

BAS-341H BAS-342H

取扱説明書・基本編
Basic Operation Manual
使用说明书・基本篇
Manual básico de operación

ダイレクトドライブ プログラム式電子ミシン

この説明書を読んでから、製品をご使用ください。

この説明書は、必要なときにすぐに取り出せる場所に、保管してください。

- * この「取扱説明書・基本編」には、ミシンの操作までの基本的な内容が記述されています。
お手入れや標準調整など、更に詳しい内容は、「ダウンロード版」の取扱説明書をご覧ください。

DIRECT DRIVE PROGRAMMABLE ELECTRONIC PATTERN SEWER

Please read this manual before using the machine.

Please keep this manual within easy reach for quick reference.

- * This basic operation manual describes basic operations including sewing machine operations.
For cleaning, standard adjustments and more details, please refer to the instruction manual contained in the download version of the Instruction Manual.

直接驱动式 程序电脑花式机

在使用缝纫机之前请先阅读本使用说明书。

请将本使用说明书放在便于查阅的地方保管。

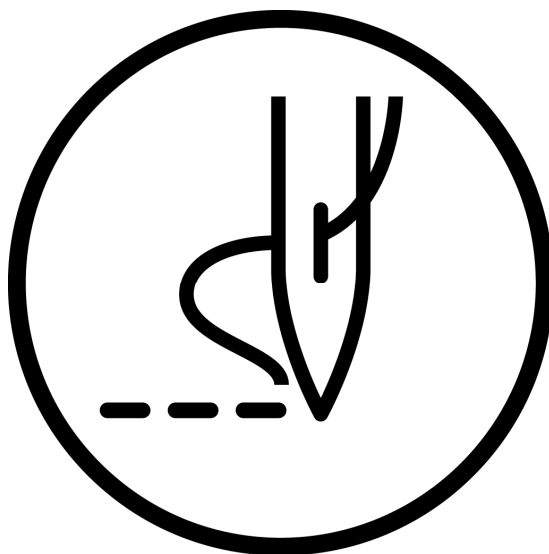
- * 本「使用说明书・基本篇」，主要记述了有关缝纫机操作的基本内容。
保养、标准调整等详细内容，请浏览下载版的使用说明书。

MOTOR INCORPORADO AL EJE MÁQUINA ELECTRÓNICA DE ÁREA PROGRAMABLE

Por favor lea este manual antes de usar la máquina.

Por favor guarde este manual al alcance de la mano para una rápida referencia.

- * Este manual básico de operación describe las operaciones básicas de la máquina de coser. Para limpiar, realizar ajustes estándar y otros detalles, consulte el manual de instrucciones de la versión de descarga.



brother

BAS-341H

BAS-342H

DIRECT DRIVE
PROGRAMMABLE ELECTRONIC PATTERN SEWER

Thank you very much for buying a BROTHER sewing machine. Before using your new machine, please read the safety instructions below and the explanations given in the instruction manual.

With industrial sewing machines, it is normal to carry out work while positioned directly in front of moving parts such as the needle and thread take-up lever, and consequently there is always a danger of injury that can be caused by these parts. Follow the instructions from training personnel and instructors regarding safe and correct operation before operating the machine so that you will know how to use it correctly.




SAFETY INSTRUCTIONS

[1] Safety indications and their meanings

This instruction manual and the indications and symbols that are used on the machine itself are provided in order to ensure safe operation of this machine and to prevent accidents and injury to yourself or other people.


The meanings of these indications and symbols are given below.

Indications

 DANGER	The instructions which follow this term indicate situations where failure to follow the instructions will result in death or serious injury.
 WARNING	The instructions which follow this term indicate situations where failure to follow the instructions could result in death or serious injury.
 CAUTION	The instructions which follow this term indicate situations where failure to follow the instructions may result in minor or moderate injury.

Symbols




..... This symbol () indicates something that you should be careful of. The picture inside the triangle indicates the nature of the caution that must be taken.
(For example, the symbol at left means “beware of injury”.)



..... This symbol () indicates something that you must not do.



..... This symbol () indicates something that you must do. The picture inside the circle indicates the nature of the thing that must be done.
(For example, the symbol at left means “you must make the ground connection”.)

[2] Notes on safety

DANGER



Wait at least 5 minutes after turning off the power switch and disconnecting the power cord from the wall outlet before opening the control box cover. Touching areas where high voltages are present can result in severe injury.

WARNING



Do not allow any liquids to get onto this sewing machine, otherwise fire, electric shocks or operating problems may occur.



If any liquid gets inside the sewing machine (machine head or control box), immediately turn off the power and disconnect the power plug from the electrical outlet, and then contact the place of purchase or a qualified technician.

CAUTION

Environmental requirements



Use the sewing machine in an area which is free from sources of strong electrical noise such as electrical line noise or static electric noise.

Sources of strong electrical noise may cause problems with correct operation.



Any fluctuations in the power supply voltage should be within $\pm 10\%$ of the rated voltage for the machine.

Voltage fluctuations which are greater than this may cause problems with correct operation.



The power supply capacity should be greater than the requirements for the sewing machine's power consumption.

Insufficient power supply capacity may cause problems with correct operation.



The pneumatic delivery capability should be greater than the requirements for the sewing machine's total air consumption.

Insufficient pneumatic delivery capability may cause problems with correct operation.



The ambient temperature should be within the range of 5°C to 35°C during use.

Temperatures which are lower or higher than this may cause problems with correct operation.



The relative humidity should be within the range of 45% to 85% during use, and no dew formation should occur in any devices.

Excessively dry or humid environments and dew formation may cause problems with correct operation.














In the event of an electrical storm, turn off the power and disconnect the power cord from the wall outlet.











Lightning may cause problems with correct operation.

CAUTION



Installation

-  Machine installation should only be carried out by a qualified technician.
-  Contact your Brother dealer or a qualified electrician for any electrical work that may need to be done.
-  The sewing machine weighs approximately 160 kg. Use equipment such as a crane or hoist when installing the machine head and adjusting the height of the table.
If you try to lift the machine head yourself, it may cause injuries such as back injury.
-  Do not connect the power cord until installation is complete. If the foot switch is depressed by mistake, the sewing machine might start operating and injury could result.
-  Hold the machine head with both hands when tilting it back or returning it to its original position.
In addition, do not subject the machine head to extra force while it is tilted back. If this is not observed, the machine head may become unbalanced and fall down, and serious injury or damage to the sewing machine may result.
-  Be sure to connect the ground. If the ground connection is not secure, you run a high risk of receiving a serious electric shock, and problems with correct operation may also occur.
-  All cords should be secured at least 25 mm away from any moving parts. Furthermore, do not excessively bend the cords or secure them too firmly with staples, otherwise there is the danger that fire or electric shocks could occur.
-  Install the safety covers to the machine head and motor.
-  If using a work table which has casters, the casters should be secured in such a way so that they cannot move.
-  Use a table with a height of 84 cm or less. If the table is too high, the machine head may become unbalanced and fall down, and serious injury or damage to the sewing machine may result.
-  Be sure to wear protective goggles and gloves when handling the lubricating oil and grease, so that they do not get into your eyes or onto your skin. If the oil and grease get into your eyes or onto your skin, inflammation can result.
Furthermore, do not drink or eat the lubricating oil or grease. They may cause diarrhea or vomiting.
Keep the oil out of the reach of children.

Sewing

-  To prevent problems, do not use objects with sharp points to operate the LCD panel.
-  This sewing machine should only be used by operators who have received the necessary training in safe use beforehand.
-  The sewing machine should not be used for any applications other than sewing.
-  Be sure to wear protective goggles when using the machine.
If goggles are not worn, there is the danger that if a needle breaks, parts of the broken needle may enter your eyes and injury may result.
-  Turn off the power switch at the following times. If the foot switch is depressed by mistake, the sewing machine might start operating and injury could result.
 - When replacing the bobbin and needle
 - When not using the machine and when leaving the machine unattended
-  If using a work table which has casters, the casters should be secured in such a way so that they cannot move.
-  Attach all safety devices before using the sewing machine. If the machine is used without these devices attached, injury may result.
-  Do not touch any of the moving parts or press any objects against the machine while sewing, as this may result in personal injury or damage to the machine.
-  If an error occurs in machine operation, or if abnormal noises or smells are noticed, immediately turn off the power switch. Then contact your nearest Brother dealer or a qualified technician.
-  If the machine develops a problem, contact your nearest Brother dealer or a qualified technician.

Cleaning

-  Turn off the power switch before carrying out cleaning. If the foot switch is depressed by mistake, the sewing machine might start operating and injury could result.
-  Be sure to wear protective goggles and gloves when handling the lubricating oil and grease, so that they do not get into your eyes or onto your skin. If the oil and grease get into your eyes or onto your skin, inflammation can result.
Furthermore, do not drink or eat the lubricating oil or grease. They may cause diarrhea or vomiting.
Keep the oil out of the reach of children.

CAUTION

Maintenance and inspection



Maintenance and inspection of the sewing machine should only be carried out by a qualified technician.



Ask your Brother dealer or a qualified electrician to carry out any maintenance and inspection of the electrical system.



Turn off the power switch and disconnect the power cord before carrying out the following operations. If the foot switch is depressed by mistake, the sewing machine might start operating and injury could result.

- Inspection, adjustment and maintenance
- Replacing consumable parts such as the rotary hook



Disconnect the air hoses from the air supply and wait for the needle on the pressure gauge to drop to "0" before carrying out inspection, adjustment and repair of any parts which use the pneumatic equipment.



Hold the machine head with both hands when tilting it back or returning it to its original position.

In addition, do not subject the machine head to extra force while it is tilted back. If this is not observed, the machine head may become unbalanced and fall down, and serious injury or damage to the sewing machine may result.



If the power switch needs to be left on when carrying out some adjustment, be extremely careful to observe all safety precautions.



When replacing parts and installing optional accessories, be sure to use only genuine Brother parts.

Brother will not be held responsible for any accidents or problems resulting from the use of non-genuine parts.



If any safety devices have been removed, be absolutely sure to re-install them to their original positions and check that they operate correctly before using the machine.



To prevent accidents and problems, do not modify the machine yourself.

Brother will not be held responsible for any accidents or problems resulting from modifications made to the machine.

[3] Warning labels

The following warning labels appear on the sewing machine.
Please follow the instructions on the labels at all times when using the machine. If the labels have been removed or are difficult to read, please contact your nearest Brother dealer.

1		▲ 危険 高電圧部分にふれて、大けがをすることがある。 電源を切り、5分たってからカバーをはずすこと。		▲ 危険 触摸高压电部分, 会导致受伤。 在切断电源5分钟后, 再开启盖罩。	
	▲ DANGER	▲ GEFAHR	▲ DANGER	▲ PELIGRO	
	Hazardous voltage will cause injury. Turn off main switch and wait 5 minutes before opening this cover.	Hochspannung verletzungsgefahr! Bitte schalten sie den hauptschalter aus und warten sie 5 minuten, bevor sie diese abdeckung öffnen.	Un voltage non adapte provoque des blessures. Eteindre l'interrupteur et attendre 5 minutes avant d'ouvrir le capot.	Un voltaje inadecuado puede provocar las heridas. Apagar el interruptor principal y esperar 5 minutos antes de abrir esta cubierta.	

2

CAUTION
Moving parts may cause injury.

Operate with safety devices* installed.

Turn off the power before carrying out operations such as threading, changing the needle, bobbin, knives or hook, cleaning and adjusting.

*Safety devices

Devices such as eye guard, finger guard, thread take-up cover, motor cover, X motor cover, rear cover, solenoid cover, inner cover, outer cover, fixed cover and gas spring support cover

3

Be careful to avoid injury from moving parts.

4

Be sure to connect the ground.
If the ground connection is not secure, you run a high risk of receiving a serious electric shock, and problems with correct operation may also occur.

5

Direction of operation

6

Be careful not to get your hand caught when tilting back the machine head and returning it to its original position.

7

Do not hold, otherwise problems with operation or injury may occur.

8

brother
環境対応型ミシン油
Environmental corresponding oil

▲ 注意

目に入ったり皮膚につくと、炎症を起こすことがある。
保護めがね、手袋を使うこと。
飲み込むと、下痢、嘔吐する。
飲み込まないこと。

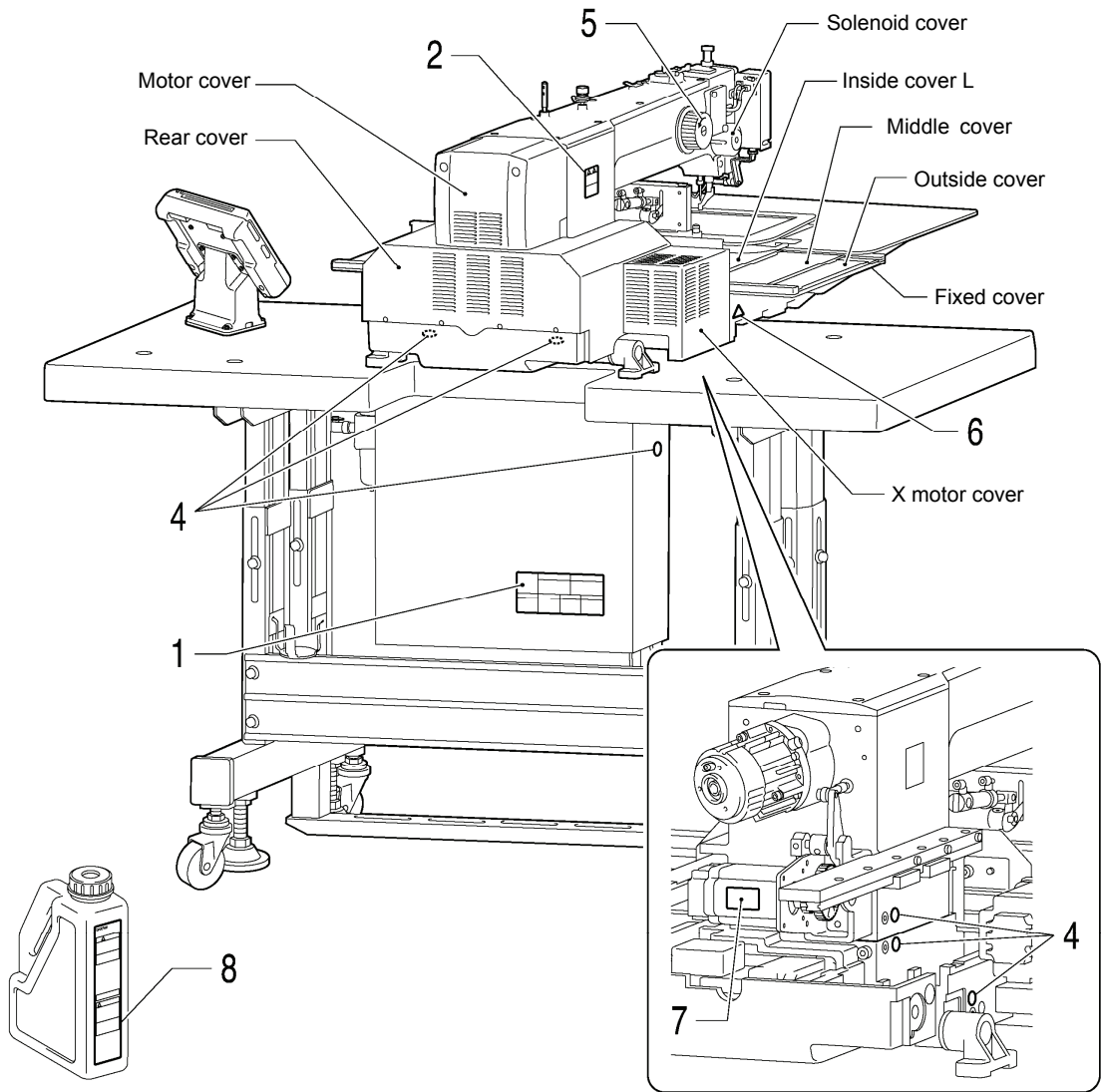
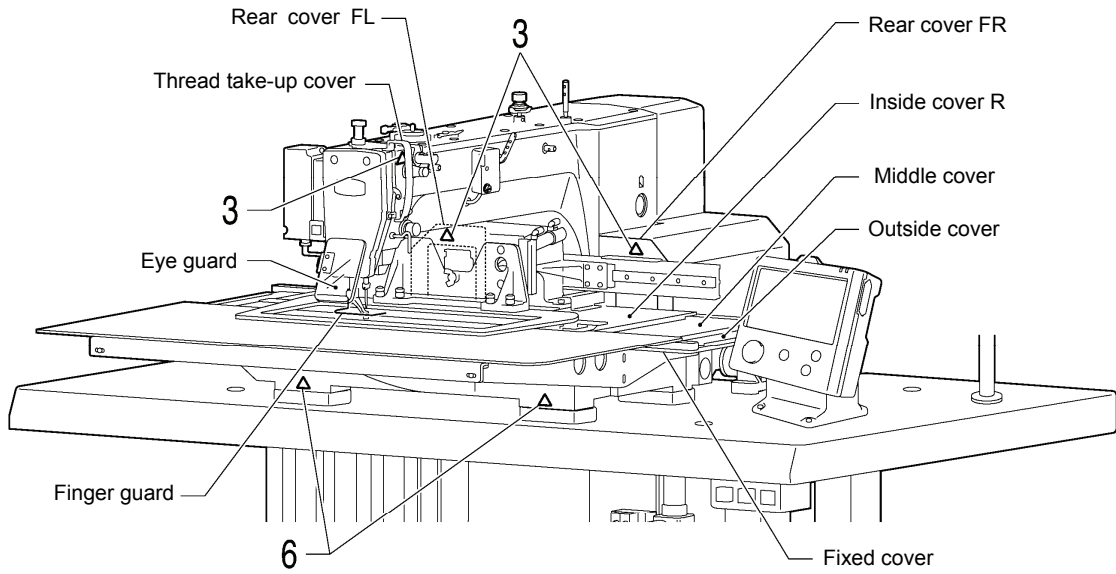
- 子供の手の届かない所に置いてください。
- 目に入った場合は、清浄な水で15分間洗浄し、医師の診断を受けてください。
- 皮膚に触れた場合は、水と石けんで十分に洗ってください。
- 飲み込んだ場合は、無理に吐かせずに、直ちに医師の診断を受けてください。

第4類 第3石油類
危険等級III 火気厳禁

▲ CAUTION

Lubricating oil may cause inflammation to eye and skin.
Wear protective glasses and gloves.
Swallowing oil can cause diarrhoea and vomiting.
Do not swallow.

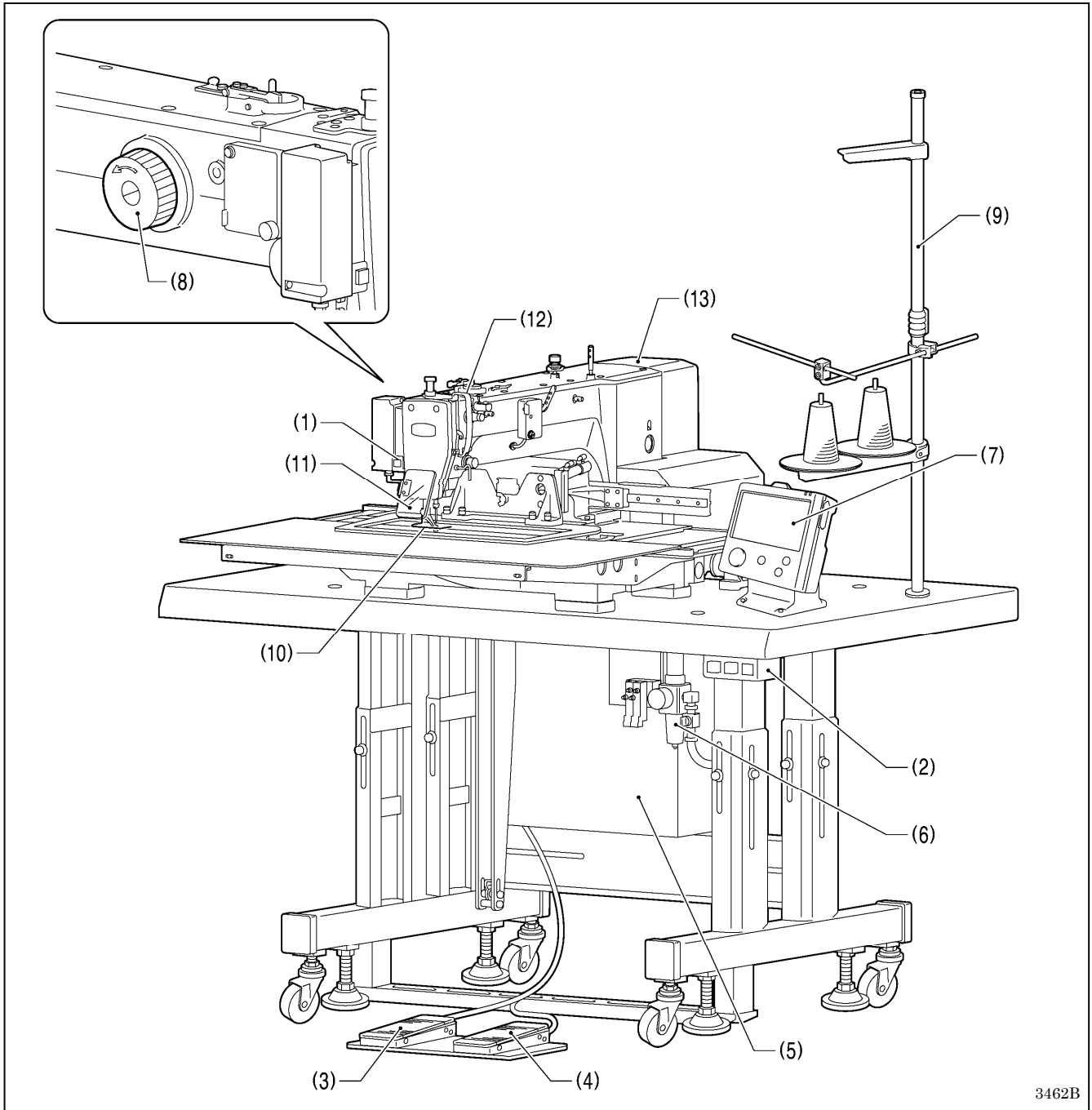
Keep away from children.
FIRST AID
Eye contact:
-Rinse with plenty of cold water.
-Seek medical help.
Skin contact:
-Wash with soap and water.
If swallowed:
-Seek medical help immediately.
-Do not induce vomiting.



