

SC Series Paper Cutter

Operation manual

『 Applied operation - Maintenance 』

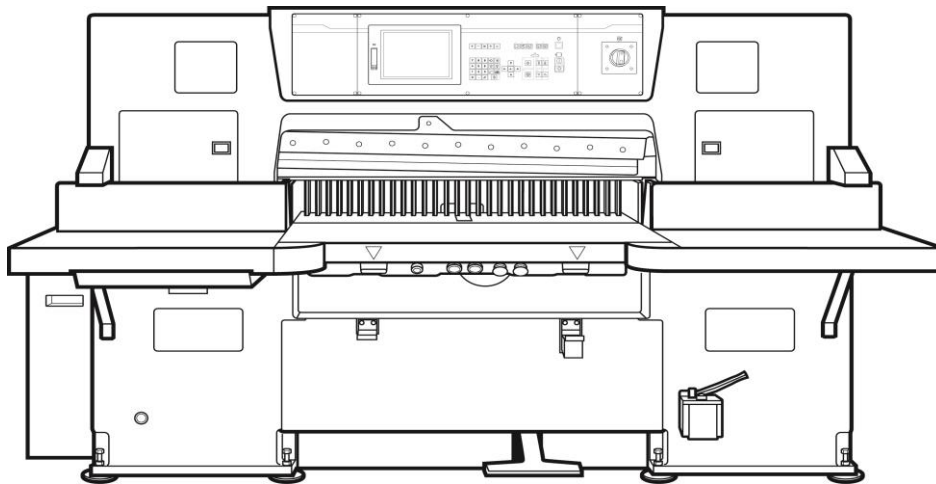
Ver. SCZ2001 (EN)



CAUTION

Carefully read this operation manual and be familiar with the description before starting operation, inspection or maintenance of the product.

The operator or administrator of this product may not have the product operated by a person who is not familiar with the description about the product.



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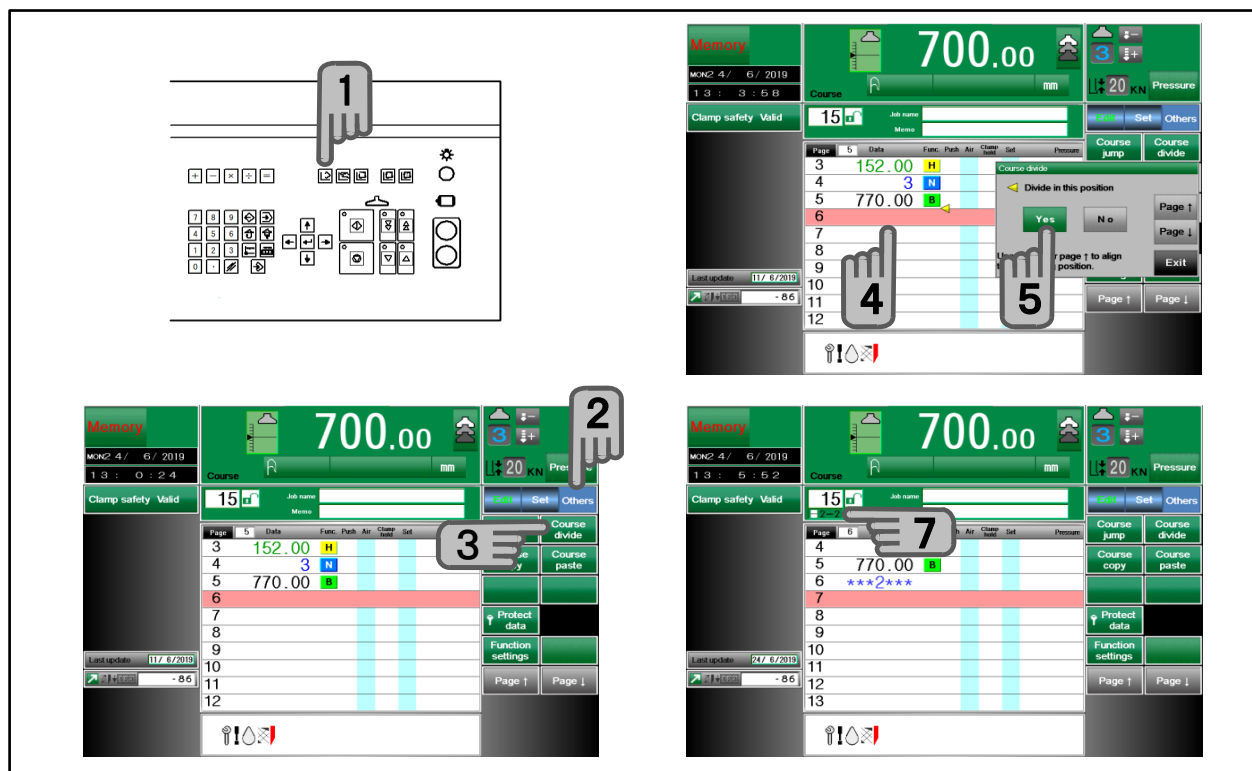
Need customer protection 「Redidual risk map and list」

Please refer to the separate volume 「Risk assessment 」 about the following items.

Need customer protection “ Redidual risk map ”

Need customer protection “ Redidual risk list ”

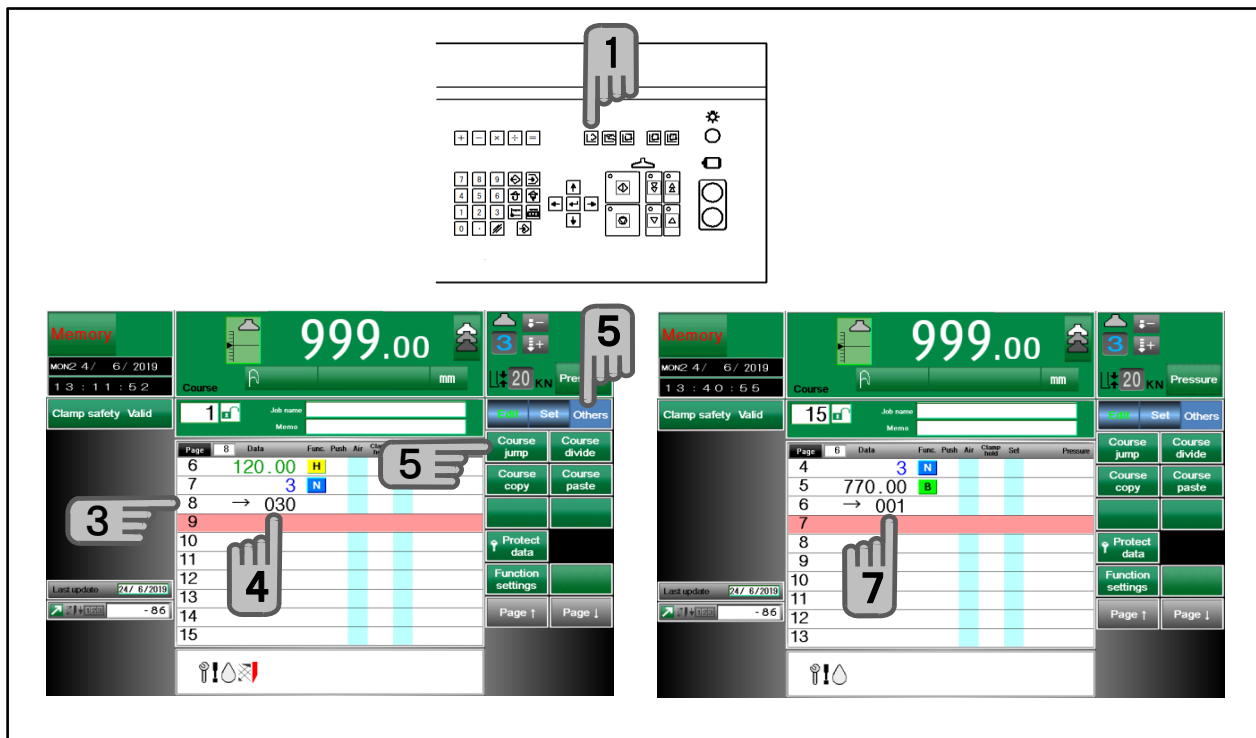
How to divide the course



- You can divide the course into up to 9.
- Even when divided, you can delete or insert a page.
- You can memorize multiple different tasks in one course.

1. Select the memory mode.
2. Press 【 Others 】 of sub mode menu.
す。
3. Press 【 Course divide 】.
4. Move the cursor to the page to be divided.
5. To run, press 【 Yes 】.
A divided line is displayed at the cursor position.
The cursor moves to the next page automatically.
6. To memorize the different task content, divides when memorize, or memorize it in advance continuously and later divides at the required place.
7. In the course being divided, under course number, display division number and current cursor position.

How to use course jump function



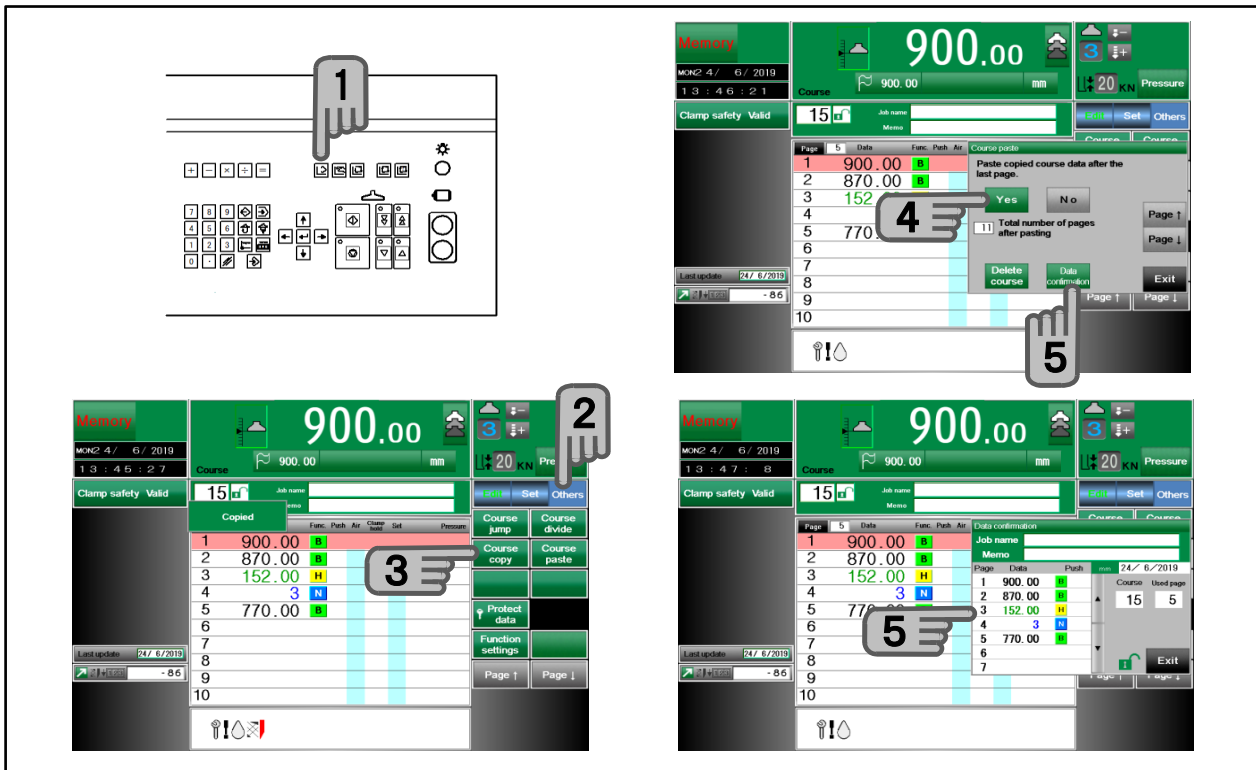
If the work is not enough on page 50, jump to another course and page connect.

1. Select the memory mode.
2. Store data as usual
3. Move cursor after last page memorized.
4. Enter destination course number.
5. Press sub mode menu 【 Others 】 and Press 【 Course jump 】 .
Displayed destination course number.
Displayed in 3 digit including 0. It will be displayed as 005 for 5 course.
6. Call the next destination course and enter data.
7. On the last page, set the previous course number to be returned in the same way.

The destination page of jump may be designated.

- ◆ While there is no need to continue the destination of jump, it is understandable and helpful to edit that the jump destination is the following course.
- ◆ There is no limit in the number of jumps as far as the destination of each jump differs from the others.
(100 → 101 → 102 → 103 → 100)
- ◆ To enter 60 pages, avoid entering full 50 pages in the first course; place a jump at an understandable point such as page 30 for easier use.
- ◆ The jump is caused in paper cutting in the automatic mode. No jump is caused in the memory mode.
- ◆ Because each course is independent of the others, the course at the destination of jump is not deleted even if one course is deleted.
- ◆ To move the course, the jump destination course number must be corrected after moving each.
- ◆ If course jump is caused during fully automatic operation, the fully automatic mode is canceled even in the advance direction.

How to copy a course



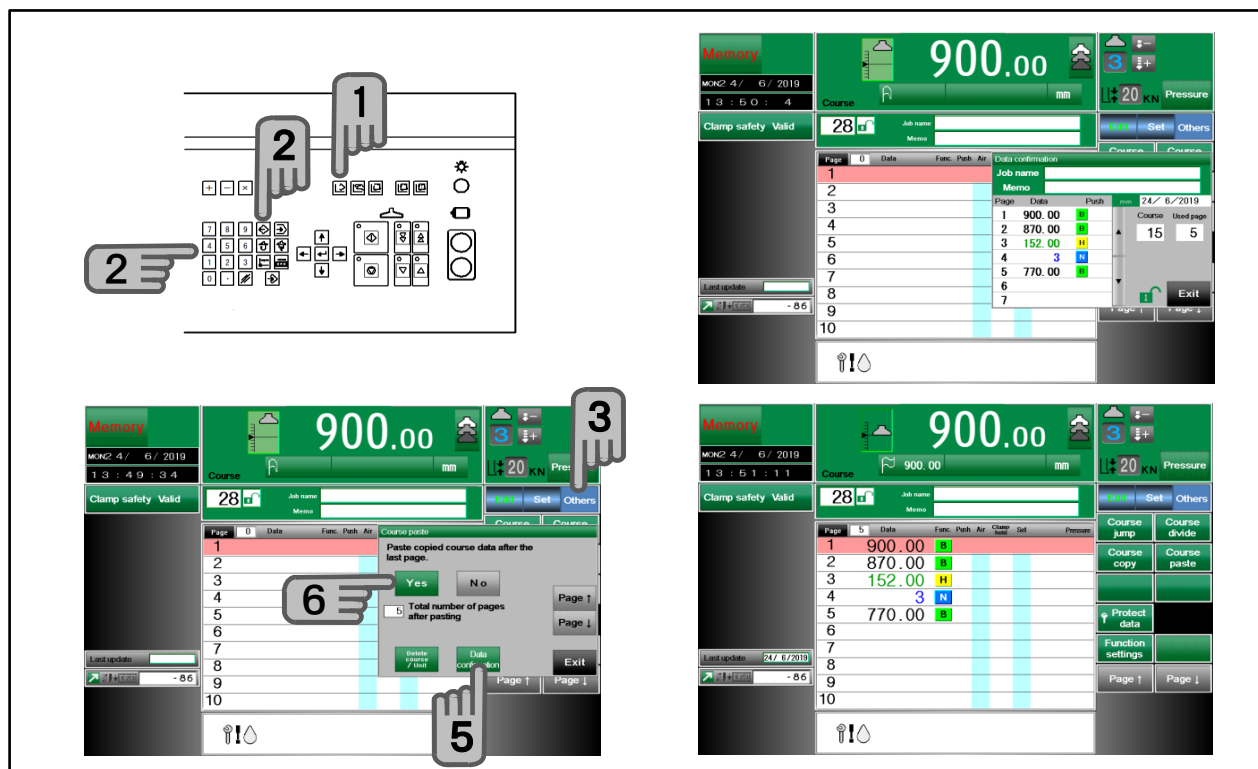
Copy a course.

You can move or copy to another course by paste.

1. Select the memory mode.
2. Press sub mode menu 【 Others 】.
3. Press 【 Course copy 】.
4. Press 【 Yes 】.
The contents of the currently displayed course are now stored in the temporary storage location.
5. Copy confirmation
Press 【 Data confirmation 】.
Displayed job name, memo, course number and data up to 7 pages.

Only one can be stored in the storage location. Copy another course and it will be replaced by that data.

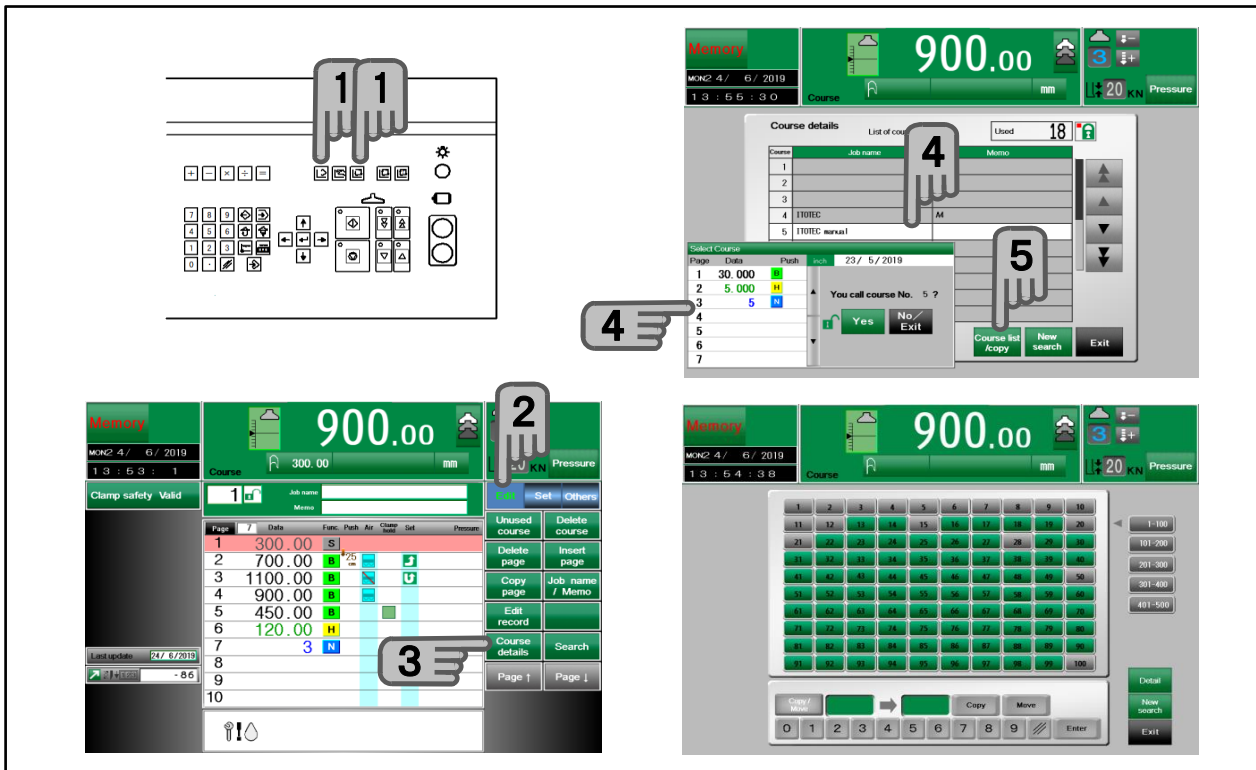
How to paste the course



Copied data can be moved to another course through course pasting or it can be duplicated.

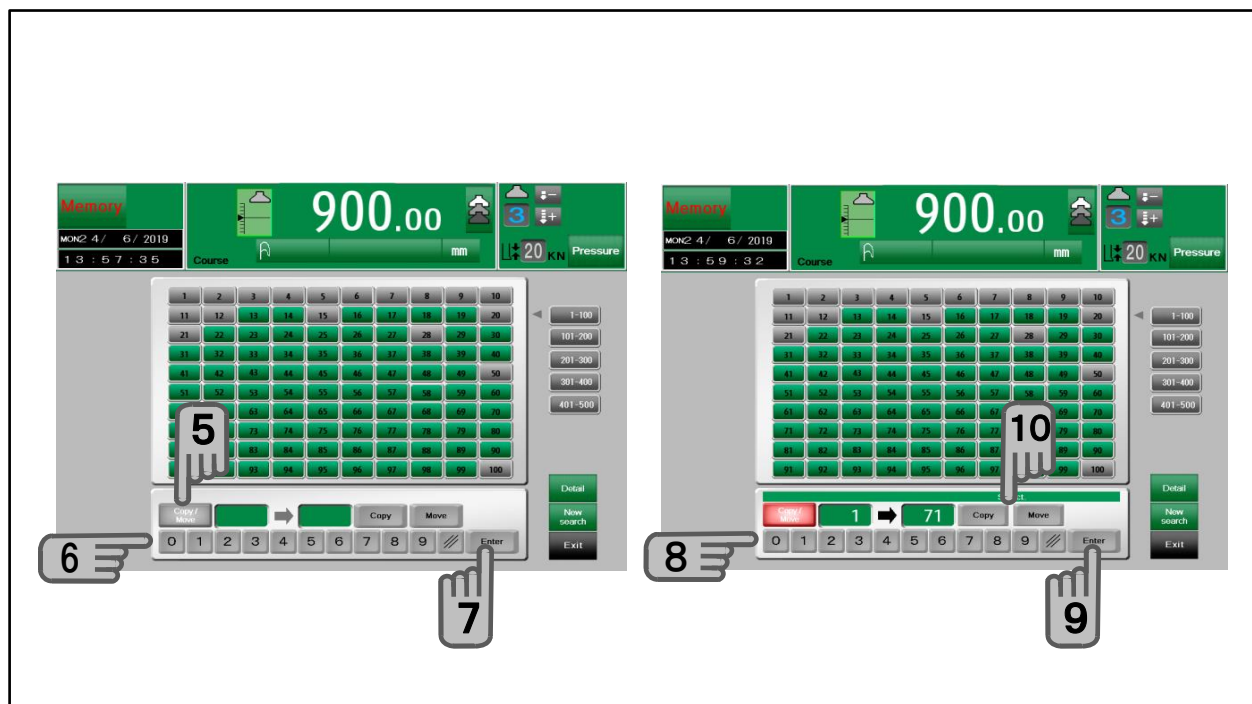
1. Select the memory mode.
 2. Call up the destination course of pasting.
 3. Press sub mode menu **【 Others 】**.
 4. Press **【 Course past 】**.
 5. Press **【 Data check 】** to display the job name, memo and course number, and data in up to seven pages.
 6. Press **【 Yes 】** to execute pasting.
- ◆ If the destination course of pasting is blank (an unused course without data), the data is pasted from the first page. If the called course already contains data, the data is pasted after a division line added next to the last stored page.
 - ◆ If the data of the called course is unnecessary, use **[Delete course]** to delete the course and past the data from the first page.
 - ◆ Pasting can be made even if the result of pasting overflows 50 pages while the data after page 50 is cut.
 - ◆ Pasting at other units is impossible.
 - ◆ If the number of divisions exceeds 9 as a result of pasting, pasting is impossible.
 - ◆ If the destination course of pasting is blank, the job name and memo of the course of copying are also pasted. If the destination course is not blank, neither the job name nor the memo field is written even if they are blank.
 - ◆ Use the copy-and-past function to past course data at the last of another course; thus multiple job can be stored in a single course divisively.

How to display the course list



1. Select the memory or the automatic mode.
2. In the memory mode, press sub mode menu **【 Edit 】** ,
In the automatic mode, press sub mode menu **【 Main 】** .
3. Press **【 Course details 】** .
Displayed the job name and memo of each course.
4. Touch the course line, the data of the course is displayed.
5. Press **【 Course list/copy 】** .
The course list is displayed.

How to copy or move the course



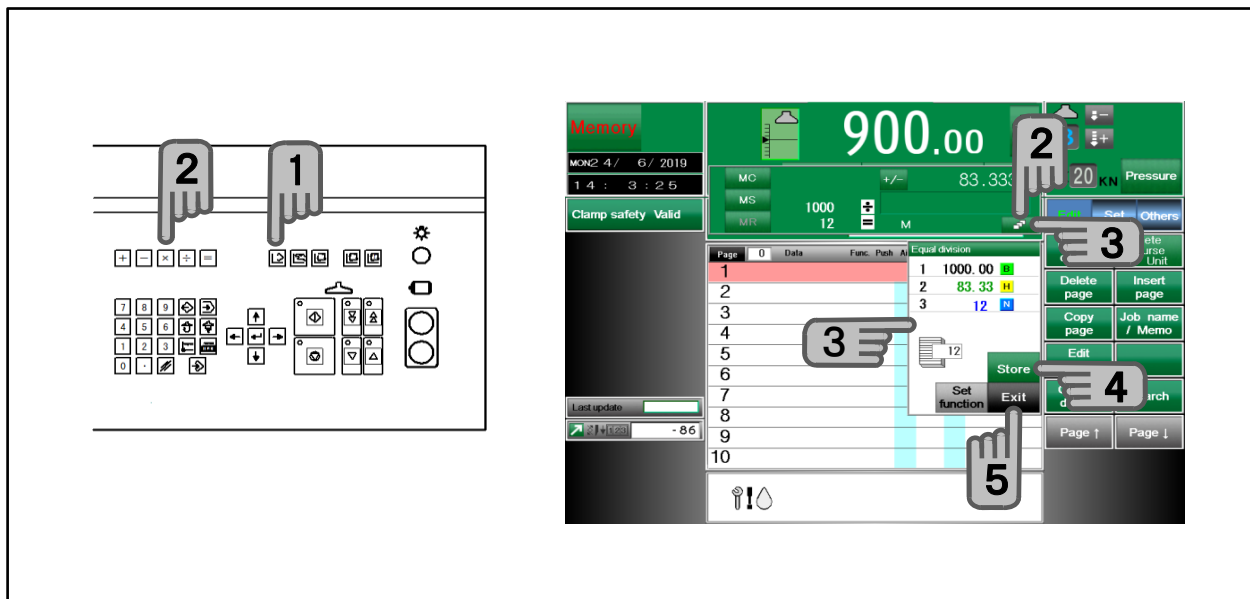
1. Select the memory or the automatic mode.
2. Press sub mode menu 【 Edit 】 in the memory mode, press sub mode menu 【 Main 】 in the auto mode.
3. Press 【 Course details 】 .
4. Press 【 Course list/copy 】 .
5. Press 【 Copy/Move 】 .
6. Enter the source course of copying, using number keys.
7. Press 【 Enter 】 .
8. Enter the destination course of copying, using number keys.
9. Press 【 Enter 】 .
10. Select either 【 Copy 】 or. 【 Move 】 .

