the bobbin into the bobbin holder and pass thread as instructed on page 22. But do not cut the thread.
2. Raise the presser foot.  
Hold thread loosely and press the needle up-down button twice from up position.  
The hand wheel will make one revolution toward you.
3. Pull upper thread lightly. Bobbin thread will come up in a loop.
4. Pull both upper and bobbin threads about 10 cm toward the back of presser foot.
5. Replace the bobbin cover. (See page 22)



# STRAIGHT STITCH SEWING

Straight stitch patterns should be selected to suit the type of fabric being sewn.

Stitch	Presser Foot
a1 Straight stitch (Left needle position)	Regular Foot (H)
a0 Straight stitch (Center needle position)	Regular Foot (H)
a2 Straight stitch with auto-reverse stitch (Center needle position)	Straight Stitch Foot



The needle position can be changed by adjusting the stitch width. (See page 17)



## CAUTION: To prevent injury to persons.

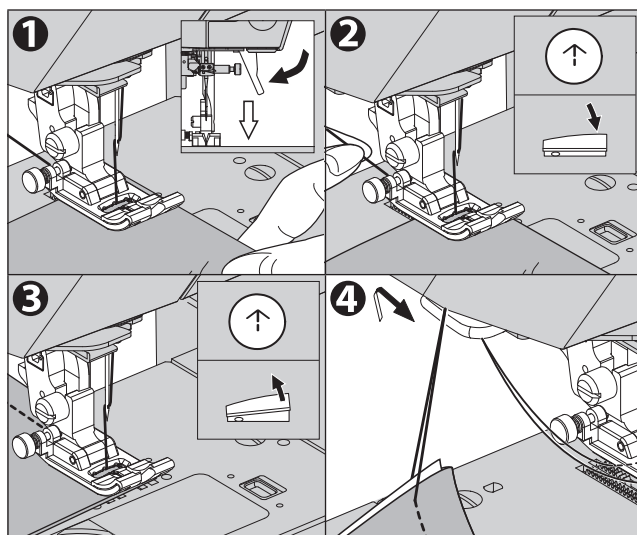
When using the straight stitch foot for stitch patterns a0 and a2, do not change the needle position from the automatic setting. It is dangerous for the needle to hit the presser foot.

## A. STRAIGHT STITCH (No. a0, a1)

1. Position the fabric under the presser foot. Lower the presser foot.
2. Hold the upper thread loosely and start sewing. Place hand lightly on the fabric while sewing.
3. When you reach the end of seam, stop sewing.
4. Raise the presser foot and cut thread.

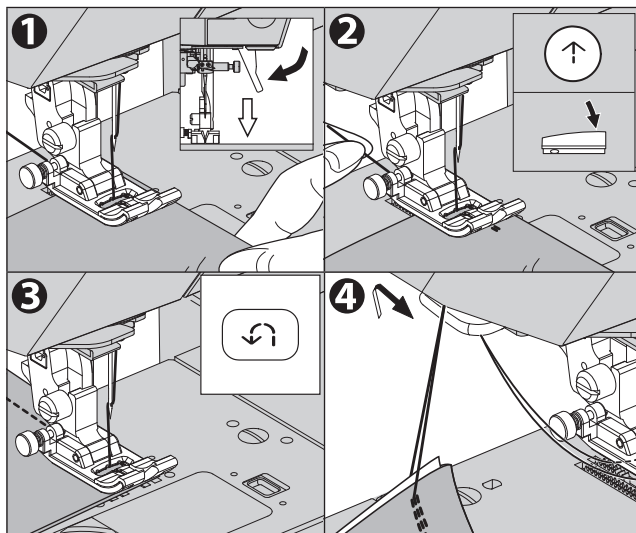
### NOTE:

If you use the straight stitch needle plate, the fabric will not sink into the holes in the needle plate, and you will be able to finish more beautifully. For details on how to use it, see "STRAIGHT STITCH SEWING (WITH STRAIGHT STITCH NEEDLE PLATE)" on page 39.



## B. STRAIGHT STITCH WITH AUTO-REVERSE STITCH (No. a2)

1. Position the fabric under the presser foot.  
Lower the presser foot.
2. Hold the upper thread loosely and start sewing.  
The machine will sew 4-5 stitches forward and  
sew 4-5 stitches backward and continue sewing  
forward.
3. When you reach the end of seam, press the  
reverse button once.  
The machine will sew a few stitches backward  
and sew a few stitches forward and stop  
automatically.
4. Raise the presser foot and cut thread.

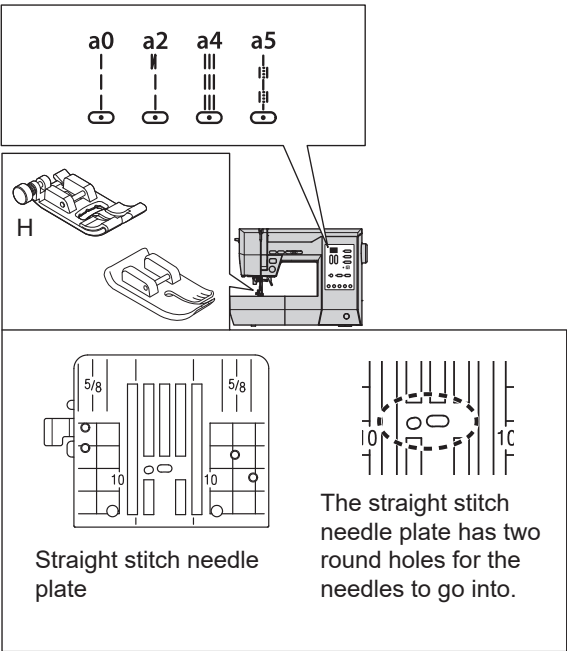



# STRAIGHT STITCH SEWING (WITH STRAIGHT STITCH NEEDLE PLATE)

When sewing straight stitch on thin or stretchy fabrics, using the straight stitch needle plate prevents the fabric from sinking into the hole in the needle plate, you can finish it better.

Stitch		Presser Foot
a0	Straight stitch (Center needle position)	Regular Foot (H) Straight Stitch Foot
a2	Straight stitch with auto-reverse stitch (Center needle position)	
a4 *1	Straight stretch stitch (Center needle position)	
a5 *2	Hand look Quilting Stitch (Center needle position)	

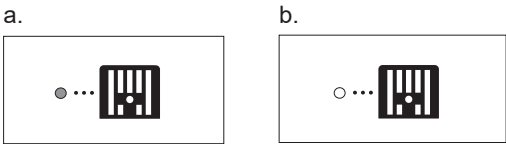
- \*1 The pattern No. a4 is mainly used for stretch reinforcement stitches. For details, see "ELASTIC STITCH SEWING" on page 42.
- \*2 The pattern No. a5 is mainly used for quilt stitching. For details, see "HAND LOOK QUILTING STITCH" on page 44.



**CAUTION: To prevent injury to persons.**

- The needle position cannot be changed when the straight stitch needle plate is attached.
- Before you start sewing, be sure to check that the correct presser foot is attached for the selected pattern. If the wrong presser foot is used, the needle may hit the presser foot and break, resulting in injury.

- a. The needle plate status indicator on the control panel lights up while the straight stitch needle plate is being attached.
- b. When the standard needle plate is attached, the needle plate status indicator on the control panel goes out.



**NOTE:**  
Only usable patterns can be selected when the straight stitch needle plate is attached.

- If you select a pattern that cannot be used, the needle plate status indicator will flash (approximately 3 seconds) and a beep will sound to notify you. (If you set the operation sound to be silent, it will not sound. For details, see "SETTING OF LED LIGHT and BEEP" on page 19.)
- When a pattern that cannot be used is selected and the straight stitch needle plate is attached, it will automatically switch to the straight stitches of the center needle position.



The needle position cannot be changed when the straight stitch needle plate is attached.

## A. HOW TO REMOVE THE STANDARD NEEDLE PLATE

1. Press the needle up/down button or turn the hand wheel toward you to raise the needle. At this time, the hand wheel mark will come up.
2. Turn off the power switch. (Symbol **O**)



**CAUTION: To prevent injury to persons.**  
Failure to turn off the power switch may result in injury.

3. Raise the presser foot lifter and remove the presser foot. For how to remove the presser foot, see “CHANGING THE PRESSER FOOT” (page 28).
4. Using the included driver for needle plate, turn the needle plate stopper lever (a) clockwise (approximately 30°) until it stops rotating.



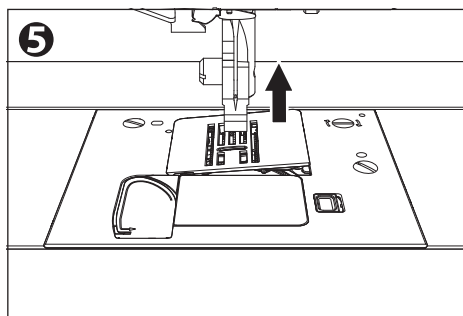
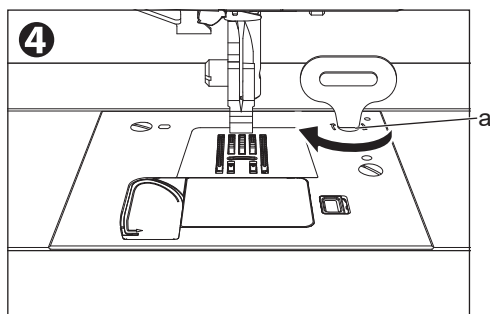
**CAUTION: To prevent the accidents or the injury to persons.**  
Do not turn the needle plate stopper lever (a) too hard. It may be damaged.

5. Lift the right side of the raised standard needle plate and remove it.



**CAUTION: To prevent the accidents or the injury to persons.**  
Be careful not to hit the feed dog with the standard needle plate. The feed dog may be chipped or crushed.

\*Follow the same procedure when removing the straight stitch needle plate.



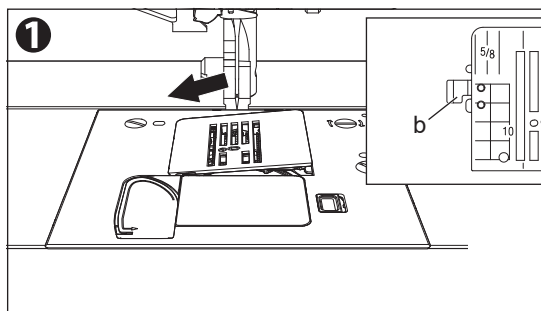
## B. HOW TO ATTACH THE STRAIGHT STITCH NEEDLE PLATE

1. Insert the tab (b) on the left side of the straight stitch needle plate into the the needle plate.



### **CAUTION: To prevent the accidents or the injury to persons.**

Be careful not to hit the feed dog with the straight stitch needle plate. The feed dog may be chipped or crushed.

