

# Instruction Book

—1600P Series—



# IMPORTANT SAFETY INSTRUCTIONS

When using an electrical appliance, basic safety precautions should always be followed, including the following:  
Read all instructions before using this appliance.

## **DANGER** – To reduce the risk of electric shock:

1. An appliance should never be left unattended when plugged in. Always unplug this sewing machine from the electric outlet immediately after using and before cleaning.
2. Always unplug before replacing a sewing machine bulb. Replace bulb with same type rated 12 V, 5 Watts.

## **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 appliance only for its intended use as described in this instruction book.  
Use only attachments recommended by the manufacturer as contained in this instruction book.
3. Never operate this sewing machine if it has a damaged cord or plug, if it is not working properly, if it has been dropped or damaged, or dropped into water.  
Return this sewing machine to the nearest authorized dealer or service center for examination, repair, electrical or mechanical adjustment.
4. Never operate the appliance with any air opening blocked. Keep ventilation openings of this sewing machine and foot controller free from accumulation of lint, dust and loose cloth.
5. Never drop or insert any object into any opening.
6. Do not use outdoors.
7. Do not operate where aerosol (spray) products are being used or where oxygen is being administered.
8. To disconnect, turn all controls to the off (“O”) position, then remove plug from outlet.
9. Do not unplug by pulling on cord. To unplug, grasp the plug, not the cord.
10. Keep fingers away from all moving parts. Special care is required around the sewing machine needle.
11. Always use the proper needle plate. The wrong plate can cause the needle to break.
12. Do not use bent needles.
13. Do not pull or push fabric while stitching. It may deflect the needle causing it to break.
14. Switch this sewing machine off (“O”) when making any adjustment in the needle area, such as threading the needle, changing the needle, threading the bobbin, changing the presser foot, and the like.
15. Always unplug this sewing machine from the electrical outlet when removing covers, lubricating, or when making any other adjustments mentioned in this instruction book.

## SAVE THESE INSTRUCTIONS

Designs and specifications are subject to change without prior notice.

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## HOW TO SEW

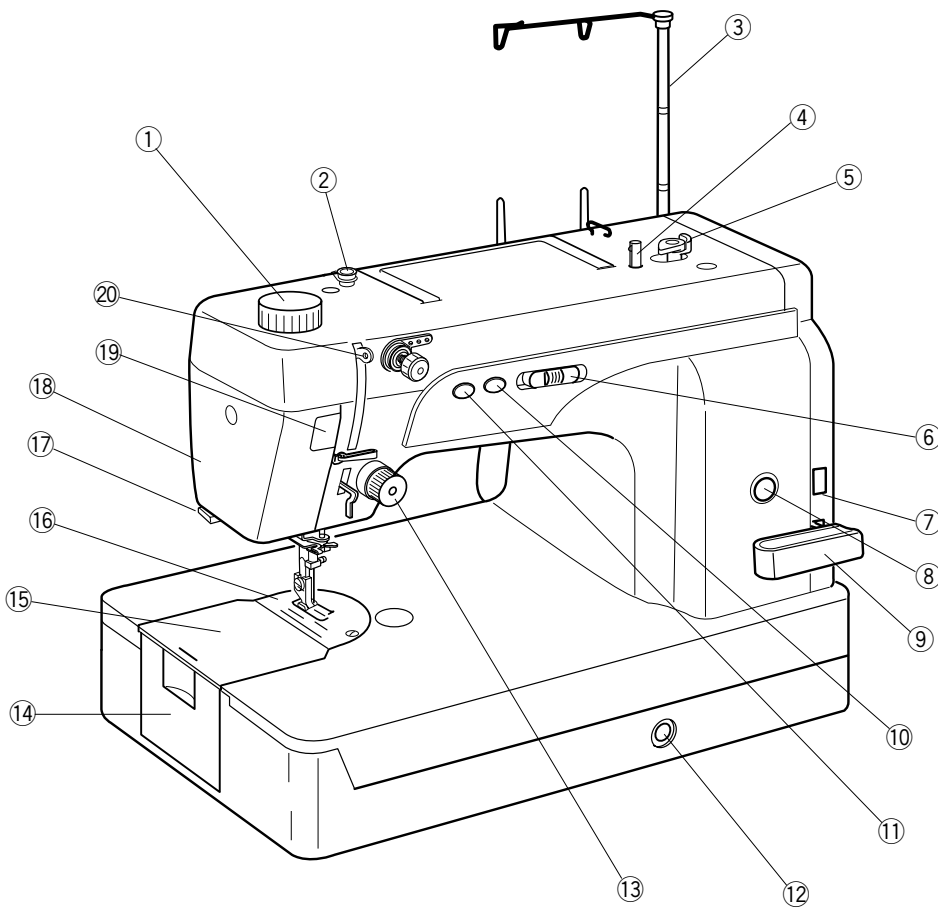
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## CARE & MAINTENANCE

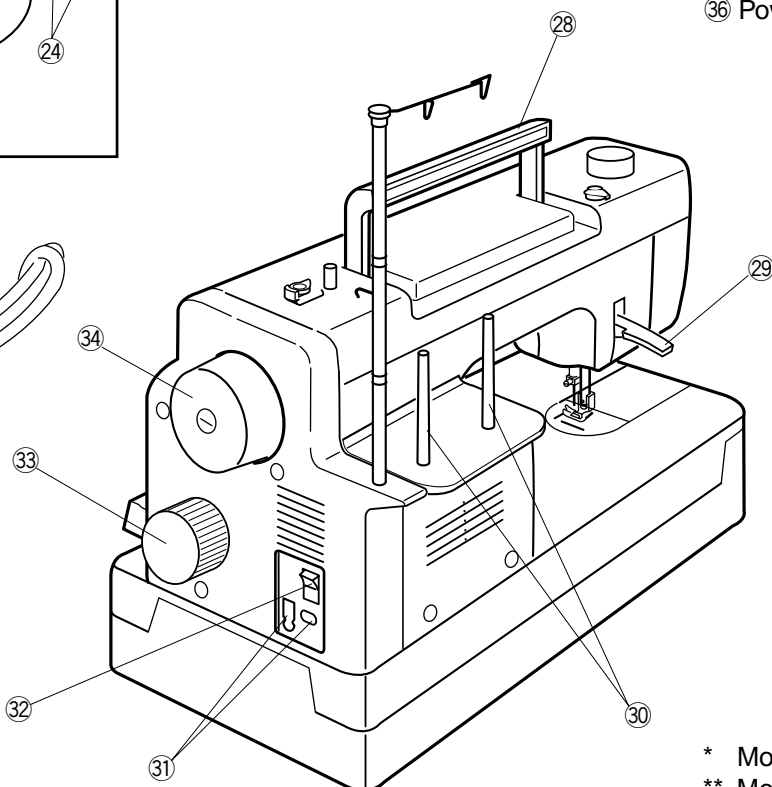
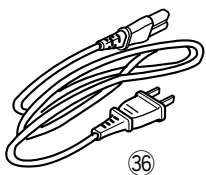
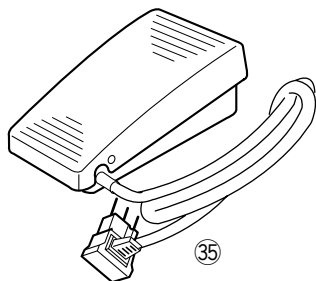
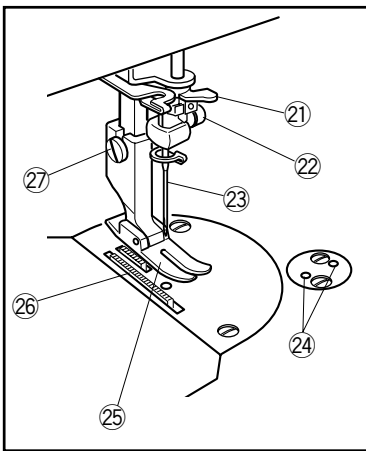
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# KNOW YOUR MACHINE

