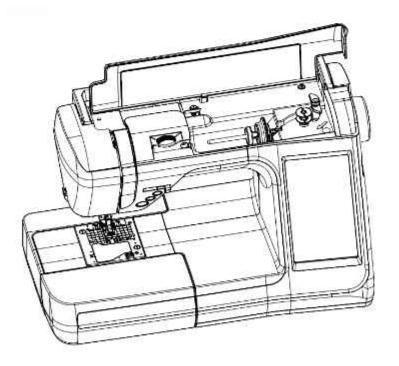
## COMPUTER SEWING MACHINE

# **INSTRUCTION MANUAL**





Please read this instruction manual before using the machine as it contains important operational and safety information. Keep this manual accessible so that you may refer to it at anytime while operating the machine.

#### "IMPORTANT SAFETY INSTRUCTIONS"

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

## "DANGER To reduce the risk of electric shock:"

- 1. The appliance should never be left unattend when plugged in.
- 2. Always unplug this appliance from the electric outlet immediately after using and before cleaning.

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

- 1. Do not allow this appliance to be used as a toy. Close attention is necessary when this appliance is used by or near children. This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.
- Use this appliance only for its intended use as described in this manual. Use only attachments recommended by the manufacturer as contained in this manual.
- Never operate this appliance if it has a damaged cord or plug, if it is not working properly, if it has been dropped or damaged, or dropped into water. Return the appliance to the nearest authorized dealer or service center for examination, repair, electrical or mechanical adjustment.
- 4. Never operate the appliance with any air openings blocked. Keep ventilation openings of the sewing machine and foot control free from the accumulation of lint, dust, and loose cloth.
- Keep fingers away from all moving parts. Special care is required around the sewing machine needle.
- Always use the proper stitch plate. The wrong plate can cause the needle to break.
- Do not use bent needles.
- 8. Do not pull or push fabric while stitching. It may deflect the needle causing it to break.
- Switch the sewing machine off "O" when making any adjustments in the needle area, such as threading needle, changing needle, threading bobbin, or changing presser foot.
- 10. Always unplug the machine from the electrical outlet when removing covers, when lubricating or when making any other user servicing adjustments mentioned in the instruction manual.

- 11. Never drop or insert any object into any opening.
- Do not use outdoors.
- Do not operate where aerosol (spray) products are being used or where oxygen is being administered.
- 14. To disconnect, turn all controls to the off "O" position, then remove plug from outlet.
- 15. Do not unplug by pulling on cord. To unplug, grasp the plug, not the cord.
- 16. Basically, the machine should be disconnected from the electricity supply when not in use.
- 17. If the power cord of this appliance is damaged, it must be replaced with a special cord by your nearest authorized dealer or service center.
- 18. (Except USA/Canada) This machine is provided with double insulation.
  Use only identical replacement parts. See instructions for servicing Double-Insulated machine.

# "SERVICING 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 knowledgeof the system and should only be done by qualified service personnel. Replacement parts for a double-insulated product must be identical to those parts in the product. A double-insulated prod-uct is marked with the words DOUBLE INSULATION or DOUBLE INSULATED.

The symbol may also be marked on the product.

## "SAVE THESE INSTRUCTIONS"

"This sewing machine is intended for household use only."

Congratulations on your purchase of a FEIYUE sewing machine.

Please be sure to read safety precautions in "To use the sewing machine safely" in the Instruction Manual before use to fully understand the functions and operating procedures of the sewing machine so as to use the sewing machine for a long time.

After you have read the Instruction Manual, please be sure to keep it together with the warranty so that you can read it whenever necessary.

# To use the sewing machine safely

Marks and pictographs included in the Instruction Manual and shown on the sewing machine are used so as to ensure safe operation of the sewing machine and to prevent possible risk of injury to the user and other people.

Warning marks are used for different purposes as described below.

A WARNING	Indicates that there is a possible risk of death or serious injury if this mark is ignored and the sewing machine is used in a wrong manner.
A CAUTION	Indicates the operation, etc. which can cause a possible risk of personal injury or physical damage if this mark is ignored and the sewing machine is is used in a wrong manner.

## Pictographs mean the following:

<u>^</u>	Danger warning which is not specified	A	There is a risk of electrical shock	There is a risk of fire		There is a risk of injury to hands, etc.
$\bigcirc$	Prohibited matter which is not specified	(1)	Disassembly/ alteration is prohibited	Do not place fingers under theneedle	(3)	Do not pour oil, etc.
0	Generally required behavior	<b>E</b>	Disconnect the power plug			

## A

#### WARNING

For the combination of the material and the thread and needle, in particular, refer to the explanation table in "Replacement of the needle". If the needle or thread does not match the material used such as in the case that an extra heavy-weight material (e.g.denim) is sewn with a thin needle (#11 or higher), the needle can break resulting in an unexpected personal injury.

## Other precautions

 Do not put the sewing machine under the direct sunlight or in a humid place.



 Do not wipe the sewing machine with solvent such as thinner.

When the sewing machine is soiled, put a small quantity of neutral detergent on a piece of soft cloth and carefully wipe off the sewing machine with it.



Be aware that the following state can take place since the sewing machine incorporates semi-conductor electronic parts and precise electronic circuits.

 Be sure to use the sewing machine in the temperature range from 5°C to 40°C.
 If the temperature isexcessively low, the machine can fail to operate normally.



 This sewing machine will stop due to safety mechanism to prevent the machine from overheating, when it sews slowly and for a long time. In this event, Start and Stop button will not light.

The sewing machine will return to working condition after about 10 minutes.



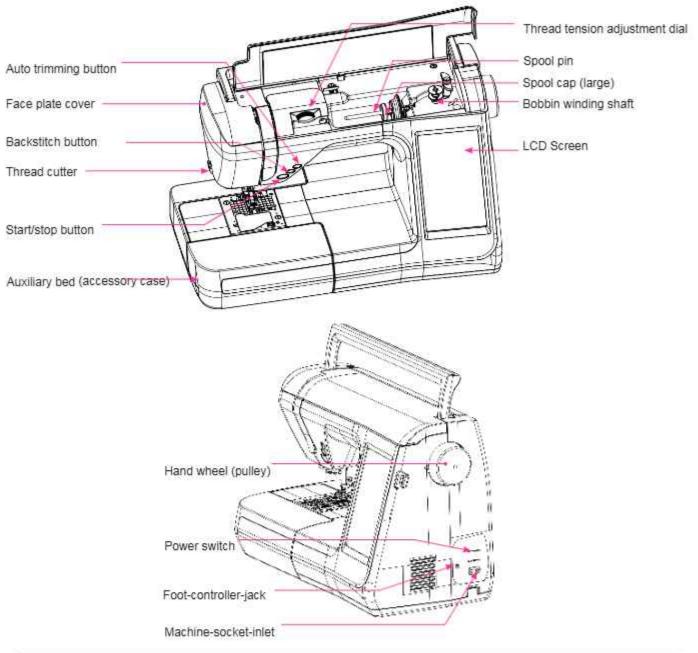
\* The operating temperature of the sewing machine is between 5°C and 40°C. Do not use the

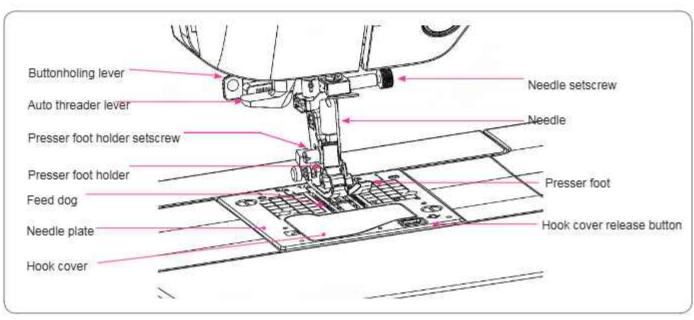
sewing machine under the direct sunlight, near the burning things such as a stove and candle, or in a humid place. By so doing, the temperature in the interior portion of the sewing machine can rise or the coating of the power cord can melt, causing fire or electrical shock.

# CONTENTS

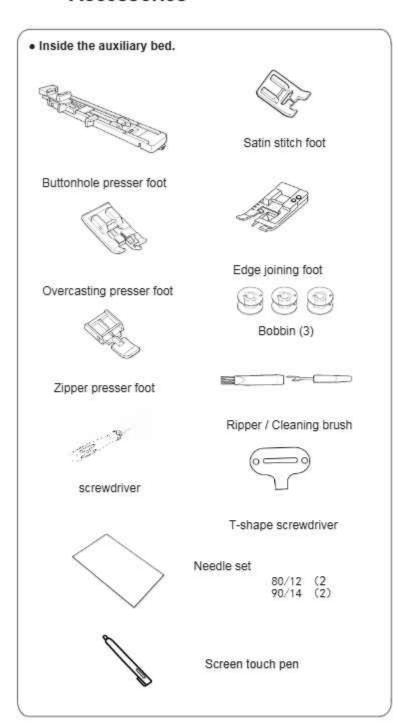
Importantsatetyinstructions	1	Sewing applications	
Principal parts	6		
Accessories	7	Sewing stretch fabrics	32
Basic operations		Overcasting	33
100	201	Blind hem	-34
	-	Sewing buttonhole	-35
Function of operational buttons	8	Reiforcing seams	38
Connecting to the power supply	9	Button sewing	
Speed control	10	Zipper sewing	
Presser foot lifting lever	10	2-7-2-W-1-7-2-W-2-W-2-W-2-W-2-W-2-W-2-W-2-W-2-W-2	
Changing the presser foot	11	Satin stitch sewing	43
Bobbin thread preparation	13	Gathering	-43
Needle thread preparation	15	2 2 2	
Threading the needle thread		Smocking	.44
Automatic needle threader		Quilting, sewing pieces of fabric together and sewing	
Pulling up the bobbin thread		patchwork ·····	-45
Attaching the needle	17	Applique ·····	46
Fabric, hreadandt needletable	17		
How to adjust thread tension	18	Machine Maintenance	.47
How to lower feed dog	18		- 1
Sewing function screen	19		
Names and specific functions of operation button	20	Performance check list	-48
Straight stitch	27		
Zigzag stitch	29		
Overcasting stitch	30	List of stitch patterns	-50
		Specification list	-51

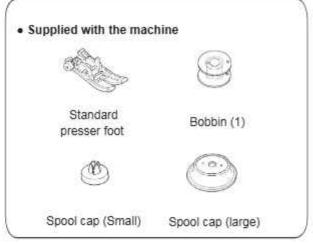
# Principal parts





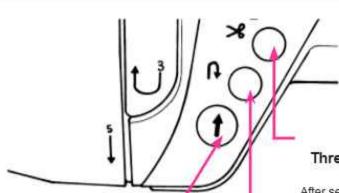
## Accessories







## Function of operational buttons



#### Start/stop button

When pressing this button, machine starts to sew slowly and then up to the speed se by speed controller. When pressing this button again, machine stops with needle at its down position. Color of button indicates machine status.

