brother

Basic Operation Manual

S-7200A

SINGLE NEEDLE DIRECT DRIVE STRAIGHT LOCK STITCHER WITH THREAD TRIMMER

Please read this manual before using the machine.

The 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 Document CD.

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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, 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.

1. SAFETY INSTRUCTIONS

1-1. 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.

Indications

DANGER	The instructions which follow this term indicate situations where failure to follow the instructions will almost certainly result in death or severe injury.
CAUTION	The instructions which follow this term indicate situations where failure to follow the instructions could cause injury when using the machine or physical damage to equipment and surroundings.

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”.)

1-2. 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 face plate of the control box. Touching areas where high voltages are present can result in severe injury.

⚠ CAUTION

Environmental requirements

- Use the sewing machine in an area which is free from sources of strong electrical noise such as high-frequency welders.
  Sources of strong electrical noise may cause problems with correct operation.
- Any fluctuations in the power supply voltage should be within ±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 electrical consumption.
  Insufficient power supply capacity 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.
- Avoid exposure to direct sunlight during use.
  Exposure to direct sunlight 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.

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 more than 44 kg. The installation should be carried out by two or more people.
- Do not connent the power cord until installation is complete. The machine may operate if the treadle is depressed by mistake, which could result in injury.
- Turn off the power switch before inserting or removing the plug, otherwise damage to the control box could 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.
- When securing the cords, do not bend the cords excessively or fasten them too hard with staples, otherwise there is the danger that fire or electric shocks could occur.
- If using a work table which has casters, the casters should be secured in such a way so that they cannot move.
- Use both hands to hold the machine head when tilting it back or returning it to its original position. If only one hand is used, the weight of the machine head may cause your hand to slip, and your hand may get caught.
- 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, otherwise inflammation can result.
  Furthermore, do not drink the oil or eat the grease under any circumstances, as they can cause vomiting and diarrhea.
  Keep the oil out of the reach of children.

⚠ CAUTION

Sewing

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.
The machine may operate if the treadle is depressed by mistake, which could result in injury.

- When threading the needle
- 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.

Use both hands to hold the machine head when tilting it back or returning it to its original position. If only one hand is used, the weight of the machine head may cause your hand to slip, and your hand may get caught.

If an error occurs in machine, 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. The machine may operate if the treadle is depressed by mistake, which could result in injury.

Use both hands to hold the machine head when tilting it back or returning it to its original position. If only one hand is used, the weight of the machine head may cause your hand to slip, and your hand may get caught.

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, otherwise inflammation can result.
Furthermore, do not drink the oil or eat the grease under any circumstances, as they can cause vomiting and diarrhea.
Keep the oil out of the reach of children.

Use only the proper replacement parts as specified by Brother.

1-3. 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	⚠ 危 险
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。	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 5minutes 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.

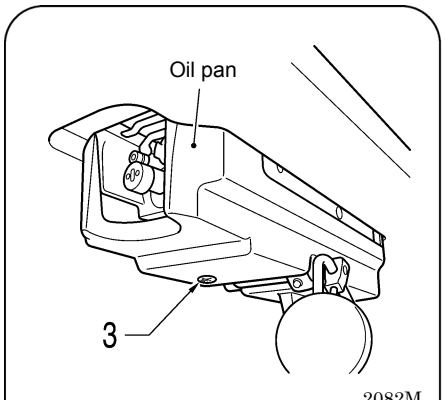
2

⚠ 注 意
動く部分でけがをする。 安全保護装置をつけて、縫製作業をすること。電源を切ってから、糸通し、ボビンや針の交換、掃除や調整をすること。
⚠ CAUTION
Moving parts may cause injury. Operate with safety devices. Turn off main switch before threading, changing bobbin and needle, cleaning etc.

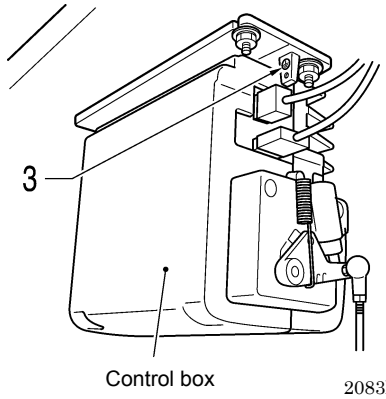
3 Be sure to connect the ground. If the ground connection is not secure, you run a high risk of receiving a serious electric shock, and problems with correct operation may also occur.

4 Direction of operation

Safety devices:
(A) Finger guard
(B) Thread take-up cover



2082M



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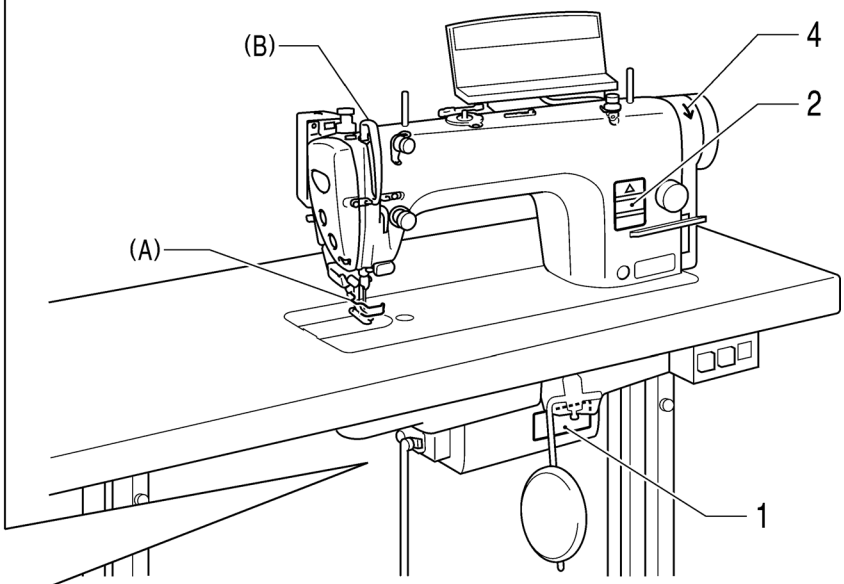
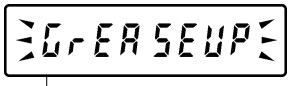


2084M

2. CONVENIENT FUNCTION FOR SMOOTH SEWING

Notification given when greasing is required

→ INSTRUCTION MANUAL CD
11-2. Applying grease



3163M

Lower thread counter

→ INSTRUCTION MANUAL CD
5-6. Using the lower thread counter

The graphic display lights and a buzzer sounds before the bobbin thread runs out, so that the operator can concentrate on the job with confidence.

Selectable starting speed

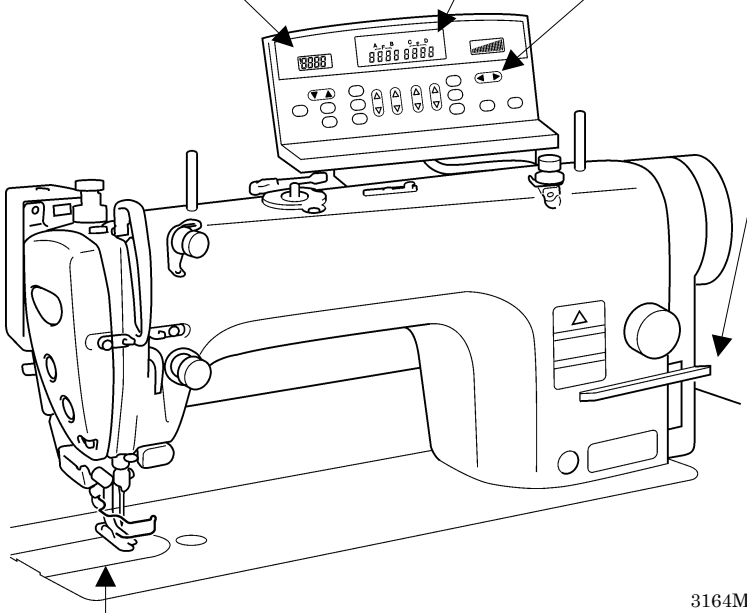
The sewing speed at the sewing start can be selected in accordance with the treadle depression amount. You can set the speed according to the preferences of the operator.

(Contact the place of purchase.)

Easy setting of sewing speed from operation panel

→ Page 22

The sewing speed can be easily set by the sewing speed control keys.

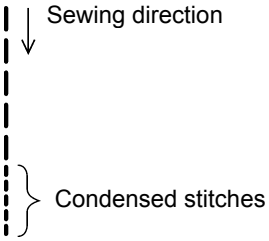


3164M

Condensed stitching

→ INSTRUCTION MANUAL CD
9-3. Sewing condensed stitches

This feature is ideal for use when sewing thin materials that can easily pucker when reverse stitches are sewn. Condensed stitches have a smaller sewing pitch and they help prevent fraying.

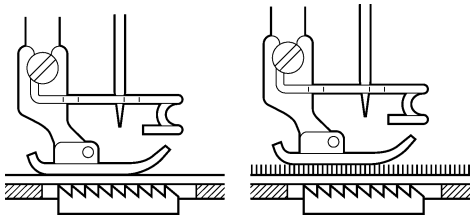


3165M

Floating presser foot for easy handling

→ INSTRUCTION MANUAL CD
13-11. Adjusting the presser foot floating amount

A micro-adjustable type floating presser foot is equipped as standard. This device is ideal for controlling presser foot floating in materials that stretch easily and materials with long pile. It prevents seam slippage and also prevents damage to the material. In addition, three-dimensional articles with irregular curves can also be handled with ease.

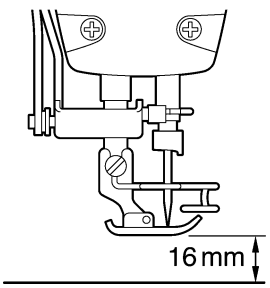


3167M

Maximum presser foot lift amount 16 mm

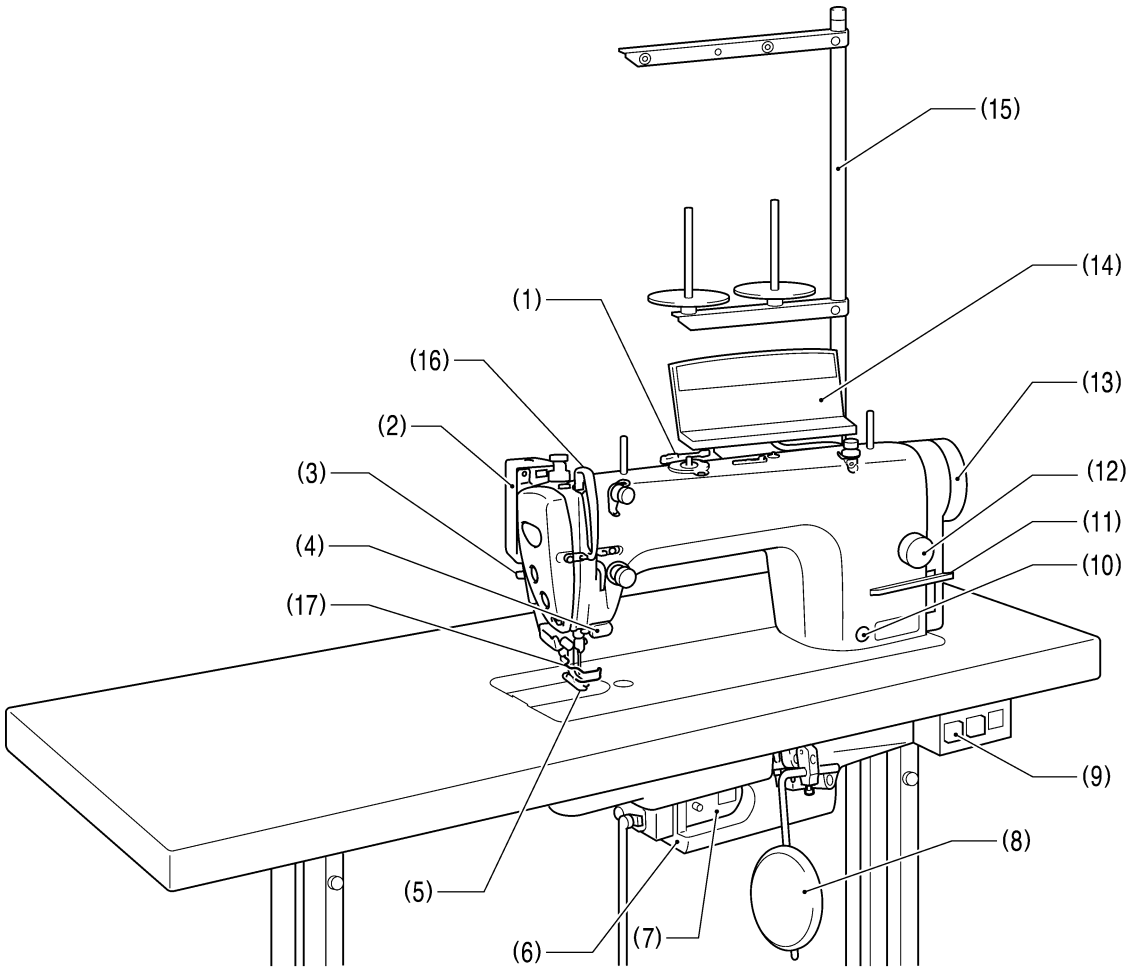
The knee lifter and the needle up stop (reverse rotation) function together provide 16 mm of space underneath the presser foot. This makes it much easier to insert and remove heavy material without it getting caught on the needle.