CONTENTS

1. NAMES OF MAJOR PARTS	1	4-7. Starting up	30
2. USEFUL FUNCTIONS FOR OPTIMUM SEWING	2	4-8. Setting 2-step operation for the work clamp	31
3. INSTALLATION	3	5. USING THE LCD PANEL (BASIC OPERATIONS).....	32
3-1. Table processing diagram	4	5-1. Name and function of each LCD panel item	32
3-2. Installing the control box.....	5	5-1-1. Main names and functions.....	32
3-3. Installing the oil pan and support lever base.....	6	5-1-2. Home screen	32
3-4. Installing the machine head.....	6	5-1-3. Sewing operation screen	33
3-5. Tilting back and returning the machine head	7	5-2. Parameter setting method.....	34
3-6. Installing the gas spring.....	8	5-3. Copying programs.....	37
3-7. Installing the LCD panel	9	5-4. Checking the sewing pattern.....	38
3-8. Installing the solenoid valve assembly	10	5-5. Setting the work clamp lift amount.....	39
3-9. Connecting the air tubes.....	10	6. USING STORAGE MEDIA.....	42
3-10. Installing the air hose.....	10	6-1. Notes on handling	42
3-11. Installing the two-pedal foot switch.....	11	6-2. Importing and exporting data	42
3-12. Connecting the cords.....	11	6-3. Selecting and importing sewing data	44
3-13. Connecting the ground wire	15	7. SEWING.....	45
3-14. Securing the cords and air tubes.....	16	7-1. Sewing	45
3-15. Connecting the power cord	17	7-2. Using the STOP switch.....	46
3-16. Installing the eye guard	20		
3-17. Installing the cotton stand.....	20		
3-18. Lubrication	21		
3-19. Checking the machine head switch.....	22		
4. PREPARATION BEFORE SEWING	23		
4-1. Installing the needle.....	23		
4-2. 2-pedal foot switch operation method	23		
4-3. Threading the upper thread	24		
4-4. Winding the lower thread.....	26		
4-5. Installing the bobbin case	27		
4-6. Thread tension.....	28		
4-6-1. Lower thread tension.....	28		
4-6-2. Upper thread tension.....	29		

1. NAMES OF MAJOR PARTS



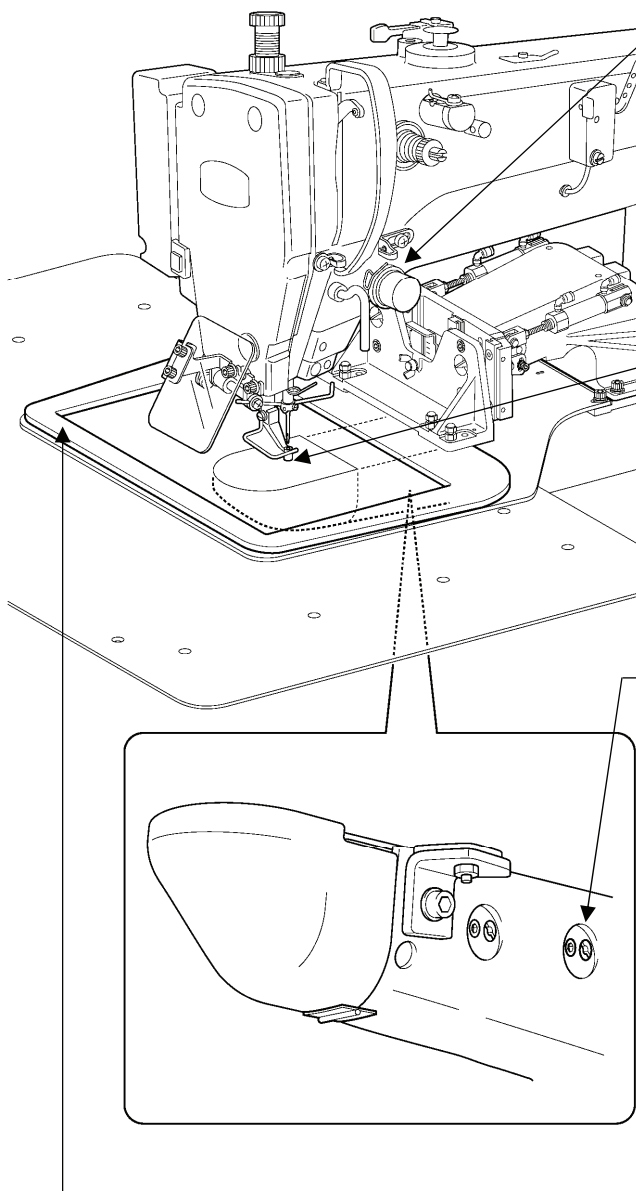
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- (1) STOP switch
- (2) Power switch
- (3) Work clamp switch
- (4) Start switch
- (5) Control box
- (6) Solenoid valve
- (7) LCD panel
- (8) Pulley
- (9) Cotton stand

Safety devices:

- (10) Finger guard
- (11) Eye guard
- (12) Thread take-up cover
- (13) Motor cover

2. USEFUL FUNCTIONS FOR OPTIMUM SEWING



Easy threading in threading mode

➔ Page 24-25

When using threading mode for threading, the tension discs will open so that the thread can be threaded more easily.

Furthermore, threading mode is safe because the sewing machine will not start even when the start switch is depressed.

Presser foot height can be set easily using the LCD panel or the control panel

➔ Page 39-41

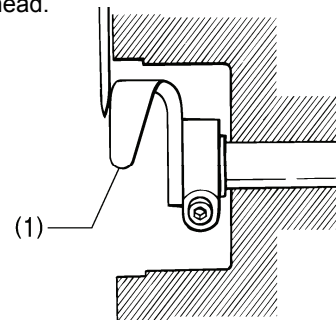
The height of the presser foot can be set simply by entering a numeric value at the LCD panel or the control panel, without the need for tools.

Adjusting the driver needle guard is simple and within close reach.

➔ Instruction Manual (*1)

7-6. Adjusting the driver (needle guard) position

The driver needle guard (1) can be adjusted easily and within close reach without tilting back the machine head.



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2555Q

Work clamp lowering operation

➔ 4-8. Setting 2-step operation for the work clamp

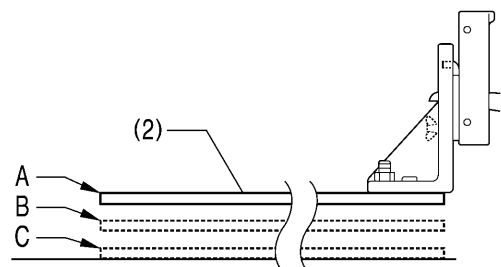
You can select one of two different types of dropping operation for the work clamp (2) by changing memory switch settings.

<Work clamp dropping in one step>

When the work clamp switch is depressed, the work clamp (2) drops in one movement from its highest position A to its lowest position C.

<Work clamp dropping in two steps>

1. When the work clamp switch is depressed to the 1st step, the work clamp (2) drops from its highest position A to the intermediate position B.
2. When the work clamp switch is then depressed to the 2nd step, the work clamp (2) drops to its lowest position C.














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(*1) Please download the Instruction Manual from our web site.

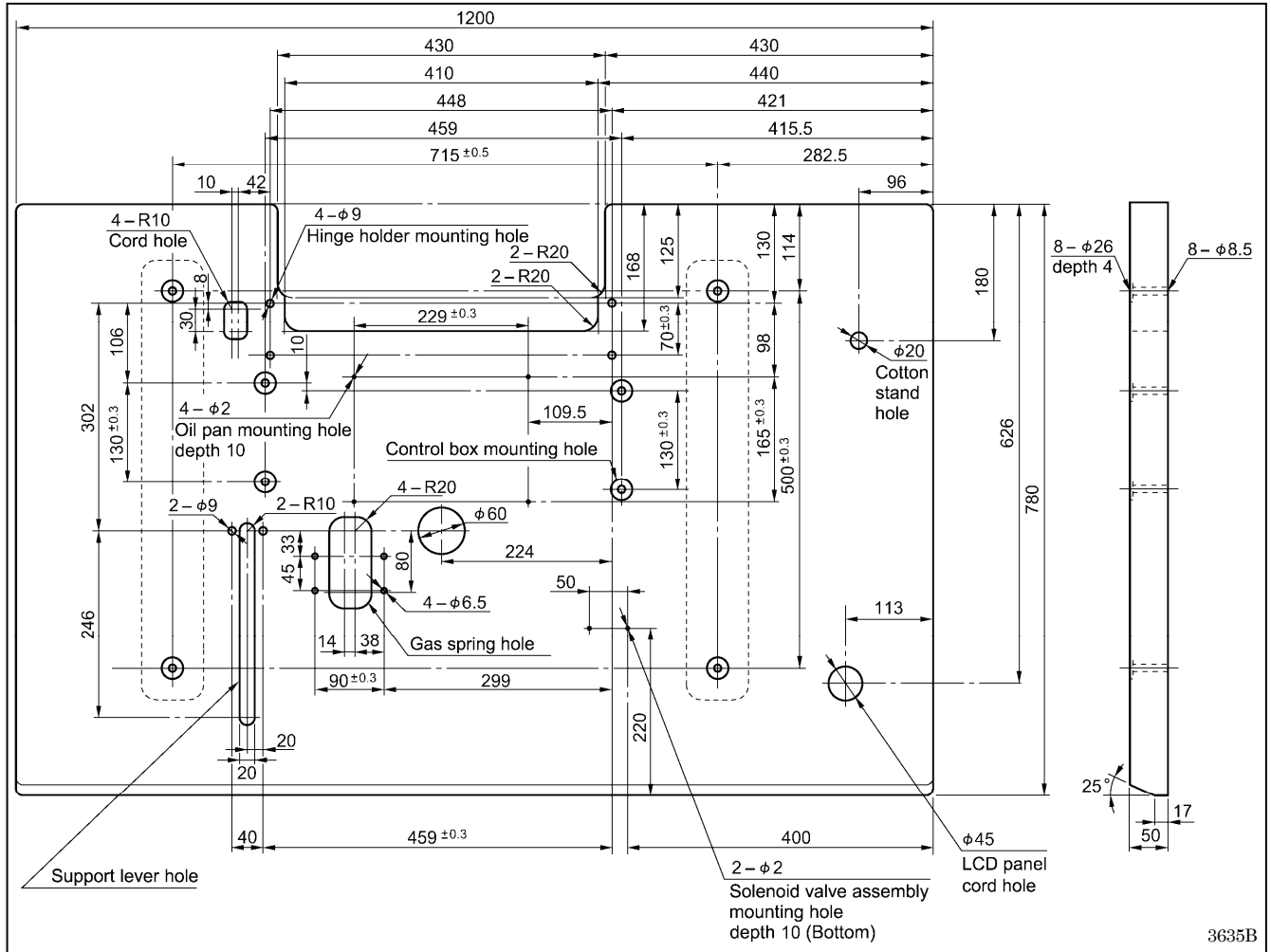
3. INSTALLATION

CAUTION

- | | |
|---|--|
|  <p>Machine installation should only be carried out by a qualified technician.</p> |  <p>Hold the machine head with both hands when tilting it back or returning it to its original position. In addition, do not subject the machine head to extra force while it is tilted back. If this is not observed, the machine head may become unbalanced and fall down, and serious injury or damage to the sewing machine may result.</p> |
|  <p>Contact your Brother dealer or a qualified electrician for any electrical work that may need to be done.</p> |  <p>All cords should be secured at least 25 mm away from any moving parts. Furthermore, do not excessively bend the cords or secure them too firmly staples, otherwise there is the danger that fire or electric shocks could occur.</p> |
|  <p>The sewing machine head weighs approximately 160 kg.
Use equipment such as a crane or hoist when installing the machine head and adjusting the height of the table.
If you try to lift the machine head yourself, it may cause injuries such as back injury.</p> |  <p>Do not connect the power cord until installation is complete.
If the foot switch is depressed by mistake, the sewing machine might start operating and injury could result.</p> |
|  <p>Do not connect the power cord until installation is complete.
If the foot switch is depressed by mistake, the sewing machine might start operating and injury could result.</p> |  <p>Be sure to connect the ground. If the ground connection is not secure, you run a high risk of receiving a serious electric shock, and problems with correct operation may also occur.</p> |
|  <p>If using a work table which has casters, the casters should be secured in such a way so that they cannot move.</p> |  <p>Install the safety covers to the machine head and motor.</p> |
|  <p>Use a table with a height of 84 cm or less. If the table is too high, the machine head may become unbalanced and fall down, and serious injury or damage to the sewing machine may result.</p> | |

3-1. Table processing diagram

- The thickness of the table should be at least 50 mm, and it should be strong enough to bear the weight and vibration of the sewing machine.
- If using casters, use ones which can bear the total weight of sewing machine and table.
- Check that the control box is at least 10 mm away from the leg. If the control box and the leg are too close together, it may result in incorrect sewing machine operation.



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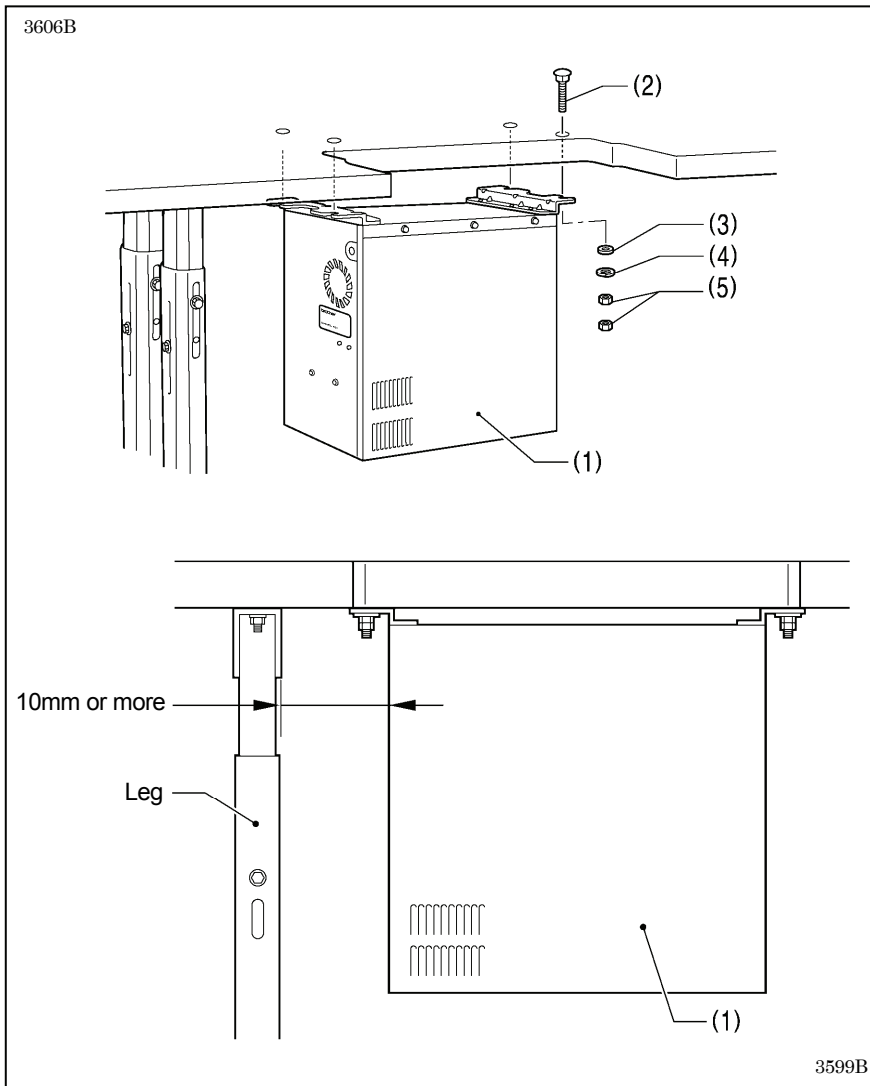
3. INSTALLATION

3-2. Installing the control box

CAUTION



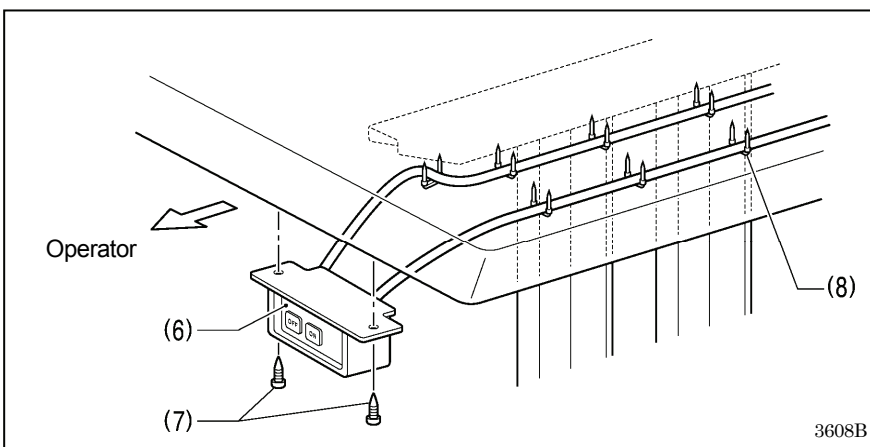
The control box is heavy, so installation should be carried out by two or more people. In addition, take steps to make sure that the control box does not fall down. If this is not done, injury to feet or damage to the control box may result.



- (1) Control box
- (2) Bolts [4 pcs.]
- (3) Plain washers [4 pcs.]
- (4) Spring washers [4 pcs.]
- (5) Nuts [8 pcs.]

NOTE:

Check that the control box (1) is at least 10 mm away from the leg. If the control box (1) and the leg are too close together, it may result in incorrect sewing machine operation.

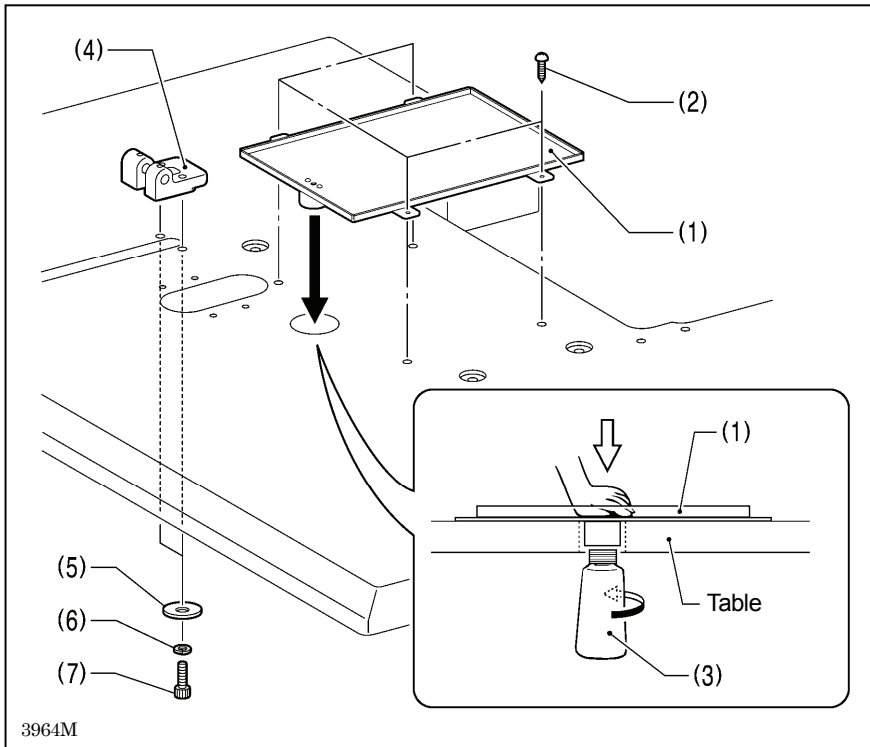


- (6) Power switch
- (7) Wood screws [2 pcs.]
- (8) Staples [7 pcs.]

NOTE:

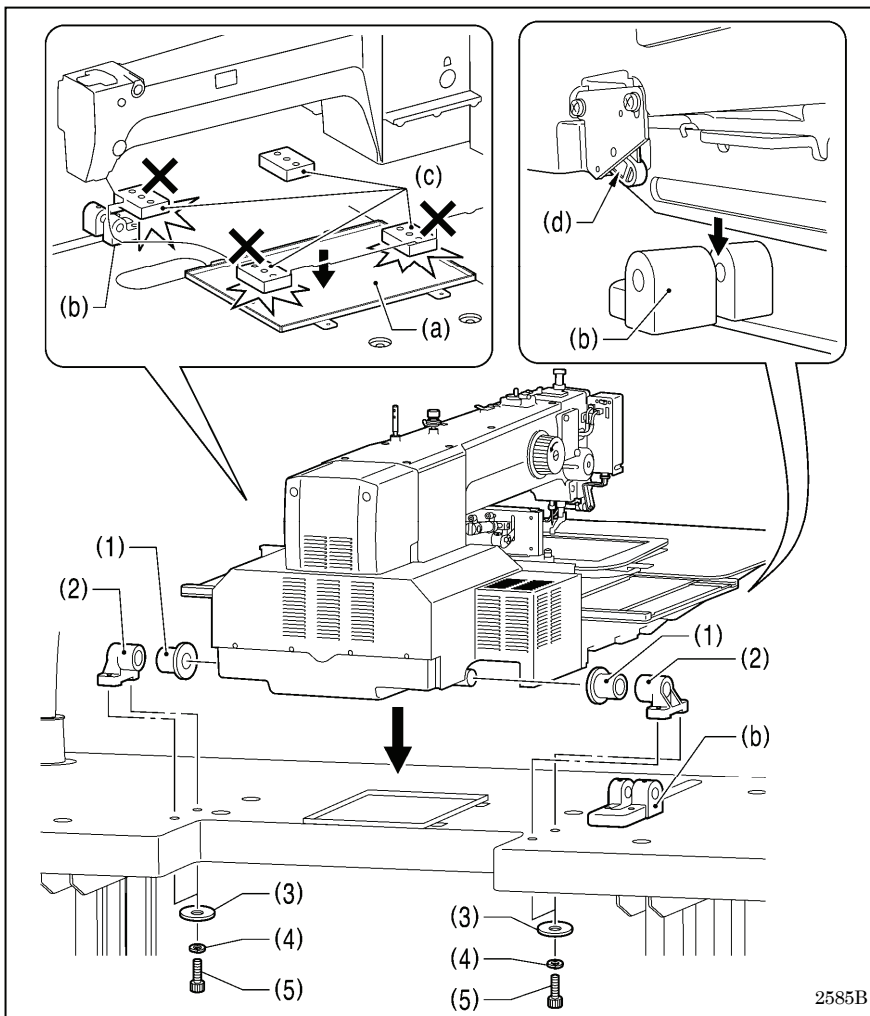
Take care when tapping in the staples (8) to make sure that they do not pierce the power cord.

3-3. Installing the oil pan and support lever base



- (1) Oil pan
- (2) Wood screws [4 pcs.]
- (3) Oiler
- (4) Support lever base
- (5) Plain washers [2 pcs.]
- (6) Spring washers [2 pcs.]
- (7) Bolts [2 pcs.]

3-4. Installing the machine head



1. Place the machine head onto the table.

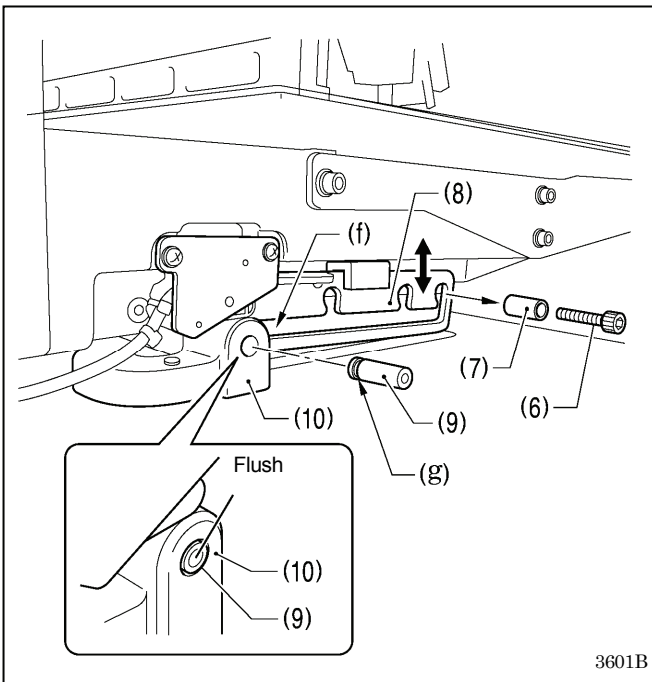
NOTE:

- Use a crane or hoist to install the sewing machine.
- Be careful of the following when lowering the machine head onto the table.
 - ! Do not let any cords get clamped between the machine head and the table.
 - ! Do not place the machine head cushion (c) on top of the oil pan (a) or the support lever base (b).
 - ! Do not let the side (d) of the machine head switch lever touch the support lever base (b).

- (1) Rubber bushes (2 pcs.)
- (2) Hinge holders (2 pcs.)
- (3) Plain washers [4 pcs.]
- (4) Spring washers [4 pcs.]
- (5) Bolts [4 pcs.]

(Continued on next page)

3. INSTALLATION



2. After placing the machine head onto the table, remove the bolt (6) and the spacer (7).

* The bolt (6) and the spacer (7) are necessary for securing the support lever (8) when the machine head is removed from the table, so keep them in a safe place.

3. Pass the support lever shaft (9) through the hole in the support lever base (10) and through the groove (f) in the support lever (8), and push it in until it is flush with the surface of the support lever base (10).

* Be sure to insert so that the groove (g) in the support lever shaft (9) faces in the direction shown in the illustration.

* If it is difficult to pass the support lever shaft (9) through the groove (f) in the support lever (8), move the end of the support lever (8) up and down while passing the support lever shaft (9) through.