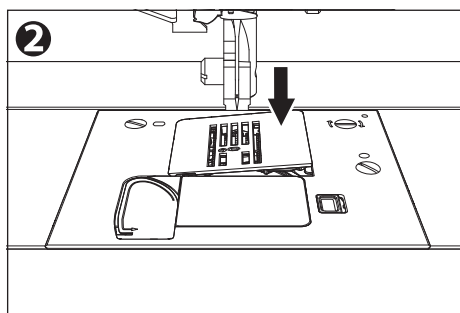


2. Push down the right side of the straight stitch needle plate that has floated up to fit it.



### **CAUTION: To prevent the accidents or the injury to persons.**

After attaching the presser foot, turn on the power, select the pattern, slowly turn the hand wheel toward you, and check that the needle does not hit the presser foot and the straight stitch needle plate before starting sewing.



### **NOTE:**

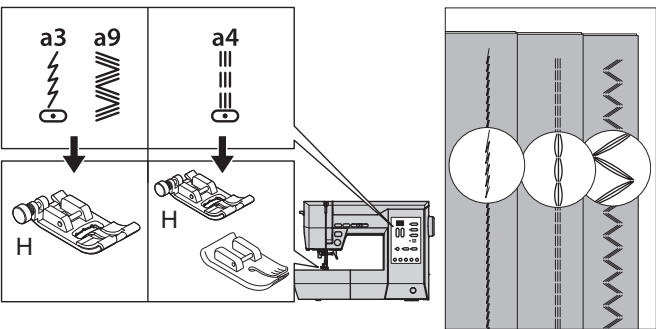
Press firmly until you hear a click.

\*Follow the same procedure when installing the standard needle plate.

# ELASTIC STITCH SEWING

It assures you of a stitch that is strong, flexible and will give with the fabric without breaking. Good for easy to ravel and knit fabrics. It is good for joining durable fabrics such as denims.

Stitch		Presser Foot
a3	Stem stitch for stretch fabrics (Center needle position)	Regular Foot (H)
a9	Rick-rack Stitch	
a4	Straight stretch stitch (Center needle position)	Regular Foot (H) Straight Stitch Foot




We recommend that you use a needle for knit and synthetic fabrics to prevent stitch skipplings and thread breakages.

Examples of items that commonly use these fabrics are:

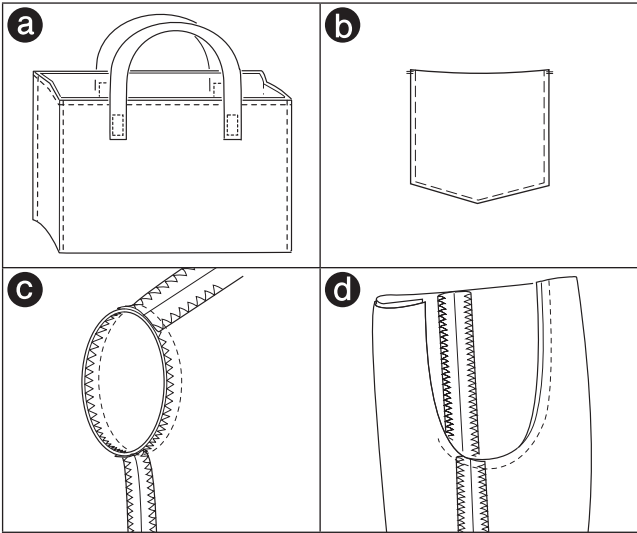
- a. Bag
- b. Pocket
- c. Jacket
- d. Trousers

The pattern No. a4 can also be used with the straight stitch foot.

**CAUTION: To prevent injury to persons.**

When using the straight stitch foot for the pattern No. a4, do not change the needle position from the preset value. The needle hits the presser foot and is dangerous.

**NOTE:**  
When using the pattern No. a4, if you use the straight stitch needle plate, the fabric will not sink into the holes in the needle plate, and you will be able to finish more beautifully. In this case, it is more effective to use the straight stitch foot for the pattern No.a4.  
For details on how to use it, see "STRAIGHT STITCH SEWING (WITH STRAIGHT STITCH NEEDLE PLATE)" on page 39.





# ZIGZAG STITCH SEWING

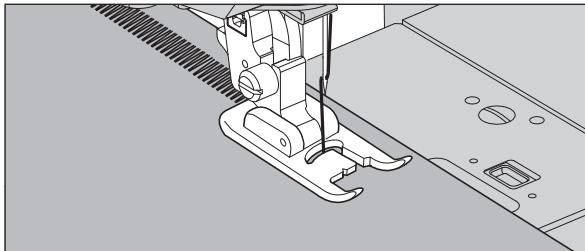
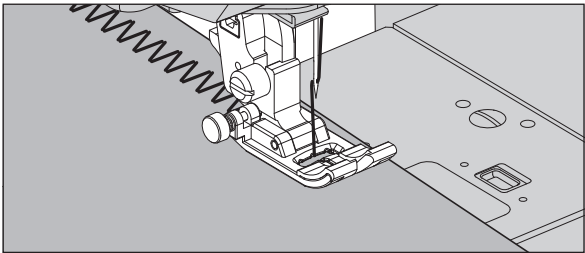
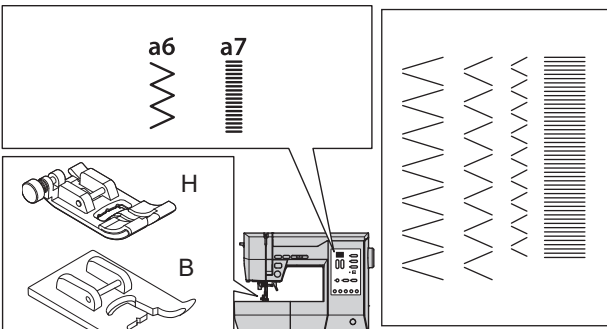
This machine can sew zigzag stitches of various widths and lengths by changing the settings of the stitch width and stitch length.

Stitch		Presser Foot
a6	Zigzag Stitch	Regular Foot (H)
a7	Satin Stitch	Satin Foot (B)

Zigzag stitches are suitable for joining two pieces of fabrics, overcasting and sewing various decorative stitches.  
See page 46 for overcasting.

## SATIN STITCHING (No. a7)

When machine is set to satin stitch, it will preset to closer stitches than the normal zigzag stitch. Attach the satin foot for this stitch.



# HAND LOOK QUILTING STITCH

Use invisible nylon thread or very lightweight thread for the upper thread.

For bobbin thread, use the thread of color scheme matches the fabric.

Increase the thread tension.

When you sew, bobbin thread will pull to the top and give the appearance of a traditional hand quilting stitch.

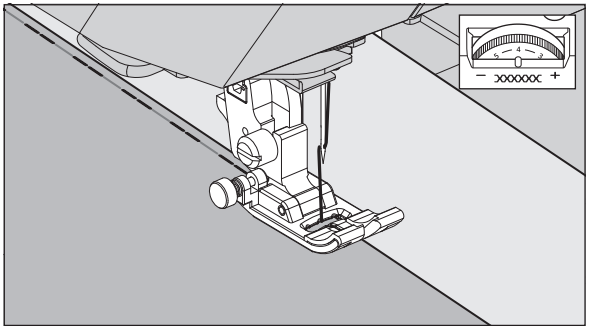
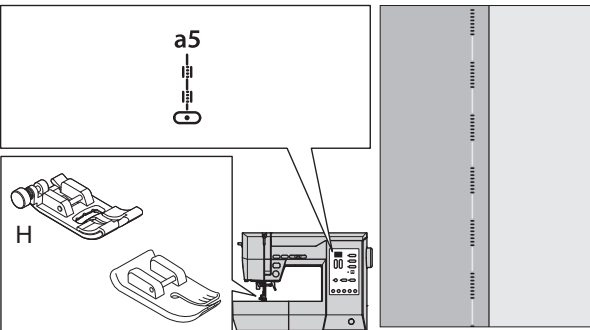
Stitch		Presser Foot
a5	Hand look Quilting Stitch (Center needle position)	Regular Foot (H) Straight Stitch Foot

**NOTE:**

- Use only for medium or heavy weight fabric because thread tension is strong.
- If you use the straight stitch needle plate, the fabric will not sink into the holes in the needle plate, and you will be able to finish more beautifully. For details on how to use it, see "STRAIGHT STITCH SEWING (WITH STRAIGHT STITCH NEEDLE PLATE)" on page 39.

**CAUTION: To prevent injury to persons.**

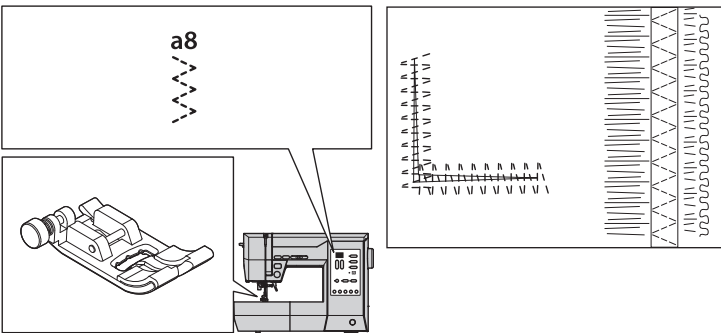
When using the straight stitch foot, do not change the needle position from the automatic setting. The needle hits the presser foot and is dangerous.



# MULTI-STITCH ZIGZAG

This stitch pattern is used to mend a broken fabric or to sew elastic bands.

Stitch		Presser Foot
a8	Multi-Stitch Zigzag	Regular Foot (H)

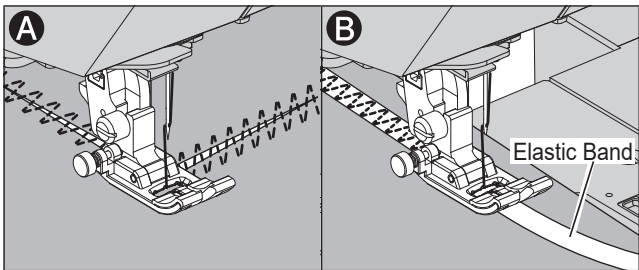


## A. MENDING

Shorten the length of the stitch and sew.

## B. ELASTIC BAND SEWING

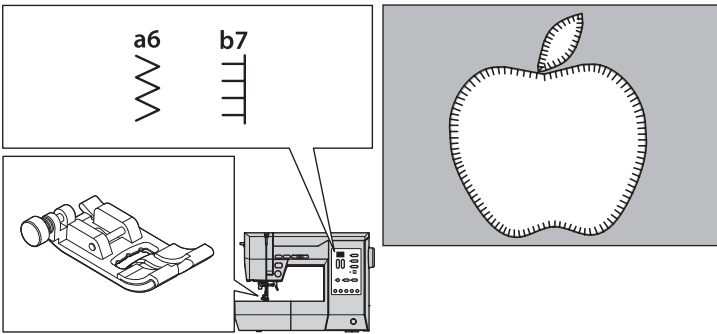
Pull elastic band in front and back of needle while sewing.