## Name of Parts

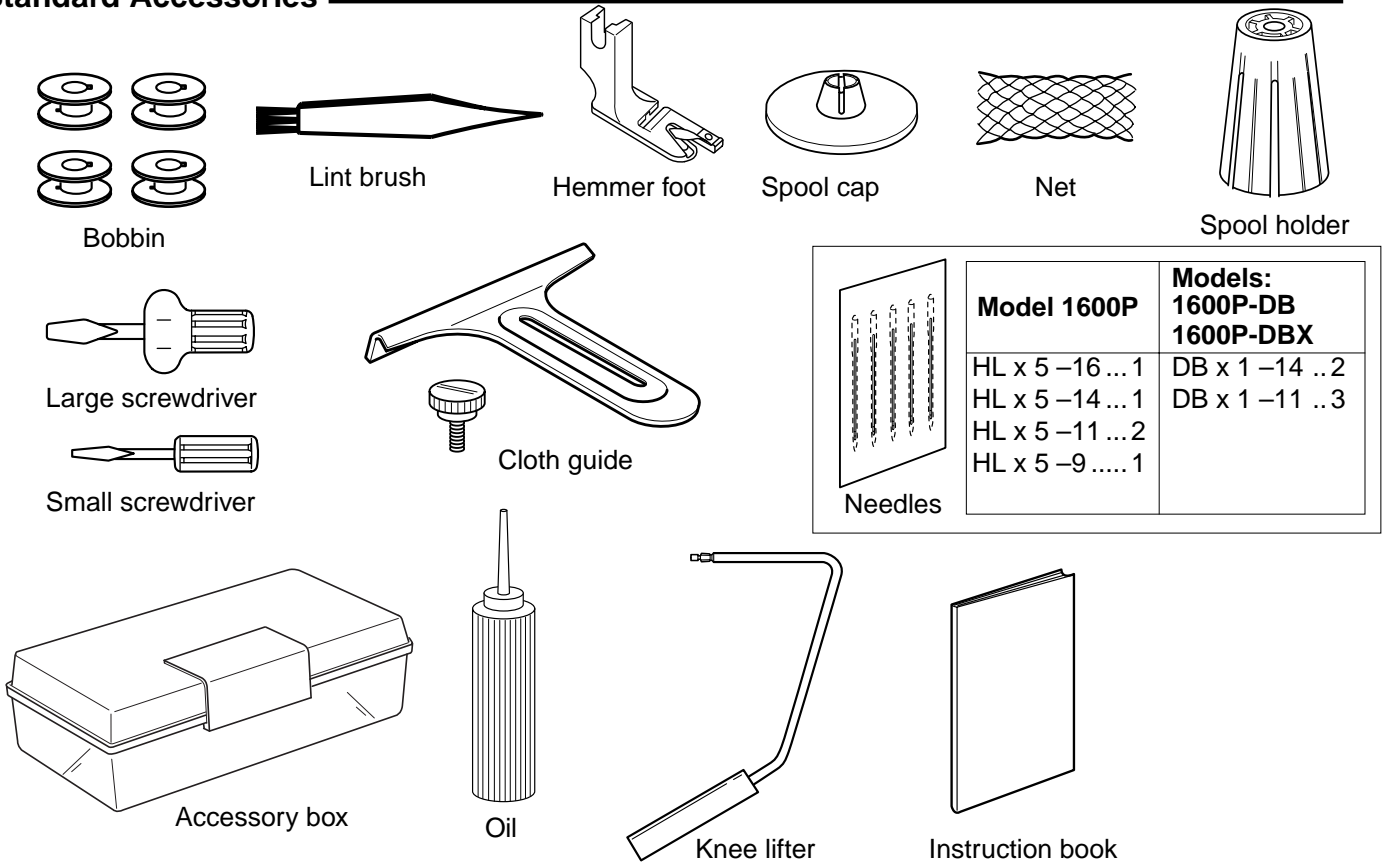


- ① Foot pressure dial
- ② Thread guide
- ③ Retractable thread guide
- ④ Bobbin winder spindle
- ⑤ Bobbin winder stopper
- ⑥ Speed control slider
- ⑦ Stitch length display
- ⑧ \* Thread cutter button
- ⑨ Reverse stitch lever
- ⑩ Bobbin winding button
- ⑪ Up/Down needle button
- ⑫ Knee lifter socket
- ⑬ Thread tension dial
- ⑭ Hook cover
- ⑮ Hook cover plate
- ⑯ Needle plate
- ⑰ Thread cutter
- ⑱ Face cover
- ⑲ Foot pressure indicator
- ⑳ Thread take-up lever
- ㉑ \*\* Needle threader
- ㉒ Needle clamp screw
- ㉓ Needle
- ㉔ Screw holes for attachments
- ㉕ Presser foot
- ㉖ Feed dog
- ㉗ Setscrew
- ㉘ Carrying handle
- ㉙ Presser foot lifter
- ㉚ Spool pins
- ㉛ Machine sockets
- ㉜ Power switch
- ㉝ Stitch length adjustment dial
- ㉞ Handwheel
- ㉟ Foot control
- ㊱ Power supply cord



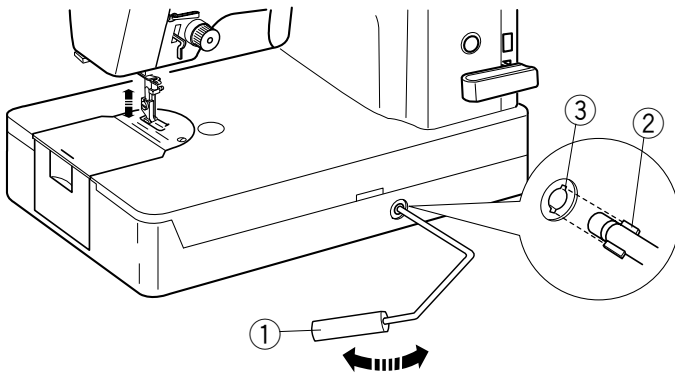
\* Model 1600P and 1600-DBX only  
 \*\* Model 1600P only

## Standard Accessories



## To Attach Knee Lifter

The knee lifter is extremely helpful when sewing applique, patchwork and quilting since it allows you to handle the fabric while your knee controls the presser foot.



Match the ribs on the knee lifter with the notches in the knee lifter socket and insert the knee lifter.

- ① Knee lifter
- ② Ribs
- ③ Notches

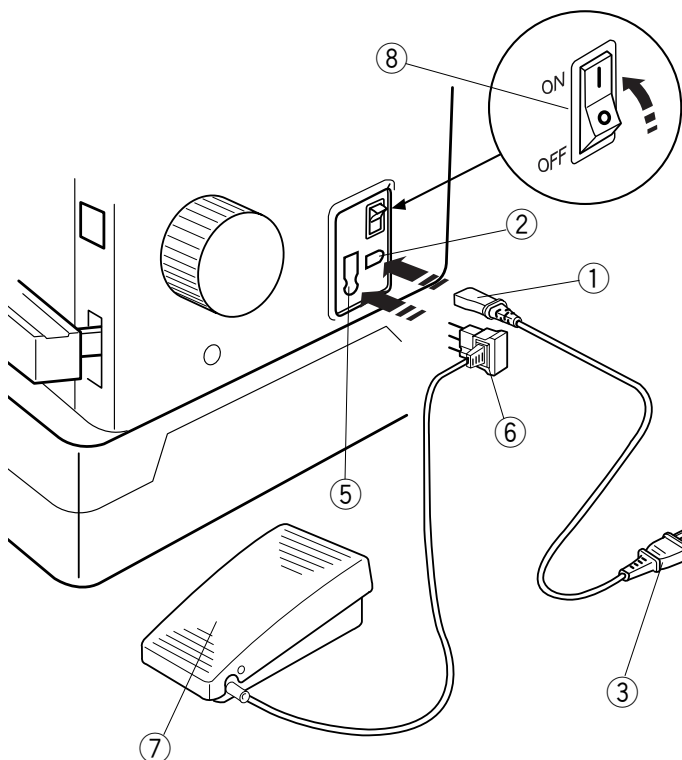
Push the knee lifter with your knee to raise and lower the presser foot.

### NOTE:

Do not touch the knee lifter while sewing, otherwise the fabric will not be fed smoothly.

## GETTING READY TO SEW

### Connecting Machine to Power Supply



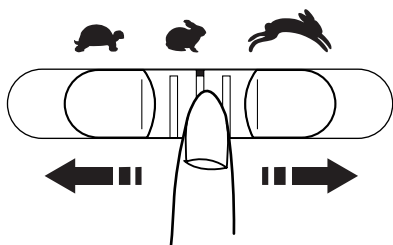
#### CAUTION

Always turn the power switch off and unplug the sewing machine from the electrical outlet when the machine is not in use.

- ① Machine plug
- ② Machine socket for power supply plug
- ③ Power supply plug
- ④ Outlet
- ⑤ Machine socket for foot control
- ⑥ Foot control plug
- ⑦ Foot control

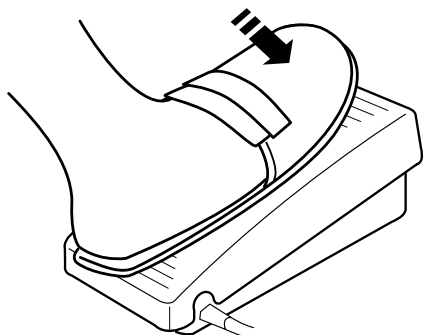
Turn off the power switch.  
Insert the foot control plug ⑥ into the machine socket ⑤.  
Insert the machine plug ① into the machine socket ②.  
Insert the power supply plug ③ into the wall outlet ④.  
Turn on the power switch ⑧.

### Controlling Sewing Speed



#### Speed control slider

Sewing speed can be varied with the speed control slider according to your sewing needs.  
To increase sewing speed, slide it to the right.  
To decrease sewing speed, slide it to the left.



#### Foot control

Sewing speed is varied by the foot control.  
The harder you press down on the foot control, the faster the machine runs.

The machine runs at the maximum speed set by the speed control slider when the foot control is being fully depressed.

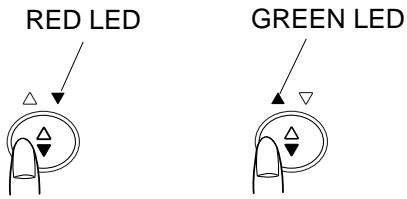
#### Operating Instructions:

The symbol "O" on a switch indicates the "off" position of a switch.

For appliances with a polarized plug (one blade wider than the other): To reduce the risk of electric shock, this plug is intended to fit in a polarized outlet only one way. If it does not fit fully in the outlet, reverse the plug. If it still does not fit, contact a qualified electrician to install the proper outlet. Do not modify the plug in any way.

\* Foot control model TJC-005 is used with sewing machine model 1600P.

## Up/Down Needle Position Button

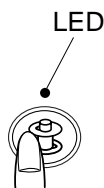


Press this button to bring the needle bar up or down. The RED LED will light up when the needle is down. The GREEN LED will light up when the needle is up.

The machine will stop with the needle up or down depending on the needle position determined by this button.

The machine will always stop with the needle up after auto thread cutting or buttonhole sewing.

## Bobbin Winding Button



Press this button to wind the bobbin.

The LED will light up when you shift the bobbin winding stopper toward the bobbin and press this button.

The LED signal will turn off after bobbin winding is finished.

## Thread Cutter Button

\*Model 1600P and 1600-DBX only



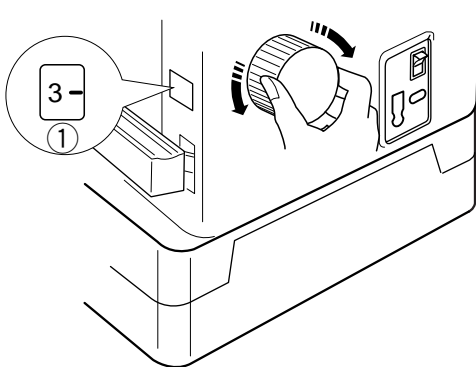
Pressing this button after sewing will trim the threads.

You can continue sewing without pulling the bobbin thread up after trimming the threads.

\* Use the thread cutter on the face cover if the thread is thicker than #30.

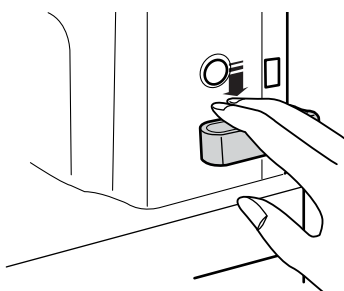
\* The foot control and Up/down needle position button cannot be used while the machine is trimming the threads.

## Stitch Length Adjustment Dial



You can adjust the stitch length from 0 to 6 mm by turning this dial. The stitch length will be shown on the stitch length display ①.