3-5. Tilting back and returning the machine head

CAUTION



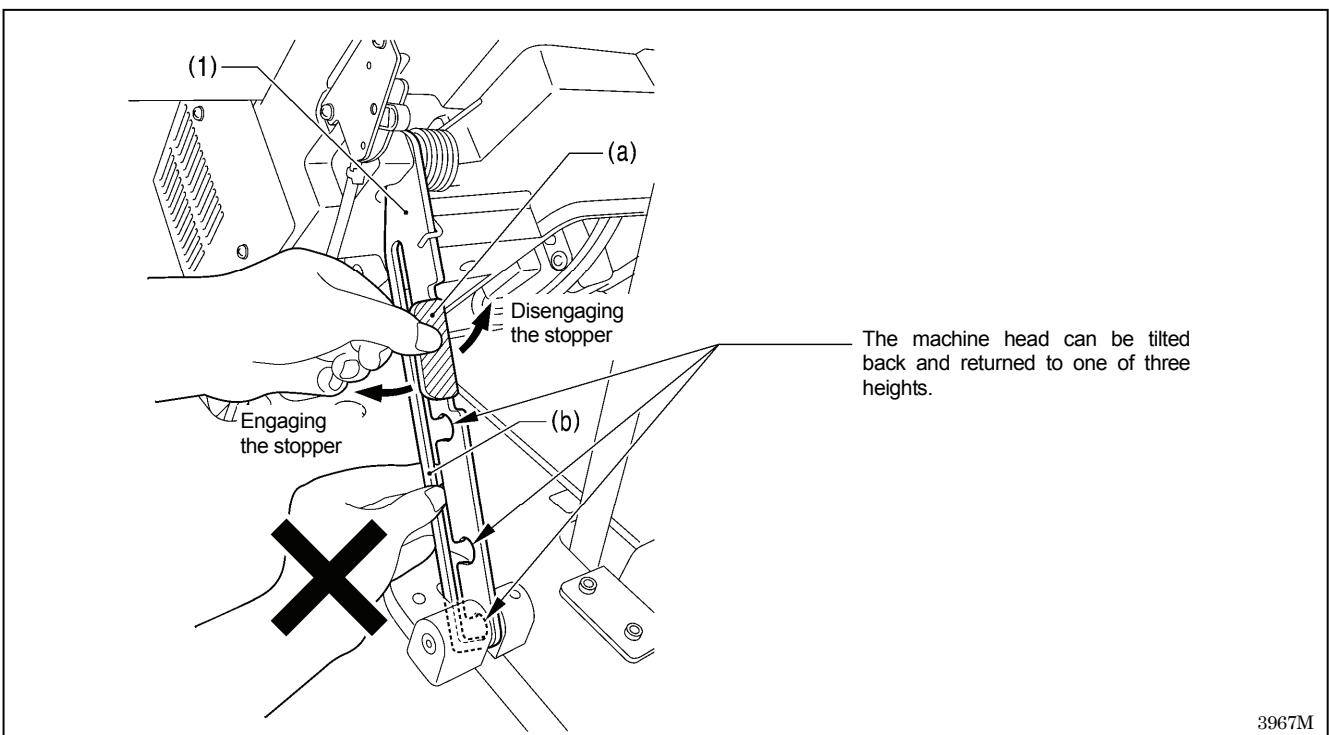
Hold the machine head with both hands when tilting it back or returning it to its original position. In addition, do not subject the machine head to extra force while it is tilted back. If this is not observed, the machine head may become unbalanced and fall down, and serious injury or damage to the sewing machine may result.



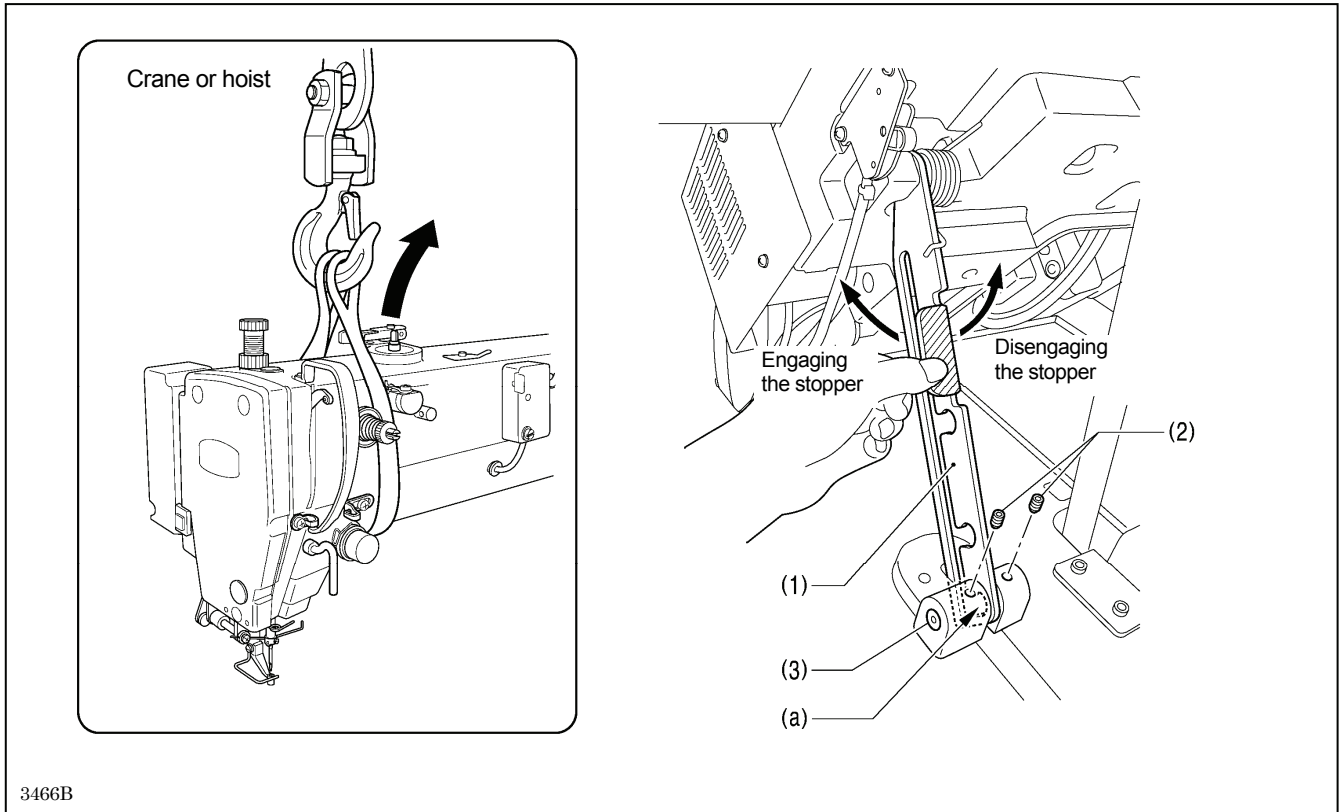
Always be sure to engage the stopper of the support lever (1) when tilting back the machine head. If the stopper is not engaged, the machine head may return to its original position and your hands may get caught and injury may result.



When disengaging the stopper, hold it by the knob (a). If you hold at the place indicated by (b), your hand will get caught between the support lever (1) and the table when the machine head is returned to its original position and injury will result.



3-6. Installing the gas spring

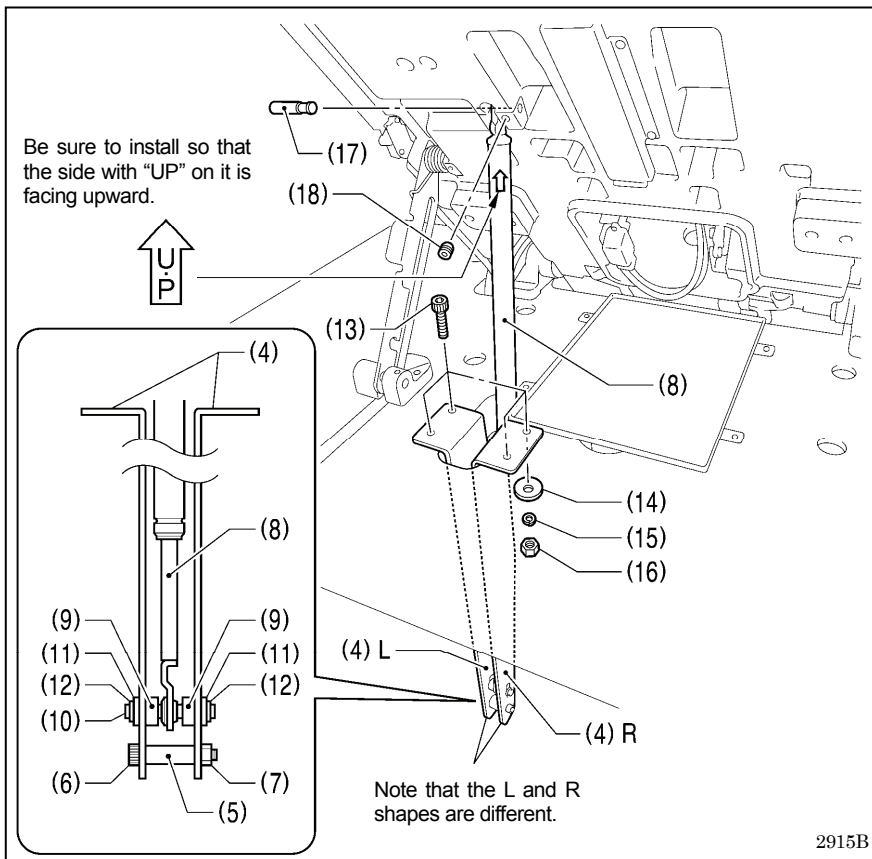


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1. Tilt back the machine head, and then secure the support lever (1) at stopper position (a).
(Refer to "3-5. Tilting back and returning the machine head".)

NOTE: Use equipment such as a crane or hoist to tilt back the machine head.

2. Tighten the two set screws (2) to secure the support lever shaft (3).



Be sure to install so that the side with "UP" on it is facing upward.

Note that the L and R shapes are different.

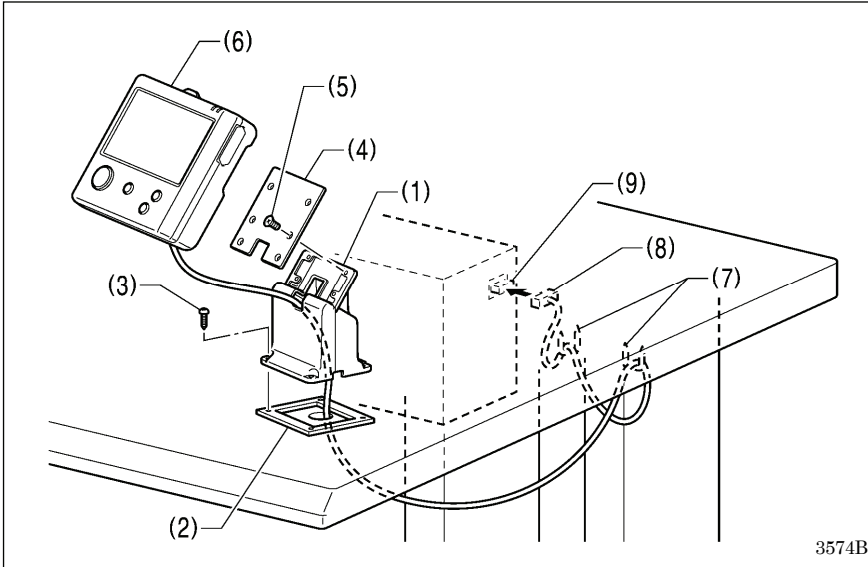
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3. Install the gas spring (8).

- (4) Gas spring holders [L and R]
- (5) Spacer
- (6) Bolt
- (7) Nut
- (8) Gas spring
- (9) Shaft collars [2 pcs.]
- (10) Gas spring shaft D
- (11) Plain washers [2 pcs.]
- (12) Retaining rings E [2 pcs.]
- (13) Bolts [4 pcs.]
- (14) Plain washers [4 pcs.]
- (15) Spring washers [4 pcs.]
- (16) Nuts [4 pcs.]
- (17) Gas spring shaft U
- (18) Set screw

* After installing the gas spring (8), gently return the machine head to its original position.
(Refer to "3-5. Tilting back and returning the machine head".)

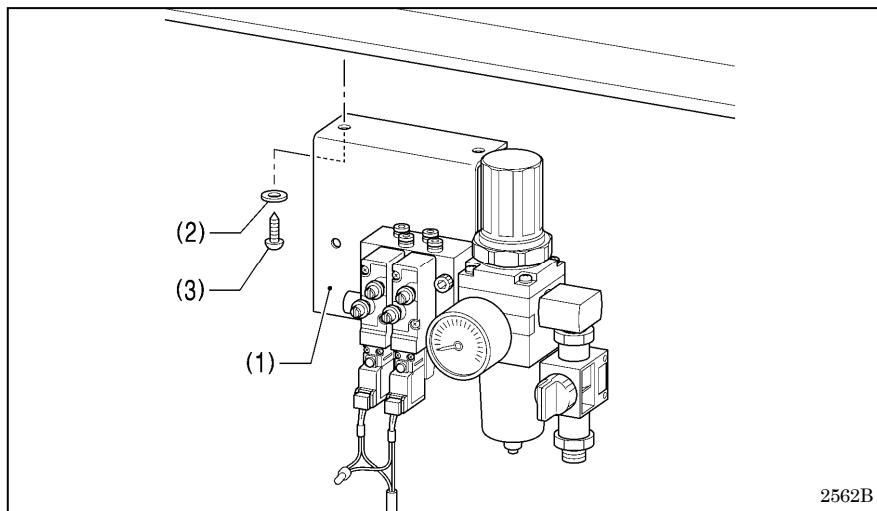
3-7. Installing the LCD panel



- (1) Cradle
- (2) Rubber cushion
- (3) Wood screws [4 pcs.]
- (4) Setting plate
- (5) Flat screws [4 pcs.]
- (6) LCD panel
- (7) Staples [2 pcs.]

- Pass the cord of the LCD panel (8) through the table hole, and then insert it into the (PANEL) connector (9) on the side of the control box.
- Tighten the four wood screws (3) so that the thickness of the rubber cushion (2) is 5 mm.

3-8. Installing the solenoid valve assembly



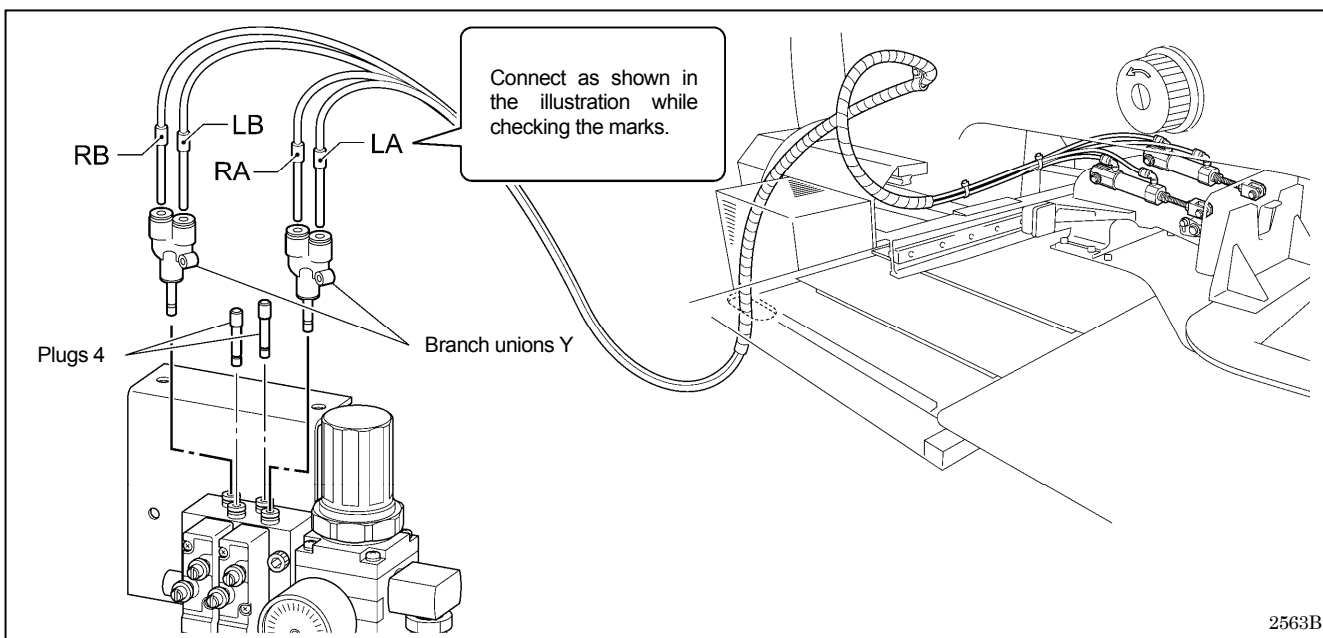
Install underneath the work table. (Refer to "3-1. Table processing diagram" for the installation positions.)

- (1) Solenoid valve assembly
- (2) Washers [2 pcs.]
- (3) Wood screws [2 pcs.]

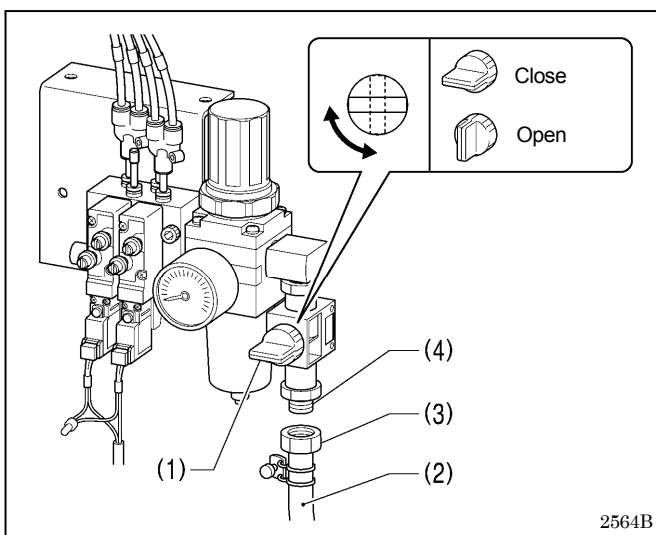
NOTE:

Make sure that the solenoid valve assembly does not touch the control box or the leg of the table.

3-9. Connecting the air tubes



3-10. Installing the air hose



1. Close the cock (1).
2. Turn the nut (3) at the end of the air hose (2) and connect it to the valve (4).
3. Open the cock at the compressor.
 - * Check that no air is leaking from the connection of the valve (4) and air hose (2).
4. Open the cock (1).
(The meter pointer will turn clockwise.)

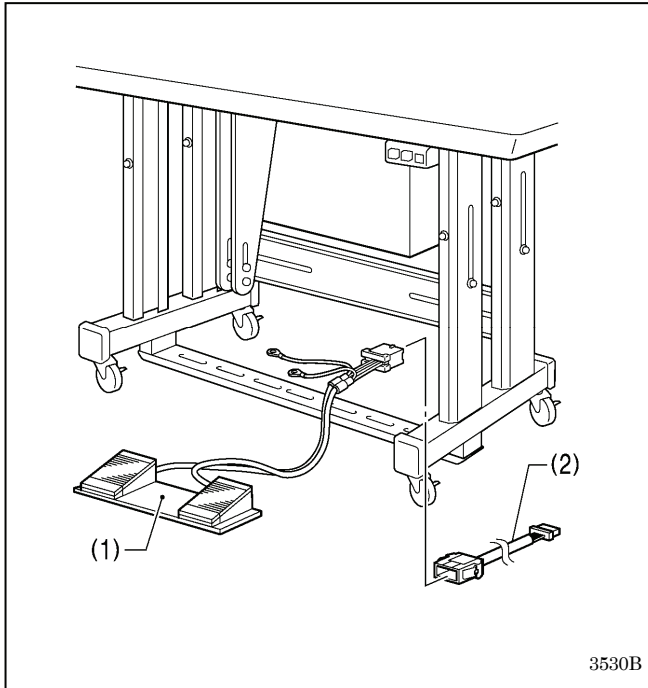
NOTE:

Turn the cock (1) gently to open it.

5. Adjust the air pressure. (Refer to "7-18. Adjusting the speed controller" in the Instruction Manual.)

3. INSTALLATION

3-11. Installing the two-pedal foot switch



- (1) Two-pedal foot switch
- (2) Conversion harness

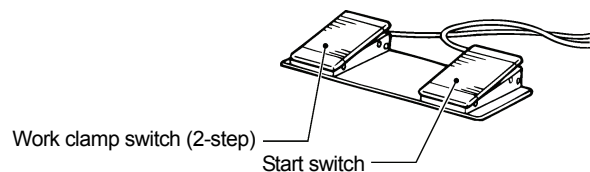
Connect the connector for the two-pedal foot switch (1) to the conversion harness (2). Insert the conversion harness (2) into the P15 (PEDAL) connector on the main P.C. board. (Refer to "3-12. Connecting the cords".)

* Be sure to make the ground connection. (Refer to "3-13. Connecting the ground wire".)

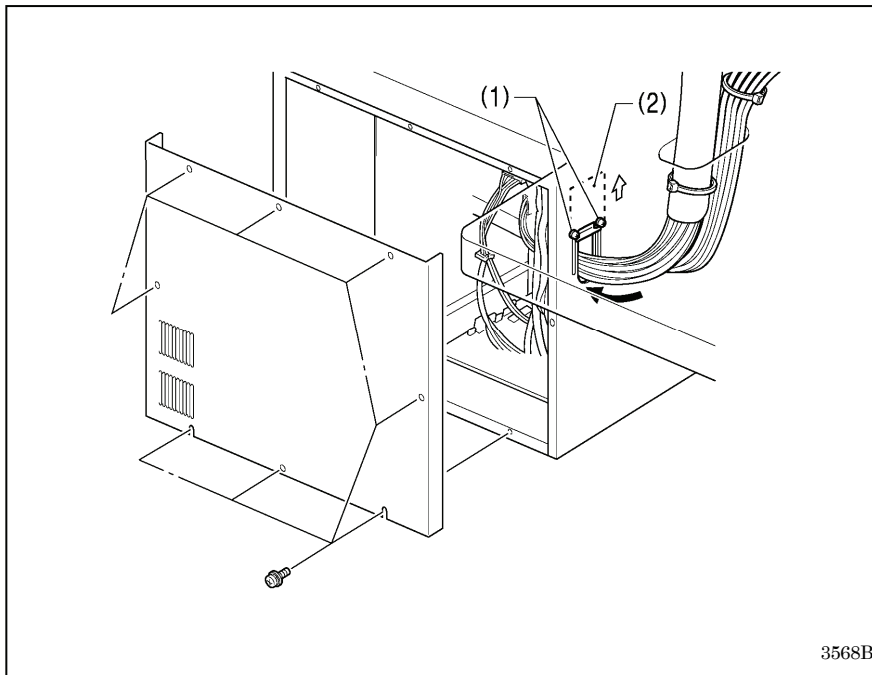
<Two-pedal foot switch operating method>

When the work clamp switch (left) is depressed, both work clamps are lowered, and when the start switch (right) is depressed, the sewing machine starts sewing.

* The work clamp lowering method can be changed using memory switch No. 002. (Refer to "2-2. List of memory switch settings" in the "LCD Panel/Operation Panel" Instruction Manual.)(*1)



3-12. Connecting the cords



1. Remove the cover of the control box.
2. Loosen the two screws (1), and then open the cord presser plate (2) in the direction of the arrow.
3. Pass the bundle of cords from the machine head through the hole in the table, and then pass it through the hole in the control box together with the solenoid valve.
4. Securely connect the connectors as indicated in the table.

