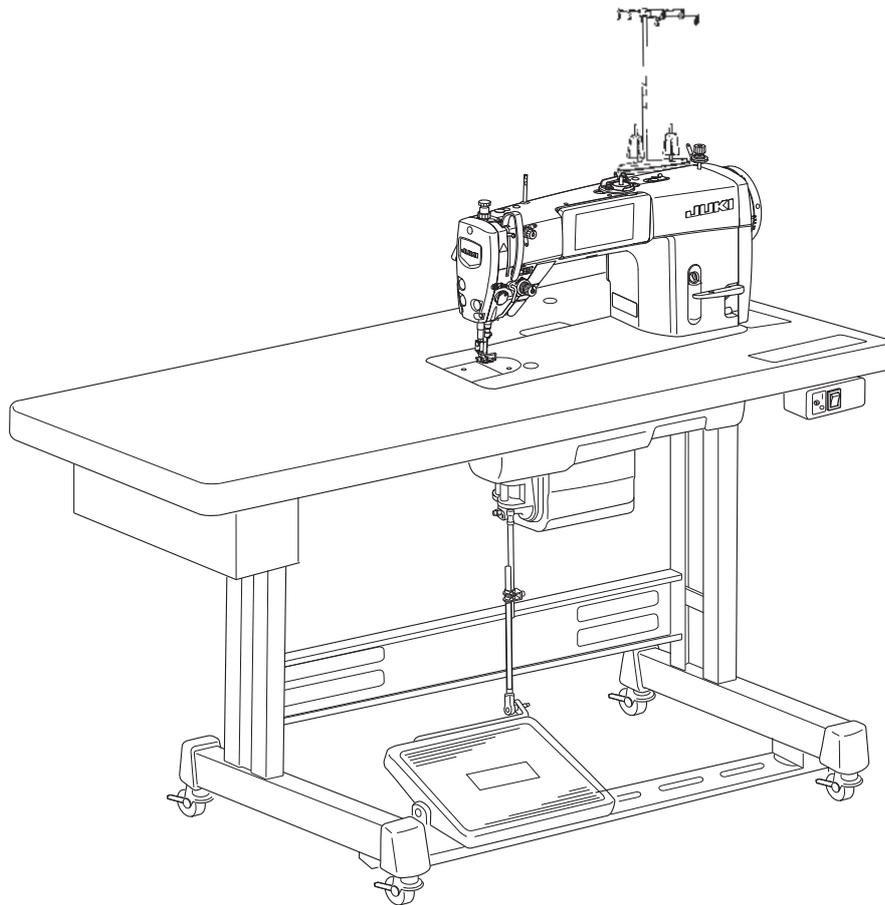


Lockstitch machine with automatic thread trimmer

J-150QVP

INSTRUCTION MANUAL

EN



IMPORTANT:

Read all safety regulations carefully and understand them before using your sewing machine. Retain this instruction manual for future reference.

“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 unattended 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.
2. 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.
3. 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.
5. Keep fingers away from all moving parts. Special care is required around the sewing machine needle.
6. Always use the proper stitch plate. The wrong plate can cause the needle to break.
7. Do not use bent needles.
8. Do not pull or push fabric while stitching. It may deflect the needle causing it to break.
9. Switch the sewing machine off “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.
12. Do not use outdoors.
13. 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 knowledge of the system and should only be done by qualified service personnel. Replacement parts for a double-insulated product must be identical to those parts in the product. A double-insulated product 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 JUKI 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.

 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.
 ATTENTION	Indicates the operation, etc. which can cause a possible risk of personal injury and/or physical damage if this mark is ignored and the sewing machine is used in a wrong manner.

Pictographs mean the following:

	Danger warning which is not specified		There is a risk of electrical shock		There is a risk of fire		There is a risk of injury to hands, etc.
	Prohibited matter which is not specified		Disassembly/alteration is prohibited		Do not place fingers under the needle		Do not pour oil, etc.
	Generally required behavior		Disconnect the power plug				

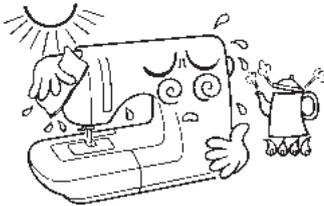
⚠ WARNING

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.

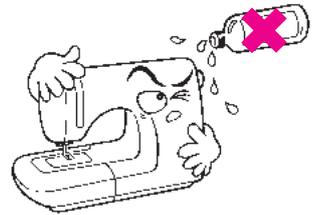
Other precautions

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



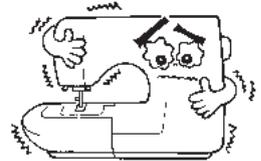
- Do not wipe the sewing machine with solvent such as thinner.

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 is excessively low, the machine can fail to operate normally.



* 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.

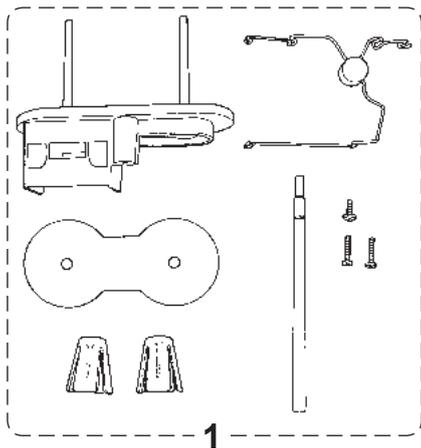
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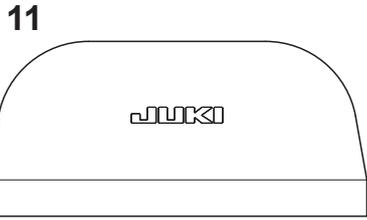
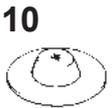
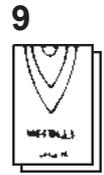
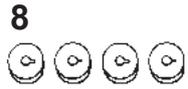
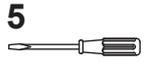
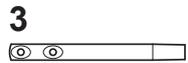
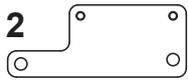
Specifications

Description	Specification
Sewing speed	150 to 2,500 sti/min
Stitch length	0 to 5 mm
Needle bar stroke	30.7 mm
Lift of presser foot	8.5 mm
Needle	DB×1 #9 to 18
Lubricating oil	JUKI New Defrix Oil No. 1 or JUKI CORPORATION GENUINE OIL 7
Dimensions of sewing machine	69W x 68.4H x 29L (cm)
Size of bed	51.7W x 17.8L (cm)
Weight of sewing machine	40.5 kg
Rated voltage/Power consumption	120 V/1.5 A 60 Hz

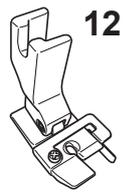
Accessories



1



11



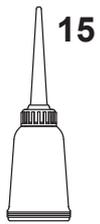
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13



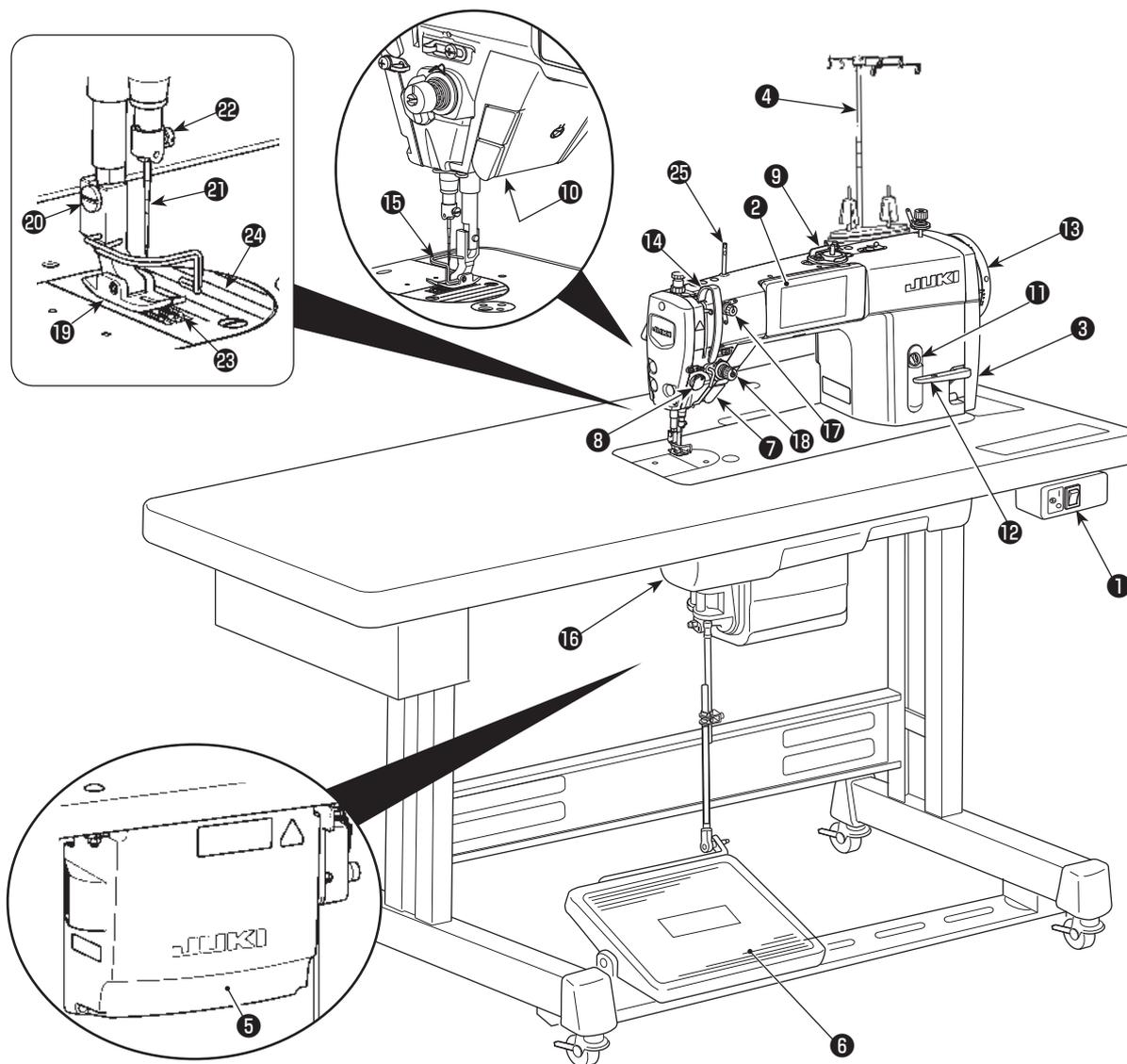
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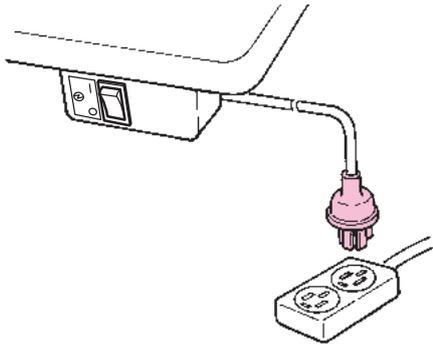
1. Thread stand components
2. Thread stand bracket
3. Thread guide pin
4. Screwdriver (small)
5. Screwdriver (Medium)
6. Hexagonal wrench (3 mm)
7. Cleaning brush
8. Bobbins (4pcs.)
9. Needles (DB×1)
10. Spool cap
11. Sewing machine cover
12. 1/4" presser foot or 7 mm presser foot
13. Ruler presser foot
14. Quilting foot front open toe
15. Oiler

Principal parts



- | | |
|--------------------------------|-----------------------------|
| ① Power switch | ⑭ Take-up lever cover |
| ② Operation panel | ⑮ Finger guard |
| ③ Pulley cover | ⑯ Under cover |
| ④ Thread stand components | ⑰ 1st thread tension |
| ⑤ Control box | ⑱ 2nd thread tension |
| ⑥ Operation pedal | ⑲ Presser foot |
| ⑦ Needle up/down switch | ⑳ Screw in the presser foot |
| ⑧ Needle thread presser device | ㉑ Needle |
| ⑨ Bobbin winder unit | ㉒ Needle clamp screw |
| ⑩ LED hand light | ㉓ Feed dog |
| ⑪ Oil filler port | ㉔ Sewing guide lines |
| ⑫ Reverse feed lever | ㉕ Thread guide pin |
| ⑬ Handwheel | |

Name and function of each component



■ Power plug

Insert the power plug into the wall outlet.

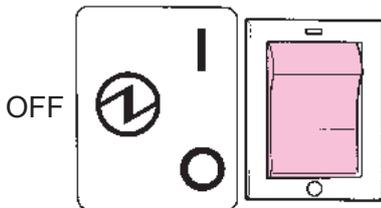
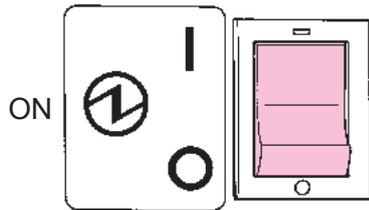
⚠ CAUTION:

Perform these following steps when you are not using your sewing machine.

1. Be sure to turn OFF the power switch.
2. Be sure to remove the power plug from the wall outlet.
3. Do not place a thing on the operation pedal.

⚠ WARNING (For U.S.A., Canada only)

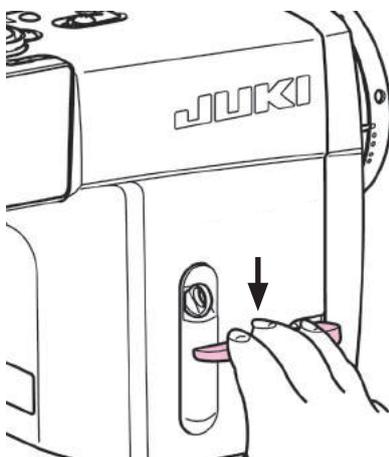
This appliance has a polarized plug (one blade wider than the other). To reduce the risk of electric shock, this plug is intended to fit in a polarized outlet only one way. If the plug does not fit fully in the outlet, reverse the plug. If it still does not fit, contact a qualified electrician to install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



■ Power switch

Turn ON the machine, set the power switch to "I".

Turn OFF the machine, set the power switch to "O".



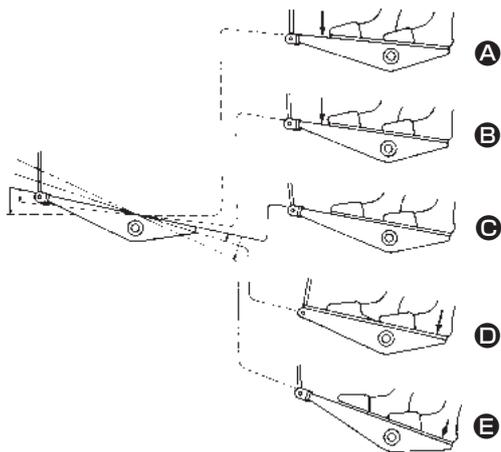
■ Reverse feed stitching

The seam does not fray when the reverse feed stitching is performed at the start or end of sewing.

[Reverse feed stitching by means of the reverse feed lever]

Length of the seam sewn by feeding the material in the normal or reverse direction of feed can be controlled by reverse feed lever.

Name and Function of each component



■ Operation pedal

When the sewing is completed, both the needle and the bobbin threads can be simultaneously trimmed.

You can re-start sewing even if the bobbin thread does not appear on the throat plate.