The above is the same as 【 Course list display 】.

5. Press 【 Copy/Move 】 .
6. Enter the source course of copying, using number keys.
7. Press 【 Enter 】 .

- ◆ If data is entered to the destination course of copying or moving, an overwrite confirmation message is displayed.
- ◆ If the destination course of copying or moving is locked, copying or moving is rejected. Unlock the course first.

How to store automatic equal division memory 1



Configure the automatic equal division function.

Enter the overall length and the number of divisions of the item. Repeat size data is automatically calculated and stored.

1. Select the memory mode.
2. Using calculation keys and ten-key pad, enter "(Overall length of item) / (number of division) = ".
The **【 Equal division 】** button is displayed at the right end to the calculation window.
3. Press **【 Equal division 】**.
An Automatic equal division window is displayed and the stored data is displayed.
4. Press the Store key.
3 pages are automatically used and stored from the current cursor position.
The data having been written, if there is any, is overwritten.

If the Store key has not been pressed, use **【 Page ↑ 】** **【 Page ↓ 】** to change the first page of storage area.

5. Press **【 Close 】** or **【 Cancel 】** to close the automatic equal division window.

- ◆ The **【 Equal division 】** button is not displayed in other than the memory mode even if division is made.
- ◆ This function can be used at all units.

How to store automatic equal division memory 2



Configure the modification / addition function for automatic equal division .

Reducing the number of repeat size (N) by 1

1. Press **【 Set function 】** in the automatic equal division window.
The automatic equal division function setting window is displayed.
2. Place a check mark at "Reduce the number of repeat size (N) by 1 .
The number of repeat size decreases by 1 and is stored in memory.

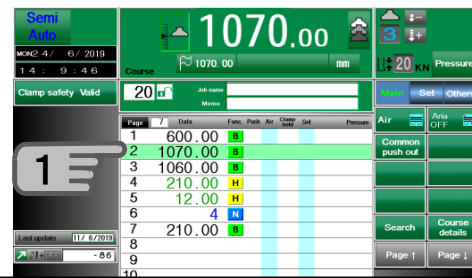
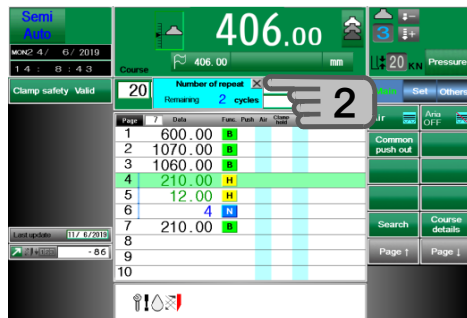
Attaching push-out

Selection can be made only if a check mark is placed at " Reduce the number of repeat size by one ".

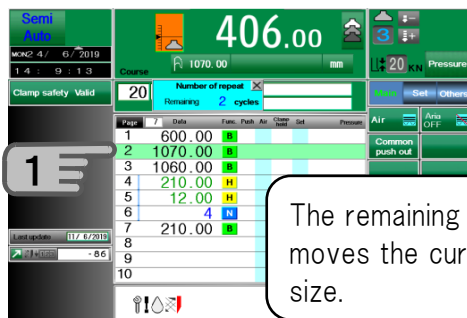
3. Press **【 Set function 】** in automatic equal division window.
The automatic equal division function setting window is displayed.
4. Place a check mark at " Attach push-out ".
5. Use **【 ▲ 】** and **【 ▼ 】** to enter the push-out dimension.
6. Press **【 Exit 】**.

After the number of repeat size is finished, the backgauge moves to the next data while the last one remains. To push -out at the timing, place a check mark in advance. Push-out stored on the last page when the Store-key is pressed.

How to cancel during the excution



Canceled because pressed the start-key.



The remaining times remained displayed even if moves the cursor to outside the page of repeat size.

Cancel remaining times during the excution.

1. Canceling is the following case.
 - ① Change the course.
(If press air, set direction or clamp hold key, cannot cancel.)
 - ② Correct the momory data.
(If press air, set direction or clamp hold key, cannot cancel.)
 - ③ Move the cursor to outside the page of repeat size and press 【 Start 】 key.
2. To cancel remaining times during the excution, take the above way or press 【 × 】 of the remaining times window.

How to use the break function of repeat size



- ◆ A break can be inserted in continuous repeat size data.
If the frequency is attributed to continuous repeat size data, a blank line can be inserted in the repeat size data to repeat the part of repeat size data after the blank line by the number of repeat size.

- ◆ How to enter data including blank line.
The cursor does not move beyond the line. To enter new data, temporarily enter without a blank line. Next, move the cursor and press **【 Insert page 】** to insert a blank line.

1. Move the cursor to the break point.
2. Press **【 Insert page 】**.
Blank lines can be made.

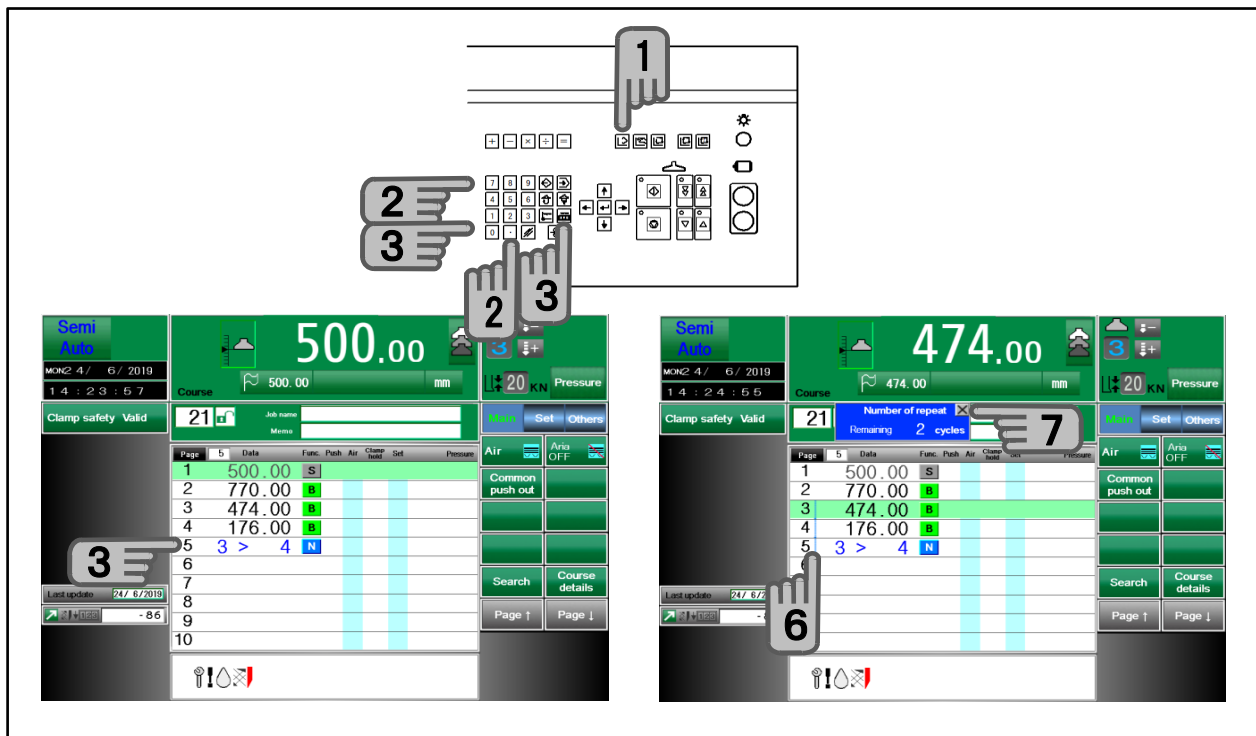
In the above example

After advance 80mm from 780mm,
repeat 3 times the cut off of 210mm
and 5mm.

If there is no blank line

Repeat 3 times 80mm, 210mm, 5mm

How to use repetition of designated range



A range is repeated by the entered number of repeat size.

1. Select the memory mode.
2. Enter the first page number of the repeated range, followed by the decimal point key.
3. Next, enter the number of repeat cycles and press the number of repeat cycles key. The first page number of repetition is separated from the number of repeat cycles with the decimal point key. The stored data is displayed as follows :
" First page > number of repeat cycles "
4. To modify the first page number or number of repeat cycles, enter again.
5. A page number larger than the current one does not cause an error even if it is entered as first page of repetition , a page number smaller than current one is automatically stored in memory.
6. When paper cutting is executed in the automatic mode, a line is displayed in the repetition range at the timing of start of number of repeat cycles view. (The line is not displayed in the first cycle when the remaining number of repeat cycles is not displayed.) This line is displayed, too, at the number of repeat cycles where no regular range designation is provided.

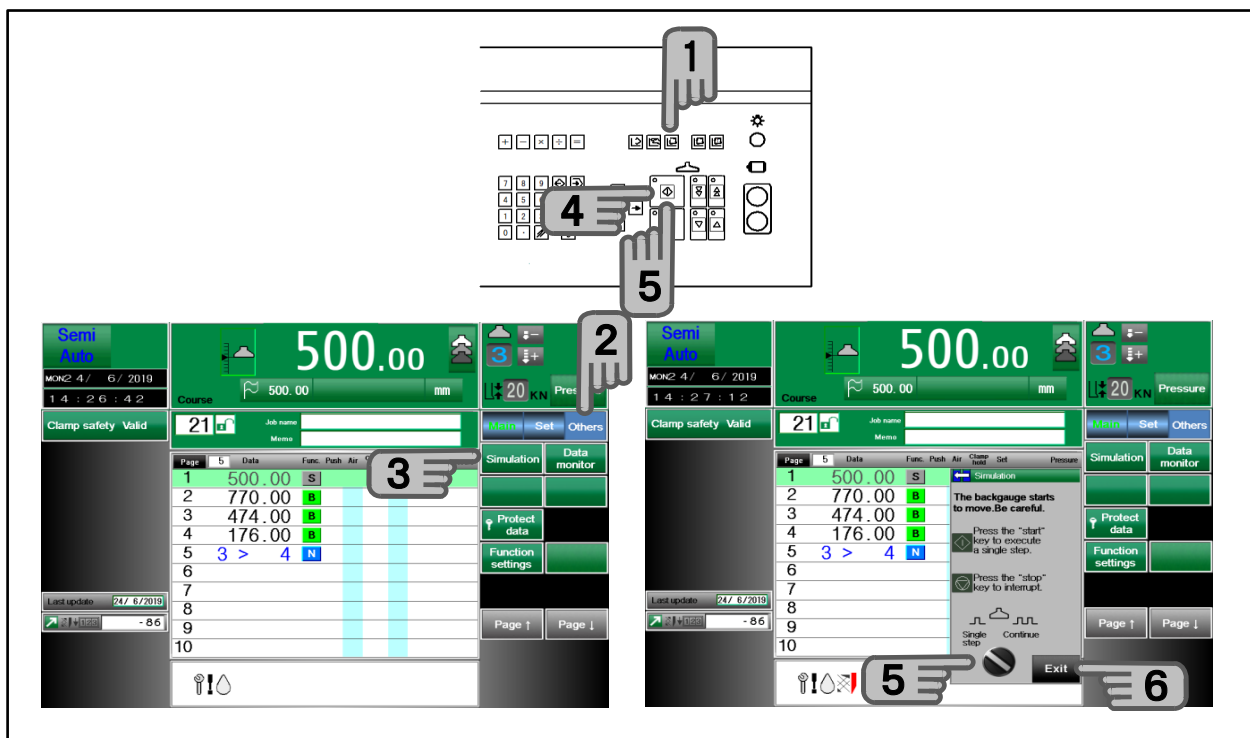
There is no limit in the range or number of repeat cycles.

A duplicate range setting result in an error.

As well, an error is also caused if the page is repeat size.

If page copying, deletion or insertion is executed, range modification may be necessary,

How to use the simulation function



You can check the movement of the backgauge before cutting .

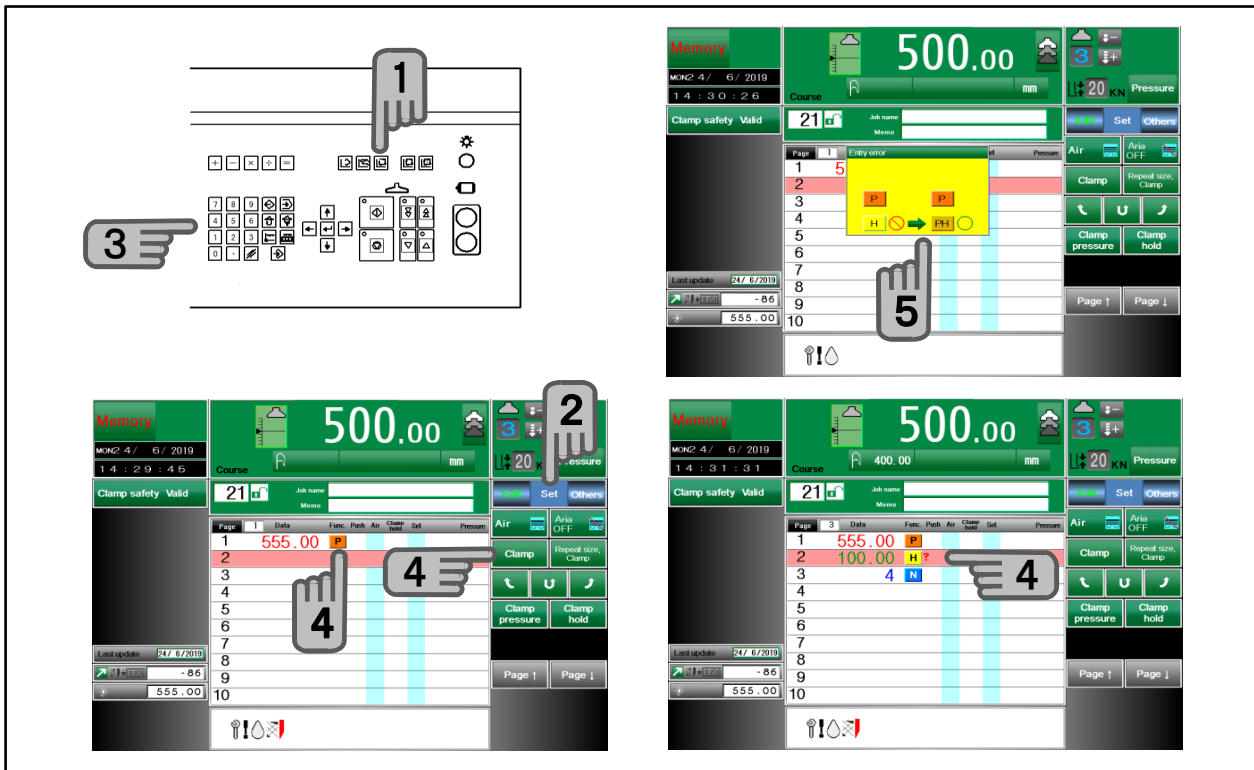
1. Select the automatic mode.
2. Press sub mode menu [Others] .
3. Press [Simulation] .
4. It works one step each time you press "Start"-key.
5. To execute continuously, turn to "Continue " and press "Start"-key.

IN case of returning to page 1 (or, in the course division case, first page of division or course jump, continuous simulation is finished and the step motion starts.
Paper cutting is impossible during execution of continuous simulation.

6. Press [End] , the simulation ends.

Robo-trim will not work if it is equipped.
(Do not open and close the front table .)

How to use clamping function to expel air



To expel air out of stacked paper, lower merely the clamp.

1. Select the memory mode.
2. Press sub mode menu 【 Set 】.
3. Enter the clamping size, using the ten-key pad.
4. Press 【 Clamp 】.
The clamp mark is displayed in the air field.

Repeat size may not be entered on the page next to clampin,
If clamping follows repeat size as result of deletion of page, a " ? " mark is displayed.

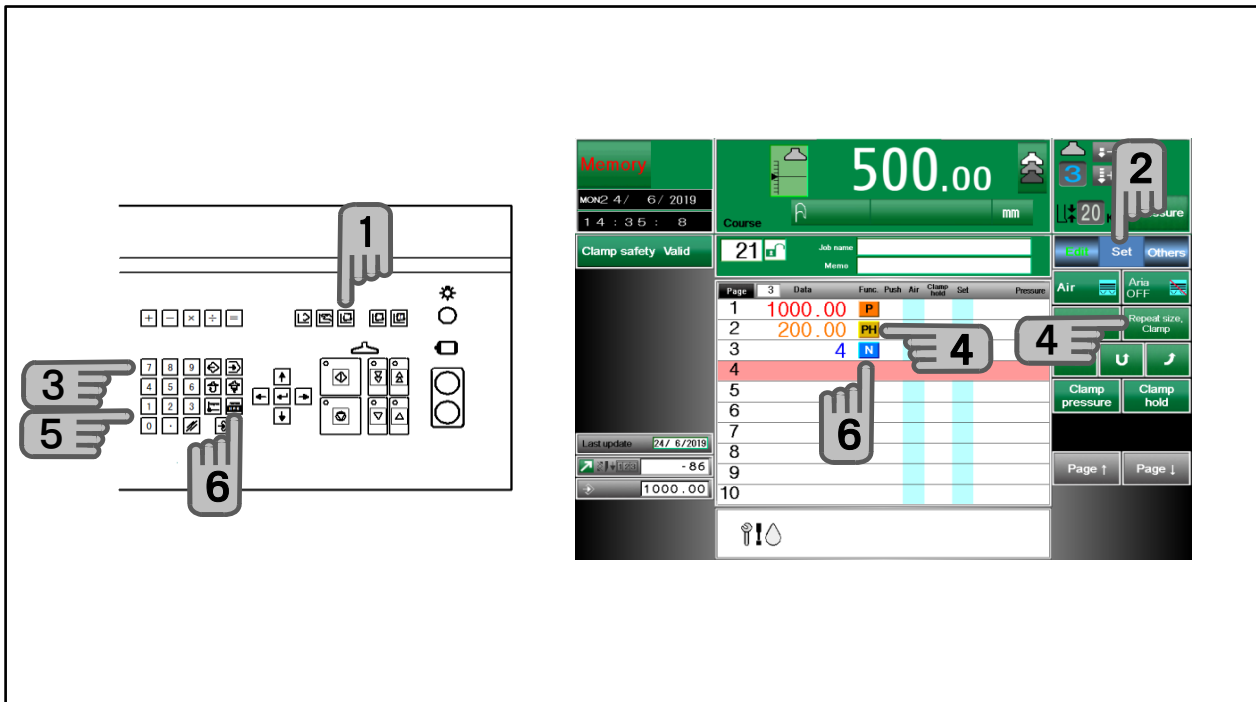
5. An error message is displayed in case of erroneopus entry.



CAUTION

In the memory mode, even if the displayed page data is clamped, the press of the cutting button caused to move the clamp and knife.

How to use clamping repeat size function to expel air



Position the backgauge with the repeat size function and lower clamp only to clamp.

- 1 Select the memory mode.
2. Press sub mode menu 【 Set 】.
3. Enter the repeat size for clamping, using the ten-key pad.
4. Press 【 Repeat size clamp 】.
The clamp repeat size mark is displayed in the function field.
5. Use the ten-key pad, enter the frequency.

The repeat size frequency may not be entered on page 1.
Enter from 1 to 999.
Entry is unnecessary incase of 1.
Enter " 0 " to designate frequency.

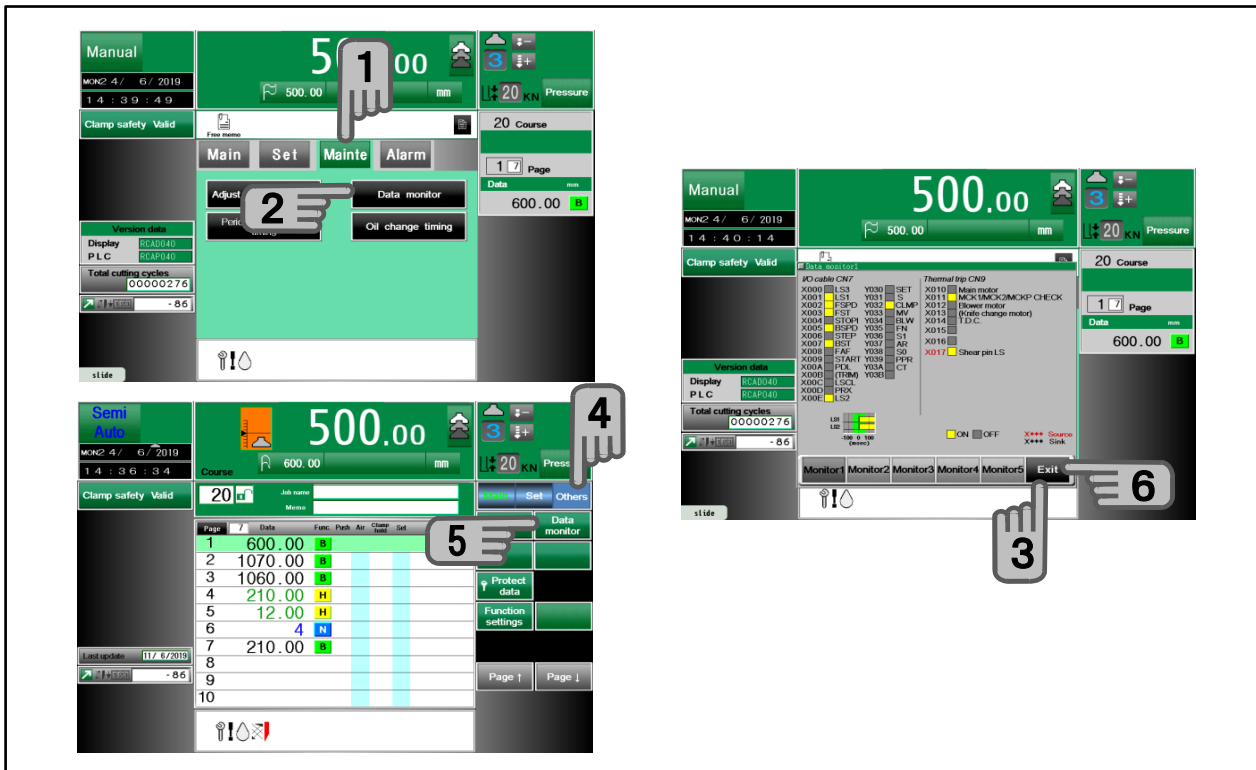
6. Press 【 Number of repeat size 】.
The number of repeat size mark is displayed in the function field.



CAUTION

In case of the memory mode, even if the displayed page data is clamped, the press of the cutting button cause to move the clamp and knife.
Be careful about knife operation button, there is a risk of injury.

How to check the data monitor



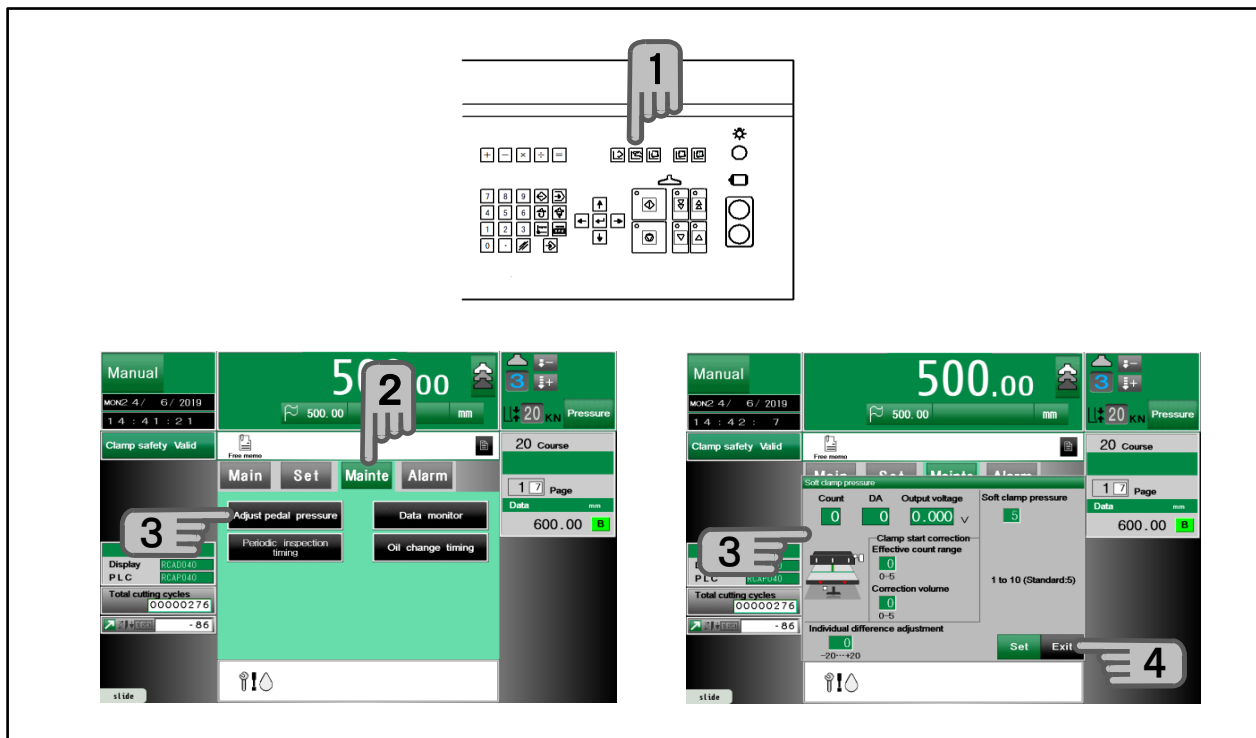
In the manual mode

1. Press sub mode menu 【 Meinte 】 .
2. Press 【 Data monitor 】 .
There states from monitors 1 to 5 can be checked.
3. Press 【 Exit 】 .