(Contact the place of purchase.)



3166M

3. NAMES OF MAJOR PARTS



3162M

(1) Bobbin winder
(2) Thread wiper (-4[][] specifications)
(3) Lifting lever
(4) Quick reverse (Actuator)
(5) Presser foot
(6) Control box
(7) Control box panel
(8) Knee lifter assembly
(9) Power switch
(10) Oil gauge window (-[]0[], []3[] specifications)
(11) Reverse lever
(12) Stitch length dial
(13) Machine pulley
(14) Operation panel (Models with operation panel)
(15) Cotton stand

Safety devices
(16) Thread take-up cover
(17) Finger guard

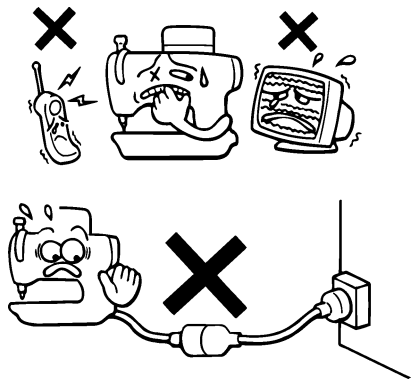
4. INSTALLATION

⚠ CAUTION

- 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 more than 44 kg. The installation should be carried out by two or more people.
- Do not connect the power cord until installation is complete. The machine may operate if the treadle is depressed by mistake, which could result in injury.
- Use both hands to hold the machine head when tilting it back or returning it to its original position. If only one hand is used, the weight of the machine head may cause your hand to slip, and your hand may get caught.

About the machine set-up location

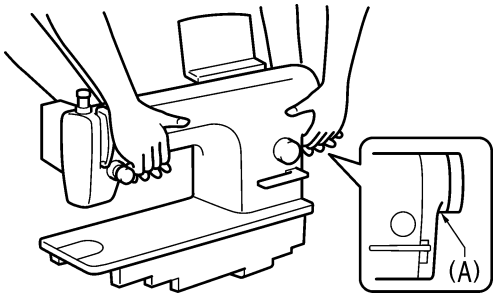
- Do not set up this sewing machine near other equipment such as televisions, radios or cordless telephones, otherwise such equipment may be affected by electronic interference from the sewing machine.
- The sewing machine should be plugged directly into an AC wall outlet. Operation problems may result if extension cords are used.



2086M

Carrying the machine

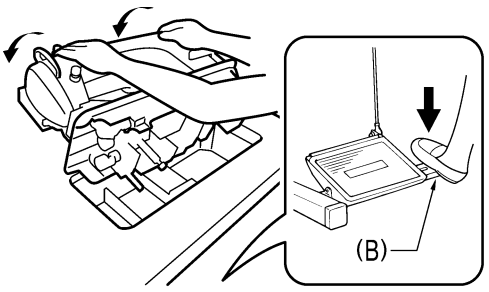
- The machine should be carried by the arm by two people as shown in the illustration.
  * Hold the motor cover (A) by hand also so that the pulley does not rotate.



2087M

Tilting back the machine head

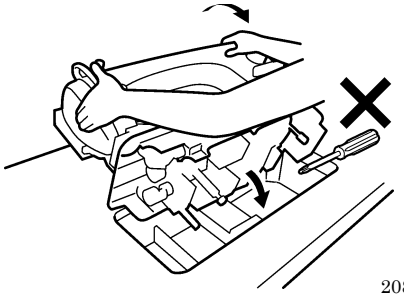
- Hold section (B) with your foot so that the table does not move, and then push the arm with both hands to tilt back the machine head.



2088M

Returning the machine head to the upright position

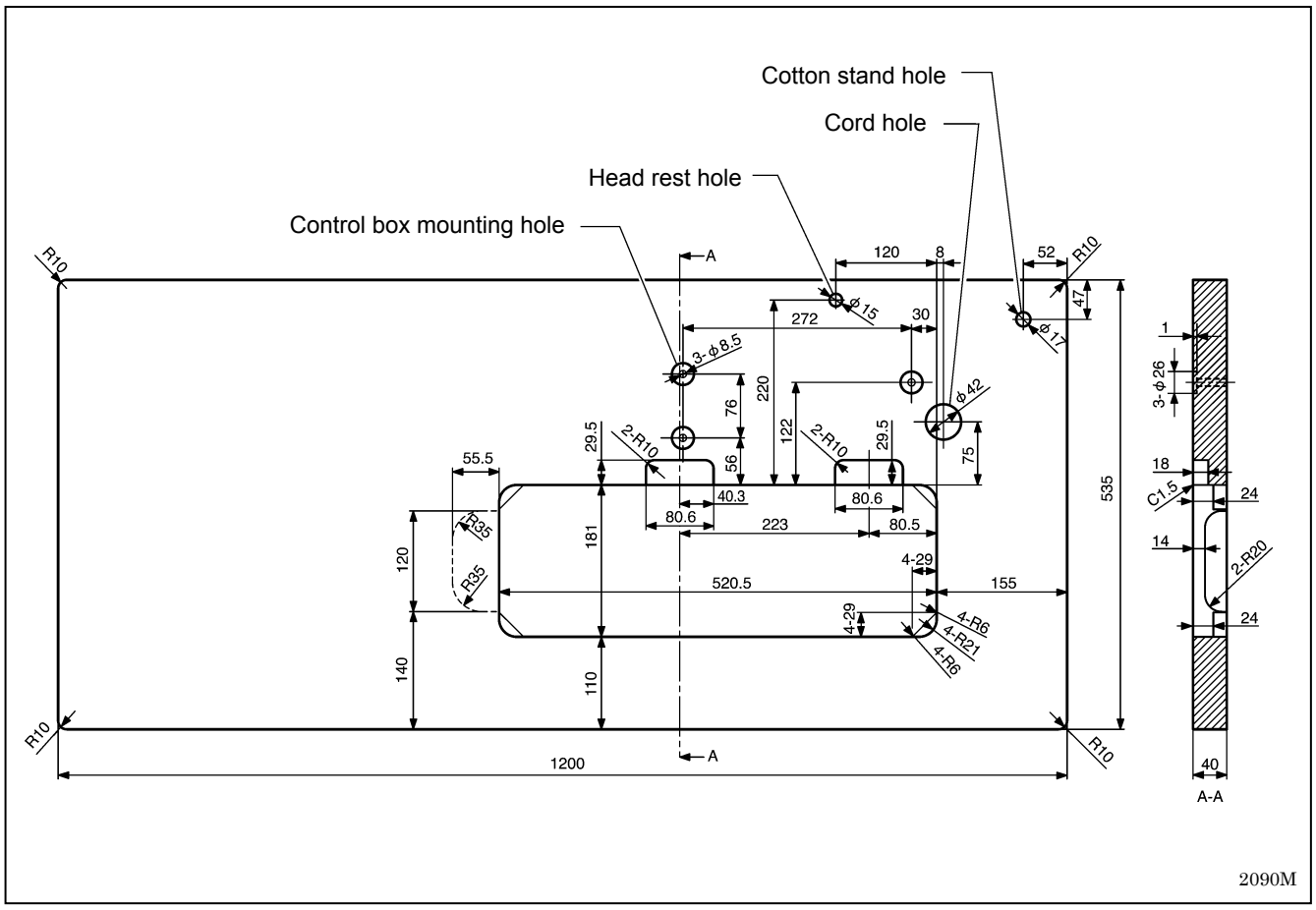
1. Clear away any tools, etc. which may be near the table holes.
2. While holding the face plate with your left hand, gently return the machine head to the upright position with your right hand.



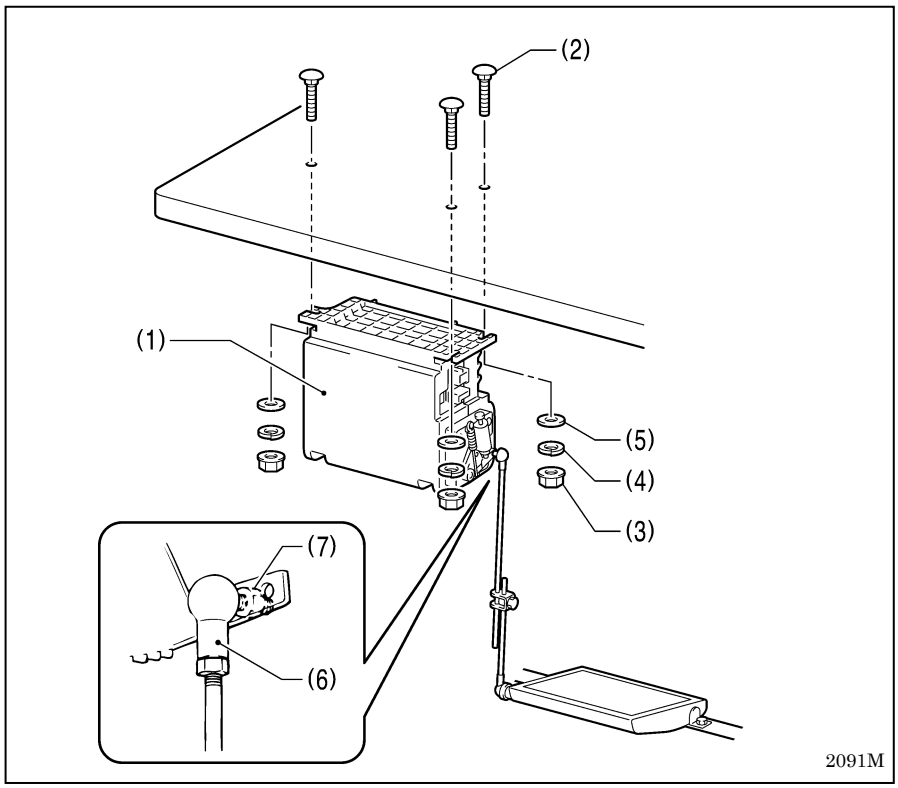
2089M

4-1. Table processing diagram

- The top of the table should be 40 mm in thickness and should be strong enough to hold the weight and with-stand the vibration of the sewing machine.
- Drill holes as indicated in the illustration below.