Green: Ready to start and/or while sewing

Red: Not ready to start (When it is pushed in red condition, needle moves by one stitch.)

Orange: Machine is in bobbin winding con dition.

#### Reverse stitch button

While pressing this button, machine sews reverse (lock stitch).

## Thread trimming button

After sewing, press this button to trim both threads automatically.

#### Notes for thread trimming:

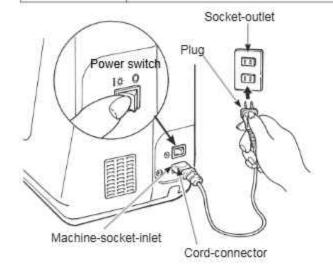
- 1. Do not use thread thicker than No.30.
- After trimming, the stitch can be done without pulling up bobbin thread.
- When sewing again after thread trimming, if you pull up the bobbin thread again and place it underneath the presser foot together with needle thread, you can avoid birds nest on the wrong side of the fabric.
- Regularly clean the machine, as dust in the area of the thread trimming unit may cause malfunction.

## Connecting to the power supply



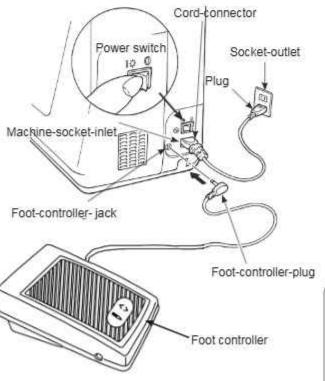
#### Warning

 Disconnect the plug and turn off the power switch (turn to "O") that always sewing machine is not to use. Otherwise, it may cause electric shock or fire.



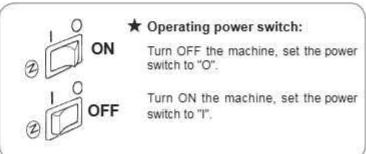
#### ★ Not-using foot-controller that using start/stop-button:

- 1. Turn OFF the power switch (turn to "O")
- 2. Insert cord-connector into machine-socket-inlet.
- 3. Insert plug into socket-outlet.
- 4. Turn ON the power switch, (Turn to "I")

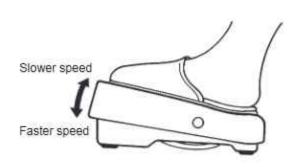


## ★ 脚踏控制器的使用: Using the foot-controller:

- 1. Turn OFF the power switch (turn to "O")
- 2. Insert the foot-controller-plug into the foot-controller-jack.
- 3. Insert cord-connector into machine-socket-inlet.
- 4. Insert plug into socket-outlet.
- 5. Turn ON the power switch: (Turn to "I")
- When the foot controller is plugged in, both start/ stop buttons cannot be used.



<sup>\*</sup> When the needle is in the bottom position, we can step on the back side of the foot-controller to make the needl in top position.



#### \* Foot controller

To run the machine, press the foot controller.

The harder you press, the faster the machine sews.

Speed controller will set the maximum sewing speed.

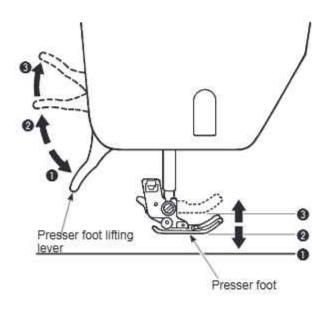
Pressing harder > faster speed

Pressing weaker > slower speed

\* Always clean the foot controller.

It is important that you do not place any objects on the foot controller as it may cause injury to the user and may cause malfunctions.

## Presser foot lifting lever



The presser foot can be up or down position by using the presser foot lifting lever.

Lowered position ..... Presser foot should be lowered when sewing.

Ordinary lift position ..... This position is used for fabric removal and changing the presser foot.

Extra lift position ...... This position is used to put heavy materials underneath the presser foot.

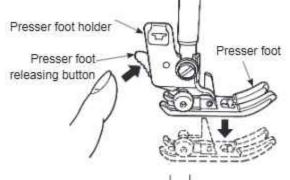
\* Be careful that the presser foot and the needle should not interfere when the needle is in down position and the presser foot is raised to the extra lift position.

## Removing and installing the presser foot



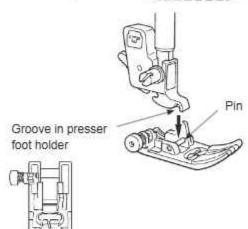
#### Attention

Turn OFF the power switch before replacing the presser foot.



#### \* Removing presser foot

- 1. Raise the needle and presser foot.
- 2. Press the presser foot releasing button to remove the presser foot.



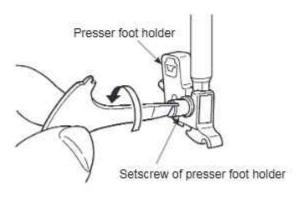
#### ★ Installing presser foot

Align the pin of the presser foot and the groove in the presser foot holder.

Then lower the presser foot holder with the presser foot lifting lever.

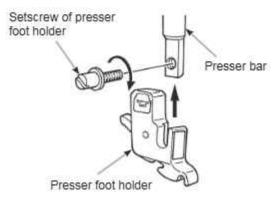
\* Each presser foot has a marking. Use the appropriate presser foot for the stitch pattern to be sewn.

## ■ Removing and installing presser foot holder



#### \* Removing presser foot holder

- 1. Lift the needle and presser foot lifting lever.
- Loosen the setscrew of the presser foot holder by anti-clock-wise and remove the presser foot holder.



#### ★ Installing presser foot holder

Align the screw hole at the presser bar with the hole of presser foot holder (long groove).

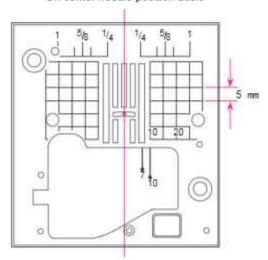
Tighten the setscrew firmly by turning it clockwise.

## ■ The type and application of the presser foot

	Standard presser foot	This is used mainly for straight stitch and zigzag stitches. Use this presser foot especially when sewing heavy-weight materials.
	Zipper presser foot	This is used to attach zippers.
	Overcasting presser foot	This presser foot is used exclusively for overcasting to prevent the cut edge of fabrics from fraying.
	Edge joining presser foot	This presser foot is used for edge joining of trousers and skirts, or sleeves.
	Buttonhole presser foot	This presser foot is used for automatic buttonholing.
( )	Satin stitch foot	This is used for sewing decorative stitches, letters and bar tacks.
	-	-

## \* seam guide line on needle plate

#### On center needle position basis



Align the fabric edge with a seam guide line and sew.

\* Numbers on the guide line show the distance in mm and inches between the center needle position and the guide line. Numbers, 7, 10 and 20 are millimeter. Numbers, 1/4, 5/8 and 1 are inches.

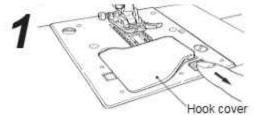
#### Bobbin thread preparation



Attention

Turn OFF the power switch before the bobbin is taking out and/or put into the bobbin case.

#### Taking out the bobbin

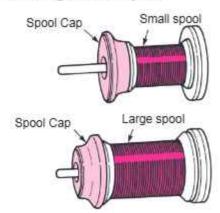


Open the hook cover.



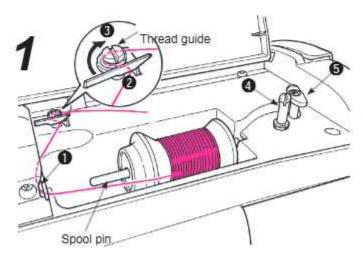
- Take out the bobbin.
- \* If the bobbin has too little thread, do not use it as the thread will get tangled.
- \* Use only the designated bobbin. Other bobbins may cause malfunction.

#### Setting thread spool

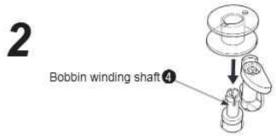


- Place a thread spool to spool pin and a spool cap onto the spool pin.
- Do not use the thread cone with a small amount of thread. This may cause thread tangling and the thread coming out of the eye of the needle when starting to sew.

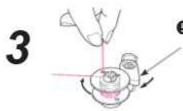
## Winding the bobbin thread



 Lead the thread cross through from guide 1, to guides 2 and (guides in the circle) for bobbin winding.



Set the bobbin on the bobbin winding shaft @.

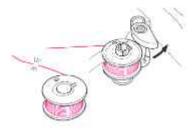


Bobbin winding regulator

 Thread the end of thread through the hole in bobbin, pull the end gently.

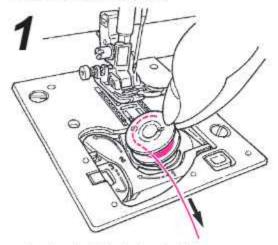
Press the bobbin winding regulator 6 towards the bobbin. Start/stop button now becomes orange. When start/stop button is pressed, machine starts to wind the bobbin thread.



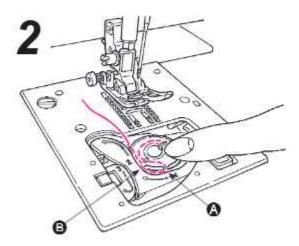


- When winding is finished, the shaft stops automatically, the bobbin winding regulator moves to right and return to the original position. Remove the bobbin from the bobbin winding shaft and cut the thread.
- \* Bobbin winding will automatically stop even while winding, when the winding speed is reduced due to a load to the bobbin winding motor caused by thread tangling.