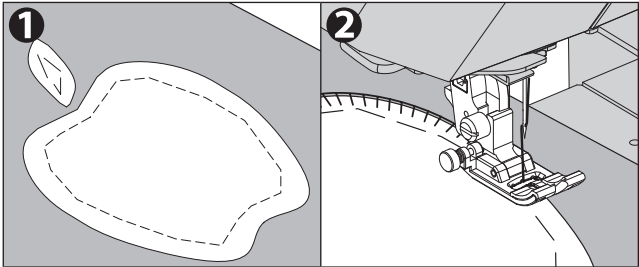
# APPLIQUE

Sew firmly a commercially available or self-made applique on the cloth.

Stitch		Presser Foot
a6	Zigzag Stitch	Regular Foot (H)
b7	Applique Stitch	

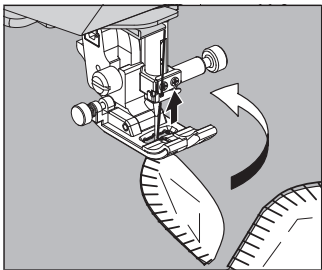


1. Fix applique on fabric.  
With fabric glue, fusible iron-on or basting stitches.
2. Sew the edge of the applique to the fabric like overcasting sewing.  
When the angle is steep, narrow the width of the stitch.



## When sewing sharp angles


Bring needle to lowest position and raise the presser foot. Use the needle as pivot and turn fabric.



# OVERCASTING-OVERLOCKING

Prevents fraying of the raw edge of all fabrics.

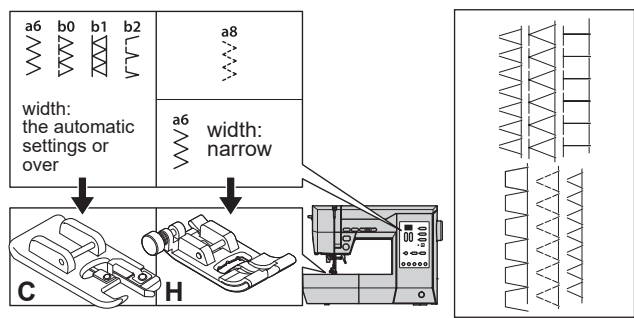
Stitch	Presser Foot
a6, b0-b2 (width: the automatic settings or over)	Overcasting Foot (C)
a6(width: narrow), a8	Regular Foot (H)

**CAUTION: To prevent injury to persons.**

The overcasting foot should only be used for the above patterns (a6, b0-b2). At this time, set the stitch width to a value greater than or equal to the automatic setting.

Before sewing, turn the hand wheel toward you and confirm the needle does not hit the presser foot.

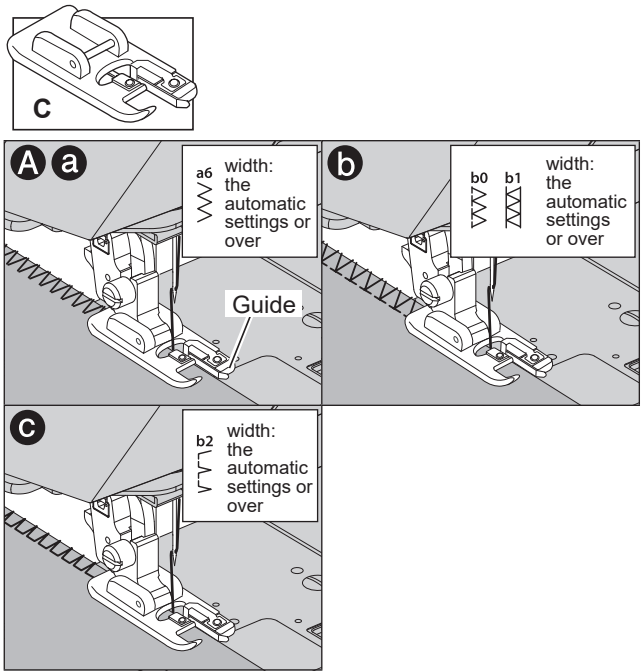
The needle may hit the presser foot and break when sewing other patterns and width.



## A. USING THE OVERCASTING FOOT

Press fabric against the guide plate of the overcasting foot so that needle falls near the edge of seam.

- a. Use as a fray stopping method.
- b. These patterns can sew overcasting and regular stitches at the same time.  
Use the regular foot for towel cloth or knitted fabric as the claw of the overcasting foot may get caught in the cloth.
- c. This pattern is suitable to prevent fraying of light-weight or medium-weight fabrics.



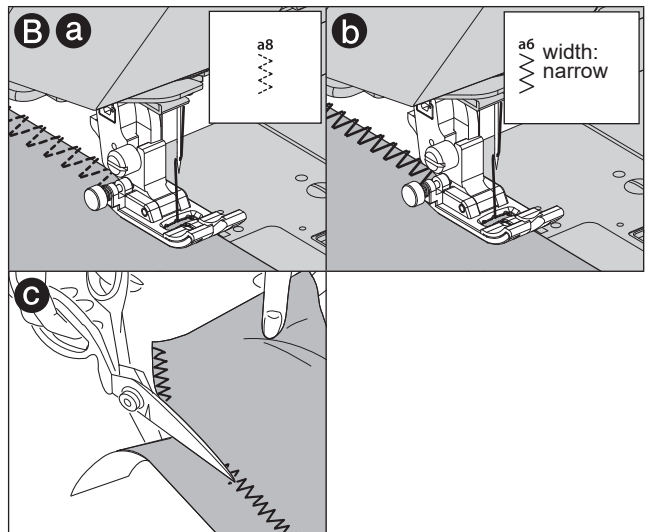
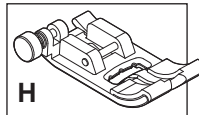
## B. USING THE REGULAR FOOT

Place fabric so that needle will fall nearest to edge of fabric when using the regular foot.

- a. Use for thick or stretch cloth.
- b. Use for narrow zigzag width.
- c. You can also cut off the excess material after sewing the inside of fabric.

### NOTE:

Be careful not to cut the sewn thread when cutting excess materials.

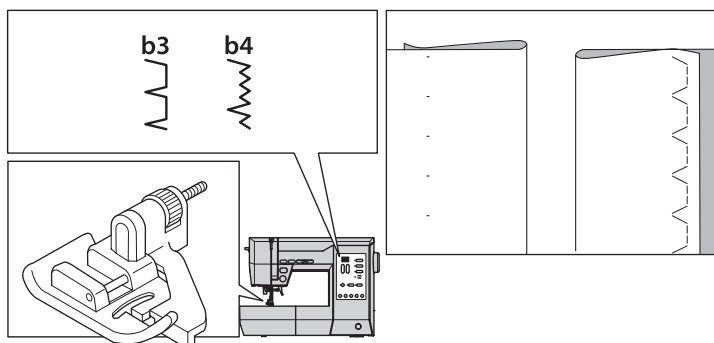


# BLIND HEM STITCHING

This stitch will sew without stitches showing on right side of fabric.

We use this pattern for hemming the skirts and pants.

Stitch		Presser Foot
b3	Blind hem for regular fabric	Blind Foot (D)
b4	Blind hem for regular or stretch fabric	



1. Fold the fabric as shown on the right.

a: Medium, Heavy weight fabric

b: Light weight fabric

c: Wrong side of fabric

d: Overcasting

Be careful that the right and wrong side of the finished product to be correct.

2. Set the fabric so that the guide (e) of the blind foot follows the fold line (g) of the fabric. The guide (e) is adjusted by turning the adjusting screw (f).

3. Adjust the position of guide so that the needle sticks slightly into the fold line (g) of the fabric when it comes to the most left side of fabric.

When you turn the screw toward you, the guide will move to the right, turning it to the far side moves the guide to the left.

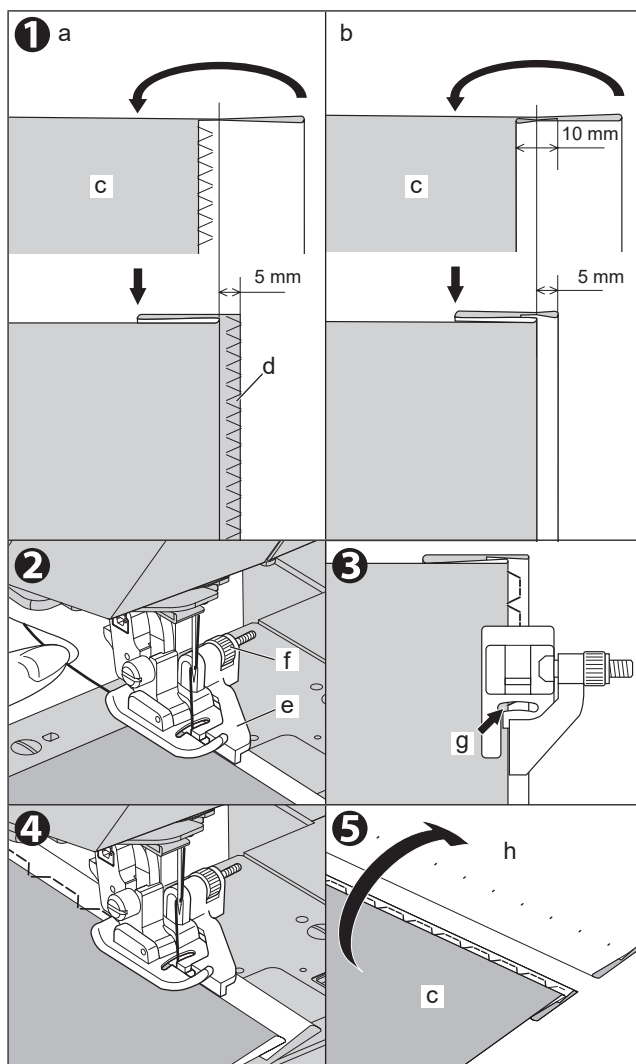
If select a pattern when the needle position is up, the needle comes to the most left side of fabric.

4. Sew edge along the guide.

5. Turn the fabric over when you have completed sewing.

c: Wrong side of fabric

h: Right side of fabric



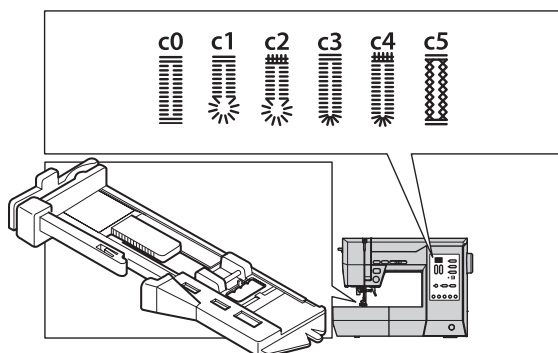
# BUTTONHOLE SEWING

You can sew 6 types of buttonholes.