4-2. Installation

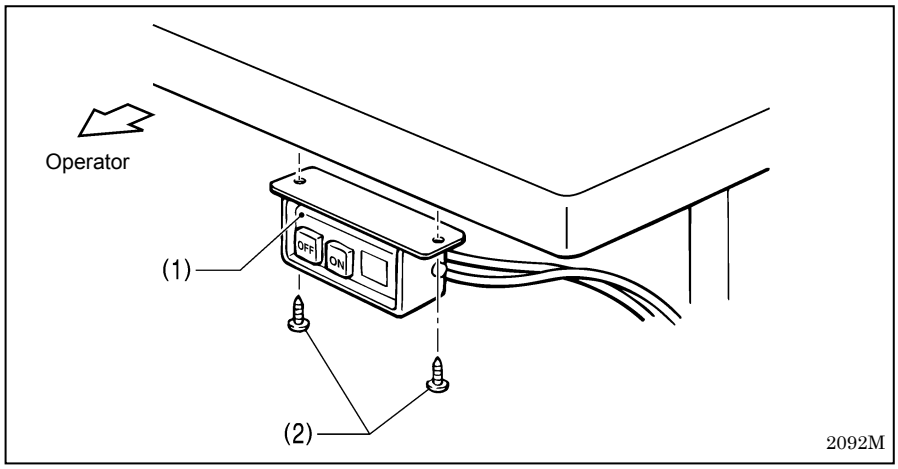


1. Control box

(1) Control box
(2) Bolts [3 pcs]
(3) Nuts [3 pcs]
(4) Spring washers [3 pcs]
(5) Washers [3 pcs]

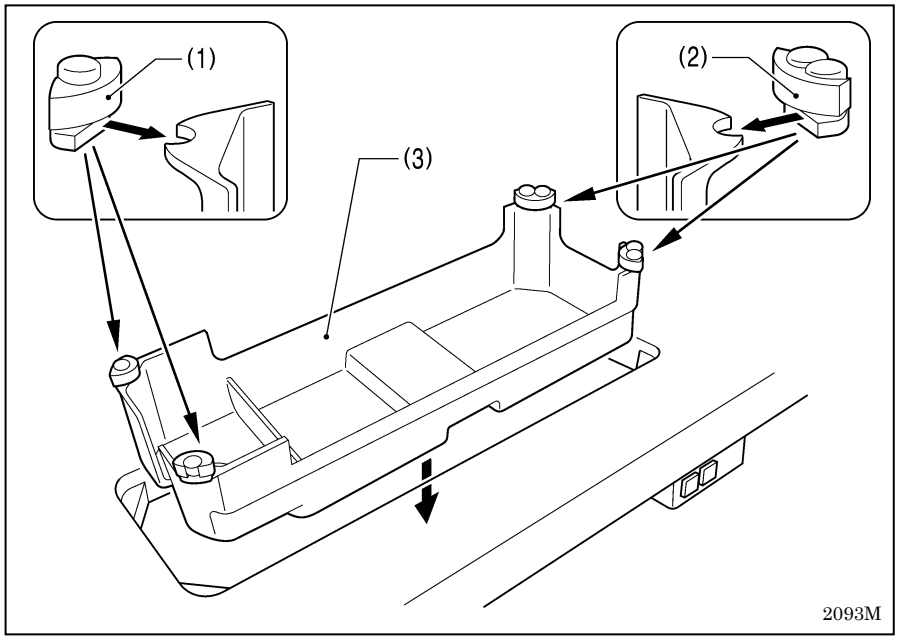
2. Connecting rod

(6) Connecting rod
(7) Nut



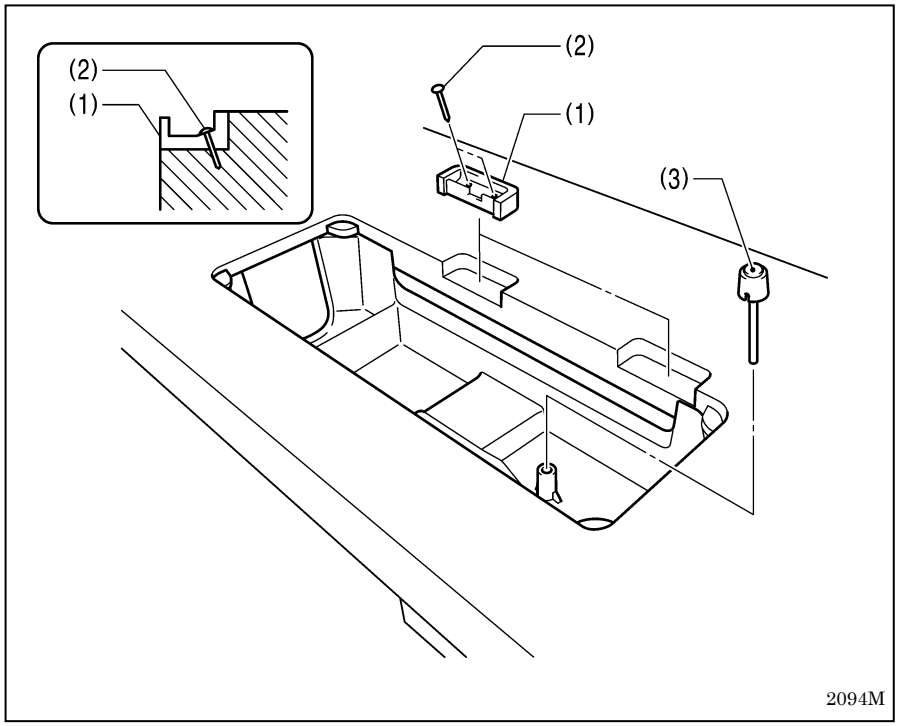
3. Power switch

(1) Power switch
(2) Screws [2 pcs]



4. Oil pan

(1) Head cushions (left) [2 pcs]
(2) Head cushions (right) [2 pcs]
(3) Oil pan

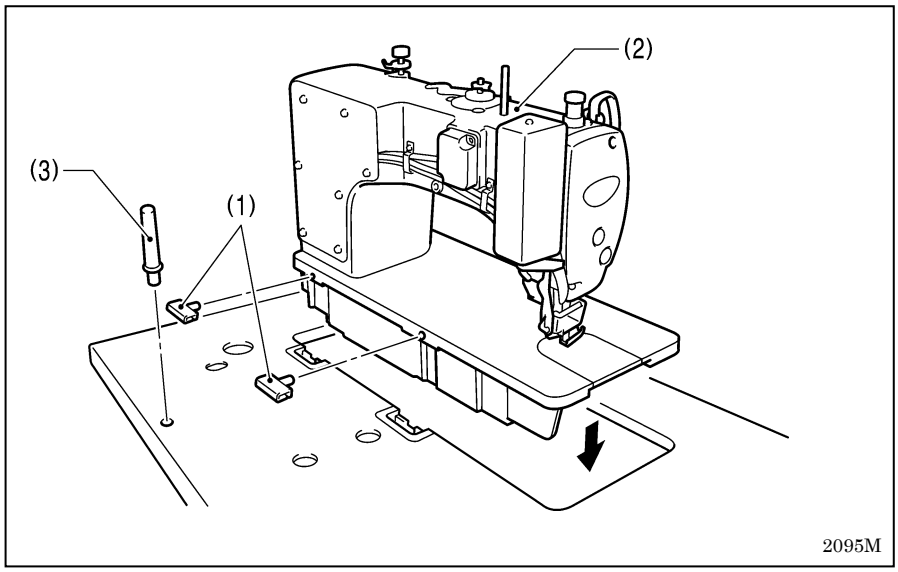


5. Rubber cushions

(1) Rubber cushions [2 pcs]
(2) Nails [4 pcs]

6. Knee lifter complying bar

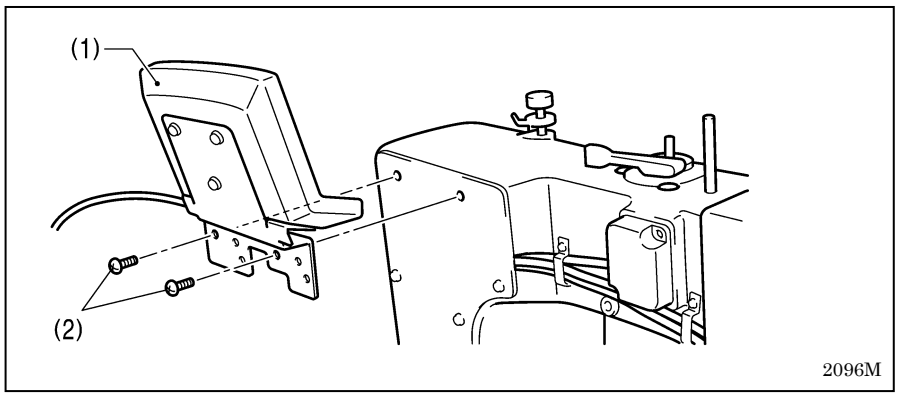
(3) Knee lifter complying bar



7. Machine head

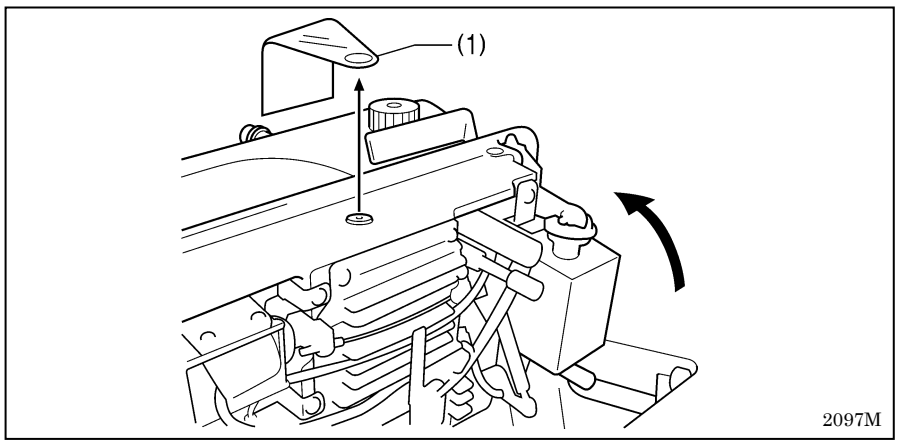
(1) Hinges [2 pcs]
(2) Machine head
(3) Head rest

NOTE:
Tap the head rest (3) securely into the table hole. If the head rest (3) is not pushed in as far as it will go, the machine head will not be sufficiently stable when it is tilted back.