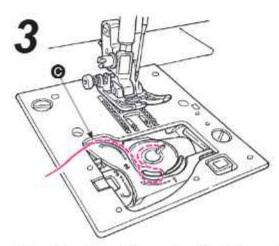
## Setting the bobbin



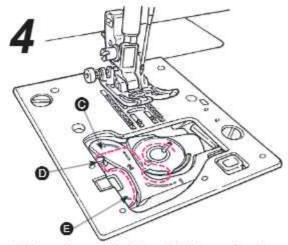
- Put the bobbin in the bobbin case.
- Place the bobbin so that thread winds counter-clockwise.



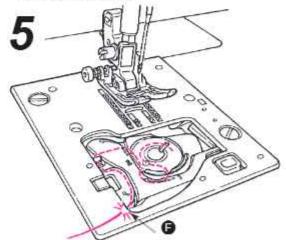
- Thread groove (a) and (3) by pulling the thread end
- \* It will be easier to thread grooves when you press the bobbin lightly with your finger.



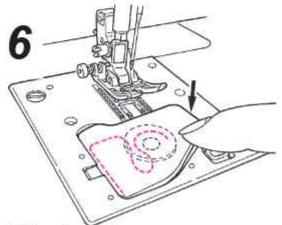
 Lead the thread through guide by pulling the thread to left side.



- Thread to guide and leave the thread underneath. (Thread guide first and it will thread to guide as well.)
- When pulling bobbin thread, bobbin rotates counter-clock-wise.



Cut the thread with the built-in cutter G.



Close the hook cover.

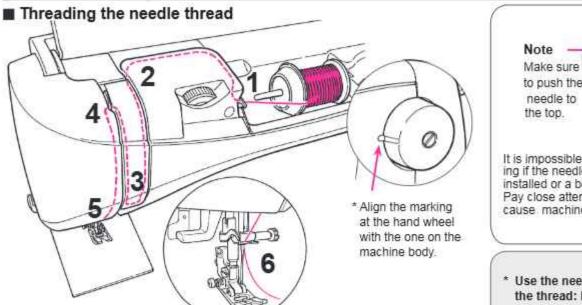
You can start to sew in this condition (without pulling up the bobbin thread), however, if you want to sew with the bobbin thread pulled out, refer to "Pulling up the bobbin thread" in the page 16.

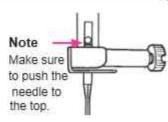
## Needle thread preparation



Warning

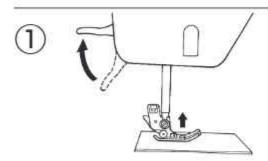
## Turn OFF the power switch before winding the bobbin thread.



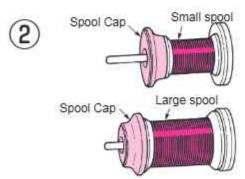


It is impossible to perform stitching if the needle is not correctly installed or a bent needle is used. Pay close attention as this will cause machine malfunction.

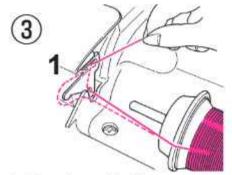
 Use the needle: No.11-16 and the thread: No.30-90.



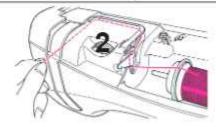
Lift the presser foot lifting lever.



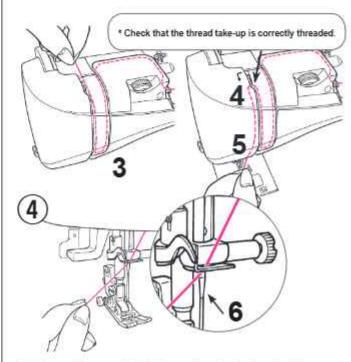
 Place a thread spool to the spool pin and a spool cap onto the spool pin



Thread to guide 1.

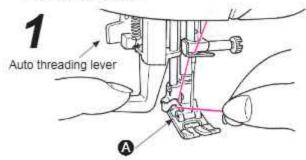


- Hold the thread end and thread according to the arrow marking.
- \* Make sure that the presser foot is raised. Otherwise the machine is not correctly threaded.

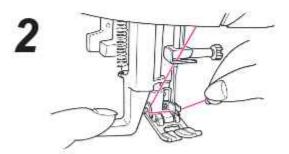


Thread the guide 6 from the right-hand side.

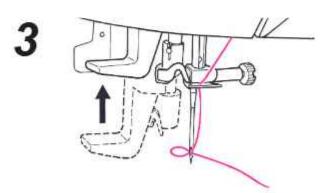
#### Auto threader



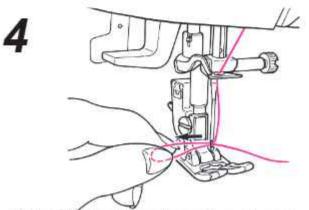
- Lower the presser foot.
- Raise the needle to top position by touching the upper/lower needle stop button. Then, lower the needle threader halfway (until it becomes heavy) and thread the thread to Q.



 Lower the needle threader fully. Then, thread the thread between the guides completely.
 (Needle threader will catch the thread through needle eye.)



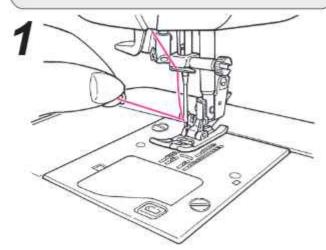
 Release the threading lever and the thread will be threaded into the needle eye.



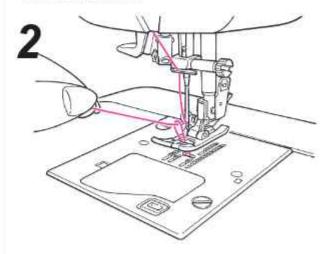
 Pull out the thread from the needle eye by approx. 10 cm or 4 inches long.

## Pulling up the bobbin thread

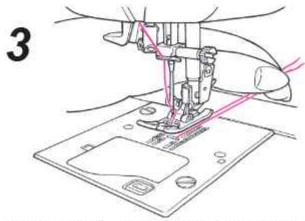
You can start to sew without pulling up the bobbin thread, however, if you want to sew with the bobbin thread pulled out, follow the directions below.



 Lift the presser foot and lightly hold the end of the needle thread.

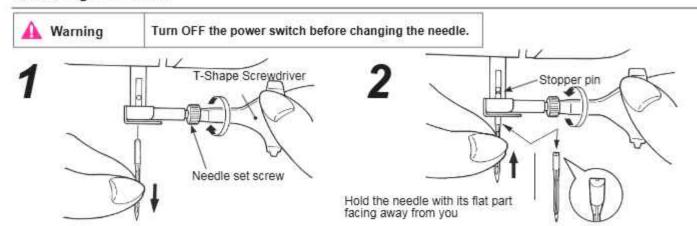


 Turn the hand wheel towards you to move the needle up and down. Loop of bobbin thread will be pulled out when you will pull the needle thread lightly.



 Pull out both needle and bobbin threads by approx. 10 cm (4 inches) long and pass them under the presser foot towards the back of the machine.

## Basic operations Attaching the needle



## Removing needle

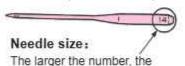
- Turn the hand wheel towards you until the needle comes to the highest position and lower the presser foot.
- Turn the needle setscrew towards you 1-2 times and remove the needle.

## Attaching the needle

# (The needle cannot be inserted unless it is correctly positioned.)

Hold the needle with its flat part facing away from you, and insert it fully until it touches the stopper pin. Securely tighten the needle setscrew.

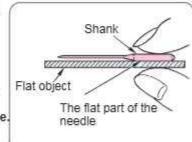
When purchasing spare needles, specify HAX 1 (80/12) or HAX 1 SP (needle for knits).



thicker the needle.

Check the needle for its straightness occasionally. Any bent needle would cause skipped stitches, thread break-age or damage to materials.

Attention: The machine will not sew if the needle is not inserted correctly or a bent needle is used. It will cause damage to the machine.



## Fabric, thread and needle table

	Fabric 🔄	Thread	Needle HAX1
Light-weight materials	Lawn	Silk thread	No.11
TO	Tricot	Spun thread	No.11 Knit needle
	Wool and synthetic fabrics	Silk thread	No.11-14
Medium-weight materials	Cotton and synthetic fabrics	Spun thread	No.11-14
	Light jersey	Silk thread	No.11 Knit needle
	Ordinary wool and synthetic fabrics	Silk thread No.50 Spun thread No.50, 60	No.11-14
5	Denim	Spun thread No.30-60	No.14-16
Heavy-weight materials	Jersey	Silk thread	N0 11-14 Knit needle
/ A 1	Coat	Silk thread	No.11-14

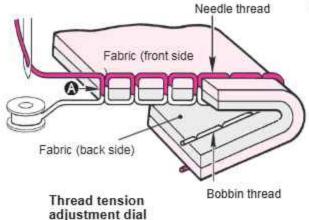
<sup>\*</sup> In general, the same thread is used for both needle and bobbin threads.

<sup>\*</sup> Thin thread and needle will be used for light-weight fabrics and thick thread and needle will be used for heavy-weight materials.

<sup>\*</sup> Check whether the combination of needle and thread is correct by trial sewing on the material which will be sewn.

<sup>\*</sup> When it is difficult to go over an overlapped section, guide the fabric by hand.

#### How to adjust thread tension



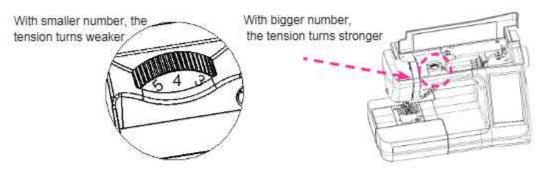
#### Well-balanced thread tension

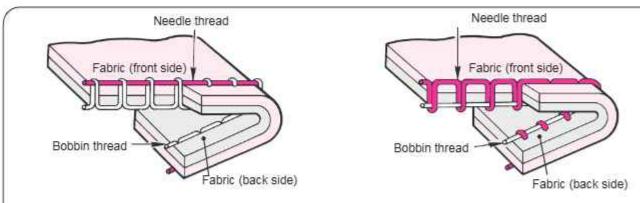
Straight stitch: Needle and bobbin threads interlace with each other at the middle of the fabric thickness. ( ( )

Zigzag stitch: Needle thread is pulled a little bit to the wrong side of the fabric.