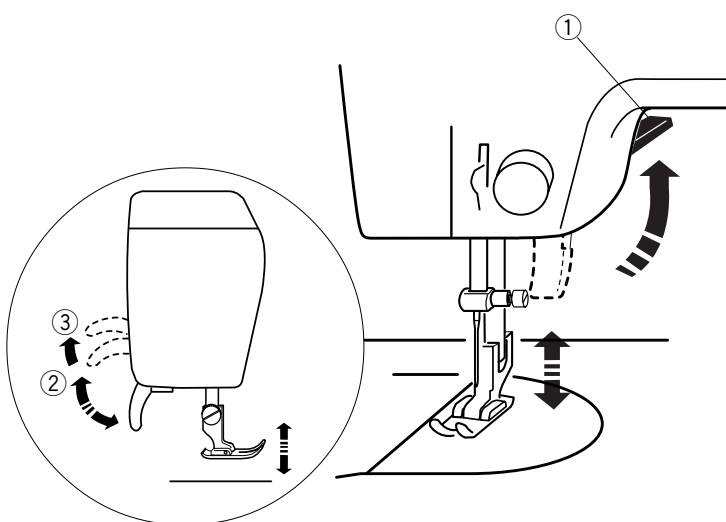
## Reverse Stitch Lever



The machine will sew in reverse while the reverse stitch lever is pressed down. The machine will sew forward if the lever is released.

Use the lever to lock the beginning and end of seams.

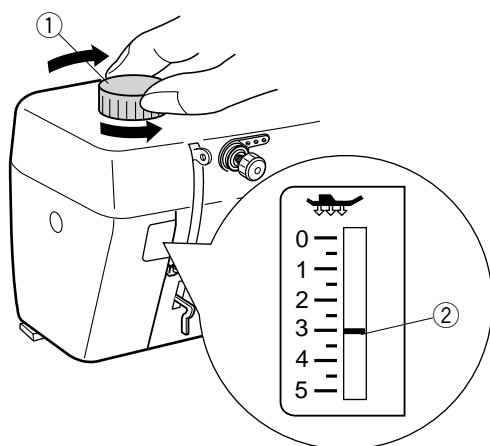
## Presser Foot Lifter



- ① Presser foot lifter
- ② Normal up position
- ③ Highest position

The presser foot lifter ① raises and lowers the presser foot. You can raise it higher ③ than the normal up position ② to help you place thick material under the foot.

## Foot Pressure Dial



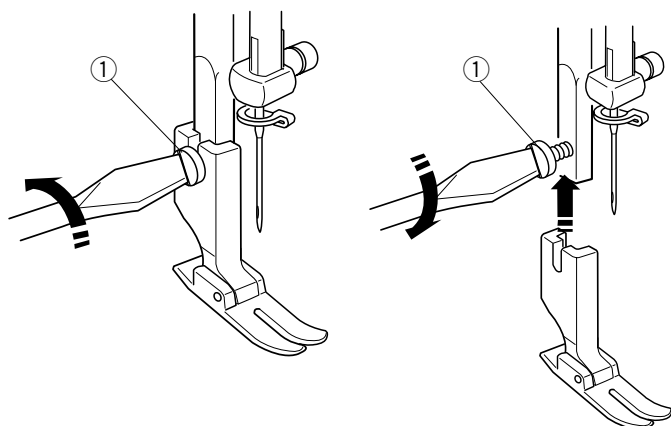
- ① Foot pressure dial
- ② Setting indicator

The foot pressure control dial should be set at “3” for regular sewing. Reduce the pressure for appliqué, sewing on fine synthetics and elastic fabrics. Set the dial at “1” when sewing extra fine fabrics.

### NOTE:

Do not reduce the foot pressure lower than “0”.

## Attaching and Detaching Presser Foot



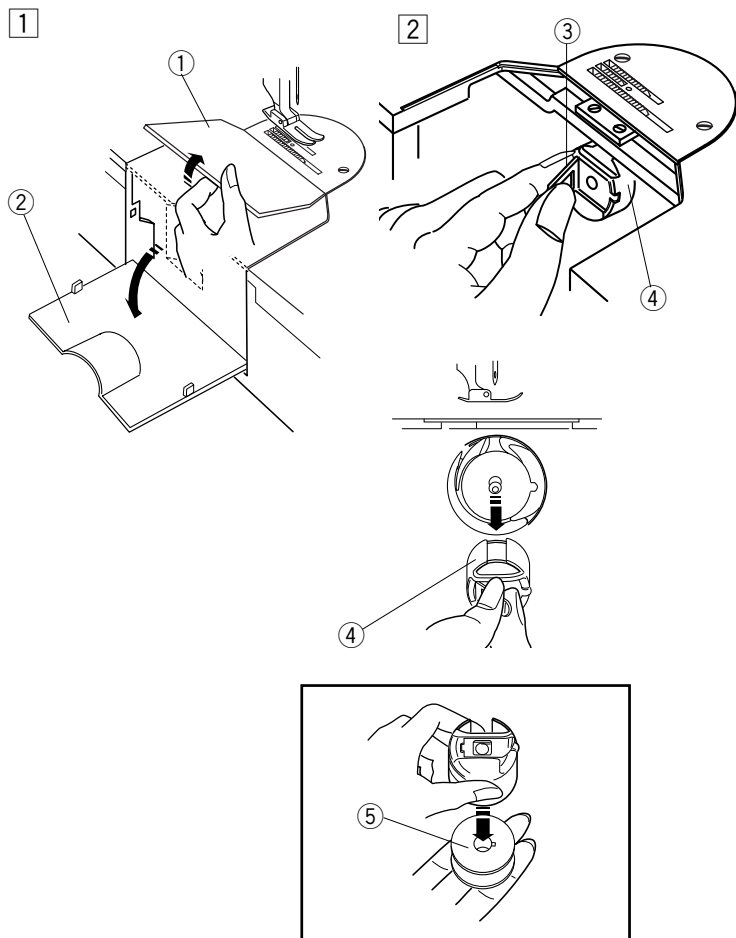
- ① Setscrew

To change the presser foot, raise the presser foot lifter.

Loosen the setscrew ①, choose the proper foot and insert it from the bottom.

Tighten the setscrew ① with the large screwdriver to secure the foot.

## To Remove Bobbin Case and Bobbin



### CAUTION

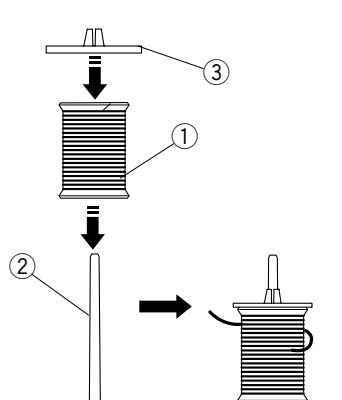
Turn the power switch off and unplug the sewing machine from the electrical outlet

- ① Hook cover plate
- ② Hook cover
- ③ Latch
- ④ Bobbin case
- ⑤ Bobbin

- 1 Raise the needle and presser foot. Remove the hook cover plate ① and open the hook cover ②.
- 2 Pull open the latch ③ of the bobbin case ④. Take the bobbin case straight out of the hook.

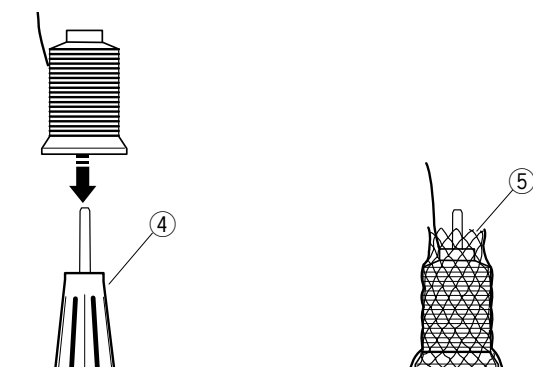
- **To remove the bobbin from the bobbin case:** Release the latch, then drop the bobbin ⑤ out of the bobbin case as illustrated.  
\* Only use this exclusive bobbin for model 1600P.

## Setting the Spool of Thread



- ① Spool of thread
- ② Spool pin
- ③ Spool cap

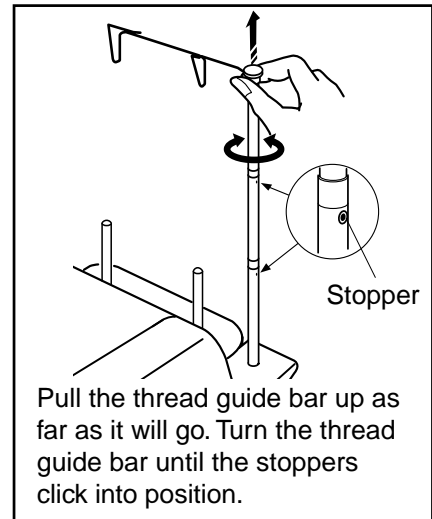
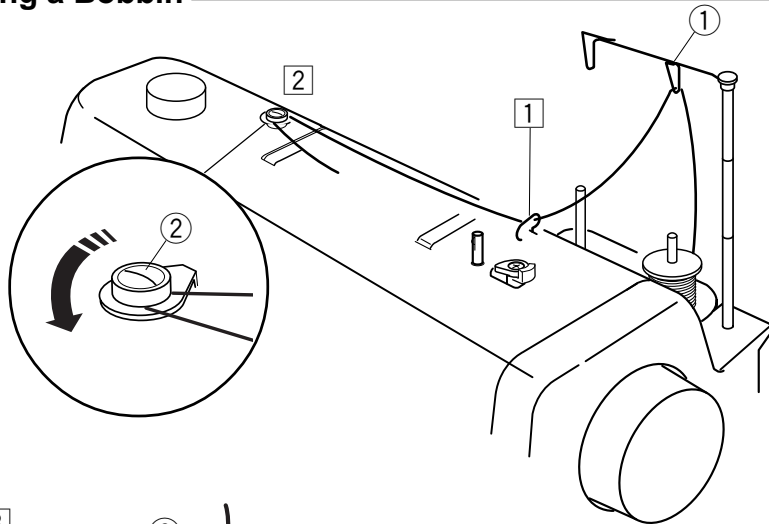
- **Setting a spool of thread:** Place a spool of thread ① on the spool pin ② with the thread coming off the spool as shown. Attach the spool cap ③, and press it firmly against the spool of thread.



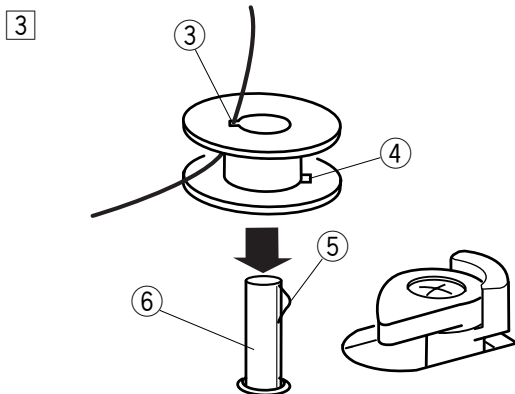
- ④ Spool holder
- ⑤ Net

- **Setting the thread cone:** Place the spool holder ④ on the spool pin, then place the thread cone on the spool holder. Cover the thread cone with the net ⑤ if the spool thread is shaky when sewing.