The pedal is operated in the following four steps :

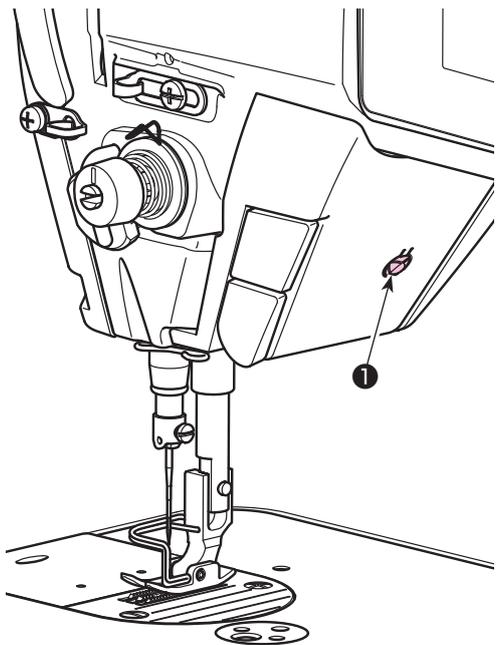
- 1) The machine runs at low sewing speed when you lightly depress the front part of the pedal. **B**
- 2) The machine runs at high sewing speed when you further depress the front part of the pedal. **A** (If the automatic reverse feed stitching has been preset, the machine runs at high speed after it completes reverse feed stitching.)
- 3) The machine stops (with its needle up or down) when you reset the pedal to its original position. **C**
- 4) The machine trims threads when you fully depress the back part of the pedal. **E**

The presser foot goes up when you lightly depress the back part of the pedal **D**, and if you further depress the back part, the thread trimmer is actuated.

When starting sewing from the state that the presser foot has been lifted and you depress the back part of the pedal, the presser foot only comes down.

- If you reset the pedal to its neutral position during the automatic reverse feed stitching at the start of sewing, the machine stops after it completes the reverse feed stitching.
- The machine will perform normal thread trimming even if you depress the back part of the pedal immediately following high or low speed sewing.
- The machine will completely perform thread trimming even if you reset the pedal to its neutral position immediately after the machine started thread trimming action.

Name and Function of each component



■ LED hand light

⚠ CAUTION:

In order to protect against personal injury due to unexpected start of the sewing machine, never bring hands near the needle entry area or place foot on the pedal during the adjustment of intensity of the LED.

* This LED is intended to improve operability of the sewing machine and is not intended for maintenance.

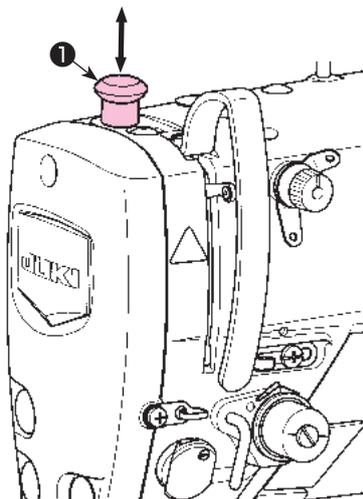
The sewing machine is provided as standard with an LED light which illuminates the needle entry area.

Intensity adjustment and turn-off of the light is carried out by pressing switch ①. Every time the switch is pressed, the light is adjusted in intensity in five steps and is turned off in turn.

[Change of intensity]

1 ⇒ 4 ⇒ 5 ⇒ 1
Bright ⇒ Dim ⇒ Off ⇒ Bright

In this way, every time the switch ① is pressed, the hand lamp status is changed in repetition.

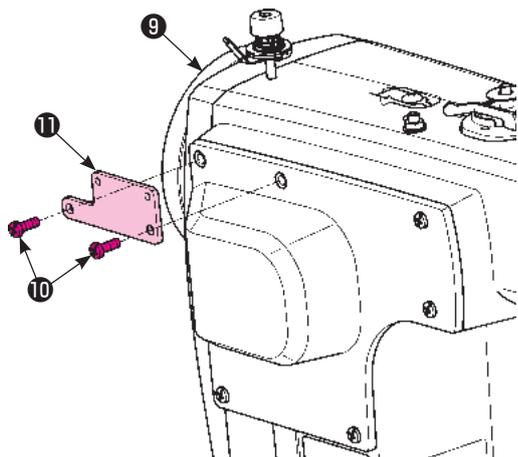


■ Manual lifter

The presser foot can be manually lifted/lowered by moving presser bar cap ① up and down while the power to the sewing machine is in the OFF state.

Use this manual lifting feature when replacing the gauge or adjusting the needle entry area.

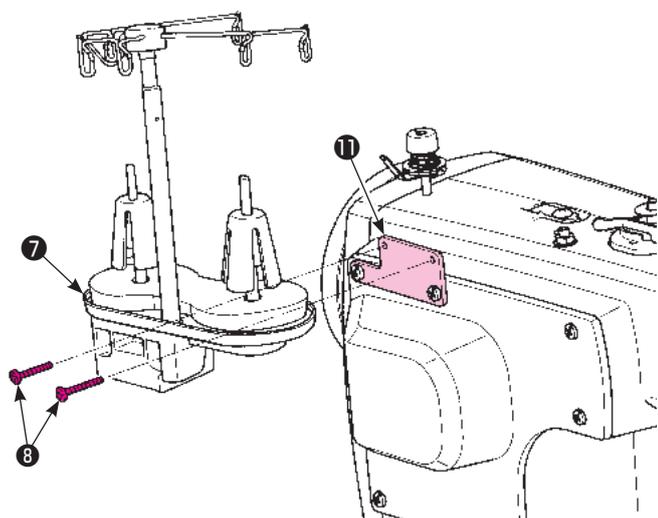
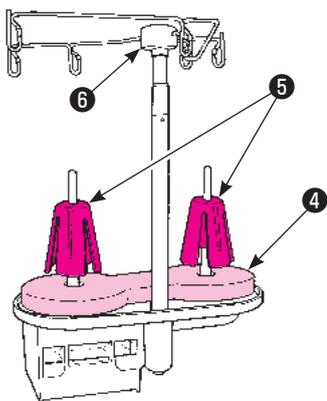
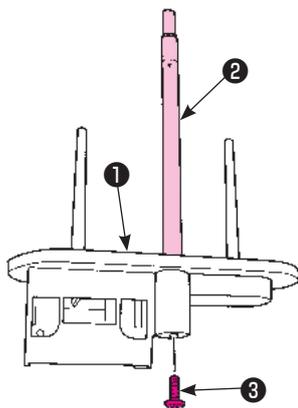
Installing the thread stand components



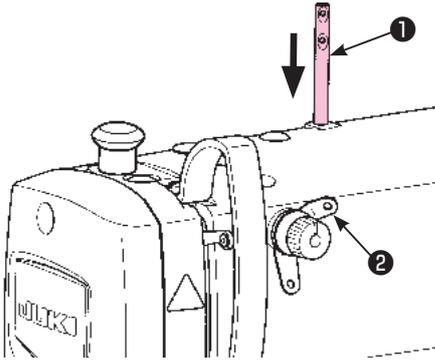
CAUTION:

Turn OFF the power switch.
Always must be disconnected plug from socket-outlet.

- 1) Remove two setscrews 10 of window plate on sewing machine head 9.
- 2) Attach thread stand bracket 11 to sewing machine head 9 with two setscrew 10 removed in Step 1).
- 3) Insert bobbin winder spool pin 2 into spool holder 1. Fix the former with setscrew 3.
- 4) Set bobbin winder seat 4 and two anti-vibration cones 5 on spool holder 1.
- 5) Set thread stand thread guide 6 on the top of bobbin winder spool pin 2.
- 6) Install thread stand components 7 to thread stand bracket 11 with two setscrews 8.



Installing the thread guide pin



CAUTION:

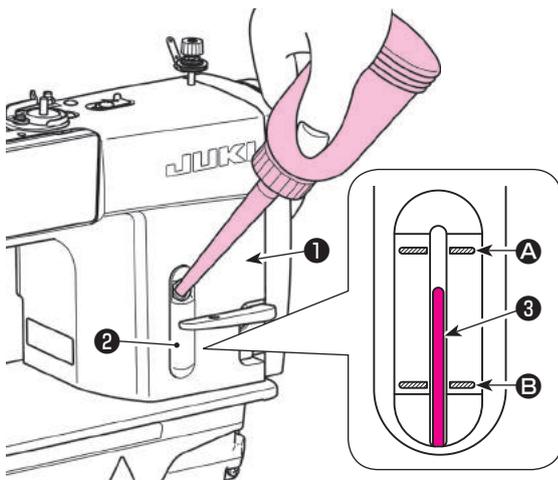
Turn OFF the power switch.
Always must be disconnected plug from socket-outlet.

Insert thread guide pin ① into the frame with the holes in the pin faced to 1st thread tension ②. Pat the top of the thread guide pin with the handle of screwdriver to prevent the pin from slipping off easily.

Lubrication

CAUTION:

1. Do not connect the power plug until the lubrication has been completed so as to prevent accidents due to abrupt start of the sewing machine,
2. To prevent the occurrence of an inflammation or rash, immediately wash the related portions if oil adheres to your eyes or other parts of your body.
3. If oil is mistakenly swallowed, diarrhea or vomiting may occur. Put oil in a place where children cannot reach.



CAUTION:

1. When you use a new sewing machine or a sewing machine after an extended period of disuse, use the sewing machine after performing break-in at 2,000 sti/min or less.
2. For the oil for hook lubrication, purchase JUKI NEW DEFRIX OIL No. 1 (part number : MDFRX1600C0) or JUKI CORPORATION GENUINE OIL 7 (part number : 40102087).
3. Be sure to lubricate clean oil.
4. Do not operate the machine with the oil hole cap ① removed. Never remove cap ① from the oil inlet in any case other than oiling. In addition, take care not to lose it.

Fill the oil tank with oil for hook lubrication before operating the sewing machine.

- 1) Remove oil hole cap ① and fill the oil tank with JUKI NEW DEFRIX OIL No. 1 (part number : MDFRX1600C0) or JUKI CORPORATION GENUINE OIL 7 (part number : 40102087) using the oiler supplied with the machine.
- 2) Fill the oil tank with the oil until the top end of oil amount indicating rod ③ comes between the upper engraved marker line A and the lower engraved marker line B of oil amount indicating window ②. If the oil is filled excessively, it will leak from the air vent hole in the oil tank or proper lubrication will be not performed. In addition, when the oil is vigorously filled, it may overflow from the oil hole. So, be careful.
- 3) When you operate the sewing machine, refill oil if the top end of oil amount indicating rod ③ comes down to the lower engraved marker line B of oil amount indicating window ②.

Panel setting before using

■ Selection of the language (operation to be done at first)

Select the language to be displayed on the operation panel when you turn ON the power to your sewing machine for the first time after the purchase.

Note that, if you turn the power OFF without selecting the language, the language selection screen will be displayed every time you turn ON the power to the sewing machine.

① Turning ON the power switch

⚠ CAUTION:

Be aware that the needle bar moves automatically. The needle bar can also be set so that it does not move automatically. Refer to “List of memory switch data” for details.



<Welcome screen>

Firstly, the welcome screen is displayed on the panel. Then, the language selection screen is displayed.

② Selecting the language



①
②
<Language selection screen>

Select the language you want to use and press corresponding language button ①. Then, press



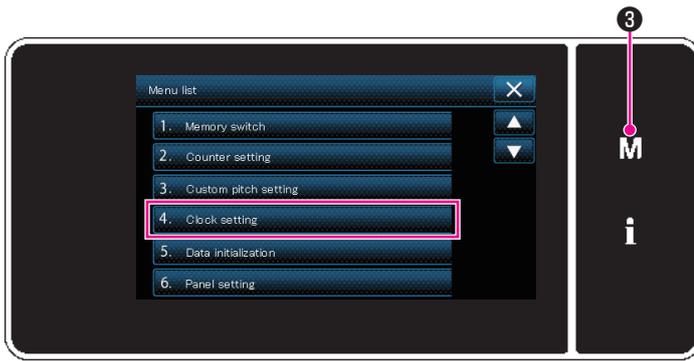
This determines the language to be displayed on the panel.

The language to be displayed on the operation panel can be changed using the memory switch U406.

Refer to “List of memory switch data” for details.

Panel setting before using

③ Setting the clock



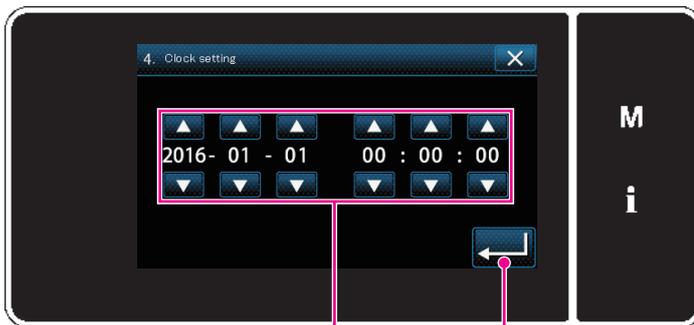
<Mode screen>

1) Press **M** ③.

The "mode screen" is displayed.

2) Select the "4. Clock setting".

The "clock setting screen" is displayed.



<Clock setting screen>

3) Enter year/month/day/hour/minute/second with

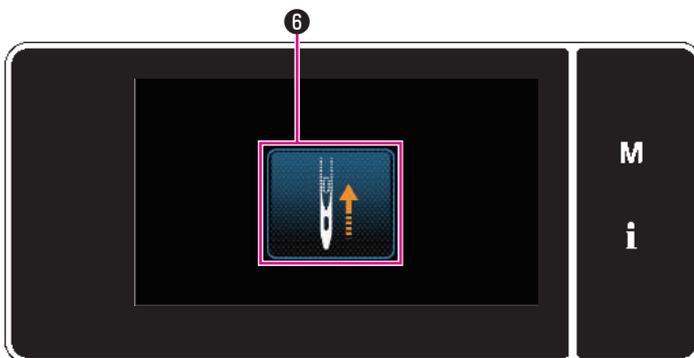


The time entered is displayed in 24-hour notation.

4) Press **Enter** ⑤ to confirm the clock setting.

Then, the current screen returns to the previous screen.

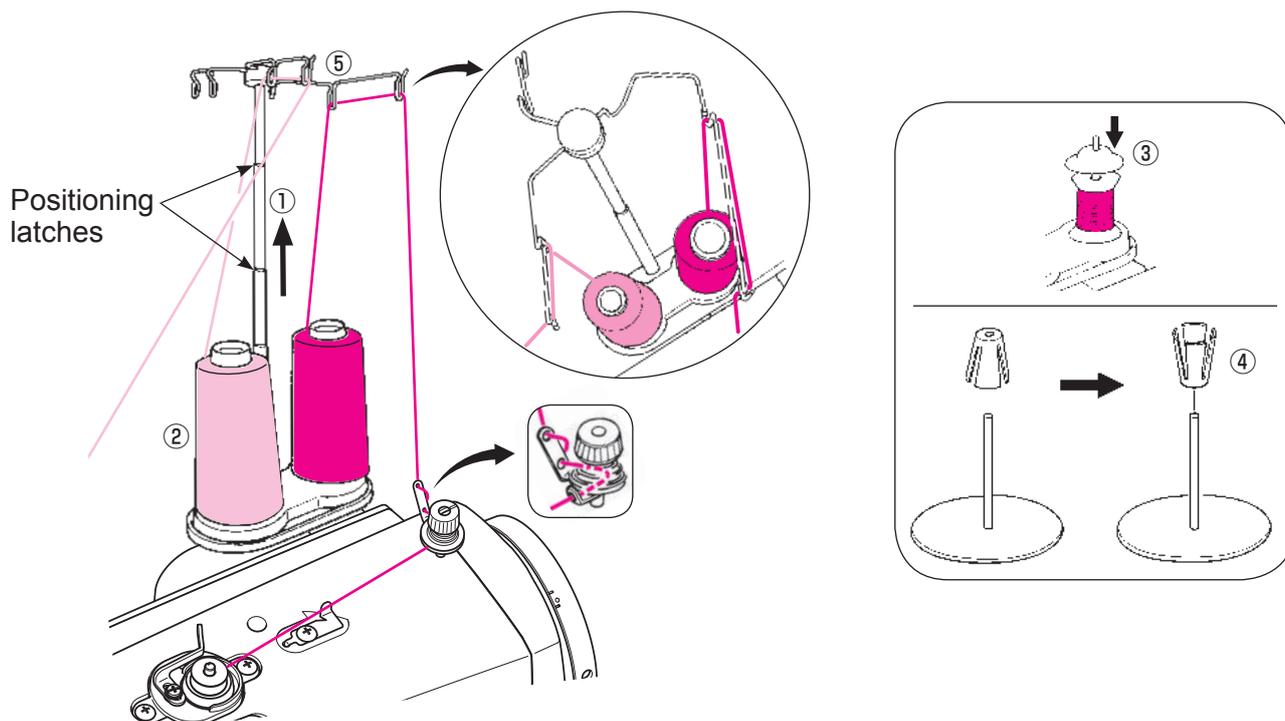
④ Retrieval of the origin



<Origin retrieval screen>

Press ⑥ to perform the origin retrieval, and bring needle bar to its upper position.