In the automatic mode

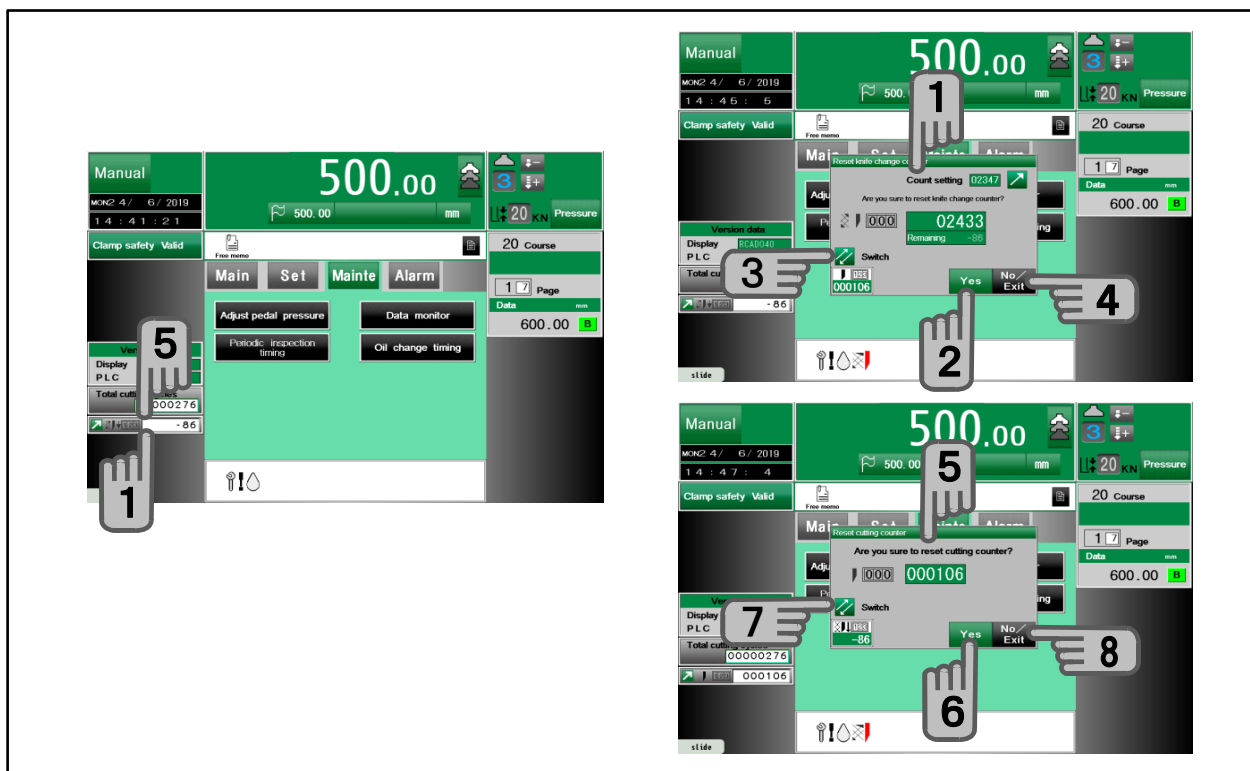
4. Press sub mode menu 【 Others 】 .
5. Press 【 Data monitor 】 .
There states from monitors 1 to 5 can be checked.
6. Press 【 Exit 】 .

How to check the pedal pressure



1. Select the manual mode.
2. Press sub mode menu 【 maintenance 】.
3. Press 【 Adjust pedal pressure 】.
Displated current state.
4. Press 【 Exit 】.

Display switching cutting / knife change counter



◆ In all mode.

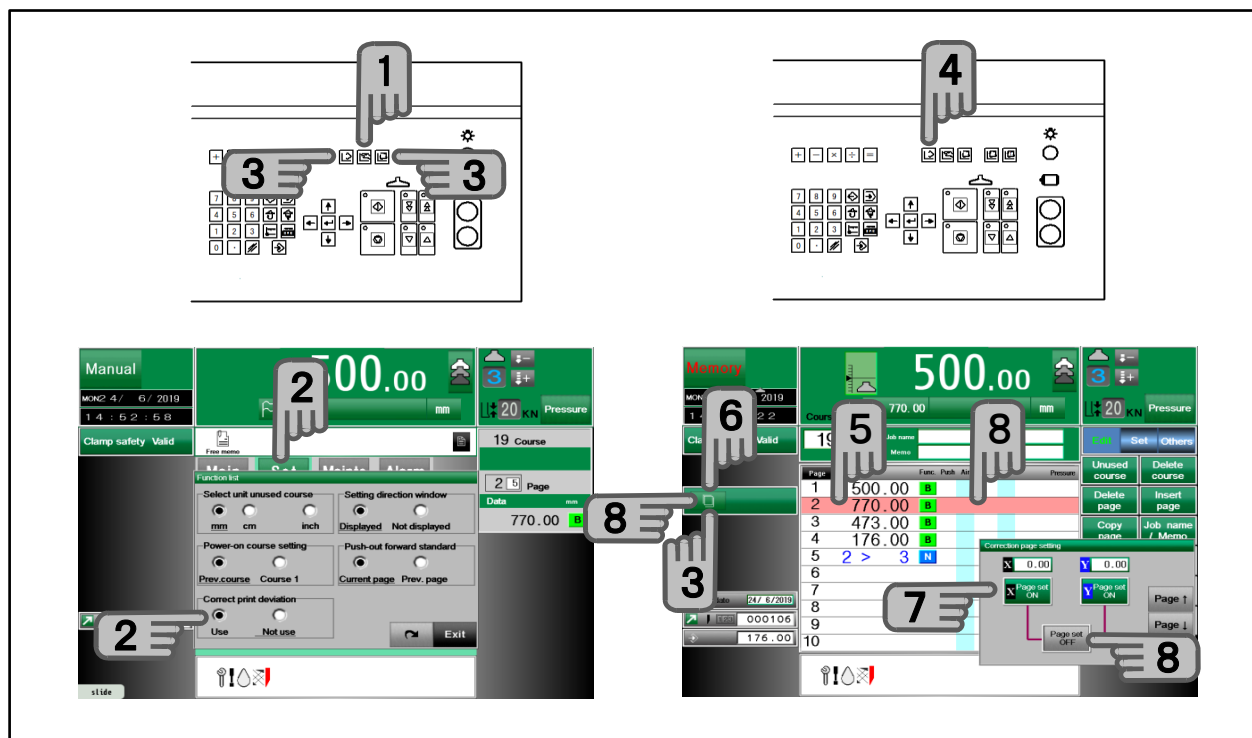
When displaying the knife counter

1. Press the counter on the lower left of the screen.
Displayed the knife change counter reset.
2. Press 【 Yes 】 and reset the counter.
3. Press display switching, displayed the cutting counter reset and the counter on the lower left of screen is changed to the cutting counter.
4. Press 【 Exit 】.

When displaying the cutting counter

5. Press the counter on the lower left of the screen.
Displayed the cutting counter reset.
6. Press 【 Yes 】 and reset the counter.
7. Press display switching, displayed the knife change counter reset and the counter on the lower left of screen is changed to the knife change counter.
8. Press 【 Exit 】.

Correction of error between actual size and displayed size 1



Correct print deviation.

Use correction function

1. Select the manual mode.
2. Press sub mode menu **【 Set 】** → **【 Function list 】** → Correct print deviation → check " Use "

Now you can use correction function.

By default, it is not used. In this case the correction button is not displayed.

3. In the memory mode and the automatic mode, displayed **【 Correction setting 】**.

Can be set correction (X , Y) for each of the 500 courses.

Correction value ± 5.00 mm
 ± 0.5 inch

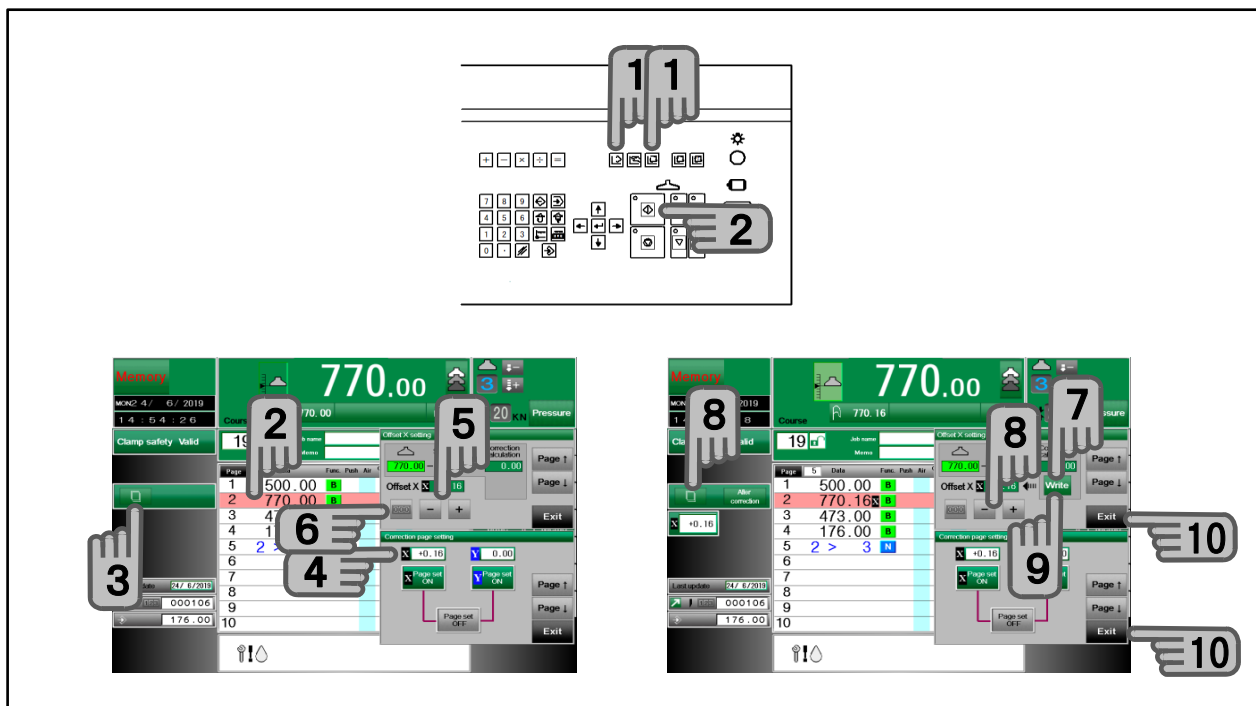
Set correction on the page.

4. Select the memory mode.
5. Move the cursor to the correction page.
6. Press **【 Correction setting 】**.

Correction data can be used X and Y.

7. Press **【 X(Y) Page set ON 】**.
Displayed Correction page setting.
Now correction X(Y) is set.
At this stage, the correction value is still 0.
8. To cancel the correction set on the page, move the cursor to the page and press **【 Correction setting 】** and **【 Page set OFF 】**.

Correction of error between actual size and displayed size 2



There are 3 methods as following.

1. Input the correction value directly.
2. Move the backgauge to cutting position and set the difference with data as correction value.
3. Automatically set the correction by aligning to the mark and cutting.

As preparation, set the previous page 1 - 2 and **【 Correction setting 】** is displayed.

1. Input the correction value directly.

1. Select the memory mode or automatic mode.
2. Select the page you want to correct press **【 Start 】** and set the backgauge position.
3. Press **【 Correction setting 】**.
4. Press **【 X 】** or **【 Y 】**.
5. Set correction value using **【 + 】** or **【 - 】**.
6. Press **【 000 】** and set 0.
7. Press **【 Write 】**.

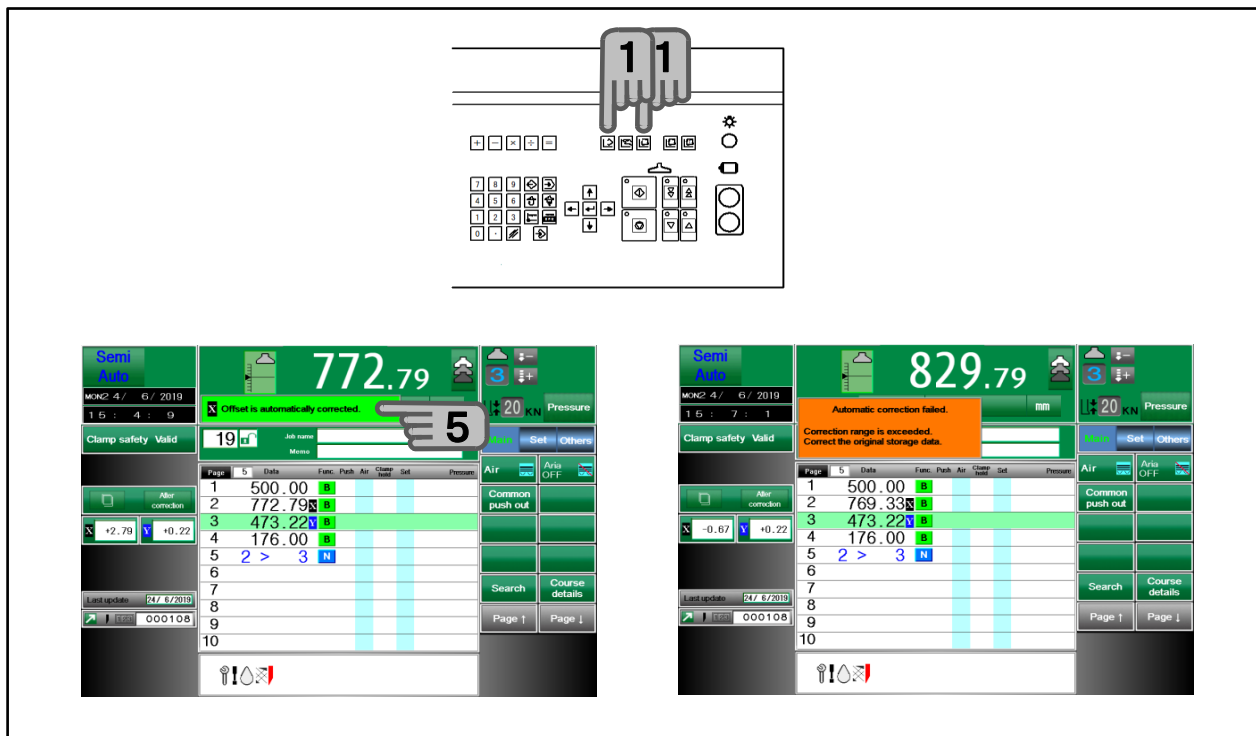
Can be set correction (X , Y) for each of the 500 courses.

Correction value ± 5.00 mm
 ± 0.5 inch

2. Move the backgauge to cutting position and set the difference with data as correction value.

5. Select the memory mode or automatic mode.
6. On the correction setting page, actually set the paper.
7. Move the backgauge and align marks.
8. Press **【 Correction setting 】** and press **【 X 】** or **【 Y 】**.
 Displayed Backgauge position, memory size and its difference.
9. Press **【 Write 】**, the value of the difference is memorized as correction value.
10. Press **【 Exit 】**.

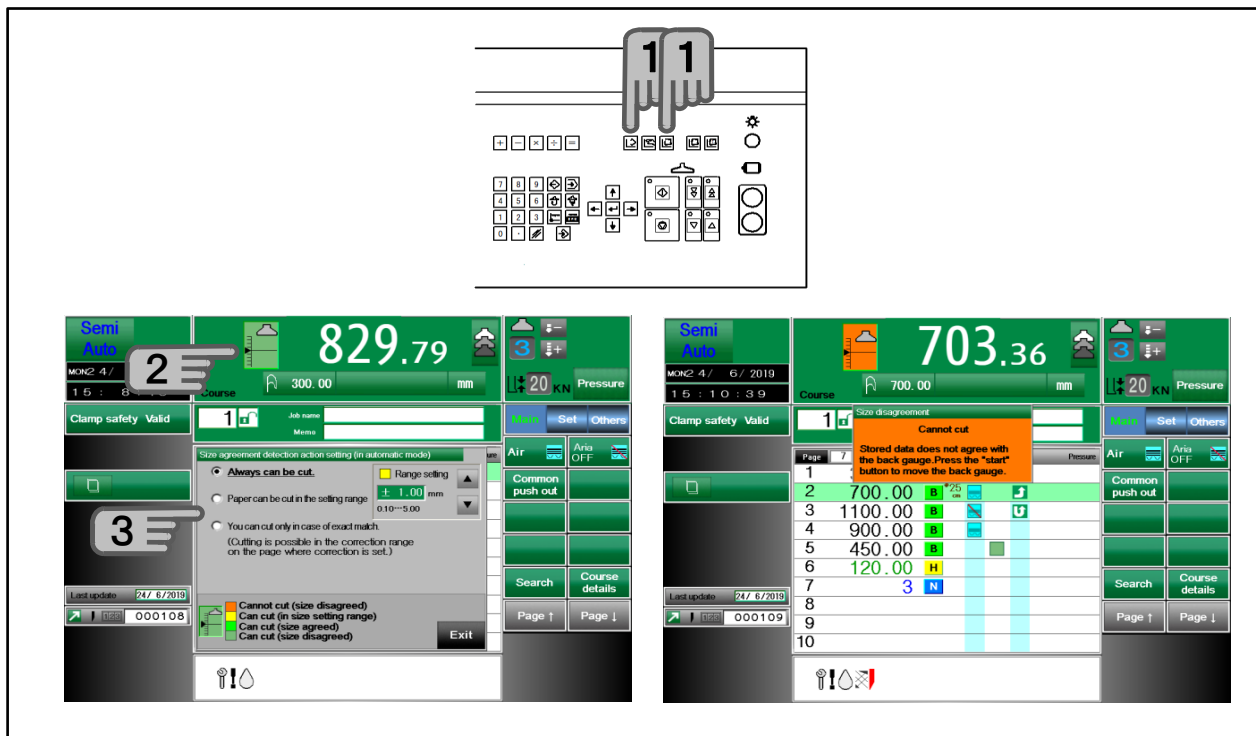
Correction of error between actual size and displayed size 3



3. Automatically set the correction by aligning the mark and cutting.

1. Swlset the mamory mode or automatic mode.
 - ◆ Offset exceeding the permissible offset range may not be entered.
2. On the correction setting page, actually set the paper.
 - ◆ If cutting is executed with an excessive correction range, " Automatic correction failed ... " isdisplayed and the offset does not change.
3. Cutting
4. By cutting, set the difference memory data and cutting size as the correction.
 - ◆ In case of out of the range with a check mark placed at " Cutting can be made in exact match only " at size agreement detection ,cutting is impossible.
5. If the offset has change as a result of cutting, the top of the screen shows " Offset is automatically corrected "
 - ◆ If the print deviation correction function in the function setting is " Not used " with an offset attributed to the page, the page with the offset is displayed in the satae without correction. Because the print deviation correction information is left in the stored data, the original stored offset is displayed if the print deviation correction function is changed to " Use " again.

Function of size agreement detection setting 1



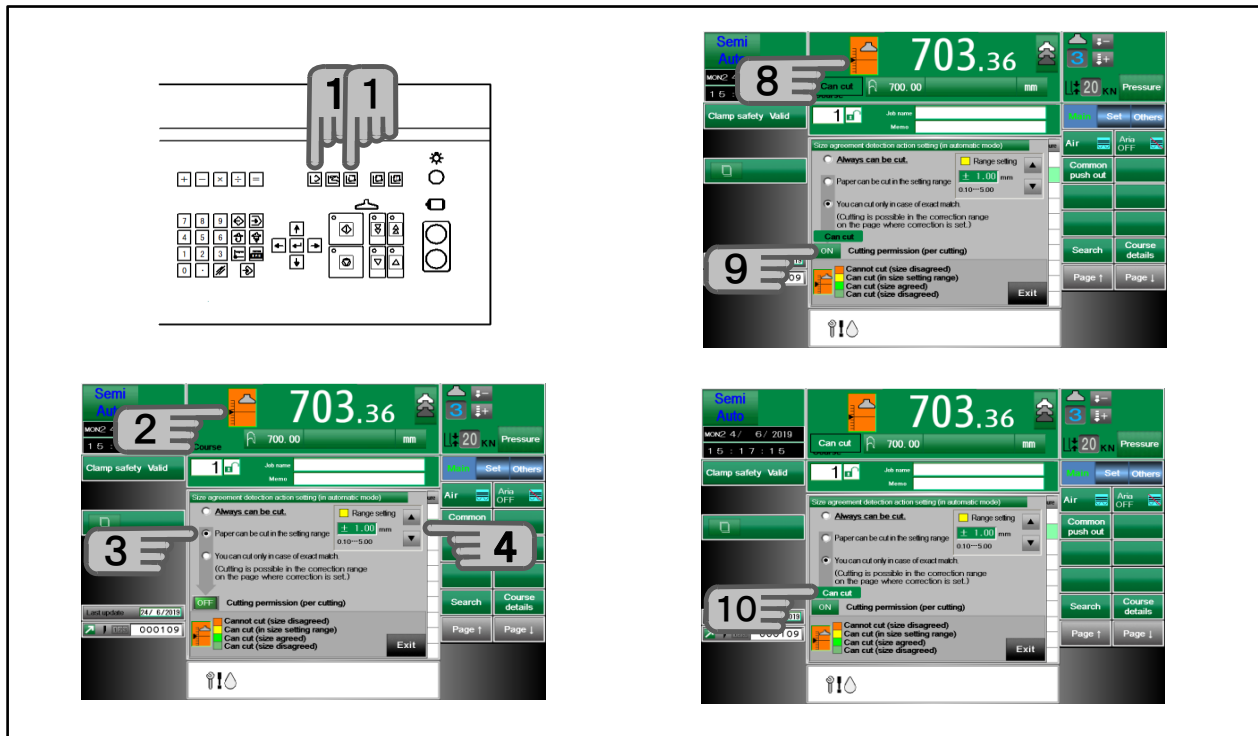
Cutting is prohibited with a setting if the stored data does not agree with the backgauge size.

The size agreement detection function includes the following.

1. Cutting is always possible. (Initial setting)
Cutting is always possible even if the stored size does not agree with backgauge size.
2. Cutting is possible within the setting range.
Cutting is possible as far as the range setting located on the right. If the range is exceeded, cutting is impossible.
If cutting is executed out of the setting range, an error message is displayed.
3. Cutting is possible in case of the exact match only.
Cutting is impossible unless the stored size completely agree with the backgauge size.
If cutting is executed in the state without agreement, an error message is displayed.
However, if correction is designated in the page, cutting is possible even if agreement is not obtained as far as within the correction range.
If cutting is executed in the state out of the setting range, an error message is displayed.

1. Select the memory or automatic mode.
2. Press the left part of the backgauge size view at the upper left of the screen.
3. Select one of the following.
 - [Always can be cut.]
 - [Paper can be cut in the setting range.]
 - [You can cut only in case of exact match.]

Function of size agreement detection setting 2



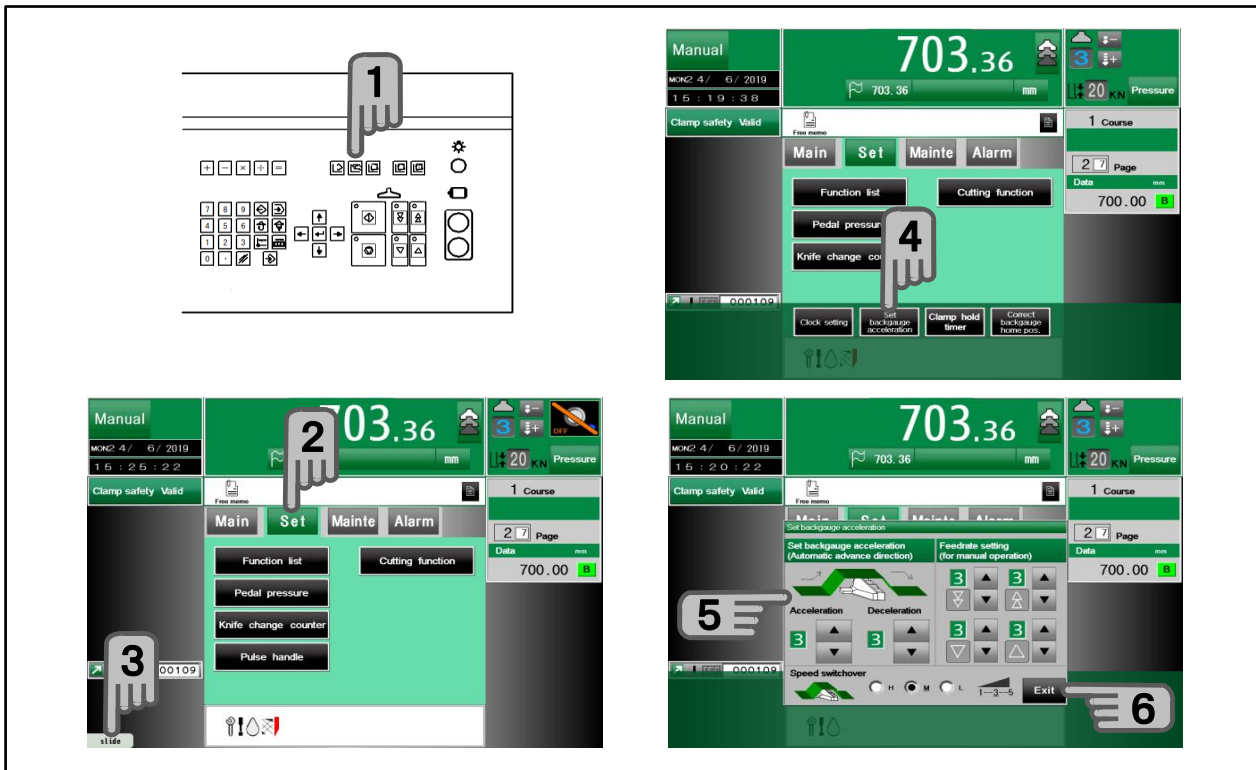
Set a cutting allowance range.

1. Select the memory mode or Automatic mode .
2. Press the left part of display of the backgauge position at the top of the screen.
3. Check "Paper can be cut in the setting range".
4. Change setting value using 【▲】【▼】
5. If cutting in the state beyond setting range, displayed error message.
6. It can be set independently for each unit.
 - ◆ mm Initial setting 1.00 mm
Changeing unit 0.10 mm
Setting range 5.00 mm
 - ◆ cm Initial setting 1.00 cm
Changeing unit 0.010 cm
Setting range 0.500 cm
 - ◆ inch Initial setting 0.100 inch
Changeing unit 0.010 inch
Setting range 0.500 inch

Cutting In case of size disagreed.