You can change the width of each buttonhole in 2 - 3 steps.

Be sure to try sewing on the same fabric that you will actually be sewing to check the result.

Stitch	Presser Foot
c0 Bar-tack Buttonhole for light to medium weight fabrics	Buttonhole Foot
c1 Keyhole Buttonhole for heavy weight fabrics	
c2 Keyhole Buttonhole with reinforced bar-tack	
c3 Round Ended Buttonhole (Narrow) for light to medium weight fabrics	
c4 Round Ended Buttonhole with cross bar	
c5 Stretch Buttonhole	



1. Mark position and length of buttonhole on fabric.  
a: Starting position of the sewing

2. Set button on the base.

\* If button does not fit on the base, adjust slide on base to diameter of button plus thickness of button.

b: Length of button + thickness

3. Pass upper thread through the hole of buttonhole foot and bring upper thread to the left.

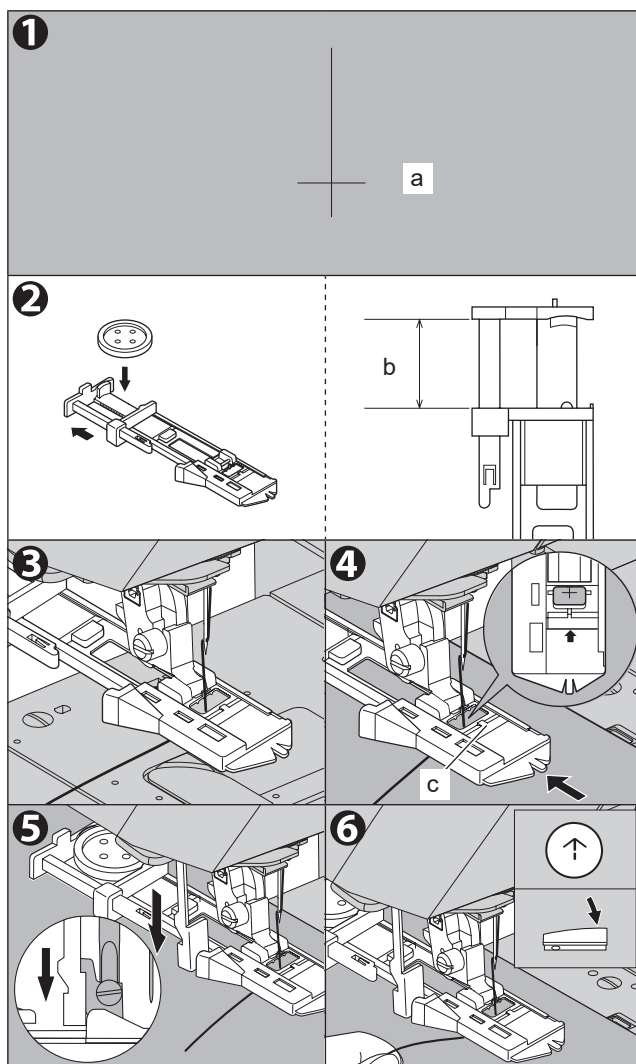
4. Position fabric under presser foot so that the center line mark is in the center of the buttonhole foot. Lower the foot.  
c: Push the frame of the presser foot to the backward so that there is no space between the frame and the presser foot.

5. Lower the buttonhole lever completely.

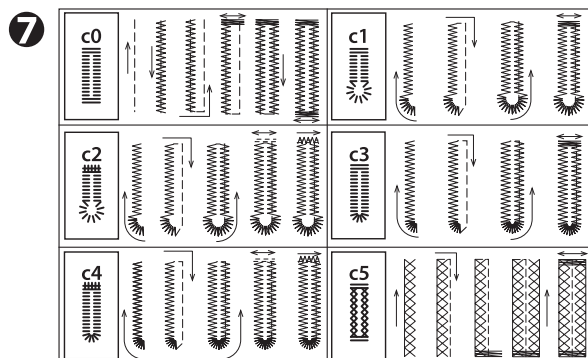
## NOTE:

If you do not lower the buttonhole lever properly, the monitor lamp lights red, it sews 2 or 3 stitches and stops.

6. Hold upper thread lightly and start the machine.

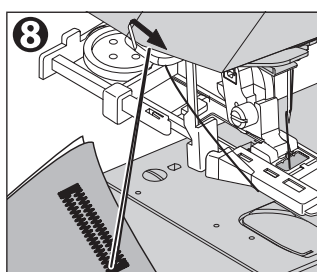


7. The machine will sew the buttonhole in the order as shown and stop automatically after sewing.

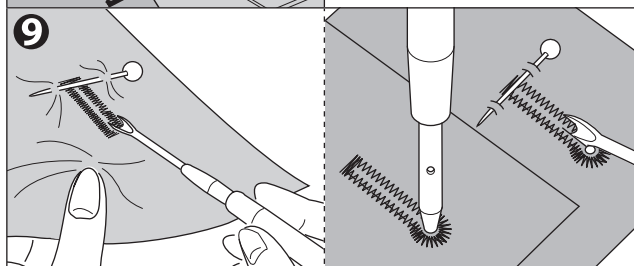


8. Raise the presser foot and cut thread.

To sew over the same buttonhole, raise presser foot to return to original position.



9. Cut center of buttonhole being careful not to cut stitches on either side. Use a pin as a stopper. For utility stitch No.c1 and c2, a hole is punched with a commercial eyelet punch and then cut with the seam ripper for a clean finish. When opening the keyhole, lay cardboard under the cloth.



No.c5: Cut and remove the thread of center (jump-stitch).

**CAUTION: To prevent injury to persons.**

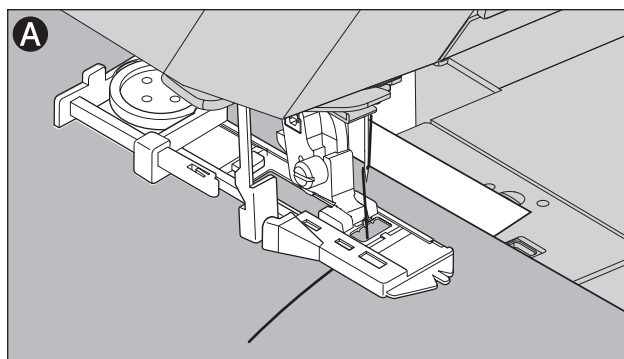
When using seam ripper, do not put your finger in the path of ripper.

**A. WHEN SEWING STRETCH FABRIC**

It is suggested that you use interfacing on the backside of the fabric.

**NOTE:**

Density of buttonhole legs may be adjusted with stitch length control.





# SEWING ON BUTTONS

Stitch	Presser Foot
c9	Regular Foot (H)

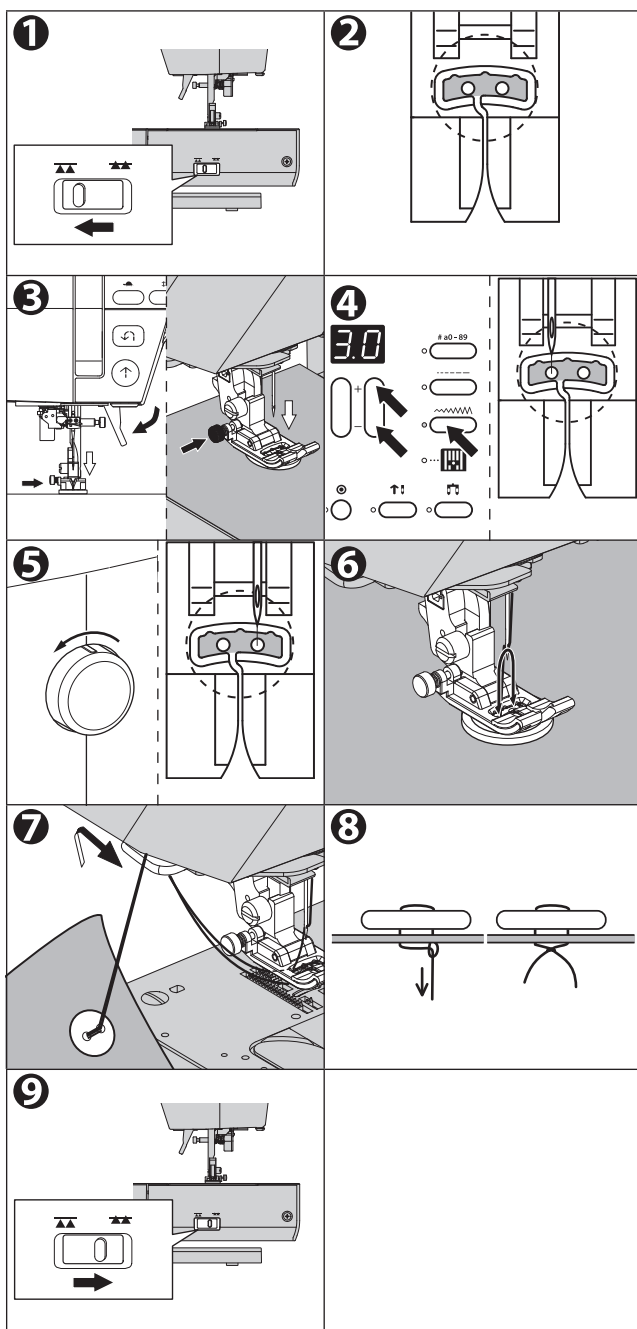
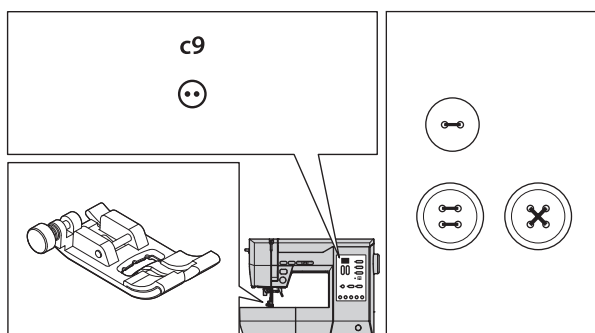
1. Lower the feed dog by moving the drop feed lever to the left.
2. Attach the regular foot and align two holes of button with slot of presser foot.
3. Push the button located on the left side of foot and lower the foot to hold the button securely.
4. Adjust the stitch width so that the needle enters the left hole of button.
5. Turn hand wheel by hand so needle enters the second hole. You may need to adjust the stitch width again.