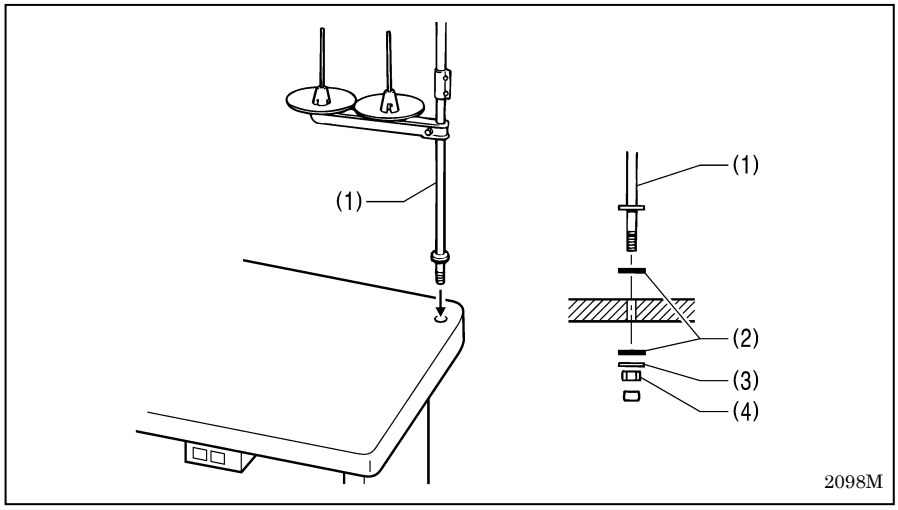
8. Operation panel

(1) Operation panel
(2) Screws [2 pcs]
(Use for tightening rear cover)



9. Sticker (Remove)

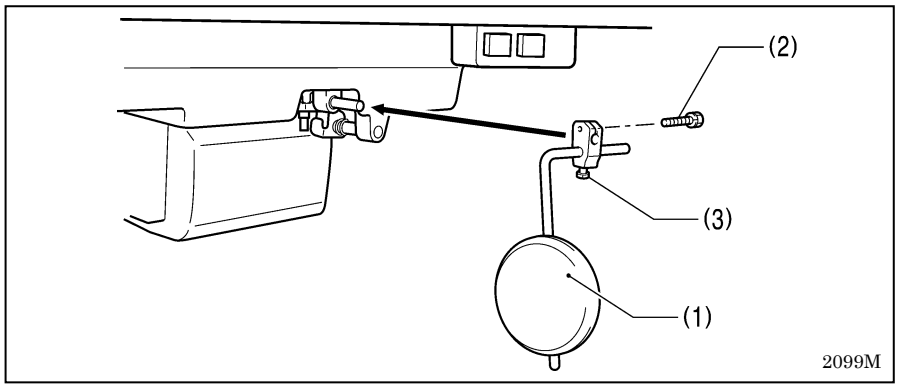
(1) Sticker



10. Cotton stand

(1) Cotton stand

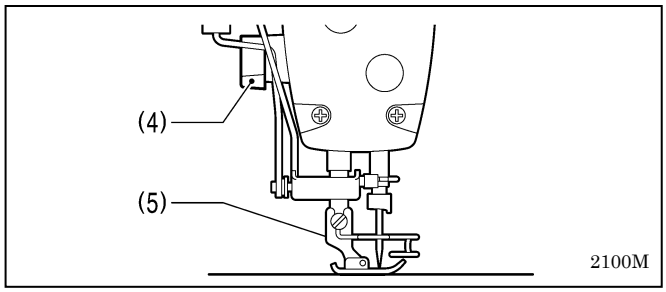
NOTE:
Securely tighten the nut (4) so that the two rubber cushions (2) and the washer (3) are securely clamped and so that the cotton stand (1) does not move.



11. Knee lifter plate

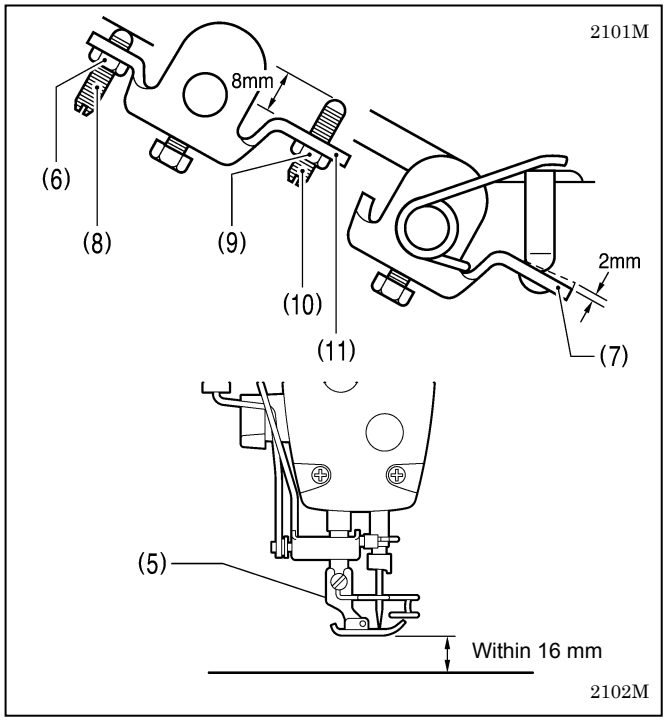
(1) Knee lifter plate
(2) Bolt

* Loosen the bolt (3) and move the knee lifter plate (1) to a position where it is easy to use.



<Knee lifter adjustment>

1. Turn the machine pulley so that the feed dog is below the top of the needle plate.
2. Lower the presser foot (5) by using the lifting lever (4).



3. Loosen the nut (6).
4. Turn the screw (8) to adjust so that the amount of play in the knee lifter (7) is approximately 2 mm when the knee lifter plate (1) is gently pressed.
5. Securely tighten the nut (6).
6. Loosen the nut (9).
7. Turn the screw (10) until the distance between the end of the screw (10) and the knee lifter (11) is approximately 8 mm.
8. Turn the adjusting screw (10) to adjust so that the presser foot (5) is at the desired position within a distance of 16 mm of the needle plate when the knee liter plate (1) is fully pressed.
9. After adjustment is completed, securely tighten the nut (9).

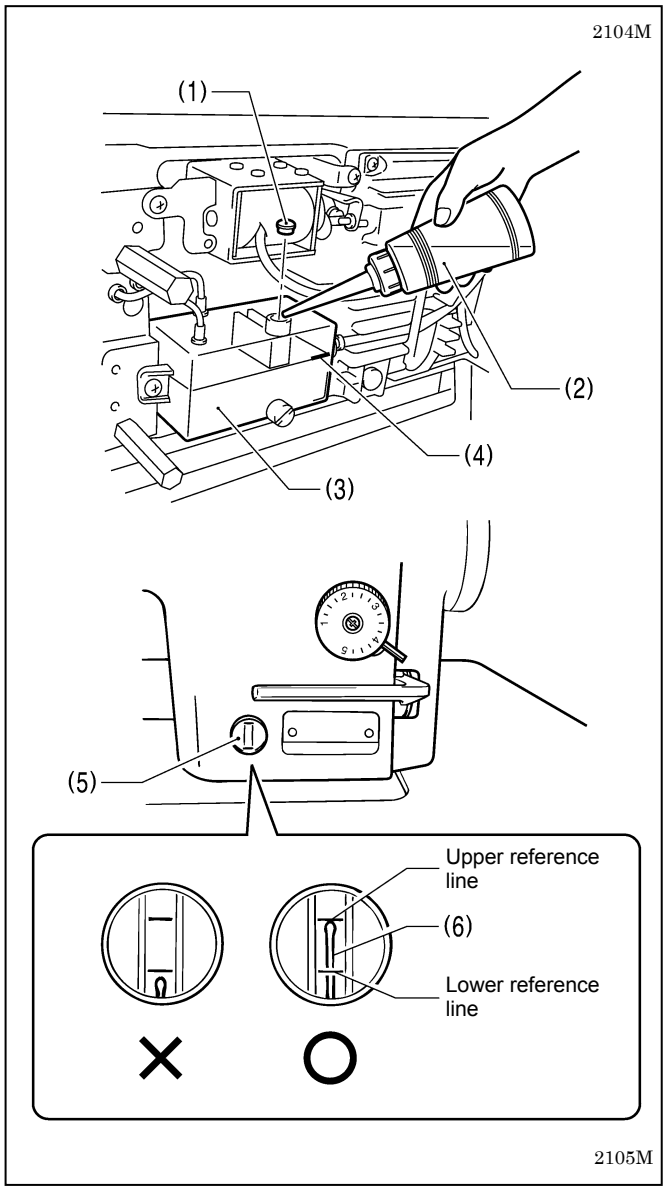
4-3. Lubrication (-[]0[], []3[] specifications)

* If the sewing machine is –[]5[] specifications, it is a complete dry type machine, and so no lubrication is necessary.

⚠ CAUTION

Do not connect the power cord until lubrication has been completed, otherwise the machine may operate if the treadle is depressed by mistake, which could result in injury.

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, otherwise inflammation can result.
Furthermore, do not drink the oil or eat the grease under any circumstances, as they can cause vomiting and diarrhea.
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 (Nisseki Mitsubishi Sewing Lube 10N; 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. Tilt back the machine head.
2. Remove the rubber cap (1), and pour 150 ml of lubricating oil from the accessory oil bottle (2) into the oil tank (3). (Use the reference line (4) as a guide when pouring.)
3. Replace the rubber cap (1).
4. Return the machine head to its original position.
5. Check that the oil gauge (6) comes to the upper reference line in the oil gauge window (5).

* Be sure to add more oil if the oil gauge (6) is below the lower reference line.

4-4. Connecting the cords

DANGER

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

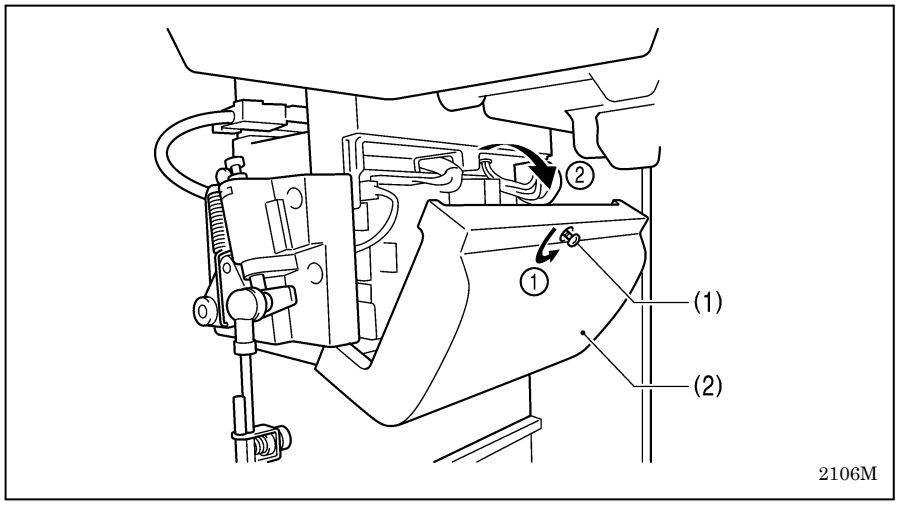
CAUTION

Contact your Brother dealer or a qualified electrician for any electrical work that may need to be done.

Do not connect the power cord until all cords have been connected.
The machine may operate if the treadle is depressed by mistake, which could result in injury.

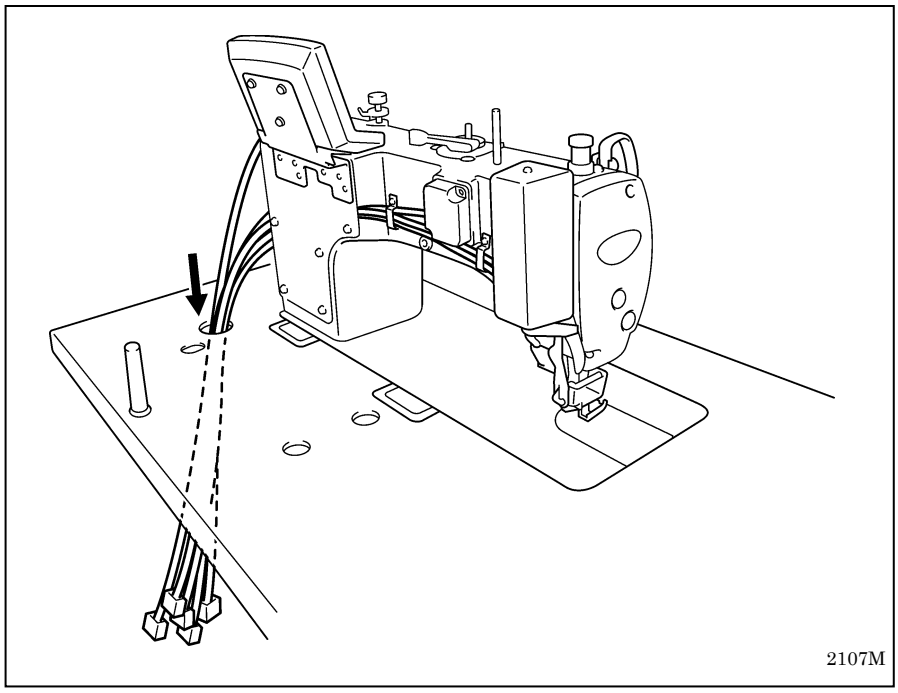
Be sure to connect the ground. If the ground connection is not secure, you run a high risk of receiving a serious electric shock, and problems with correct operation may also occur.