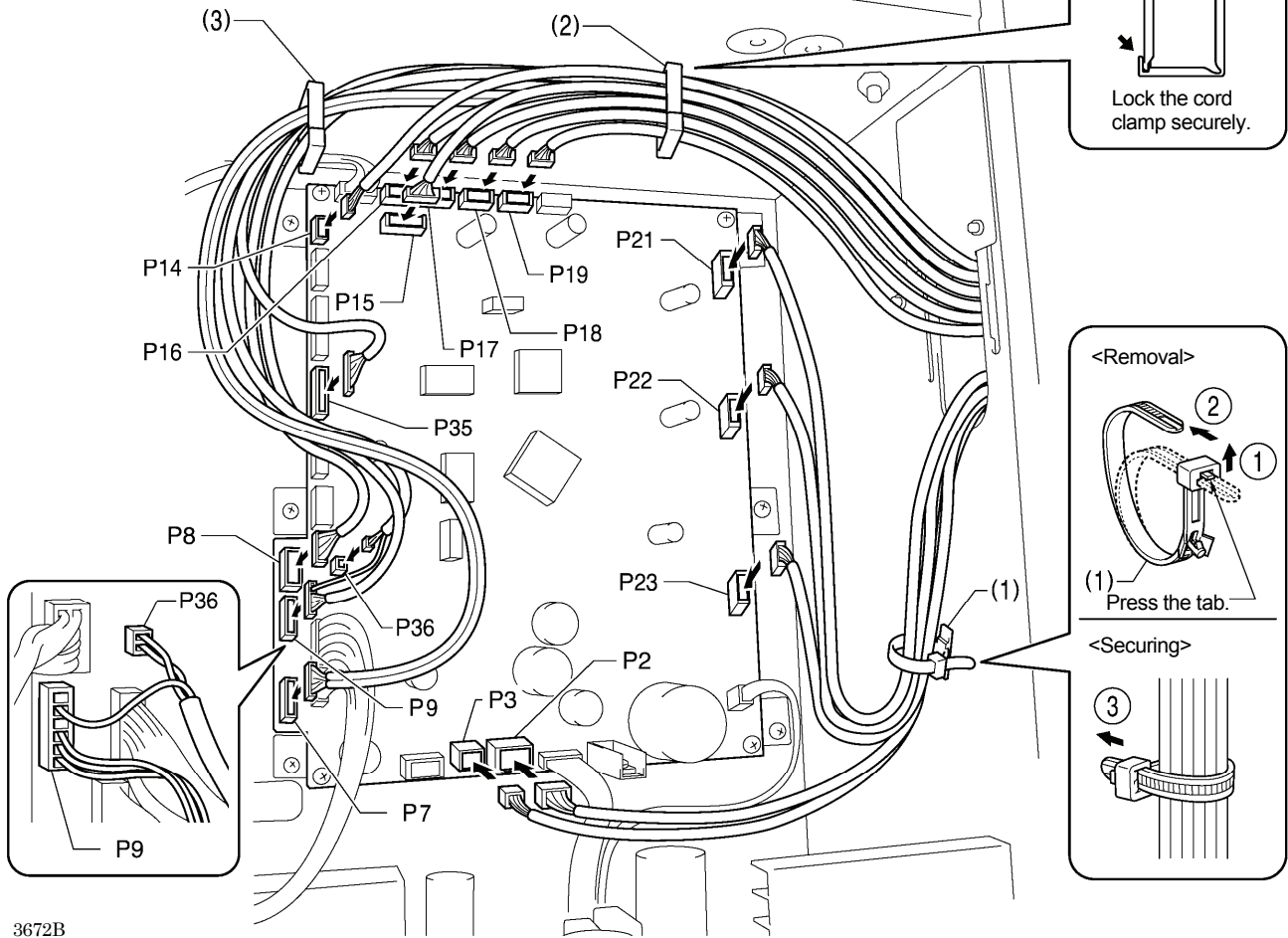
(Refer to next page)

NOTE:

- Check that the connector is facing the correct way, and then insert it firmly until it locks into place.
- Secure the cables with cable ties and cord clamps, while being careful not to pull on the connector.

(*1) Please download the "LCD Panel/Operation Panel" Instruction Manual from our web site.

< Main P. C. board >

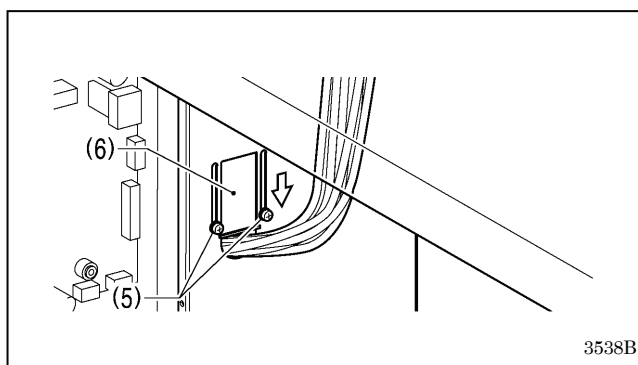
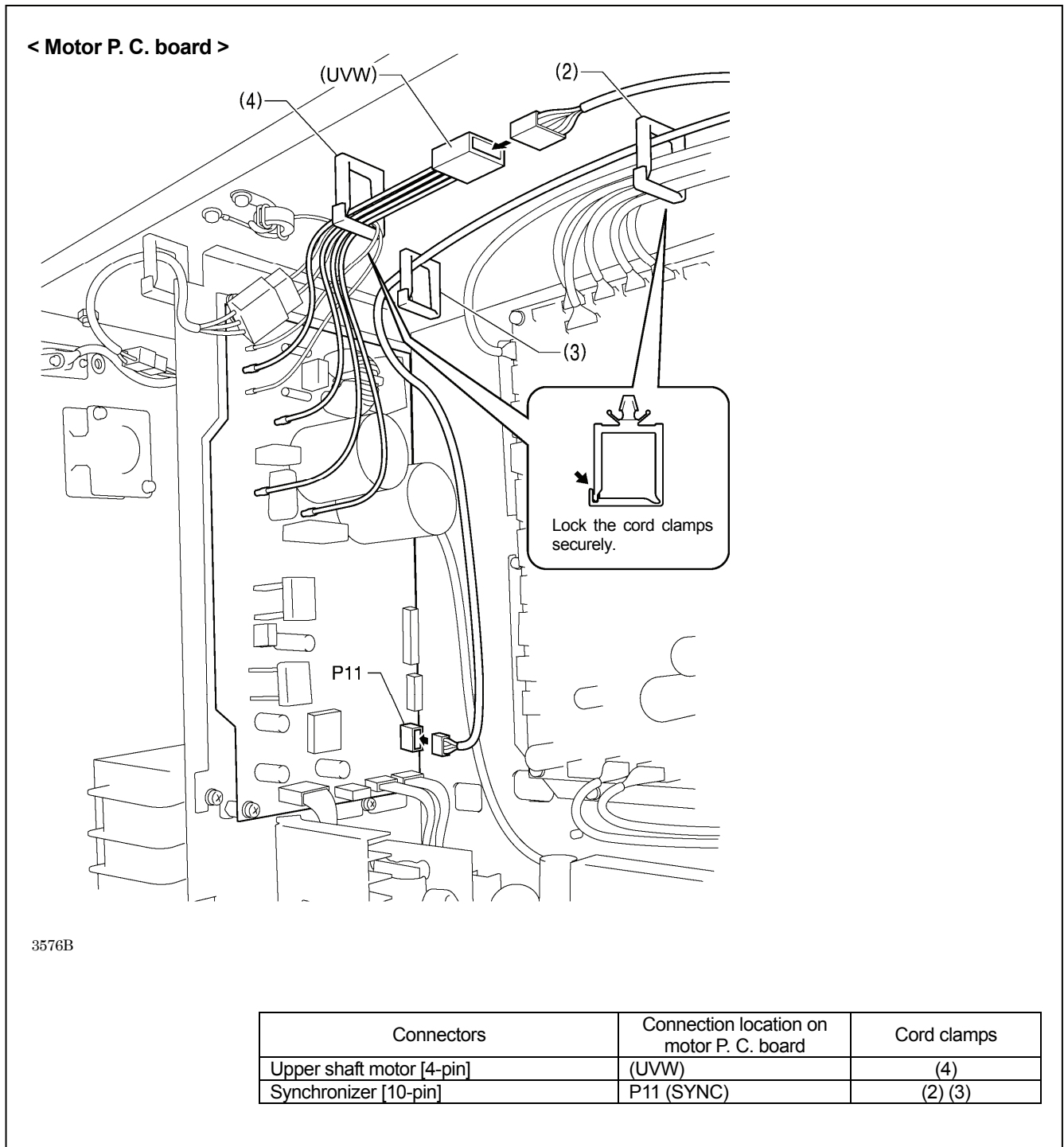


3672B

Connectors	Connection location on main P. C. board	Cord clamps / cable ties
X pulse motor encoder [5-pin] White	P17 (X-ENC)	(2)
Y pulse motor encoder [5-pin] Blue	P18 (Y-ENC)	(2)
Work clamp pulse motor encoder [5-pin] Black	P19 (P-ENC)	(2)
Machine head switch [3-pin]	P14 (HEAD-SW)	(2)
Conversion harness [7-pin] White	P15 (PEDAL)	(2)
Machine head memory [6-pin]	P16 (HEAD-M)	(2)
Thread trimmer solenoid [6-pin]	P2 (SOL1)	(1)
Digital tension solenoid / Tension release solenoid [4-pin]	P3 (SOL2)	(1)
X pulse motor [4-pin] White	P21 (XPM)	(1)
Y pulse motor [4-pin] Blue	P22 (YPM)	(1)
Work clamp pulse motor [4-pin] Black	P23 (PPM)	(1)
Home position sensor [12-pin] White	P8 (SENSOR1)	(2) (3)
STOP switch [6-pin] White	P9 (HEAD)	(2) (3)
Valve harness [12-pin]	P35 (EX-OUT1)	(2) (3)
Upper thread breakage detector [2-pin] White	P36, P9(HEAD)	(2) (3)
Fan [6-pin]	P7 (SENSOR2)	(2) (3)

NOTE: Route the X, Y and work clamp pulse motor harnesses so that they do not touch the power supply P.C. board at the bottom of the control box.

3. INSTALLATION



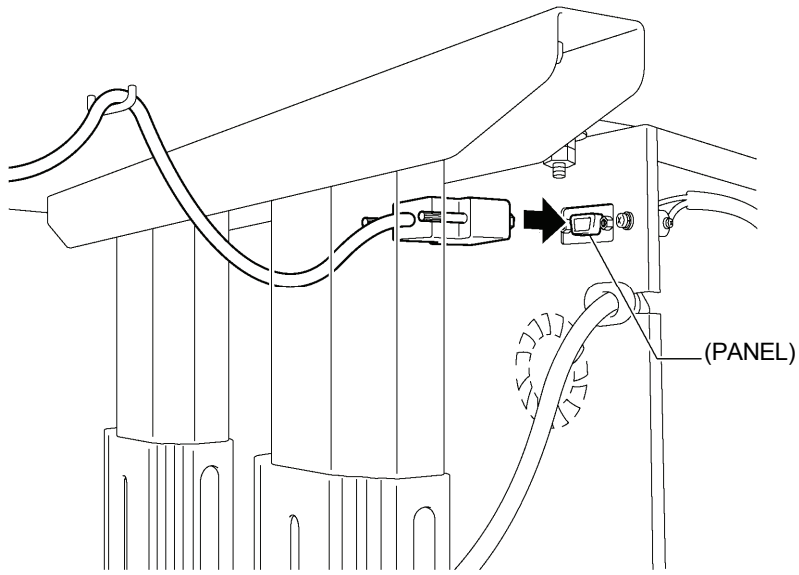
- Close the cord presser plate (6) in the direction of the white arrow, and secure it by tightening the two screws (5).

NOTE:

Close the cord presser plate (6) securely so that no foreign objects, insects or small animals can get inside the control box.

- Check that the cords do not get pulled, and then gently return the machine head to its original position.

<LCD panel>



Connector	D-sub connector
LCD panel [9-pin]	(PANEL)

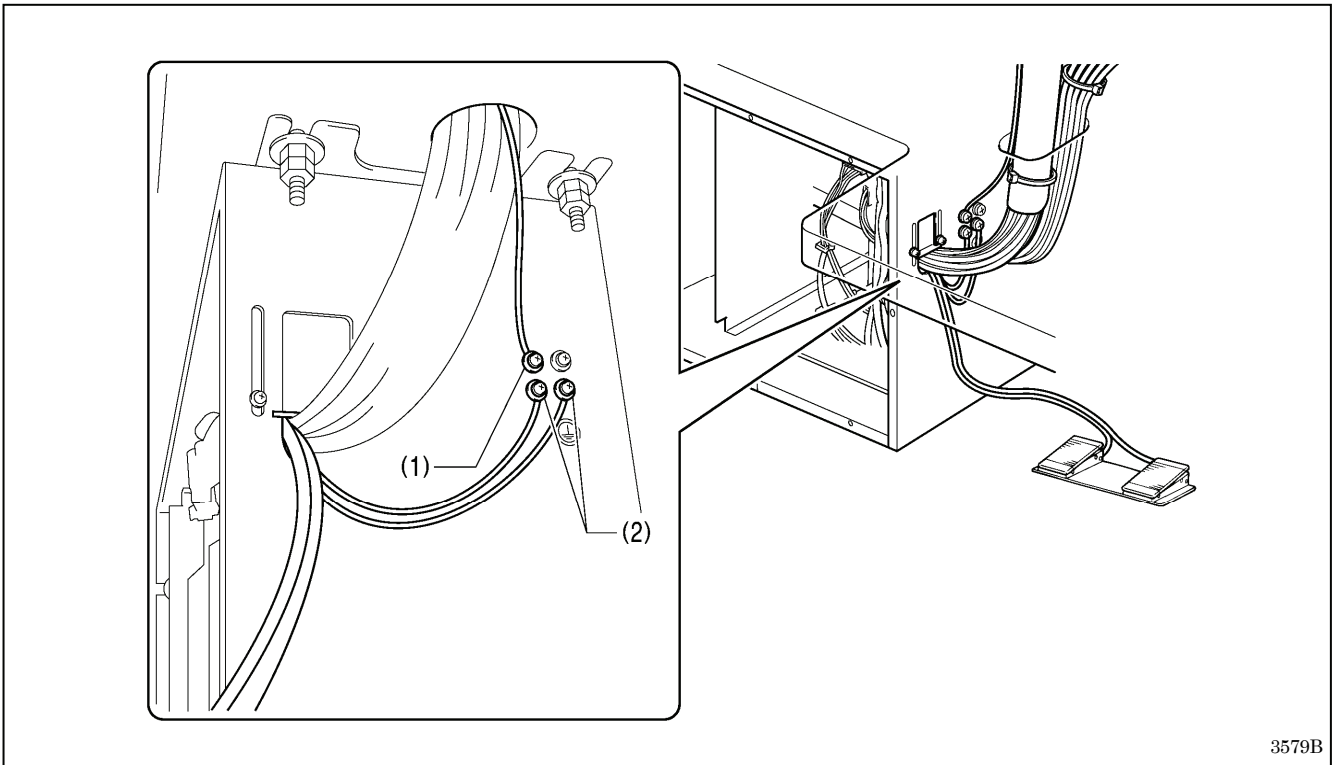
3578B

3-13. Connecting the ground wire

CAUTION



Be sure to connect the ground. If the ground connection is not secure, you run a high risk of receiving a serious electric shock, and problems with correct operation may also occur.



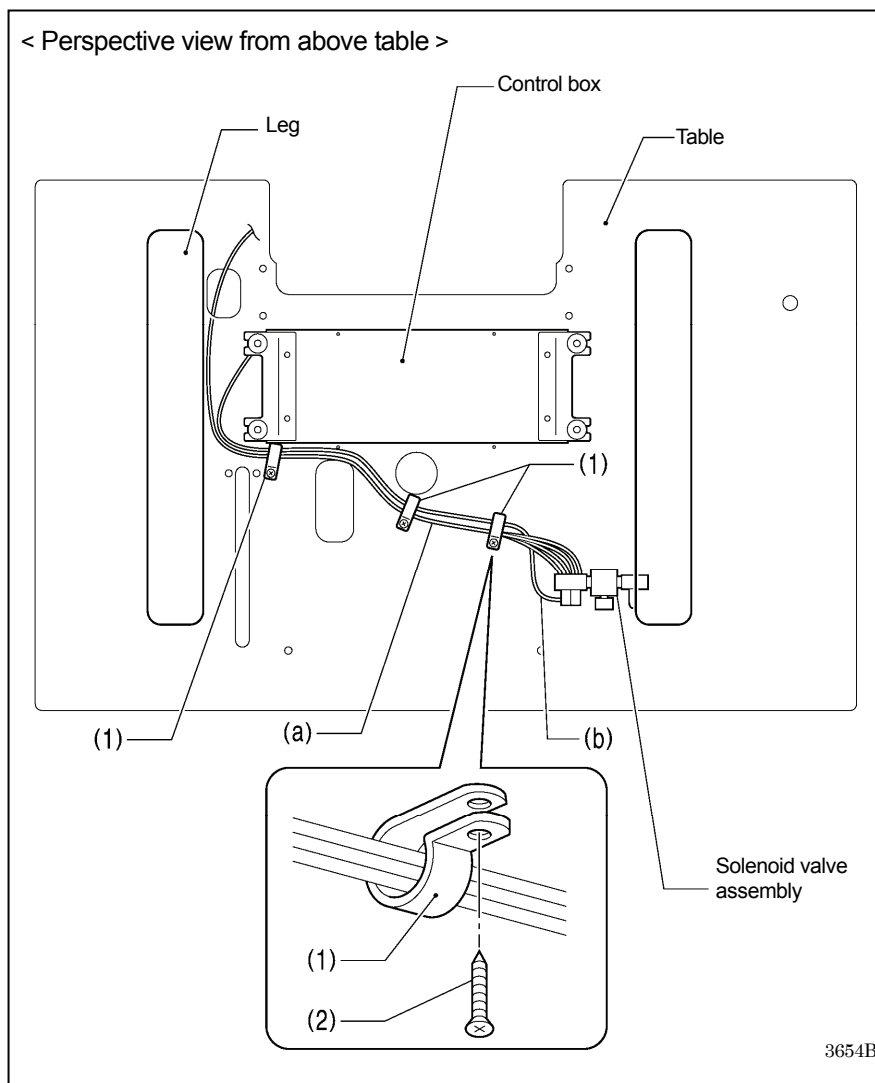
3579B

- (1) Ground wire from the machine head
- (2) Ground wires from two-pedal foot switch harnesses (2 wires)

- Tighten the control box cover with the six screws. Check that the cords are not clamped by the cover at this time.

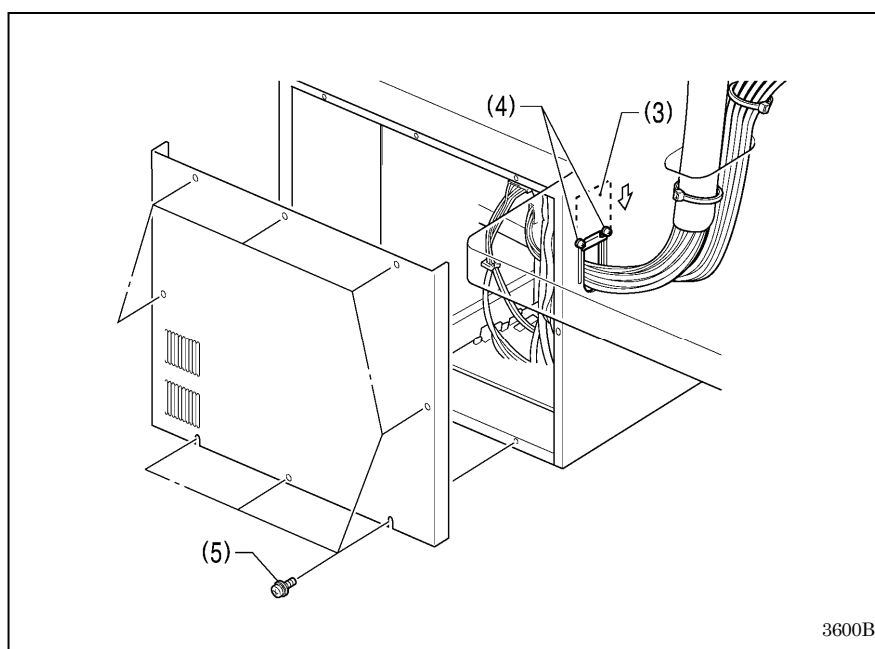
NOTE: Make sure that the ground connections are secure in order to ensure safety.

3-14. Securing the cords and air tubes



Secure the air tubes (a) and the solenoid valve assembly cord (b) together underneath the table with the three cord holders (1).

- (1) Cord holders [3 pcs.]
- (2) Wood screws [3 pcs.]



<Checking the cords>

1. Gently tilt back the machine head. (Refer to "3-5. Tilting back and returning the machine head".)
2. Check that none of the cords are being pulled.
3. Return the machine head to its original position.
4. Close the cord presser plate (3) in the direction of the arrow, and secure it by tightening the two screws (4).

NOTE:

Close the cord presser plate (3) securely so that no foreign objects, insects or small animals can get inside the control box.

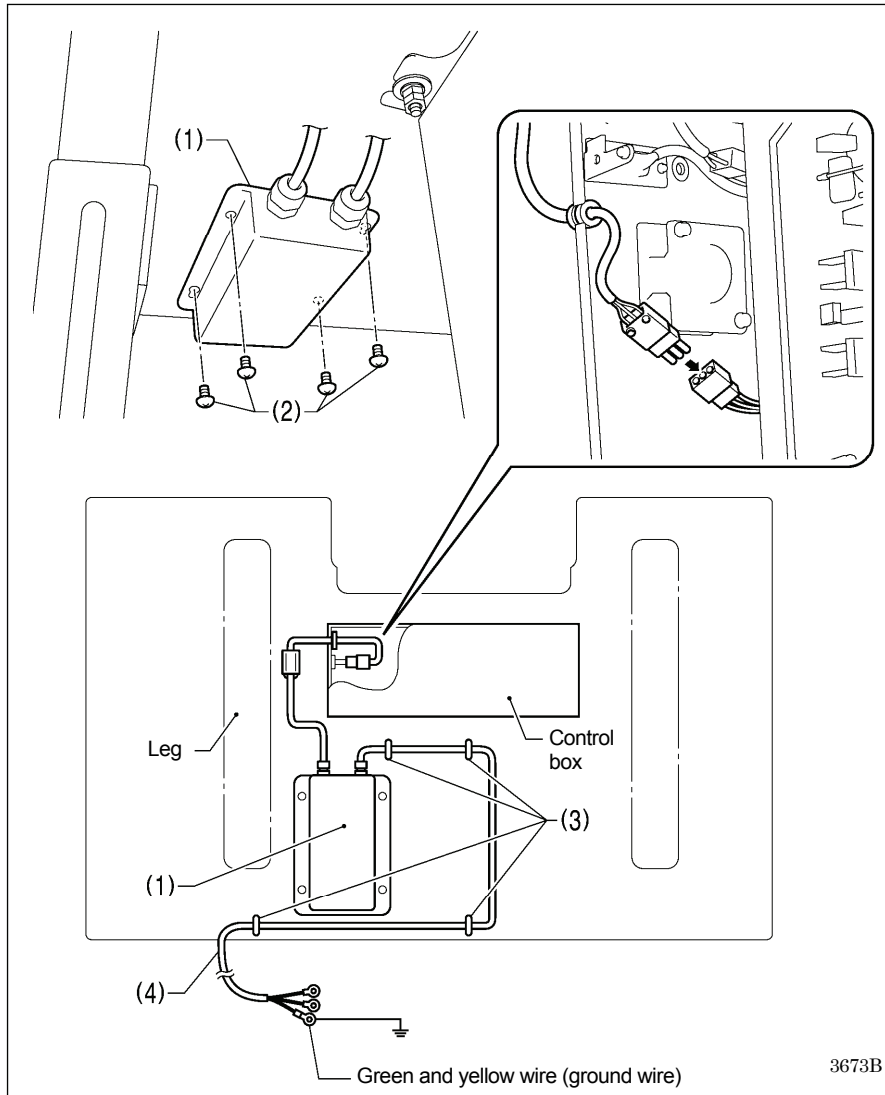
5. Secure the cover of the control box by tightening the eight screws (5). Check that the cords are not clamped by the cover at this time.

3-15. Connecting the power cord

CAUTION



Be sure to connect the ground. If the ground connection is not secure, you run a high risk of receiving a serious electric shock, and problems with correct operation may also occur.



Connect cords that match the voltage specifications.

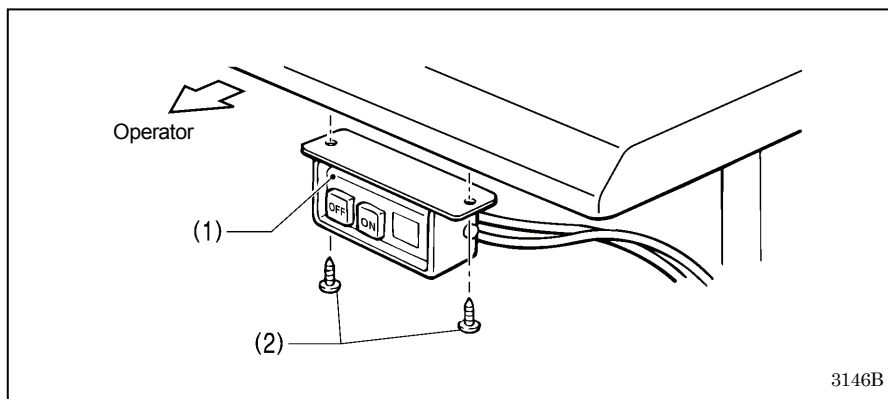
< EU specifications >

- (1) Filter box
- (2) Screws [4 pcs.]
- (3) Staples [4 pcs.]
- (4) Power cord

1. Attach an appropriate switch and cable to the power cord (4). (The green and yellow wire is the ground wire.)
2. Insert the power plug into a properly-grounded electrical outlet.