**CAUTION: To prevent injury to persons.** Make sure that the needle does not hit the button during sewing. Otherwise needle may break.

6. Sew stitches at slow speed until machine stops automatically.
7. Raise the needle and foot, then cut the threads remaining about 10 cm to the fabric.
8. Pull the end of bobbin thread and pull upper thread to the wrong side of fabric. Tie them together.
9. After sewing, move the drop feed lever to the right.

## NOTE:

To sew a 4-hole button, follow the procedure above for the first two holes. Then lift presser foot slightly and move fabric to permit stitching the other two holes, either independently, or criss-cross over the first two holes.

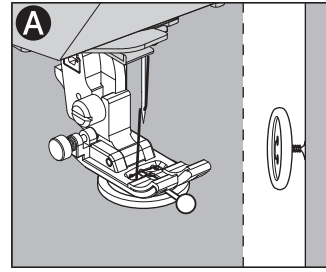


---

## A. THREAD SHANK

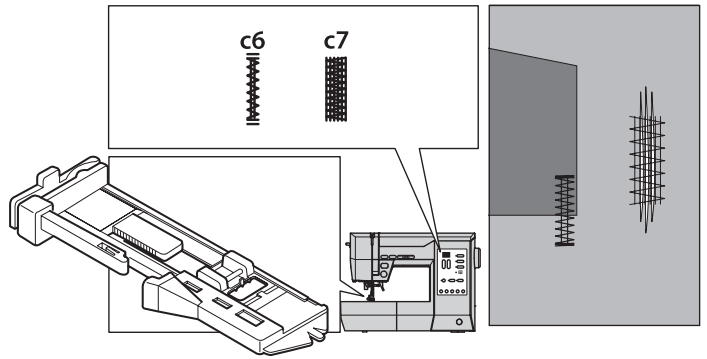
Sew-through buttons on coats and jackets should have a thread shank to make them stand away from the fabric. Place a straight pin or sewing machine needle on top of button between the holes, and sew over the pin or needle.

Pull thread to back of button and wind around stitches to form a firm shank. Tie thread ends securely.



# AUTOMATIC BAR-TACK/DARNING

Stitch	Presser Foot
c6	Buttonhole Foot
c7	



1. Adjust slide on base according to the length of bar-tack or darning.

a= Length of bar-tack or darning

2. Pass upper thread through the hole of buttonhole foot and bring upper thread to the left.

3. Position fabric under presser foot so that the starting point comes this side.  
Lower the foot.

\* When you sew bar-tack on the edge of thick fabrics such as a pocket, place some fabric of the same thickness or a piece of cardboard (b) beside the fabric.

4. Lower the buttonhole lever completely.

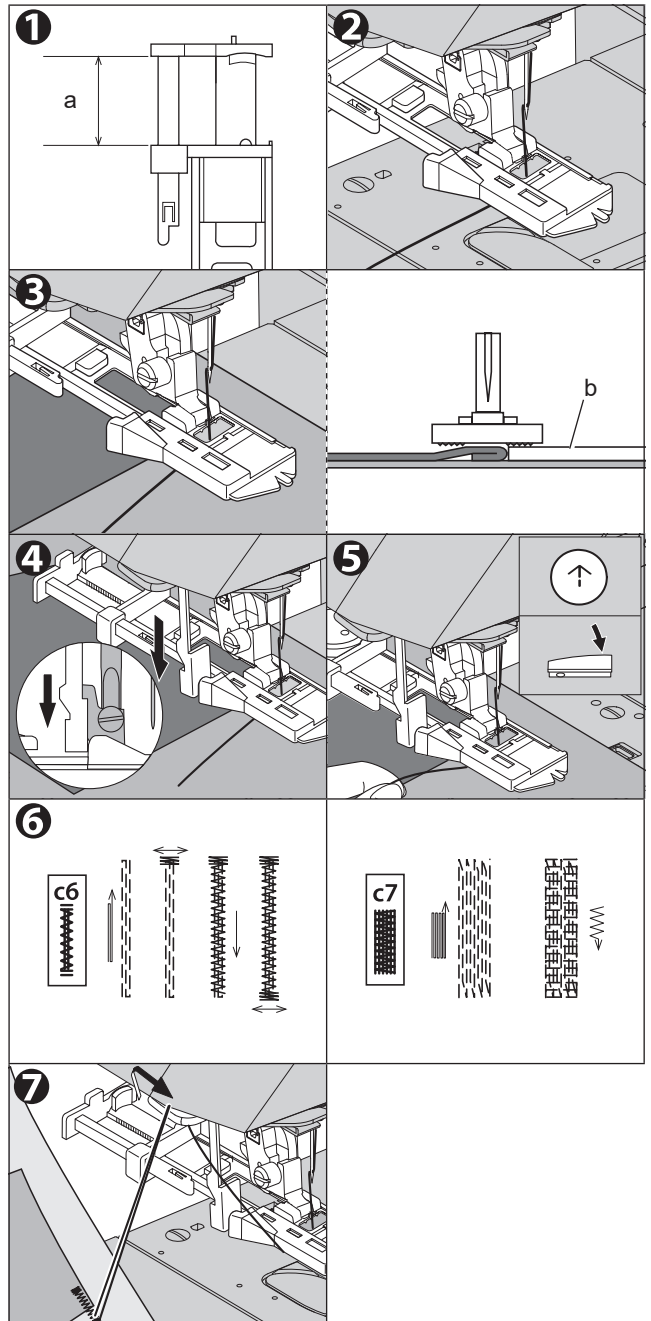
## NOTE:

If you do not lower the buttonhole lever properly, the monitor lamp lights red, it sews 2 or 3 stitches and stops.

5. Hold upper thread lightly and start the machine.

6. The machine will sew bar-tack or darning as shown.  
And machine will stop automatically.

7. Raise the presser foot and cut thread.

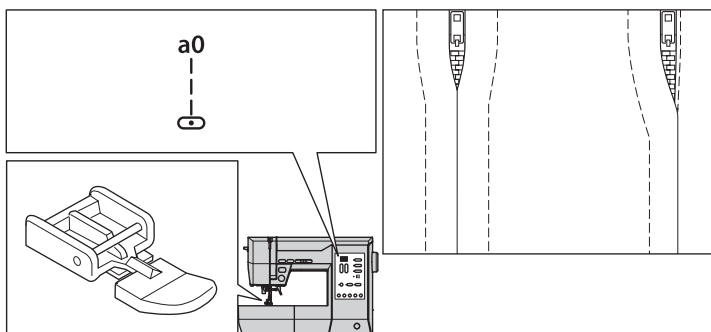


# INSERTING ZIPPERS (CENTERED INSERTION / LAPPED INSERTION)

Stitch	Presser Foot
a0 Straight stitch (Center needle position)	Zipper Foot (E)

## NOTE: What is “baste”?

Before sewing the fabric with a sewing machine, temporarily sew it with long and loose stitches so that the fabric does not shift.



## CAUTION: To prevent injury to persons.

Zipper foot should be used for sewing center needle position straight stitch (No.a0) only. Do not change the needle position from the center, which is the automatic setting. Before sewing, turn the hand wheel toward you and confirm the needle does not hit the presser foot. It is possible that needle could hit the presser foot and break when sewing other patterns.

## A. CENTERED INSERTION

1. Baste the front sides of the fabrics so they face each other. Sew until end of opening.

a: Top stitch  
b: End of opening  
c: Basting  
d: Wrong Side of fabric

2. Press open the seam allowance.

Baste the zipper tape.  
d: Wrong Side of fabric  
e: Wrong Side of zipper

Place the zipper face down on the seam allowance.  
Match the center of the zipper with the seam line and baste it.  
Pull the slider toward you.

3. Attach the zipper foot.

Attach the left side of the presser foot pin to the presser foot holder when sewing the right side of the zipper, and right side of the presser foot pin to the holder when sewing the left side of the zipper.

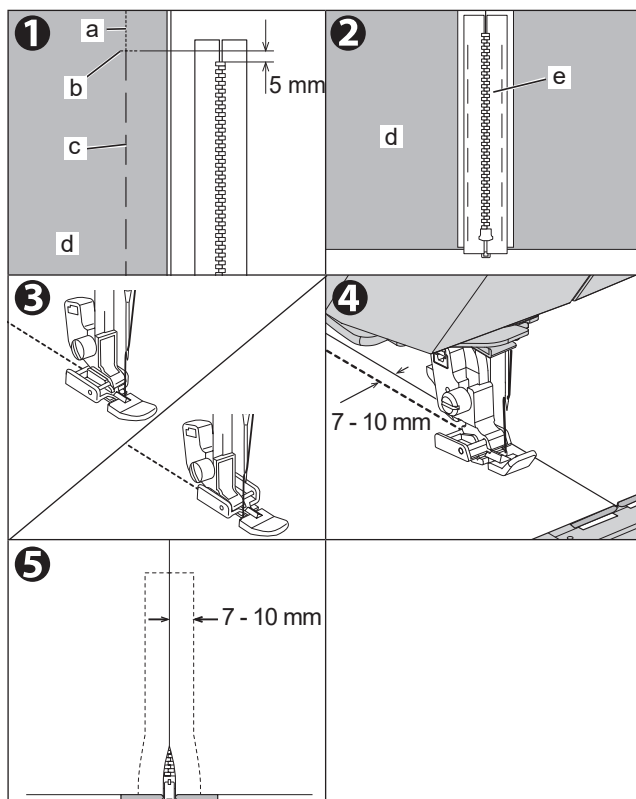
4. Stitch left side of the zipper from crotch end.

Sew a distance of 7 - 10 mm from the seam.

5. Stitch across the lower end and right side of zipper.

Remove the basting and press.

Sew not only the left side but also the right side.



## NOTE:

If you use the straight stitch needle plate, the fabric will not sink into the holes in the needle plate, and you will be able to finish more beautifully.

For details on how to use it, see "STRAIGHT STITCH SEWING (WITH STRAIGHT STITCH NEEDLE PLATE)" on page 39.