## Winding a Bobbin



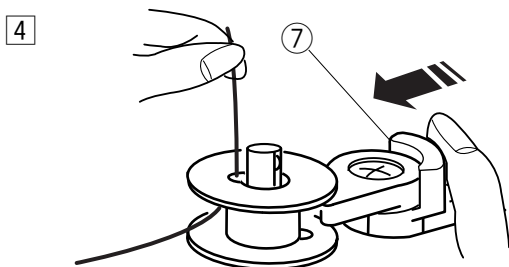
- ① Thread guide bar
- ② Bobbin winding tension disk
- ③ Bobbin hole
- ④ Notch
- ⑤ Spring
- ⑥ Bobbin winder spindle
- ⑦ Bobbin winder stopper



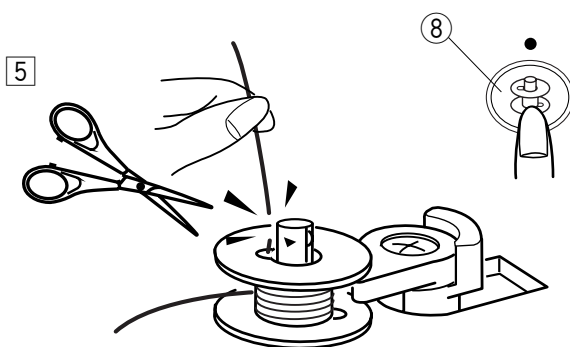
① Pass the thread through the guide on the thread guide bar ① from behind.

② Pass the thread under the bobbin winding tension disk ②.

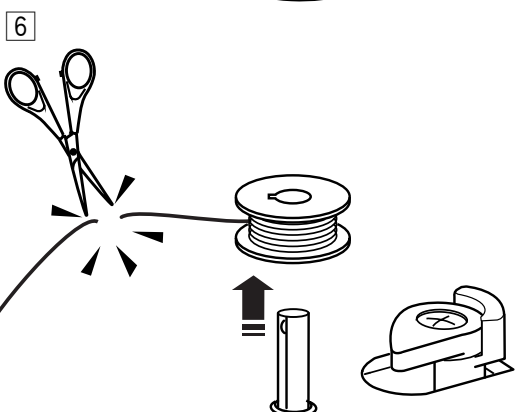
③ Thread through the hole ③ in the bobbin from the inside to the outside. Match the notch ④ with the spring ⑤ on the bobbin winder spindle. Then insert the bobbin on the bobbin winder spindle ⑥.



④ Push the bobbin winder stopper to the left ⑦.



⑤ Hold the free end of the thread in your hand and press the bobbin winding button ⑧. Press the bobbin winding button again to stop the bobbin when it has made several turns, and cut the thread close to the hole in the bobbin.



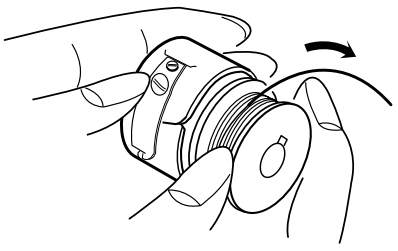
⑥ Press the bobbin winding button again. When the bobbin is fully wound, the machine will stop automatically. Return the bobbin winder stopper to its original position. Cut the thread with a scissors. Remove the bobbin from the bobbin winder spindle.

### NOTE:

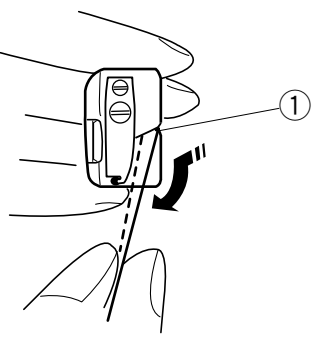
This machine has an exclusive motor for bobbin winding, which allows you to wind a bobbin while stitching.

## Inserting a Bobbin

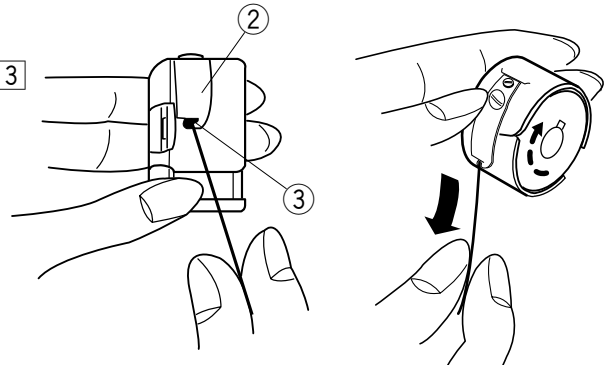
- 1**



**1** Place a bobbin in the bobbin case making sure the thread winds clockwise on the bobbin as illustrated.
- 2**



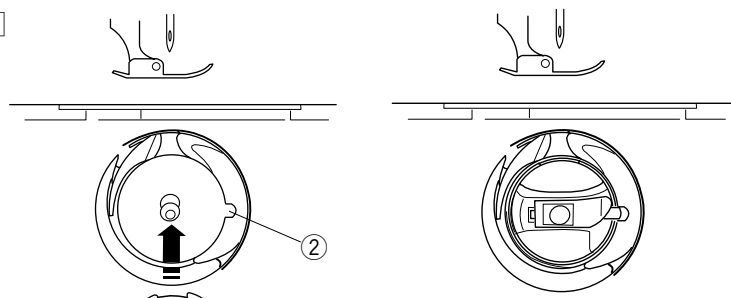
**2** Draw the thread through the slit **1** of the bobbin case.  
**1** slit
- 3**



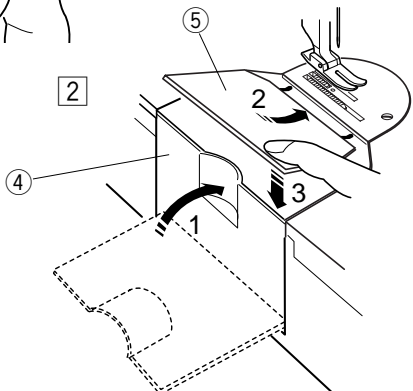
**3** Continue to draw the thread under the tension spring **2** and through the opening **3**. Pull out about 4" (10 cm) of thread. The bobbin should spin clockwise when the thread is pulled out of the bobbin case.  
**2** Tension spring  
**3** Opening

## Inserting the Bobbin Case into the Hook

- 1**



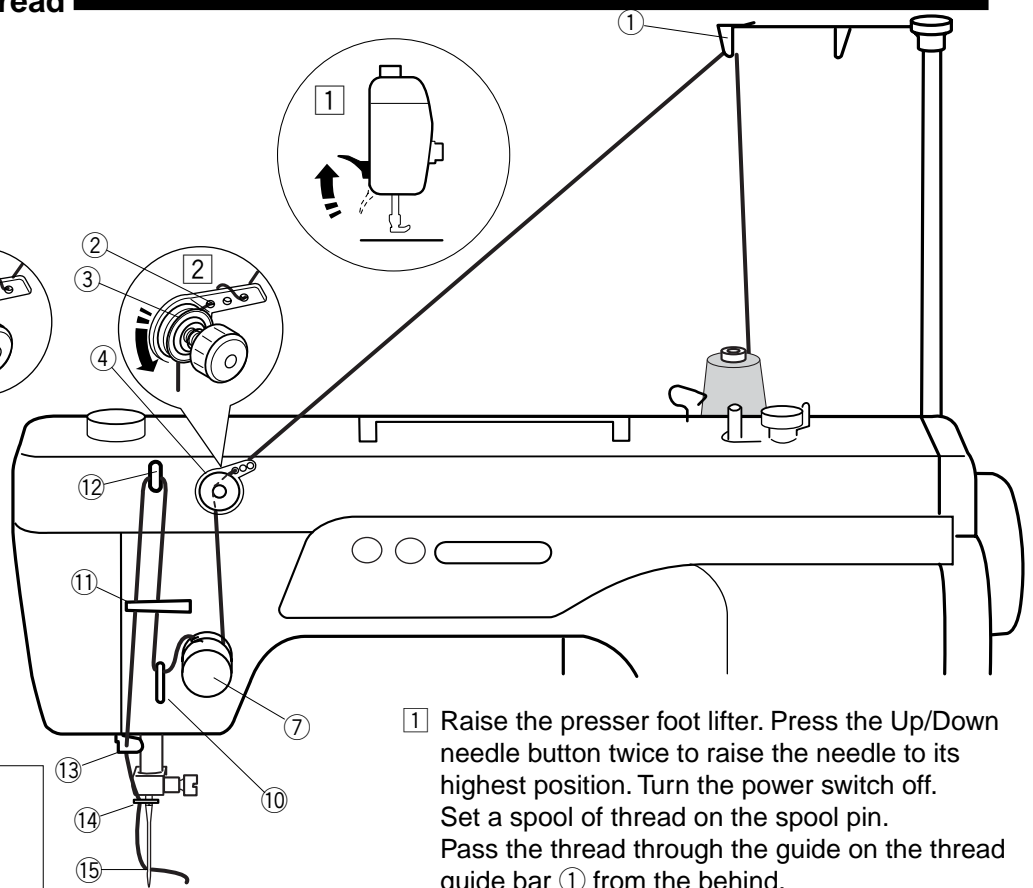
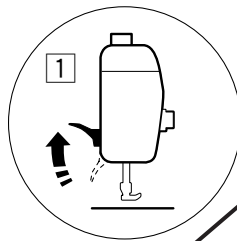
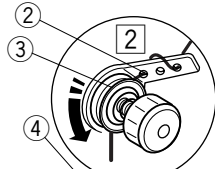
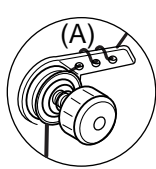
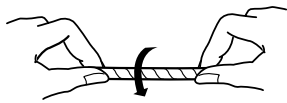
**1** Holding the latch **1** open, position the bobbin case into the hook aligning the slot **2** with the rib **3**. The bobbin case should lock into place when the latch is released.  
**1** Latch  
**2** Slot  
**3** Rib
- 2**