NOTE:

- Take care when tapping in the staples (3) to make sure that they do not pierce the cords.
- Do not use extension cords, otherwise machine operation problems may result.

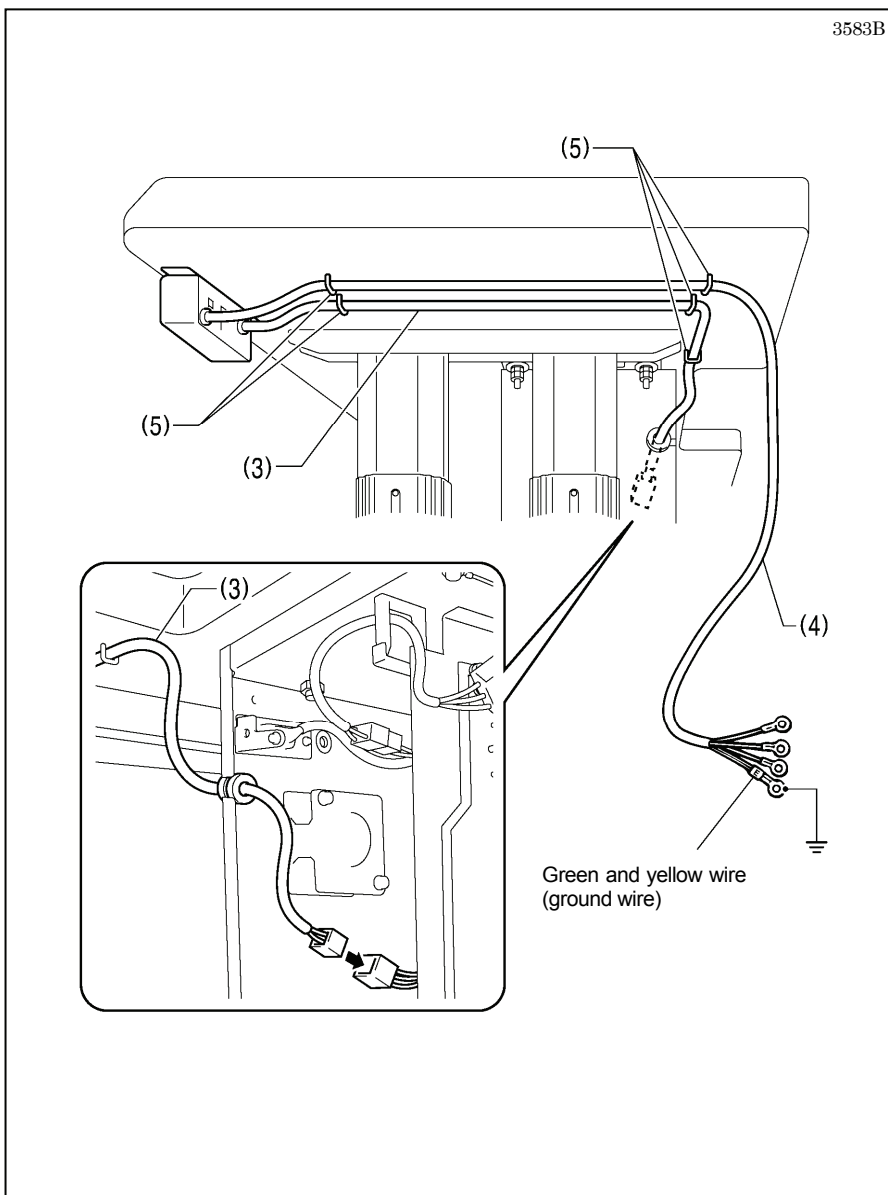


Connect cords that match the voltage specifications.

<200 V system >

- (1) Power switch
- (2) Wood screws [2 pcs.]

3146B



3583B

- (3) 3-pin power supply connector
- (4) Power cord
- (5) Staples [5 pcs.]

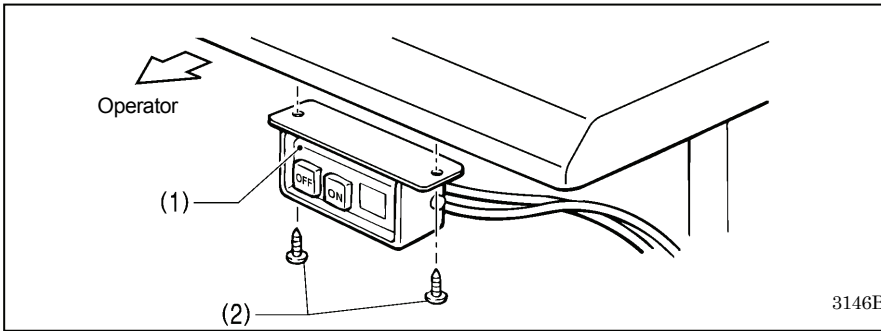
1. Attach an appropriate plug to the power cord (4). (The green and yellow wire is the ground wire.)
2. Insert the power plug into a properly-grounded electrical outlet.

NOTE:

- Take care when tapping in the staples (5) to make sure that they do not pierce the cords.
- Do not use extension cords, otherwise machine operation problems may result.

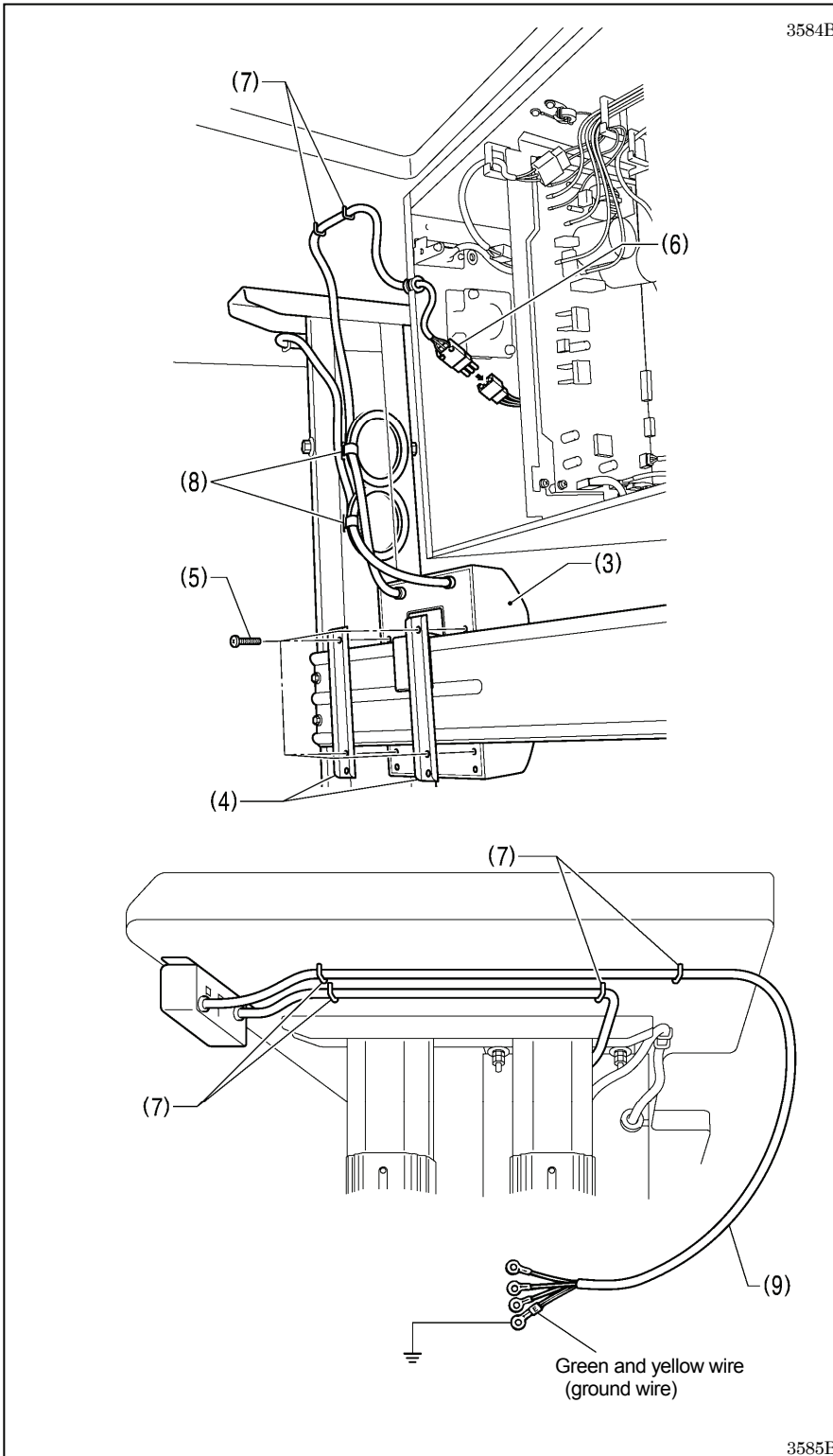
3. Use the six screws to tighten the cover of the control box. Check that none of the cords are being clamped by the cover at this time.

3. INSTALLATION



<100 V / 400 V system >

- (1) Power switch
- (2) Wood screws [2 pcs.]



3584B

- (3) Transformer box
- (4) Transformer box plates [2 pcs.]
- (5) Screws [with washer] [4 pcs.]
- (6) 3-pin power supply connector
- (7) Staples [6 pcs.]
- (8) Cord clamps [2 pcs.]
- (9) Power cord

1. Attach an appropriate plug to the power cord (9). (The green and yellow wire is the ground wire.)
2. Insert the power plug into a properly-grounded AC power supply.

* The inside of the control box uses single-phase power.

NOTE:

- If the ground connection is not secure, electric shocks, operating errors or damage to electronic components such as P.C. boards may occur.
- Take care when tapping in the staples (7) to make sure that they do not pierce the cords.
- Do not use extension cords, otherwise machine operation problems may result.

3. Use the six screws to tighten the cover of the control box. Check that none of the cords are being clamped by the cover at this time.

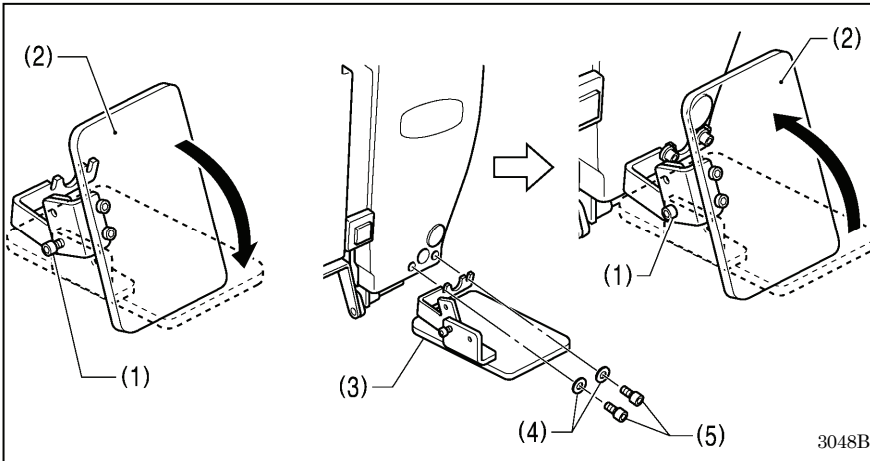
3585B

3-16. Installing the eye guard

CAUTION



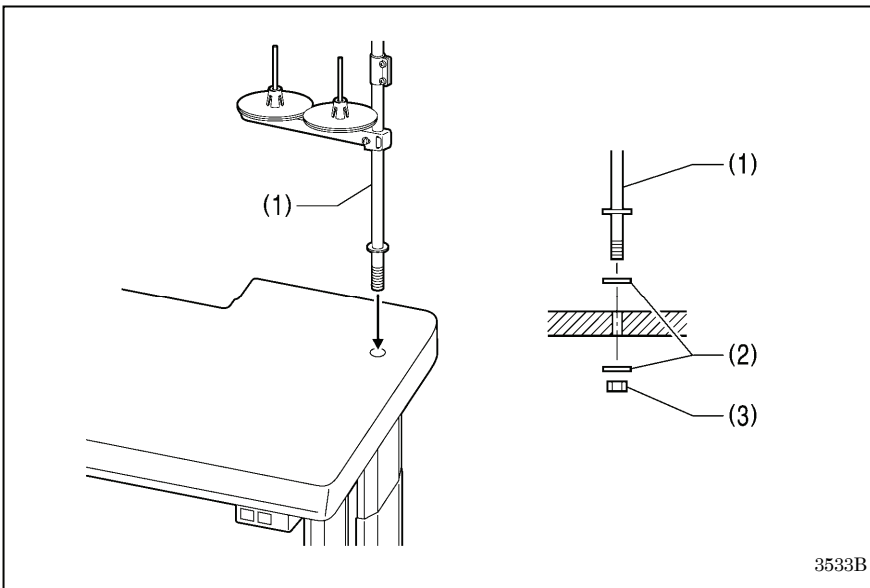
Attach all safety devices before using the sewing machine.
If the machine is used without these devices attached, injury may result.



- (1) Bolt (loosen)
- (2) Eye guard (tilt forward)
- (3) Eye guard assembly
- (4) Plain washers [2 pcs.]
- (5) Bolts [2 pcs.]

After installing the eye guard assembly (3), return the eye guard (2) to its original angle, and then tighten the bolt (1) to secure it in place.

3-17. Installing the cotton stand



- (1) Cotton stand

NOTE:

Securely tighten the nut (3) so that two washers (2) are securely clamped so that the cotton stand (1) does not move.

3-18. Lubrication

CAUTION



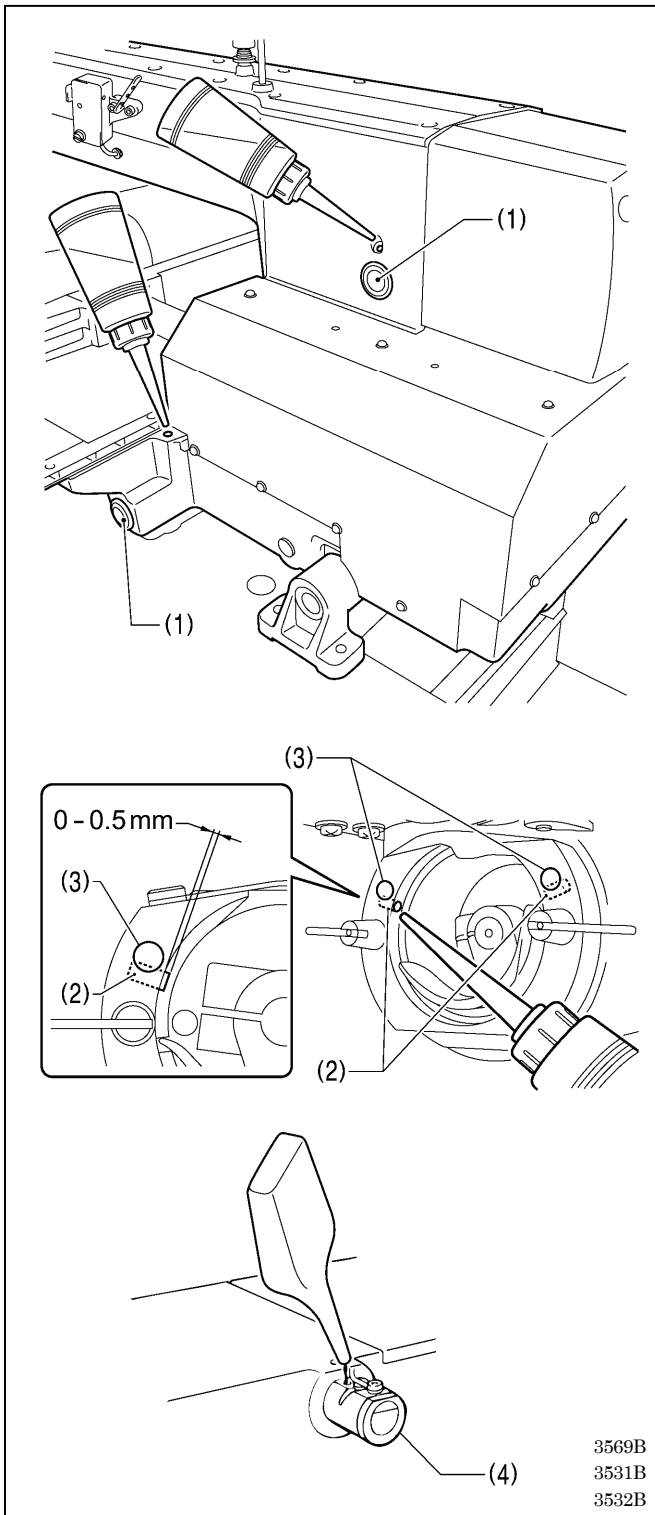
Do not connect the power cord until lubrication is complete.

If the foot switch is depressed by mistake, the sewing machine might start operating and injury could result.



Be sure to wear protective goggles and gloves when handling the lubricating oil and grease, so that they do not get into your eyes or onto your skin. If the oil and grease get into your eyes or onto your skin, inflammation can result.

Furthermore, do not drink or eat the lubricating oil or grease. They may cause diarrhea or vomiting. Keep the oil out of the reach of children.



- The sewing machine should always be lubricated and the oil supply replenished before it is used for the first time, and also after long periods of non-use.
- Use only the lubricating oil <JX Nippon Oil & Energy Corporation Sewing Lube N10; VG10> specified by Brother.
 - * If this type of lubricating oil is difficult to obtain, the recommended oil to use is <Exxon Mobil EssoTex SM10; VG10>.

1. Fill the arm oil tank and the bed oil tank with oil.

NOTE:

Be sure to add more oil when the oil level drops down to about one-third full in the oil gauge window (1). If the oil drops below the one-third full level in the oil gauge window (1), there is the danger that the sewing machine may seize during operation.

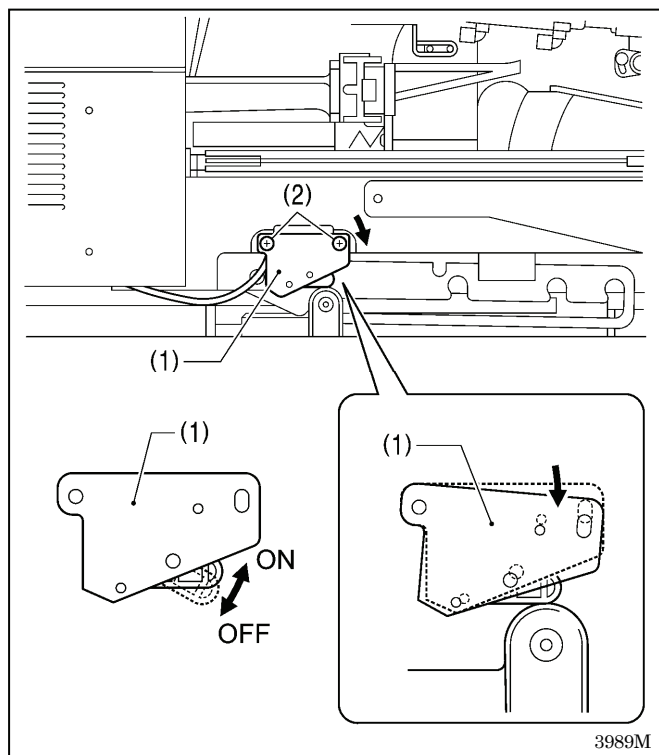
2. Pour oil in through the two holes of the shuttle race base assembly so that the felt (2) is lightly moistened. If it is difficult to add oil, you can also remove the rubber cap (3) and pour in the oil through the hole.

NOTE:

- The two pieces of felt (2) should normally project by 0 to 0.5 mm from the hook race. Be careful not to push in the felt (2) when lubricating.
- If there is no more oil on the felt (2) of the shuttle race base assembly, problems with sewing may result.

3. If using the needle cooler (4), fill it with silicon oil (100 mm²/s). (Refer to "4-3. Threading the upper thread" for details on using the needle cooler (4).)

3-19. Checking the machine head switch



1. If the machine head is tilted back, gently return it to its original position. (Refer to "3-5. Tilting back and returning the machine head".)
2. Turn on the power switch.
3. Check that no error numbers appear on the LCD panel.

<If error [E050], [E051] or [E055] is displayed >

If the machine head switch (1) is not turned on, error [E050], [E051] or [E055] will occur.

Adjust the installation position of the machine head switch (1).

1. Turn off the power.
2. Loosen the two screws (2).
3. Push down the right side of the machine head switch (1) so that the machine head switch (1) turns on, and then tighten the two screws (2).
4. Turn on the power and check that no error numbers are displayed.

4. PREPARATION BEFORE SEWING

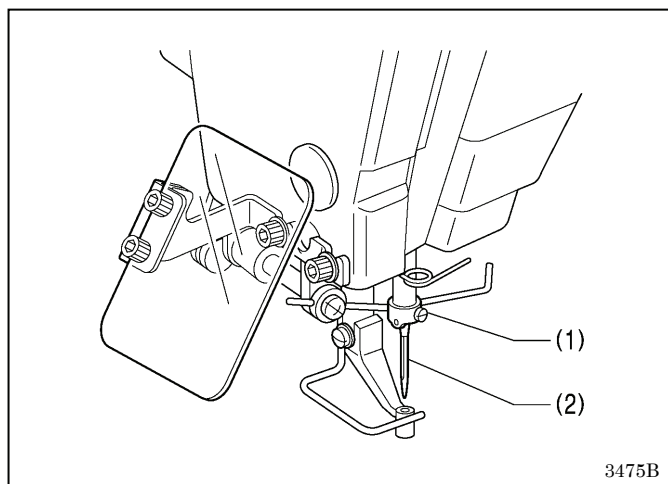
4-1. Installing the needle

CAUTION



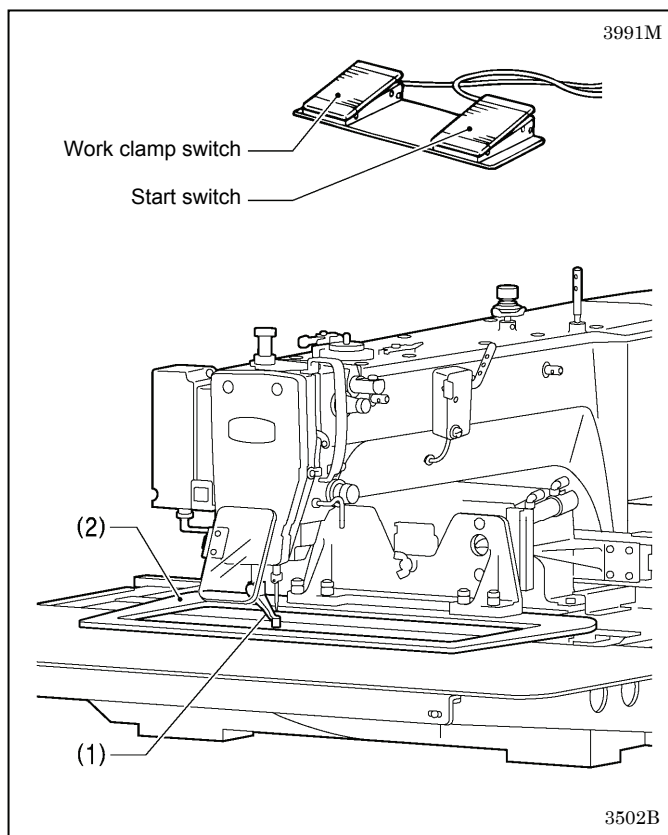
Turn off the power switch before installing the needle.

If the foot switch is depressed by mistake, the sewing machine might start operating and injury could result.



1. Loosen the set screw (1).
2. Insert the needle (2) in a straight line as far as it will go, making sure that the long groove on the needle is at the front, and then securely tighten the set screw (1).

4-2. 2-pedal foot switch operation method



When the work clamp switch (left side) is depressed, the intermittent presser foot (1) and the work clamp (2) are lowered, and when the start switch (right side) is then depressed, the sewing machine starts operating.