If the machine is set to "4", it is suitable for most fabrics. However, adjustment may be necessary according to fabrics and sewing applications.

If the tension is not correctly set, it will cause imbalanced stitch formation, puckering, and thread breakage.





#### When the needle thread is too strong:

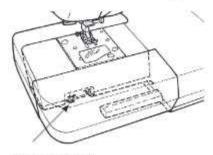
The bobbin thread will be pulled to the front side of the fabric. Turn the thread tension adjustment dial to choose smaller number.

#### ■ When the needle thread is too low:

The needle thread will be pulled to the wrong side of fabric. Turn the thread tension adjustment dial to choose larger number.

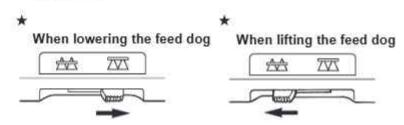
In case a correct tension setting is not obtained, check thread paths for both needle and bobbin threads.

#### How to lower the feed dog

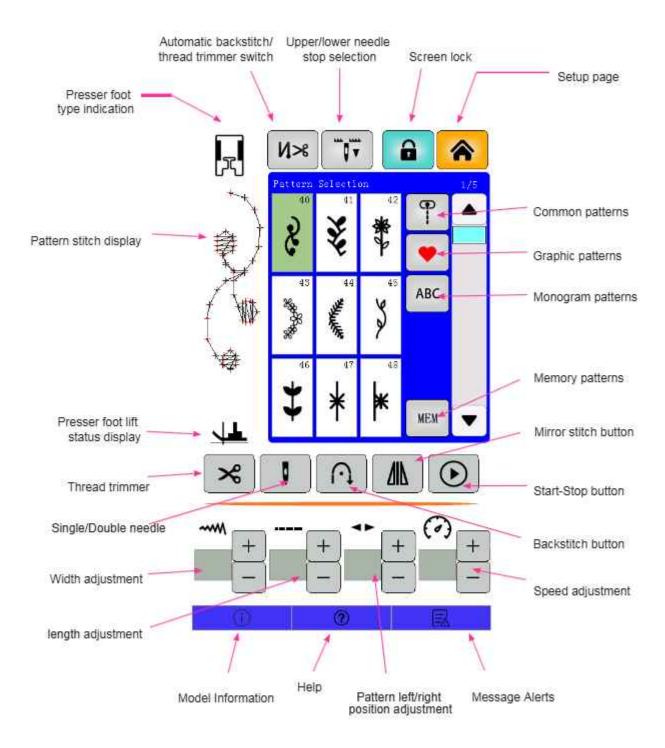


Drop feed knob

 Move the drop feed knob to the right-hand side, in case the feed dog is in the down position for free motion quilting, button sewing, etc. Move the drop feed knob to the left-hand side after sewing. The feed dog will be engaged automatically when the machine starts to sew.



## Operation buttons and screens

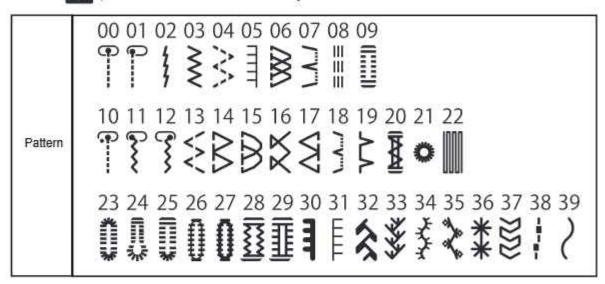


## Names and specific functions of operation buttons

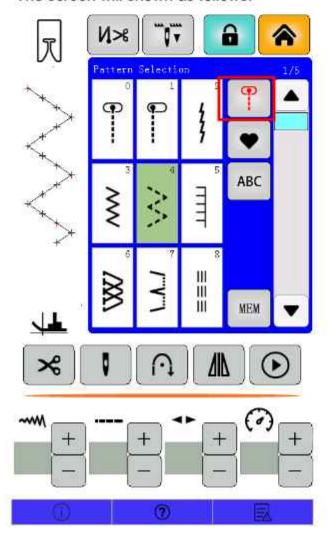
By choosing button ABC , you can switch to 180 different patterns.

1 Practical patterns

Choose select the code number of the stitch you need.

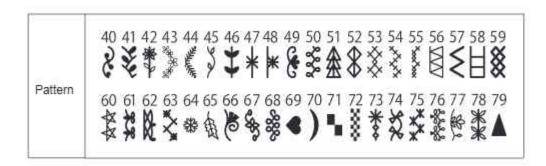


#### The screen will shown as follows:

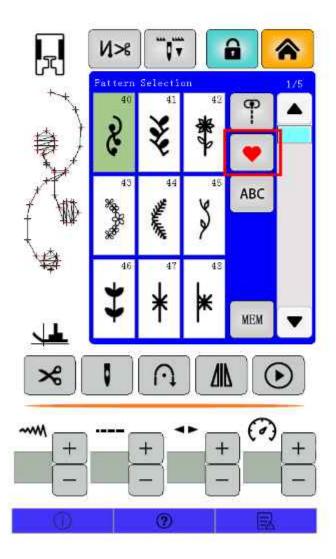


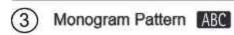


Choose , select the code number of the stitch you need.

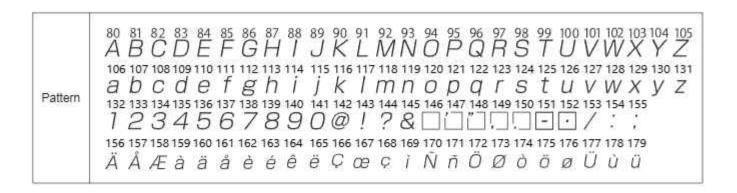


#### The screen will shown as follows:

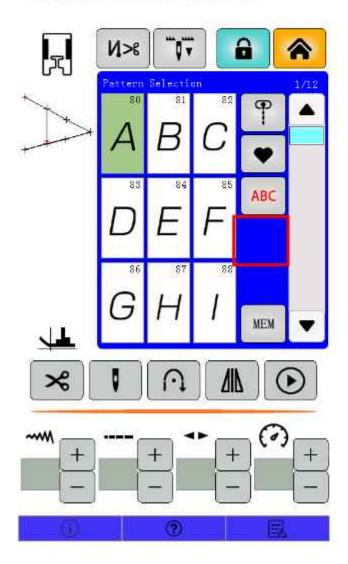


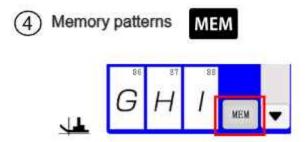


Choose Rec , select the code number of the stitch you need.



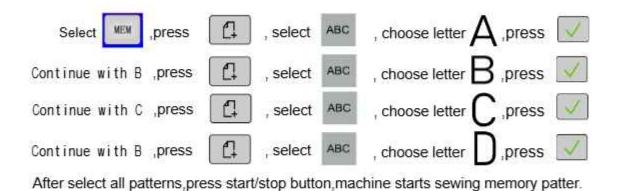
#### The screen will shown as follows:





This is used to edit the selected monogram patterns or graphic patterns into memory.

## How to combine the memory pattern Example ABCD



## How to clear the memory pattern

Select , press , can clear all the patterns selected. Press can clear the letter in front one by one.

(5) Automatic backstitch/ thread trimming button 1/28



Touch button 1/28, make the button in red.

Whe the machine stops, it will automatically cut both threads when it finishes the pattern of Memo stitches or Monogram stitches.

The machine will automatically lock three stitches at sewing-start when sewing the straight stitches. When you want to stop sewing, press backstitch button  $\bigcirc$ , threads will be cut off automaticily. When the machine stops sewing, backstitch button and  $\bigcirc$  are no longer working.

(6) Needle up/down button





While sewing machine stops sewing, press this button to change up/down position of the needle instantly. When the needle is in up position and press it, then needle moves down and when the needle is in down position and press it, then needle moves up.

When the button is pressed continuously, it is programmable and you can choose the needle stop position either up or down.

When it is pressed, either symbol " ★ 🛴 " or " " 👣 " will be shown on the screen.

When sewing with symbol " ★ , the needle stops at its highest position.

When sewing with the symbol " T , the needle stops at its lowest position.

7 Screen lock



When it is pressed, all the buttons on screen will be locked.

8 Setup page



Do not change settings of this page. Please ask help from professional technician or your distributor for setting this page.





When it is pressed, The machine will trim both threads.

10 Single and double needle





When touch gently, you can switch the function of single/double needle function.

When the screen show ,you are allowed to use double needle.

11) Back stitch button



When button is pressed, The machine will backstitch.

(12) Mirror stitch button



When it is A pressed, the pattern will be mirrored and flipped.

(13) Start-stop button



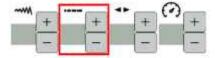
Click the start button at the bottom right of the screen,or the start/stop button on the top of the front cover of the machine to start or stop sewing.

## (14) Zigzag width adjustment buttons



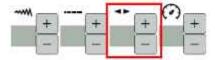
This is used to change the zigzag width and the needle position.

## (15) Stitch length adjustment buttons



This is used to change the stitch length.

## 16) Pattern left/right position adjustment buttons



This is used to change the pattern position to be left or right.

When select straight stitches, you can use this function to change the needle position from left to right.

## (17) Stitch speed adjustment buttons



This is used to change the stitch speed.