7. Select the memory mode or Automatic mode .
8. Press the left part of display of the backgauge position at the top of the screen.
9. Set ON "Cutting permission(per cutting)"
10. Displayed "Can cut" and cutting is possible in the state of size disagreed. But once cut, cutting permission will be canceled.

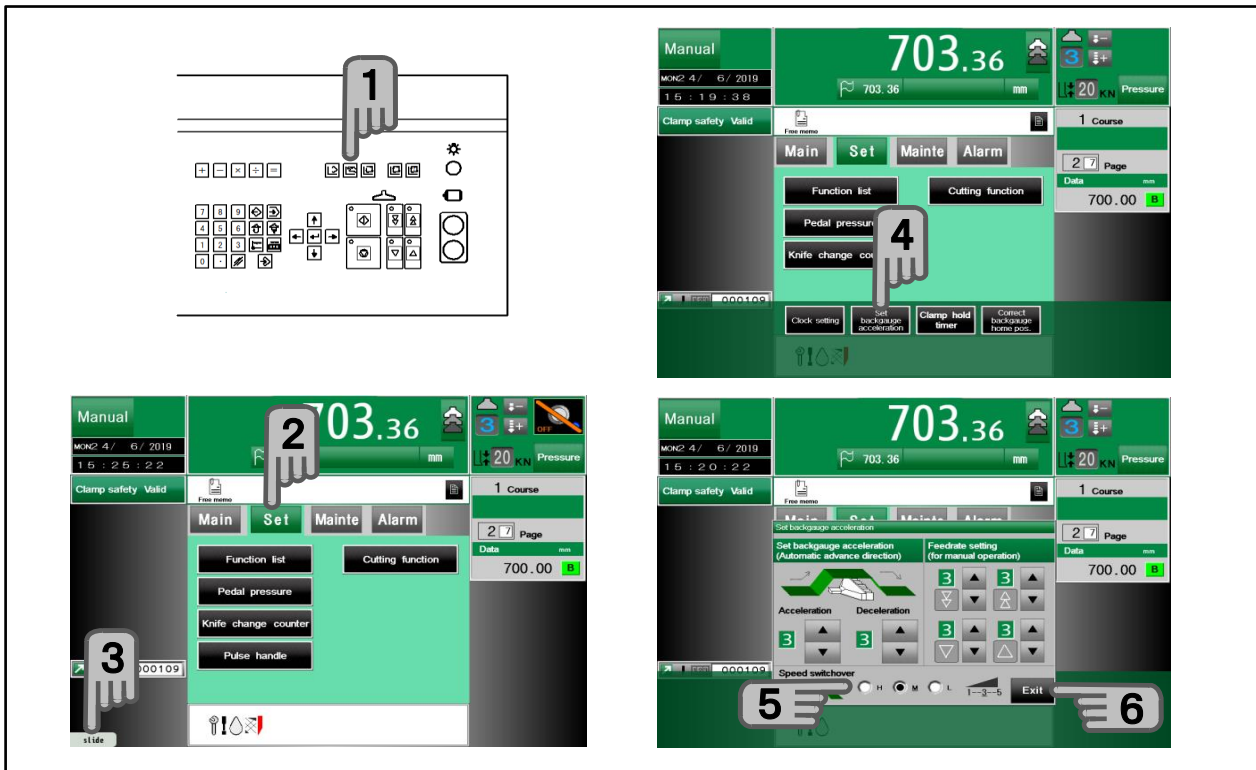
How to adjust the backgauge acceleration



1. Select the manual mode.
2. Press sub mode menu 【 Set 】.
3. Press Option-key.
4. Press 【 Set backgauge acceleration 】.
5. Adjust the acceleration or deceleration using 【 ▲ 】 【 ▼ 】.
Standard setting : 3 for each.
6. Press 【 Exit 】.

Too large an acceleration setting will cause the workpiece distanced from the backgauge.

How to set the backgauge speed in the automatic mode

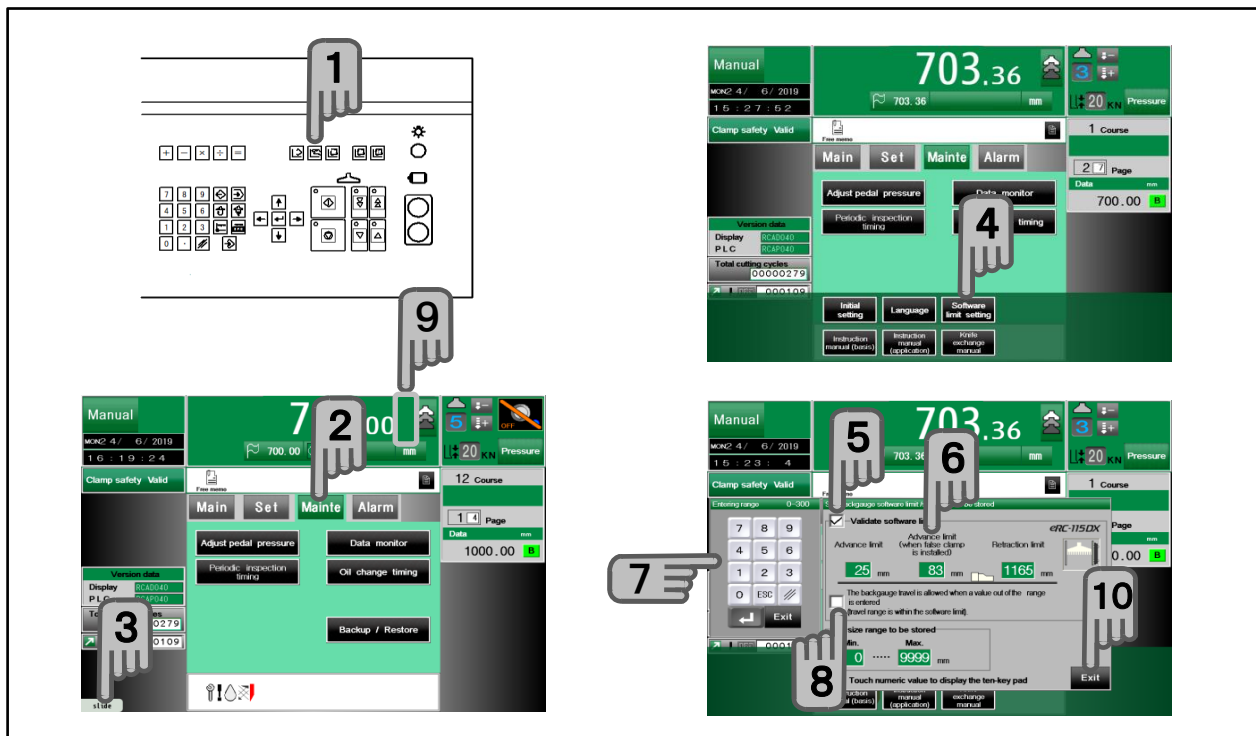


- ◆ Switch the speed of advance, retract and push out in the automatic mode.
- ◆ It does not affect driving by advance or retract button.

1. Select the manual mode.
2. Press sub mode menu 【 Set 】.
3. Press Optin-key.
4. Press 【 Set backgauge accelaration 】.
5. Switch the speed.
6. Press 【 Exit 】.

Maximum speed	H 300 mm / s
(both advance and retract)	M 200 mm / s
	L 175 mm / s

How to set the software limit (advance and retraction limit)



- ◆ The operating range of the backgauge is controlled with software.
- ◆ This function is invalid after the power is turned on until zero point search is finished.
- ◆ This function takes priority over hardware limits.

1. Select the manual mode.
2. Press sub mode menu 【 Mainte 】 .
3. Press Option-key
4. Press 【 Software limit setting 】 .
5. Check 【 Validate software limit 】 .
6. Press the advance limit (retraction limit).
7. Enter the value.
 - An appropriate value is set as an initial value during model selection in initial setting.
 - The value remains unchanged during data initialization.
8. **Backgauge travel permission setting upon entry of value out of range.**

Select either enabled or disabled for the action taken after a value out of the permissible range is entered at the ten-key pad and the advance/retraction start button is pressed.

Enabled ; The backgauge starts to travel and then is stopped at the hardware or software.

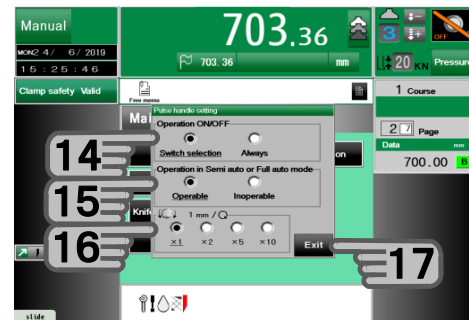
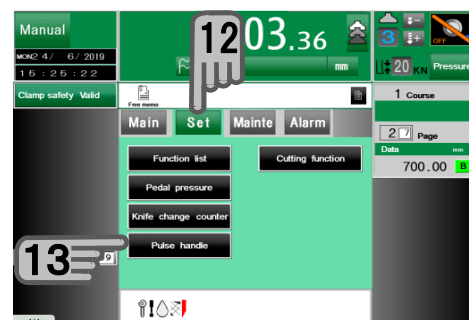
Disabled ; No motion is caused. An " Out of travel range " message is displayed
9. **View upon stop at advance/retraction limit.**

Upon stoppage at advance limit ;
A down arrow is displayed below the right limit of the backgauge data view

Upon stoppage at retraction limit ;
A up arrow is displayed above the right limit of the backgauge data view

Color ;
Blue in case of software limit
Black in case of hardware.
10. Press 【 Exit 】 .

How to use the pulse handle



Initial setting

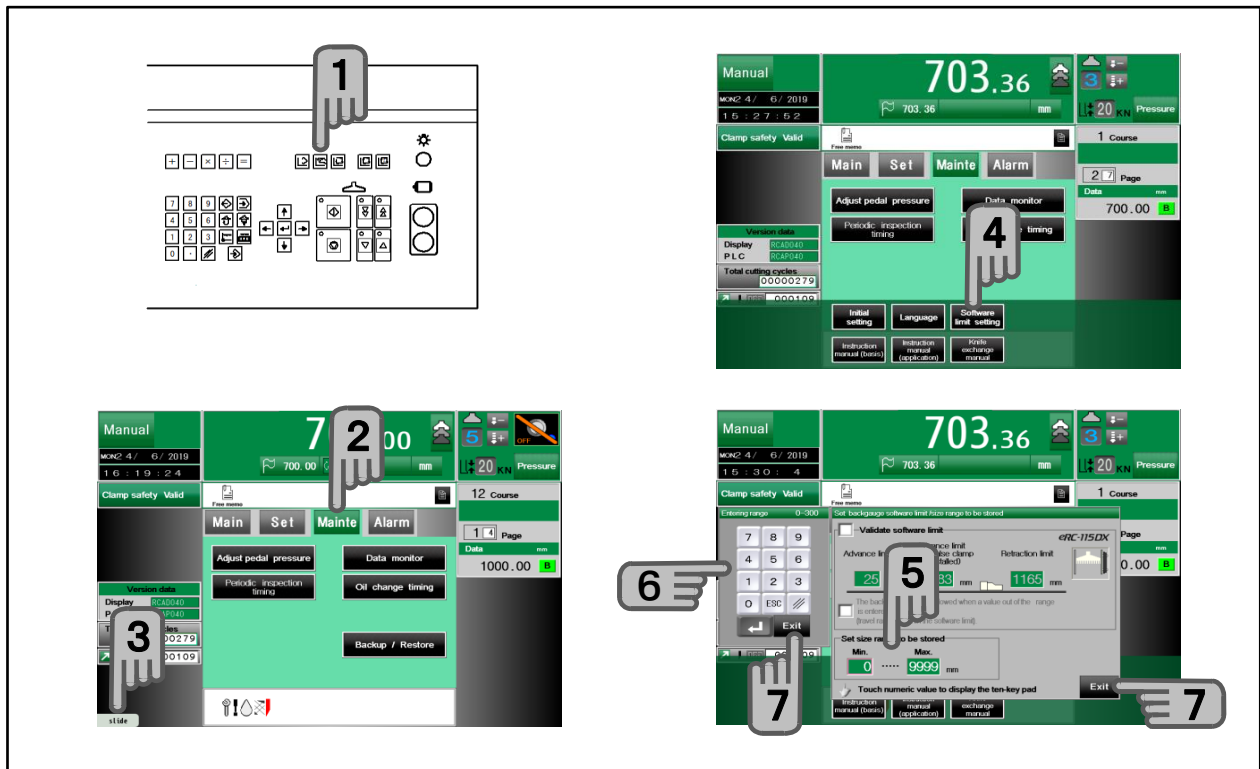
1. Select the manual mode.
2. Press sub mode menu 【 Mainte 】.
3. Press Option-key.
4. Press 【 Initial setting 】.
5. 【 Option setting 】.
Displaed various options.
- ※ Setting requires password input.
6. Press 【 Set 】.
7. Enter the password and press 【 Enter 】.
8. Check 【 Pulse handle 】.
9. Press 【 Exit 】.

Function setting

10. Option set in the procedure on the left.
11. Selwct the manual mode.
12. Press sub mode menu 【 Set 】.
13. Press 【 Pulse handle 】.
14. Select the operation
 - Switching / · Always operation
15. Select the operation in the automatic mode.
 - Possible / · Impossible
16. Select the magnification
 - × 1 / · × 2
 - × 5 / · × 10
17. Press 【 Exit 】.

Move 0.01 mm with 1 click and 1mm with 1 round.

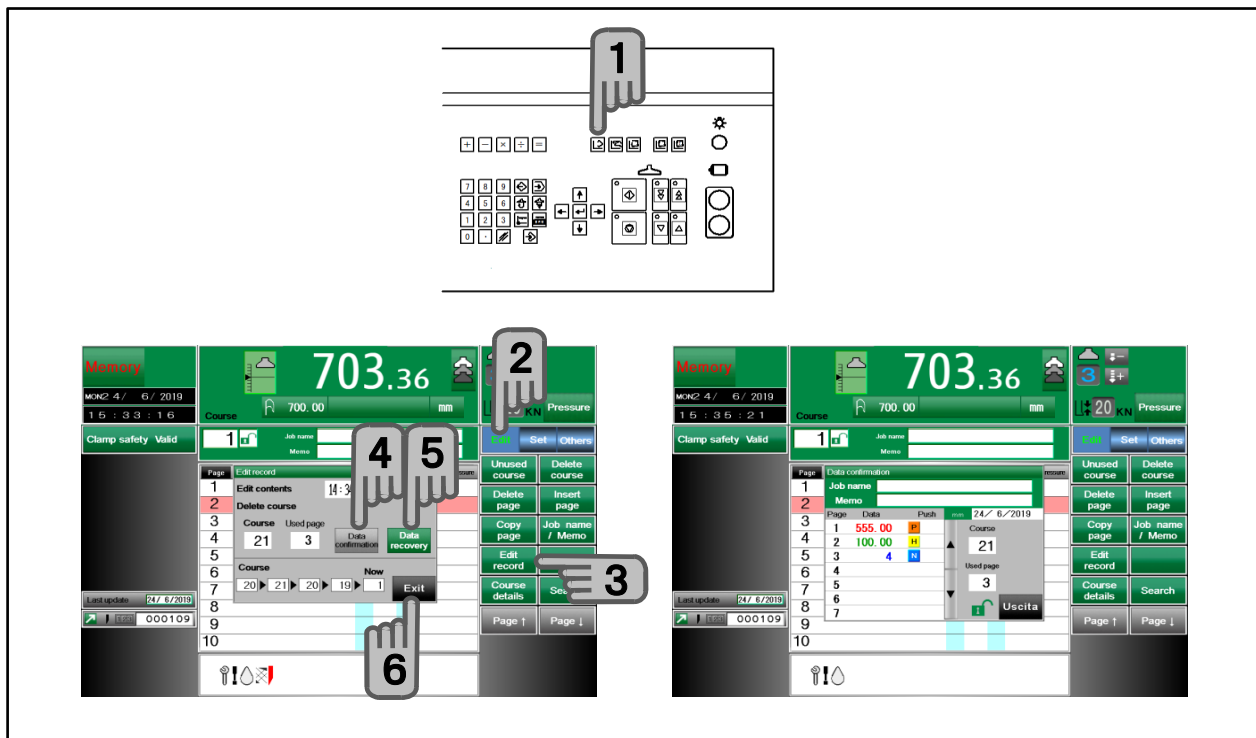
How to set the input range of the memory size



- ◆ Set the size range to be stored.
- ◆ The message " Out of range" is will be displaied when a number exceeding the range is entered.

1. Select the manual mode.
2. Press sub mode menu 【 Mainte 】 .
3. Press Option-key.
4. Press 【 Software limit setting 】 .
Displayed the screen "Set backgauge software limit/size range to be stored"
5. Press Min or Max of set size range to be stored.
Diaplayed input screen.
6. Enter the value using ten-key.
7. Press 【 Exit 】 .

How to use the edit history



Data confirmation and recovery

1. Select the memory mode.
2. Press sub mode menu [Edit].
3. Press [Edit record].
The editing operation executed last and the empty course search are displayed.
4. Press [Data confirmation].
The course data prior to editing is displayed.
5. To recovery, press [Data recovery].

If data is entered to the destination of writing, an overwrite confirmation message is displayed.

6. Press [Exit].

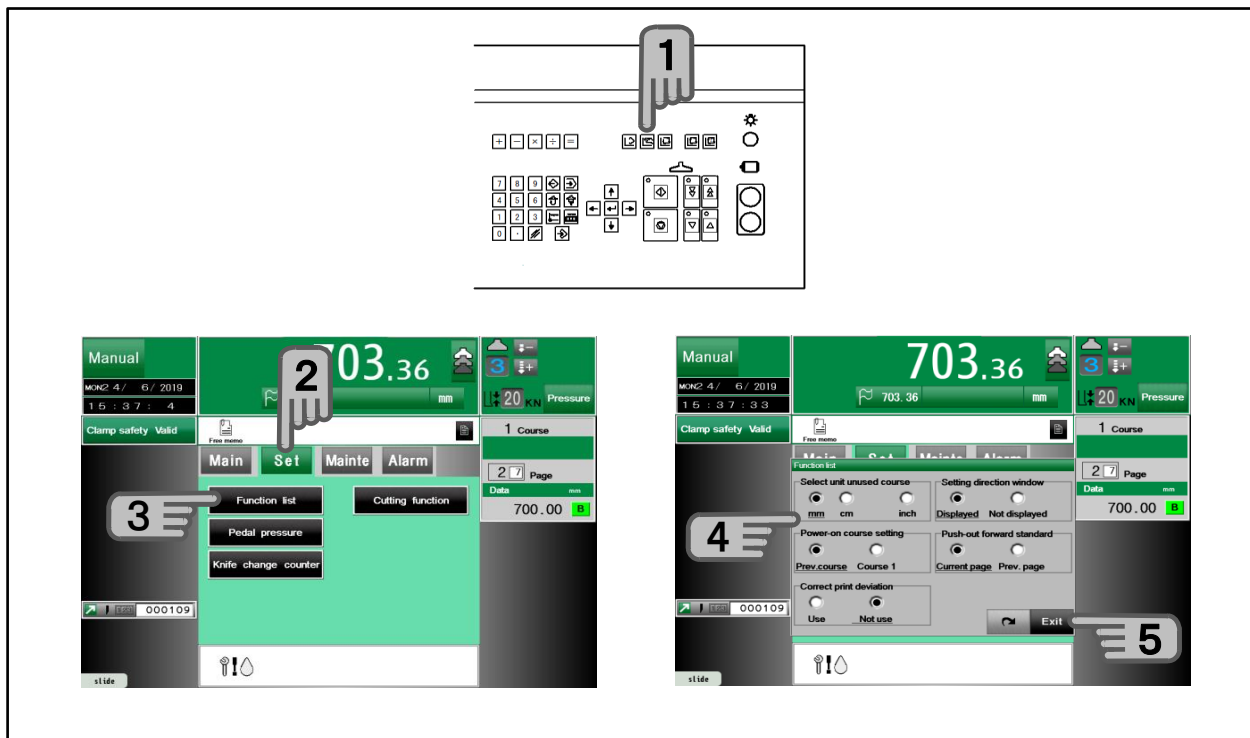
Use to copy

7. After deleting a course, press [Data recovery] in the [Edit record] of the course. The course is restored and the course data is restored and the course data is stored in the temporary storage.
8. Call up the course to be pasted, and press [Data recovery] in the [Edit record] to overwrite.
The data having been stored in the destination course of pasting, if there is any, is overwritten with the data temporary storage described previously.

Difference from course past ;

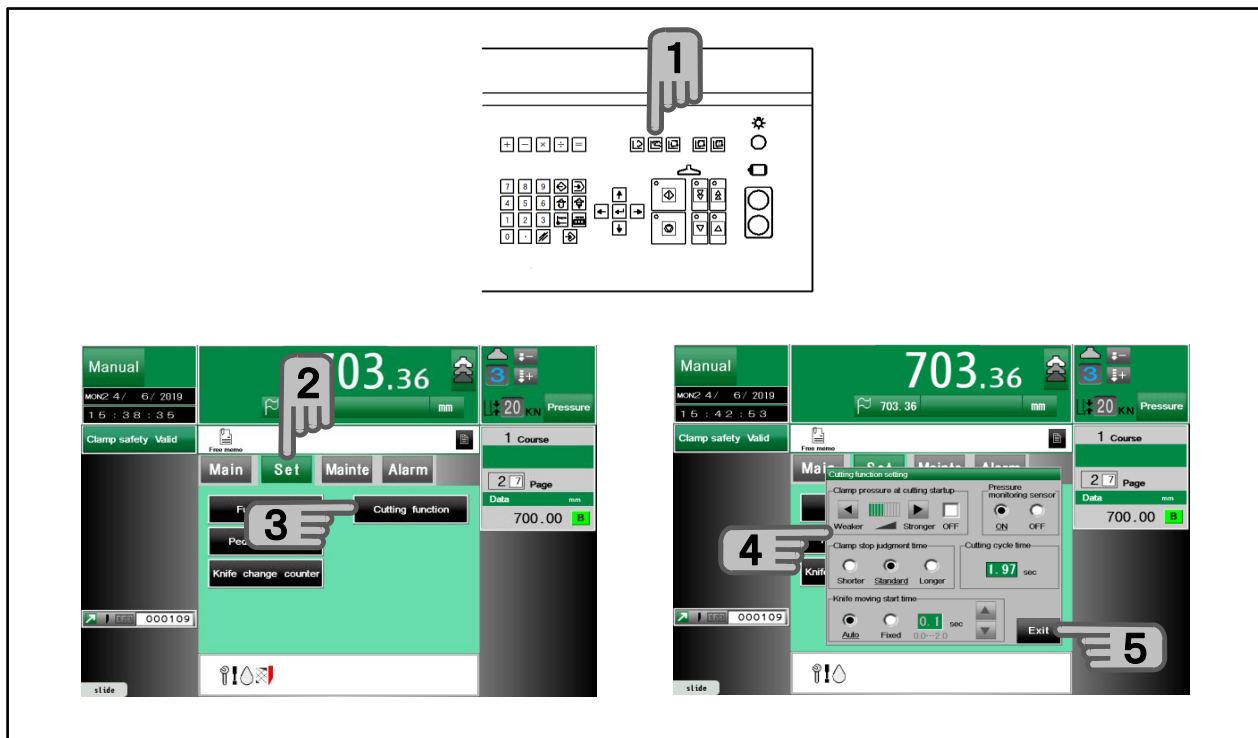
Overwriting is always made from page 1 to the destination of pasting. When course past can write after the last page in memory divively, data recovery overwrites from page 1. The temporary storage in case of course delete is difference from the temporary storage in case of course copy.

How to look at the function selection list



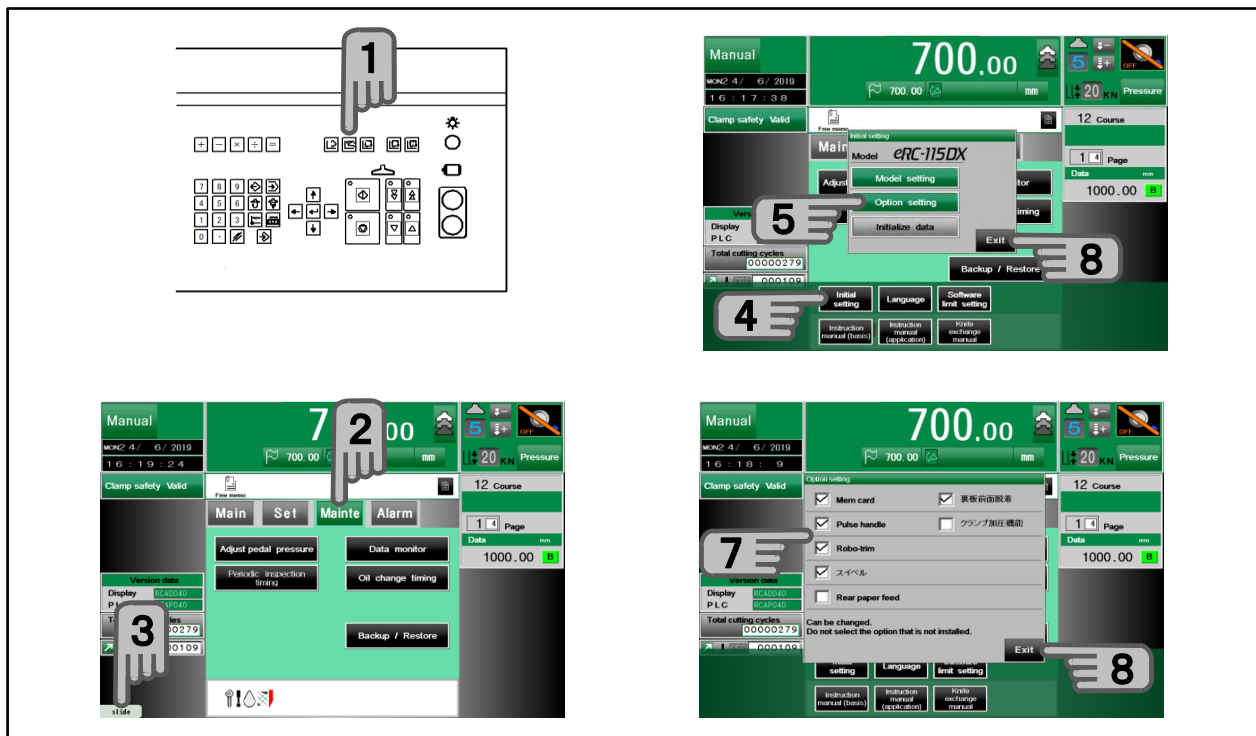
1. Select the manual mode.
 2. Press sub mode menu 【 Set 】.
 3. Press 【 Function list 】.
 4. Place check mark at the desired function.
The underline indicates the factory shipment setting.
 5. Press 【 Exit 】.
- ◆ **【 Select unit unused course 】**
Select the unit applied to unused course.
 - ◆ **【 Power-on course setting 】**
Select the course displayed upon power on.
 - ◆ **【 Correct print deviation 】**
Select the using correction.
 - ◆ **【 Setting direction window 】**
Select the animation displayed upon setting direction window setting.
 - ◆ **【 Push-out forward standard 】**
Select the push-out setting page position.
 - ◆ **【 Backgauge interlock 】**
Select the function with which backgauge is prohibited when the clamp pedal is pressed.
With the initial setting, the backgauge is stopped temporarily with inching enabled upon the press of the pedal during automatic advance.
 - ◆ **【 Character entry keyboard 】**
Select between kana (50-syllable layout) and letter (QWERTY) layout.
 - ◆ **【 Function notation character change 】**
The characters displayed in the function field on the memory or automatic screen are changed.