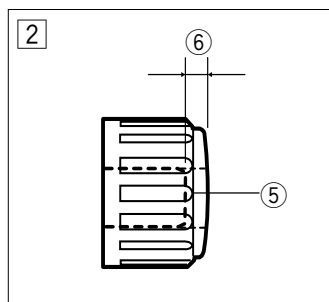
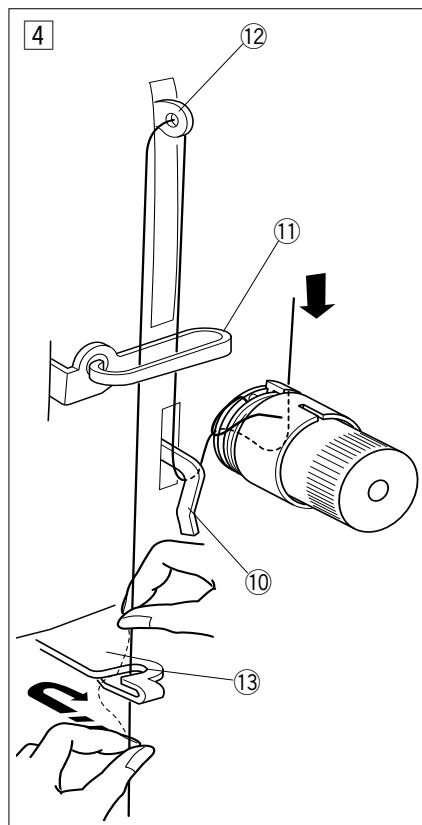
**2** Close the hook cover **4** and attach the hook cover plate **5** in this order.  
**4** Hook cover  
**5** Hook cover plate

## Threading the Needle Thread

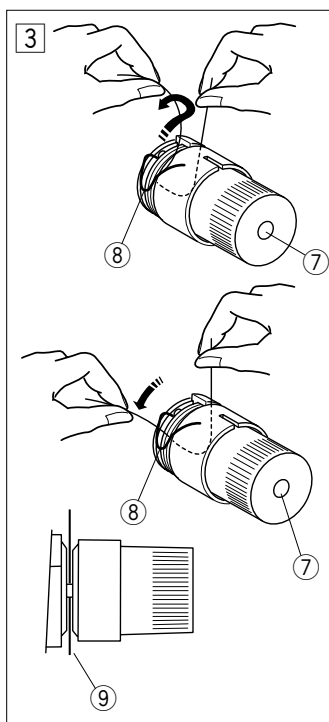
\* Use only left twist thread



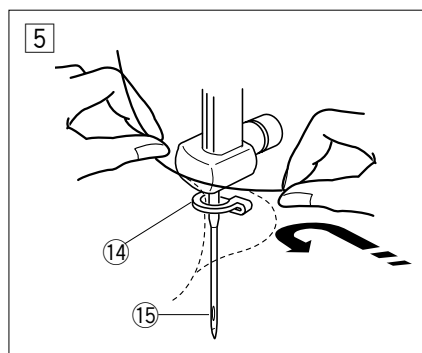
**1** Raise the presser foot lifter. Press the Up/Down needle button twice to raise the needle to its highest position. Turn the power switch off. Set a spool of thread on the spool pin. Pass the thread through the guide on the thread guide bar **1** from the behind.



**2** Pass the thread through the thread guide plate **2**, then draw the thread between the pre-tension disks **3** under the pre-tension dial **4**.  
\* If the thread flutters around while sewing, pass the thread through three holes in the guide plate as illustrated in fig.(A).  
\* The standard setting of the pre-tension dial is that the screw head **5** sinks about 4 mm (1/8" to 3/16") **6**.



**3** Holding the thread with both hands, draw the thread down and around the tension dial **7** from right to left. Pull the thread up to insert it between the tension disks **9** and pass it over the tail of the check spring. Then pull the thread down over the loop of the check spring **8**.



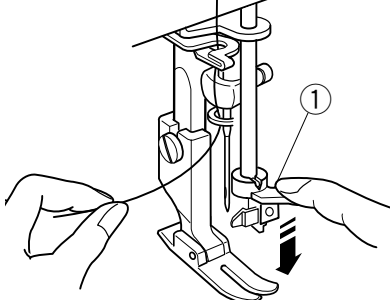
**4** Draw the thread through the thread guide **10**, **11** and eye of the thread take-up lever **12**. Pass the thread through the thread guide **11** again. Holding the thread with both hands, slip the thread into the thread guide **13** as shown.

**5** Draw the thread down to the needle bar thread guide **14**, then pass the thread through the needle **15**.  
For model 1600P, use the built-in needle threader (see page 11).

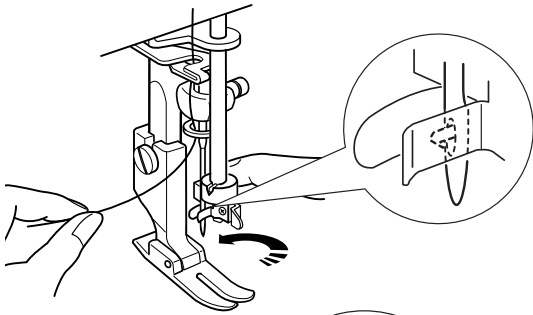
## Built-in Needle Threader

\*Model 1600P only

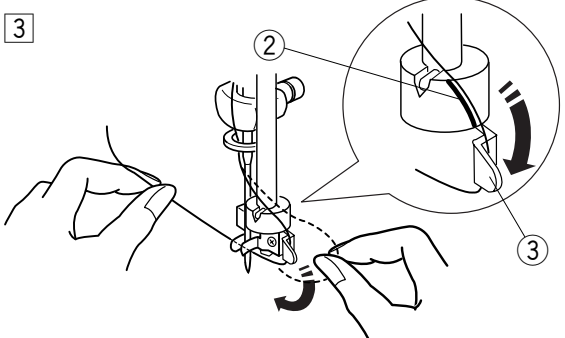
- 1**



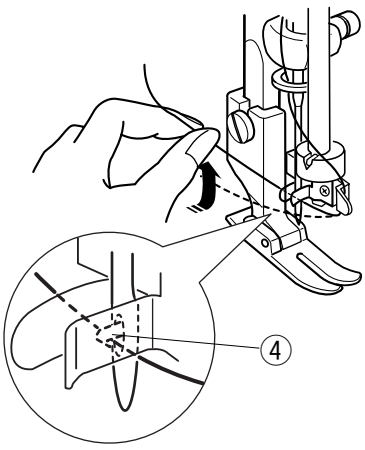
Lower the presser foot. Press the Up/Down needle button twice to raise the needle to its highest position. Turn the power switch off. Push down the needle threader knob ① as far as it will go.
- 2**



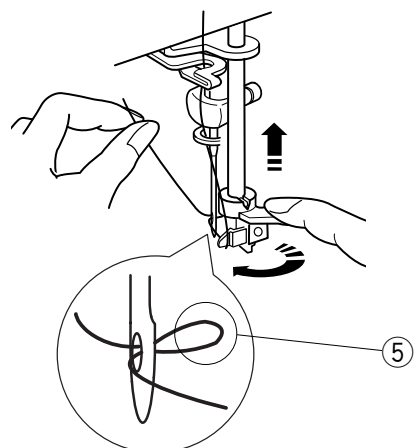
Turn the knob ① in the direction of the arrow to insert the hook into the needle eye. The hook ④ comes out through the needle eye as illustrated.
- 3**



Holding the thread with both hands, draw the thread along the thread path ②. Then hook the thread around the guide ③.
- 4**



Draw the thread under the hook ④. Hold the end of thread with your hand while pulling up the thread lightly in the direction of arrow.
- 5**



Turn the knob in the direction of the arrow as shown, drawing the thread loop ⑤ through the needle. Release the threader knob slowly. Then pull the thread loop ⑤ to the right.

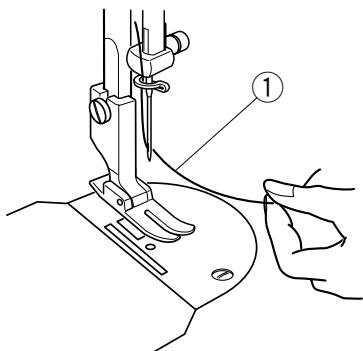
The needle threader may not work well with these combinations.

Needle	
#9	#20, #30, #50, #60
#11	#20, #30
#14	#16, #20, #30

## Drawing up the Bobbin Thread

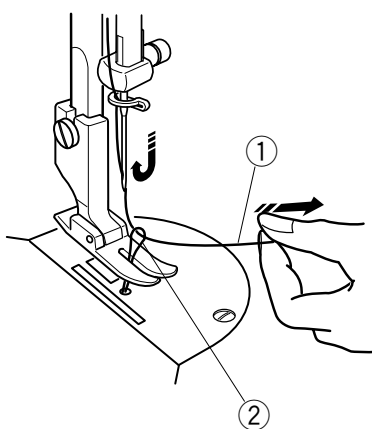
---

1



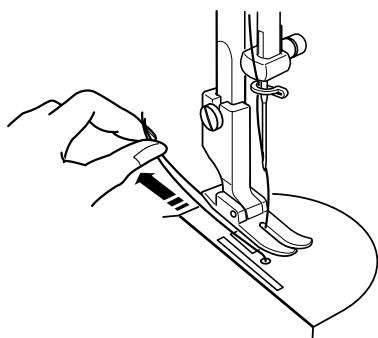
1 Hold the needle thread ① lightly with your left hand.

2



2 Turn the switch on. Press the Up/Down needle position button twice to pick up the bobbin thread ②. Pull the needle thread ① to bring up a loop of bobbin thread ②.

3

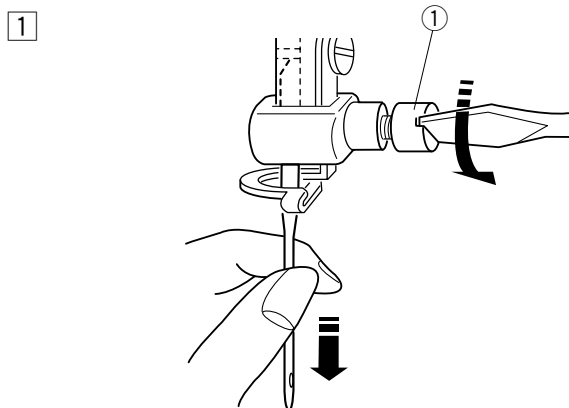


3 Slide 10 cm (4") of both threads to the rear under the presser foot.

## Changing the Needle for Model 1600P

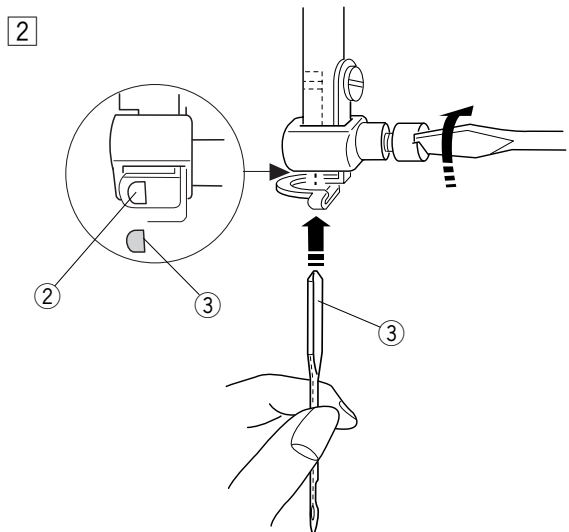
### CAUTION

Turn the power switch off and unplug the machine before changing the needle.