## B. LAPPED INSERTION

1. Baste the front sides of the fabrics face so they each other. Sew until end of opening.

a: Top stitch  
b: End of opening  
c: Basting  
d: Wrong Side of fabric

2. Fold back to the left seam allowance.  
Turn under the right seam allowance to form a 3 mm fold.

3. Attach the zipper foot.

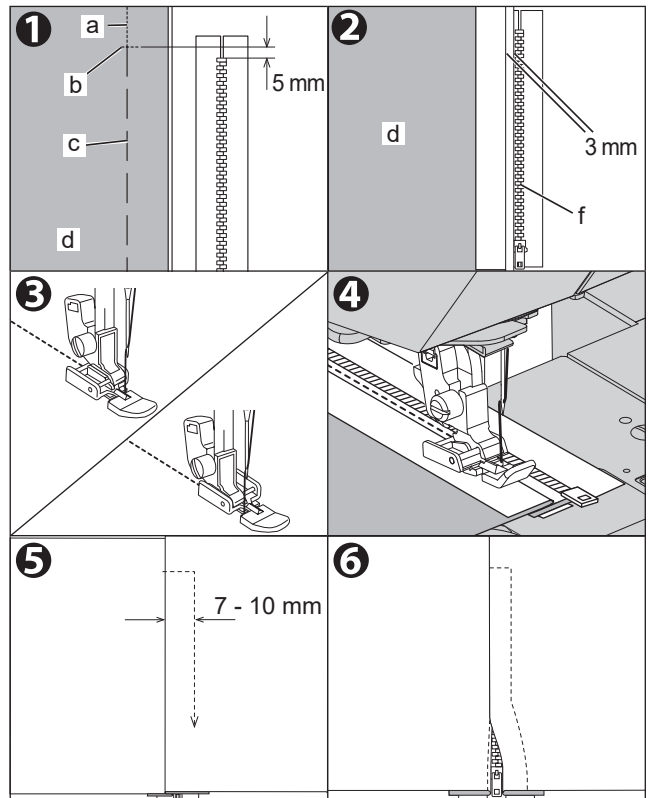
Attach the left side of the presser foot pin to the presser foot holder when sewing the right side of the zipper, and right side of the presser foot pin to the holder when sewing the left side of the zipper.

4. Stitch left side of the zipper from end of opening.  
Sew so that the zipper foot does not hit teeth (f) of zipper.

5. Open the upper cloth, sew the lower end and the right side.

On the right side, sew a distance of 7 - 10 mm from fold of the cloth.

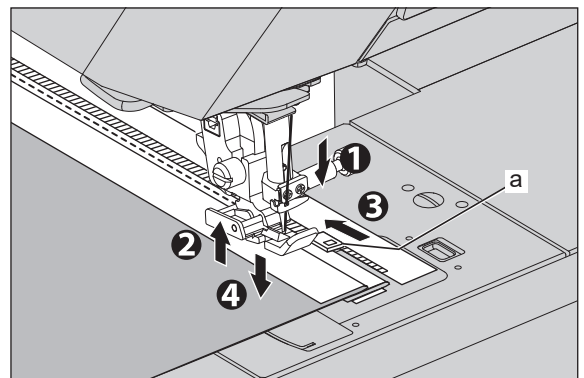
6. Stop about 5 cm from the top of zipper. Remove the basting and open the zipper. Stitch the remainder of the seam.



## TO OPEN THE ZIPPER WHILE STITCHING

1. Stop stitching before you reach the slider.  
If the needle stop position is up position, lower the needle into fabric.
2. Raise the presser foot.
3. Open the zipper.
4. Lower the presser foot and continue stitching.

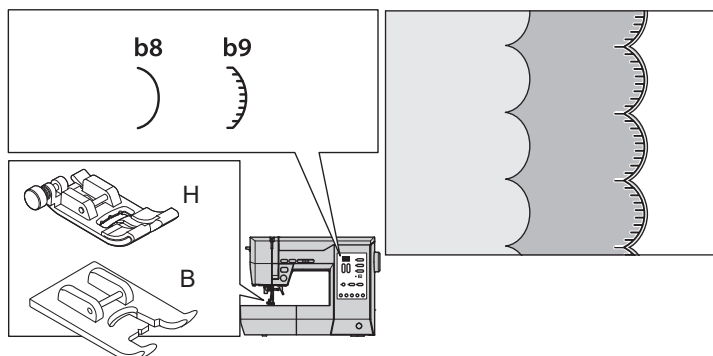
a: Slider



# SCALLOP STITCH

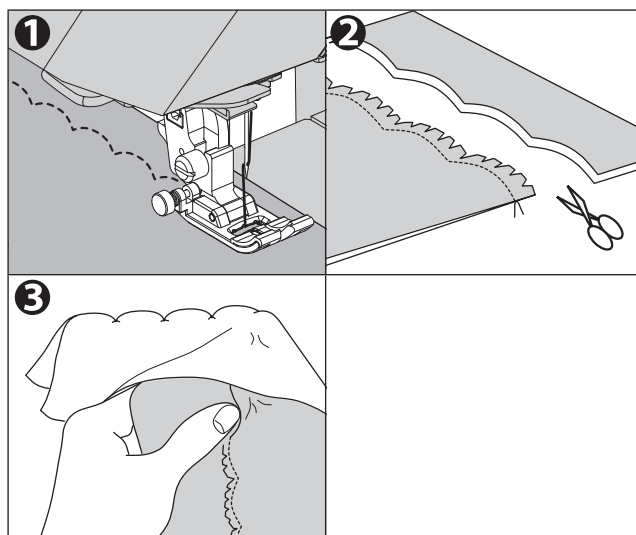
This stitch is used to sew edges on blouse collars and table cloths.

Stitch		Presser Foot
b8	Scallop hem	Regular Foot (H) Satin Foot (B)
b9	Scallop edging	



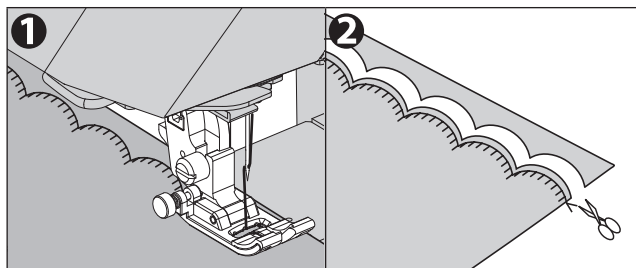
## A. SCALLOP HEM

1. Fold the fabric so that the right side is inward and sew the fabric along folded edge.
2. Cut the fabric along the seam leaving an allowance of 3 mm for seaming. Notch the allowance.
3. Turn fabric over, push out the curved seam to the surface and arrange by ironing.



## B. SCALLOP EDGING

1. Sew on hem line.  
Leave the edge of fabric so that the pattern is not over the edge.
2. Trim fabric close to stitching taking care not to cut the thread.

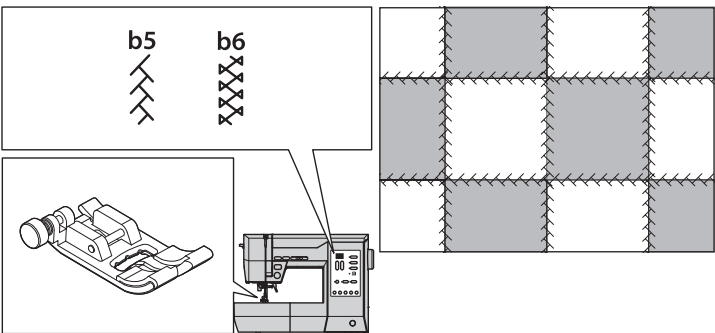


You can also sew scallop pattern with No.77, 78. In this case, use the satin foot.

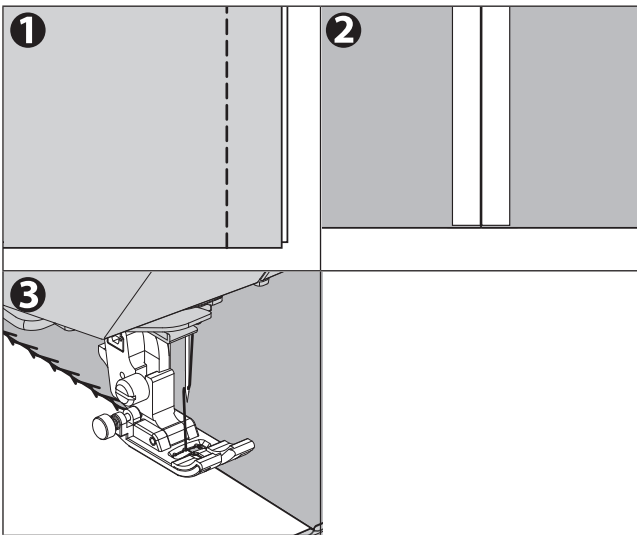
# PATCH WORK

Patch work is used to seam various fabrics and decorate them.

Stitch	Presser Foot
b5, b6	Regular Foot (H)



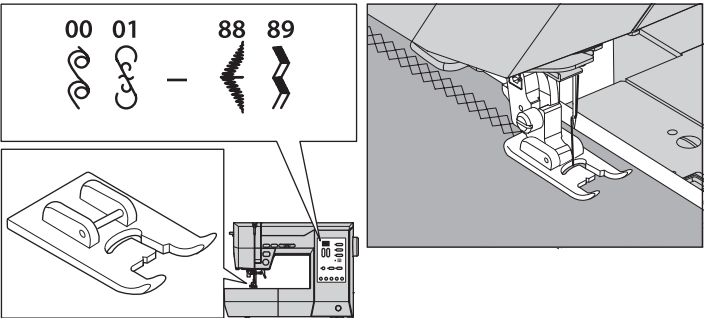
- 1. Face the two fabrics with their right sides facing each other and sew them.
- 2. Press open the seam allowance.
- 3. Sew so that the pattern extends over the both fabrics.



# DECORATIVE STITCHES

Use for such as decorative hems and decorative stitching on shirt fronts. When sewing thin or elastic fabrics, use an interfacing.

Stitch	Presser Foot
00-89	Satin Foot (B)



## EYELET

This stitch pattern is used for making belt holes and other similar applications.

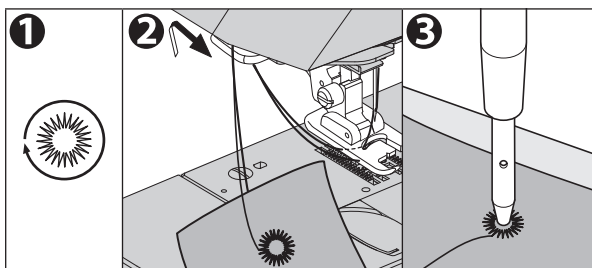
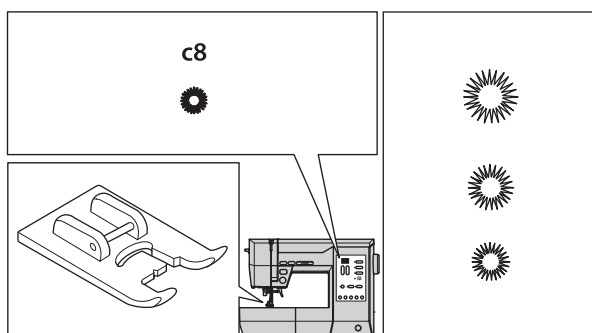
Stitch		Presser Foot
c8	Eyelet	Satin Foot (B)

You can choose the 3 sizes of eyelet by changing the stitch width.