4-4-1. Opening the control box cover

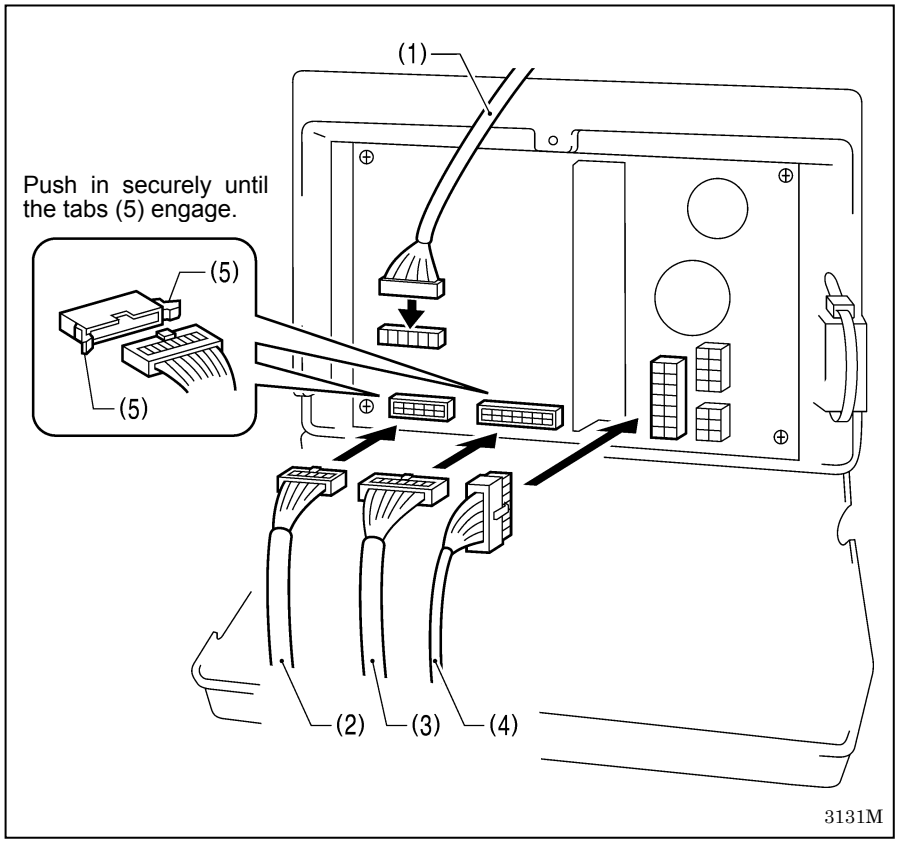


(1) Screw
(2) Cover

4-4-2. Connecting the cords

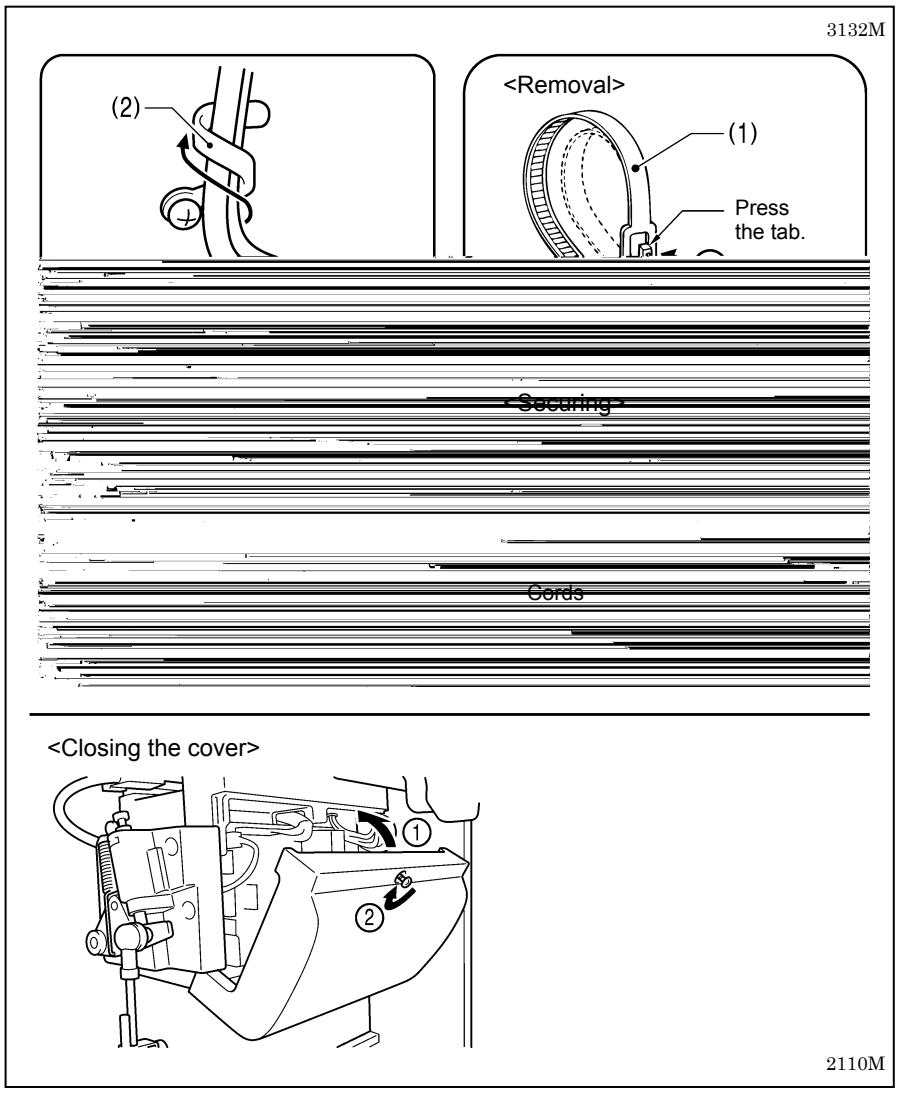


1. Sewing machine cords



(1) 7-pin head detector unit connector
(2) 10-pin operating panel connector
(3) 14-pin encoder connector
(4) 14-pin machine connector

Refer to the following page for the 4-pin motor connector.



2. Binding the cords

(1) Repeat cable tie
(2) Wire clip

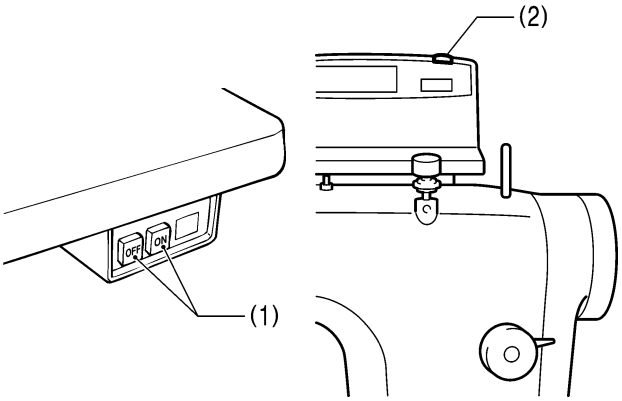
NOTE:

- Bind the cords in such a way that the connector does not get pulled out.
- All cords that come out from the control box should be secured to the cord holder (3) using the repeat cable tie (1), otherwise vibration from the sewing machine may cause the cords to become disconnected, which can cause problems with the operation of the control box.

4-5. Test operation (Operating the treadle)

CAUTION

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.



2114M 2115M

<Turning on the power>

Press the ON power switch (1).
The power indicator (2) will illuminate.

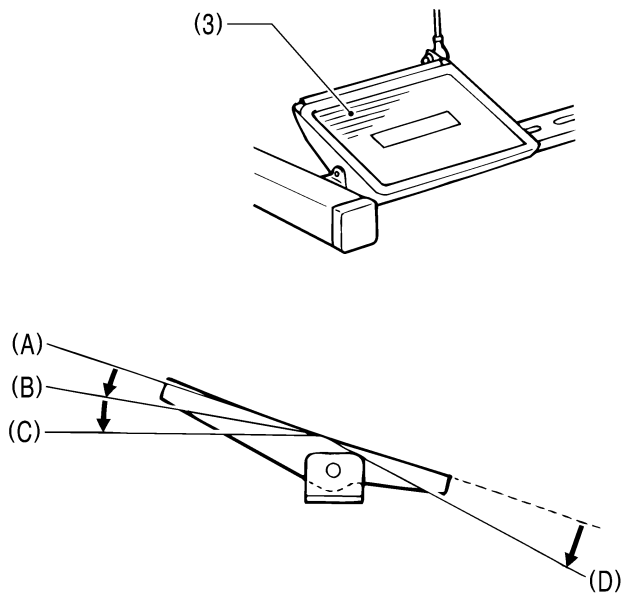
NOTE: When turning the power switch on for the first time

The treadle and the operation panel will not operate for approximately four seconds after the power switch is turned on.

After approximately 4 seconds, “iniT rPM” (speed initialization) or “iniT ALL” (full initialization) will be displayed on the operation panel. After “iniT rPM” or “iniT ALL” is displayed, the treadle can be operated. (The operation panel will change to the stitch number display.)

This message will not appear the second and subsequent times that the power switch is turned on.

2116M



2117M

<Test operation>

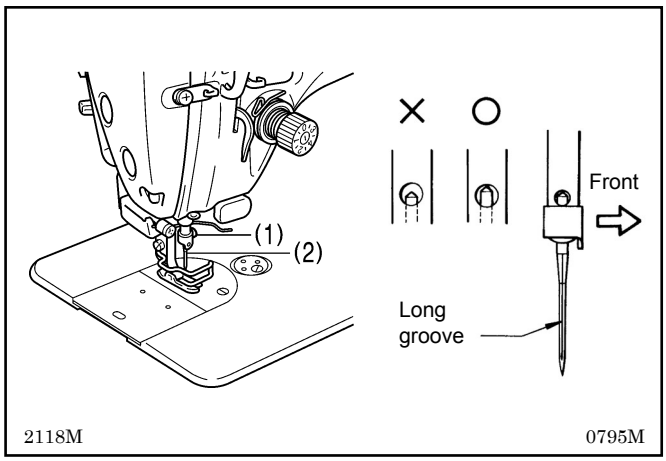
1. Check that the machine sews at low speed when the treadle (3) is gently pressed to position (B).
2. Then check that it sews at high speed when the treadle (3) is gently pressed to position (C).
3. After pressing the treadle (3) forward, check that the needle is lowered to the top of the needle plate when the treadle (3) is returned to the neutral position (A). (when needle down stopping has been set.)
4. If the treadle (3) is pressed to position (D), thread trimming is carried out and the needle then rises above the needle plate and stops.

5. PREPARATION BEFORE SEWING

5-1. Installing the needle

CAUTION

Turn off the power switch before installing the needle.
The machine may operate if the treadle is depressed by mistake, which could result in injury.