- 1 Turn the power switch off. Lower the presser foot. Turn the needle clamp screw ① counterclockwise with the large screwdriver. Loosen the screw and remove the needle from the needle clamp.

① Needle clamp screw



- 2 Insert a new needle into the needle clamp ② with the flat side ③ to the right, pushing it up as far as it will go.

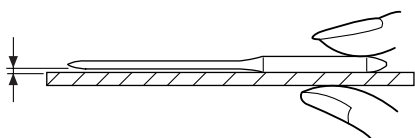
Tighten the clamp screw ① firmly.

② Needle clamp

③ Flat side

\* Use an HL x 5 needle

### To Check the Needle



To determine if the needle is defective, place the flat side of needle on something flat (a needle plate, piece of glass, etc.). The gap between the needle and the flat surface should be consistent.

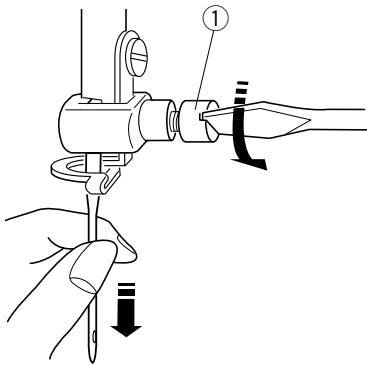
Never use a blunt or blunt needle, as it may cause skipped stitches or thread breakage. Defective needles can ruin the fabric. Always purchase good quality needles. Change needles often.

### Thread and Needle Chart

	Fabrics	Thread	Needle (HL x 5) size
<b>Light weight</b>	Crepe de chine, Voile, Lawn, Organdy, Georgette, Tricot	Fine silk Fine Cotton Fine Synthetic Covered Polyester	9 or 11
<b>Medium weight</b>	Linens, Cotton, Pique, Serge, Double Knits, Percale	50 silk 50 to 80 Cotton 50 to 60 Synthetic Cotton Covered Polyester	11 or 14
<b>Heavy weight</b>	Denim, Tweed, Gabardine, Coating, Drapery and Upholstery Fabric	50 silk 40 to 50 Cotton 40 to 50 Synthetic Cotton Covered Polyester	14, 16 or 18

## Changing the Needle for Model 1600P-DB and 1600P-DBX

1

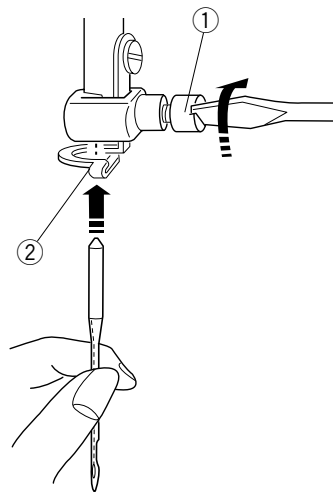
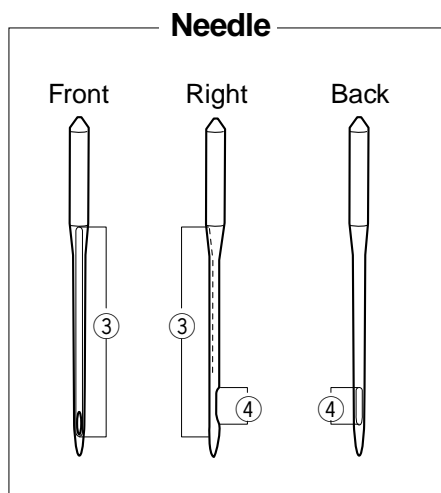


### CAUTION

Turn the power switch off and unplug the machine before changing the needle.

- 1 Turn the power switch off.  
Lower the presser foot.  
Turn the needle clamp screw ① counterclockwise with the large screwdriver.  
Loosen the screw and remove the needle from the needle clamp.  
① Needle clamp screw

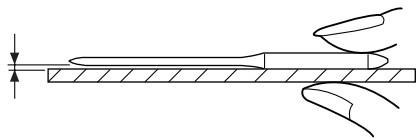
2



- 2 Insert a new needle into the needle clamp ② with the groove ③ to the left, and the small scarf ④ back on the needle to the right. Push the needle up as far as it will go. Tighten the clamp screw ① firmly.  
② Needle clamp  
③ Groove  
④ Scarf

\* Use a DB x 1 needle

### To Check the Needle



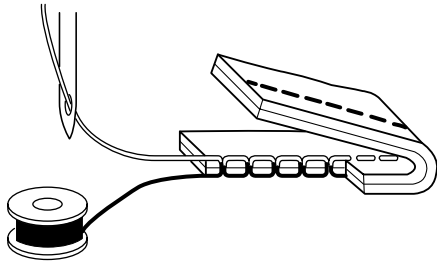
To determine if the needle is defective, place the needle on something flat (a needle plate, piece of glass, etc.). The gap between the needle and the flat surface should be consistent.

Never use a blunt or blunt needle, as it may cause skipped stitches or thread breakage. Defective needles can ruin the fabric. Always purchase good quality needles. Change needles often.

### Thread and Needle Chart

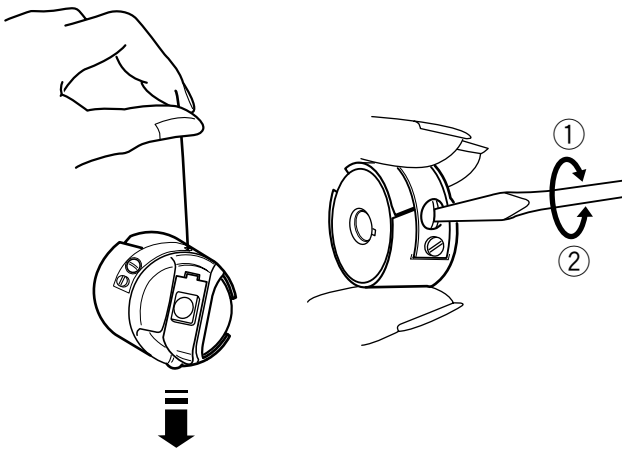
	Fabrics	Thread	Needle (DB x 1) size
<b>Light weight</b>	Crepe de chine, Voile, Lawn, Organdy, Georgette, Tricot	Fine silk Fine Cotton Fine Synthetic Covered Polyester	9 or 11
<b>Medium weight</b>	Linens, Cotton, Pique, Serge, Double Knits, Percale	50 silk 50 to 80 Cotton 50 to 60 Synthetic Cotton Covered Polyester	11 or 14
<b>Heavy weight</b>	Denim, Tweed, Gabardine, Coating, Drapery and Upholstery Fabric	50 silk 40 to 50 Cotton 40 to 50 Synthetic Cotton Covered Polyester	14, 16 or 18

## Balancing Needle Thread Tension



The needle thread and bobbin thread should interlock in the center of two layers of the fabric in straight seams.

## Adjusting Bobbin Thread Tension



Test the bobbin thread tension by holding the end of the bobbin thread and suspending the bobbin case as illustrated. Then jerk the bobbin case once by flicking your wrist.

If the thread comes out of the bobbin case continuously, and the bobbin case keeps falling, the bobbin thread tension is too loose. Make a slight adjustment by turning the screw clockwise with the small screwdriver.

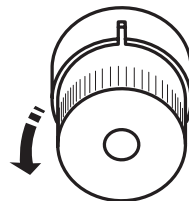
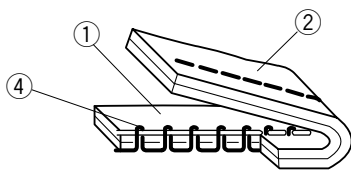
① To tighten

If the thread does not come out of the bobbin case at all, the bobbin thread tension is too tight.

Make a slight adjustment by turning the screw counterclockwise with the small screwdriver.

② To loosen

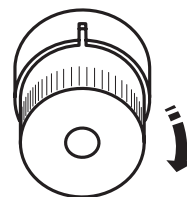
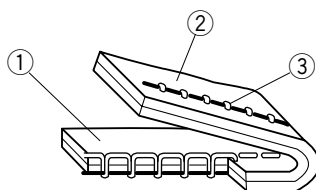
## Adjusting Needle Thread Tension



### Needle thread tension is too tight:

If the bobbin thread ④ shows through on the right side of the fabric ① and it feels bumpy, loosen the needle thread tension by turning the dial to the left.

- ① Right side of the fabric
- ② Wrong side of the fabric
- ③ Needle thread
- ④ Bobbin thread



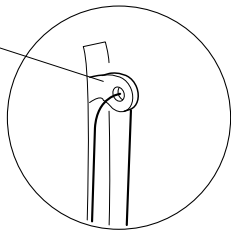
### Needle thread tension is too loose:

If the needle thread ③ loops on the wrong side of the fabric ②, tighten the needle thread tension by turning the dial to the right.

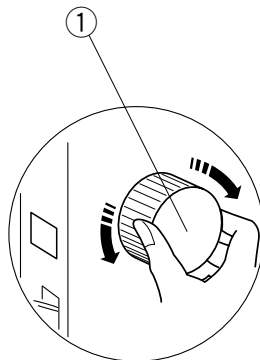
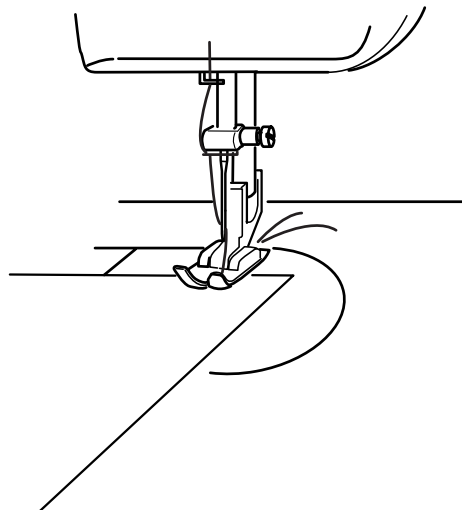
# HOW TO SEW