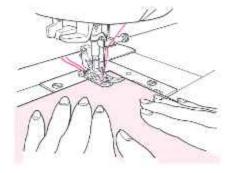
#### Easy Sewing Instructions

- 1 When the pattern selection setting is completed, the machine enters the pending sewing state.
- 2 Thread the top thread, place the bottom thread, place the fabric to be sewn correctly in place and put down the presser foot.
- 3 Click the start button at the bottom right of the screen or the start/stop button on top of the front cover of the machine to start sewing.
- 4 Click the thread cutting button after sewing, the machine automatically cuts the top and bottom threads.
- 5 Make sure the needle is in the highest position when lifting the presser foot and remove the fabric to complete the sewing operation.
- Users must use the presser foot correctly for the corresponding function when performing sewing operations, otherwise it may result in failure to sew or needle breakage causing personal injury.

#### Straight stitch

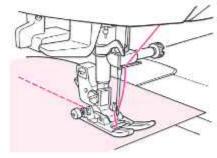
	Pattern No.	Practical 00	
(P)	Presser foot	Standard presser foot	
	Thread tension	Manual adjustment	

#### Attention Turn OFF the power switch before replacing the presser foot.



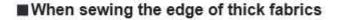
#### Sewing start

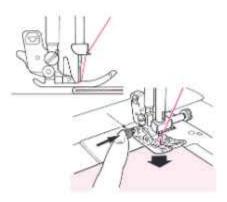
Pull the needle and bobbin threads under the presser foot to the rear of the machine and lower the presser foot to start sewing.



#### Sewing end

Stop sewing and push the thread trimming button to trim the threads.

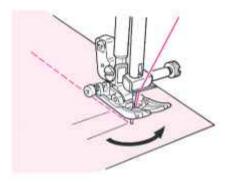




The black button on the right side of the presser foot will lock the presser foot in a horizontal position if you push it in before lowering the presser foot. This ensures even feeding at the beginning of a seam and helps when sewing multiple layers of fabrics such as sewing over seams when hemming jeans.

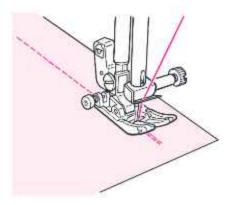
When you reach a thicker area or cross stitch, lower the needle and raise the two-step presser foot lever. Press the toe of the foot into the horizontal line and press the black button in.Lower the foot and resume sewing. The black button releases automatically after sewing few stitches.

You can also place another piece of fabric or cardboard ① of the same hickness at the back of the seam. Or support the presser foot while feeding by hand and sewing toward the folded side.



## ■ Changing the sewing direction

Stop sewing in front of the predetermined position and then continue to sew, stitch by stitch, by using needle up/down button until the target point. Leave the needle inside the fabrics and raise the presser foot. With the needle inside the fabrics change the sewing direction, lower the presser foot and then start sewing.



## Lock stitch after sewing-end

- \* When reverse stitching, the sewing speed is slow.
- <When start/stop button is used>

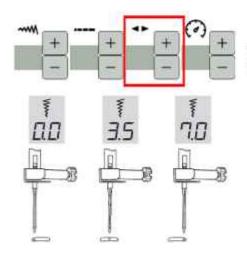
After the sewing is finished, push the reverse stitch button. While it is pressed, the machine will sew reverse and when it is released, the machine will stop sewing.

<When foot controller is used>

After the sewing is finished, push the reverse stitch button. The machine will sew reverse and when it is released, the machine will stop sewing.

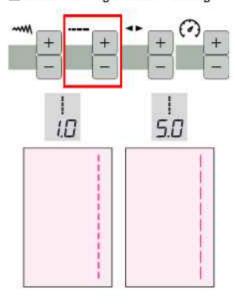
## \* How to change needle positions / How to change the stitch length

#### When changing the needle position of straight stitch



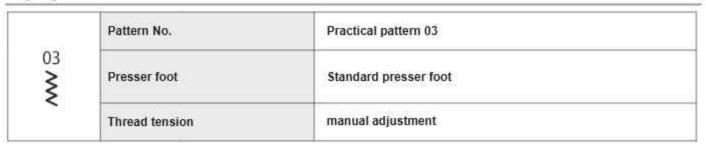
It is possible to change the needle position with pattern left/ right position adjustment button.

#### How to change the stitch length



It is possible to change the stitch length with the stitch length adjusting button.

## Zigzag stitch

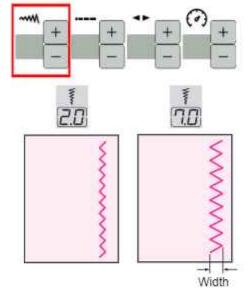




Attention

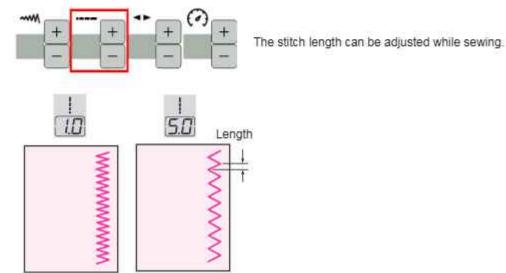
Turn OFF the power switch before replacing the presser foot.

## ■ When changing the zigzag width



The zigzag width can be adjusted while sewing.

## ■ When changing the stitch length



## Basic operations Overcasting stitch



Turn OFF the power switch before replacing the presser foot. Make sure the needle will not strike the foot befor sewing.

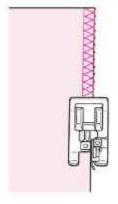
This stitch is used to prevent the edge of fabric from fraying.

## ■ Overcasting stitch 1

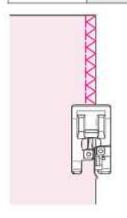
Pattern No.	Practical 06
Presser foot	Overcasting presser foot
	Presser foot

## ■ Overcasting stitch 2

14	Pattern No.	Practical 14
$\otimes$	Presser foot	Overcasting presser foot



 Push the fabric towards the guide and sew. If the fabric and guide are apart, it will not make a nice stitch formation. Make sure to guide the fabric along the guide and sew slowly.



 This stitch is used for overcasting medium to heavy-weight materials.
 Guide the fabric along the guide and sew.

## Overcasting stitch 3

15	Pattern No.	Practical 15 (Light-weight material)
B	Presser foot	Overcasting presser foot

# THE RESERVE

 This overcasting stitch is used for overcasting light-weight materials.
 Guide the fabric along the

guide and sew.

## ■ Overcasting by 3-point zigzag

04	Pattern No.	Practical 04
3	Presser foot	Standard presser foot

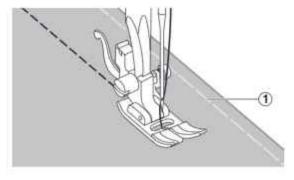


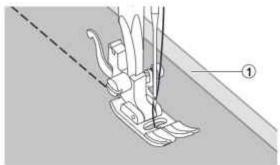
 This stitch is used to prevent the cut edge of fabric from fraying.

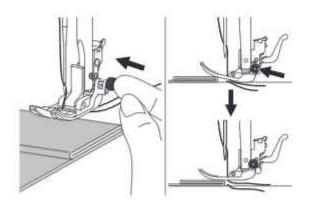
Keep some seam allowance and cut the sewn fabric carefully so that stitches are not cut by the scissors.

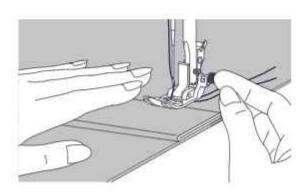
※ Do not use overcasting presser foot .

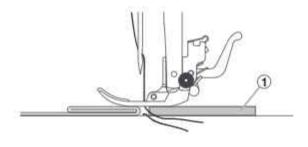
## Sewing applications











## Sewing stretch fabrics

Baste ① the pieces of fabric together, and then sew without stretching the fabric. Sewing stretch fabrics

#### Sewing thin fabrics

When sewing thin fabrics, the stitching may become misaligned or the fabric may not be fed correctly. Use stabiliser material under the fabric and sew it together with the fabric.

Remove excess stabiliser material when you have finished sewing.

## Sewing heavy fabric

The black button on the right side of the presser foot will lock the presser foot in a horizontal position if you push it in and lower the presser foot synchronously. This ensures even feeding at the beginning of a seam and helps when sewing multiple layers of fabrics such as sewing over seams when hemming jeans.

When you reach a thicker area or cross stitch, lower the needle and raise the two-step presser foot lever. Press the toe of the foot into the horizontal line and press the black button in.

Lower the foot and resume sewing. The black button releases automatically after sewing few stitches.

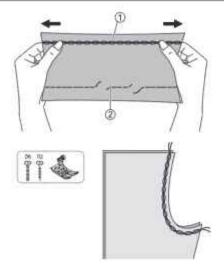
You can also place another piece of fabric or cardboard of the same thickness at the back of the seam. Or support the presser foot while feeding by hand and sewing toward the folded side.

# Sewing applications

## Sewing stretch fabrics

The stretch stitch is suitable for elastic and durable seams that stretch with the fabric without tearing. Ideal for stretch fabrics and jersey as well as hard-wearing seams on firm fabrics such as denim.

NOTE Stretch stitches can also be used as decorative visible seams.



Stretch stitch (the seam stretches with the fabric) Straight stitch (the seam tears when the fabric is stretched) ② .

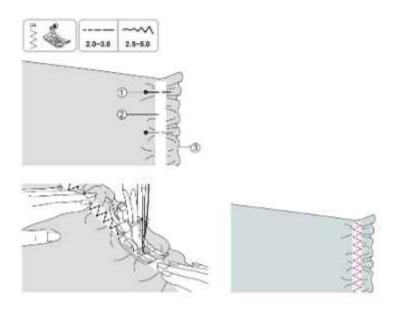
## Straight stretch stitch

With the straight stretch stitch you triple reinforce elastic and hard-wearing seams. Use the all-purpose presser foot.

#### Sewing elastic band to fabric

By attaching an elastic band, you can sew, for example, an elastic arm cuff or an elastic waistband.

NOTE: When measuring the length of the elastic band for sleeves or waist, note that in the finished elastic waistband, the elastic band is stretched when worn.



Use the all-purpose presser foot
Sew an elastic band to the fabric:

1. Pin the elastic band at some points on the
back of the fabric ③ with pins ① to make sure it is
positioned uniformly on the fabric.

2. Sew the elastic band to the fabric while
stretching the band so that it is at the same
length as the fabric. While pulling the fabric
behind the presser foot with your left hand,
hold the fabric by the nearest pin in front of the
presser foot with your right hand.