How to set the cutting function



1. Select the manual mode.
 2. Press 【 Set 】.
 3. Press 【 Cutting functio 】.
 4. Select the function.
The underline indicates the factory shipment setting .
 5. Press 【 Exit 】.
- ◆ 【 Clamp pressure at cutting startup 】
Set the Pressur of the clamp reaching the workpiece.
 - ◆ 【 Pressure monitoring sensor 】
Turn on or off the sensor for monitoring a change in the clamp pressure.
 - ◆ 【 Clamp stop judgment time 】
Select the time from arrival of the clamp at the workpiece to the startof knife to lower.
 - ◆ 【 Cutting cycle time 】
Cutting time monitor.
 - ◆ 【 Knife moving start time 】
Enter the time delay from the press of the cutting buttons to the start of the knife to lower.

How to set the option function

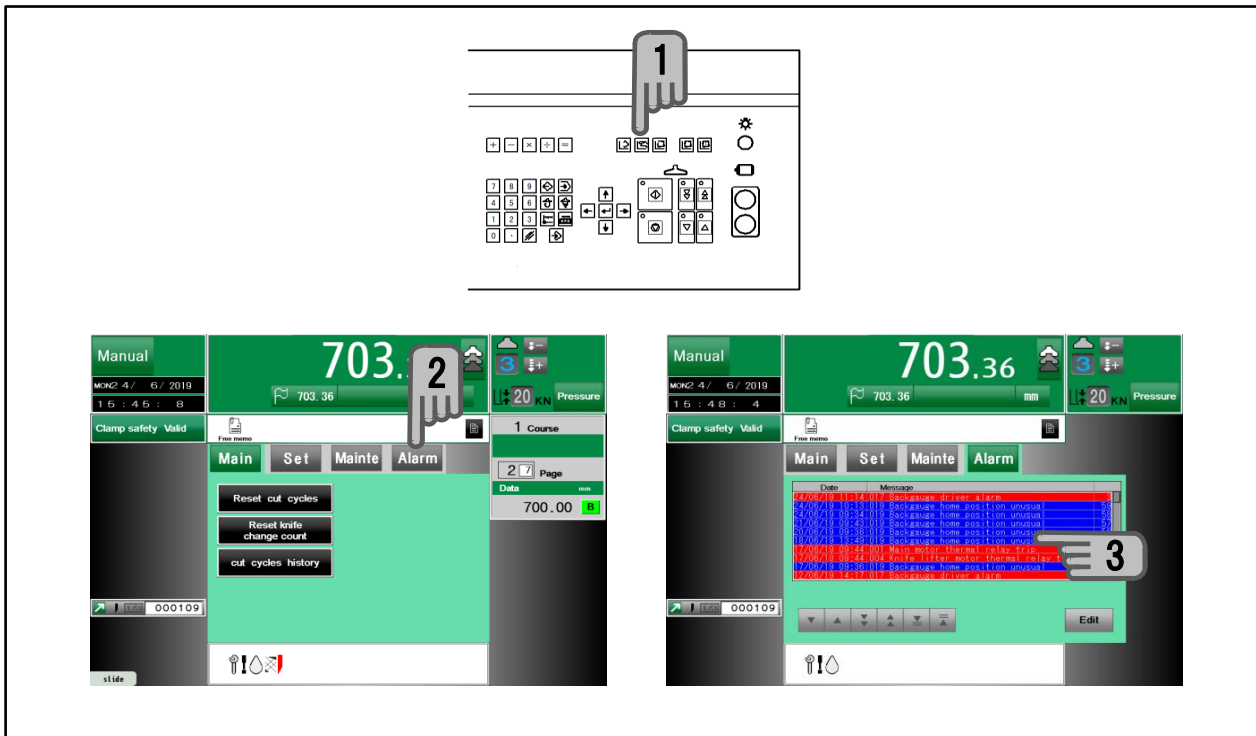


1. Select the manual mode.
2. Press 【 Main 】.
3. Press Option-key.
4. Press 【 Initial setting 】.
5. Press 【 Option setting 】.
6. Setting requires password input.
In the input screen
Press 【 Set 】.
Enter the password and press 【 Enter 】.
Press 【 Exit 】.
7. Check 【 Option function 】.
8. Press 【 Exit 】.

The following can be set

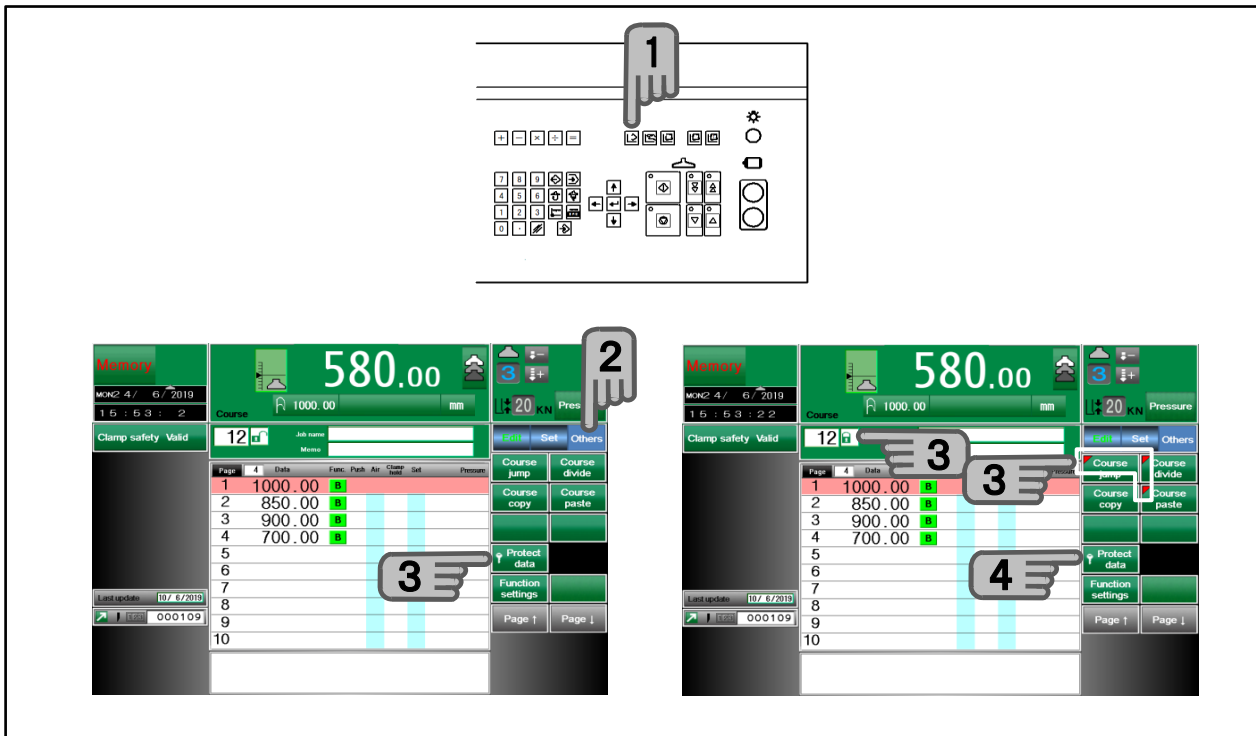
- ☐ Mem card
- ☐ Pulse handle
- ☐ Robo-trim
- ☐ Robo-Swivel
- ☐ Rear paper feed
- ☐ False clamp from the front

How to look at the alarm history



1. Select the manual mode.
2. Press sub mode menu 【 Alarm 】 .
The alarm history is displayed.
3. Press the history screen.
The cursor moves to the latest alarm.
Press 【 ▲ 】 or 【 ▼ 】 to move the cursor.
4. To edit press 【 Edit 】 .
Setting requires password input.
In the input screen
Press 【 Set 】 .
Enter the password and press 【 Enter 】 .
Press 【 Exit 】 .

How to protect the data



1. Select the memory mode.
2. Press 【 Others 】.
3. Press 【 Protect data 】.
Key mark is locked
A triangular protection mark is displayed
4. To remove protection, press once more 【 Protect data 】.

How to change the knife

How to remove the knife 1



CAUTION



Remove stacked paper or the like from the surface plate. Otherwise stacked paper will push out the knife holder or the like during erroneous backgauge advance in knife change work.



Leave knife change to those who have undergone special training course and observe instruction given in the instruction manual. Otherwise injuries will be caused.



Prohibit approach of a third party near the machine during knife change or height adjustment work. Otherwise injuries will be caused.



To install or remove the knife, prepare necessary tools in advance and follow the predetermined procedure and be deliberate.

1. Select the manual mode.
Move the backgauge to over 200 mm position.

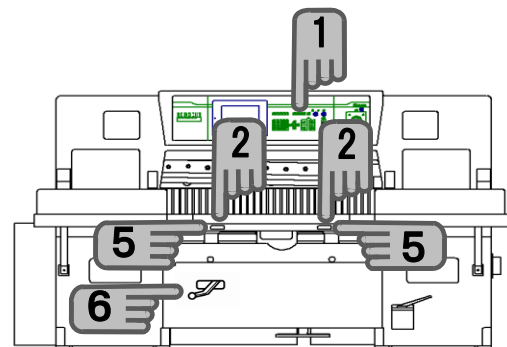
Keep the main motor operating.

2. Press and hold the cutting buttons until the knife lowers to the bottom. Then release the cutting buttons.



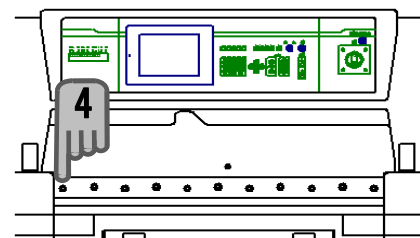
CAUTION

To work with the knife lowered, stop the knife with its cutting edge in contact with the cutting stick.



3. The knife carrier is stopped when the cutting buttons are released, and the second knife bolt from the leftmost one appears.

4. Use the accessory Allen T wrench to remove only the second knife bolt from the leftmost.



5. Press the cutting buttons to return the knife carrier to its original position.

6. Turn the knife change lever to "CHANGE".
Adjust to slow down slowly.

While the lever is on the "CHANGE" side, Operation is prohibited except advance/retract button.

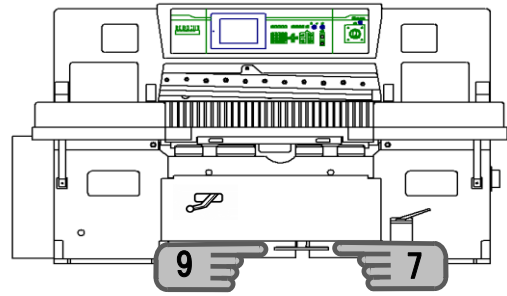
How to change the knife

How to remove the knife 2

7. Step on the clamp pedal to lower the clamp.

CAUTION

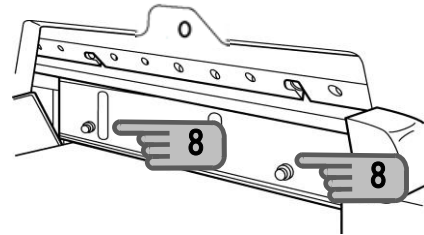
When stepping on the clamp pedal, do not reach beneath the operating range of the clamp. Otherwise injuries will be caused.



8. While stepping on the pedal, install the clamp support bolt at two places.

CAUTION

Do not reach beneath the knife support bolt and surface plate. Otherwise entanglement between knife support bolt and surface plate will be caused.

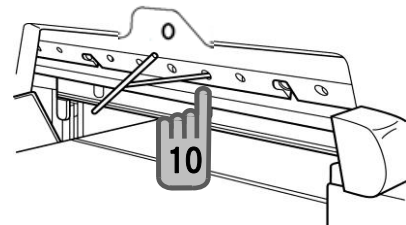


9. Slowly release the clamp pedal.

The clamp rises and the knife support bolt supports the cutting edge.

10. Remove all the knife installation bolts.

Open the knife height adjustment window to remove the bolt at the left end.

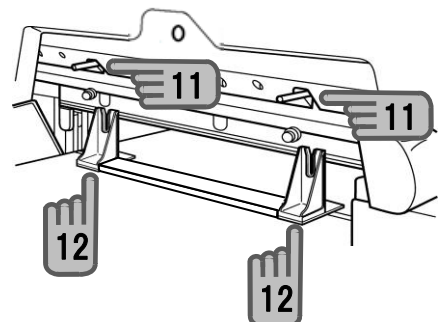


CAUTION

After the knife support bolt supports the cutting edge and all knife installation bolts are removed, never lower the clamp until the knife handle presses the knife. Otherwise the knife will fall, resulting in injuries.

11. Install the knife handle in the notch position of the knife carrier. Do not tighten completely.

12. Place a larger knife holder on the left side a smaller one on the right side, under the knife handle.



How to change the knife

How to remove the knife 3

13. While holding the knife holder securely, slowly step on the clamp pedal to lower the clamp.

Check if the knife handle enters the notch of the knife holder and the upper end of the knife becomes lower than the knife carrier. Stop the clamp immediately.

14. Tighten the knife handle to fix the knife to the knife holder.

15. Lower the clamp to the bottom and remove the knife support bolts.

CAUTION

Do not reach between the knife support bolt and surface plate. Otherwise entanglement between knife support bolt and surface plate will be caused.

CAUTION

To remove or install the clamp support bolt, be careful of the knife. Otherwise injuries will be caused.

16. Slowly release the clamp pedal.

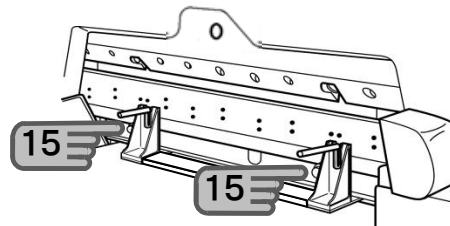
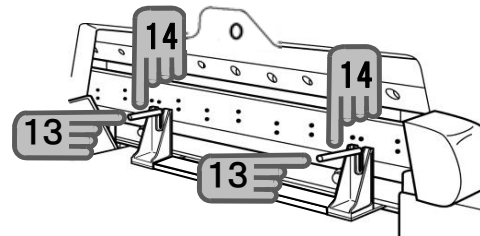
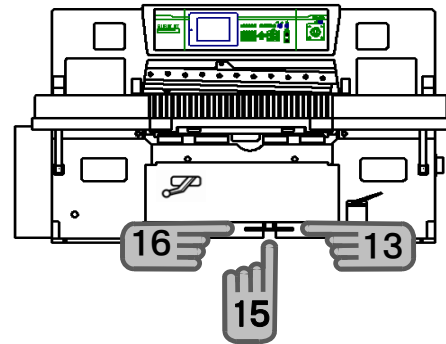
At this time, hold the knife handle to distance the knife from the clamp by 1 to 2 mm.

17. While holding the knife handle, pull the knife toward you.

CAUTION

When using the knife handle, be careful not to allow fingers to slip due to oil or the like. Otherwise injuries will be caused.

When sliding the knife holder on the surface plate, be careful not to make the cutting edge in contact with the main body. Otherwise the cutting edge will be clipped.



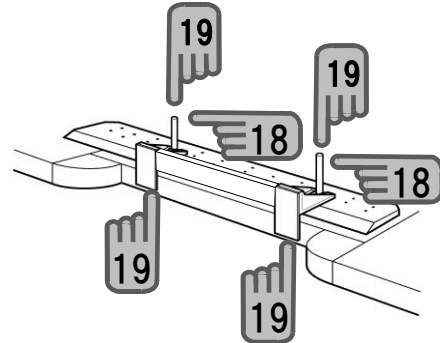
How to remove the knife 4

18. While holding the knife handle, fall the the knife on the surface plate



CAUTION

When placing the knife on the surface plate, do not allow the cutting edge protruding from the surface plate. Otherwise injuries will be caused with the cutting edge.



19. Loosen the knife handle to remove the knife holder.



CAUTION

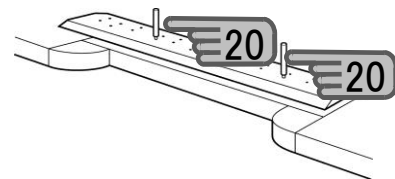
When removing or installing the holder or handle from/to the knife, be careful the cutting edge of the knife. Otherwise injuries will be caused.

20. While holding the knife handle, house the knife in the storage box. Remove the knife handle.



CAUTION

When housing or retrieving the knife in/out of the storage box, use the knife handle and keep away from the cutting edge. Otherwise injuries will be caused with the cutting edge.



CAUTION

Fix the knife in the storage box with bolts or rope securely so that the knife will not slide. Otherwise injuries will be caused.



CAUTION

Replace the knife storage box or tying strings with new ones immediately if they have deteriorated.



CAUTION

To carry the knife, house the knife in the storage box with the back of the knife facing down and be careful of the cutting edge. Otherwise injuries will be caused due to the sliding knife. As well, the storage box can be broken and cause injuries,

How to remove the knife (Knife lifter) 1



CAUTION



Remove stacked paper or the like from the surface plate. Otherwise stacked paper will push out the knife holder or the like during erroneous backgauge advance in knife change work, possibly resulting in a broken knife and/or injuries of the operator.



Leave knife change to those who have undergone special training course and observe instruction gives in the instruction manual. Otherwise injuries will be caused.



Prohibit approach of a third party near the machine during knife change or height adjustment work. Otherwise injuries will be caused.



To install or remove the knife, prepare necessary tools in advance and follow the predetermined procedure and be deliberate.

1. Start the manual mode.
Move the backgauge to over 200mm position.

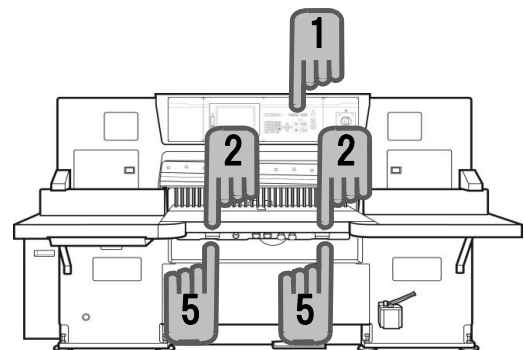
Keep the main motor operating.

2. Press and hold the cutting buttons until the knife lowers to the bottom. Then release the cutting buttons.

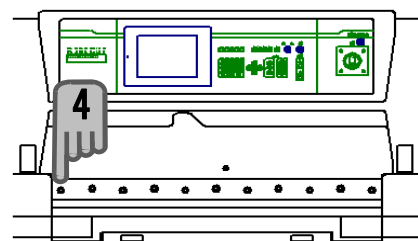


CAUTION

To work with the knife lowered, stop the knife with its cutting edge in contact with the cutting stick.



3. The knife carrier is stopped when the cutting buttons are released, and the second knife bolt from the leftmost one appears.
4. Use the accessory Allen T wrench to remove only the second knife bolt from the leftmost.
5. Press the cutting buttons to return the knife carrier to its original position.



How to change the knife

ROBOCUT COMPUTER CUTTER

How to remove the knife (Knife lifter) 2

6. Stop the main motor.

7. Remove the knife bolt.

To remove the leftmost bolt, open the knife height adjustment window.

8. Temporarily place the knife holder on the surface plate so that the right end of the knife is aligned with the right end of the holder cover.

9. Insert the T up/down wrench into the knife up/down screw and turn counterclockwise to lower the knife.



CAUTION

Do not allow the cutting edge to be extended out of the leveling block.

10. Adjust the holder so that the knife handle installation hole enters the holder groove and install and tighten the knife handle to fix the knife to the knife holder.

11. Remove the hanging bolt.

12. While holding the knife handles, pull the knife toward you.



CAUTION

When using the knife handle, be careful not to allow fingers to slip due to oil or the like.
Otherwise injuries will be caused.



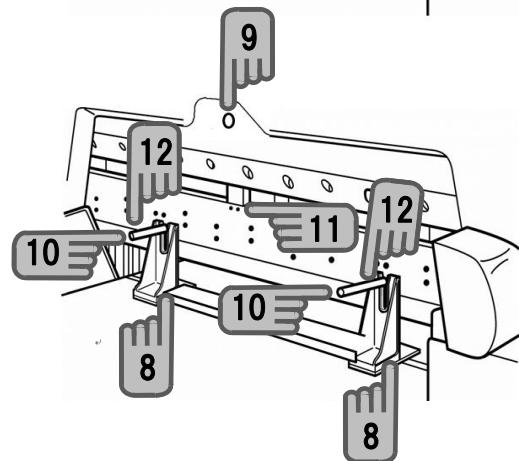
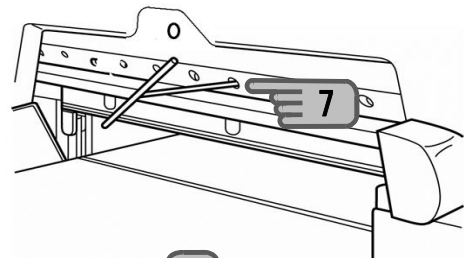
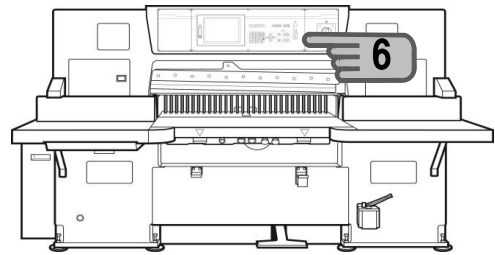
CAUTION

When removing or installing the holder or handle from/to the knife, be careful of the cutting edge of the knife.
Otherwise injuries will be caused.



CAUTION

Avoid hitting the cutting edge against the main body when pulling the knife.

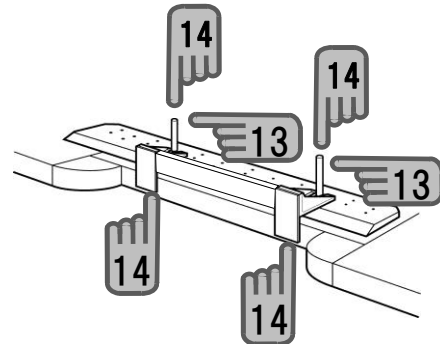


How to remove the knife (Knife lifter) 3

13. While holding the handles, fall the knife on the leveling block.

CAUTION

When placing the knife on the surface plate
Do not allow the cutting edge protruding
from the surface plate.
Otherwise injuries will be caused with cutting
edge.



14. Slightly loosen the knife handles and remove the knife holders.

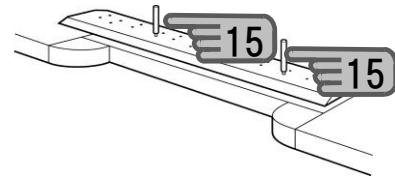
CAUTION

When removing or installing the holder or handle
from /to the knife, be careful of the cutting
edge of the knife.
Otherwise injuries will be caused.

15. While inserting the knife into the knife storage case, remove the knife handles.

CAUTION

When housing or retrieving the knife in/out
of the storage box, use the knife handle and
keep away from the cutting edge.
Otherwise injuries will be caused with the
cutting edge.



CAUTION

Fix the knife in the storage box with bolts or
rope securely so that the knife will not slide.
Otherwise injuries will be caused.

CAUTION

To carry the knife, house the knife in the
storage box with the back of the knife
facing down and be careful of the cutting
edge.
Otherwise injuries will be caused due to the
sliding knife. As well, the storage box can be
broken and cause injuries.

CAUTION

Replace the knife storage box or tying strings
with new ones immediately if they have
deteriorated

How to install the knife 1



CAUTION



Remove stacked paper or the like from the surface plate. Otherwise stacked paper will push out the knife holder or the like during erroneous backgauge advance in knife change work.



Leave knife change to those who have undergone special training course and observe instruction given in the instruction manual. Otherwise injuries will be caused.



Prohibit approach of a third party near the machine during knife change or height adjustment work. Otherwise injuries will be caused.



To install or remove the knife, prepare necessary tools in advance and follow the predetermined procedure and be deliberate.

1. Select the manual mode.
Move the backgauge to over 200 mm position.

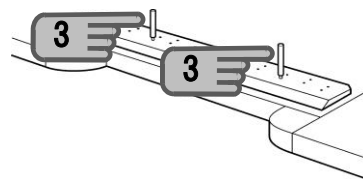
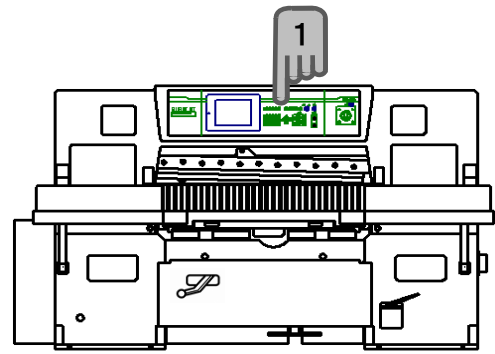
2. Place the knife in the storage box on the surface plate. Place it with the cutting edge facing you and with the knife face facing up.

3. Install the knife handle.



CAUTION

When removing or installing the holder or handle from/to the knife, be careful of the cutting edge of the knife. Otherwise injuries will be caused.