## Test Stitching

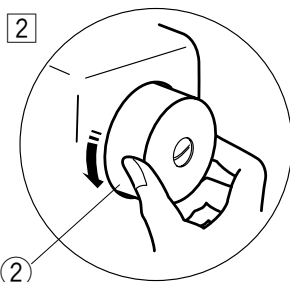
Thread take-up lever



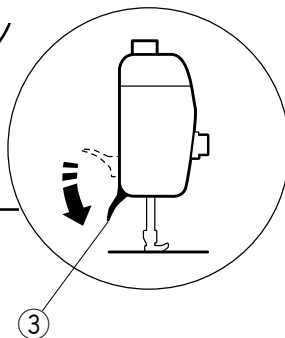
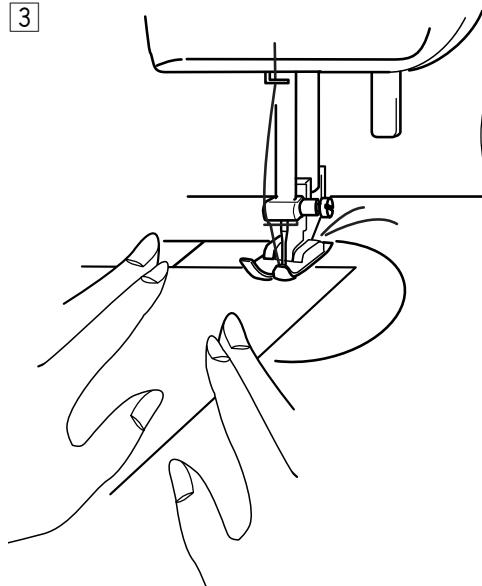
1



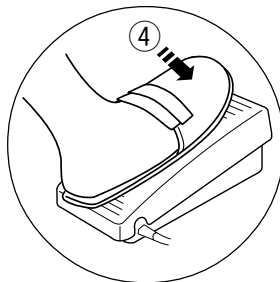
2



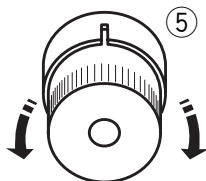
3



3



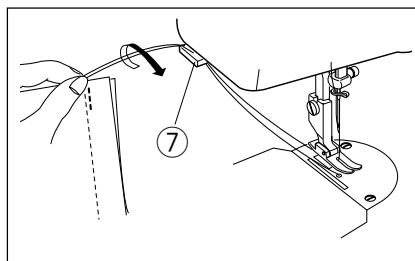
4



5



6



7


### NOTE:

Raise the thread take-up lever to its highest position, otherwise the needle thread may slip out from the needle eye.

Before you start sewing your garment, try test stitching with the same thread and fabric as your garment.

1 Turn the stitch length adjustment dial ① to adjust the stitch length. Slide the needle and bobbin threads to the back under the presser foot. Use the same fabric for actual sewing.

2 Turn the handwheel ② toward you to lower the needle into the fabric.

3 Set the speed control slider to  (slow) until you get used to the sewing speed. Lower the presser foot lifter ③. Press the foot control ④ to start sewing.

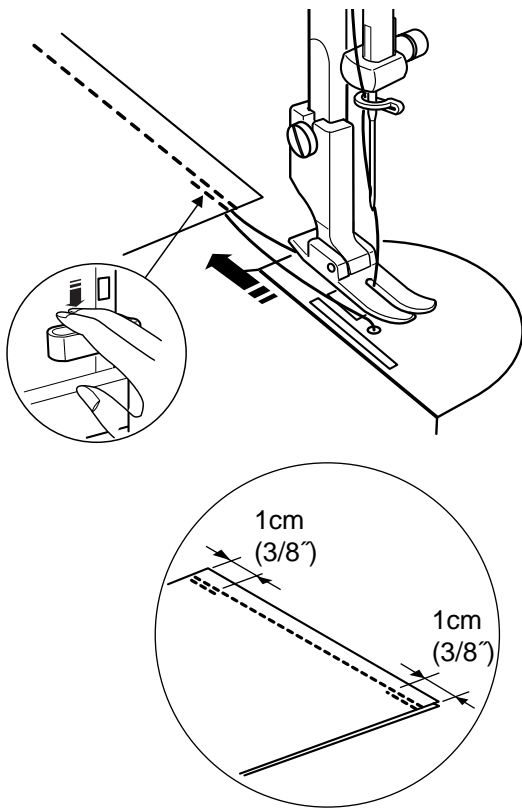
4 Check the sewing result and adjust the needle thread tension ⑤ as necessary.

5 Press the auto thread cutter button ⑥ to trim the threads for model 1600P and 1600P-DBX. You can continue sewing without pulling the bobbin thread up to the needle plate after trimming the threads.

\* Use the thread cutter ⑦ on the face cover if:  
– the sewing machine is model 1600P-DB.  
– the thread is thicker than #30.

## Securing a Seam

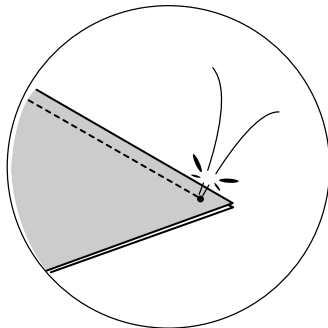
### • By reverse stitching



The machine will sew in reverse as long as the reverse stitch lever is pressed.

Secure the beginning and end of a seam by sewing in reverse for about 1 cm (3/8").

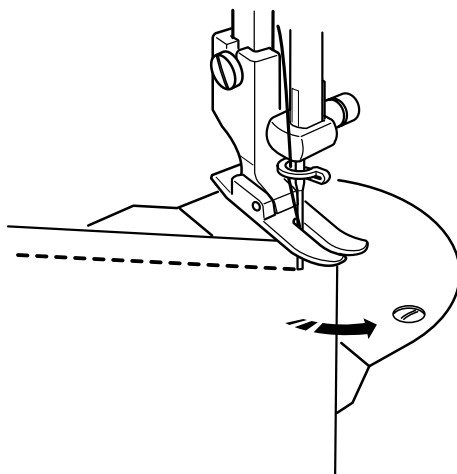
### • By knotting the threads



Pull the bobbin thread to bring the needle thread to the wrong side of fabric.

Tie the threads together. Trim the remaining threads.

## Turning a Square Corner



Stop the machine a few stitches before the end of the seam.

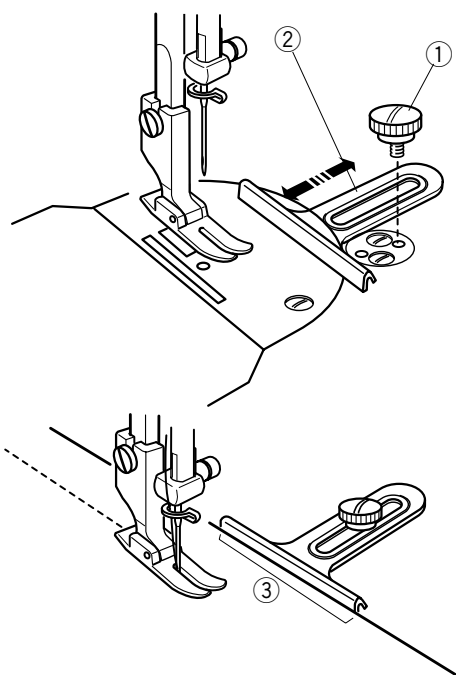
Press the up/down needle button a few times until the needle falls on the end of the seam.

Raise the presser foot.

Pivot the fabric around the needle to change the sewing direction.

Lower the presser foot and start sewing in a new direction.

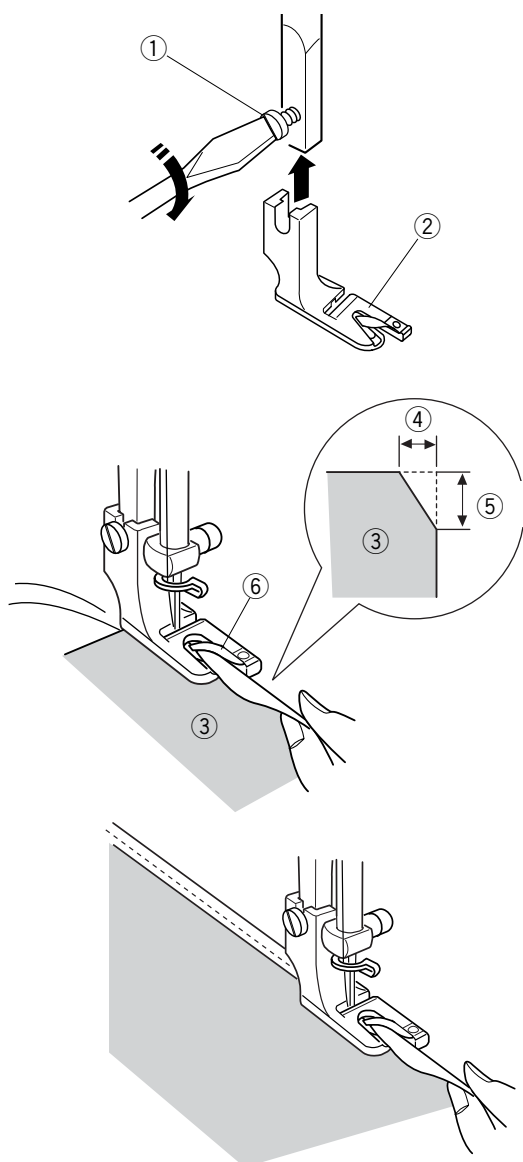
## Using the Cloth Guide



Attach the cloth guide to the needle plate with the screw ①.  
Adjust the position of the cloth guide ② and tighten the screw ①.

Place the fabric with its edge ③ against the cloth guide and sew.

## Rolled Hem



Attach the hemmer foot ② to the presser foot bar. Tighten the setscrew ① using the large screwdriver.

- ① Setscrew
- ② Rolled hem

Fold the edge of the fabric twice, 6 cm (2 3/8") in length and 0.3 cm (1/8") in width.  
Trim the corner 0.5 cm (3/16") ④ by 0.8 cm (1/4") ⑤ for easier insertion of the hem into the foot.

- ③ Wrong side of the fabric
- ④ 0.5 cm (3/16")
- ⑤ 0.8 cm (1/4")
- ⑥ Curl of the foot

Position the fabric aligning the edge of hem with the curl of the foot ⑥.