Winding the bobbin

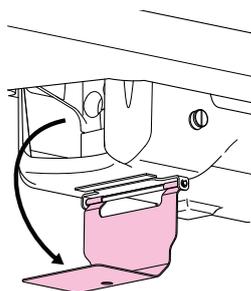


Installing the thread guide

- ① Raise the support rod fully, turning slightly until the positioning latches engage.
- ② Set the large spool over the anti vibration cone.
- ③ Set the household-type thread onto the spool pin and then insert a spool cap in place.
- ④ To set a large-diameter spool, set the anti vibration cone upside down to stabilize the spool.
- ⑤ Pass the thread coming from the spool on the thread guide pin (rod) just above the spool.



CAUTION: Turn OFF the power before starting the work so as to prevent accidents caused by abrupt start of the sewing machine.



1 Open the hook cover.



2 Take out the bobbin case.

Bring up the needle. Take out the bobbin case.

Winding the bobbin



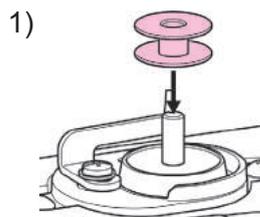
3 Take out the bobbin from the bobbin case.

Snap in the latch to let the bobbin come out of the bobbin case.

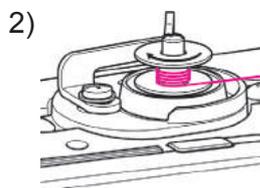


4 Thread the bobbin winder guide.

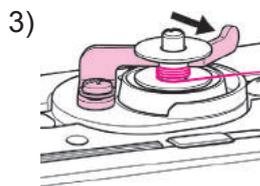
5 Installing the bobbin.



1) Insert the bobbin deep into the bobbin winding shaft until it will go no further.

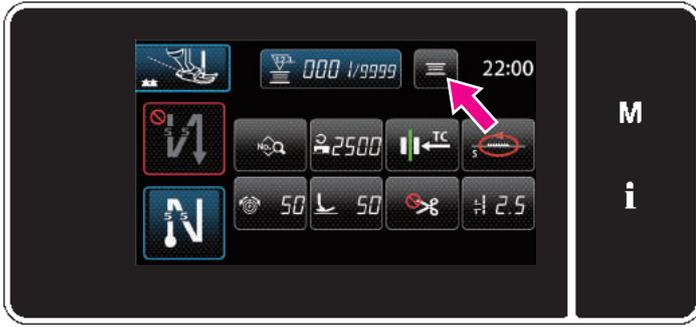


2) Wind clockwise the end of the bobbin thread on the bobbin several times. (In case of the aluminum bobbin, after winding clockwise the end of the bobbin thread, wind counterclockwise the thread coming from the bobbin winder guide several times to wind the bobbin thread with ease.)

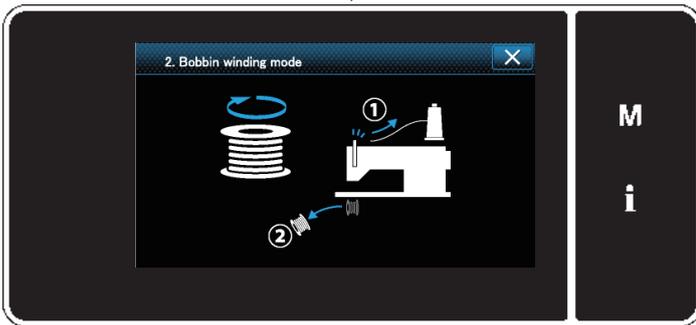


3) Press the bobbin winding lever in the direction of arrow.

Winding the bobbin



<Sewing screen>



<Bobbin winding mode screen>

6 Turn ON the power switch and change over to the bobbin winding mode.

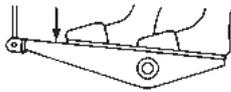
Display the bobbin winding mode screen by pressing .

The sewing machine mode is changed over to the “Bobbin winding mode”.

- * When winding the bobbin thread in the state that sewing is performed, execute the bobbin winding in the state of the sewing screen without pressing .



CAUTION: The needle moves while winding the bobbin thread, so be careful.



7 Start the sewing machine.

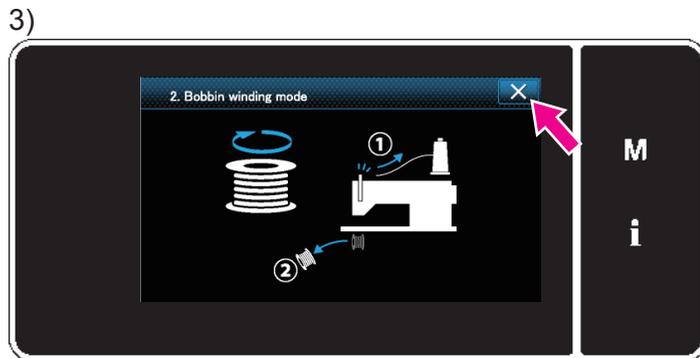
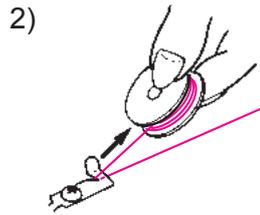
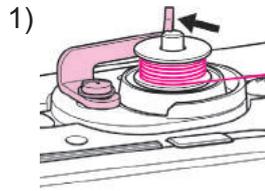
The sewing machine runs with its presser foot up when the pedal is depressed. In this state, a bobbin can be wound. The sewing machine runs only as long as the pedal is depressed.



CAUTION:

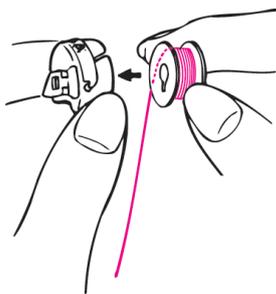
1. When winding the bobbin thread, start the winding in the state that the thread between the bobbin and bobbin winder guide is tense.
2. Wind the bobbin thread in the state that the needle thread from the thread path of thread take-up and the bobbin from the hook are removed.
3. There is the possibility that the thread pulled out from the thread stand components is loosened due to the influence (direction) of the wind and may be entangled in the handwheel. Be careful of the direction of the wind.
4. The speed of the sewing machine under the bobbin winding mode is equal to the one which has been set for the machine head.

Winding the bobbin



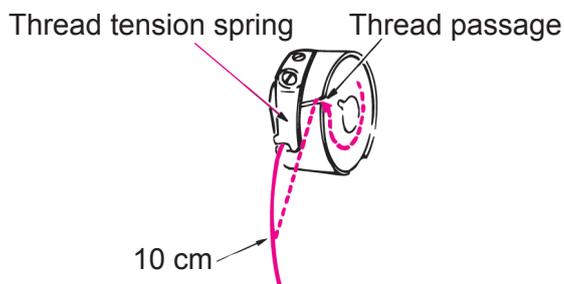
8 Upon completion of winding the bobbin.

- 1) The bobbin winding lever returns to its original position and the bobbin winding shaft automatically stops.
- 2) Remove the bobbin and cut the bobbin thread with the thread cut retainer.
- 3) When **X** is pressed, the sewing machine exits from the "Bobbin winding mode".



9 Loading the bobbin into the bobbin case.

Snap in the bobbin case latch, and put the bobbin into the bobbin case so that the bobbin runs clockwise. Passing the thread through the slit of the bobbin case, continue passing it under the thread tension spring, and pull out the thread open end about 10 cm from the bobbin case.

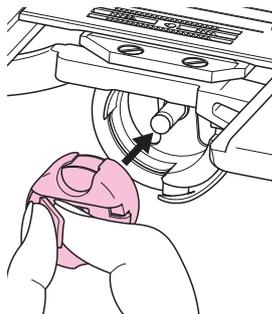


* The bobbin should run clockwise.

Winding the bobbin

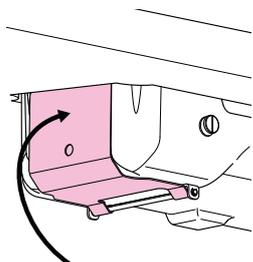


CAUTION: Turn OFF the power before starting the work so as to prevent accidents caused by abrupt start of the sewing machine.



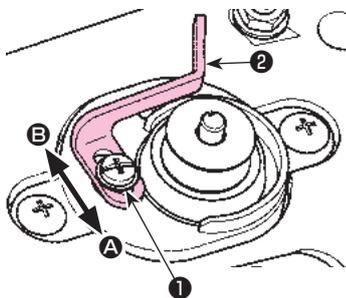
10 Set the bobbin in the sewing machine.

Insert the bobbin case fully into the hook, and close the bobbin case latch.



11 Close the hook cover.

■ Adjusting the winding amount of the bobbin thread



When adjusting the winding amount of the bobbin thread, loosen setscrew **1** and move bobbin winding lever **2** to the direction of **A** or **B**. Then tighten setscrew **1**.

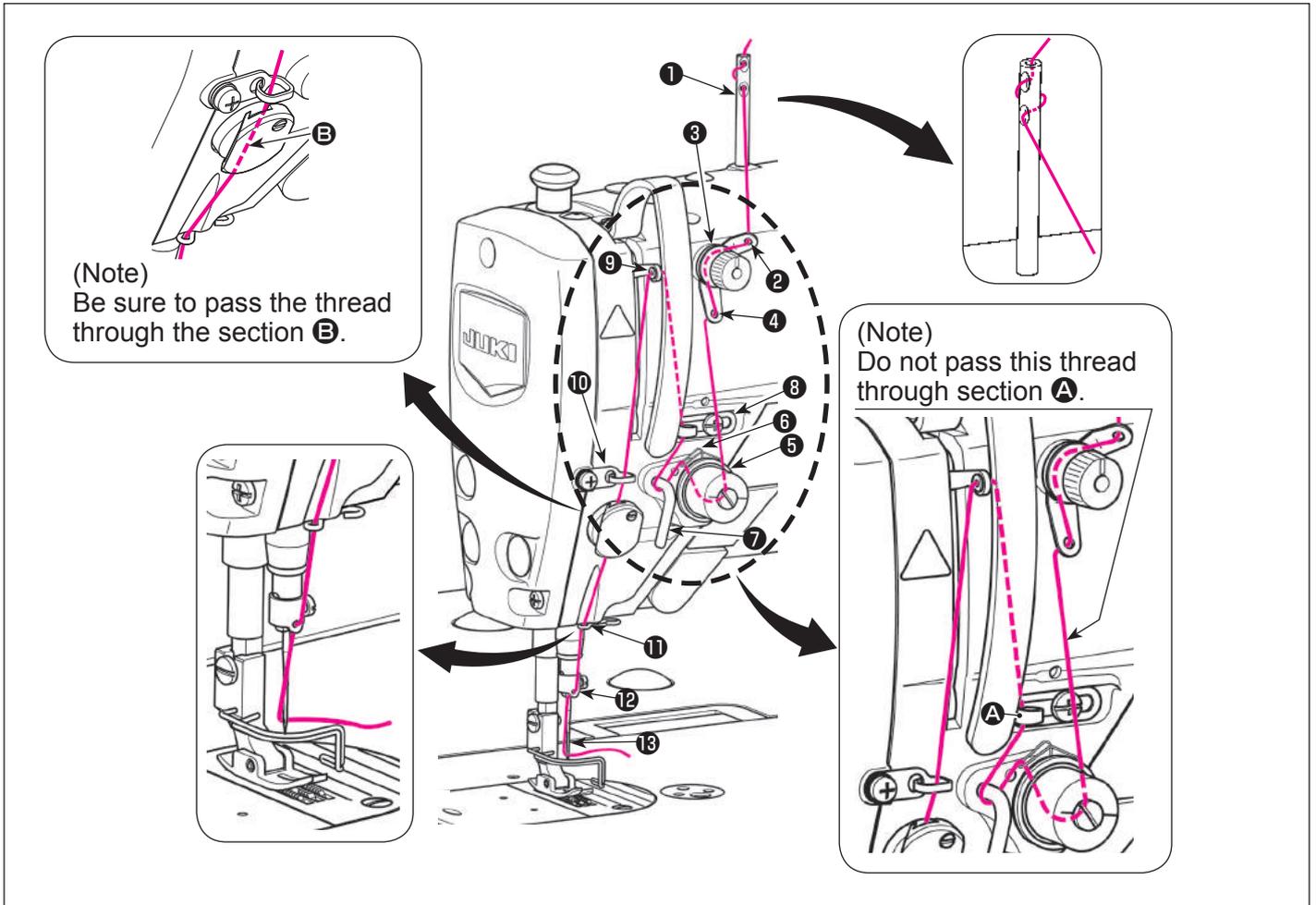
To the direction of **A** : Decrease

To the direction of **B** : Increase

Threading the machine head



CAUTION: Turn OFF the power before starting the work so as to prevent accidents caused by abrupt start of the sewing machine.

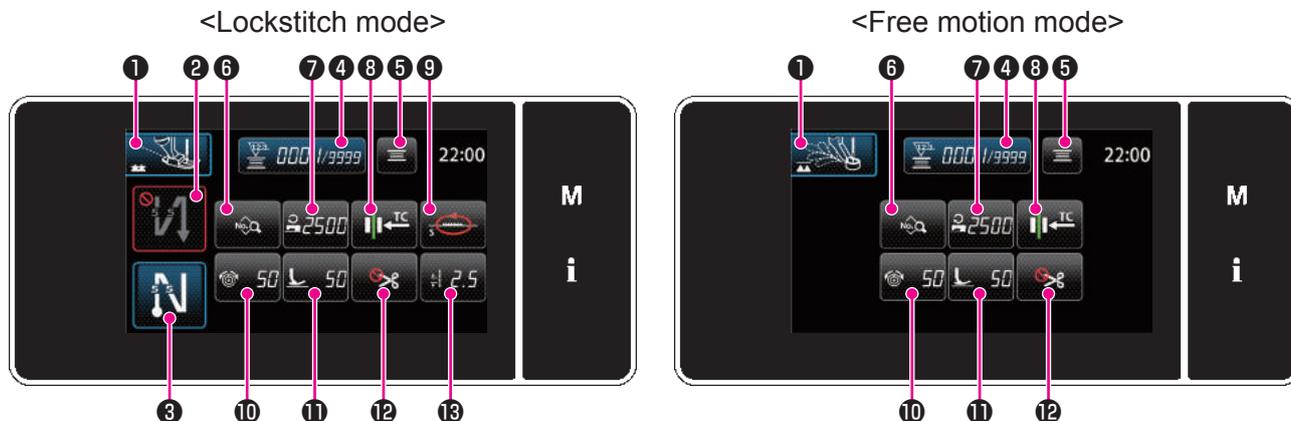


How to use the operation panel

Names and functions of the panel buttons

Changeover between the lockstitch mode and the free motion mode is carried out by pressing  ①

( ①).