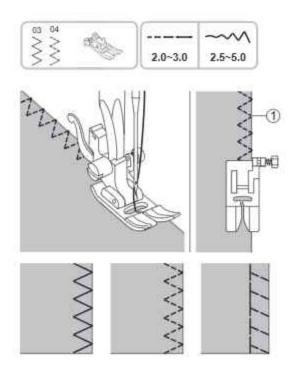
#### NOTE

When sewing, be sure that the needle of the sewing machine does not touch any pins, otherwise the needle may bend or break.

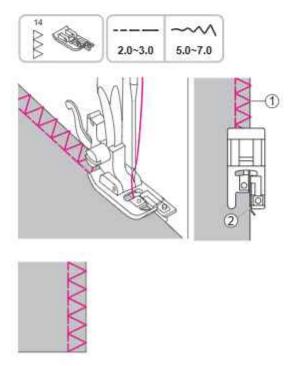
## Sewing stretch fabrics

#### Overcasting

By sewing overcasting stitches along the edge of fabric you can prevent it from fraying.



- Sewing overcasting stitch with the all-purpose presser foot:
  - 1. Attach the all purpose presser foot.
  - 2.Sew overcasting stitches along the edge of the fabric so that the needle drops over the right side of the fabric (needle drop point ).



Sewing overcasting stitch with the overcasting foot:

- 1. Attach the overcasting foot.
- Sew the fabric with the edge of the fabric resting against the guide of the overcasting foot.
- The needle overlaps the fabric on the right side (needle drop point  $\ \ \, \ \ \, \ \, \ \, )$  .
- Please testing the needle position,make sure the needle will not strike the presser foot befor sewing.

# Sewing applications

#### Blind hem

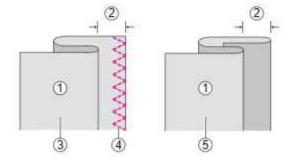
The seam with this stitch is not visible on the right side of the fabric.

NOTE: Use the blind hem stitch for skirt hems and trouser hems.

NOTE: Please use the same fabric as for the project and carry out a sewing test in advance.



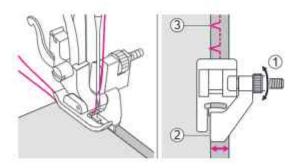
- · Use the blind hem foot.
- . Use stitch 18 blind hem for solid fabrics.



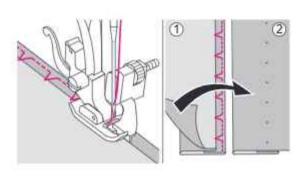
Sew a blind hem:

1. Fold the fabric as shown so that the left side (back of the fabric) is facing up.

NOTE: For heavy weight fabric, follow the illustration on the left. For light/medium weight fabric, follow the illustration on the right.



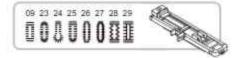
2. Place the fabric under the foot. Turn the handwheel forwards until the needle swings fully to the left. It should just pierce the fold of the fabric . If it does not, adjust the stitch width accordingly. Adjust the guide by turning the knob ① so that the guide just rests against the fold ②



3.Sew slowly, guiding the fabric carefully along the edge of the guide. Turn over the fabric. The illustration shows the sewing results.

Back of the blind hem ②Front of the blind hem

## Sewing buttonholes



NOTE:Buttonholes can be adapted to the size of the button

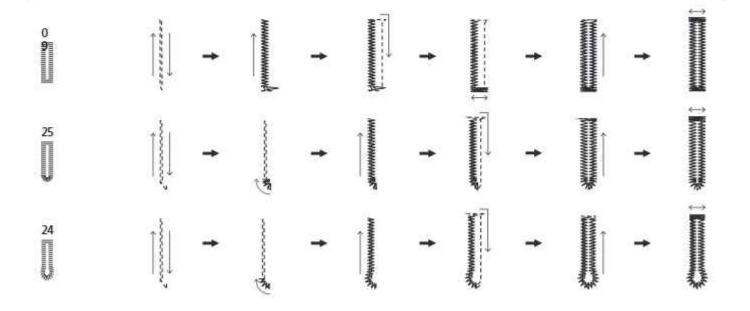
NOTE: For stretch fabric or thin fabric, it is recommended to use a stabilizer/auxiliary material for a better buttonhole sewing. Lower the thread tension of the upper thread slightly with the thread tension dial.

NOTE: Please use the same fabric as for the sewing project and carry out a sewing test in advance.

#### Use the buttonhole foot, Use:

- · Stitch 09 for thin or medium fabric
- · Stitch 24/25 for suits or coats

Buttonholes are sewn from the front of the presser foot to the back.

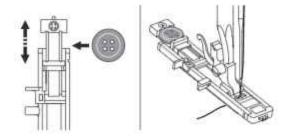


## Sewing buttons



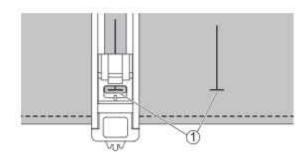
- Sewing a buttonhole on non-stretch fabrics:
- 1.Mark the positions of the buttonhole on the fabric

NOTE: The maximum buttonhole length is 3 cm. (Total of diameter + thickness of button). The size of the buttonhole is determined by the button inserted in the button holder plate.

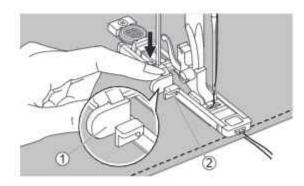


2.Pull the button holder plate to the back, and place the button in it. Push back the button holder plate against the button to hold it tight. Attach the buttonhole foot to the sewing machine.

NOTE: Pull the thread through the hole in the presser foot so that it is under the presser foot...

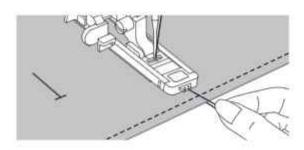


3.Place the fabric under the presser foot so that the center mark on the presser foot is aligned with the drawn buttonhole line. Select the buttonhole stitch. Adjust the stitch width and the stitch length to the desired width and density.



4.Pull down the buttonhole lever ① to the lowest position.

NOTE: It must be behind the holder on the buttonhole foot

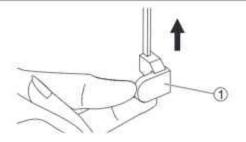


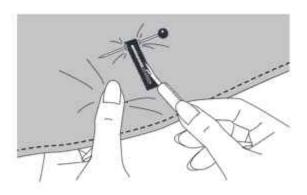
Slightly hold the end of the upper thread and start sewing. Hold both threads tightly.

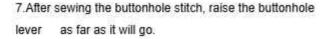
Gently feed the fabric by hand. Before stopping, the sewing machine will automatically sew a reinforcement stitch after the buttonhole is sewn.

Raise the presser foot and cut the thread.

NOTE: To sew over the same buttonhole again, raise the presser foot. (It returns to the starting position.)





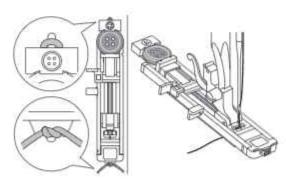


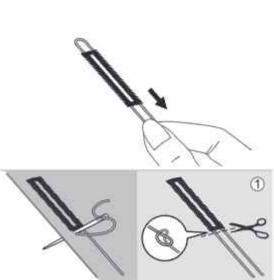
8. Use the seam ripper to cut open the center of the buttonhole.



When cutting the buttonhole with the seam ripper, do not place your hands in the cutting direction otherwise injuries may result.

NOTE: Be careful not to accidentally cut into the bar tack. Use a pin as a stopper at the bar tack so you do not cut too much.





Sewing a buttonhole on stretch fabrics:

NOTE: It is suggested that you sew with a stabilizer material under the fabric.

- 1. Hook a gimp thread (a heavy thread or cord) to the back of the buttonhole foot.
- 2.Bring the ends of the gimp thread to the front of the foot and insert them into the notches; then knot them temporarily.
- 3. Lower the two-step presser foot lifting lever and start sewing.

NOTE: Set the stitch width to match the diameter of the gimp thread.

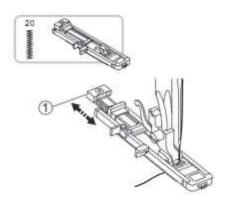
- 4. Once sewing is completed, pull the gimp thread circle gently to make it invisible.
- Thread the gimp thread ends into a larger hand

Pull the ends to the back of the fabric and knot them before cutting off the overhangs 1 .

### Reinforcing seams

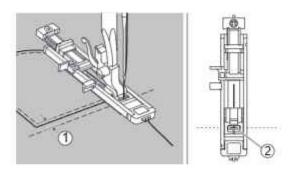
Bar tack stitch is used to reinforce points subject to strain, such as pocket corners and openings.

NOTE: It is suggested that you sew with a stabilizer material under the fabric.



#### Use the buttonhole foot

- 1.Extend the button holder plate ① and set to the desire length. Adjust the stitch width and the stitch length to the desired width and density.
- Attach the buttonhole foot to the sewing machine.
   Pull the thread through the hole in the presser foot so that it is under the presser foot.

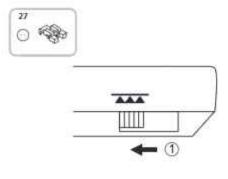


3.Align the fabric so that the needle is 2 mm ① in front of the position where you want to start sewing ②; then lower the two-step presser foot lever.



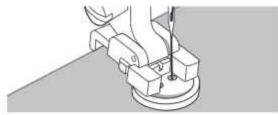
- 4.Pull down the buttonhole lever (1) to the very bottom. It must be behind the holder ② on the buttonhole foot.
- Slightly hold the end of the upper thread and start sewing until the bartak stitch are finished.

Buttons can be sewn on with the sewing machine. Buttons with 2 or 4 holes can be attached.

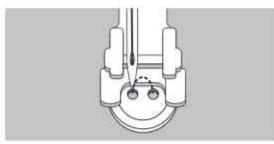


#### Use the button sewing foot

1. Slide the feed dog lever to position 1 to lower the feed dog.



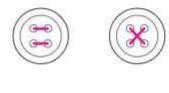
2.Place the work under the foot and the button in the desired position. Then lower the foot.