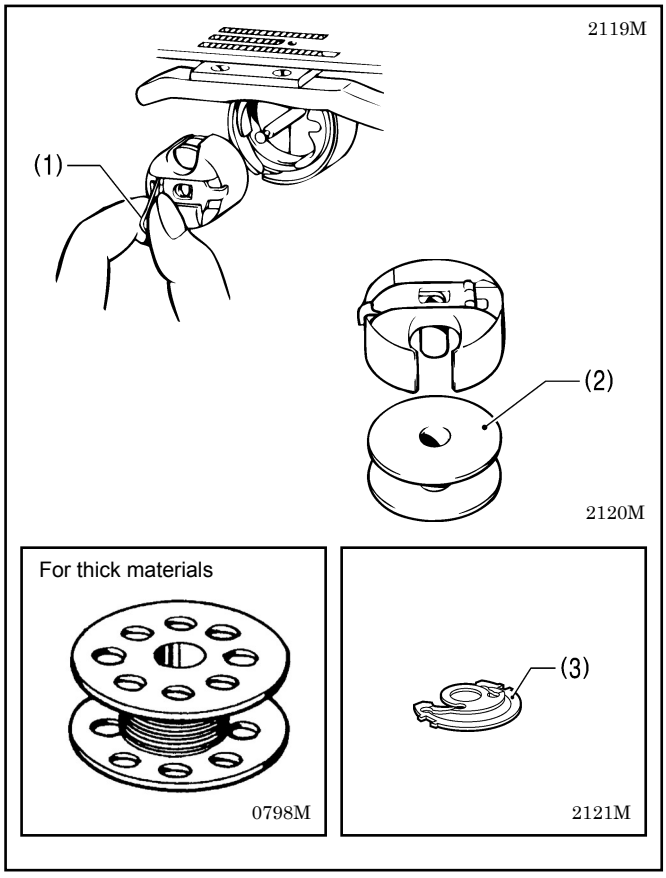


1. Turn the machine pulley to move the needle bar to its highest position.
2. Loosen the screw (1).
3. Insert the needle (2) in a straight line as far as it will go, making sure that the long groove on the needle is at the left, and then securely tighten the screw (1).

5-2. Removing the bobbin case

CAUTION

Turn off the power switch before removing the bobbin case.
The machine may operate if the treadle is depressed by mistake, which could result in injury.



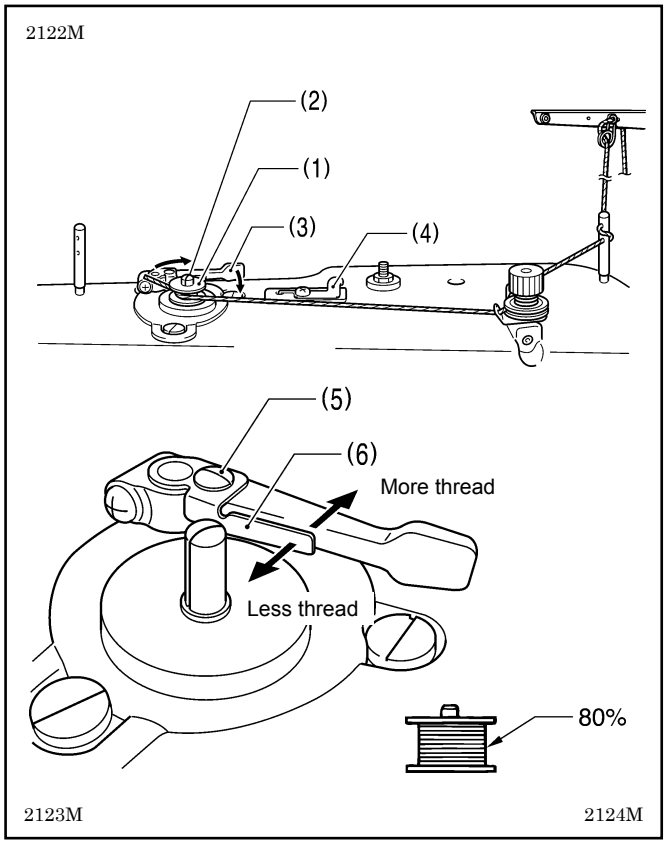
1. Turn the machine pulley to raise the needle until it is above the needle plate.
2. Pull the latch (1) of the bobbin case upward and then remove the bobbin case.
3. The bobbin (2) will come out when the latch (1) is released.

- There is an anti-spin spring (3) inside the bobbin case. The anti-spin spring (3) prevents the bobbin from racing at times such as during thread trimming.
- Use bobbins (2) made of light alloy as specified by BROTHER.

5-3. 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. Turn on the power switch.
2. Place the bobbin (1) onto the bobbin winder shaft (2).
3. Wind the thread several times around the bobbin (1) in the direction indicated by the arrow.
4. Push the bobbin presser arm (3) toward the bobbin(1).
5. Raise the presser foot with the lifting lever.
6. Depress the treadle. Lower thread winding will then start.
7. Once winding of the lower thread is completed, the bobbin presser arm (3) will return automatically.
8. After the thread has been wound on, remove the bobbin and cut the thread with the knife (4).

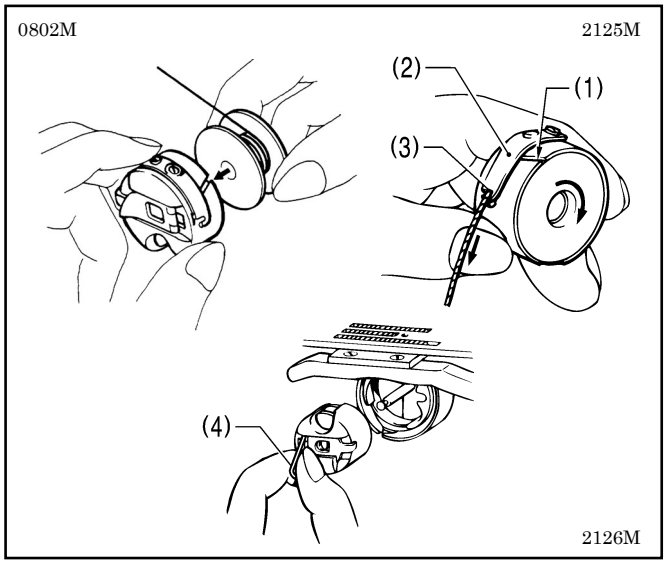
* Loosen the screw (5) and move the bobbin presser (6) to adjust the amount of thread wound onto the bobbin.

NOTE:
The amount of thread wound onto the bobbin should be a maximum of 80 % of the bobbin capacity.

5-4. Installing the bobbin case

CAUTION

Turn off the power switch before installing the bobbin case.
The machine may operate if the treadle is depressed by mistake, which could result in injury.

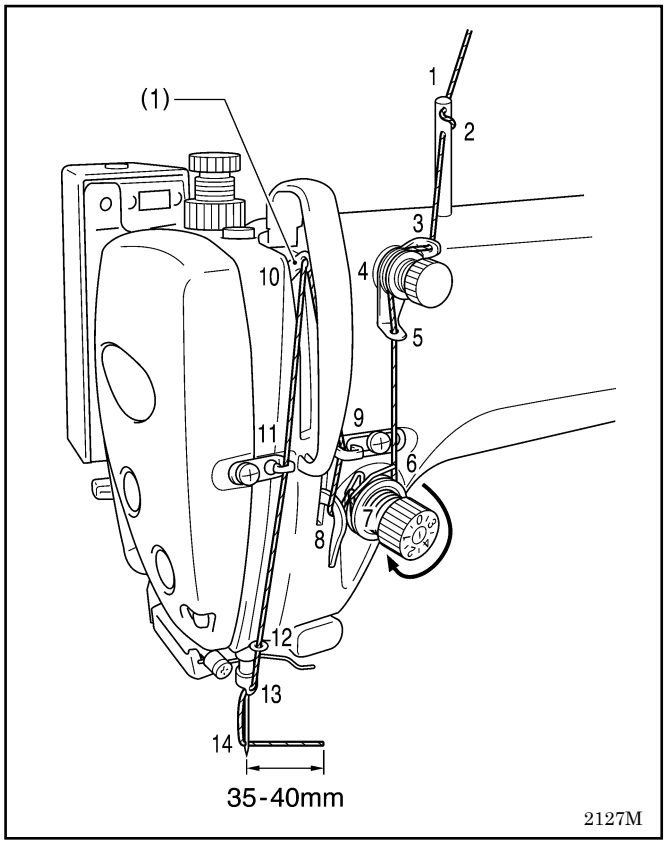


1. Turn the machine pulley to raise the needle until it is above the needle plate.
2. While holding the bobbin so that the thread winds to the right, insert the bobbin into the bobbin case.
3. Pass the thread through the slot (1) and under the tension spring (2), and then pull it out from the thread guide (3).
4. Check that the bobbin turns clockwise when the thread is pulled.
5. Hold the latch (4) on the bobbin case and insert the bobbin case into the rotary hook.

5-5. Threading the upper thread

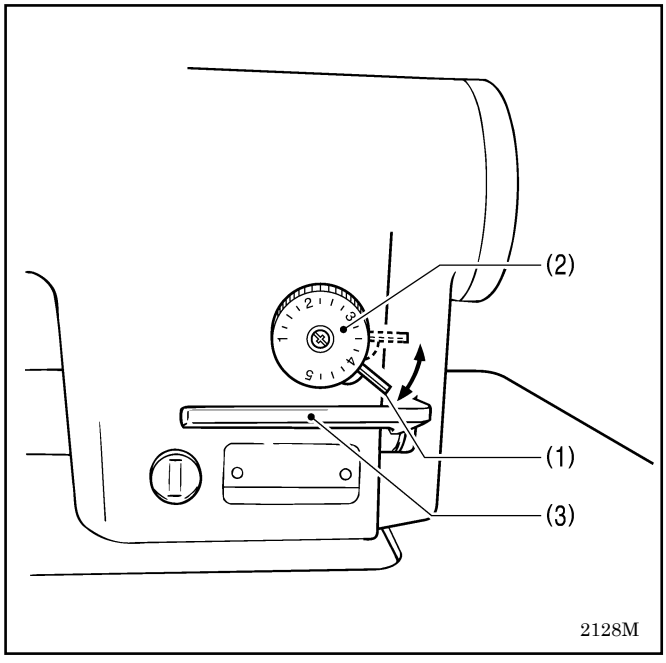
CAUTION

Turn off the power switch before threading the upper thread.
The machine may operate if the treadle is depressed by mistake, which could result in injury.



Turn the machine pulley and raise the thread take-up (1) before threading the upper thread.
This will make threading easier and it will prevent the thread from coming out at the sewing start.