1. Place the fabric under the presser foot and lower it.  
Start the machine.  
Machine will sew the eyelet and stop automatically.
2. Raise the presser foot and cut the thread.
3. Make a hole in the center of the eyelet.  
When opening the hole, lay cardboard under the cloth.

### NOTE:

Eyelet punch is not provided with this machine.

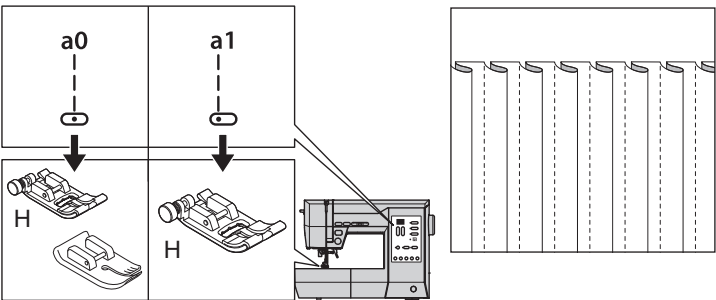




# PIN TUCK

This pattern is used for decorate blouses etc.

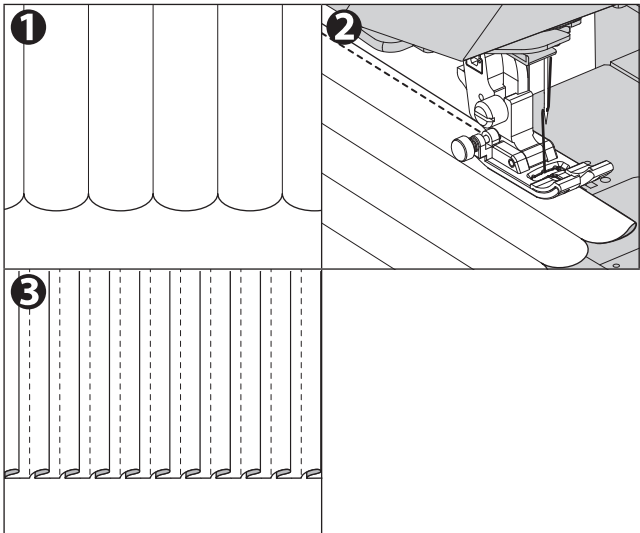
Stitch		Presser Foot
a0	Straight stitch (Center needle position)	Straight Stitch Foot Regular Foot (H)
a1	Straight stitch (Left needle position)	Regular Foot (H)



**CAUTION:** To prevent injury to persons. When using the straight stitch foot for utility stitch pattern a0, do not change the needle position from the automatic setting. It is dangerous for the needle to hit the presser foot.

1. Arrange the fold of pin tuck by ironing.
2. Sew a pin tuck so as not to smooth out the fold.
3. Lay the folds in one direction by ironing.

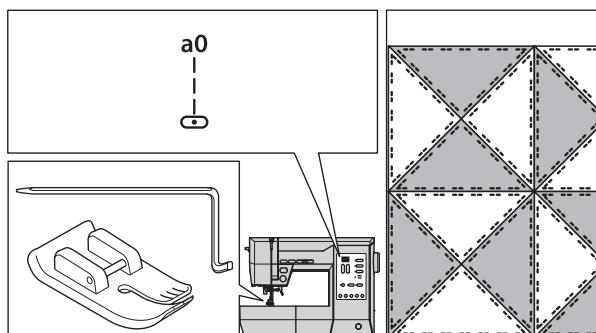
**NOTE:**  
If you use the straight stitch needle plate, the fabric will not sink into the holes in the needle plate, and you will be able to finish more beautifully.  
For details on how to use it, see "STRAIGHT STITCH SEWING (WITH STRAIGHT STITCH NEEDLE PLATE)" on page 39.



# QUILTING

A quilt always consists of three layers of material. The top, middle and bottom. The top layer is formed by multiple geometrically shaped pieces of materials joined together.

Stitch	Presser Foot
a0 Straight stitch (Center needle position)	Straight Stitch Foot Quilting Bar

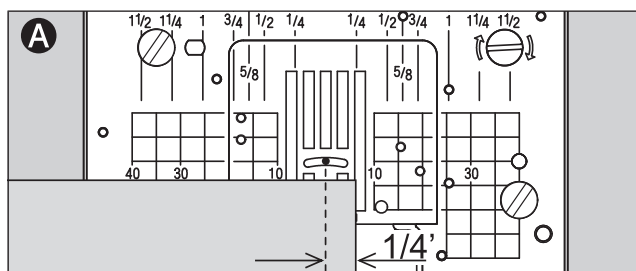


## CAUTION: To prevent accidents.

Straight stitch foot should be used for sewing center needle position straight stitch (No.a0) only. Do not change the needle position from the center, which is the automatic setting. Before sewing, turn the hand wheel toward you and confirm the needle does not hit the presser foot. It is possible that needle could hit the presser foot and break when sewing other patterns.

## A. JOINING THE PIECES OF FABRIC

Join the pieces of fabric using Pattern No.a0 with a seam allowance of 6.3 mm (1/4').

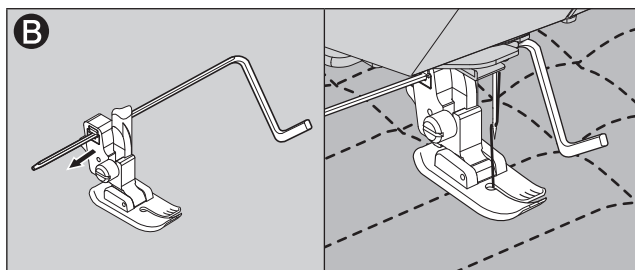


## B. QUILTING

Sew three layers of material. Use quilting bar to sew successive rows. Insert quilting bar into the hole of presser foot holder and set the space as you desire.

### NOTE:

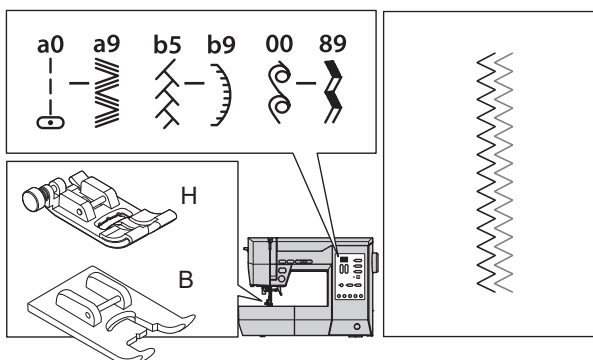
If you use the straight stitch needle plate, the fabric will not sink into the holes in the needle plate, and you will be able to finish more beautifully. For details on how to use it, see "STRAIGHT STITCH SEWING (WITH STRAIGHT STITCH NEEDLE PLATE)" on page 39.



## TWIN NEEDLE SEWING

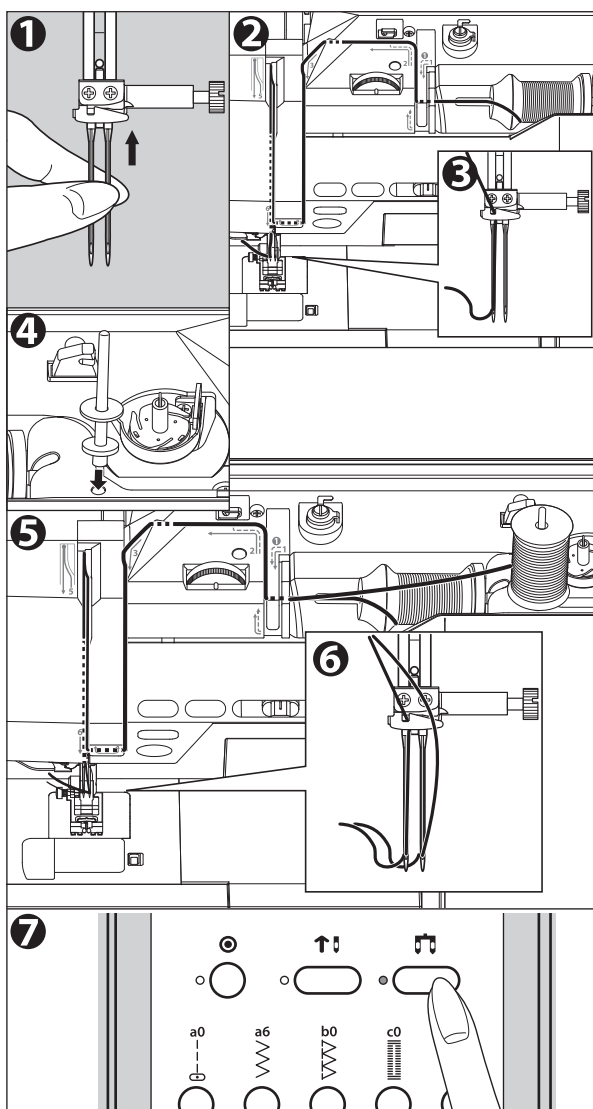
Interesting decorative stitches can be produced by using twin needles and threading the machine with two different colors of thread. Always make test samples to help you determine the settings best suited to a specific purpose.

Stitch	Presser Foot
All patterns except No.b0 - b4, c0 - c9 may be sewn with a twin needle.	Regular Foot (H)
	Satin Foot (B)



### **CAUTION: To prevent accidents.**

- Use only needle designed for this machine. Other needles may break.
- The needle threader cannot be used. Thread each needle eye by hand.
- Turn off the power whenever you change the needle or presser foot.



### **CAUTION: To prevent accidents.**

If you did not switch to twin needle mode, needle may hit the needle plate and break.

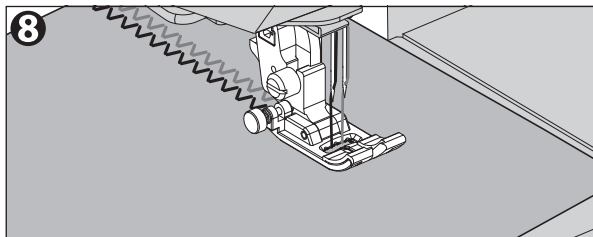
<<Continued from previous page.>>

8. Always test sew selected stitch,

**NOTE:**

Some stitches look better than others sewn with a twin needle.

9. Sew project.



Twin needle mode will remain until you press the twin needle button again or turn off the machine.

**NOTE:**

- Twin needle sewing may be used with utility and decorative stitch patterns by pressing twin needle button.
- Depending on the type of fabric, when sewing patterns have short stitches, the fabric may not be fed smoothly and the thread may get tangled.  
In this case, set the stitch length longer or lay interfacing under the fabric.
- In the following cases, you cannot use twin needle mode. The beep sounds and the indicator light of the twin needle button will flash.
  - a. Pressed the twin needle button while selecting unsuitable patterns.
  - b. After pressing the twin needle button, you selected unsuitable patterns and pressed the start/stop button.
- If you try to set the twin needle mode while the straight stitch needle plate is attached, the needle plate status indicator flashes and a beep sounds.