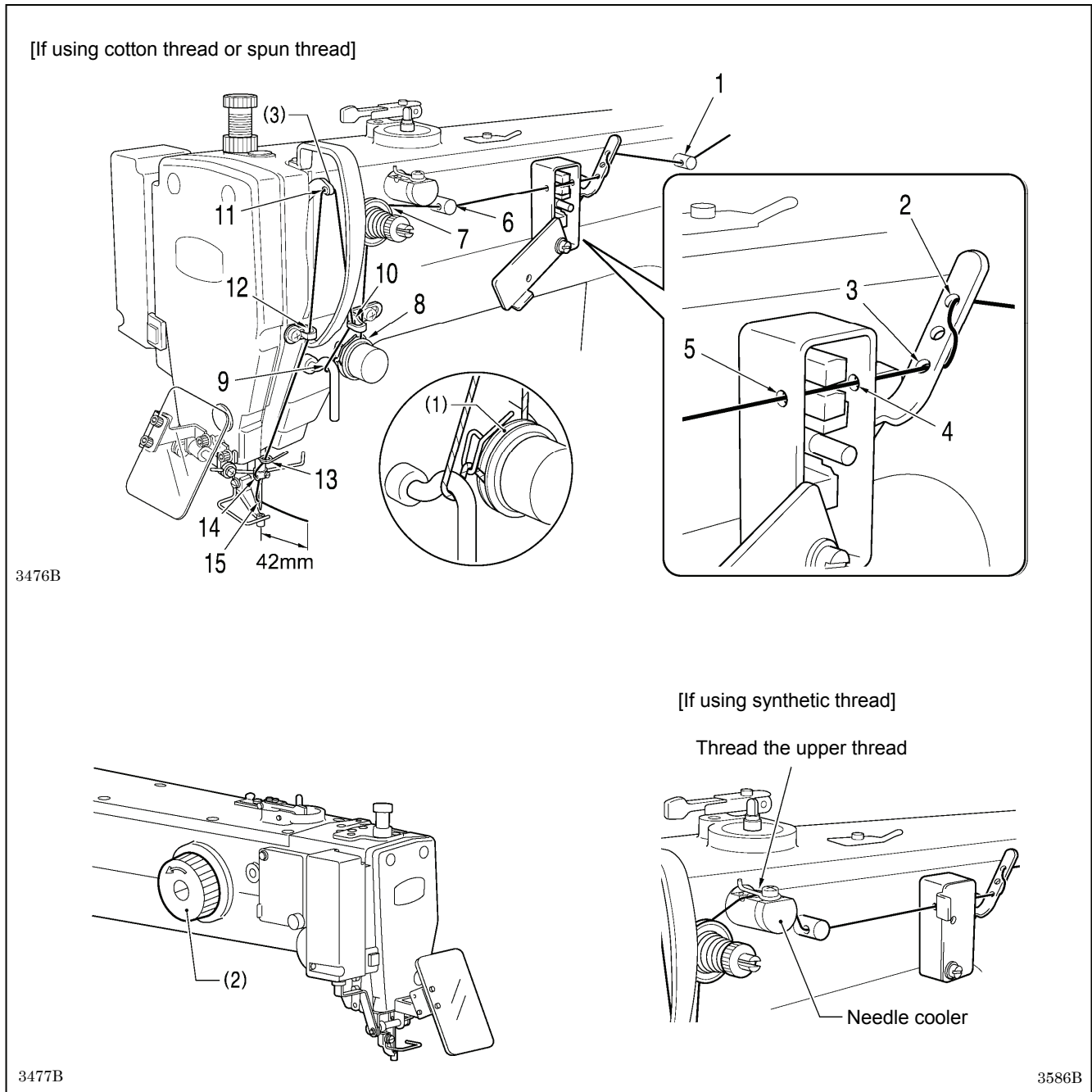
* The work clamp (2) lowering method can be changed using memory switch No. 002. (Refer to "2-2. List of memory switch settings" in the "LCD Panel/Operation Panel" Instruction Manual.) (*1)

(*1) Please download the "LCD Panel/Operation Panel" Instruction Manual from our web site.

4-3. Threading the upper thread

Thread the upper thread correctly as shown in the illustration below.

- * When using threading mode for threading, the tension discs (1) will open so that the thread can be threaded more easily. (Refer to "Threading mode" on the next page.)

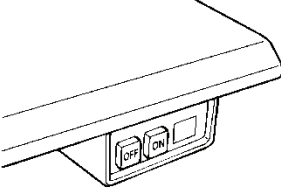
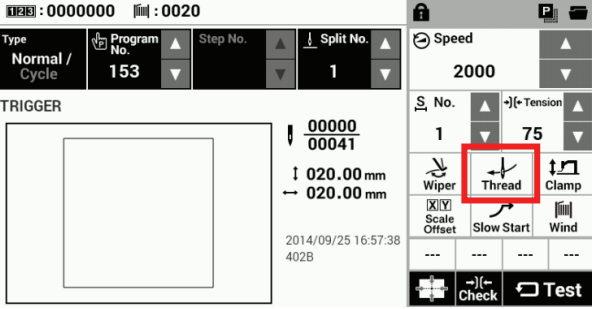


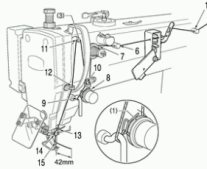
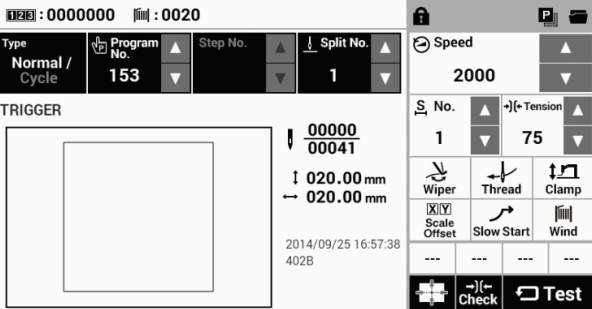



- Turn the machine pulley (2) and raise the thread take-up (3) to its highest position before threading the upper thread. (This will make threading easier and it will prevent the thread from coming out at the sewing start.)
- When threading the thread through the needle, allow a distance of approximately 42 mm between the needle hole and the end of the thread.
If it is too long, the thread may become tangled, and if it is too short, the thread may pull out at the sewing start.

4. PREPARATION BEFORE SEWING

<Threading mode>

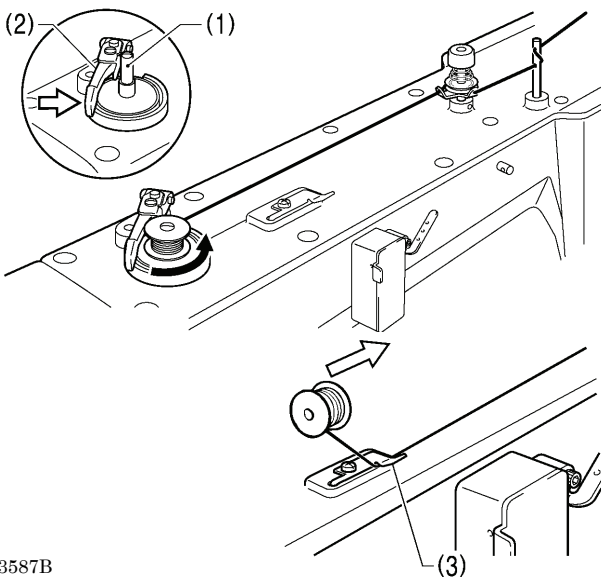
Threading mode is safe because the sewing machine will not start even when the start switch is depressed.

<p>1</p>		<p>Turn on the power.</p>
<p>2</p>	<div style="display: flex; align-items: flex-start;"> <div style="flex: 1;">  </div> <div style="flex: 1; padding-left: 10px;"> <p>Touch the Thread key on the screen.</p>  <ul style="list-style-type: none"> Work clamp will drop. The tension discs will open. </div> </div> <div style="text-align: center; margin: 10px 0;">  </div> <div style="border: 1px solid black; padding: 5px;"> <p>Threading</p>  <ol style="list-style-type: none"> 1. Turn the machine pulley (2) and raise the thread take-up (3) to its highest position before threading the upper thread. (This will make threading easier and it will prevent the thread from coming out at the sewing start.) 2. When threading the thread through the needle, allow a distance of approximately 42 mm between the needle hole and the end of the thread. 3. Touch the OK key to return to the previous screen. <p style="text-align: right; color: green; font-weight: bold;">OK</p> </div>	
<p>3</p>	<p>Threading the thread.</p>	
<p>4</p>	<p>Ending threading mode</p> <p>The display will return to the previous screen.</p> 	<p>Touch the OK key on the screen.</p> <div style="text-align: center; margin-bottom: 10px;">  </div> <ul style="list-style-type: none"> The work clamp will return to where it was before threading mode was started.

4-4. Winding the lower thread

CAUTION

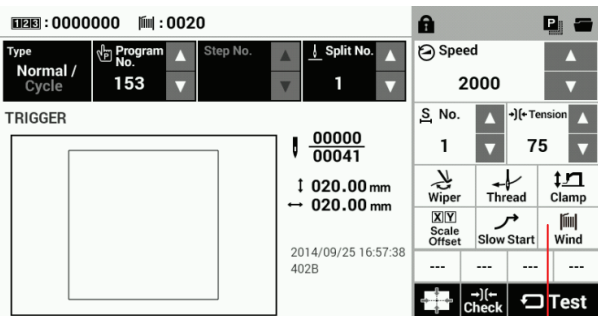
Do not touch any of the moving parts or press any objects against the machine while winding the lower thread, as this may result in personal injury or damage to the machine.



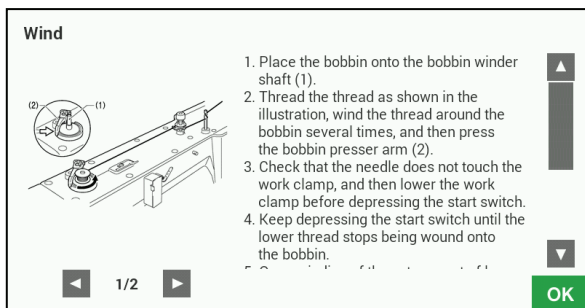
1. Place the bobbin onto the bobbin winder shaft (1).
2. Thread the thread as shown in the illustration, wind the thread around the bobbin several times, and then press the bobbin presser arm (2).
3. Turn on the power.
4. Lower the work clamp before depressing the start switch. Home position detection will be carried out.
5. Touch the Wind key (4) on the screen.
6. The display will switch to the thread winding mode screen.
7. Check that the needle does not touch the work clamp, and then lower the work clamp before depressing the start switch.
8. Keep depressing the start switch until the lower thread stops being wound onto the bobbin.
9. Once winding of the set amount of lower thread (80 - 90% of the bobbin capacity) is completed, the bobbin presser arm (2) will return automatically.
10. Remove the bobbin, hook the thread onto the knife (3), and then pull the bobbin in the direction of the arrow to cut the thread.
11. Touch the OK key to return to the previous screen.

3587B

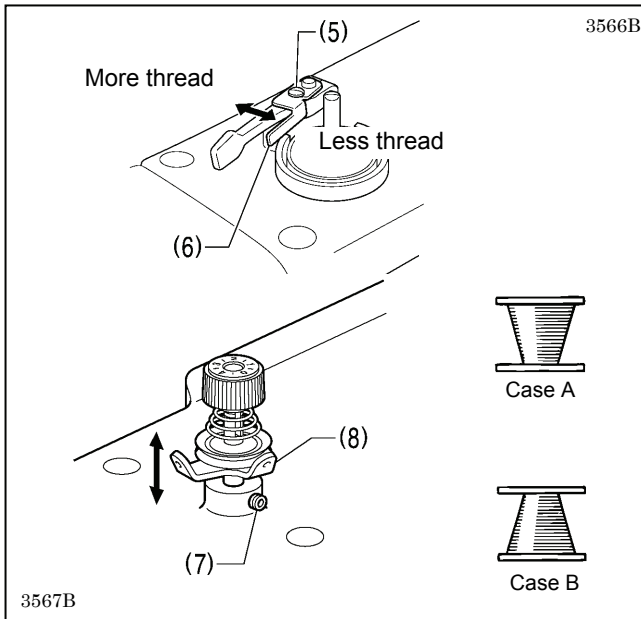
3550B



(4)



4. PREPARATION BEFORE SEWING



Adjusting the bobbin winding amount

Loosen the screw (5) and move the bobbin presser (6).

If the thread winds onto the bobbin unevenly

Loosen the set screw (7) and move the bobbin winder tension assembly (8) up and down to adjust.

* For case A, move the bobbin winder tension assembly (8) down, and for case B, move it upward.

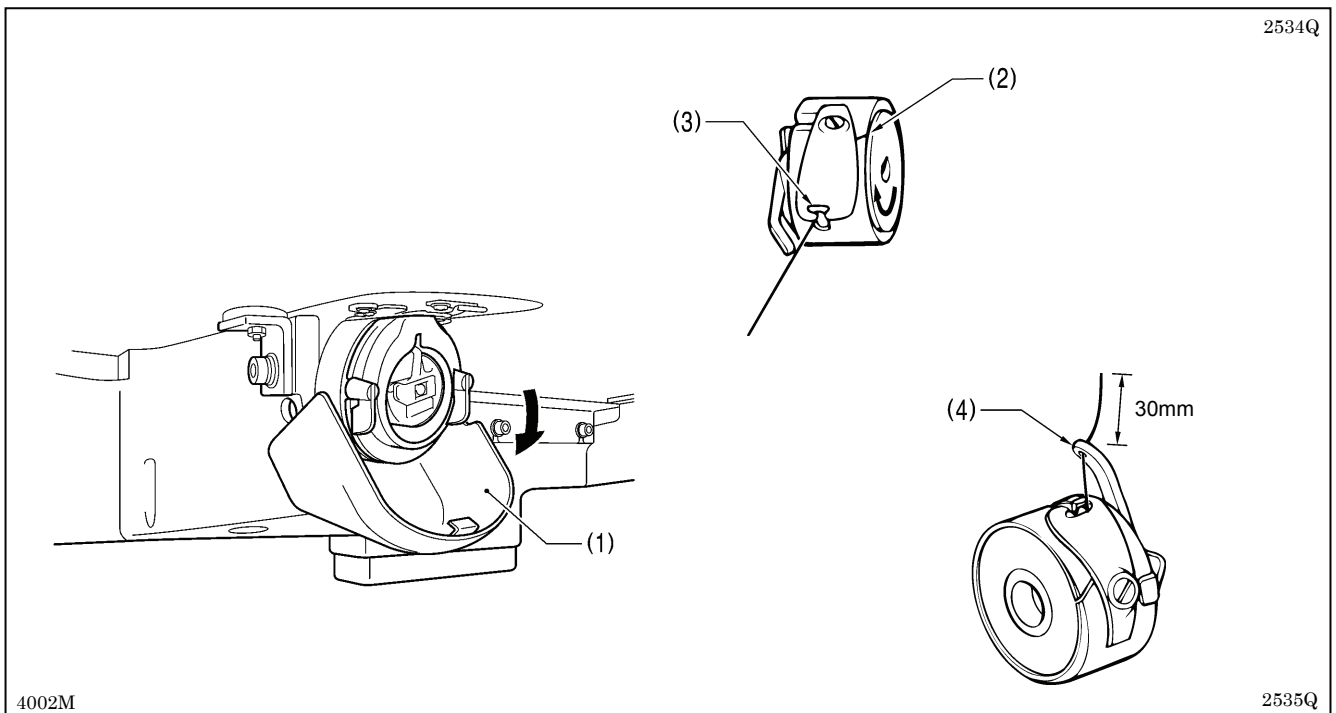
4-5. Installing the bobbin case

⚠ CAUTION



Turn off the power switch before installing the bobbin case.

If the foot switch is depressed by mistake, the sewing machine might start operating and injury could result.



1. Pull the shuttle race cover (1) downward to open it.
2. While holding the bobbin so that the thread winds to the right, insert the bobbin into the bobbin case.
3. Pass the thread through the slot (2) and pull it out from the thread hole (3).
4. Check that the bobbin turns in the direction of the arrow when the thread is pulled.
5. Pass the thread through the lever thread hole (4), and then pull out approximately 30 mm of thread.
6. Hold the latch on the bobbin case and insert the bobbin case into the rotary hook.

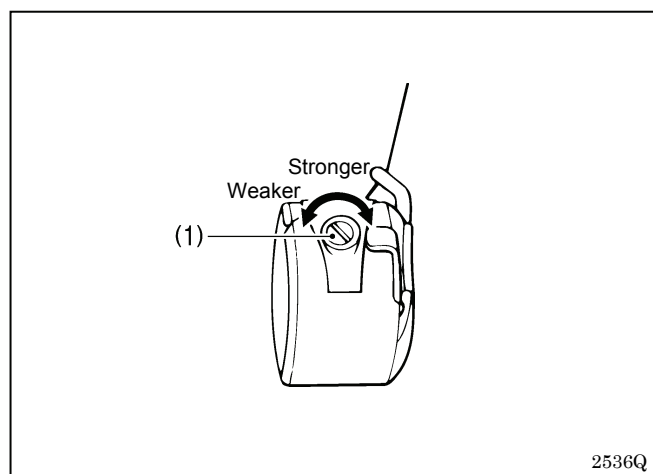
4-6. Thread tension

[Thread tension reference]

Upper thread	#20 or similar
Lower thread	#20 or similar
Upper thread tension (N) [Tension value]	1.4 – 1.8 [140 - 180]*1
Lower thread tension (N)	0.3 – 0.4
Pre-tension (N)	0.2 – 0.4
Needle	DP x 17 #19
Normal sewing speed	2,000 sti/min

*1 This is the tension value when the pretension is 0.2 N.

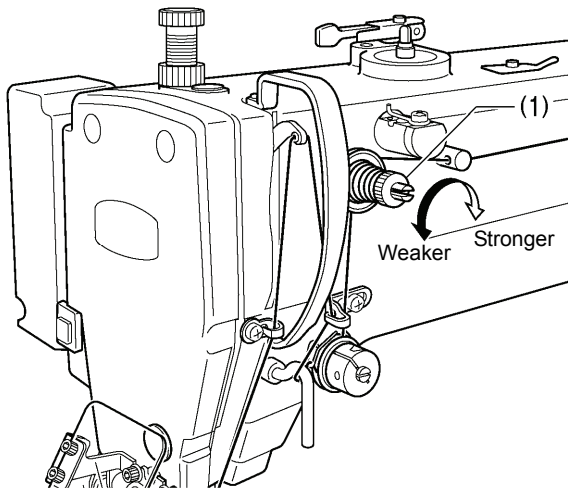
4-6-1. Lower thread tension



Adjust the thread tension to the weakest possible tension by turning the thread tension nut (1) until the bobbin case will not drop by its own weight while the thread end coming out of the bobbin case is held.

4. PREPARATION BEFORE SEWING

4-6-2. Upper thread tension

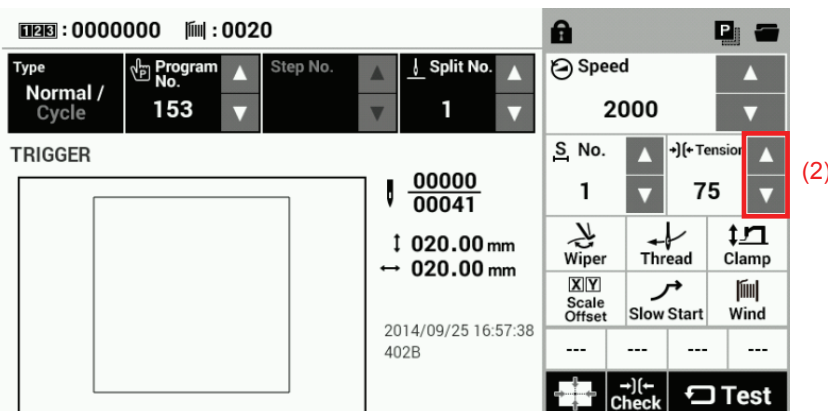


3598B

Use the digital tension to adjust the tension as appropriate for the material being sewn. (Refer to “Setting the tension value” below.)

Turn the tension nut (1) (sub-tension) to adjust so that the upper thread trailing length is about 42 mm.

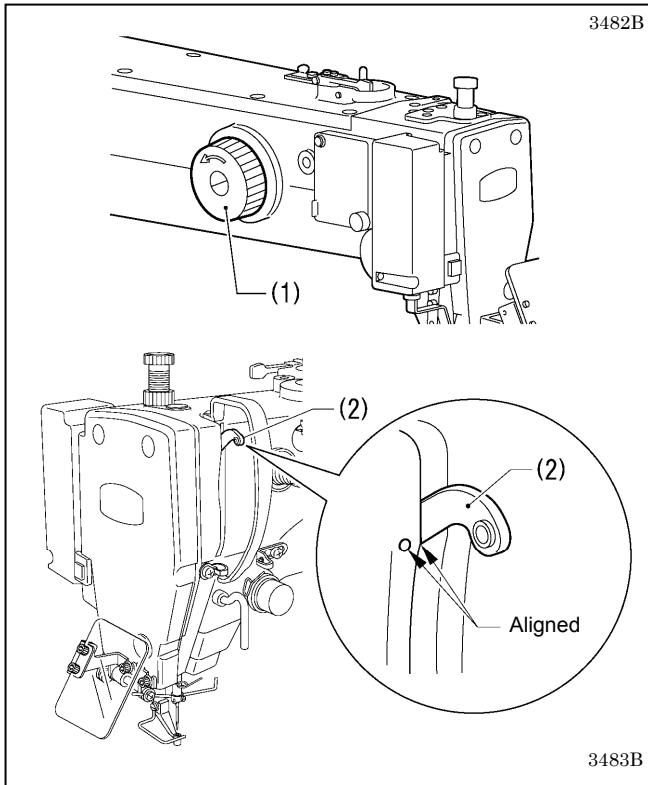
[Sewing operation screen]



Setting the tension value

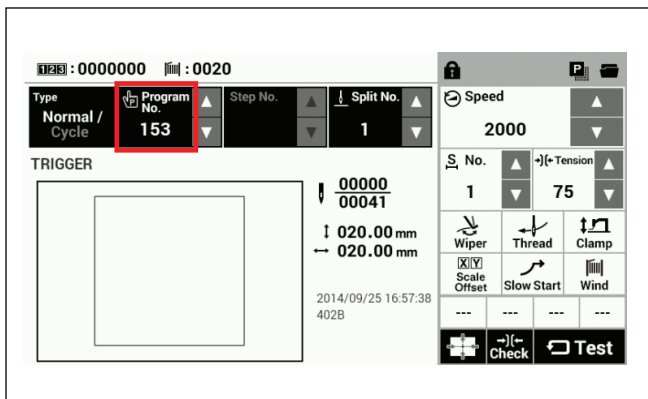
Touch the Δ and ∇ keys (2) on the sewing operation screen to increase or decrease the Tension value.

4-7. Starting up



Before turning on the power, check that the needle bar is at the needle up stop position.

Turn the pulley (1) in the direction of the arrow until the ridge at the bottom of the thread take-up (2) is aligned with the index mark.



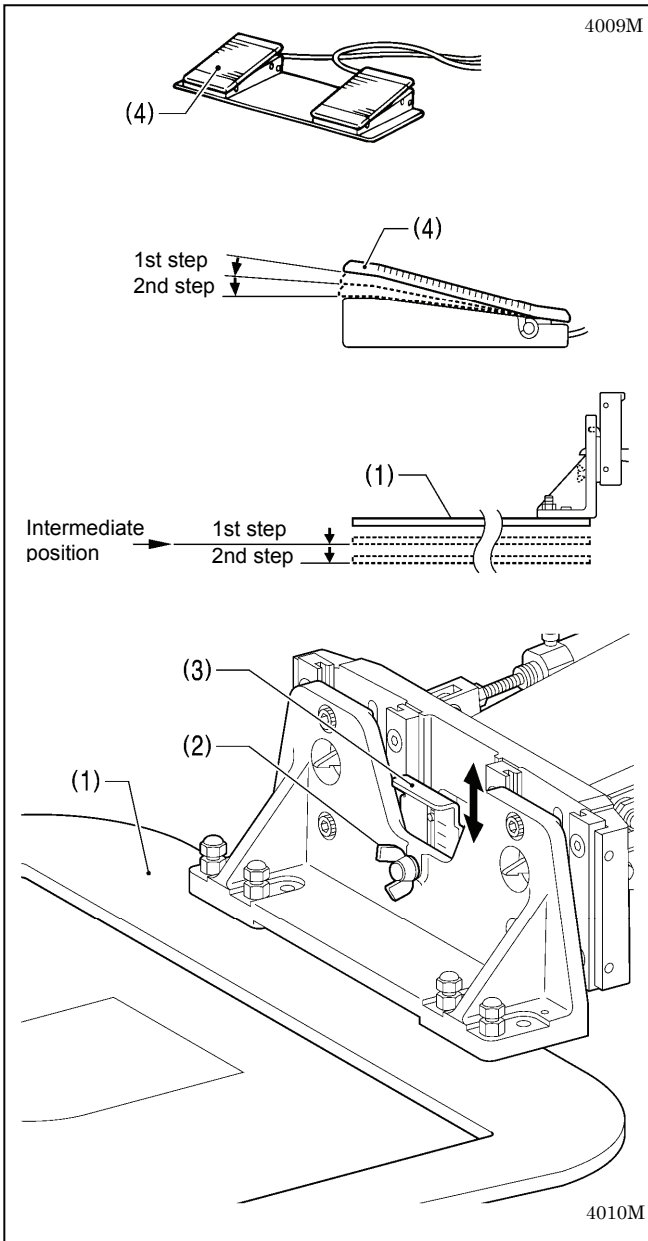
Turn on the power.