4. Pull the knife on the surface plate.
The cutting edge should face you and the knife face should face up.



CAUTION

When housing or retrieving the knife in/out of the storage box, use the knife handle and keep away from the edge. Otherwise injuries will be caused with the cutting edge.



CAUTION

When placing the knife on the surface plate, do not allow the cutting edge protruding from the surface plate. Otherwise injuries will be caused with the cutting edge.

How to change the knife

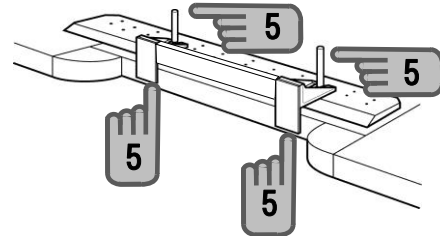
How to install the knife 2

5. Install the knife holder and tighten the knife handle.



CAUTION

When removing or installing the holder or handle from/to the knife, be careful of the cutting edge of the knife, Otherwise injuries will be caused with the cutting edge.

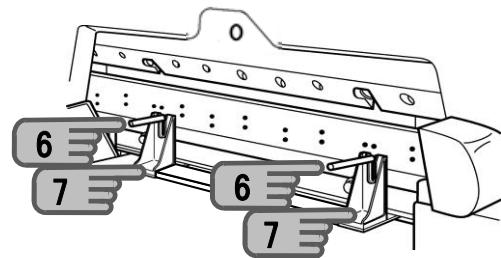


CAUTION

When using the knife handle, be careful not to allow fingers to slip due to oil or the like. Otherwise injuries will be caused.

6. When holding the knife handle, erect the knife on the surface plate so that the cutting edge does not contact with the surface plate.
7. When holding the knife holder, slide to beneath the knife carrier.

Set the knife so that the knife handles is located beneath the notch in the knife carrier.



CAUTION

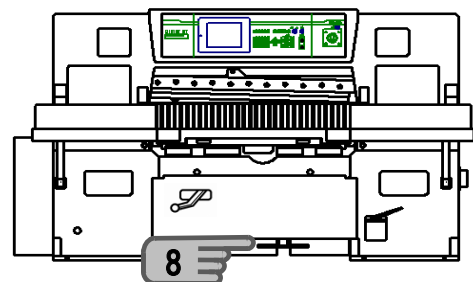
When sliding the knife holder on the surface plate, be careful not to make the cutting edge into contact with the machine body. Otherwise the cutting edge will be chipped.

8. Step on the clamp pedal to lower the clamp.



CAUTION

When stepping on the clamp pedal, do not reach in the operating range of the clamp. Otherwise injuries will be caused.

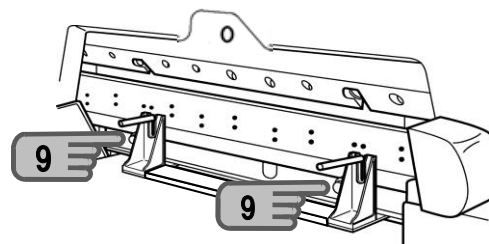


9. Install the knife support bolt to the clamp at two places.



CAUTION

When removing or installing the support bolt from /to the clamp, be careful of the knife. Otherwise injuries will be caused.



How to change the knife

How to install the knife 3

10. When holding the knife handle to make the knife into light contact with the clamp, slowly release the clamp pedal to raise the clamp.

11. After the knife rises a little, slightly loosen the knife handle and, while leaving the knife holder on the surface plate, raise the knife to the top.

Raise the clamp to the top while carefully inserting the knife handle into the notch in the knife carrier.

12. Remove the knife handle.

CAUTION

After the knife support bolt has supported the cutting edge and all knife installation bolts have been removed, never lower the clamp until the knife is pushed with the knife handle. Otherwise the knife will fall, resulting in injuries.

13. Using an Allen wrench, align the bolt hole.

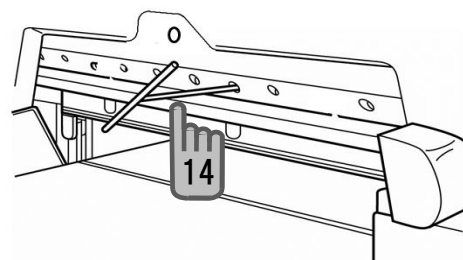
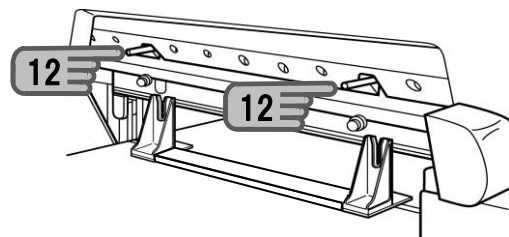
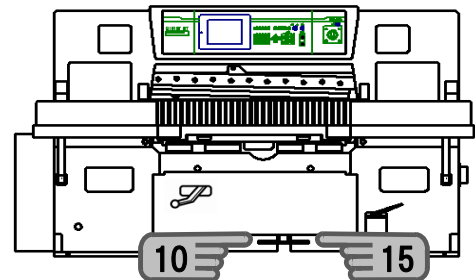
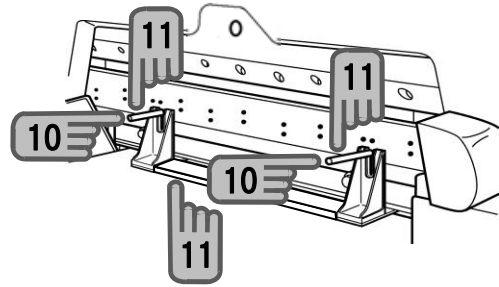
14. Using the knife bolt, fix the knife to the knife carrier.

Tighten bolts in order, starting at the center then outward, so that no warp is caused in the knife.
Do not install the bolt second to the leftmost one at this timing.
To install the leftmost bolt, open the knife height adjustment window.

15. Step on the clamp pedal to lower the clamp.

CAUTION

When stepping on the clamp pedal, never reach the operating range of the clamp. Otherwise injuries will be caused.



How to change the knife

ROBOCUT COMPUTER CUTTER

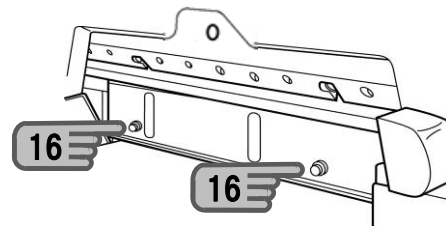
How to install the knife 4

16. Remove the knife support bolt from the clamp.



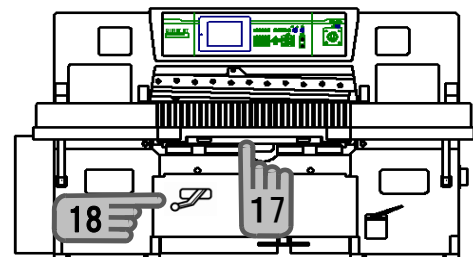
CAUTION

Never reach between the knife support bolt and surface plate.
Otherwise entanglement will be caused between the knife support bolt and surface plate



17. Return the knife support bolt to the predetermined position.

Until the knife support bolt is installed in the predetermined position, neither the knife nor the clamp operates.



18. Place the knife change lever in the "Cutting" position.

19. Adjust the knife height.

Follow the description given in the " Knife height adjustment " section to adjust the knife height.



CAUTION

Do not start the knife until knife adjustment is finished.
Too low a cutting edge will give damage to the knife and machine.

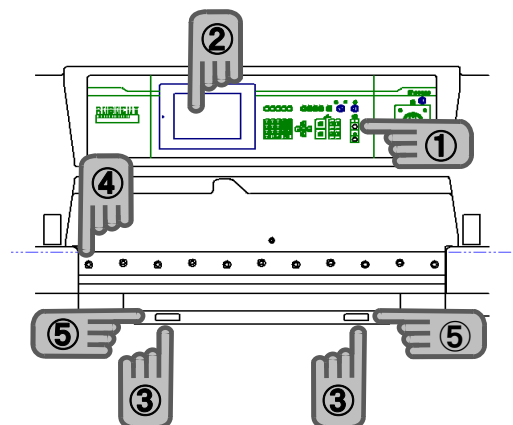
20. How to install the bolt second to the leftmost one.

- ①. Start the main motor.
- ②. Check if the backgauge is over 200mm position.
- ③. Press the cutting button. Wait until the knife is down, and then release the cutting button.



CAUTION

To work with the knife down, stop the knife when the cutting edge of the knife is in contact with the cutting stick.
Otherwise injuries will be caused with the cutting edge.



- ④. Install the knife bolt second to the leftmost one.
- ⑤. Press the cutting button to return the knife carrier to the original position.

How to install the knife (Knife lifter) 1



CAUTION



Remove stacked paper or the like from the surface plate. Otherwise stacked paper will push out the knife holder or the like during erroneous backgauge advance in knife change work.



Leave knife change to those who have undergone special training course and observe instruction given in the instruction manual. Otherwise injuries will be caused.

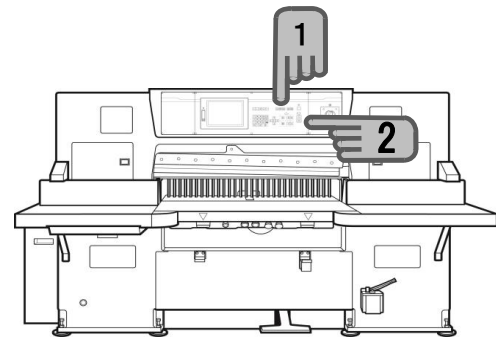


Prohibit approach of a third party near the machine during knife change or height adjustment work. Otherwise injuries will be caused.



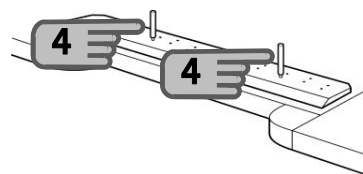
To install or remove the knife, prepare necessary tools in advance and follow the predetermined procedure and be deliberate

1. Set the manual mode.
Move the backgauge to over 200mm position.
2. Stop the main motor.
3. Place the knife on the leveling block with the cutting edge facing you.
4. Install the knife handles.



CAUTION

When removing or installing the holder or handle from/to the knife, be careful of the cutting edge of the knife. Otherwise injuries will be caused.



5. Pull the knife on the leveling block with the cutting edge facing you.



CAUTION

When housing or retrieving the knife in/out of the storage box, use the knife handle and keep away from the cutting edge. Otherwise injuries will be caused with the cutting edge.



CAUTION

When placing the knife on the surface plate, do not allow the cutting edge protruding from the surface plate. Otherwise injuries will be caused with the cutting edge.

How to change the knife

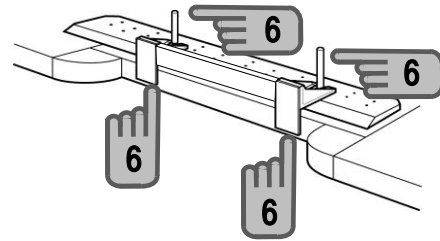
How to install the knife (Knife lifter) 2

6. Install the knife holders, with the taller one on the left and shorter one on the right, and tighten the knife handles.
7. While holding the knife handles, erect the knife on the leveling block.



CAUTION

When using the knife handle, be careful not to allow fingers to slip due to oil or the like. Otherwise injuries will be caused.



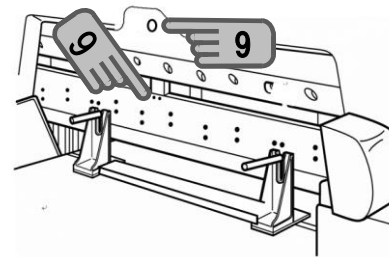
8. Set the knife under the knife carrier.



CAUTION

When sliding the knife holder on the surface plate, be careful not to make the cutting edge into contact with the main body. Otherwise the cutting edge will be chipped.

9. Insert the T up/down wrench into the knife up/down screw and move the lift plate up/down to align with the hanging screw hole.



10. Install the hanging bolts.

11. Loosen the knife handles.



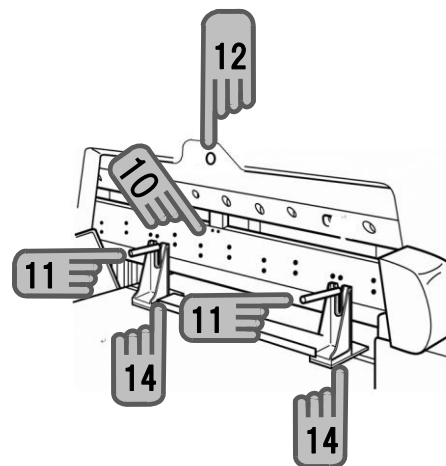
CAUTION

When removing or installing the holder or handle from/to the knife, be careful of the cutting edge of the knife. Otherwise injuries will be caused.

12. Turn the lifting screw toward clockwise, raise the knife.

13. Raise the knife until the bolt hole is aligned.

If the knife bolt hole is not aligned due to an inclined knife or the like, use the Allen wrench for knife installation to correct.



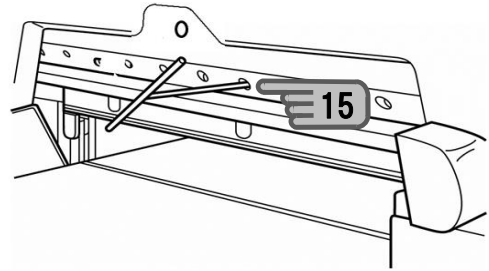
14. Remove the knife holders.

How to install the knife (Knife lifter) 3

15. Fix the knife to the knife carrier with bolts.

Tighten bolts in order, starting at the center then outward, so that no warp is caused in the knife.

To fix the leftmost bolt, open the knife height adjustment window.
At this point, do not install the second bolt from the leftmost.



16. Adjust the knife height.

Adjust according to the knife height adjustment section.



CAUTION

Do not start the knife until knife height adjustment is finished.
Too low a cutting edge will give damage to the knife and machine.

17. How to install the second bolt from the leftmost.

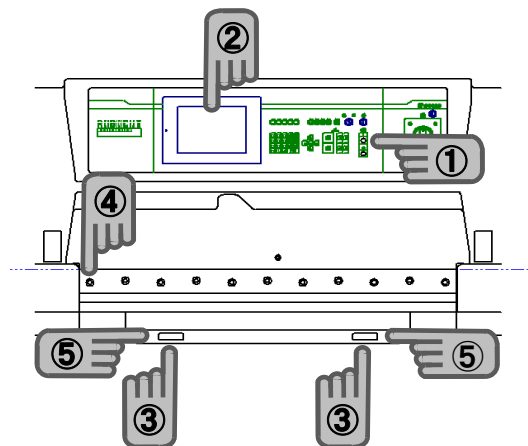
- ①. Start the main motor.
- ②. Make sure that the backgauge is at least 200mm.
- ③. Press and holding the cutting buttons until the knife lowers to the bottom. Then release the cutting buttons.



CAUTION

To work with the knife down, stop the knife when the cutting edge of the knife is in contact with the cutting stick. Otherwise injuries will be caused with the cutting edge.

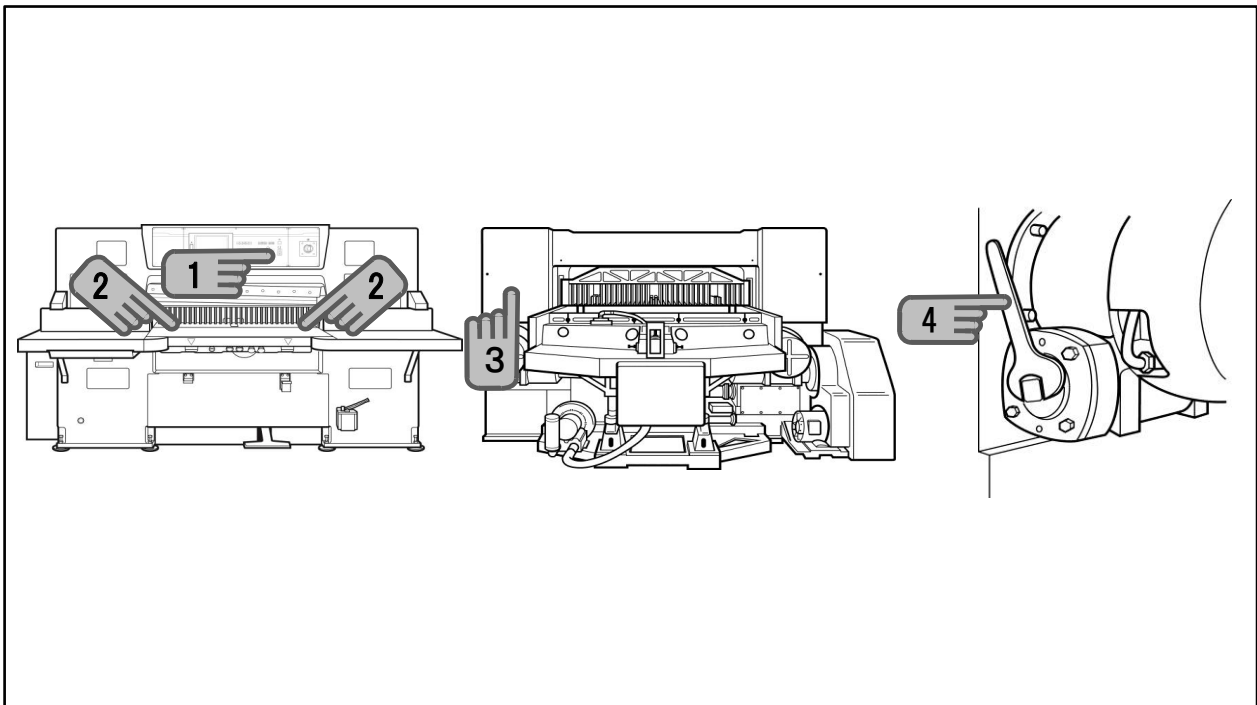
- ④. Install the second bolt from the leftmost.
- ⑤. Press the cutting buttons to return the knife carrier to its original position.



How to change the knife

ROBOCUT COMPUTER CUTTER

How to adjust the knife height 1



1. Stop the main motor.
Clutch operation becomes valid after 150 seconds.
2. Remove the cuttingstick. Place a sheet of thin paper at both ends of the cutting stick groove.

CAUTION

To remove or install the cutting stick, wear gloves or the like and careful of the edge of the cutting stick groove and cutting edge of the knife.

3. Turn the clutch key in electric box 1.

CAUTION

Turning the clutch key on releases the knife brake, starting to lower the knife by its own weight. injuries will be caused. Leave the clutch key turned off unless the knife is turned with the wrench or it is held by another means.

4. Remove the cover from the worm shaft (R) and use a wrench to turn the worm shaft counterclockwise.

5. The knife lowers. Check that the cutting edge slightly makes contact with parer and that then it starts to rise. Raise the knife to the top.

The broove depth is 16mm. If the knife does npt start to rise even if the cutting edge makes contact with thin paper, turn the worm shaft clockwise to raise theknife to the top and check the relationship with the cutting edge line seal again.

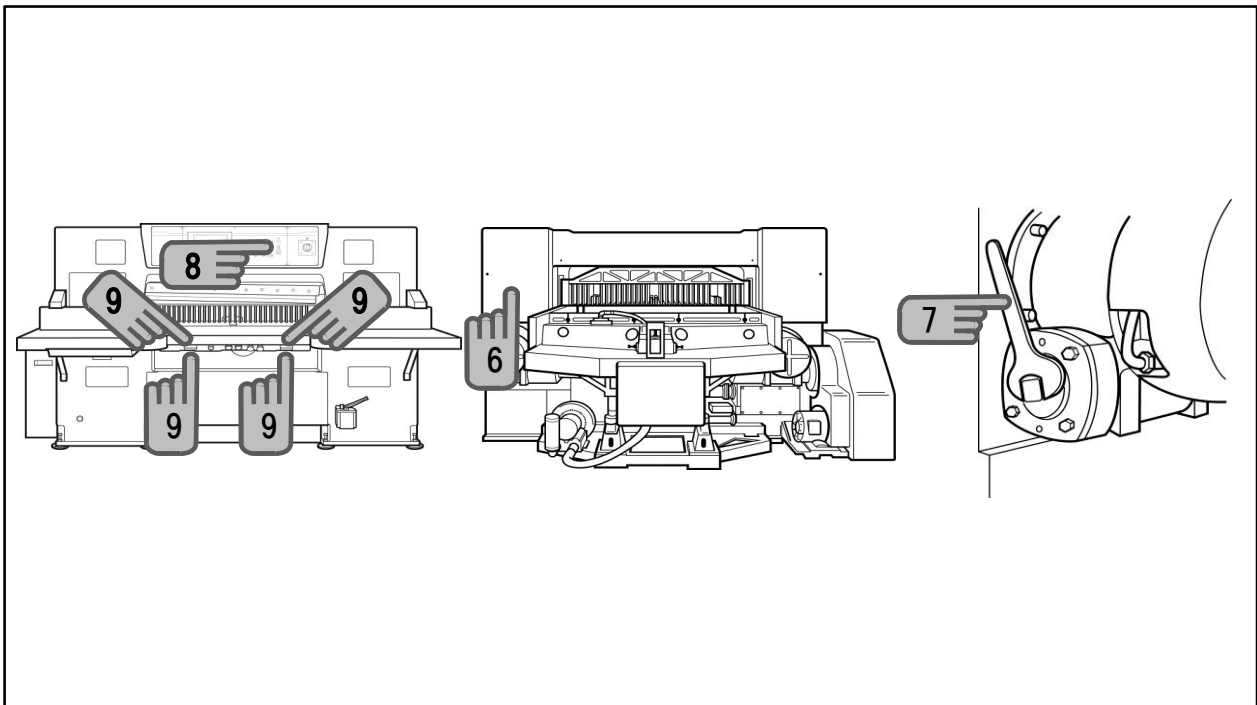
CAUTION

If the cutting edge or the knife is lower than the cutting edge line seal installed to the clamp, use the " knife height adjustemnt handle " in advance to adjust to a position higher than the cutting edge line seal.

Otherwise the knife will be caused aga-
inst the groove in the cutting stick,
possiblycausing damage to machine and
knife.

When turning the knife height adjustm-
ent handle, be careful of the cutting
edge of the knife and edges of the
main body.

How to adjust the knife height 2



6. Turn the clutch key counterclockwise to turn the clutch off. Close the door power electric box 1.
7. Remove the wrench and install the worm shaft.



CAUTION

Be sure to remove the wrench.
Otherwise the turning wrench will cause injuries.

8. Start the main motor.
9. Start the knife and check that the cutting edge slightly makes contact with paper and then returns.
10. Install the new cutting stick.

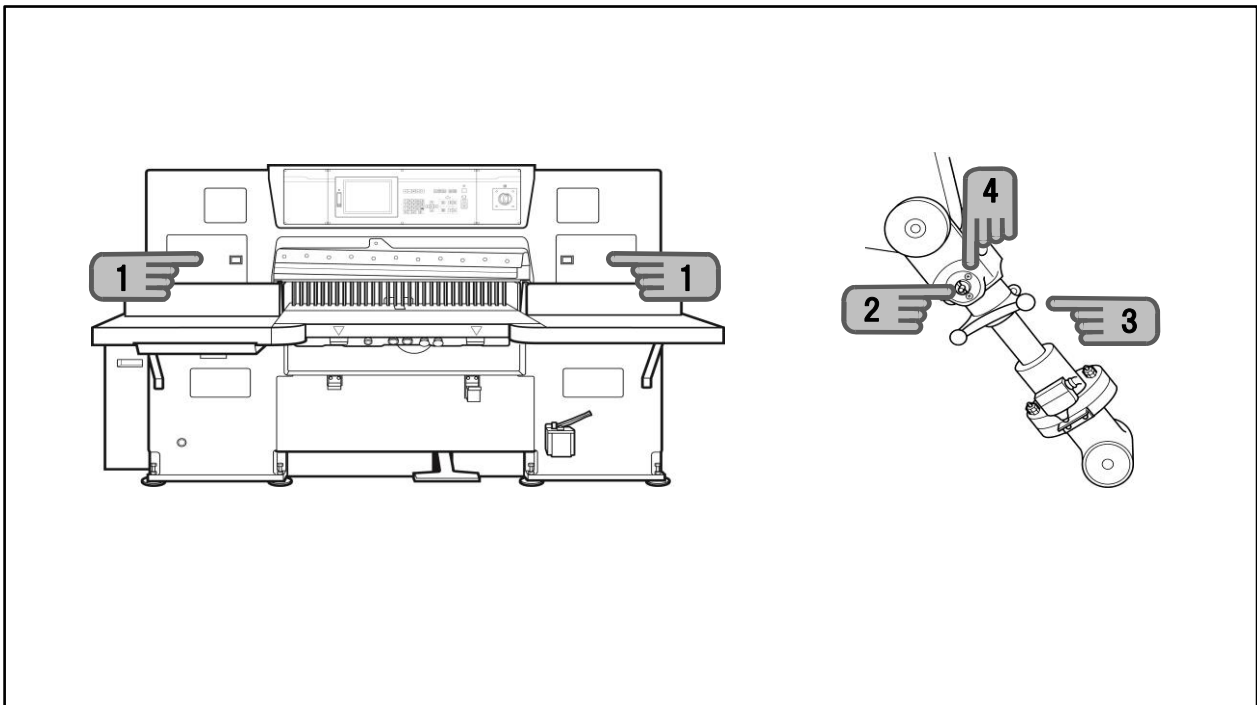
Set an unused face at the position where the cutting edge lowers.
If the cutting stick is lower the table face, place paper under the cutting stick to check.

11. Perform test cutting. If the lowest sheet remains uncut, adjust the knife height.

How to change the knife

ROBOCUT COMPUTER CUTTER

How to make fine adjustment of the knife height



1. Remove from the knife height adjusting window.
2. Pull the fixing pin and turn it 90 degrees.
3. Using the adjusting handle, adjust the height.
4. After adjustment is finished on the left and right sides, turn the fixing pin 90 degrees back to the original position.

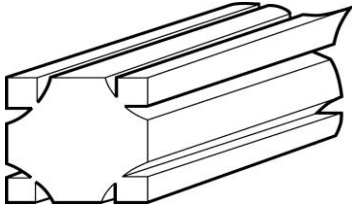
To raise the knife, turn the adjusting handle toward counterclockwise.
To lower the knife turn toward clockwise.

Check that the fixing pin fits the hole when it returns, If the pin does not enter, move the adjusting handle slightly to the left or right.