5-6. Adjusting the stitch length



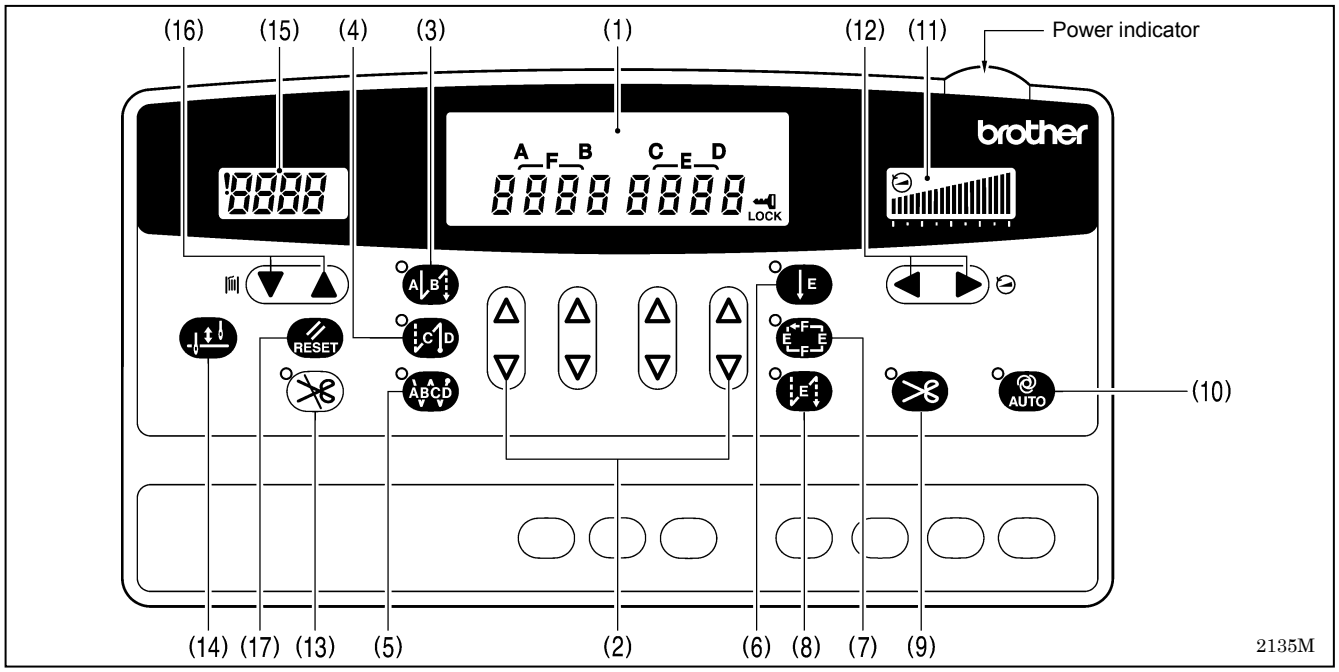
1. Push the dial lock lever (1) up until it clicks to release the lock.
2. Turn the stitch length dial (2) clockwise or counter-clockwise so that the desired stitch length is at the uppermost position on the dial.
   - The larger the number, the longer the stitch length will be.
     (The numbers on the dial are for use as a guide. The length of the finished stitches may vary depending on the type and thickness of material being sewn. Adjust while looking at the finished stitches.)
   - When turning the stitch length dial (2) from a larger setting to a smaller setting, it will be easier to turn the dial if the reverse lever (3) is pushed to the halfway-down position.
3. Push the dial lock lever (1) down firmly to lock it.

* Check that the stitch length dial (2) does not rotate.

6. USING THE OPERATION PANEL (BASIC OPERATIONS)

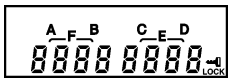
6-1. Names and functions

- The operation panel keys cannot be operated while sewing is in progress.
  Select the keys and set the number of stitches before starting sewing.
- In the case of keys with indicators, the indicator illuminates when that function is operating, and the indicator switches off when the key is pressed once more.



The power indicator illuminates when the power switch is turned on.

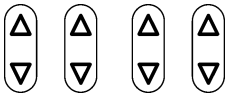
(1) Main display



- In start backtack display, AB illuminates and the number of stitches for A and B are displayed.
- In end backtack display, CD illuminates and the number of stitches for C and D are displayed.
- In continuous backtack display, ABCD illuminates and the number of stitches for A, B, C and D are displayed.
- In fixed stitch display, E or F illuminates and the number of stitches for E or F are displayed.

2136M

(2) Setting keys



These keys are used to set the number of backtack stitches for A, B, C and D and the number of fixed stitches for E and F.

- When the △ key is pressed, the setting increases from 0 up to 99.
- When the ▽ key is pressed, the setting decreases from 99 down to 0.

2137M 2138M 2139M

(3) Start backtack key

When this key is pressed so that the indicator illuminates, the number of start backtack stitches (0−99) in the A and B stitch number displays is sewn.

2140M

(4) End backtack key

When this key is pressed so that the indicator illuminates, the number of end backtack stitches (0−99) in the C and D stitch number displays is sewn. When the treadle is depressed backward, the end backtack stitches are sewn and then the thread is trimmed automatically.
If the treadle has not yet been depressed backward, the end backtack function can be set to ON, the number of stitches can be changed and the function can be set back to OFF.

2141M

(5) Continuous backtack key

When this key is pressed so that the indicator illuminates, the number of backtack stitches (0−99) in the A, B, C and D stitch number displays is sewn continuously. After the sewing machine sews a full cycle of stitches set by A, B, C and D, the thread is trimmed automatically.

2142M

(6) Fixed stitch key

When this key is pressed so that the indicator illuminates, the number of stitches (1−1999) in the E stitch number display is sewn, and then the sewing machine stops automatically.

2143M

(7) Name label key

When this key is pressed so that the indicator illuminates, fixed stitch sewing of the number of stitches (1−1999) in the E and F stitch number displays is carried out repeatedly.

2144M

(8) Pleat presser sewing key

When this key is pressed so that the indicator illuminates, the number of backtack stitches (1−1999) in the E stitch number display can be sewn by pressing the actuator.

2145M

(9) Thread trimming key

- This can only be set for use together with the fixed stitch key (6) or the name label key (7).
- When this key is pressed so that the indicator illuminates, the set number of stitches (start or end backtack stitches or fixed stitches) are sewn, and then the thread is trimmed automatically.

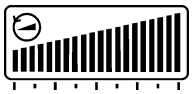
2146M

(10) AUTO key

- This can only be set for use together with the continuous backtack key (5), the fixed stitch key (6) or the name label key (7).
- When this key is pressed so that the indicator illuminates, the set number of stitches (start or end backtack stitches, fixed stitches or thread trimming) are sewn automatically simply by depressing the treadle once.

2147M

(11) Sewing speed control display



This shows the sewing speed when the treadle is depressed to the maximum amount.

- If all bars are illuminated, it indicates that the maximum speed can be set.
- If all bars are switched off, it indicates the minimum speed (220 rpm).

2148M

(12) Sewing speed control keys

These keys let you adjust the sewing speed that is used when the treadle is depressed to the maximum amount.
The sewing speed can also be adjusted while sewing is in progress.

- When the ▶ key is pressed, the sewing speed becomes faster.
- When the ◀ key is pressed, the sewing speed becomes slower.

2149M 2150M 2151M

(13) Thread trimming lock key

- When this key is pressed so that the indicator illuminates, the sewing machine stops in the needle up position without thread trimming being carried out even if the treadle is depressed backward.
- If the indicator of the thread trimming key (9) is illuminated, the sewing machine stops in the needle up position without thread trimming being carried out after the set number of stitches have been sewn.

2152M

(14) Half stitch key

When the sewing machine is stopped, the needle bar can be moved up and down by pressing this key.

2153M

(15) Lower thread counter display

This shows the lower thread counter value.
The counter is reduced by “1” for every ten stitches sewn.

2154M

(16) Lower thread counter keys

These keys are used to set the initial value for the lower thread counter. (Refer to p.23.)

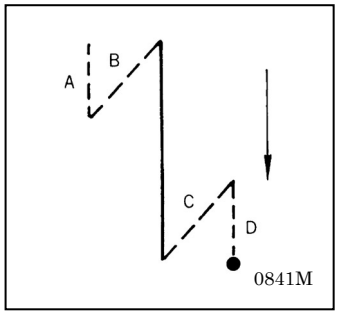
2155M

(17) RESET key

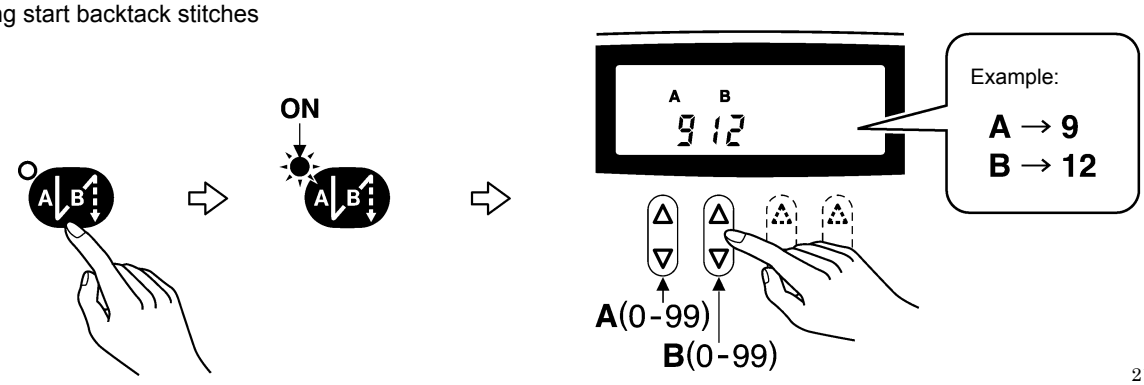
This key is used to return the lower thread counter to its initial value and to cancel warning conditions. (Refer to p.23.)

2156M

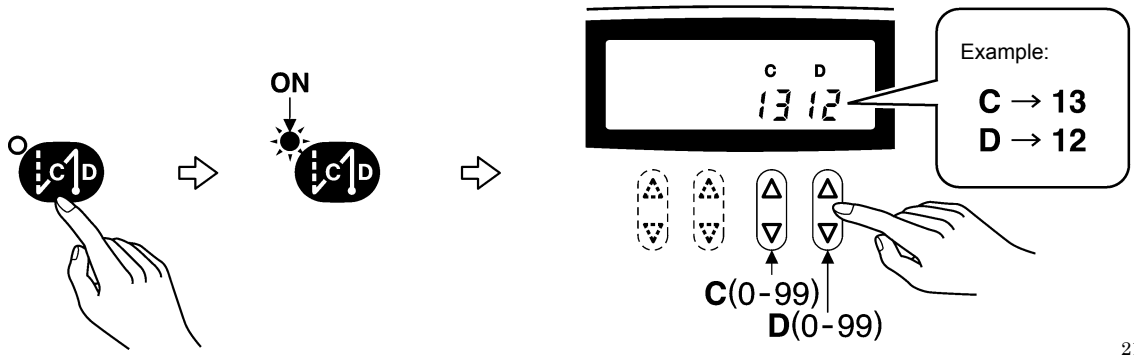
6-2. Sewing start and end backtack stitches



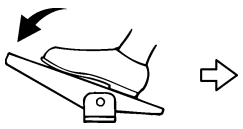
1 Setting start backtack stitches



2 Setting end backtack stitches



3



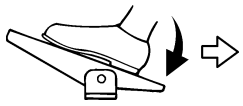
Start backtacking is carried out. After it has finished, normal sewing continues for as long as the treadle remains depressed.

NOTE:

If the treadle is returned to the neutral position, the sewing machine will continue operating until the set number of start backtack stitches has been sewn.

2159M

4



End backtacking is carried out. After it has finished, the thread is trimmed automatically and the sewing machine stops in the needle up position.

NOTE:

- If the treadle is depressed backward before sewing of the set number of start backtack stitches is complete, end backtacking will not be carried out.
- If the indicator of the thread trimming lock key is illuminated, the sewing machine will stop in the needle up position without thread trimming being carried out.