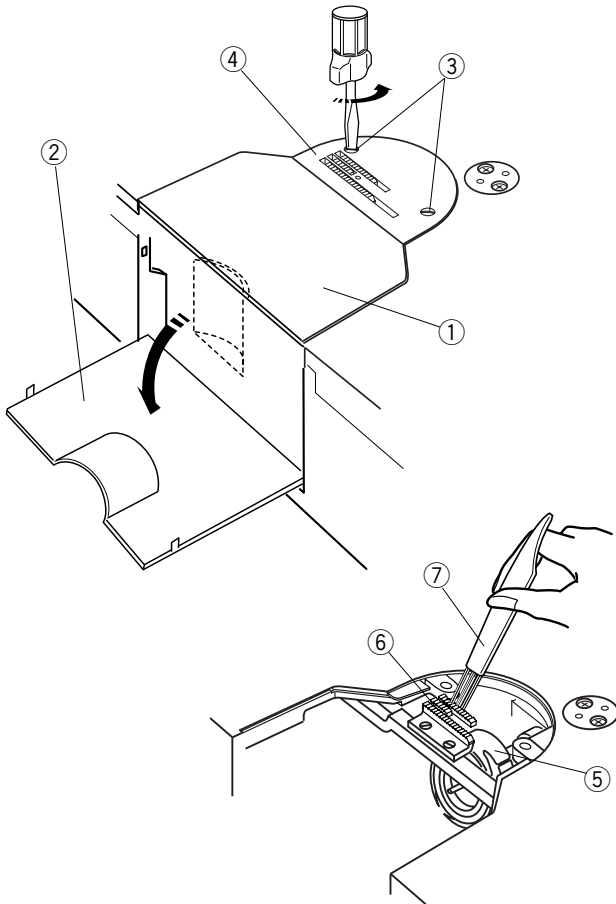
Lower the foot and sew 1–2 cm (1/2"–1") while pulling both threads to the back.

Stop the machine and lower the needle into the fabric. Raise the foot and insert the folded portion of the fabric into the curl of the foot.

Lower the foot, and then sew while lifting up the edge of the fabric to keep it feeding smoothly and evenly.

## CARE & MAINTENANCE

### Cleaning the Hook and Feed Dog



#### CAUTION:

Turn the power switch off and unplug the machine before cleaning.

- 1 Remove the needle and presser foot.
- 2 Remove the hook cover plate ① and open the hook cover ②.
- 3 Loosen the setscrew ③ and remove the needle plate ④.
- 4 Clean the hook ⑤ and feed dog ⑥ with a lint brush ⑦.
- 5 After cleaning the machine, attach the needle plate ④, needle and presser foot.

① Hook cover plate

② Hook cover

③ Setscrew

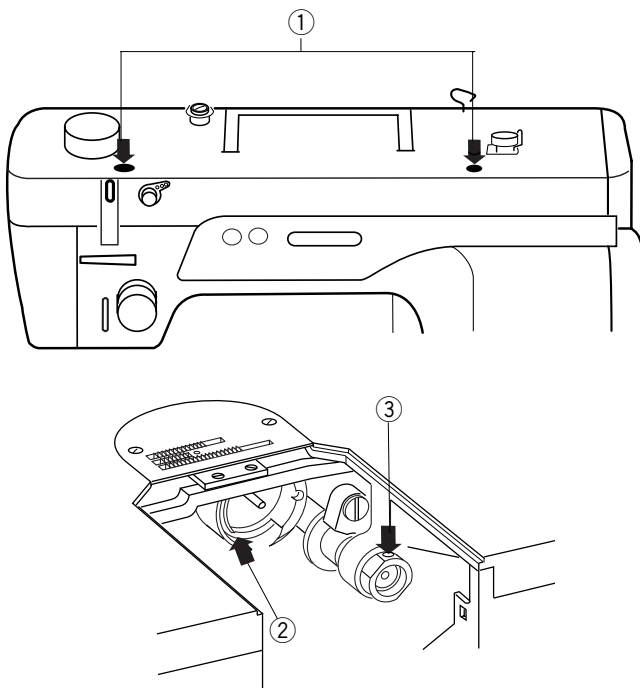
④ Needle plate

⑤ Hook

⑥ Feed dog

⑦ Lint brush

### Oiling the Machine



#### NOTE:

Unplug the machine before oiling.

Oil the points as shown (①, ② and ③) with two or three drops of oil. Use only sewing machine oil MO-70 for this sewing machine.

Oil the machine once a day if you use the machine frequently.

Use a soft, dry cloth to remove excess oil.

Remove the bobbin case from the hook when you oil the hook race.

After oiling, stitch a piece of waste fabric to absorb excess oil.

## Replacing the Light Bulb

### CAUTION:

Turn the power off before replacing the light bulb.  
The bulb could be HOT, wait until it has cooled down before touching it.

- ① Setscrew
- ② Face cover
- ③ Lamp socket
- ④ Light bulb

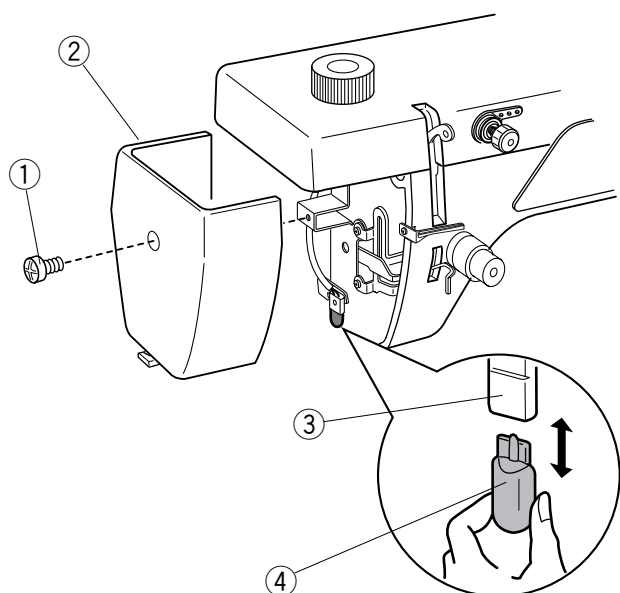
### To remove:

Remove the setscrew ①.  
Remove the face cover ②.  
Pull out the bulb ④ from the lamp socket ③.

### To replace:

Insert a new bulb into the opening of the socket ③.  
Attach the face cover ② with the setscrew and cap.

Replace the bulb with the same type, rated 12 V, 5 W.



## Replacing the Light Bulb on the Underside of the Sewing Arm

Lay the machine on its back.

Detach the lamp window ① from the machine with the screw driver as shown.

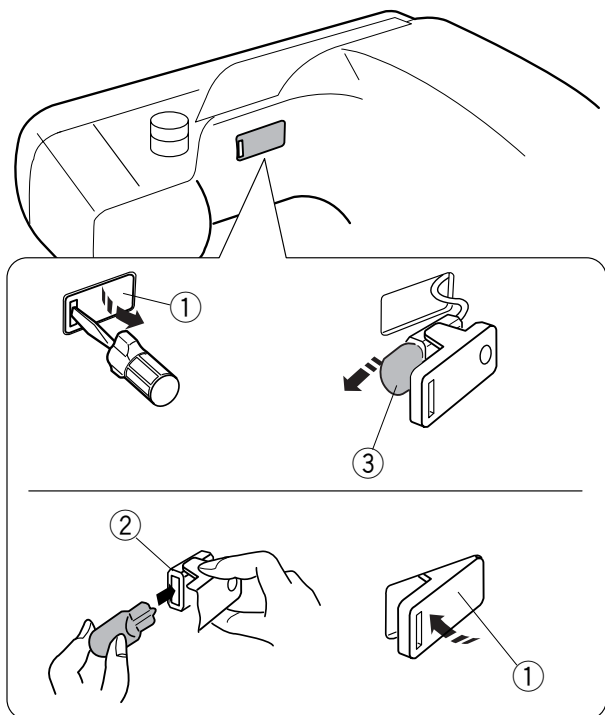
Pull out the light bulb ③ from the socket.

Insert a new bulb into the socket ②.

Attach the lamp window ① into the opening on the machine.

- ① Lamp window
- ② Lamp socket
- ③ Light bulb

Replace the bulb with the same type, rated 12 V, 5 W.



## Troubleshooting

Condition	Cause	Reference
<b>The needle thread breaks.</b>	<ol style="list-style-type: none"> <li>1. The needle thread is not threaded properly.</li> <li>2. The needle thread tension is too tight.</li> <li>3. The needle is bent or blunt.</li> <li>4. The needle is incorrectly inserted.</li> <li>5. The needle thread and the bobbin thread are not set under the presser foot when starting sewing.</li> <li>6. The thread is either too heavy or too fine for the needle.</li> </ol>	<p>See page 10            See page 15            See pages 13, 14            See pages 13, 14</p> <p>See page 12            See pages 11, 13, 14</p>
<b>The bobbin thread breaks.</b>	<ol style="list-style-type: none"> <li>1. The bobbin thread is not threaded properly in the bobbin holder.</li> <li>2. Lint has collected in the hook race.</li> <li>3. The bobbin is damaged and doesn't turn smoothly.</li> </ol>	<p>See page 9            See page 19            Replace the bobbin.</p>
<b>The needle breaks.</b>	<ol style="list-style-type: none"> <li>1. The needle is incorrectly inserted.</li> <li>2. The needle clamp screw is loose.</li> <li>3. The needle is too fine for the fabric being used.</li> </ol>	<p>See pages 13, 14            See pages 13, 14            See pages 13, 14</p>
<b>Skipped stitches</b>	<ol style="list-style-type: none"> <li>1. The needle is incorrectly inserted, bent or blunt.</li> <li>2. The needle and/or fabrics are not suitable for the work being sewn.</li> <li>3. A Blue Tip needle is not used when sewing stretch, very fine fabrics and synthetics.</li> <li>4. The needle thread is not threaded properly.</li> <li>5. A poor quality needle is being used.</li> </ol>	<p>See pages 13, 14</p> <p>See pages 11, 13, 14</p> <p>See page 13            See page 10            Change the needle.</p>
<b>Seam puckering</b>	<ol style="list-style-type: none"> <li>1. The needle thread tension is too tight.</li> <li>2. The needle thread is not threaded properly.</li> <li>3. The needle is too heavy for the fabric being sewn.</li> <li>4. The stitch length is too long for the fabric.</li> </ol>	<p>See page 15            See page 10            See pages 11, 13, 14            Make the stitch shorter</p>
<b>The cloth is not feeding smoothly.</b>	<ol style="list-style-type: none"> <li>1. The feed dog is packed with lint.</li> <li>2. The stitches are too fine.</li> </ol>	<p>See page 19            Make the stitch longer</p>
<b>Stitches form loops below the fabric.</b>	<ol style="list-style-type: none"> <li>1. The needle thread tension is too loose.</li> <li>2. The needle is either too heavy or too fine for the thread.</li> </ol>	<p>See page 15            See pages 11, 13, 14</p>
<b>The machine does not work.</b>	<ol style="list-style-type: none"> <li>1. The machine is not plugged in.</li> <li>2. Thread has been caught in the hook race.</li> </ol>	<p>See page 4            See page 19</p>
<b>The machine does not run smoothly and is noisy.</b>	<ol style="list-style-type: none"> <li>1. Thread has been caught in the hook race.</li> <li>2. Lint has built up in the hook race or bobbin holder.</li> <li>3. The machine needs oiling.</li> </ol>	<p>See page 19            See page 19            See page 19</p>