No.	Button name	Description
①	Changeover between lockstitch mode and free motion	This button can be changed over from the lockstitch mode to the free motion mode, or from the free motion mode to the lockstitch mode.
②	Reverse feed stitching (at start) button	This button is used for selecting the ON/OFF status of the reverse feed stitching at the start of sewing. The reverse feed stitching setting screen is displayed by keeping this button held pressed for one second.
③	Reverse feed stitching (at end) button	This button is used for selecting the ON/OFF status of the reverse feed stitching at the end of sewing. The reverse feed stitching setting screen is displayed by keeping this button held pressed for one second.
④	Counter button	The counter value input screen is displayed.
⑤	Bobbin thread winding button	The bobbin thread winding screen is displayed.
⑥	Sewing data list button	The sewing data list screen is displayed.
⑦	Sewing speed setting button	The sewing speed setting screen is displayed.
⑧	Needle thread presser setting button	The needle thread presser setting screen is displayed.
⑨	Feed locus setting button	The feed locus setting screen is displayed.
⑩	Thread tension setting button	The thread tension setting screen is displayed.
⑪	Presser foot pressure setting button	The presser foot pressure setting screen is displayed.
⑫	Thread trimming function setting button	The thread trimming function setting screen is displayed.
⑬	Stitch length setting button	The stitch length setting screen is displayed.

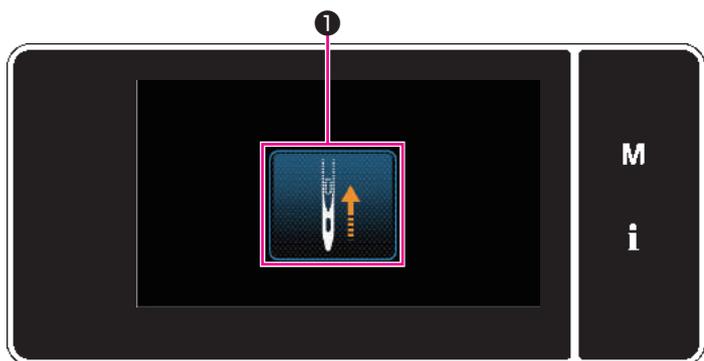
How to use the operation panel

■ Basic operation

① Turning ON the power switch



When you turn ON the power switch, the welcome screen is displayed.



After a few seconds, the origin retrieval screen will be displayed.

Press ① to perform the origin retrieval, and bring needle bar to its upper position.

<Origin retrieval screen>

② Selecting a sewing pattern

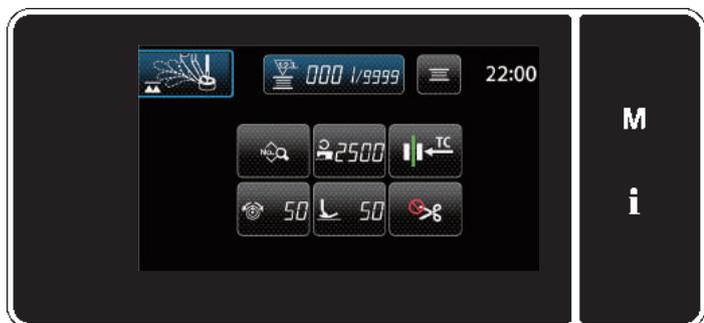


The sewing screen is displayed.

Select a sewing pattern.

Refer to "**Sewing patterns**" for details.

<Sewing screen (Lockstitch mode)>



<Sewing screen (Free motion mode)>

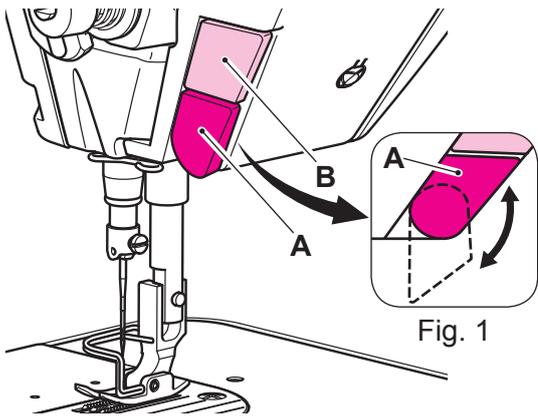
③ Starting sewing



When you depress the pedal, the sewing machine starts sewing.

Refer to "**Pedal operation**" for details.

Custom switch



Various operations can be carried out by operating custom switch **B**.

* It is also possible to assign an operation to custom switch **A**.

The initial values are as follows:

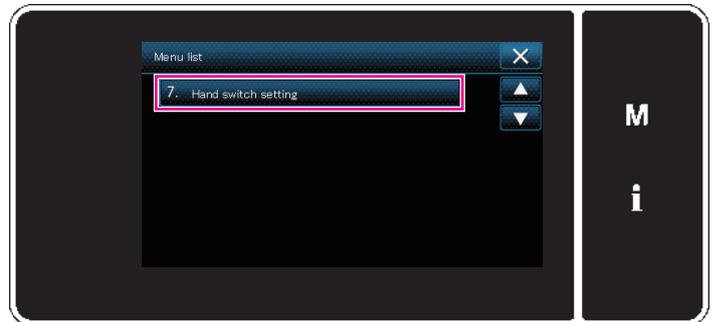
Custom switch **A** : Needle up/down and inching sewing
(The needle position is changed over to up and down , and sewing at low speed when keeping this switch held pressed.)

Custom switch **B** : Presser foot lifting function
(The presser foot position is changed over to up and down.)

* Custom switch **A** can be used at two different positions by turning it. (Fig. 1)



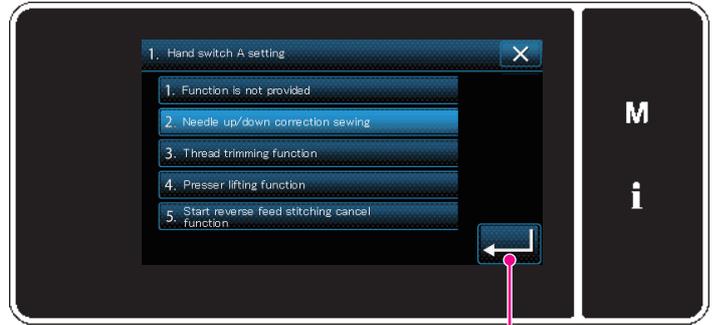
1) **M** ① held pressed for three second.
The "mode screen" is displayed.



2) Select the "7. Hand switch setting".



3) Select the switch to be set.



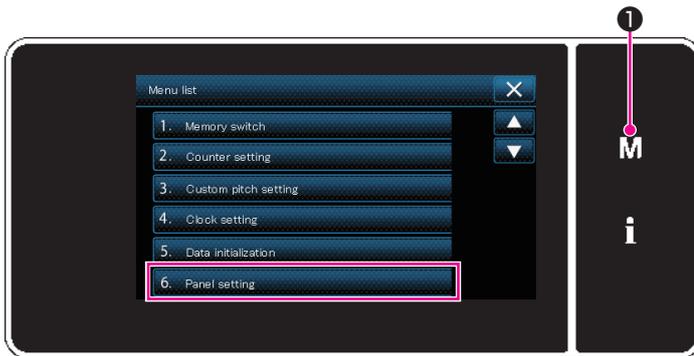
4) Select the function item which is to be assigned to the switch, and press **←** ② .

[Description of operations of the custom switch]

No.	Function item
1	Optional input function is not provided
2	Needle up/down and inching sewing function
3	Thread trimming function
4	Presser foot lifting function
5	Canceling function of reverse feed stitching at the start and end of sewing

Adjustment of brightness of the LED panel

Screen brightness of the LED panel can be changed.



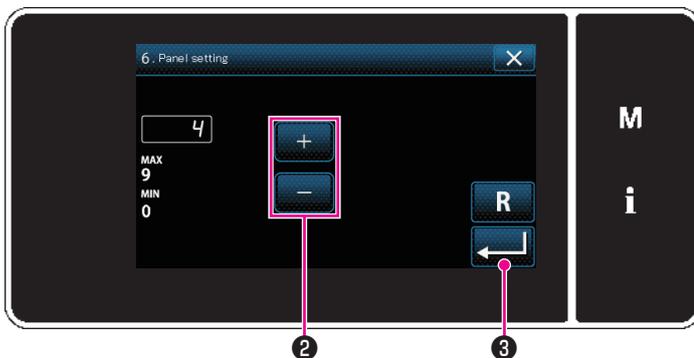
<Mode screen>

1) Press **M** ①.

The "mode screen" is displayed.

2) Select the "6. Panel setting".

The "operation panel setting screen" is displayed.



<Operation panel setting screen>

3) Brightness of the operation panel is adjustable

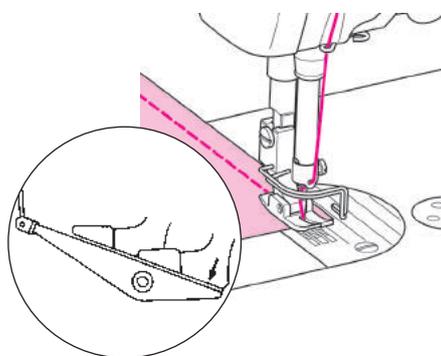
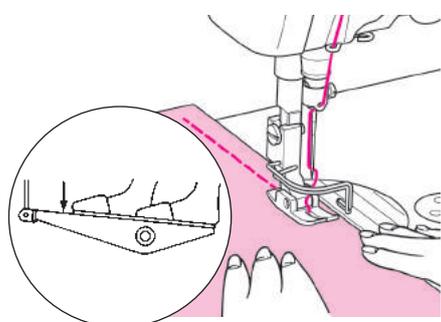
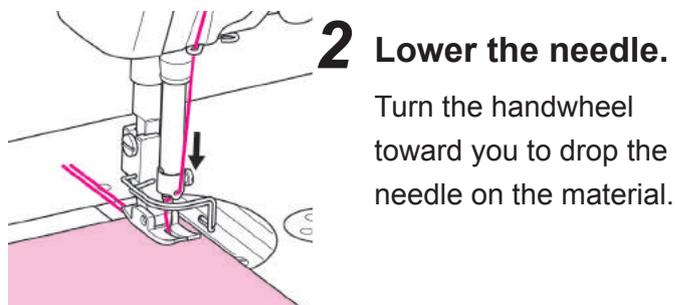
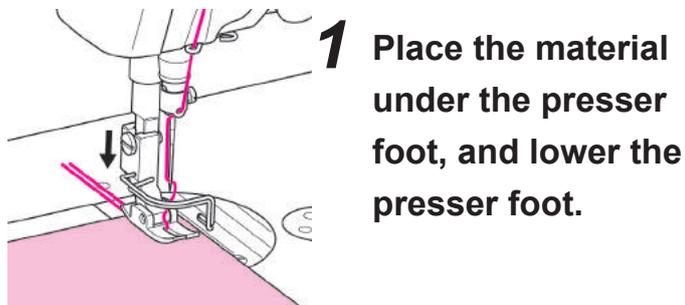
with  ②.

4) Press  ③ to confirm the setting.
Return the "mode screen".

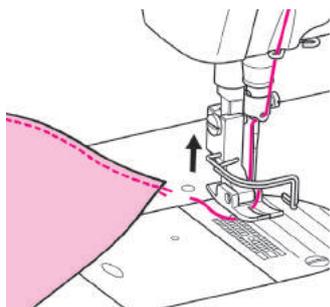
Test sewing

CAUTION: Do not place anything on the operation pedal.

If you start sewing while the thread take-up is engaged in its ascending motion, the needle thread may slip out of the needle's eye.

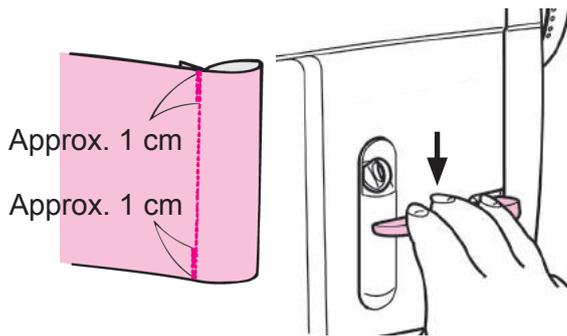


5 Raise the presser foot, and take out the finished material.



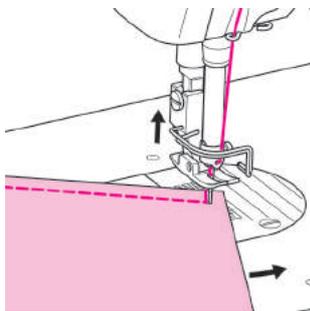
Test sewing

Reverse feed stitching



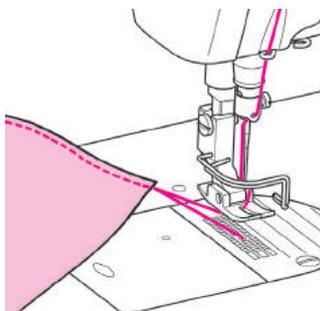
The seam does not fray when the reverse feed stitching is performed at the start or end of sewing for approximately 1 cm by pushing down the reverse feed lever.

How to change the sewing direction

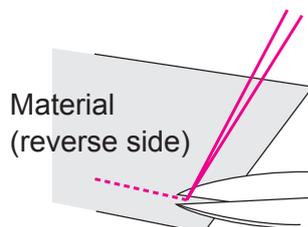


The needle will stop at the lower position. Raise the presser foot and rotate the material around the needle.

When making a knot on the reverse side of the material



- 1** When the sewing is finished, raise the needle and the presser foot. Then draw both the needle and the bobbin threads away from you by approximately 10 cm together with material, after the needle and the bobbin threads are trimmed.



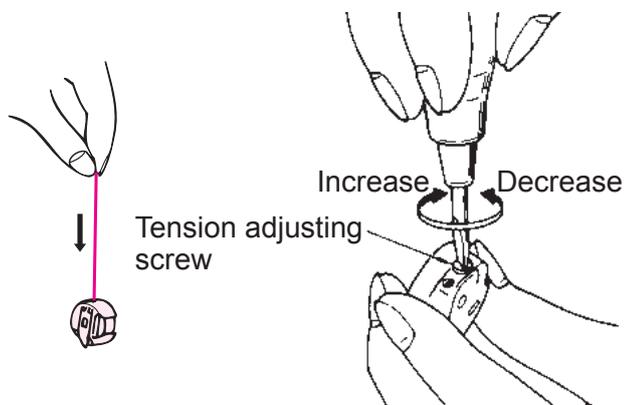
- 2** Draw the needle thread onto the reverse side of the material. Fasten the needle thread and the bobbin thread together. Then trim the both threads near the knot.

Adjusting the thread tension



CAUTION: Turn OFF the power switch when taking out the bobbin case.

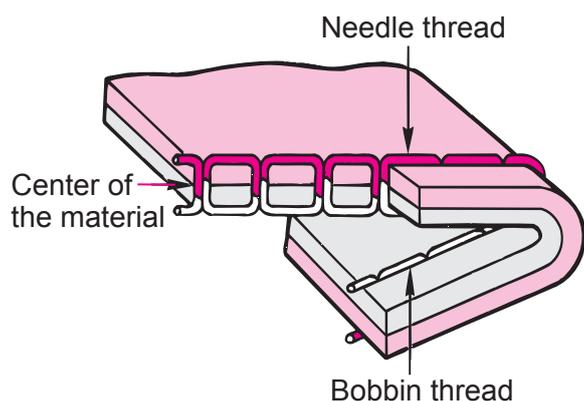
■ Adjusting the bobbin case



The standard bobbin thread tension is such that the bobbin case goes down slowly when you hold the open end of the bobbin thread and shake it as shown at left. (The count of the thread is #50.)

- * Adjust the needle thread tension in accordance with the bobbin thread tension.
- * The bobbin case is an exclusive JUKI part. Please consult the JUKI dealers when you purchase it.

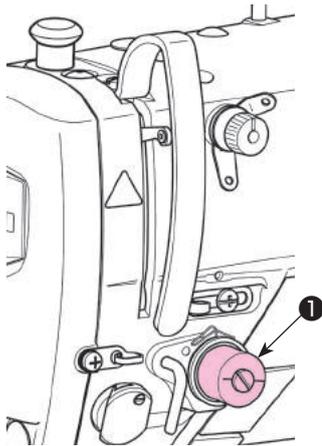
■ Proper thread tension



Improperly adjusted thread tension may cause puckering on materials, inferior stitches, or thread breakage.