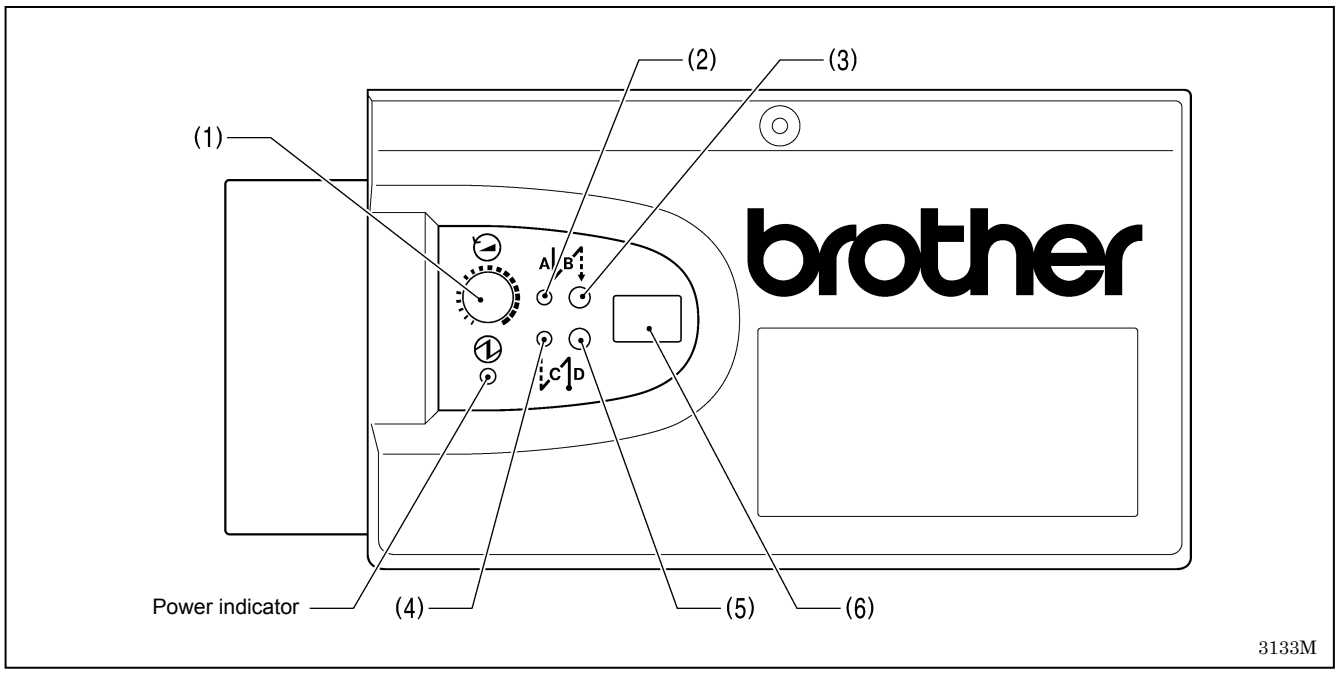
2160M

7. USING THE CONTROL BOX PANEL (BASIC OPERATIONS)

NOTE

The control box panel will not operate when the machine head operation panel is connected.

7-1. Names and functions



The power indicator illuminates when the power switch is turned on.

(1) Speed control
- This lets you adjust the sewing speed when the treadle is fully depressed.
- The sewing speed becomes faster when the speed control (1) is turned clockwise.

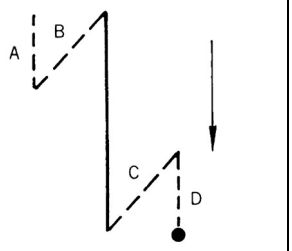
(2) Start backtack indicator
(3) Start backtack key
When the start backtack key (3) is pressed so that the start backtack indicator (2) illuminates, the number of start backtack stitches set for A and B (0–9) are sewn.

(4) End backtack indicator
(5) End backtack key
When the end backtack key (5) is pressed so that the end backtack indicator (4) illuminates, the number of end backtack stitches set for C and D (0–9) are sewn.

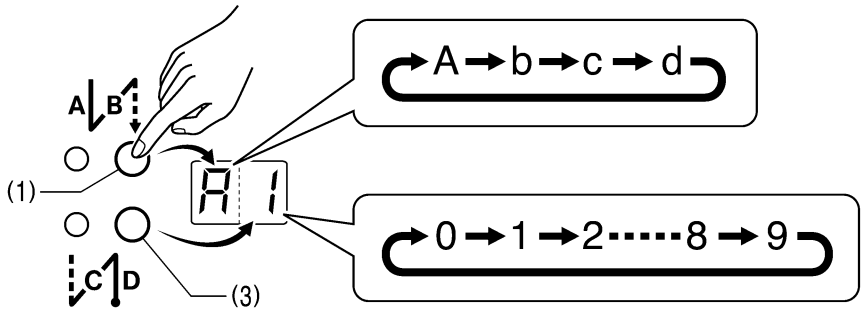
(6) Stitch number display
- This shows the backtacking processes (A, B, C and D) and the number of stitches for each.
  NOTE: This is only displayed when making the settings.
- It also displays error codes.

7-2. Sewing start and end backtack stitches

<Stitch number setting method>

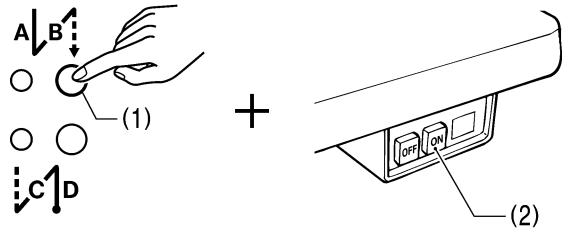


0841M



3134M

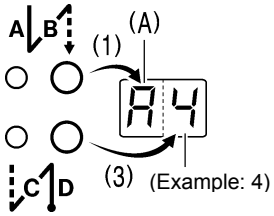
1



While pressing the start backtack key (1), press the power switch (2) to turn on the power.

3135M

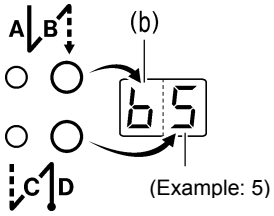
2 Start backtack setting (A)



1. Press the start backtack key (1) so that "A" is displayed in the top row of the stitch number display.
2. Press the end backtack key (3) to set the number of stitches for A in the bottom row of the stitch number display.

3136M

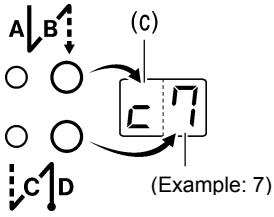
3 Start backtack setting (B)



1. Press the start backtack key (1) so that "b" is displayed.
2. Press the end backtack key (3) to set the number of stitches for b.

3137M

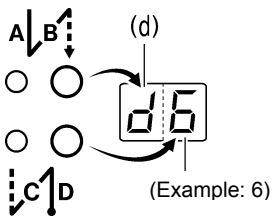
4 End backtack setting (C)



1. Press the start backtack key (1) so that "c" is displayed.
2. Press the end backtack key (3) to set the number of stitches for c.

3138M

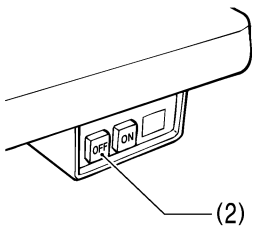
5 End backtack setting (D)



1. Press the start backtack key (1) so that "d" is displayed.
2. Press the end backtack key (3) to set the number of stitches for d.

3139M

6

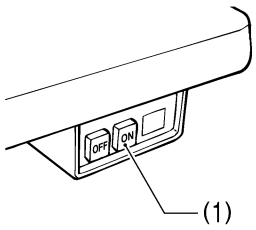


Press the power switch (2) to turn off the power.

3140M

<Start and end backtack sewing method>

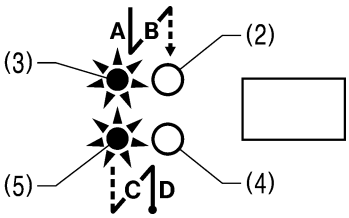
1



Press the power switch (1) to turn on the power.

3141M

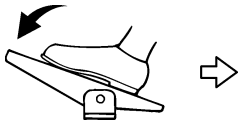
2



1. Press the start backtack key (2) so that the start backtack indicator (3) illuminates.
2. Press the end backtack key (4) so that the end backtack indicator (5) illuminates.

3142M

3



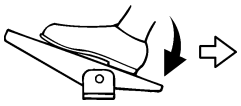
Start backtacking is carried out. After it has finished, normal sewing continues for as long as the treadle remains depressed.

NOTE:

If the treadle is returned to the neutral position, the sewing machine will continue operating until the set number of start backtack stitches has been sewn.

2159M

4



End backtacking is carried out. After it has finished, the thread is trimmed automatically and the sewing machine stops in the needle up position.

NOTE:

If the treadle is depressed backward before sewing of the set number of start backtack stitches is complete, end backtacking will not be carried out.

2160M

8. SEWING

⚠CAUTION

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

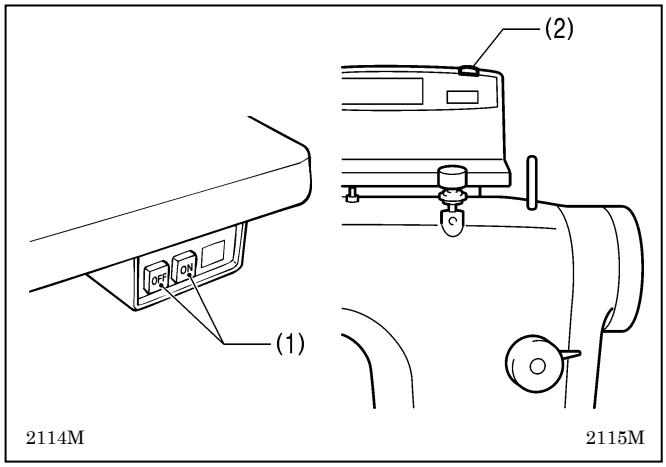
Turn off the power switch at the following times.
The machine may operate if the treadle is depressed by mistake, which could result in injury.

- When threading the needle
- 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.

Use both hands to hold the machine head when tilting it back or returning it to its original position. If only one hand is used, the weight of the machine head may cause your hand to slip, and your hand may get caught.

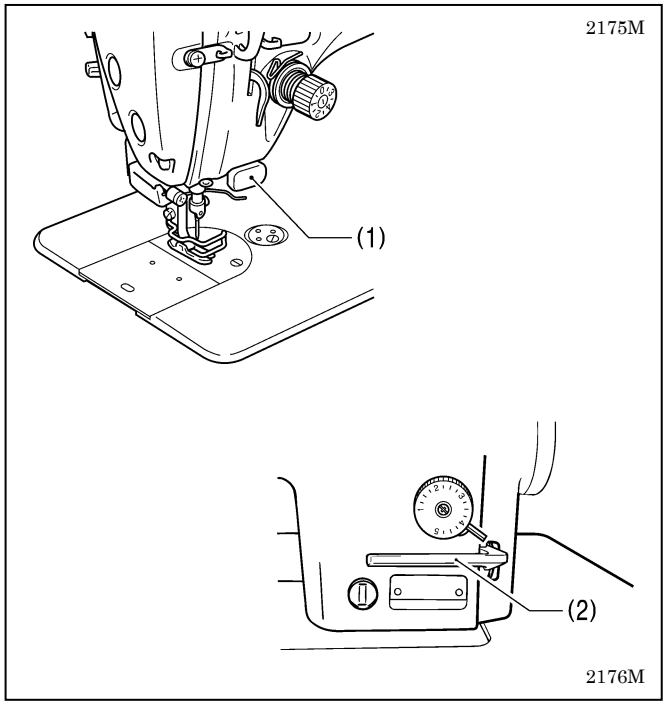
8-1. Sewing



2114M 2115M

1. Press the ON power switch (1).
   The power indicator (2) will illuminate.
2. Use the operating panel to carry out the programming which is necessary for sewing.
   (Refer to the chapter on using the operating panel.)
3. Depress the treadle to start sewing.

8-2. Backtacking



When the actuator (1) or the reverse lever (2) is pressed during sewing, the feed direction will be reversed. When it is released, the feed direction will return to normal.

Document CD

For cleaning, standard adjustments and more details, please refer to the instruction manual contained in the Document CD.

3168M

Contents of the Document CD

The following documents are contained in PDF format.

- Basic Operation Manual
- Instruction Manual
- Parts Book

How to use the Document CD

Refer to “Using Document CD” which comes with the Document CD or the help function of the Document CD.

Recommended system configuration for using the Document CD

OS:	Microsoft® Windows 98 Second Edition、Windows 2000 Service Pack 2、Windows XP
Browser version:	Microsoft Internet Explorer 6.0 or higher
Screen resolution:	1024 x 768 pixeles or more
Plug in (required to access):	Adobe Reader 6.0 or higher

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