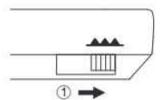
3. Select the buttonhole sewing stitch and adjust the stitch width according to the distance between the two holes of the button.



4. Turn the handwheel to check that the needle goes cleanly into the left and right holes of the button.



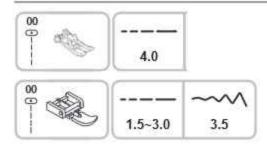
5. For buttons with 4 holes, sew through the front two holes first, push work forward and then sew through the back two holes as shown in the picture on the left. Alternatively, you can sew the button sewing stitch crosswise as shown in the illustration on the right.

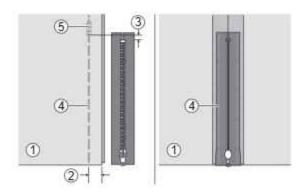


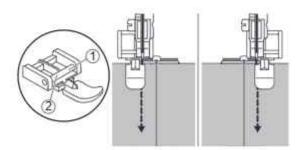
When you finish the work, move the feed dog lever to the raised feed dog mark.

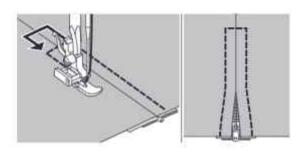
NOTE: The feed dog can only be moved up by turning the handwheel!

#### Zipper sewing









Use the all-purpose presser foot and the zipper foot.

NOTE: The zipper foot can be adjusted to sew on either side of the zipper. The edge of the foot guides the zipper so that it is positioned straight.

NOTE: Zipper foot should be used for sewing straight stitches only. Using this presser foot may cause the needle to hit the off and break.

NOTE: When sewing, be sure that the needle does not touch the zipper, otherwise the needle may bend or break.

## ❖Centered zipper sewing

Preparation:

1.Insert the all-purpose presser foot.

2.Place the right sides of the fabric on top of each other and sew to the end of the zip opening with a seam allowance of approx. 2 cm.
Secure the seam with a few locking stitches. In the area of the zipper opening, baste the seam with thread tension less than 2 and with maximum stitch length. Press open the seam allowance. Place the zipper face down on the seam allowance with the teeth against the seam line. Baste the zipper band to the fabric to prevent it from slipping.

Back of the fabric (left)
2 cm seam allowance
5 mm distance to the lower end of the zip
Baste seam
Locking stitches

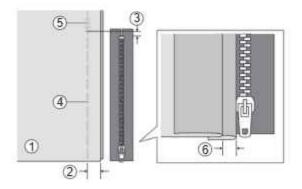
#### Zipper sewing:

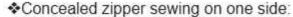
1. Attach the zipper foot.

NOTE: When sewing the left side of the zipper, attach the right side of the presser foot stay ① to the holder. When sewing the right side of the zipper, attach the left side of the presser foot stay ② to the holder.

The zipper must not be sewn through both layers of fabric!

Stitching around the zipper. Remove the baste seams and press the sewing piece.





### Preparation:

1.Insert the all-purpose presser foot.

2. Place the right sides of the fabric on top of each other and sew to the end of the zip opening with a seam allowance of approx. 2 cm. Secure the seam with a few locking stitches. In the area of the zipper opening, baste the seam with thread tension less than 2 and with maximum stitch length. Fold back one seam allowance to the left. Fold the other seam allowance to the right to make a 3 mm wide fold.

Back of the fabric

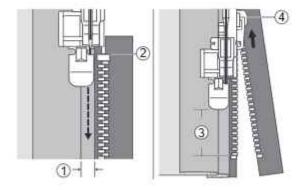
2 cm seam allowance

5 mm distance to the lower end of the zip

Baste seam

Locking stitches

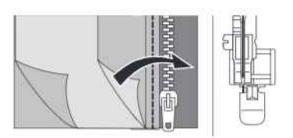
3 mm wide fold



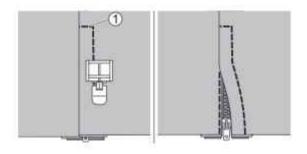
## 2. Zipper sewing:

1.Attach the zipper foot.

NOTE: To sew on the left side of the zipper, attach the zipper foot with the right crossbar.



- 2. Sew the zipper to the piece of fabric ① with the extra 3 mm, starting from the end of the zipper ② . Stop the sewing machine about 5 cm from the top of the zipper ③ . Lower the needle into the fabric and lift the two-step presser foot lever (22). Open the zipper ④ and continue sewing.
- Turn the sewing piece right side out. To sew on the right side of the zipper, attach the zipper foot with the left rossbar.



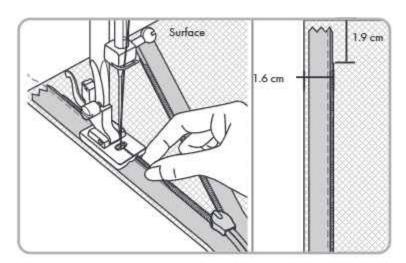
4.Sew across the bottom end ①, then sew the right side of the zipper to approx. 5 cm before the end. Remove the baste thread and open the zipper. Sew the remaining of the seam.

### Concealed zipper

Concealed zippers provide an invisible closing on skirts, dresses and a variety of garments and accessories.



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3.5	1.0~3.0



Use the concealed zipper foot.

Insert the concealed zipper foot.

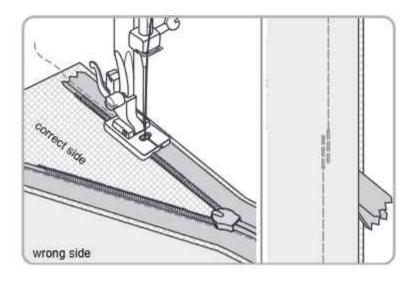
NOTE: Make sure that the needle is in line with the center mark.

NOTE: Be sure to use a stabiliser material when sewing in the zipper.

- 2. Place open zipper face-down on right side of fabric.
- 3.Pin the zipper so that the coil on the seam line is 1.6 cm and the top stop is 1.9 cm below the cut edge of the fabric.
- 4. With right-hand groove of foot over coil, stitch zipper until the foot hits the slider.

NOTE:Pull out the needles step by step.

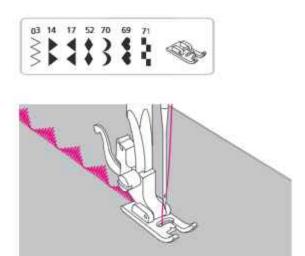
5. Secure the seam at the end with a few locking stitches.
6. To attach the other half of the zipper, place the half face down as before so that the coil on the seam line is
1.6 cm and the top stop is 1.9 cm below the cut edge of the fabric. Then pin in place with needles.



Make sure that the zipper is not twisted at the bottom

- 7.Use the left-hand groove of foot, making sure that the center marking is still lined up with the needle and Stitch, as before.
- 8. Close the zipper.
- Place the zipper under the right-hand groove of foot as shown.
- 10. Pin the seam together below zipper opening.
- 11. Fold end of zipper out of the way and lower the needle by hand slightly above and to the left of the last stitch.
- 12. Stitch seam for about 5 cm wide as shown.
- Attach the all-purpose presser foot and complete the seam.

### Satin stitch sewing



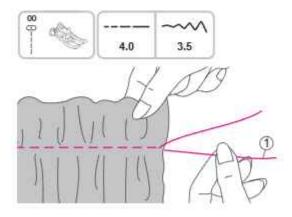
- Use the satin stitch foot for satin stitching and sewing decorative stitches.
- When sewing very lightweight fabrics, it is commended that you use interfacing or stabilizer on the back side of the fabric.
- Satin stitch foot has a groove on the underside which all ows dense stitching to pass freely underneath.

Insert the satin stitch foot.

To sew the satin or decorative stitch, you may need to adjust the length and width of the stitch. Experiment with fabric scraps until you get the desired length and width.

#### Gathering

Ideal for clothing as well as home decor. It works best on thin to medium weight fabrics.

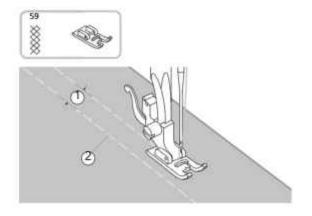


#### Use the all-purpose presser foot.

- Before sewing, please check the upper and lower threads are already pulled out about 5 cm to leave enough room for sewing. Please refer to "Bringing up the lower thread "chapter for more information.
- Set the thread tension below 2. Sew a single row (or many rows) of straight stitches.
- Pull the lower threads (1) and distribute the gathers evenly. Secure the threads at the other end.

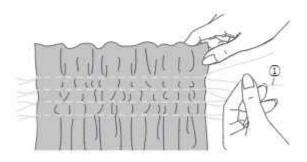
### Smocking

The decorative stitch over ruffles is called "smocking". Smocking is used to decorate the front of blouses or cuffs. The smocking stitch adds texture and elasticity to the fabric.

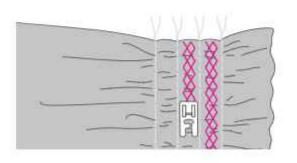


Use the satin stitch foot.

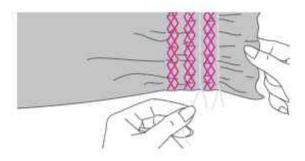
1.Increase the stitch length to the maximum, set the thread tension below 2 and sew parallel baste seams ② 1 cm apart ① along the area to be smocked.



 Knot the threads at one side.
 Pull the lower threads and distribute the gathers evenly.
 Secure the threads at the other end



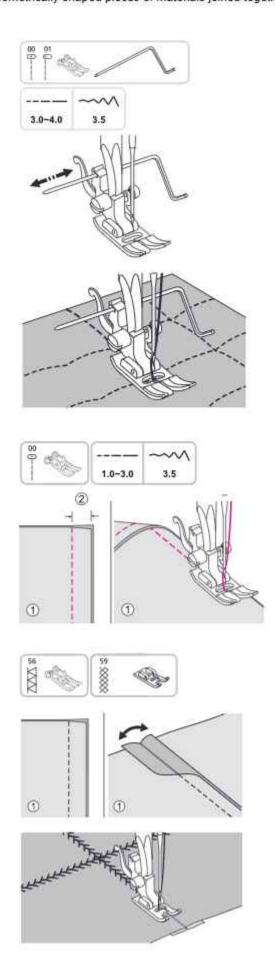
 Reduce the tension if necessary and sew decorative stitches between the straight baste seams.