Adjusting the thread tension

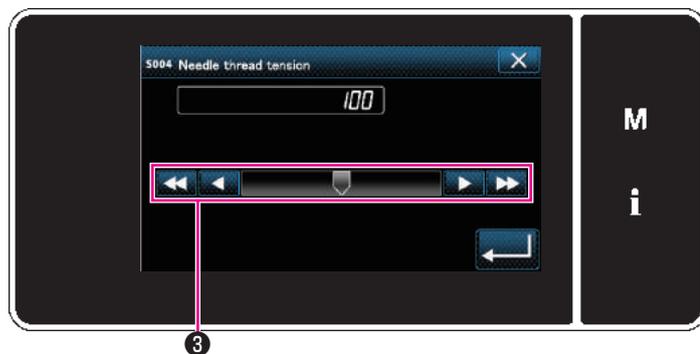
■ Adjusting the needle thread tension (Active tension)



Active tension ❶ permits setting of the needle thread tension on the operation panel according to each sewing condition. In addition, the data can be stored in memory.

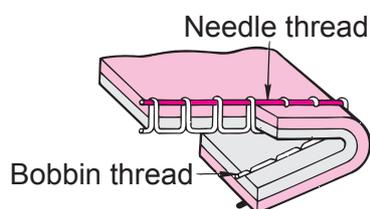


- 1) Press ❷ to display the needle thread tension input screen. (The numeric value displayed on the screen is the current needle thread tension value.)



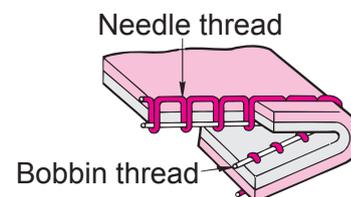
- 2) Change the needle thread tension as desired by pressing ❸.
- 3) There is a setting range of 0 to 200. When the set value is increased, the tension becomes higher.

The needle thread tension is too high.



Decrease the needle thread tension by pressing . (Adjust the numerical value to the smaller one.)

The needle thread tension is too low.



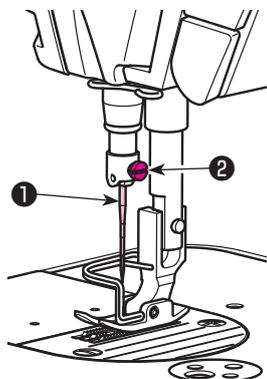
Increase the needle thread tension by pressing . (Adjust the numerical value to the larger one.)

Attaching the needle

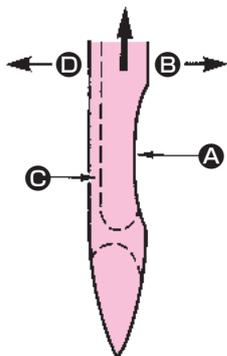


CAUTION: Turn OFF the power switch when replacing the needle.

* The needle to be used is DB×1.

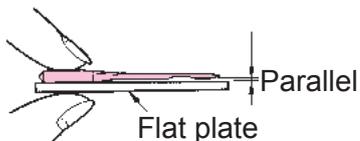


**Figure as observed
from the front**



Use the specified needle for the machine. Use the proper needle in accordance with the thickness of thread used and the kinds of the materials.

- 1) Turn the handwheel until the needle bar reaches the highest point of its stroke.
- 2) Loosen screw ②, and hold needle ① with its indented part A facing exactly to the right in direction B.
- 3) Insert the needle fully into the hole in the needle bar in the direction of the arrow until the end of hole is reached.
- 4) Securely tighten screw ②.
- 5) Check that long groove C of the needle is facing exactly to the left in direction D.



■ Checking the needle

Check the needle for its straightness occasionally. Any defective needle would cause needle breakage, stitch skipping, thread breakage or damage to materials.

Presser foot (Active presser device)



CAUTION: Do not place anything under the presser foot when turning the power ON. If the power is turned ON while placing something under the presser foot, the sewing machine displays E910.

CAUTION:

If the power to the sewing machine is turned ON while the material, etc. is placed under the presser foot, the presser stepping motor will generate a specific sound during origin retrieval. It should be noted that this phenomenon is not a fault.

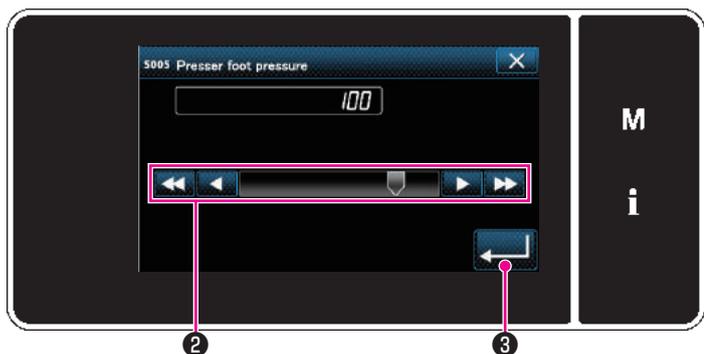


Adjusting the presser foot pressure

The presser foot pressure is displayed in section **A** on the panel. (Example of display : 50)

[How to change]

- 1) Display the presser foot pressure entry screen by pressing **1**.
- 2) Change the presser foot pressure as desired by pressing **2**. (Range of input values on the panel is from -350 to 200.)
* Refer to the following for a rough indication of the input value on the panel and the presser foot pressure.
- 3) Confirm your entry by pressing **3**. Then, the sewing screen is displayed.



Input value on the panel	Presser foot pressure (Reference)
0	Approx. 10 N (1 kg)
100 (Factory-setting at the time of shipment)	Approx. 40 N (4 kg)

CAUTION:

1. To avoid personal injury, never put your fingers under the presser foot.
2. Be aware that the presser foot pressure varies when the presser foot or the throat plate is changed.

Presser foot (Active presser device)

■ Micro-lifter function

Sewing while lifting the presser foot by very small amount is enabled by inputting a negative value on the panel. The micro-lifter function helps reduce slippage and damage of the material in the case of sewing raised fabric such as velvet.

* Refer to the table shown below for a rough indication of the relation among the value input on the panel, the presser foot height and the presser foot pressure.

Input value on the panel	Presser foot height	Presser foot pressure (Reference)
0	0 mm	Approx. 10 N (1 kg)
-350	Approx. 4 mm	

*1 The presser foot height 0 mm means the state the sole of presser foot comes in contact with the top surface of throat plate.

*2 The presser foot pressure becomes constant by inputting a negative value on the panel.

*3 The presser foot pressure varies when the presser foot or the throat plate is changed.

*4 Range of input values on the panel is from -350 to 200.

CAUTION:

1. Be sure to input a positive value on the operation panel in the case the micro-lifter function is not used. If not, the presser foot is slightly raised and the feed dog is unable to provide a sufficient efficiency of feed.
2. In the case of using the micro-lifter function, the efficiency of feed is likely to be insufficient. To achieve the sufficient efficiency of feed, reduce the sewing speed or help feed the material by hand.

Adjusting the stitch length

⚠ CAUTION:

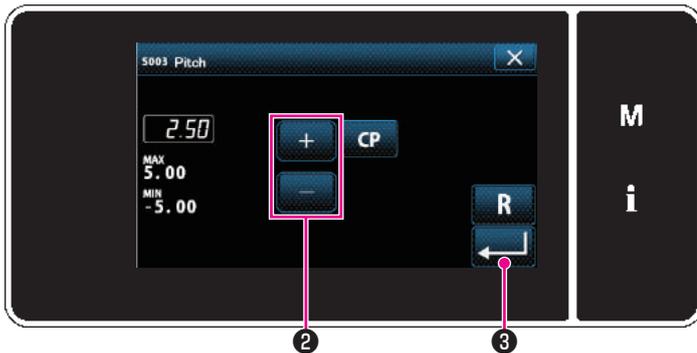
1. There may be the cases where the feed amount of the operation panel and the actual stitch length are different from each other in case of the use in the state other than the standard delivery or material used. Compensate the stitch length in accordance with the sewing product.
2. Be aware that interference between the throat plate and feed dog can occur depending on the gauge used. Be sure to check the clearance in the gauge to be used. (The clearance must be 0.5 mm or more.)
3. When you have changed the stitch length, feed dog height or feed timing, run the sewing machine at a low speed to make sure that the gauge does not interfere with the changed part.



Stitch length is displayed in section **A** on the panel. (Example of display : 2.5 mm)

[How to adjust]

- 1) Display the stitch length input screen by pressing  **1**.
- 2) The value displayed is changed by pressing   **2**. (In increments of 0.05 mm ; Input range : -5.00 to 5.00)
- 3) Confirm your entry by pressing  **3**. Then, the sewing screen is displayed.



Changing the sewing speed



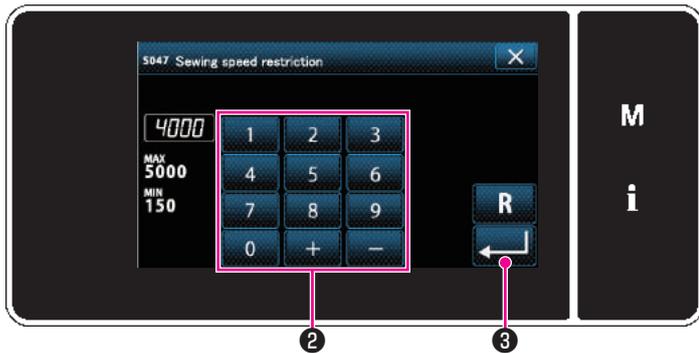
The sewing speed is displayed in section **A** on the panel. (Example of display : 25000 sti/min)

[How to change]

1) Display the sewing speed entry screen by pressing  **1** .

2) Change the sewing speed as desired by pressing ten keys **2** .

3) Confirm your entry by pressing  **3** . Then, the sewing screen is displayed.



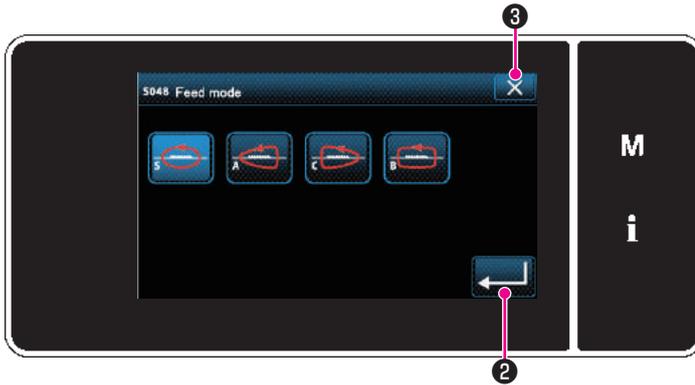
Changing the feed locus



The feed locus can be changed according to the item to be sewn.

[How to change]

1) Display "S048 Feed mode" by pressing  ①.



2) Change the feed locus.

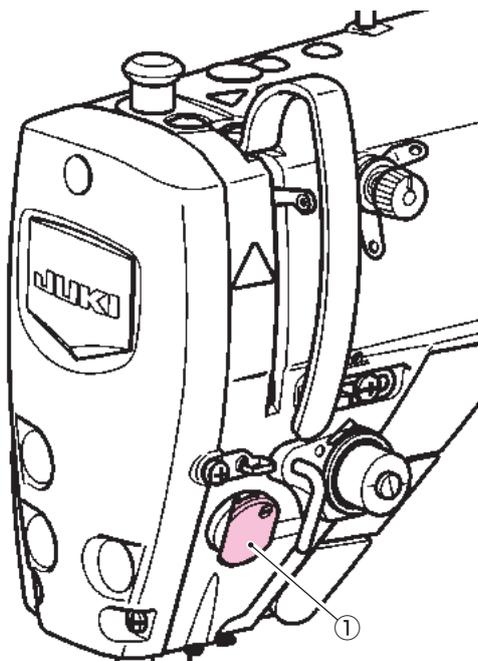
* Refer to the following for the types of feed locus.

3) Confirm your entry by pressing  ②.

4) Display the sewing screen by pressing  ③.

Feed locus (shape) "Image figure"	Name	Characteristics
	S	Standard : Normal fabric
	A	Front up : Thin fabric
	C	Rear up : Thick fabric
	B	Box feed : Quilt

Adjusting the needle thread presser device



The needle thread presser device is able to tuck the needle thread on the wrong side of material using the needle thread presser device.

[Feature]

- So-called "bird's nest phenomenon" which appears on the wrong side of material can be reduced by using needle thread presser device ① in combination with condensation stitching.

[How to set up the needle thread presser device]

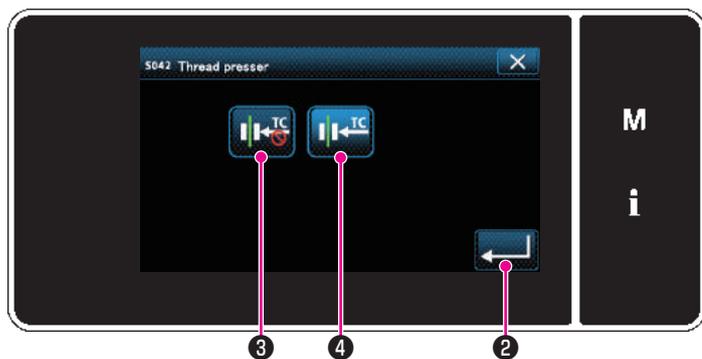
1) Press  ①.



2) Press  ③ or  ④.

( ④ will be placed in ON.)

3) Press  ② to confirm the setting. Then, the sewing screen is displayed.



⚠ CAUTION:

In the case the memory switch "U056 Reverse-rotation needle-up after thread trimming" is enabled, the length of needle thread becomes longer. So, in this case, the needle thread presser device should be set to "OFF".

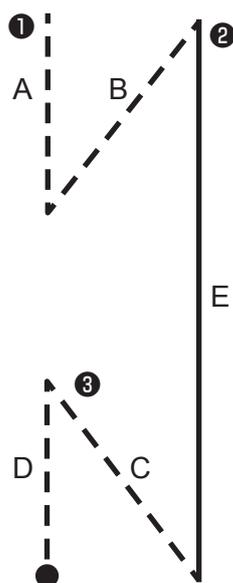
Sewing patterns

Patterns which are frequently sewn can be registered as sewing patterns.

Once the patterns are registered as sewing patterns, the desired sewing pattern can be called up only by selecting its sewing pattern number.

■ Sewing pattern configuration

One sewing pattern consists of four elements, i.e., reverse feed stitching (at start), main stitching, reverse feed stitching (at end) and pattern function.



①	Reverse feed stitching (at start) section Refer to " Reverse feed stitching (at start) pattern ".
②	Main stitching section Refer to " Editing the sewing patterns ".
③	Reverse feed stitching (at end) section Refer to " Reverse feed stitching (at end) pattern ".
④	Pattern function Refer to " Editing the sewing patterns ".

■ Reverse feed stitching (at start) pattern

A stitch shape of the reverse feed stitching (at start) is set by following the steps of procedure described below.

(1) Enabling the reverse feed stitching (at start) pattern



The reverse feed stitching (at start) pattern can be operated when the reverse feed stitching (at start) function is placed in the ON state (⊘ mark is not displayed).

If this function is placed in the OFF state, press the reverse feed stitching (at start) button to switch off ⊘ mark display to enable the reverse feed stitching (at start) function.