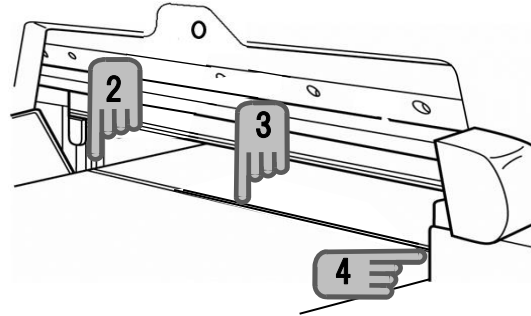
CAUTION

Do not lower or raise the knife too much unnecessarily.
Otherwise the safety bolt will be broken and/or the machine will be damaged.
When turning the knife height adjustment handle, be careful of the cutting of the knife and edge of the main body.
Otherwise injuries will be caused.

How to change the cutting stick



Two grooves for each of the four faces of the cutting stick, total eight grooves, can be used,



1. Stop the main motor.
2. While inserting a screwdriver at the left end, make the cutting stick float a little to remove.

Use a file or the like to remove projections (traces of knife edge) from the removed cutting stick. If the damaged cutting stick is forcibly pushed with projections, the cutting stick will be stuck and will become hard to remove.

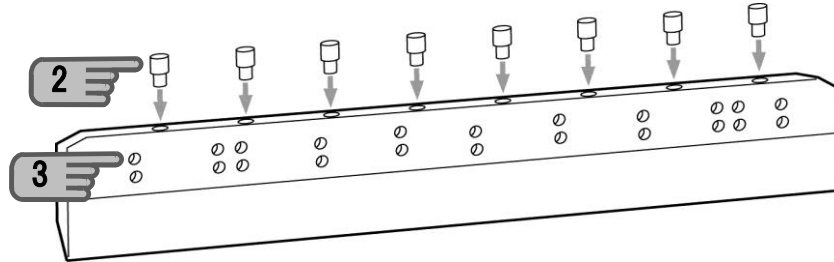
3. Clean the groove from which the cutting stick is removed.
4. Starting at the right end, insert the entire cutting stick into the groove.



CAUTION

Use protective gear such as gloves when removing or installing the cutting stick and be careful of edge of the cutting stick installation groove and cutting edge of the knife.
Otherwise injuries will be caused.

How to use two-stage knife installation holes



the knife is provided with upper and lower installation holes. At first, use the holes in the lower row.

If the wear exceeds 20mm after repetitive grinding, use installation holes in the upper row.

At this, set the accessory back joint pin at the back of the knife.

1. Perform knife height adjustment in advance to adjust the knife carrier 20mm above.



CAUTION

When turning the knife height adjustment handle, be careful of edge of knife or those of the main body.

Otherwise injuries will be caused.

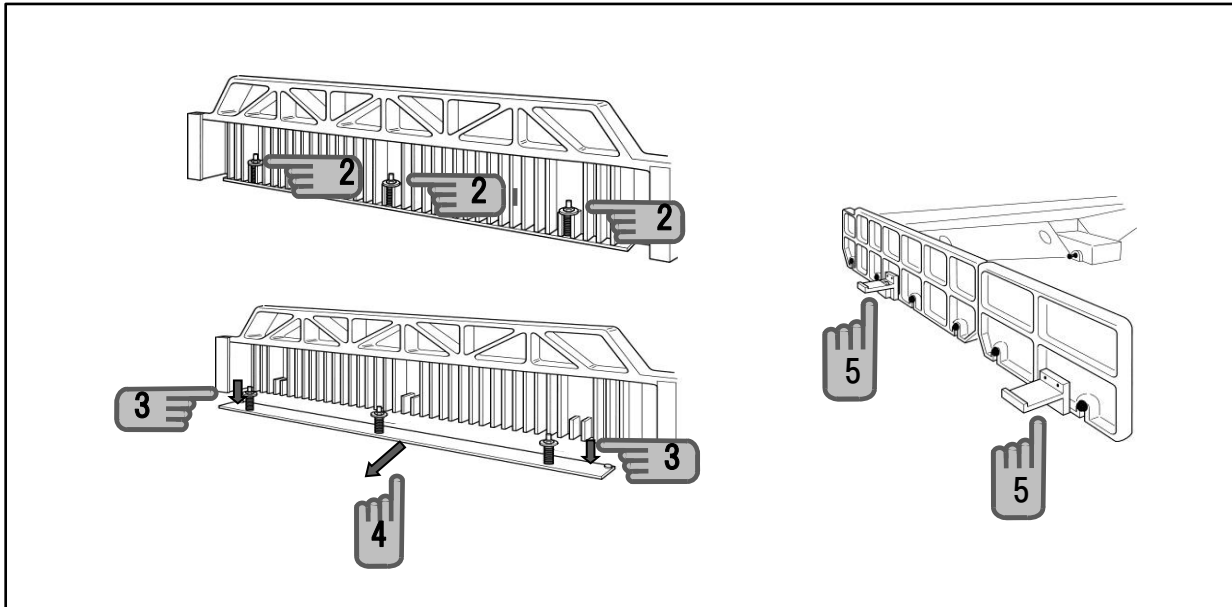
2. Set the back joint pin at the back of the knife.
3. Using installation holes at the upper row, install the knife.



CAUTION

Do not use holes in the upper row before wear in the knife width reaches 20mm. Erroneous use will cause damage to the knife and machine.

How to remove the false clamp



CAUTION

Be sure to stop the main motor when removing or installing the false clamp. If anyone starts the clamp while another person works at the rear of the machine, injuries will be caused.

1. Turn the power switch of the main motor off.
2. Loosen the installation nut by about 8mm.
3. Pull the false clamp down to disengage from the dowel pin of the clamp.



CAUTION

When removing or installing the false clamp, wear gloves and keep away from the knife in front of the clamp.
Otherwise injuries will be caused.

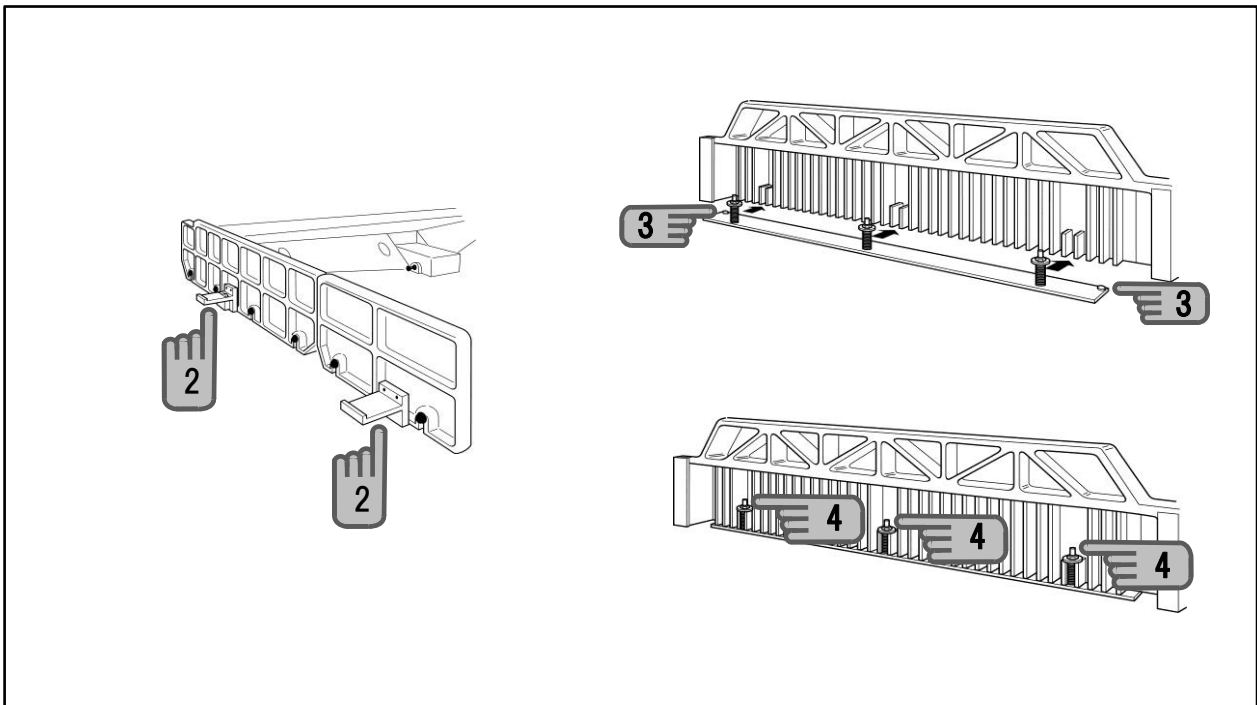
4. Pull false clamp backward.
5. Place the false clamp on the false clamp holder.
A limit switch in the holder senses the false clamp to adjust the advance limit of the backgauge appropriately to the one without the false clamp.
6. Minimum cutting size (Approximate)

Model	With false clamp	Without false clamp
SC100~115Z	85	27
SC137~200Z	105	27
SC250Z	125	35

Install/remove the false clamp

ROBOCUT COMPUTER CUTTER

How to Insatall the false clamp



CAUTION

Be sure to stop the main motor when removing or installing the false clamp. If anyone starts the clamp while another person works at the rear of the machine, injuries will be caused.

1. Turn the power switch of main motor off.
2. Take out the false clamp out of the false clamp holder.
A limit switch in the holder senses the false clamo to adjust the advance limit of the backgauge appropriately to the one with the false clamp.
3. Align the dowel pin of the false clamp with the dowel pin hole of the clamp.



CAUTION

When installing thr false clamp, be careful to keep away the knife in front of the clamp. Otherwise injuries will be caused.



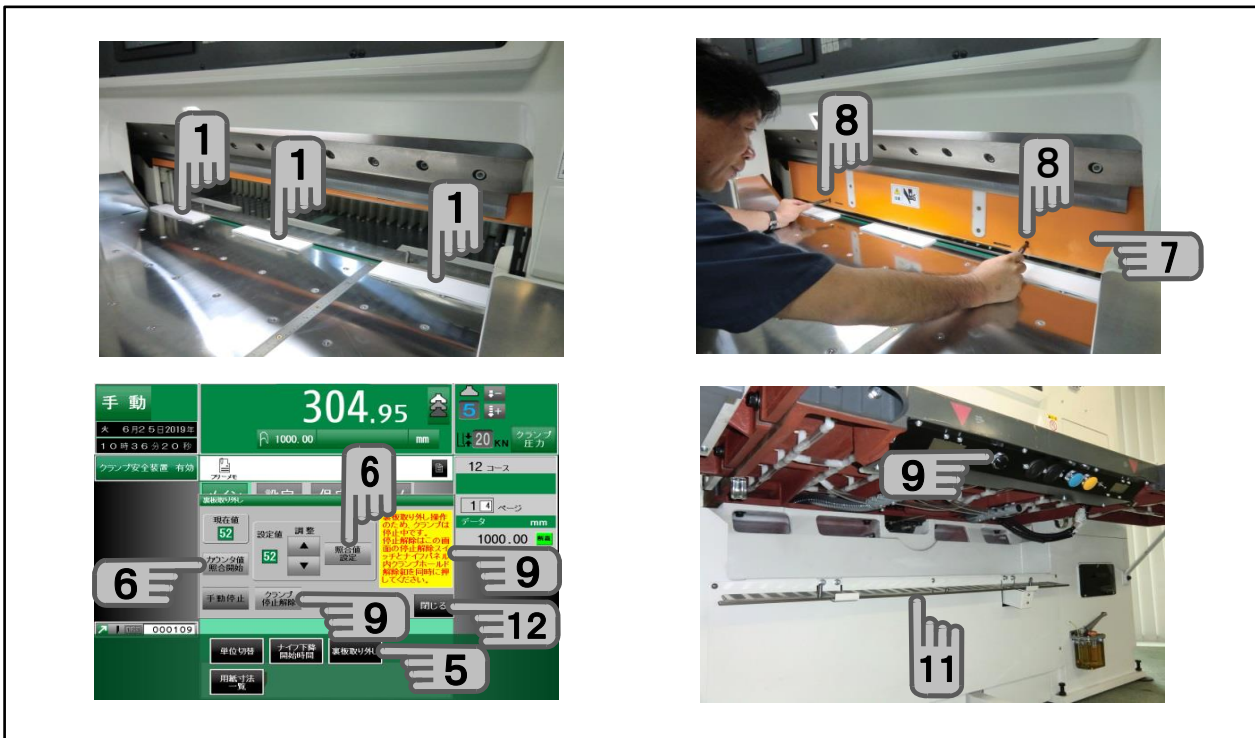
CAUTION

Do not install the false clamp while it protrudes beyond the front face of the clamp. Otherwise contact with the cutting edge will be caused, possibly resulting in damage to the knife and machine.

4. Tighten the installation nut to fix.

Install/remove the false clamp

How to remove the false clamp (Front installation/removal)



Front installation/removal setting must be validated with an optional function setting.

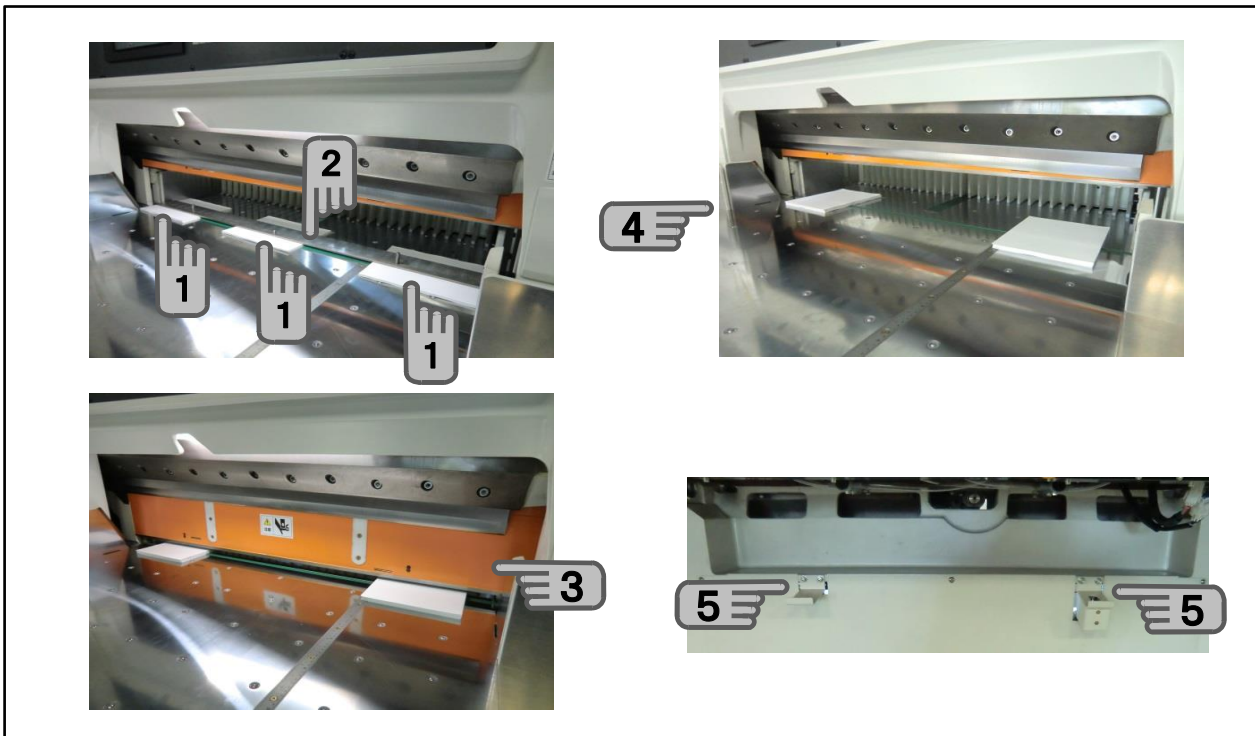
1. Place a cushion such as a book at the Bottom, left and right of the clamp.
Keep the height identical.
2. Select the manual mode.
3. Press 【 Main 】.
4. Press the option key.
5. Press 【 Remove false clamp 】.
6. Press 【 Verification value setting 】.
Check the counter value (height from surface plate). It is 40 to 50mm in regular cases. Use ▲ or ▼ to adjust.
Press 【 Counter value verification start 】.
7. Use the clamp pedal, slowly lower the clamp.
The clamp is stopped at the counter value.
8. Using the loach handle, press the left and right false clamp installation/removal holes of the clamp simultaneously.
The false clamp comes off the clamp and drops on the cushion.
9. Press 【 Clamp stop cancel 】 and reset button (Black) of the knife pushbutton plate simultaneously.
The clamp rises.
10. Pull the false clamp to the front surface plate.
11. Place on the false clamp installation table
A limit switch in the installation table senses the false clamp to adjust the advance limit of the backgauge appropriately to the one without the false clamp.
12. Press 【 Exit 】.



CAUTION

When removing the false clamp, be careful to keep away from the knife in front of the clamp.
Otherwise injuries will be caused.

How to install the false clamp (Front installation/removal)



1. Place a cushion such as a book at the bottom, left and right of the clamp.
Keep height identical.
2. Place the false clamp on the cushion.
Align the front end of the false clamp with the cut line.
Place in the center of the surface plate in the left/right direction.
3. Using the clamp pedal, slowly lower the clamp to push it against the false clamp.
4. Release the clamp pedal to raise the clamp.
5. The false clamp installation table is stripped of the false clamp and the front end of the backgauge is adjusted appropriately to the one with the false clamp.



CAUTION

When installing the false clamp, be careful to keep away from the knife in front of the clamp.
Otherwise injuries will be caused.

Alarm and remedy 1

1. Message
The protective device (Thermal relay) of the main motor is activated.

Remedy

- ① Operate the clutch key and manually reverse to move the knife to the top.
- ② Remove the product.
- ③ Determine the cause and remove it.
- ④ Reset the activated protective device.
- ⑤ Press **【 Alarm reset 】** on the touch panel display.



CAUTION

If this alarm is caused during knife operation, the cutting edge of the knife may be stopped at a position lower than the bottom face of the clamp. A message and a buzzer notify.
Do not reach beneath the knife.

2. Message
The protective device (Thermal relay) of the blowermotor is activated.

Remedy

- ① Reset the activated protective device.
- ② Press **【 Alarm reset 】** on the touch panel display.

3. Message
T. D. C Activation ; the stopping position of the knife has overshot the fixed position.

Remedy

- ① Contact our servicedivision.
い。

This alarm indicates that clutch adjustment is necessary. The clutch lining becomes worn as the machine keeps operating.
Periodic inspection and adjustment are necessary.

4. Message
Clamp pressure drop is detected during cutting operation.



CAUTION

Do not reach beneath the knife.
If this alarm is caused during knife operation, the cutting edge of the knife may be stopped at a position lower than the bottom face of the clamp.
Injuries will be caused.

Remedy

- ① Operate the clutch key and manually reverse to move the knife to the top.
- ② Remove the product.
- ③ Press the reset button (Black) at the operation section of the main body.
- ④ If the alarm is caused immediately after replacement of hydraulic working oil, bubbles remaining in the hydraulic circuit are the cause. Temporarily invalidate the error detection function and repeat clamping and knife operation until the clamp motion becomes stable. Then validate the error detection function. For how to operate the error detection function, contact our service division.

- ⑤ If this alarm persists, inspection of the hydraulic control is necessary. Contact our service division.

Alarm and remedy 2

- | | |
|---|---|
| <p>5. Message
Cutting is interrupted due to a broken safety bolt or loose knivesupport bolt.</p> | <p>Remedy
① Inspect the safety bolt and support bolt.</p> |
|---|---|



CAUTION

If this alarm is caused during knife operation , the cutting edge of the knife may be stopped at a position lower than the bottom face of the clamp. A message and a buzzer notify.
Do not reach beneath the knife.

- | | |
|--|---|
| <p>6. Message
The PLC battery voltage is low.</p> | <p>Remedy
① Contact our service division.</p> |
| <p>7. Message
A count alarm of the clamp height sensor is detected.</p> | <p>Remedy
① Contact our service division.</p> |

◆ Other message views

- | | |
|--|---|
| <p>8. Message
The timing of periodic inspection is reaches. (Arbitrary setting)</p> | <p>Remedy
① Contact our service division.</p> |
| <p>9. Message
Reminder of oil replacement timing.
(Arbitrary setting)</p> | <p>Remedy
① Contact our service division.</p> |
| <p>10. Message
Reminder of knife replacement timing.
(Arbitrary setting)</p> | <p>Remedy
① Replace the knife.</p> |

Trouble during operation

1. **The power is not turned on.**
The touch panel shows nothing when the power switch is turned clockwise.

Remedy

- ① Check if the switch in the distribution panel or the like is turned "ON".
If it is, contact the director of factory equipment or our service Division.

2. **The power is turned off suddenly.**

Remedy

- ① Check for trouble in the 200vAC source supplied to the machine.
- ② Check if the switch in the distribution panel or the like is turned "ON".
If it is, contact the director of factory equipment or our service Division.



CAUTION

Do not reach beneath the knife.
The cutting edge may be stopped at a position lower than bottom face of the clamp.
Injuries will be caused.

Remedy to be taken after power recovery

- ① Press the STOP key to retract the backgauge.
- ② Operate the clutch key to manually move the knife to the top.
- ③ Remove the product.
- ④ Travel the backgauge in the advance direction at the 305mm point from the cutting edge mark of the cutting stick to show the backgauge data on the operation panel.

If this trouble is caused during backgauge operation, a backgauge zero point error may be displayed when the power is restored. If this is the cause, check the size actually and press **【 Confirm 】**.

3. **The main motor fails to start.**
Even though the main motor switch is pressed, the motor fails to start.

Remedy

- ① Check if the clutch key is turned on.
⇒ Turn the key off.
- ② Check if the fuse is blown.
⇒ Replace the fuse.

4. **The clamp motion is too slow.**
The clamp does not lower to the bottom.

Remedy

- ① Check if the lubricating oil at the clamp mechanism is sufficient.
⇒ Supply lubricant.
- ② Check if the pedal pressure setting is too low.
⇒ Increase the setting.

How to reset the thermal relay or pressure alarm

1. Resetting the thermal relay

- ① Determine the cause of overload and remove it.
Case ① An excessive load is detected.
② The thermal relay is broken
- ② The thermal relay is activated thermally. Wait until it cools down before pushing to reset.
- ③ If the relay is activated repetitively after being reset, inspection is necessary.



main motor reset button

blower reset button



CAUTION

Keep away from other than the thermal relay and reset button.
Otherwise failures will be caused to the machine or injuries will be caused due to electric shock.

2. Resetting a pressure alarm

Restore from the clamp hold or pressure alarm.

- ① Press the reset button (Black) at the knife pushbutton plate.



reset button (black)



CAUTION

Do not reach beneath the knife.
The cutting edge of the knife may be stopped at a position lower than the bottom face of the clamp.
Injuries will be caused.

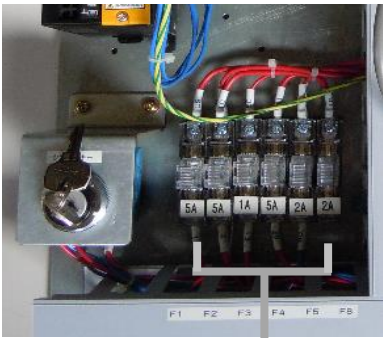
How to replace the fuse

- 1. Turn the power switch off.
- 2. Open the door of the electric box 1 or electric box 2.
- 3. Reolace the applicable fuse.
The spare fuse is located in electric box 2.
Check if the size ia the same and the ampere marked at the end of the fuse is identical.

CAUTION

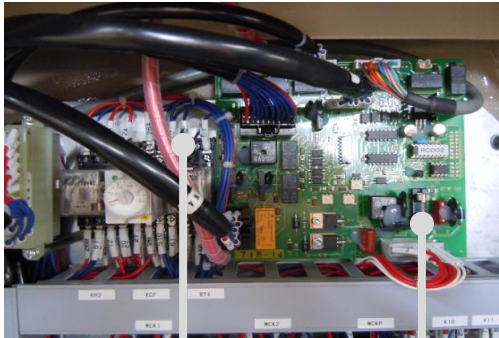
Do not use the fuse unless the rating is identical.
Otherwise failures, fire and/or injuries will be caused.

Electric box 1	F1	5 A	For main power supply
	F2	5 A	For control circuit AC100V
	F3	1 A	For CC-E circuit board DC5V
	F4	5 A	For cut line
	F5	2 A	For DC24V circuit
Electric box 2 (on KPW circuit board)	F8	2 A	Power supply for computer unit
	F2	3 A	For hydraulic solenoid circuit
	F1	2 A	For clutch power supply



F 1 ~ F8

Electric box 1



F 2

F 1

Electric box 2 (KPW board)

How to use the clutch - key

Application

- ① It is turned off during regular operation.
 - ② Turn the key on and turn the worm shaft with a wrench to manually move the knife up or down.
 - ③ Turn the key on/off to adjust the clutch.
- ◆ The clutch does not function in the following states even if the clutch key is operated.
 - ① For 150 seconds after the power is turned on.
 - ② For 150 seconds during main motor operation after the main motor stop button is pressed.
 - ③ For 150 seconds during main motor operation after the clutch key is operated.
 - ◆ The main motor does not start if the clutch key is turned on.

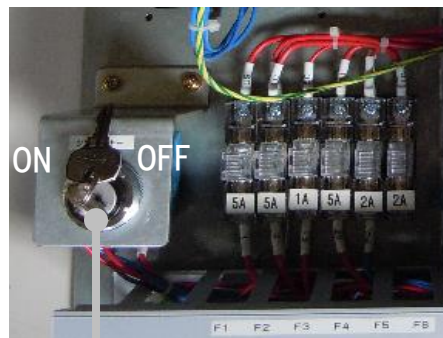


CAUTION

Turning the clutch key on releases the knife brake. Leave the clutch key turned off unless the manual shaft is turned with a wrench or held. Otherwise the knife will drop due to its own weight.

Keep away from parts or terminals other than clutch key.

Otherwise failures will be caused to the machine or injuries will be caused due to electric shock.



Clutch-key

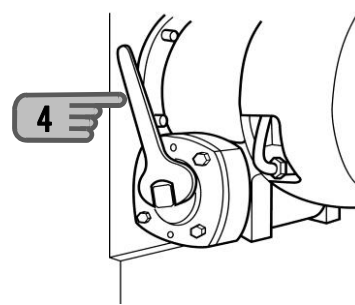
How to turn manually

The knife mechanism is manually operated.