4.Remove the baste seams.

### Quilting, sewing pieces of fabric together and sewing patchwork

Sandwich padding between the top and bottom layers of fabric is called "Quilting". The top layer is usually formed by multiple geometrically shaped pieces of materials joined together.



- ❖Quilting:
- Use the all-purpose presser foot with edge/quilt guide.
- · Use the edge/quilt guide
- Attach the edge/quilt guide in the presser foot holder and set the distance as desired.
- Sew the first row. Continue sliding the fabric to sew the following rows.

Use the edge/quilt guide to orientate yourself to the previous row of stitching.

Sewing pieces of fabric together:

Use the standard presser foot.

Place the two pieces of fabric with the right side on top of each other ① and sew them together with the straight stitch. Join the pieces of fabric with a seam allowance of 5 mm.

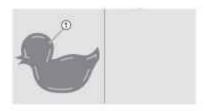
NOTE: Use the edge/quilt guide to orientate yourself to the previous row of stitching.

- Sewing pieces of fabric together.
  Use the standard presser foot or satin stitch foot.
- 1.Lay the two fabrics, right sides together and lockstitch the edges with the back of the fabric ①facing up. Open the seam allowance and press it flat.
- Work on the fabric front side. Working on the right side of the fabric, place the center of the presser foot on the seam line of the joined fabrics and stitch over the seam.

### Applique

NOTE: You can create and applique by cutting a different piece of fabric into a shape and using it as a decoration.



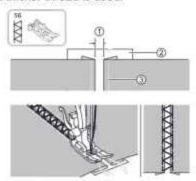


#### Use the standard presser foot.

- Cut out the desired design and baste it on the fabric ① . Sew slowly around the edge of your applique.
- Trim the excess material outside the stitching. Make sure not to cut any stitches. Remove the baste seams.

### Fagoting

Stitching across an open seam is called "fagoting". It is used on blouses and children's clothing. This stitch is more decorative when thicker thread is used.

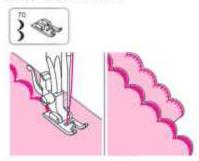


#### Use the standard presser foot.

- Align the fabric breaks of the fabric pieces 4 mm apart ① and baste ② onto a water-soluble fleece
   ② .
- Align the center of the presser foot with the center of the two pieces of fabric and begin sewing.
   The water-soluble fleece is dissolved by washing.

## Scallop stitch

Stitching across an open seam is called "fagoting". It is used on blouses and children's clothing. This stitch is more decorative when thicker thread is used.

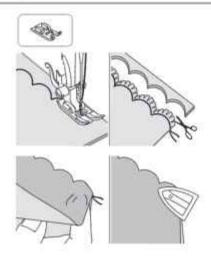


#### Use the all-purpose presser foot.

- Stitch along the edge of the fabric, making sure not to sew directly on the edge of the fabric.
- 2. Cut the fabric close to the seam. Be careful not to cut the seams.

NOTE: For better results, apply spray starch onto the fabric and press with a hot iron before it is sewn.

### Scallop hem



#### Use the presser foot.

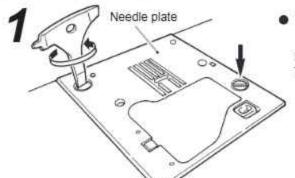
- Fold the fabric right side together. Sew along the folded edge.
- Cut the fabric along the hem, leaving 3 mm space for hemming and cut this hem.
- Turn the fabric over, press the curved hem outwards to the surface and iron it.

## **Machine Maintenance**

When lint and/or dirt has built up, it may cause machine failures. Therefore, clean the machine frequently,

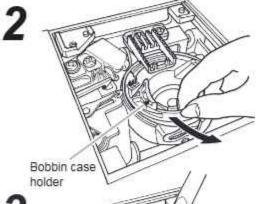


Always must be disconnected plug from socket-outlet before remove throat-plate and remove bobbin-case-holder.

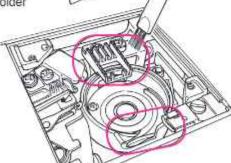


Remove the throat plate

Remove needle and presser foot and remove the needle plate by using T-shape screwdriver.

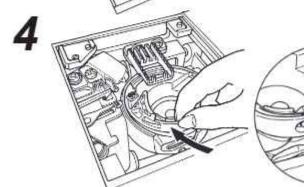


Remove the bobbin case holder.



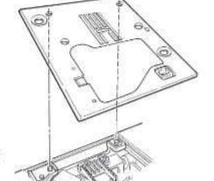
Remove lint and dirt.

Remove lint and dirt around the feed dog and bobbin case holder with the cleaning brush.



Install the bobbin case holder.

Install the bobbin case holder so that points (3) and (3) will meet each other.



Install the throat plate.

When attaching the throat plate, align the positioning pins with holes of throat plate.

## Performance check list

If sewing difficulties occur, make sure the instructions are correctly followed. If a problem still exists, the reminders below may help solve it.

Case	Cause (Reason)	Solution
The machine stops sew- ing suddenly. (This is in case you can turn hand wheel byhand.)	The machine sews at slow speed continuously. (The machine has a mechanism to automatically cut off the power to prevent the motor from overheating.)	●Turn off the power and wait for a while (about 10 minutes). The safety mechanism will be reset and the machine will return to normal.
Sewing machine stops while sewing. (Hand wheel is heavy to turn.)	If the thread gets tangled and/or the needle is bent, motor will lock and safety mechanism works instantly and the sewing machine will stop sewing.	<ul> <li>Get rid of cause(s) of thread tangling.</li> <li>Check if the needle is bent or not.</li> <li>Turn off the power before checking the needle.</li> </ul>
Sewing machine stops after sewing some stitches.	In case of relatively low room temperature and/or thread tangling, or in case the motor got excess load, the safety mechanism works and the sewing machine stops so that the machine will not get hot.	Leave the sewing machine in the room so that the sewing machine adapts itself to the room temperature.  Get rid of cause(s) of thread tangling.
The machine will not work even when started.	●Presser foot is in up position.	<ul> <li>Lower the presser foot and start to sew.</li> </ul>
The machine can not work even when start/ stop button is pressed. (This is in case sewing light is still on.)	The needle hits presser foot due to an installation of incorrect presser foot.  The needle fell into the hook area and tried to start.	<ul> <li>Use the appropriate presser foot to the selected stitch pattern.</li> <li>Remove the needle from the hook area.</li> </ul>
●Needle breaks.	<ul> <li>Thick material is sewn with a thin needle</li> <li>The needle is not inserted completely.</li> <li>The needle setscrew is not securely tightened.</li> <li>The wrong presser foot is used for a certain pattern.</li> </ul>	<ul> <li>Check the combination of fabric, thread and needle.</li> <li>Check the installation of needle.</li> <li>Securely tighten the needle setscrew Check the combination of stitch pattern and presser foot to be used.</li> </ul>
Loud noise or scratchy noise while sewing.	Lint or dust has accumulated in the feed dog.  Lint or dust has accumulated in the hook.	Clean the feed dog area.  Clean the hook area.
Machine fails to feed fabrics.	The stitch length is set at "0".  Soft fabrics such as towels are being sewn.	• the machine goes back to the default When the stitch pattern is reselected setting.
	●The machine is set in drop feed condition. (the drop feed knob is on the right side)	<ul> <li>Set the stitch length to 3 - 5.</li> <li>Set the drop feed knob to left side.</li> </ul>

# Performance check list

Case	Cause (Reason)	Solution
Needle can not be threaded. This is in case needle threader will notturn.)  The hook of needle threader does not go through the needle eye.	The needle is not in the up position. (When needle is not in the up position, needle threader will not turn. This is to avoid damages to the hook.)  The needle is not inserted fully.	Rotate the hand wheel and lift the needle upwards.      Check the installation of the needle
The needle threading lever will not return to the original position and the machine can not turn properly. (This is in case the hook of needle threader remains in the needles eye.)	Hand wheel is turned by mistake while the needle threading lever is in down position. (in the process of threading to the needle.)	Turn hand wheel slightly away from you. (to the opposite side when sewing).
The machine will not start even when start/stop button is pressed.	the foot controller is plugged in	Start/stop button will start to function when foot controller is removed.
Thread breaks.	The machine is incorrectly threaded.	●Rethread the machine correctly.
	There is knot or knurl on the thread.	●Remove knot or knurl from thread
Stitch is skipped.	<ul> <li>The setting of manual thread tension is incorrect.</li> <li>The needle is bent or the tip of needle is broken.</li> </ul>	<ul> <li>Adjust thread tension manually according to fabrics and thread to be used.</li> <li>Change needle.</li> </ul>
	The needle is installed incorrectly.	Install needle correctly.
	Threading of bobbin thread is not cor- rect.	Check the correct way of setting bobbin thread.
	The bobbin can not turn smoothly inside the hook holder.	Check the correct way of winding bobbin thread.
	●The needle size does not match the thread.	Check the combination of thread and needle.
	●Thread take-up is not threaded.	●Rethread the machine correctly.
●Thread tension is not good.	The needle thread is threaded incor-rectly.  The bobbin thread is threaded incor	<ul> <li>Rethread the machine correctly.</li> <li>Check the correct way of setting bobbin thread.</li> </ul>
	-rectly.  The direction of spool cap doesn't match the spool.	Attach the spool cap in a correct direction.
Puckering occurs.	The stitch length is too large on light -weight fabrics.	Make the stitch length smaller (charter)
	●The needle tip is broken.	(shorter).  Change needle.

## List of stitch patterns



Pratical pattern

00 01 02 03 04 05 06 07 08 09 \[ \begin{align\*}
\b

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

-Graphic patterns

## ABC

—Monogram patterns

## ■ Specification list

Item	Specification	
package size	52 (L) X 30 (W) X 35.5 (H) cm	
Weight	11.0 KGS / 9.5 KGS	