Sewing patterns

(2) Changing the number of stitches and stitch length of reverse feed stitching (at start) pattern

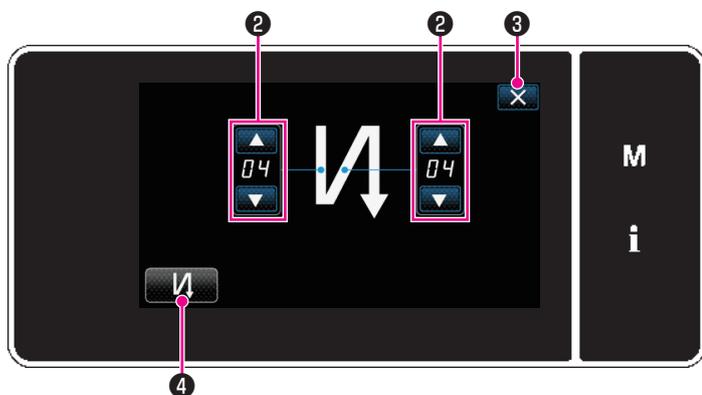
① Displaying the reverse feed stitching (at start) edit screen



① held pressed for one second.

The reverse feed stitching (at start) edit screen is displayed.

② Setting the shape, the number of stitches and stitch length of reverse feed stitching (at start)

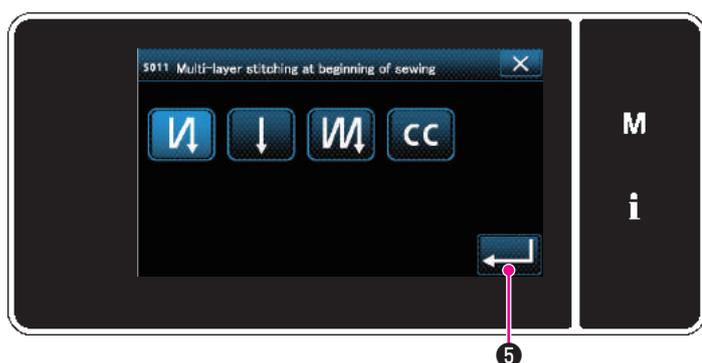


<Reverse feed stitching (at start) edit screen>

Change the numeric value with  ②.

The value you have entered is confirmed by pressing  ③. Then, the sewing screen is displayed.

The type of reverse feed stitching input screen is displayed by pressing  ④.



<Type of reverse feed stitching input screen>

Select the desired type of reverse feed stitching (at start) pattern from four different types; i.e., reverse feed stitching (single), condensation stitching and double reverse feed stitching.

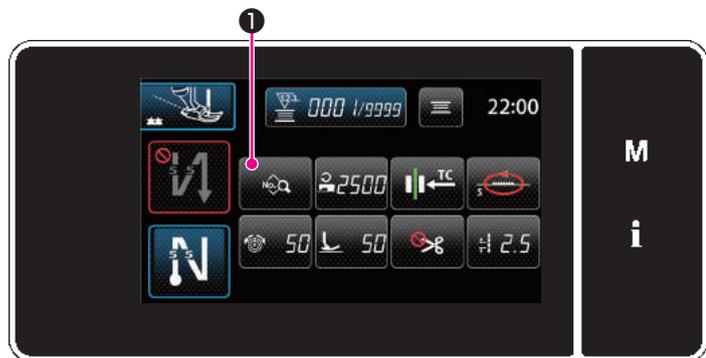
Press  ⑤ to confirm the aforementioned operation and return the current screen to the edit screen for reverse feed stitching (at start).

Sewing patterns

■ Editing the sewing patterns

(1) Edit method

① Displaying the sewing data edit screen



<Sewing screen>

On the sewing screen, press  ① to display the sewing data edit screen.

② Editing the sewing pattern



<Sewing data edit screen>

On this screen, the pattern functions can be edited separately.

Refer to "**List of pattern functions**" for the function items that can be edited.

Change the respective items and press  to confirm the change.

Press  ② to display the sewing screen.

③ Performing sewing using the edited sewing pattern



<Sewing screen>

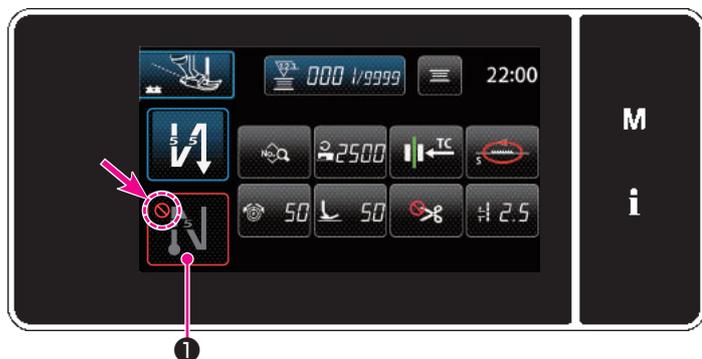
Data you have changed is displayed on the screen.

Sewing patterns

■ Reverse feed stitching (at end) pattern

A stitch shape of reverse feed stitching (at end) is set by following the steps of procedure described below.

(1) Enabling the reverse feed stitching (at end) pattern



The reverse feed stitching (at end) pattern can be operated when the reverse feed stitching (at end) function is placed in the ON state (⊘ mark is not displayed).

If this function is placed in the OFF state press the reverse feed stitching (at end) button to switch off ⊘ mark display to enable the reverse feed stitching (at end) function.

In the case the reverse feed stitching or double reverse feed stitching is selected, number of stitches **A** is displayed on the left side and number of stitches **B** is displayed on the right side on  ①, and in the case the condensation stitching is selected, only number of stitches **A** is displayed on  (display range: 0 to 99).

(2) Changing the number of stitches and stitch length of reverse feed stitching (at end) pattern

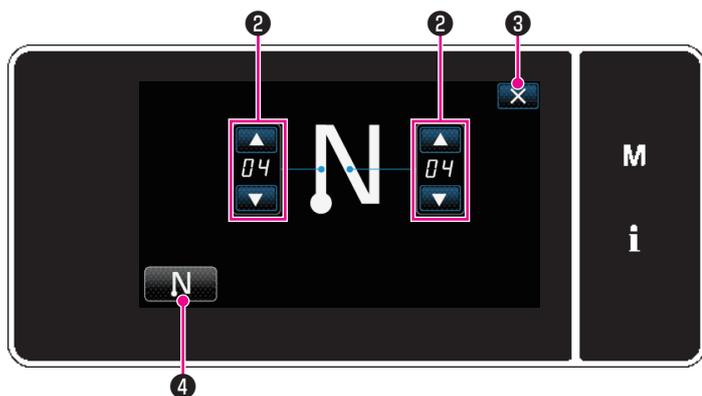
① Displaying the reverse feed stitching (at end) edit screen



Keep  ① held pressed for one second.

The reverse feed stitching (at end) edit screen is displayed.

② Setting the shape, the number of stitches and stitch length of reverse feed stitching (at end)



Change the numeric value with  ②.

The value you have entered is confirmed by pressing  ③. Then, the sewing screen is displayed.

Press  ④ to select the type of sewing.

<Reverse feed stitching (at end) edit screen>

Sewing patterns

List of pattern functions

Data No.	Item name		Lockstitch mode	Free motion mode
S003	Stitch length 		-5.00 to 5.00 (mm) Custom pitch	—
S004	Needle thread tension 		0 to 200	
S005	Presser foot pressure 		-350 to 200	
S041	Stop position of needle bar 		 : Stop with the needle down /  : Stop with the needle up	
S042	Thread presser		 : OFF /  : ON	
S043	Thread trimming device ON/OFF		 : OFF /  : ON	
S046	Shorter-thread remaining		 : OFF /  : ON	—
S047	Limit on sewing speed 		150 to 2,500 (sti/min)	
S048	Feed locus		 : S /  : A /  : C /  : B	—
S051	Correction value for stitch length of reverse feed stitching 		-5.00 to 5.00 (mm)	—

Counter function

This function counts sewing in the predetermined unit and gives a visible alarm on the screen when the pre-set value is reached.

■ Displaying the sewing screen under the counter display mode



There is the bobbin thread counter as a counter.

■ Types of the counter

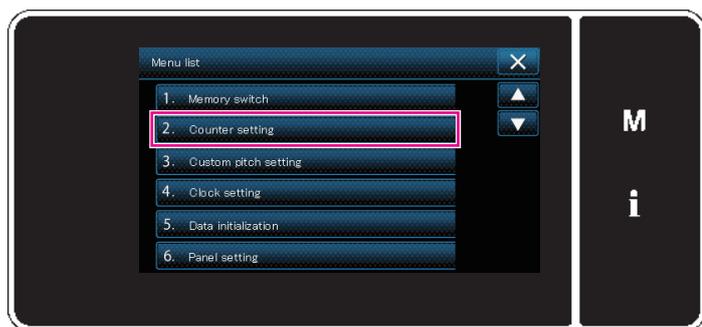
	<p>Bobbin thread counter</p> <p>The bobbin thread counter adds one to its current value every time the sewing machine sews 10 stitches.</p> <p>When the preset value is reached, the count-completion screen is displayed.</p> <p>* Refer to "How to reset the count-completion state".</p>
--	--

■ How to set the counter

① Selecting the counter setting



1) Display the mode screen by pressing **M** ①.

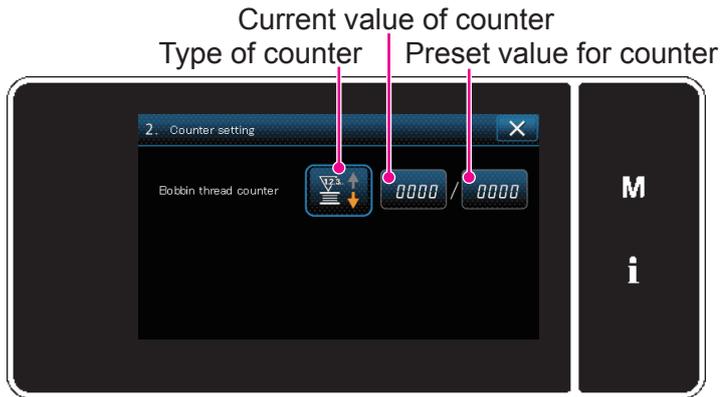


2) Select the "2. Counter setting".

<Mode screen>

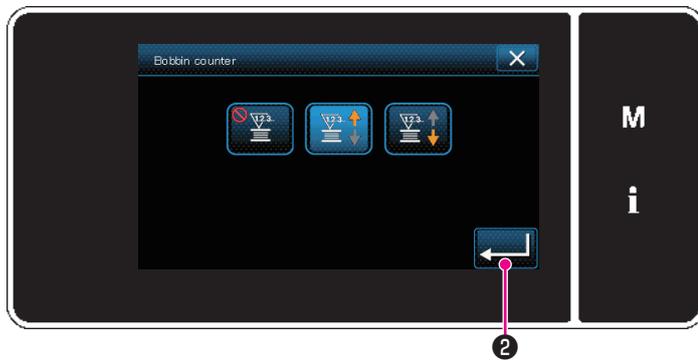
Counter function

② Setting the type of counter, current value of counter and preset value for counter



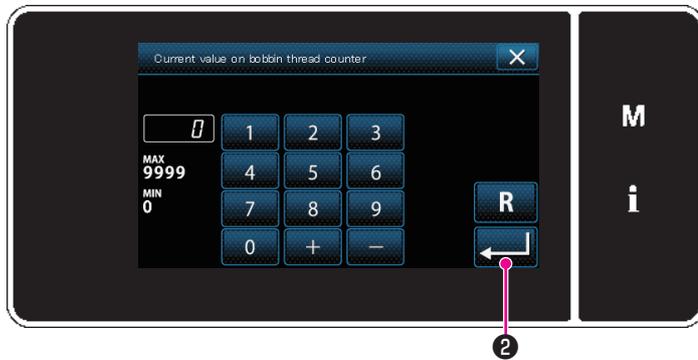
<Counter setting screen>

- 1) The counter setting screen is displayed to enable setting.
2. Press the button of the desired item. Then, the change screen corresponding to that item is displayed.



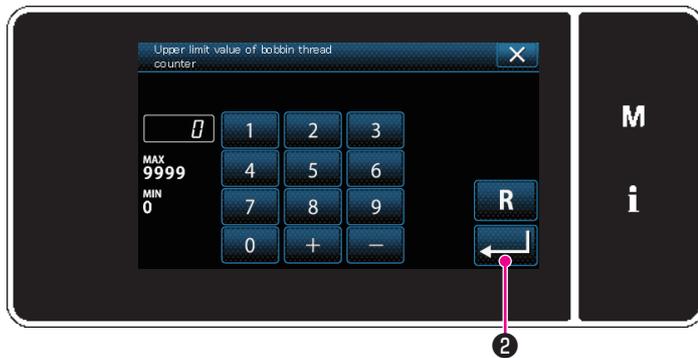
<Counter type screen>

- 1) Select the desired type of counter.
- 2) Press  ② to confirm the type of counter you have selected.



<Current counter value screen>

- 1) Select the current counter value.
- 2) Enter with the numeric keypad.
- 3) Press  ② to confirm the type of counter you have selected.



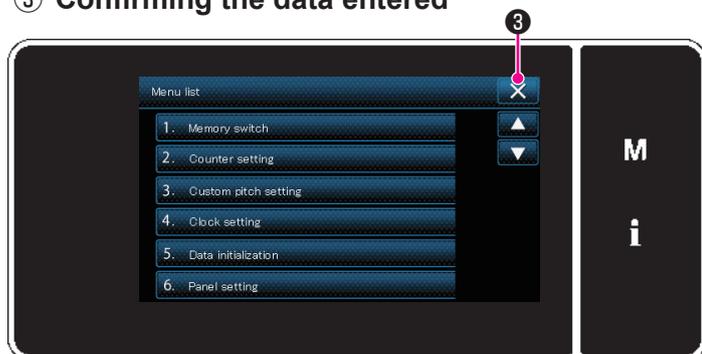
<Counter set value screen>

- 1) Select the counter set value.
- 2) Enter with the numeric keypad.
- 3) Press  ② to confirm the type of counter you have selected.

Counter function

Bobbin thread counter	
	<p>UP counter (adding method):</p> <p>The bobbin thread counter adds one to its current value every time the sewing machine sews 10 stitches. When the current value reaches the preset value, the count-completion screen is displayed.</p>
	<p>DOWN counter (subtracting method):</p> <p>The bobbin thread counter subtracts one from its current value every time the sewing machine sews 10 stitches. When the current value becomes 0 (zero), the count-completion screen is displayed.</p>
—	<p>Disuse of counter:</p> <p>The bobbin thread counter counts nothing even when the sewing machine performs sewing. The count-completion screen is, therefore, not displayed.</p>

③ Confirming the data entered



<Mode screen>

Confirm the data on counter setting items you have entered. Then, press  ③ to return the screen to the mode screen.

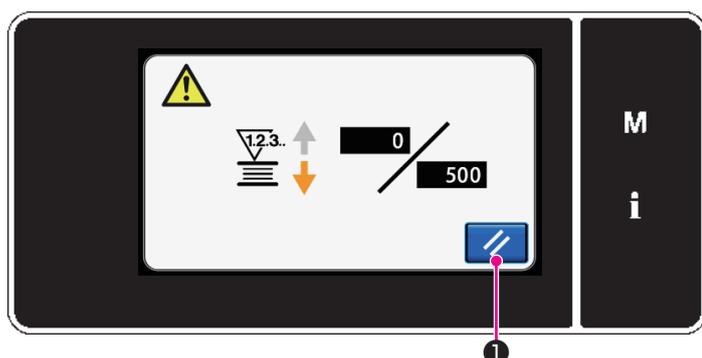
When you press  ③ again, the screen is returned to the sewing screen.



<Sewing screen (counter)>

The data on the counter function entered is displayed.

■ How to reset the count-completion state



<Count-completion screen>

When the predetermined conditions are satisfied during sewing, the count-completion screen is displayed.

The counter is reset by pressing  ①.

Then, the mode is returned to the sewing mode. In this mode, the counter starts counting again.