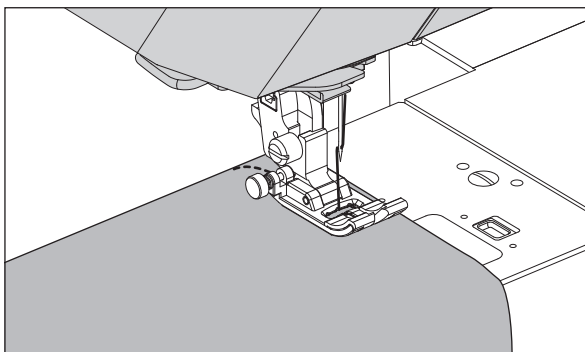
**CAUTION: To prevent accidents.**

- When the straight stitch needle plate is attached in twin needle mode, the beep sounds, E8 appears on the display, and the indicator light of the twin needle button flashes. (See page 65)
- The indicator light of the twin needle button flashes until the twin needle button is pressed to cancel the twin needle mode, and any operation other button is not accepted. When the twin needle button is pressed, the indicator light of the twin needle button goes out, the center needle position straight stitch is automatically selected, and sewing becomes possible.

## FREE ARM SEWING

For free arm sewing, just remove the extension table. You can use this machine as a free arm machine. You can easily sew armhole, lower sleeve edge and hem of trousers etc.

- See page 7 for "REMOVING THE EXTENSION TABLE".
- See page 48 for "BLIND HEM STITCHING".



## MAINTENANCE



**DANGER: To reduce the risk of electric shock.**

Disconnect the power line plug from electric outlet before carrying out any maintenance.

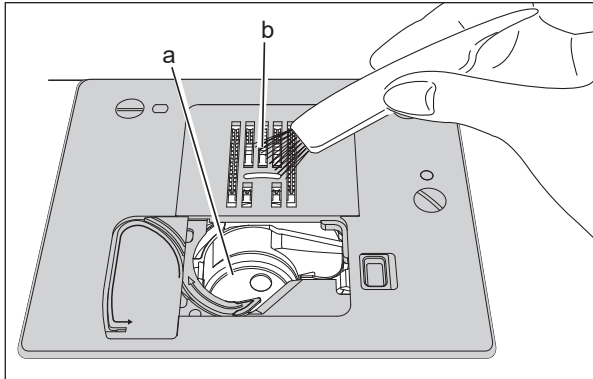
### NOTE:

- \* This machine is using LED light to light up stitching area. If it is not light up, call your local dealer.
- \* There is no need to lubricate this machine.
- \* If the machine gets dirty, soak a soft cloth with a small amount of mild detergent and wipe well. Don't use thinner and benzene.

### A. BOBBIN HOLDER

Remove the bobbin cover and the bobbin, and clean them with the accessory brush.

- a: Bobbin holder
- b: Feed dog



## B. HOOK RACE AND FEED DOG

Remove the needle plate and clean the hook race and the feed dog regularly.



### **CAUTION: To prevent injury to persons.**

Pay attention to the point of the needle.

1. Remove the following items.

- Extension table
- Needle
- Presser foot
- Presser foot holder
- Bobbin cover
- Bobbin

a: Driver for needle plate

b: Screws holding the needle plate

2. Remove the needle plate by lifting up the right side of the plate.

3. Lift up the bobbin holder (c) and remove it.

4. Clean the hook race (d), feed dog and bobbin holder. Also clean them, using a soft, dry cloth.

e: Needle plate sensor

f: Pins

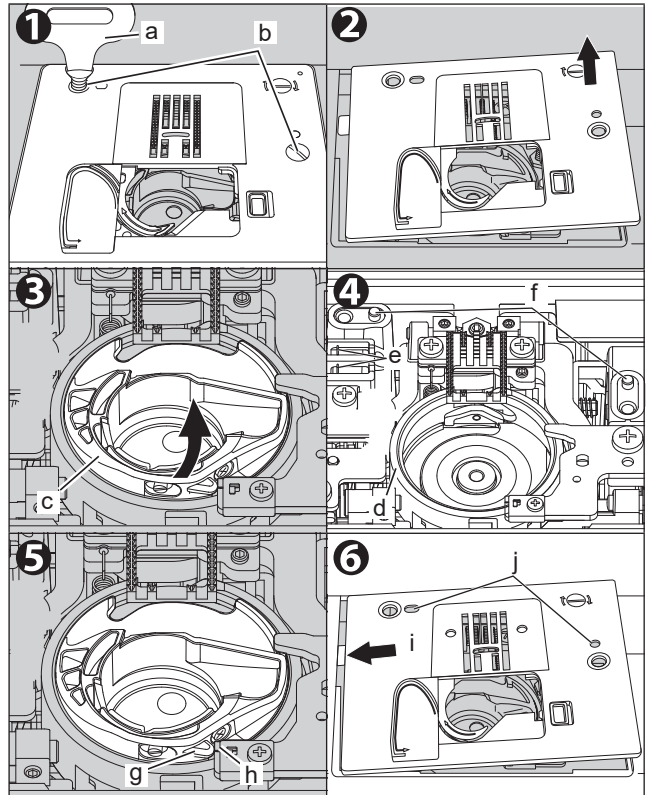


### **CAUTION: To prevent accidents.**







Do not touch the needle plate sensor (e). The sensor may be damaged.

5. Replace the bobbin holder into the hook race so that the tip (g) fits to the stopper (h) as shown.

6. Replace the needle plate inserting the hook (i) and holes (j) into the machine. At that time, align the holes (j) with the pins (f). (See step 4) Retighten the screws.



## ERROR CODES

PROBLEM	CAUSE	CORRECTION	PAGE
	System error.	System error. The thread winding switch inside the sewing machine is damaged. (Contact your local dealer)	-
	Turned on the power switch while pressing the start/stop button. Turned on the power switch while pressing reverse button. Turned on the power switch while pressing slow button. Turned on the power switch while pressing needle up-down button.	Release the start/stop button. Release the reverse button. Release the slow button. Release the needle up-down button.	8, 10 8, 10 8, 11 8, 11
	Turned on the power switch while pressing foot controller.	Release the foot controller.	9
	There is a problem connecting the sewing machine to the embroidery unit. * Displayed only when an embroidery unit (sold separately) is connected.	Turn off the power switch and reconnect the embroidery unit.	2, 8
	The standard needle plate or the straight stitch needle plate has been removed.	Attach the standard needle plate or the straight stitch needle plate, whichever is appropriate. Make sure it fits securely until you hear a click.	40, 41
	The straight stitch needle plate has been attached in twin needle mode.	Remove the twin needle and replace the single needle. Then press the twin needle button to turn off twin needle mode.	14, 31, 62

## HELPFUL HINTS

PROBLEM	CAUSE	CORRECTION	PAGE
<b>Upper thread breaks</b>	Machine not properly threaded.	Re-thread machine.	23
	Thread entwined around the bobbin holder.	Remove entwined thread.	63
	Needle inserted incorrectly.	Re-insert needle.	31
	Thread tension too tight.	Readjust thread tension.	18
	Thread of incorrect size or poor quality.	Choose correct thread.	30
<b>Bobbin thread breaks</b>	Bobbin threaded incorrectly.	Re-thread the bobbin.	22
	Thread entwined around the bobbin holder.	Remove entwined thread.	63
	Dirt on the hook race.	Clean the hook race.	64
<b>Machine skips stitches</b>	Needle inserted incorrectly.	Re-insert needle.	31
	Bent or blunt needle.	Insert new needle.	31
	Incorrect size of needle.	Choose correct size needle for fabric.	30
	(on stretch fabric)	(use stretch needle)	
<b>Fabric puckers</b>	Machine not properly threaded.	Re-thread machine.	23
	Bobbin threaded incorrectly.	Re-thread the bobbin.	22
	Blunt needle.	Insert new needle.	31
	Thread tension too tight.	Readjust thread tension.	18
<b>Machine makes loose stitches or loops</b>	Bobbin threaded incorrectly.	Re-thread the bobbin.	22
	Machine not properly threaded.	Re-thread machine.	23
	Tension not adjusted properly.	Readjust thread tension.	18
<b>Stitch pattern is misformed</b>	Presser foot is not suited for the pattern.	Attach correct foot.	37-18
	Thread tension is not balanced.	Adjust the thread tension.	
<b>Cannot select stitch patterns</b>	The straight stitch needle plate is attached.	Select a pattern that allows use of the straight stitch needle plate. (No.a0, a2, a4, a5) Or, replace the straight stitch needle plate with the standard needle plate.	39
<b>Threader does not thread needle eye</b>	Needle is not raised.	Raise the needle.	11
	Needle inserted incorrectly.	Re-insert needle.	31
	Bent needle.	Insert new needle.	31
<b>Machine does not feed properly</b>	Feed dog are lowered.	Raise the feed dog.	12
	Stitch length not suitable for fabric.	Regulate stitch length.	16
	Lint and dust accumulated around feed dog.	Clean the feed dog area.	64
<b>Needle breaks</b>	Fabric pulled while sewing.	Do not pull fabric.	32
	Needle is hitting the presser foot.	Select correct foot and pattern.	37-
	Needle inserted incorrectly.	Re-insert needle.	31
	Incorrect size needle or thread for fabric being sewn.	Choose correct size needle and thread.	30
<b>Machine runs with difficulty</b>	Dirt or lint accumulated in the hook race and feed dog.	Remove the needle plate and bobbin holder and clean the hook race and feed dog.	64



PROBLEM	CAUSE	CORRECTION	PAGE
<b>Machine will not run</b>	Cord not plugged into electrical outlet.	Insert plug fully into outlet.	8
	Power switch is not turned on.	Turn on the switch.	8
	Upper thread or bobbin thread has broken or missing.	Rethread the upper thread or bobbin thread.	20, 23
	Monitor lamp ...Green Light	Bobbin winder spindle is pushed to the right.	21
	...Red Light	Presser foot is not lowered.	11
	...Red Light	Buttonhole Sewing Mode; - Buttonhole lever is not lowered completely.	49, 53
	...Red Light	- Buttonhole foot is not attached.	49, 53
		The straight stitch needle plate has been attached in twin needle mode.	14, 31, 62
<b>LED not light Beep not sound</b>	Setting is turned OFF.	Turn on setting.	19

## SPECIFICATIONS

<b>Rated voltage</b>	100–240V
<b>Nominal consumption</b>	55W
<b>Frequency</b>	50-60Hz
<b>Light</b>	LED
<b>Machine dimensions (mm)</b> Length x Width x Height	427 x 196 x 300
<b>Net weight (kg)</b>	7.7