If a program has been registered, the program number and a preview of the sewing pattern will be displayed.

No programs are registered at the time of shipment from the factory, and so "----" is displayed as the program number (No.).

For details on the sewing data reading method, refer to "6. USING STORAGE MEDIA".

4-8. Setting 2-step operation for the work clamp

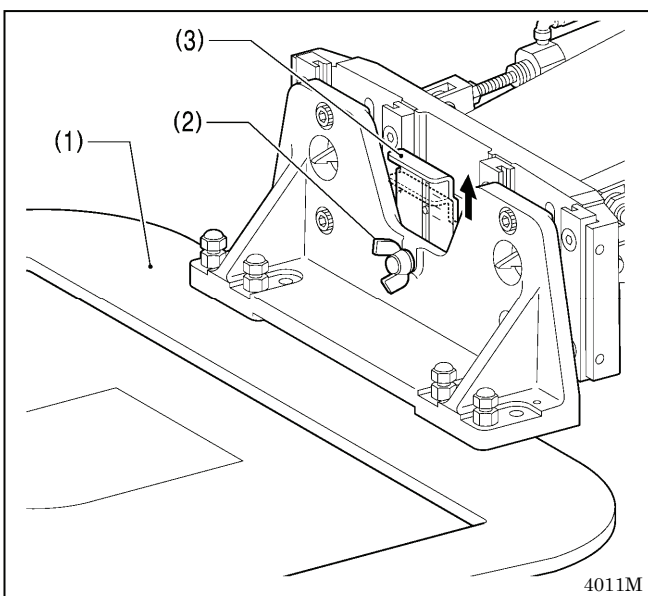


When these settings are made, the work clamp (1) can be lowered in two steps.

1. Set memory switch No. 002 to "1".
(Refer to "2-2. List of memory switch settings" in the "LCD Panel/Operation Panel" Instruction Manual.) (*1)
2. With the work clamp (1) raised, loosen the wing screw (2).
3. Move the work clamp stopper (3) up or down to determine the intermediate position, and then tighten the wing screw (2) to secure the work clamp stopper (3) in place.
4. Depress the work clamp switch (4) to the 1st step and check the intermediate position for the work clamp.
5. Depress the work clamp switch (4) to the 2nd step to fully lower the work clamp.

* 2-step work clamp operation is enabled when memory switch No. 002 is set to "1".

* Do not set memory switch No. 002 to "2".



<To return the work clamp to one-step operation>

1. Set memory switch No. 002 to "0".
(Refer to "2-2. List of memory switch settings" in the "LCD Panel/Operation Panel" Instruction Manual.) (*1)
2. With the work clamp (1) raised, loosen the wing screw (2).
3. Move the work clamp stopper (3) to its highest position, and then tighten the wing screw (2) to secure the work clamp stopper (3) in place.

(*1) Please download the "LCD Panel/Operation Panel" Instruction Manual from our web site.

5. USING THE LCD PANEL (BASIC OPERATIONS)

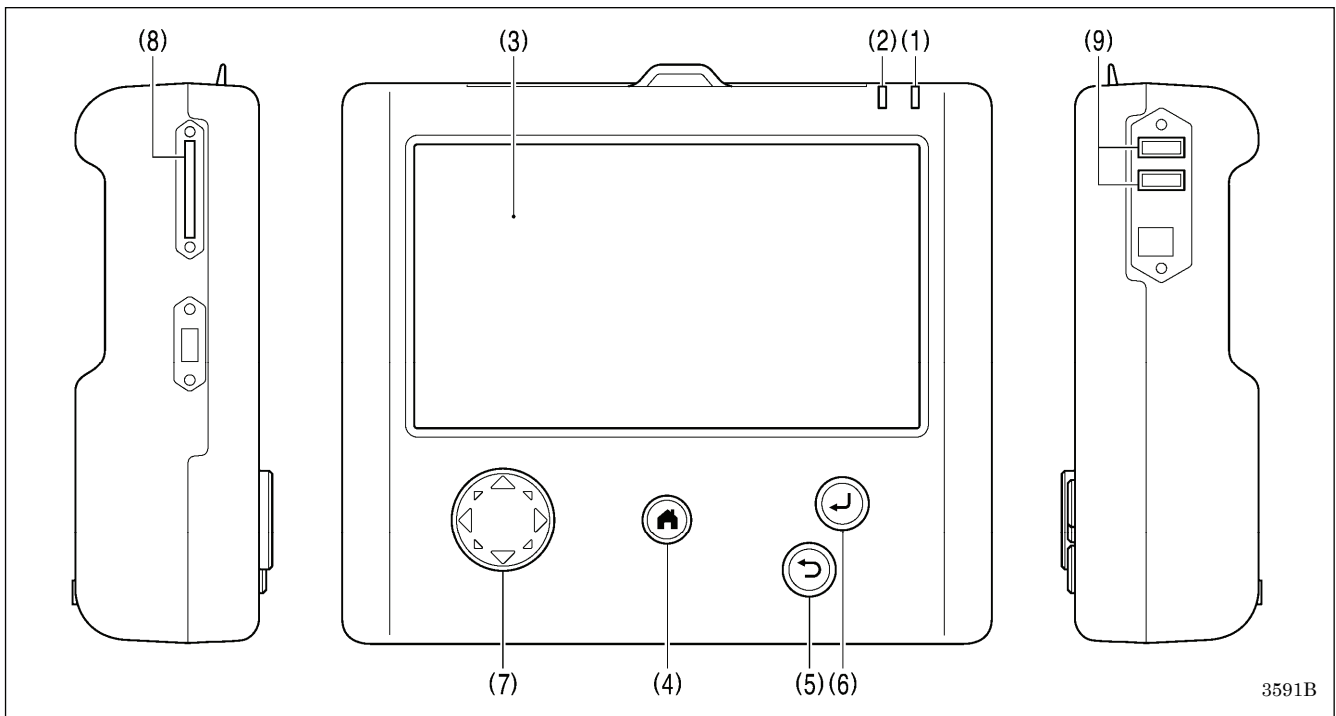
CAUTION



To prevent problems, do not use objects with sharp points to operate the LCD panel.

5-1. Name and function of each LCD panel item

5-1-1. Main names and functions

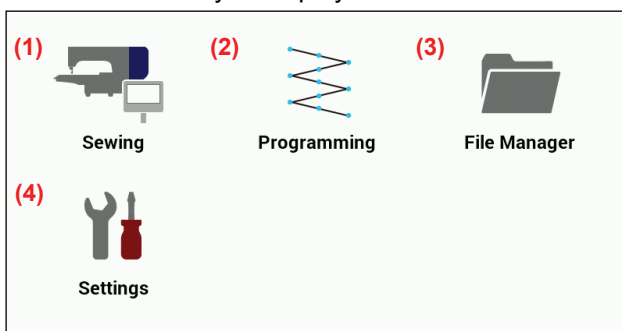


3591B

(1) Power indicator	Illuminates when the power is turned on.
(2) CAUTION indicator	Illuminates when an error occurs.
(3) LCD/touch panel	This displays messages and touch keys (icons).
(4) HOME key	This key is used to return to the home screen.
(5) BACK key	This key is used for operations such as returning to the previous step and canceling settings.
(6) ENTER key	This key is used for operations such as confirming settings.
(7) JOG key	This key is used when programming sewing data.
(8) SD card slot	Insert an SD card.
(9) USB port x 2	Connect a USB memory or other device.

5-1-2. Home screen

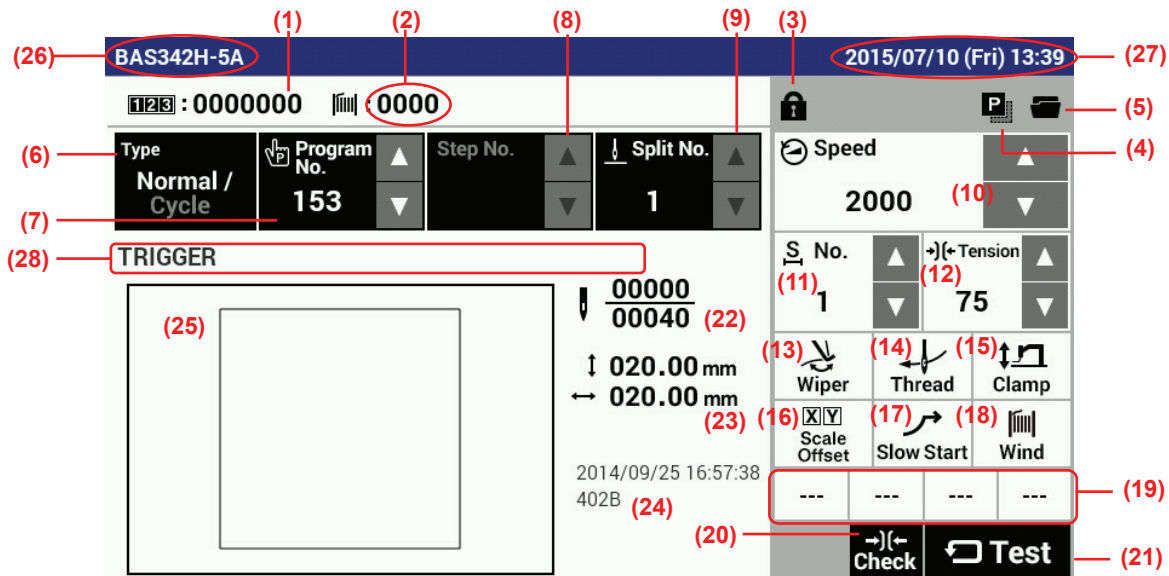
Press the home key to display the home screen.



(1) Sewing key	Touch to switch to the sewing operation screen.
(2) Programming key	Touch to switch to the programming screen.
(3) File manager key	Touch to switch to the file manager screen.
(4) Settings key	Touch to switch to the setting menu screen.

5-1-3. Sewing operation screen

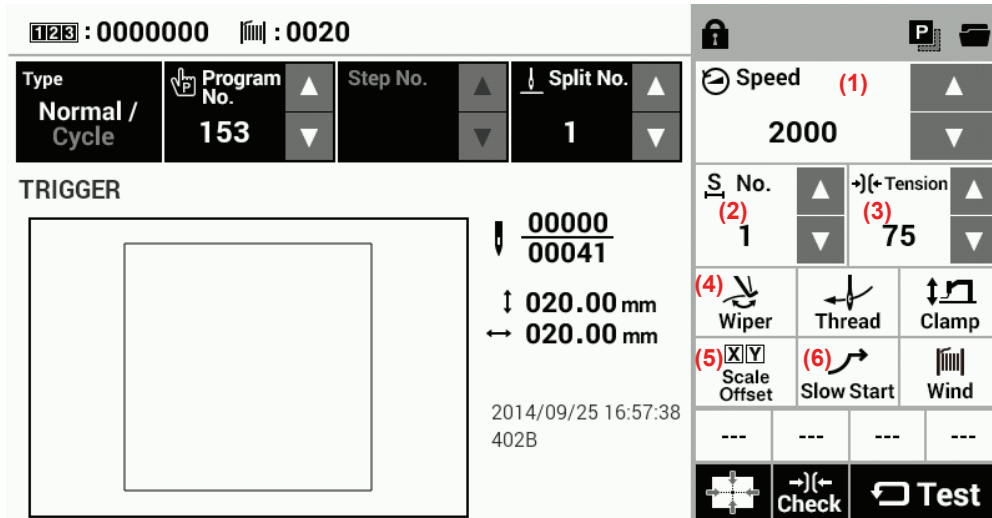
- When the power is turned on while the LCD panel is connected to the sewing machine, this screen is displayed automatically.
- If any other screen is being displayed, touch the Sewing key in the home screen to display this screen.



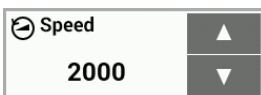
(1) Production counter key	This shows the production counter value. If you keep pressing this key, the display switches to the setting menu screen.
(2) Lower thread counter key	This shows the lower thread counter value. If you keep pressing this key, the display switches to the setting menu screen.
(3) Screen lock key	Press this key to switch the home screen between locked and unlocked.
(4) Copy key	Touch to switch to the program copying screen.
(5) Open key	Touch to switch to the screen to open the sewing data which is stored in an external memory.
(6) Type key	Touch to select the program type.
(7) Program No. key	Touch to display/select the current program number.
(8) Step No. key	Touch to display/select the current step number.
(9) Split No. key	Touch to display/select the current split number.
(10) Speed key	Touch to display/select the sewing speed.
(11) Section No. key	Touch to display/select the section number for the digital tension.
(12) Tension key	Touch to display/select the digital tension value.
(13) Wiper key	Touch to switch the thread wiper on/off.
(14) Thread key	Touch to switch the display to the threading screen.
(15) Clamp key	Touch to switch to the Adjust Clamp Height setting screen.
(16) Scale Offset key	Touch to switch to the Scale/Offset setting screen.
(17) Slow Start key	Touch to switch to the Slow Start setting screen.
(18) Wind key	Touch to switch to the thread winding screen.
(19) Direct selection keys	You can register normal/cycle program numbers into each of these keys. When you touch a key, the program assigned to that key is selected.
(20) Tension check key	Applies tension corresponding to the digital tension value to the upper thread. Touch once more to stop tension from being applied.
(21) Test key	Touch to switch to test mode.
(22) Current stitch number/ Total number of stitches	Shows the current stitch number and the total number of stitches.
(23) Sewing area size	Shows the size of the sewing data area.
(24) Sewing data information	Shows information about the sewing data.
(25) Preview	Shows a preview of the sewing data.
(26) Model name	Shows the model name and specifications.
(27) Date and time	Shows the current date and time.
(28) Comments	Shows comments about the sewing data.

5-2. Parameter setting method

Parameter settings are made at the sewing operation screen.



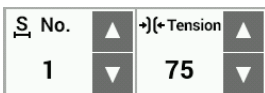
Sewing speed



Use the Speed Δ and ∇ keys (1) to make the setting.

- Setting range: 200 sti/min - 2800 sti/min 100 sti/min units Initial value: 2000 sti/min

Digital tension



< Basic method of use >

Touch the No. Δ or ∇ key (2) to change the section number.

Touch the Tension Δ or ∇ key (3) to change the tension value.

- The thread tension value which is set will be applied the next time sewing is carried out.

< Overall correction >

This function is useful if you would like to change the tension values for all programs at once.

Touch the No. Δ or ∇ key (2) to set the section number to "ALL".

Touch the Tension Δ or ∇ key (3) to change the overall correction value.

The upper thread tension which matches the overall correction value which has been set for the upper thread tension will be applied during sewing.

- The thread tension value which is set will be applied the next time sewing is carried out.

Thread wiping



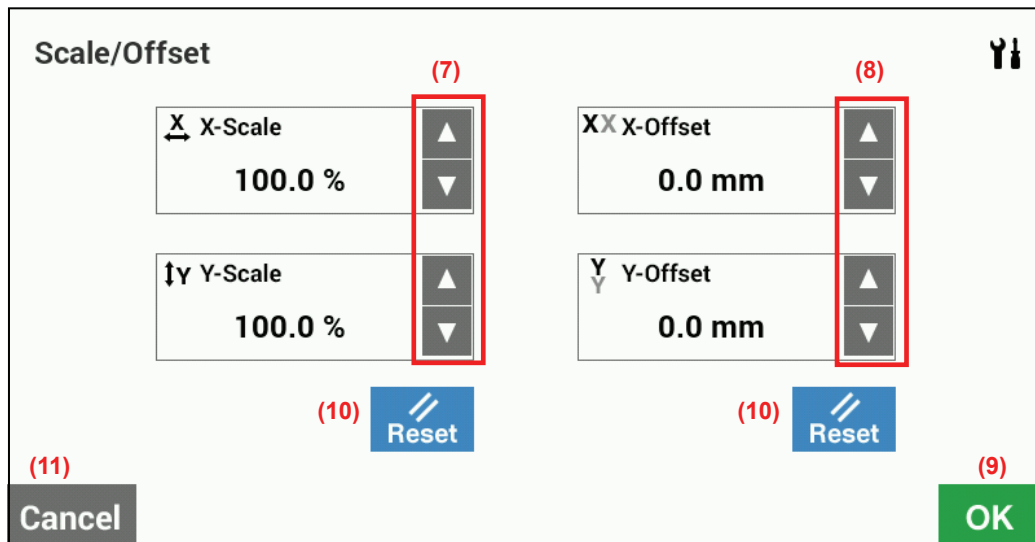
Touch the Wiper key (4) to turn the wiper on or off. (The initial setting value is on.)

When the setting is on, the key is displayed in blue.

X/Y-scale, X/Y-offset



Touch the Scale Offset key (5) to display the Scale/Offset setting screen.

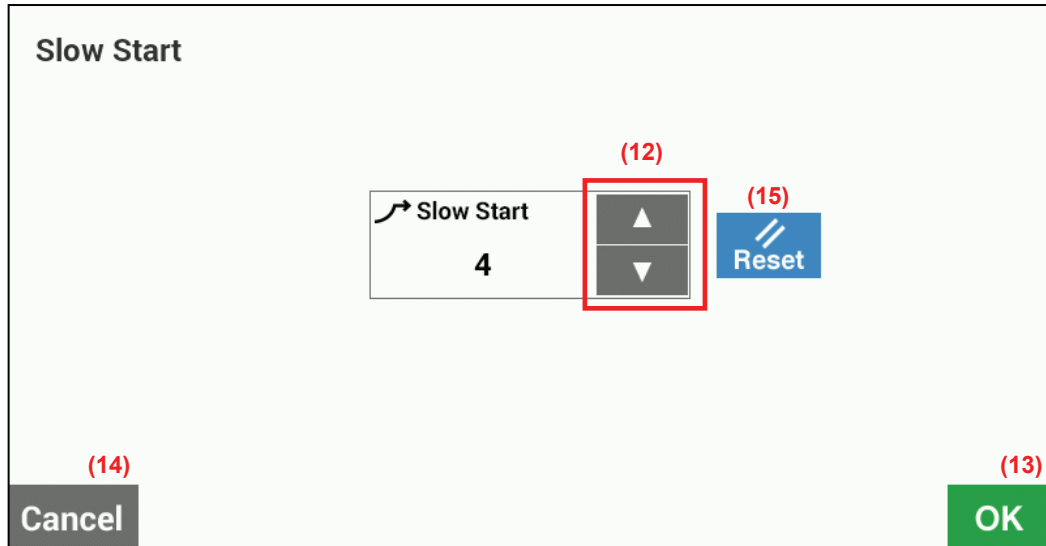


- X-Scale, Y-Scale (7) 0-400%, 0.1% units
(Limited by available sewing area.)
- X-Offset, Y-Offset (8) 0-(size of sewing machine sewing area) mm, 0.1 mm units
When activating the offset, first lower the work clamp to carry out home position detection.
- Touch the OK key (9) to confirm the setting and return to the previous screen.
- Touch the Reset key (10) to return the setting to the initial value.
Initial values: X/Y-scale = 100%, X/Y-offset = 0 mm
- Touch the Cancel key (11) to return to the previous screen without changing the setting.

Slow start pattern



Touch the Slow Start key (6) to display the Slow Start setting screen.



- Touch the Δ or ∇ key (12) to adjust the starting-up speed at the sewing start.
- Touch the OK key (13) to confirm, or touch the Cancel key (14) to return to the sewing operation screen without changing the setting.
- Touch the Reset key (15) to return the setting to the initial value.
- * The smaller the number, the slower the start.
- * This is used to stop the thread from pulling out at the sewing start, and at times when skipped stitches might easily occur.

	Lo	1	2	3	4	5	6	7	8	9
Sewing speed for 1st stitch		200	200	300	400	400	400	400	600	800
Sewing speed for 2nd stitch		200	300	400	400	500	600	800	1000	1200
Sewing speed for 3rd stitch		300	400	500	600	800	1000	1200	1600	*1
Sewing speed for 4th stitch		500	600	700	900	1200	1400	*1	*1	*1

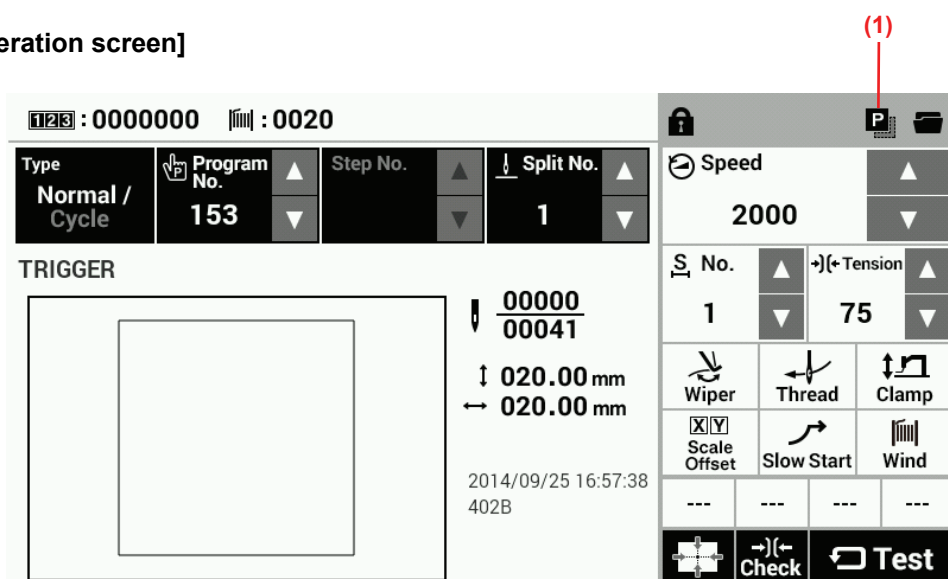
*1 Sewing will be carried out at the sewing speed which is set by the parameters.

- * For details on the sewing data reading method, refer to "6. USING STORAGE MEDIA".
- * When memory switch No. 400 is set to ON, the X-scale, Y-scale, sewing speed and work clamp height can be recorded separately for each program number.
- * When memory switch Mo. 100 is set to ON, slow start patterns can be recorded separately for each program number.
- * For details on memory switches, refer to "2-1. Memory switch setting method" in the "LCD Panel/Operation Panel" Instruction Manual. (*1)

(*1) Please download the "LCD Panel/Operation Panel" Instruction Manual from our web site.

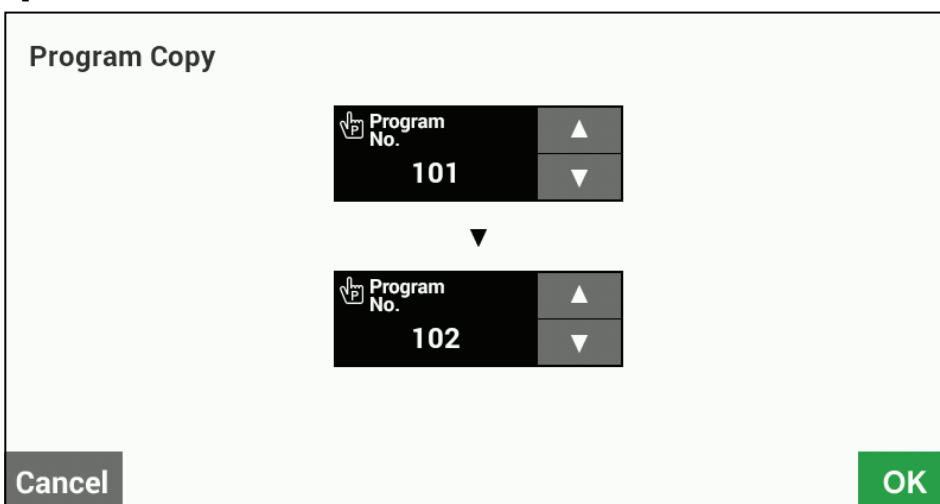
5-3. Copying programs

[Sewing operation screen]



Touch the Copy key (1) to switch to the program copying screen.