Memory switch data

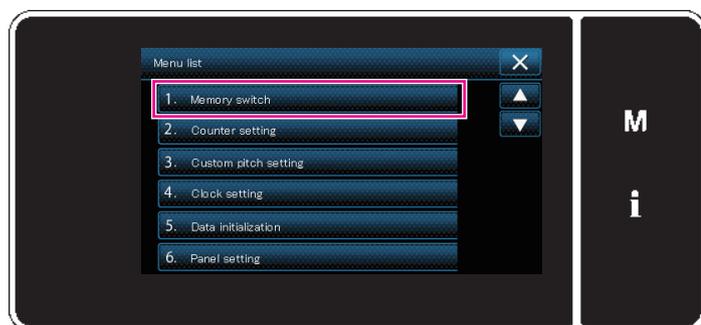
The memory switch data is the sewing machine operation data which commonly affects all sewing patterns and cycle patterns.

① Selecting the category of the memory switch data



<Sewing screen>

- 1) Press **M** ① on the sewing screen to display the "Mode screen".



<Mode screen>

- 2) Select the "1. Memory switch".

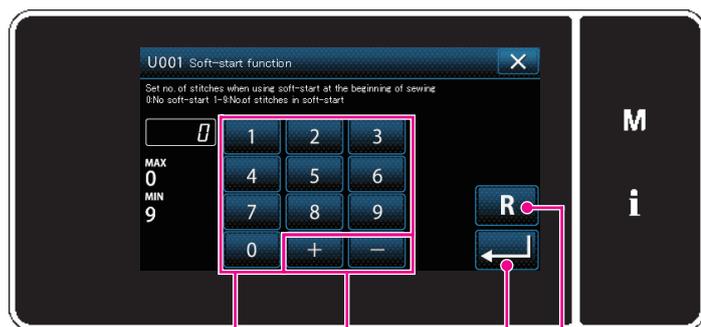
② Setting the memory switch



<Memory switch edit screen>

Select an item to edit from the memory switch list. Press button ②.

③ Confirming the data entered



<Input screen>

- 1) Enter a set value with numeric keypad ③ and **+** **-** ④.
- 2) Keep **R** ⑤ held pressed for one second to return the set value to the initial value.
- 3) Press **←** ⑥ to confirm the setting. The "memory switch edit screen" is displayed.

Memory switch data

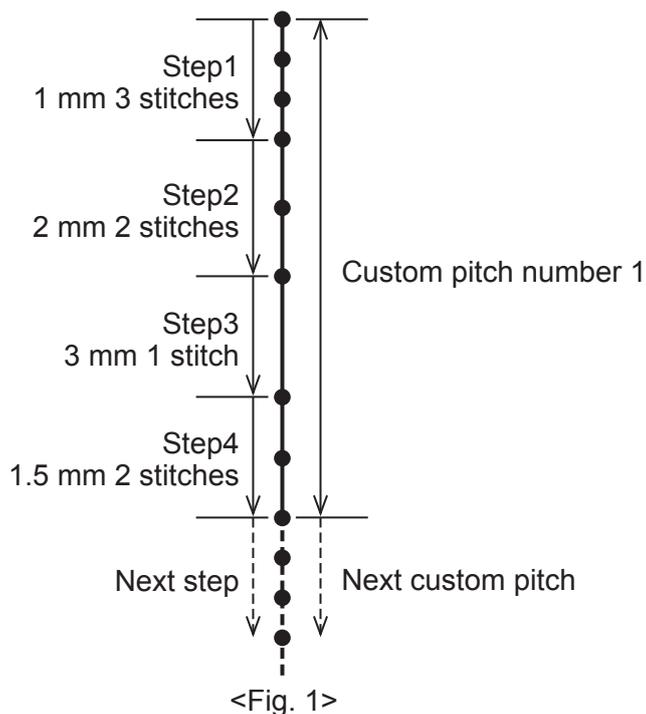
④ List of memory switch data

No.	Item	Setting range	Unit
U001	Soft-start function The initial value differs with the machine head. (0: OFF)	0 to 9	Stitch
U007	Bobbin thread count-down unit 0: 10 stitches / 1: 15 stitches / 2: 20 stitches	0 to 2	—
U008	Reverse feed stitching speed The initial value differs with the machine head. The number of revolutions set with this memory switch is given precedence even if it is lower than the lowest speed by pedal.	150 to 3000	sti/min
U021	Presser foot lift when the pedal is in its neutral position 0: Disabled / 1: Enabled	0 to 1	—
U047	Presser foot lift finishing position The position to which the presser foot goes up when the back part of the pedal is depressed to its first step. (1st-step spring position)	-1000 to -100	—
U048	Function of lifting the presser foot by pedal With/without lift of presser foot by pressing the back part of pedal is set. 0: Presser foot is not lifted / 1: Presser foot is lifted	0 to 1	—
U055	Presser foot lift after thread trimming The initial value differs with the machine head. 0: No lift / 1: Lift	0 to 1	—
U056	Reverse-rotation needle-up after thread trimming The initial value differs with the machine head. 0: Reverse-rotation needle-up is not performed / 1: Reverse-rotation needle-up is performed	0 to 1	—
U057	Function for lowering the feed dog during thread trimming The presser foot height is fixed at 0 (zero) during thread trimming. 0: OFF / 1: ON	0 to 1	—
U069	Presser-foot 1st step lifting height Maximum height of presser foot at the 1st step of its lifting operation when the back part of pedal is depressed.	0.1 to 8.5	mm
U070	Presser-foot 2nd step lifting height Maximum height of presser foot at the 2nd step of its lifting operation when the back part of pedal is depressed. (When the back part of pedal is depressed until the thread trimming position is reached after the presser foot comes down after thread trimming.)	8.5 to 13.5	mm
U150	Automatic knee-lifter function 0: Without function / 1: With automatic knee-lifter function	0 to 1	—
U151	Automatic knee-lifter operation starting Position of knee-lifter at which the presser foot operates is corrected.	-1000 to 1000	—
U152	Automatic knee-lifter maximum position adjustment Position of knee-lifter at which the presser foot height is maximum is corrected.	-200 to 1000	—

Memory switch data

No.	Item	Setting range	Unit
U165	Selection of function of the thread trimming switch Function of thread trimming switch is changed over. 0: Normal / 1: Presser lifting switch after thread trimming	0 to 1	—
U280	Number of condensation stitches at the end of sewing before shorter-thread remaining type thread trimmer operates When the shorter-thread remaining function is placed in ON, this memory switch is used for setting the number of condensation stitches to be sewn before thread trimming.	1 to 9	Stitch
U281	Stitch length of condensation stitches at the end of sewing before shorter-thread remaining type thread trimmer operates When the shorter-thread remaining function is placed in ON, this memory switch is used for setting the stitch length of condensation stitches to be sewn before thread trimming.	0 to 2.5	0.05 mm
U286	Sewing speed during thread presser operation This memory switch is used for setting the speed to be employed when the thread presser operates.	100 to 3000	sti/min
U400	Panel operation mode This memory switch is used for specifying the mode of the sewing screen that is displayed at the time of startup. 0: Lockstitch mode / 1: Free motion mode	0 to 1	—
U403	Auto-OFF of back light Back light of the panel is automatically turned off in the case the operation panel is not operated for a certain period of time.	0 to 20	—
U406	Language selection 0 : Not yet selected <small>Un Selected</small> 1 : Japanese <small>日本語</small> 2 : English <small>English</small> 3 : Chinese (Simplified) <small>中文</small> 4 : Chinese (Traditional) <small>中文繁體字</small> 5 : Spanish <small>Español</small> 6 : Italian <small>Italiano</small> 7 : French <small>Français</small> 8 : German <small>Deutsch</small> 9 : Portuguese <small>Português</small> 10 : Turkish <small>Türkçe</small> 11 : Vietnamese <small>Tiếng Việt</small> 12 : Korean <small>한국어</small> 13 : Indonesian <small>Indonesia</small> 14 : Khmer <small>ខ្មែរភាសា</small> 15 : Bengali <small>বাংলা</small>	0 to 15	—
U407	Operating sound of panel 0: OFF / 1: ON	0 to 1	—

Custom pitch



It is possible to register as many as 20 different sewing designs each of which consists of several different stitch length (10 steps at the maximum).

As many as 100 stitches of the same stitch length can be set in one step.

⚠ CAUTION:

1. Desired stitches may not be formed depending on the sewing speed. If desired stitches are not produced, the sewing speed should be reduced.
2. In the case the stitch length is 0.00 mm, it is not possible for the needle to enter the same needle entry point.

■ Selecting a custom pitch

Select an already-created custom pitch.

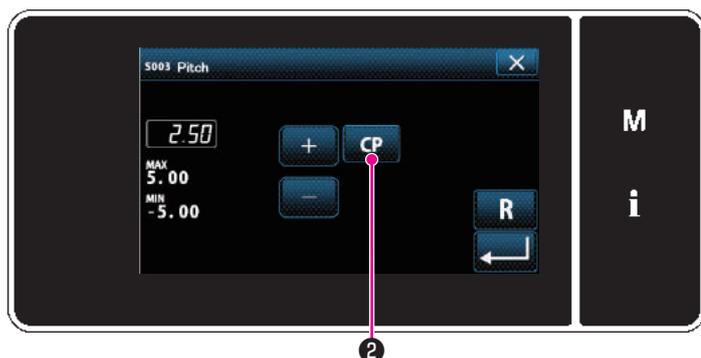
Custom pitch can be used for pattern sewing, reverse feed stitching (at start) and reverse feed stitching (at end). In this section, application of a custom pitch to a sewing pattern is described as an example.

① Displaying the stitch length input screen



<Sewing screen>

- 1) Press **2.5** ① on the sewing screen.
The "stitch length input screen" is displayed.

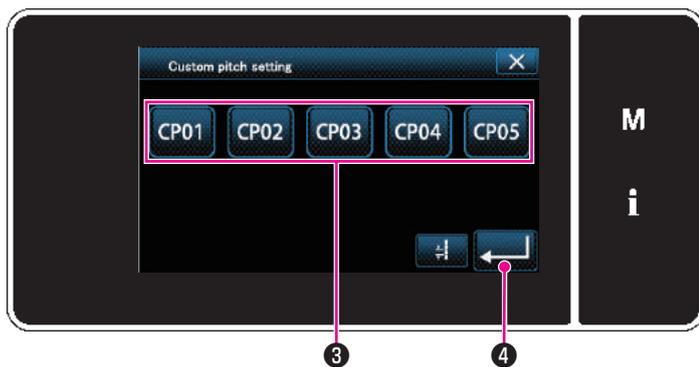


<Stitch length input screen>

- 2) In the case a custom pitch pattern(s) has been registered, **CP** ② is displayed.
Press **CP** ②.
The "custom pitch setting screen" is displayed.

Custom pitch

② Selecting a custom pitch



<Custom pitch setting screen>

Registered custom pitch pattern(s) is displayed.

Press **CP01** ③ .

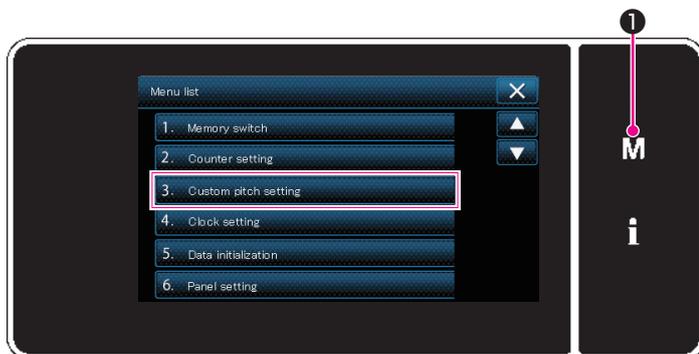
Press **←** ④ to confirm the setting.

Return the current screen to the sewing screen.

■ Creating a new custom pitch

Create the new custom pitch number 1 shown in <Fig. 1> as an example.

① Selecting the custom pitch setting on the mode screen



<Mode screen>

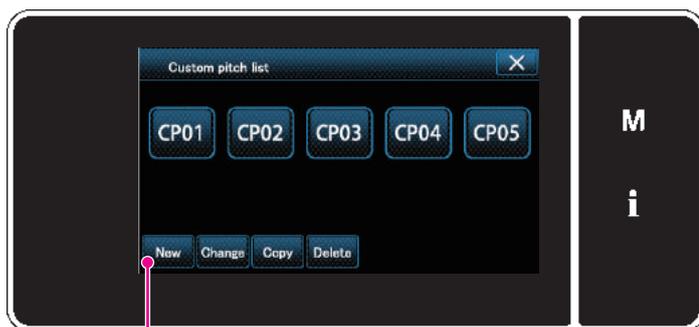
1) Press **M** ① .

The "mode screen" is displayed.

2) Select the "3. Custom pitch setting".

The "custom pitch list screen" is displayed.

② Selecting the new custom pitch creating function



② <Custom pitch list screen>

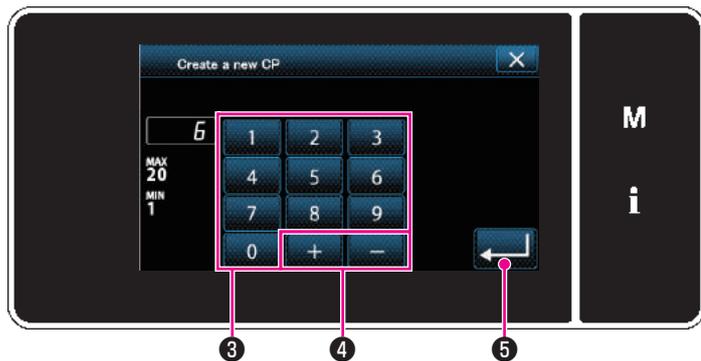
Registered custom pitch pattern(s) is displayed.

Press **New** ② .

The "new custom pitch pattern creation number input screen" is displayed.

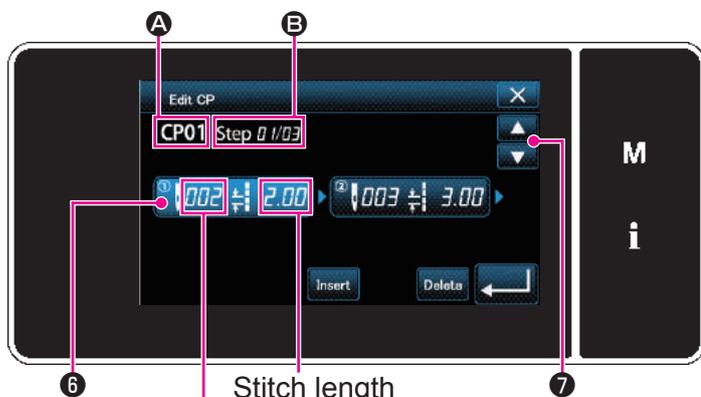
Custom pitch

③ Inputting a custom pitch pattern number



<New custom pitch pattern creation number input screen>

④ Creating a custom pitch



Number of stitches

Stitch length

<Custom pitch edit screen>

- 1) Enter the pattern number with numeric keypad **3**.

An unassigned registration number that is closest to the entered value in the plus/minus direction is displayed by pressing **+** **4**.

- 2) Press **←** **5**.

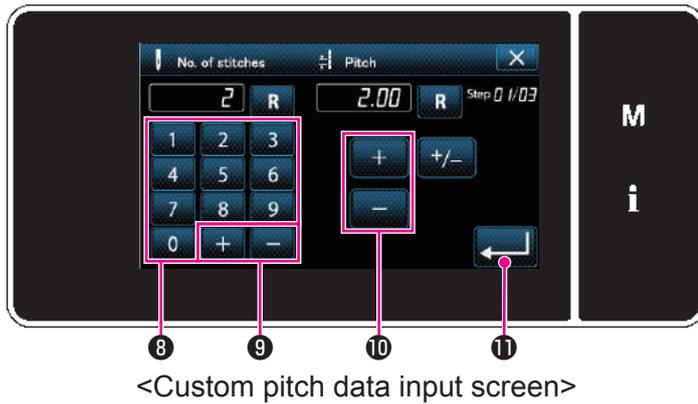
The "custom pitch edit screen" is displayed. In the case the entered number has already been registered, the prompt message for overwrite confirmation is displayed.

- 1) Press **6** to put the step you have pressed in the selected state.
- 2) The selected custom pitch number is displayed in **A**, and the step number which is being edited and the total number of steps are displayed in **B**.
- 3) The "number of stitches" and "stitch length" for the step are displayed in **6**. Press **6** to put the displayed data in the selected state.

Press **↑** **7** to display the screen of the previous custom pitch number or of the next custom pitch number.

- 4) "Custom pitch data input screen" is displayed by pressing **6** while the step is being selected.

Custom pitch



Ⓐ In the case of setting the number of stitches
As an example, explanation is given about the input procedure of custom pitch number 1 shown in <Fig. 1>.

The number of stitches can be input in the range from 1 to 100.

Set the number of stitches for step 1 to 3 with numeric keypad ⑧ for the number of stitches and ⑨.

Press ⑪ to confirm the setting.

Ⓑ In the case of setting the stitch length

The stitch length can be input in the range from -5.00 to 5.00 mm.

Set the stitch length for step 1 to 1.00 mm with ⑩ for stitch length.

Press ⑪ to confirm the setting.

Ⓒ Carry out the following setting in the similar manner.

For step 2, set the number of stitches to 2, and the stitch length to 2.00 mm.

For step 3, set the number of stitches to 1, and the stitch length to 3.00 mm.

For step 4, set the number of stitches to 2, and the stitch length to 1.50 mm.

⑤ **Confirming the numeric value**



After the completion of editing, press ⑫.



The custom pitch list screen is displayed with the custom pitch number you have created added.

Custom pitch

■ Custom pitch edit function

① Selecting the custom pitch edit function



<Custom pitch edit screen>

Display the "custom pitch edit screen" referring to "Creating a new custom pitch".

② Editing the custom pitch value

In this section, procedure for editing the custom pitch value is described. Refer to "Creating a new custom pitch" for the explanation of screen.

1) In the case of setting the number of stitches

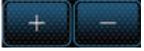
The number of stitches can be input in the range from 1 to 100.

Change the number of stitches for step 1 to 2 with the numeric keypad for the number of stitches and .

Press  to confirm the setting.

2) In the case of setting the stitch length

The stitch length can be input in the range from -5.00 to 5.00 mm.

Change the stitch length for step 1 to 2.00 mm with .

Press  to confirm the setting.

3) Carry out the following setting in the similar manner.

The number of stitches of step 2 : From 2 to 3 stitches; Stitch length : From 2.00 to 1.00 mm

The number of stitches of step 3 : From 1 to 2 stitches; Stitch length : From 3.00 to 2.00 mm

The number of stitches of step 4 : 0 stitches (None); Stitch length : 0 mm (None)

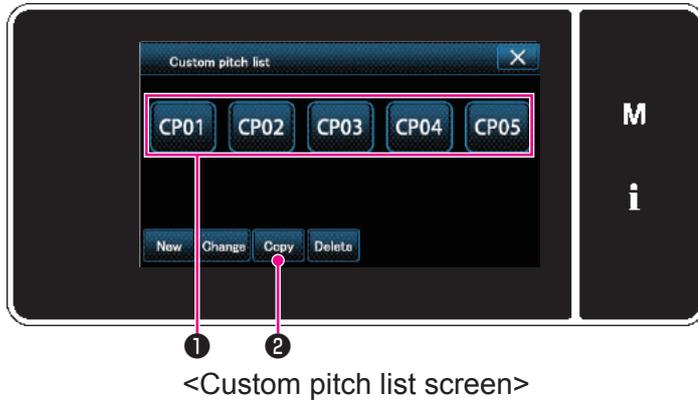
Steps of procedure to be taken after the aforementioned step are same as those described in "Creating a new custom pitch".

Custom pitch

■ Copying/deleting a custom pitch

(1) Copying a custom pitch

① Displaying the custom pitch list screen



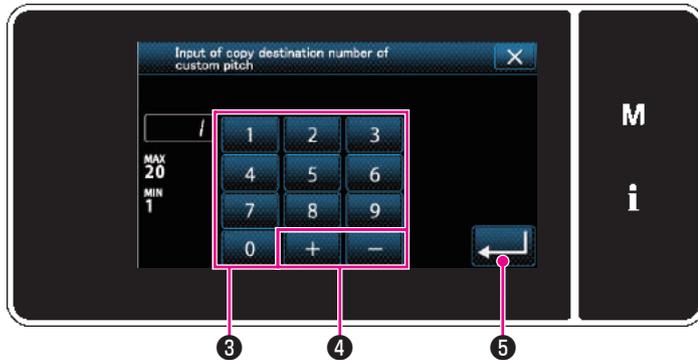
1) Display the "custom pitch list screen" referring to "Creating a new custom pitch".

2) Press **CP01** ① of the copy source to put it in the selected state.

3) Press **Copy** ② .

The "custom pitch copy destination number input screen" is displayed.

② Inputting the custom pitch number

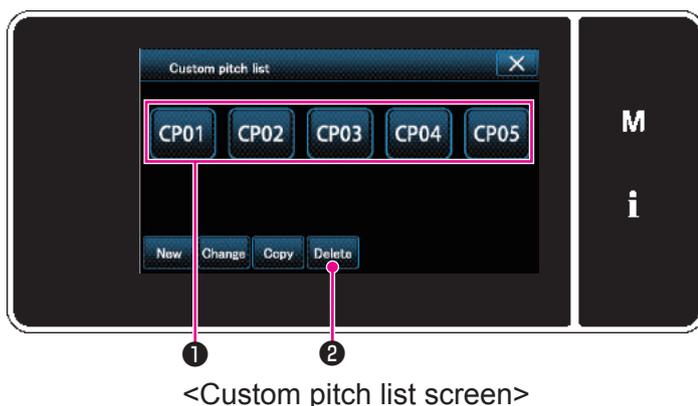


Enter the number of destination pattern for copying with numeric keypad ③ and **+** **-** ④ .

Press **↵** ⑤ .

The created pattern is registered, and the current screen is returned to the custom pitch screen. In the case the entered number has already been registered, the prompt message for overwrite confirmation is displayed.

(2) Deleting a custom pitch



1) Display the "custom pitch list screen" referring to "Creating a new custom pitch".

2) Press **CP01** ① to put the custom pitch to be deleted in the selected state.

3) Press **Delete** ② .

The "deletion confirmation screen" is displayed.

Press **↵** to confirm the setting.

Tabulated relationship between material, thread and needle

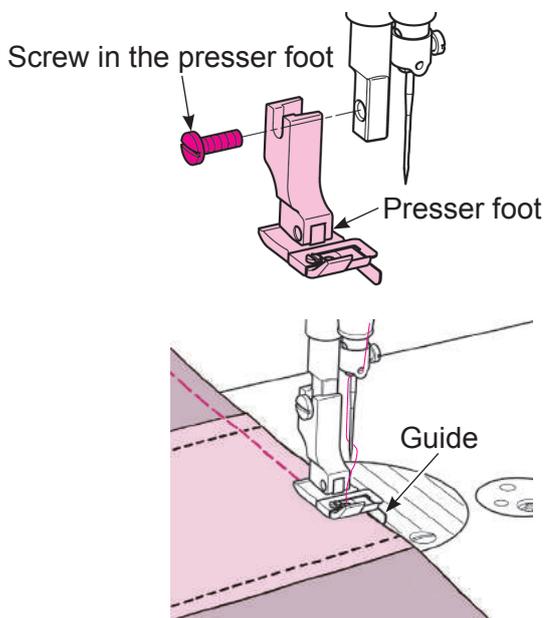
	Material	Thread	Needle (DB×1)
Light-weight materials	Nylon Cupro Georgette Smooth Tricot	Synthetic thread #80-90	#9-11
Medium-weight materials	Broadcloth Gingham	Cotton thread #60-80 Synthetic thread #80-90	#11-14
	Light-weight jersey Synthetic cloth	Synthetic thread #50-60	
	Flannel Wool	Synthetic thread #50-60 Silk yarn #50	
Heavy-weight materials	Denim	Synthetic thread #20-50 Cotton thread #20-50	#14-18
	Canvas	Synthetic thread #30-50	
	Tweed	Synthetic thread #50 Silk yarn #50	
	Artificial leather	Synthetic thread #20-30	

1/4" (7 mm) presser foot



CAUTION: Turn OFF the power switch when replacing the presser foot.

Guide for 1/4" (7 mm) seam allowance for piecing is provided.



1 Install the 1/4" (7 mm) presser foot.

Loosely attach presser foot setscrew. Then, attach the 1/4" (7 mm) presser foot and securely tighten the setscrew.

2 Sew the material while aligning its edge with the guide.

Stitches can be sewn at the position which is 1/4" (7 mm) away from the guide.

Quilting foot

This sewing machine has 2 types of quilt presser foot as accessories depending on the application. These quilting foot are convenient for free motion quilting, quilting along with the pattern, free-hand embroidery, etc.

* Do not run the sewing machine idle when the quilting foot is kept at its upper position.

● Front open type

This type is suited for free-motion quilting. The needle entry point is easily observed since the front section is open.



● Ruler type

This type can be used while guiding it to the ruler.

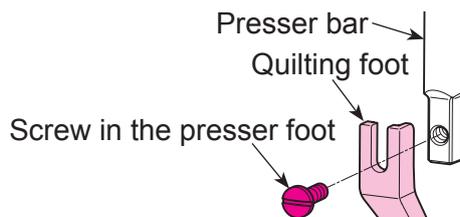


1 Lower the feed dog.

Press the mode changeover button on the operation panel to enter the free motion mode.

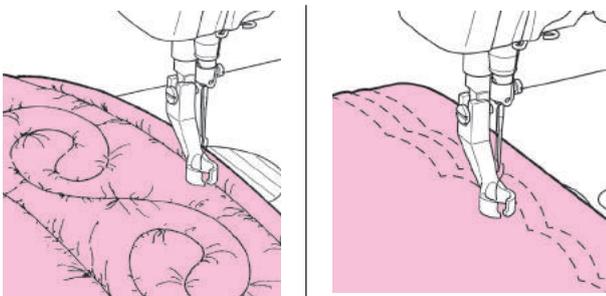


CAUTION: Turn OFF the power switch when replacing the presser foot.



2 Install the quilting foot.

Turn OFF the power switch. Install the quilting foot. Insert the installing portion into the presser bar, and securely tighten the screw in the presser foot.



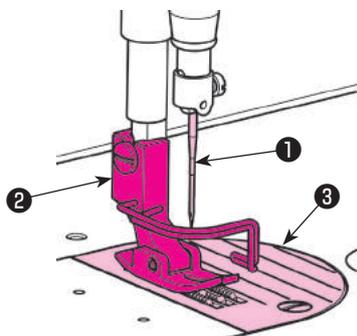
3 Place the material under the presser foot, and start sewing.

Maintenance and lubrication

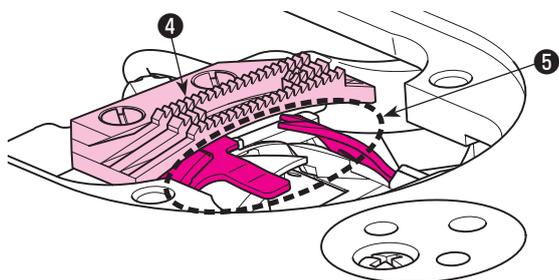


CAUTION: Be sure turn OFF the power to the sewing machine and disconnect the plug from the wall outlet when cleaning or lubricating the sewing machine.

■ Cleaning

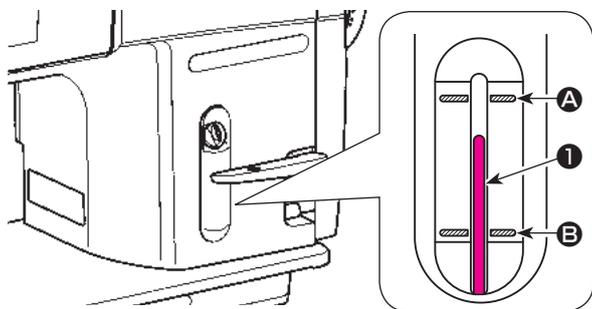


1) Remove needle ①, presser foot ② and throat plate ③.



2) Remove dust adhered to feed dog ④ and thread trimmer unit ⑤ with a soft brush or cloth.

■ Confirmation of the amount of oil in the hook oil tank



Confirm that the top of oil amount indicating rod ① is between the upper engraved marker line ④ and the lower engraved marker line ⑤ of the oil amount indicating window. (For the details, refer to "Lubrication".)

Troubles and corrective measures

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

Troubles	Case	Corrective measures	Page
Stitches are skipped.	1. The needle is bent or the needle point is blunted.	• Replace the needle.	28
	2. The needle has not been attached to the needle bar properly.	• Attach the needle properly to the needle bar.	28
Needle thread breaks.	1. The machine head has been threaded incorrectly.	• Correct the threading.	19
	2. The needle thread tension is too high or low.	• Properly adjust the thread tension.	26
	3. The needle is bent or the needle point is blunted.	• Replace the needle.	28
	4. The needle is not suited to the thread used.	• Replace the needle by the one suited to the thread used.	52
The bobbin thread breaks.	1. The bobbin thread tension is too high.	• Decrease the thread tension.	26
	2. The rubbing of the bobbin case spring has produced a slot.	• Replace the bobbin case.	-
	3. Scratches on the needle hole in the throat plate.	• Replace the throat plate.	-
The needle breaks.	1. The needle is bent or has been installed improperly.	• Replace or correctly attach the needle.	28
	2. The needle hits the throat plate or the presser foot.	• Correctly position the needle, throat plate, or presser foot.	-
Stitches are puckered.	1. The presser foot applies too much pressure to the material.	• Decrease the pressure of the presser foot by pressing the button on the operation panel.	29
	2. The tension of the needle thread is not balanced with that of the bobbin thread.	• Balance the tensions.	26
	3. When the combination of the needle and the thread is improper.	• Properly correct the combination of needle and the thread.	52
	4. The needle is too thick for the material.	• Replace the needle by the one suited to the material.	28,52
Stitch performance is bad.	1. The tension of the needle thread is not balanced with that of the bobbin thread.	• Balance the tensions.	26

Troubles	Case	Corrective measures	Page
The rotation noise is too heavy or too high.	<ol style="list-style-type: none"> 1. Dust accumulates in the feed dog. 2. The oil in the machine has run out due to a long period of usage. 3. The oil other than the exclusive sewing machine oil is used. 4. Thread wastes accumulate in the hook. 	<ul style="list-style-type: none"> • Carry out maintenance of your sewing machine. • Carry out maintenance of your sewing machine. • Apply the proper sewing machine oil (JUKI New Defrix Oil No. 1 or JUKI CORPORATION GENUINE OIL 7). • Clean up the sewing machine. 	<p>54</p> <p>54</p> <p>11</p> <p>54</p>
The handwheel does not rotate smoothly or does not turn.	<ol style="list-style-type: none"> 1. The thread is entangled and caught in the hook. 	<ul style="list-style-type: none"> • Lubricate the hook, strongly turn the handwheel clockwise and counter-clockwise several times, then remove the thread caught in the hook. 	-
The material cannot be fed.	<ol style="list-style-type: none"> 1. The stitch length is set to "0". 2. The sewing mode setting is in the free motion mode. 3. The pressure of the presser foot is too low. 	<ul style="list-style-type: none"> • Set the stitch length to an appropriate amount. • Changeover the sewing mode to the lockstitch mode by pressing the button on the operation panel. • Increase the pressure of the presser foot by pressing the button on the operation panel. 	<p>31</p> <p>20</p> <p>29</p>
After thread trimming, the needle thread slips off the needle hole at start of next sewing.	<ol style="list-style-type: none"> 1. The tension of the 1st thread tension is too high. 2. The thread is caught somewhere in thread path. 	<ul style="list-style-type: none"> • Decrease the tension of the 1st thread tension. • Make sure whether or not the thread is caught. 	<p>-</p> <p>19</p>

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