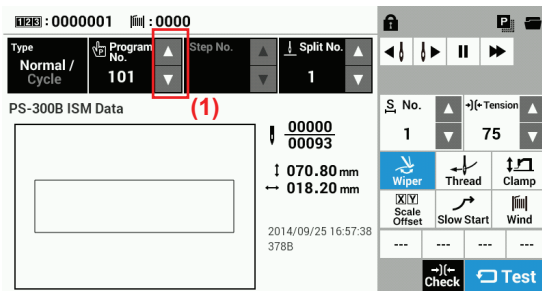
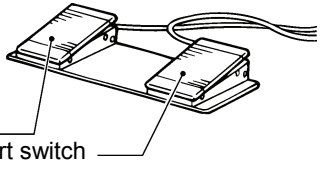
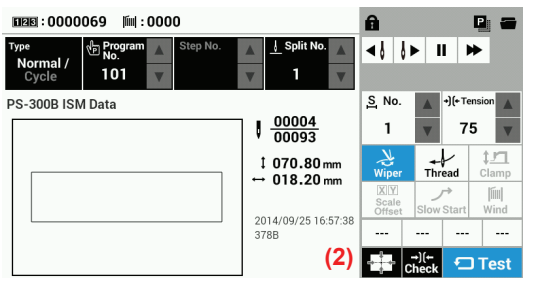





[Copy screen]



Select the copy source program No. and the copy destination program No.
 Touch the OK key to carry out copying. After copying, the display will return to the previous screen.
 Touch the Cancel key to return to the previous screen without copying.

5-4. Checking the sewing pattern

Use test feed mode to operate the feed mechanism in order to check the needle movement.
Check that the needle hole does not come out from the frame of the work clamp.

<p>1</p>	 <p>The Test key is displayed in blue.</p> <p>[Sewing operation screen]</p> 	<ol style="list-style-type: none"> 1. Touch the Test key at the sewing operation screen. 2. Press the Δ or ∇ key (1) to set the program number that you would like to check.
<p>2</p>	<p>Continuous test feed</p>  <p>Work clamp switch (2-step) Start switch</p> 	<ol style="list-style-type: none"> 1. If you lower the work clamp and then depress the start switch, the feed mechanism will start moving continuously one stitch at a time. (The stitch number display will be decremented by one titch at a time.) 2. When the feed reaches the end of the pattern, it stops. <ul style="list-style-type: none"> • If you would like to stop the feeding operation, touch the continuous feed stop key . • Touch the Move to sewing start key (2) to return to the sewing start.
<p>Single stitch check</p>		 Touch to move back by one stitch.  Touch to move forward by one stitch.  Fast-forward

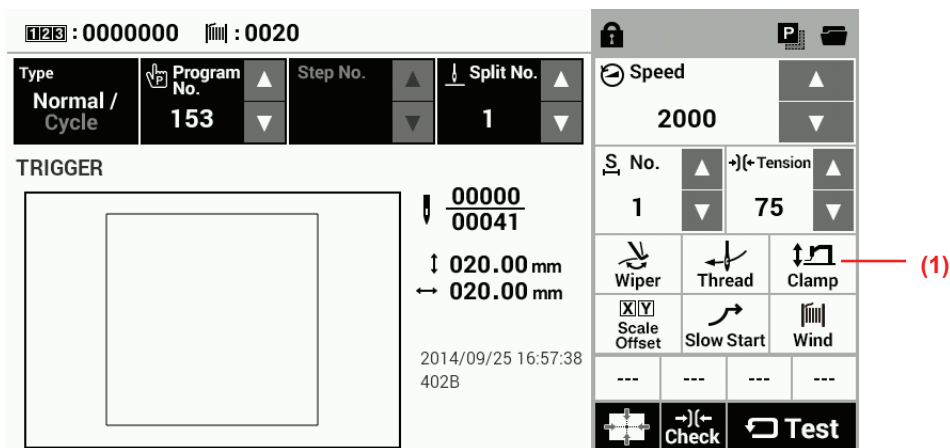
4923Q

5-5. Setting the work clamp lift amount

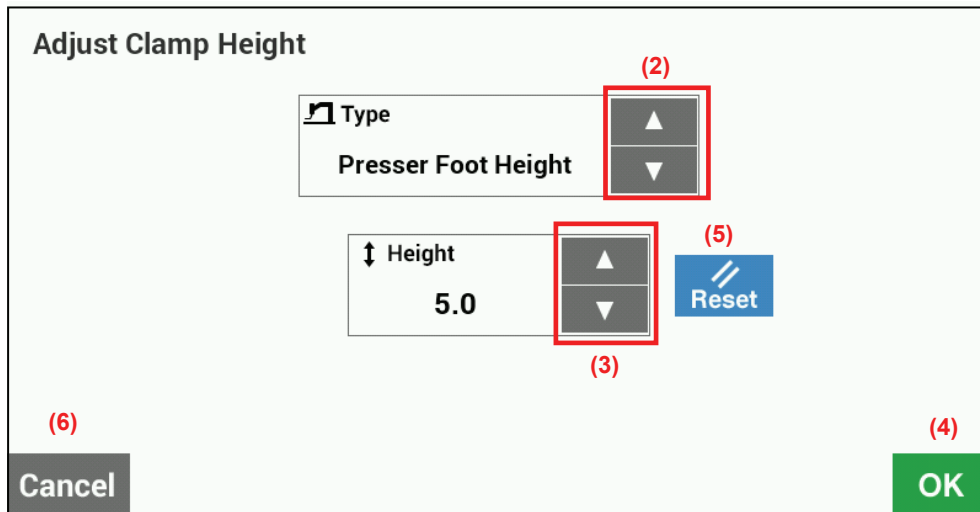
The settings for the work clamp and intermittent presser foot lift amounts can be changed using the sewing operation screen.

Only threading mode and intermittent presser foot height setting mode are enabled.

[Sewing operation screen]



Touch the Clamp key (1) to display the Adjust Clamp Height setting screen.



- Work clamp height setting (can only be selected for motor driven-type work clamp)
 - Use the Type keys (2) to select "Work Clamp Height".
 - If you use the Height keys (3) to change the Height value, the sewing machine's work clamp will move. (setting range: 15-25 initial value: 20)
 - Touch the OK key (4) to confirm, or touch the Cancel key (6) to return to the sewing operation screen without changing the setting.
 - Touch the Reset key (5) to return the value which currently appears in the display to the value which was first displayed when you switched to the setting screen. The sewing machine's work clamp will operate according to this value.
- Intermediate work clamp height setting (can only be selected for motor driven-type work clamp)

Selection is only possible when memory switch No. 003 is set to "2".

 - Use the Type keys (2) to select "Intermediate Work Clamp Height".
 - If you use the Height keys (3) to change the Height value, the sewing machine's work clamp will move. (setting range: 1-15 initial value: 7)
 - Touch the OK key (4) to confirm, or touch the Cancel key (6) to return to the sewing operation screen without changing the setting.
 - Touch the Reset key (5) to return the value which currently appears in the display to the value which was first displayed when you switched to the setting screen. The sewing machine's work clamp will operate according to this value.
- Intermittent presser foot height setting
 - Use the Type keys (2) to select "Intermittent Presser Foot Height".
 - If you use the Height keys (3) to change the Height value, the sewing machine's intermittent presser foot will move. (setting range: 0.0-10.0 initial value: 5.0)
 - Touch the OK key (4) to confirm, or touch the Cancel key (6) to return to the sewing operation screen without changing the setting.
 - Touch the Reset key (5) to return the value which currently appears in the display to the value which was first displayed when you switched to the setting screen. The sewing machine's intermittent presser foot will operate according to this value.

5. USING THE LCD PANEL (BASIC OPERATIONS)

Intermittent presser foot operation

During standby

When lowered

While sewing

① 22 mm

② 0-10 mm

③ 0 mm
2-10 mm

5033Q

① **Intermittent presser foot lift amount**

② **Intermittent presser foot height**

The settings can be made by the above operations. However, set the intermittent presser foot height to a higher setting than the intermittent stroke.

* If it is set smaller, the intermittent presser foot will come into contact with the needle plate.

③ **Intermittent stroke**

Refer to “7-15. Adjusting the intermittent work clamp” in the Instruction Manual when making the adjustment. (*1)

(*1) Please download the Instruction Manual for the sewing machine from our web site.

6. USING STORAGE MEDIA

⚠ CAUTION



To prevent problems, do not use objects with sharp points to operate the LCD panel.

6-1. Notes on handling

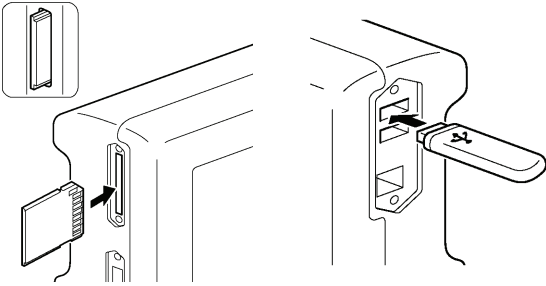
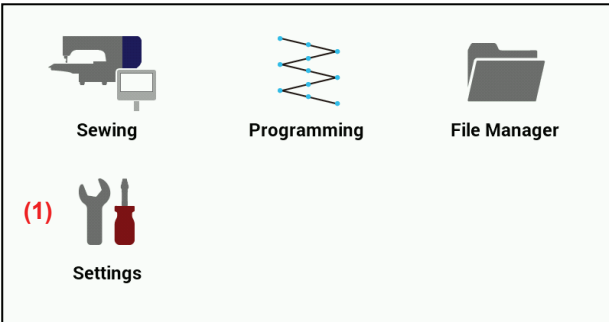
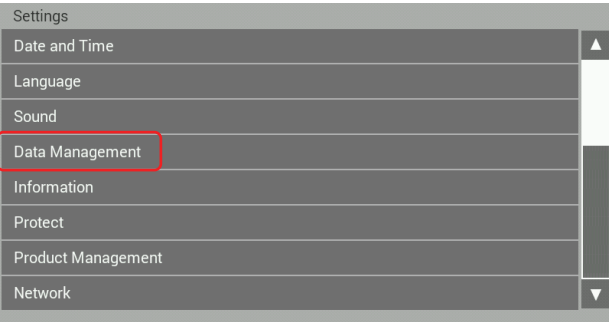
[SD]

- Compatible cards: SD (max. 2 GB), SDHC (max. 32 GB)
- Compatible file formats: FAT16, FAT32

[USB Memory]

- Compatible file formats: FAT16, FAT32
- Max. size: 32 GB

6-2. Importing and exporting data

<p>1</p>	<p>SD card slot USB port</p> 	<p>Insert an SD card or USB memory.</p> <p>NOTE:</p> <ul style="list-style-type: none"> • Make sure that the media is facing the correct way when inserting it. • Always be sure to keep the cover closed except when inserting and removing the media. <p style="text-align: right;">3660B 3593B</p>
<p>2</p>	<p>[Home screen]</p>  <p>[Setting menu screen]</p> 	<ul style="list-style-type: none"> • Press the home key to display the home screen. • Touch the Settings key (1) to switch to the setting menu screen. <ul style="list-style-type: none"> • If you select "Data Management" -> "Import", the display switches to the import screen, If you select "Data Management" -> "Export", it switches to the export screen. <p>* If more than one SD card and/or USB memory is connected, a selection dialog box will be displayed.</p>

6. USING STORAGE MEDIA

3

[Import screen]

Settings > Data Management > Import

- Sewing Program
- Extended Option
- Memory Switch
- Cycle Program & User Parameter

(2) OK

Select the items to be imported or exported, and then touch the OK key (2).

[Items to import]

Sewing Program (all)

Extended Option

Memory Switch

Cycle Programs & User Parameter

* To select and import only part of the sewing data, refer to the procedure in 6-3.

[Export screen]

Settings > Data Management > Export

- Sewing Program
- Extended Option
- Memory Switch
- Cycle Program & User Parameter
- Error Log

(2) OK

[Items to export]

Sewing Program (all)

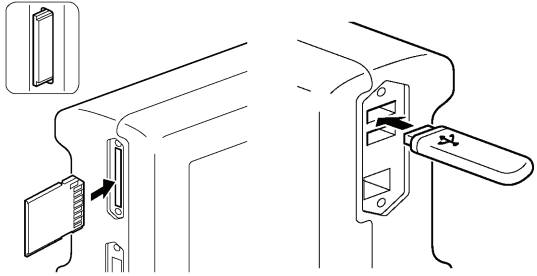
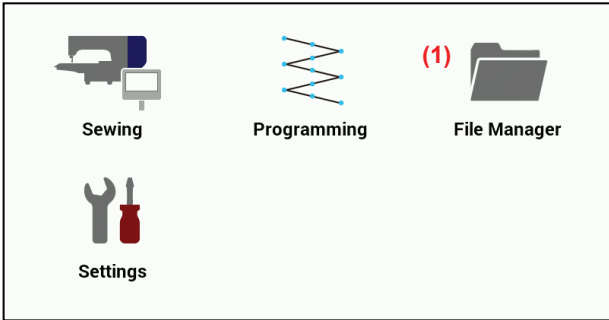
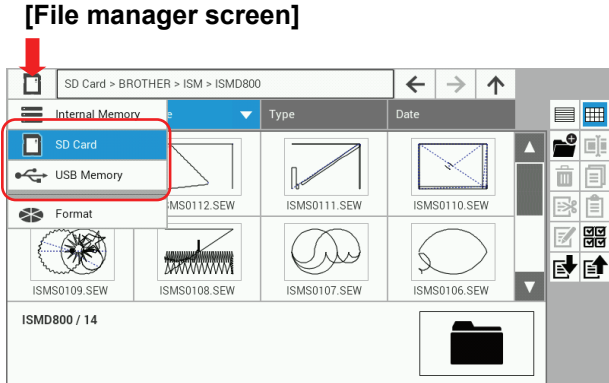
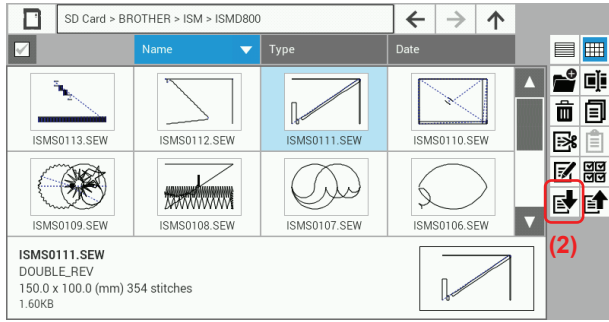


Extended Option

Memory Switch

Cycle Program & User Parameter

Error Log

6-3. Selecting and importing sewing data

<p>1</p>	<p>SD card slot USB port</p> 	<p>Insert an SD card or USB memory.</p> <p>NOTE:</p> <ul style="list-style-type: none"> • Make sure that the media is facing the correct way when inserting it. • Always be sure to keep the cover closed except when inserting and removing the media. <p style="text-align: right;">3660B 3593B</p>
<p>2</p>	<p>[Home screen]</p>  <p>[File manager screen]</p> 	<ul style="list-style-type: none"> • Press the home key to display the home screen. • If you touch the File manager key (1), the display will switch to the file manager screen. • Touch the media key in the top-left corner to select "SD Card" or "USB Memory". The screen will then change to display the folder which contains the sewing data.
<p>3</p>		<ul style="list-style-type: none"> • Select the files to be imported and then touch the import key (2) . • If you would like to select multiple files, you can select files in multiple select mode.  Touch to switch between multiple select and single select mode.

* For details on other functions, please contact the place of purchase.

7. SEWING

! WARNING



Do not allow any liquids to get onto this sewing machine, otherwise fire, electric shocks or operating problems may occur.



If any liquid gets inside the sewing machine (machine head or control box), immediately turn off the power and disconnect the power plug from the electrical outlet, and then contact the place of purchase or a qualified technician.

! CAUTION



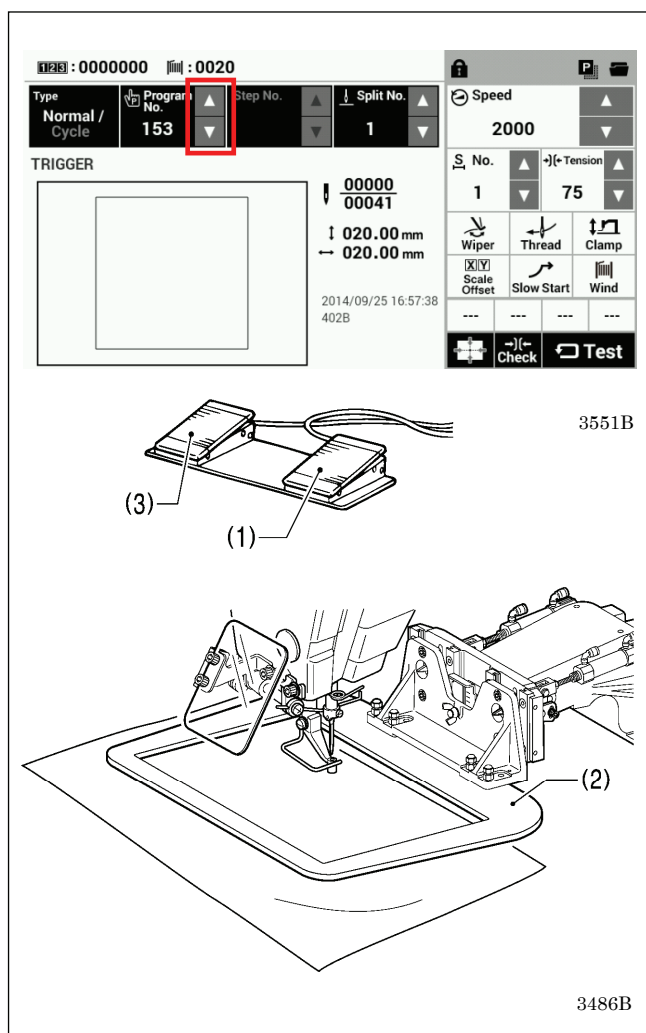
Turn off the power switch at the following times.
If the foot switch is depressed by mistake, the sewing machine might start operating and injury could result.

- When replacing the bobbin and needle
- When not using the machine and when leaving the machine unattended



Do not touch any of the moving parts or press any objects against the machine while sewing, as this may result in personal injury or damage to the machine.

7-1. Sewing

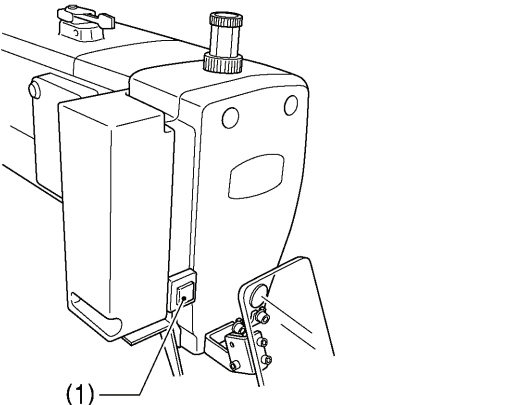


1. Turn on the power.
2. Touch the Δ or ∇ key to select the number for the program to be sewn.
* For details on reading sewing data from SD cards and USB memory devices, refer to "6-3. Selecting and importing sewing data".
3. Lower the work clamp (2) and then depress the start switch (1).
Home position detection will be carried out.
4. Place the materials under the work clamp (2).
5. Depress the work clamp switch (3).
The work clamp (2) will be lowered.
6. Depress the start switch (1).
The sewing machine will start sewing.
7. After sewing is completed, the thread trimmer will operate. And then the work clamp (2) will be raised.

Use a work clamp which will hold the material securely so that it does not slip. If the material slips when using the standard work clamp and feed plate, process them so that the material does not slip.

7-2. Using the STOP switch


If you press the emergency stop switch (1) to during actual sewing, an error dialog box will be displayed and the sewing machine will immediately stop.



3487B

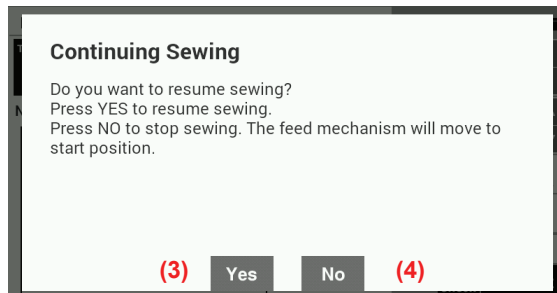
! E011

The STOP switch was pressed. Press the RESET key to clear the error. You can touch the keys on the LCD panel to move the feed in order to continue sewing. (Subcode = 1)

(2) 

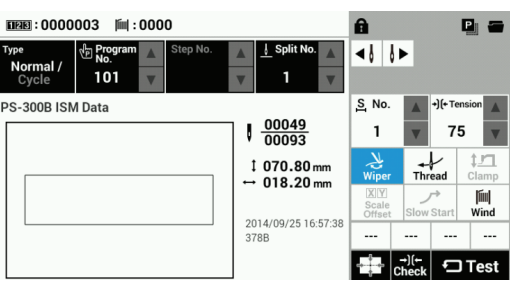
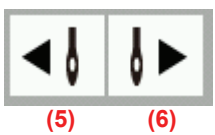




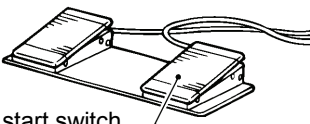
<Clearing>

1. Touch the Reset key (2).
 - The thread will be trimmed, and then the error dialog box on the screen will disappear and the buzzer will stop.
2. A dialog box asking you to confirm if you want to continue sewing will be displayed.



<Continuing sewing from a stopping point>

If the thread breaks or the lower thread runs out during sewing, you can then continue sewing from the point where the thread broke or ran out.

1		<p>Touch "Yes" (3) to return to the resewing standby screen.</p>
2		<p>Touch the   keys (5) and (6) on the screen to return to the position where sewing is to be resumed.</p> <p>When you touch the  key (5), the feed will move backward by 1 stitch, and when you touch the  key (6), the feed will move forward by 1 stitch.</p>
3	 <p style="text-align: center;">start switch</p>	<p>Depress the start switch. The sewing machine will start operating and sewing will start.</p>

3655B

<Returning to the sewing start position without continuing sewing>

If you do not wish to continue sewing, touch "No" (4).

- After home position detection is carried out, the mechanism will return to the sewing start position.



お手入れや標準調整など、更に詳しい内容は、「取扱説明書」をご覧ください。
取扱説明書、パーツブック、押え板加工図、送り板加工図は、弊社 Web サイトからダウンロードしてください。

For cleaning, standard adjustments and more details, please refer to the download version of the Instruction Manual.
Download the Instruction Manual, Parts Book, work clamp processing diagram and feed plate processing diagram from the Internet.

保养、标准调整等详细内容，请浏览下载版的使用说明书。
使用说明书、零部件手册、压脚板加工图、送布板加工图请从本公司网站下载。

Para limpiar, realizar ajustes estándar y otros detalles, consulte el manual de instrucciones de la versión de descarga.
Descargue el manual de instrucciones, el libro de partes, el diagrama de procesamiento de trabajos y el diagrama de procesamiento de la placa de alimentación desde Internet.

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* Please note that the contents of this manual may differ slightly from the actual product purchased as a result of product improvements.

* 请注意: 由于产品改进, 本手册内容可能会与实际购买的产品略有出入。

* Tenga en cuenta que como resultado de mejoras en el producto el contenido de este manual puede variar ligeramente del producto que ha comprado.

ブラザー工業株式会社 <http://www.brother.co.jp/>

〒448-0803 刈谷市野田町北地蔵山1番地5 TEL: 0566-95-0085

BROTHER INDUSTRIES, LTD. <http://www.brother.com/>

1-5, Kitajizoyama, Noda-cho, Kariya 448-0803, Japan. Phone : 81-566-95-0088

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This is the original instructions.

Este es el original de las instrucciones.

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使用说明书