1. Stop the main motor.
Leave the power switch turned on.
2. Remove the cover from the worm shaft at the right side face of the main body and check the position where the wrench is installed.



shaft



3. Turn the clutch key in the electric box 1 on.
4. After clutch operation noise is issued, install the wrench to the shaft and turn the shaft.
If the knife is stopped during descent (if it is stopped beyond the bottom dead center, do the opposite to the following description.
Turn clockwise to raise the knife.
Turn counterclockwise to lower the knife.
5. After the knife rises to the top or after manual rotation is finished, turn the clutch key off.
6. Remove the wrench and install the cover to the worm shaft.



CAUTION

Do not leave tools (such as the wrench) used for manual rotation. Remove them from the shaft

Otherwise the tool will jump out the shaft, causing injuries.

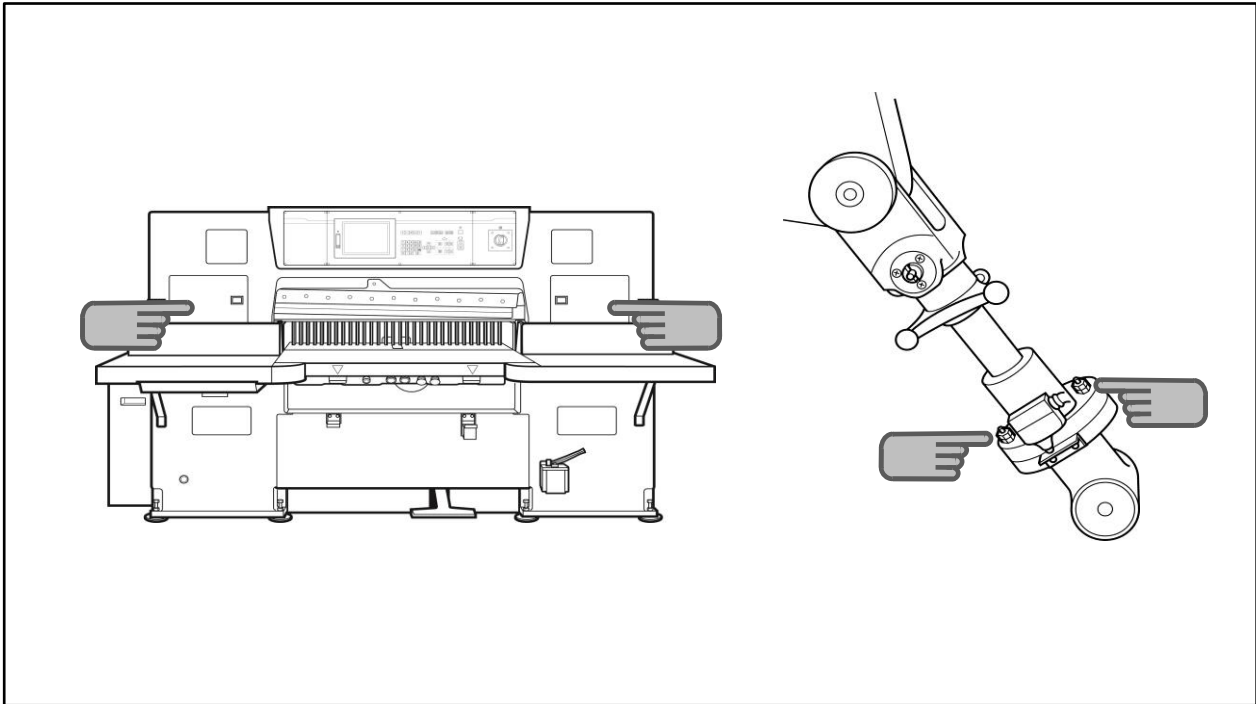
Turning clutch key on releases the knife brake. Leave the clutch key turned off unless the manual shaft is turned or held with a wrench.

Otherwise the knife will drop due to its own weight, causing injuries.

Never reach beneath the knife.

Otherwise injuries will be caused.

Safety bolts



If an excessive load is added to the knife or knife carrier, the safety bolt becomes loose or it is broken, causing an emergency stop to the knife. An alarm is displayed on the message window of the touch panel display at this time.

Visual confirmation may be impossible even if the safety bolt is loose. Retighten the safety bolt. If breakage is confirmed, turn the machine off and take measures to keep out the area against entry of a third party and contact the nearest service center or our service division.

The machine with a broken safety bolt is stopped in an extremely unstable and dangerous state. Replacement accompanies much danger and needs professional knowledge. ITOTEC's trained engineer will conduct replacement.



CAUTION

Never reach beneath the knife.
Otherwise injuries will be caused.

Do not pull out the product.
Otherwise injuries will be caused with the cutting edge of the knife or the like.

How to replace the safety bolts 1

1. Stop the main motor.
Leave the power switch turned on.



CAUTION

The flywheel, pump pulley, V-belt and main motor pulley keep rotating due to inertia for about 150 seconds after the main motor is stopped. Check for stoppage before continuing to work.
Otherwise entanglement and injuries will be caused.

2. Open the knife height adjustment window.
3. Observe the state of rod1 and rod 2.
It is necessary to check if the joining face of rod1 and that of rod 2, which are separated due to the broken safety bolt, is in parallel and check if they can be joined without a gap while manually turning.
According to circumstances of breakage of the safety bolt, rod 2 separated from rod 1 may face sideways or downward. Restoration in these cases is difficult and necessitates replacement of a part (insert rod). Contact our service division.
4. Turn the clutch on with the clutch key and install a wrench at the end of the shaft located on the right side face of the main body to move rod 1 and rod 2 close to each other and join so that the safety bolt installation holes are aligned. Check if they are joined completely and move the knife to the top.

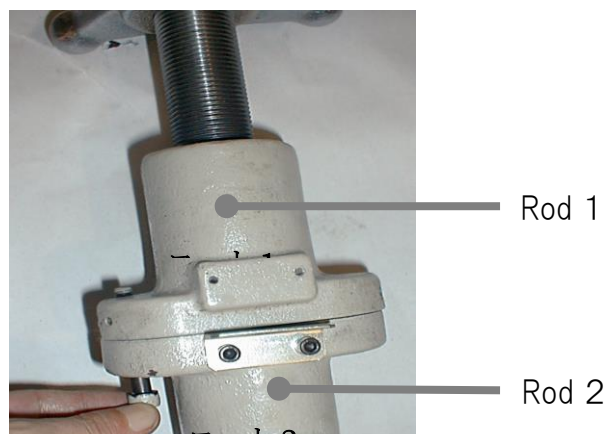


CAUTION

Turning the clutch key on releases the knife brake. Leave the clutch key turned off unless the manual shaft is turned or held with a wrench.
Otherwise the knife will drop due to own weight and injuries will be caused.

Never reach beneath the knife.
Otherwise injuries will be caused.

5. Turn the clutch key on.



How to replace the safety bolts 2

6. Remove the wrench and install the cover to the worm shaft.

**CAUTION**

Do not leave tools such as the wrench, which are used for manual rotation, installed. Otherwise the tool will jump out the shaft, causing injuries.

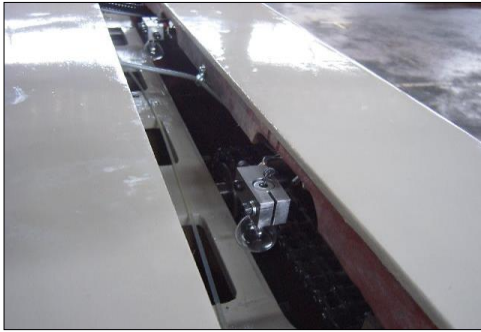
7. Insert the safety bolt from the bottom (of rod 2), and install the washer and nut from the top.
Two safety bolts are installed for each rod. Even if only one safety bolt is broken, replace in a set of two.

**CAUTION**

When replacing the safety bolt, be careful of the cutting edge of the knife. Otherwise injuries will be caused.

8. Check that alarm indication is eliminated.

How to replace the cut-line bulb



1. Turn the power off.
2. Remove the cover from the top of the main body.



CAUTION

When riding on the surface plate, use non-slip shoes.
Otherwise you will fall or drop, suffering from injuries.

3. Turn the lamp bulb counterclockwise and pull downward to remove.

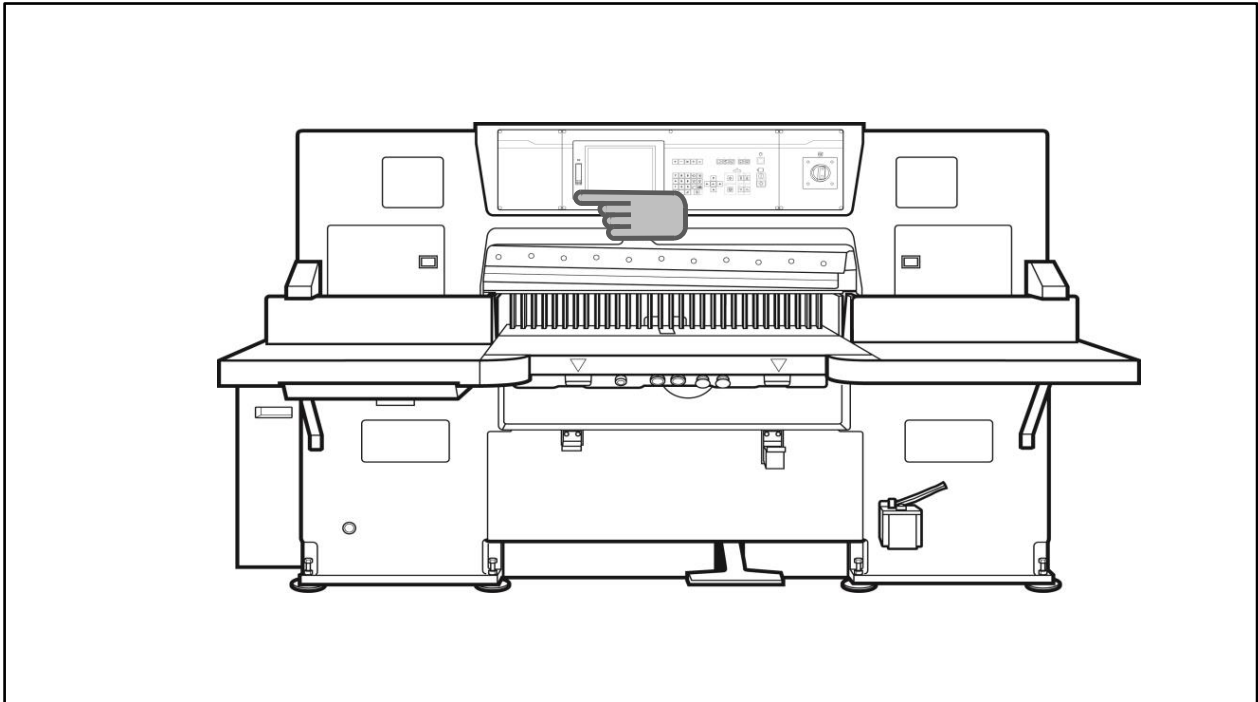


CAUTION

The lamp bulb may be hot immediately after it is blown out. Wait until it has cooled down before touching.
Otherwise burns will be caused.

4. Insert the new lamp bulb into the socket and turn clockwise to install.
5. Install the cover to the top of the main body.

How to replace the battery for date storage



The battery for backing up data is built in the internal side face of the computer box.

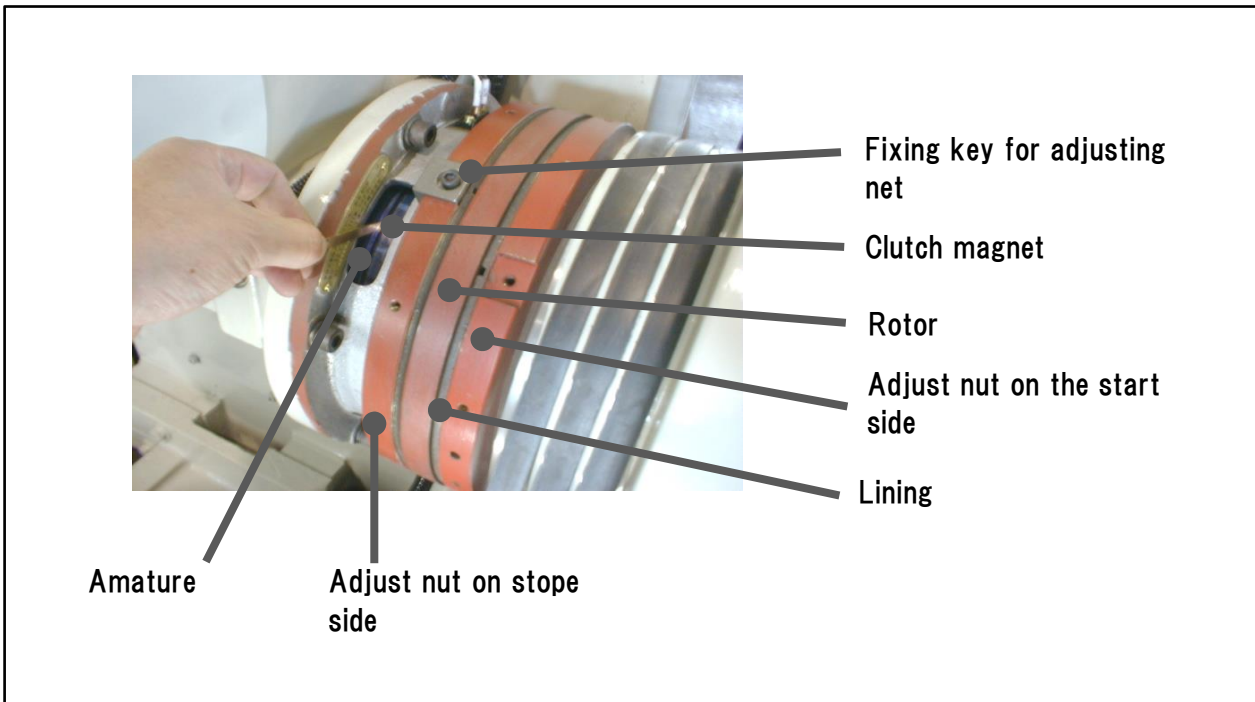
1. If the battery voltage is low, an alarm message is displayed on the touch panel display.
『 PLC battery voltage is low 』
2. It is recommended to replace every about 5 years in case of regular operation.
3. Order us for battery replacement.
If the message is displayed, contact us immediately.



CAUTION

Do not leave the message displayed.
If the battery is completely discharged, installation of the system program will become necessary.

Check the clutch



The clutch lining becomes worn as operation continues. As the lining is worn, the gap between amature and clutch magnet produced during clutch suction becomes smaller while the gap during release becomes larger. A reduced gap during suction deteriorates the amature opening and, if gap is eliminated, the rotating amature makes contact with the main body of the electromagnet, issuing abnormal noises. If operation continues without adjustment, the amature will suffer from seizure against the main body of the electromagnet. As well, an increases gap during deteriorates the sucking performance, making it impossible to suck the amature. Periodic inspection and adjkustment are essential.

1. Symtoms caused by worn lining.

- ① The knife is stopped after it has passed the top.
- ② The clutch operation noise becomes larger.
- ③ Abnormal noises are issued during knife operation.
- ④ The cutting torque seems smaller.

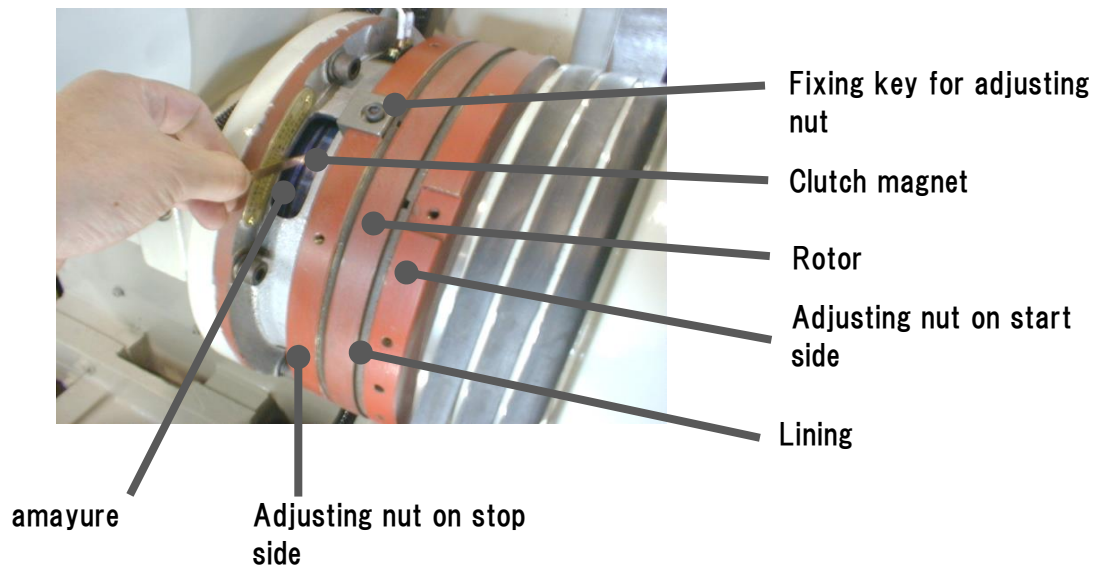
2. Life span of lining.

The thickness of the adjusting nut is 24mm, including the lining. Rrplace the adjusting nut including the lining if the thickness is 21.5mm.

3. Inspection and adjustment of lining.

Professional knowledge is necessary for inspection and adjustment of the clutch. Plee an order with our service division.

How to adjust the clutch 1



1. Stop the main motor.
Leave the power switch turned on.



CAUTION

The flywheel, pump pulley, V-belt and main motor pulley keep rotating due to inertia for about 150 seconds after the main motor is stopped. Check for stoppage before continuing to work.

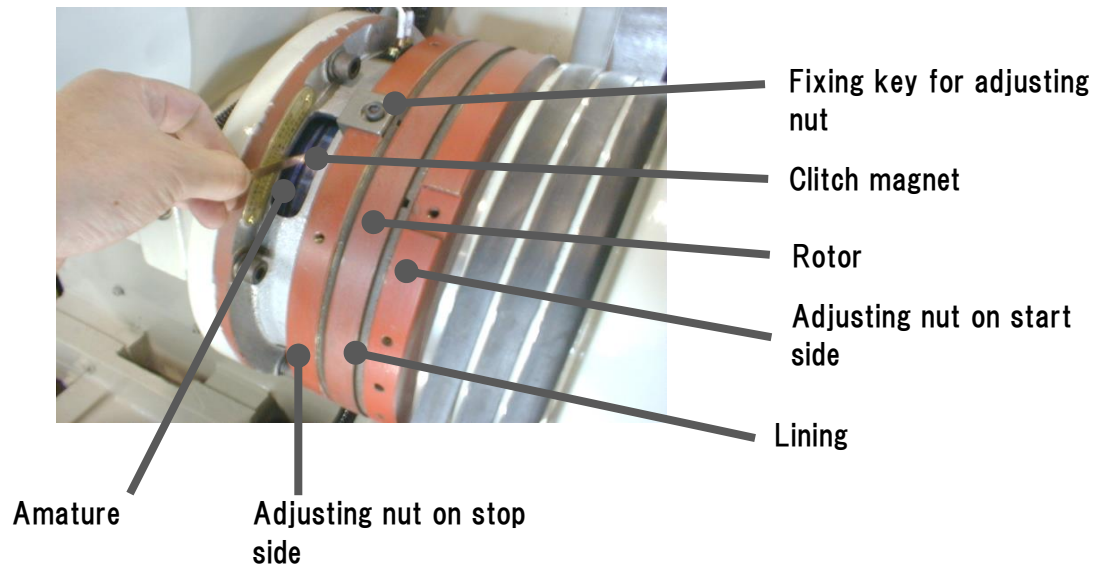
Otherwise entanglement and injuries will be caused.

2. Remove the cover from the main motor.
3. Measure the gap between the clutch magnet and clutch magnet amature with the clutch turned on and with the clutch turned off.
 Rated gap with clutch turned on : 0.6 ~ 1.0 mm
 Rated gap with clutch turned off : clutch -on gap + (0.5 ~ 0.8) mm
4. Adjust the clutch-on gap.
 - ① Remove the key (at 2 places) fixing the adjusting nut on the start side.
 - ② Loosen the set screw (at 2 places).
 - ③ Turn the adjusting nut on the start side.
 Clockwise : The gap increases
 Counterclockwise : The gap decreases

The screw pitch of the adjusting nut is 1.5mm. Therefore turn a full to change the gap by 1.5mm.

Adjust the adjusting nut while considering the best gap and key installation of the adjusting nut.

How to adjust the clutch 2



5. Adjust the clutch-off gap.
 - ① Remove the key (at 1 place) fixing the adjusting nut on stop side.
 - ② Loosen the set screw (at 1 place).
 - ③ Turn the clutch on.
 - ④ Turn the adjusting nut on the stop side.
 - Clockwise : The gap increases.
 - Counterclockwise : The gap decreases.

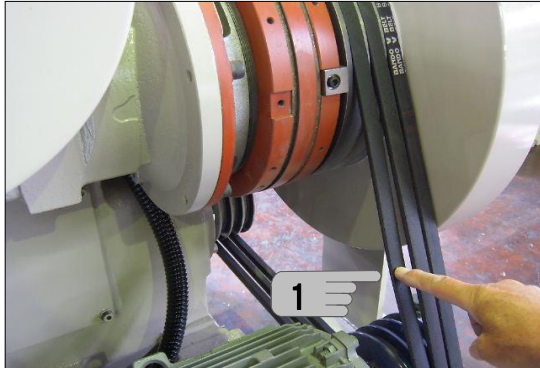
6. Tighten the set screw.

7. Install the key finxing the adjusting nut.

Install the set screw of the adjusting nut at the key groove (where no thread is provided) adjacent to the groove of the flange where the key is set.
If the screw is installed erroneously on the thread, rotation of the adjusting nut will becom disabled.

8. Inspect the gap between the rotor and lining on the start side with clutch turned on.
Check that the gap is 0.25mm or larger around the peimeter.

How to check and replace the V-belt



Adjusting bolt

The V-belt becomes elongated or deteriorated as operation continues. Adjust or replace if fault is found in inspection. If deterioration in the cutting torque is felt, inspection is necessary.

◆ Inspection of V-belt tension.

1. Give a force on the belt surface at the center between flywheel and main motor to inspect.
Push with a finger and serve the finger thickness as a measure, Replace all if deterioration such as cracks is found.

◆ Adjustment of V-belt tension.

2. Loosen the installation bolt of the main base at four places.
3. Turn the adjusting bolt clockwise to increase tension. To decrease the tension, turn the adjusting bolt counterclockwise to loosen it, and push the motor and base toward the main body.
4. Tighten the installation bolt of the main motor base at four places.

◆ Replace of V-belt

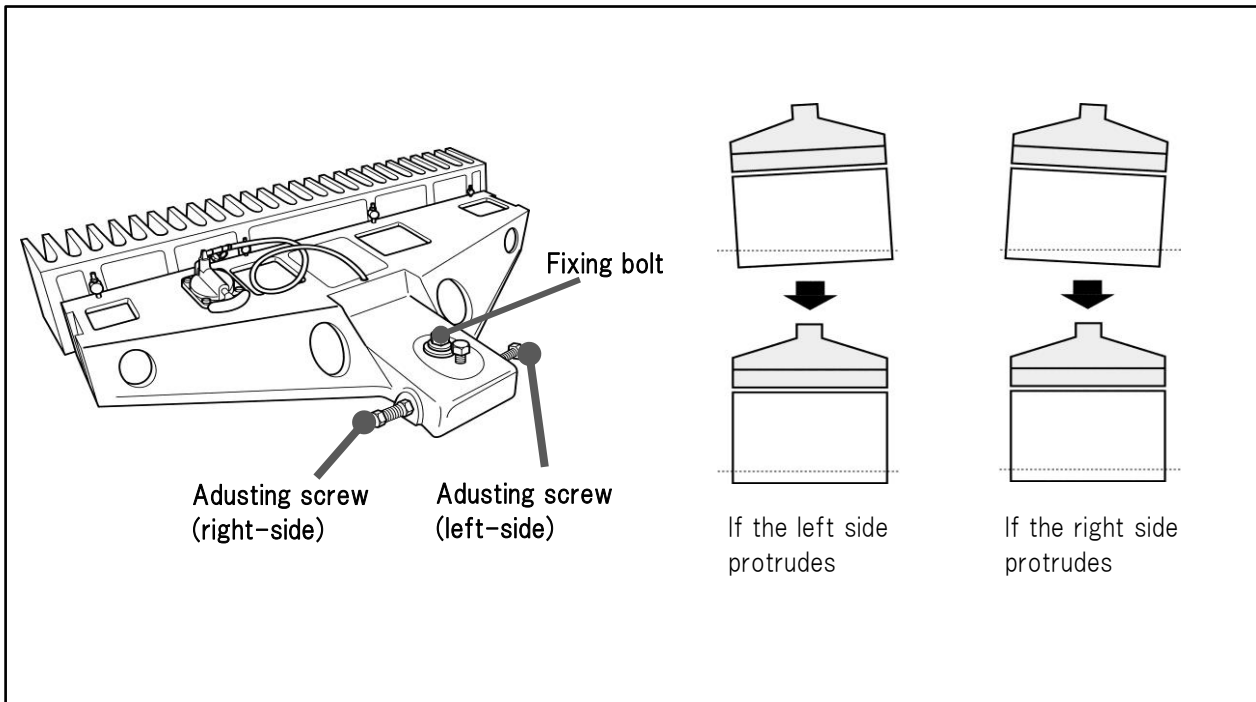
5. to make removal of the belt easier, loosen the tension to the minimum.
6. Remove the flywheel support.
7. Replace the belt.
8. Install and temporarily tighten the flywheel.
9. Use the upper and lower flywheel support adjusting bolts so that the gap between the lining on the start side and rotor at the top and at the bottom is even, and then tighten the installation bolt.
10. Adjust the tension of the V-belt.



CAUTION

When conducting inspection, maintenance or repairs, turn the circuit breaker off, post a "work under way" sign, post supporting workers and take other measures so that another person will not the power on or start operation. Otherwise injuries will be caused.

Left/right adjustment of the backgauge



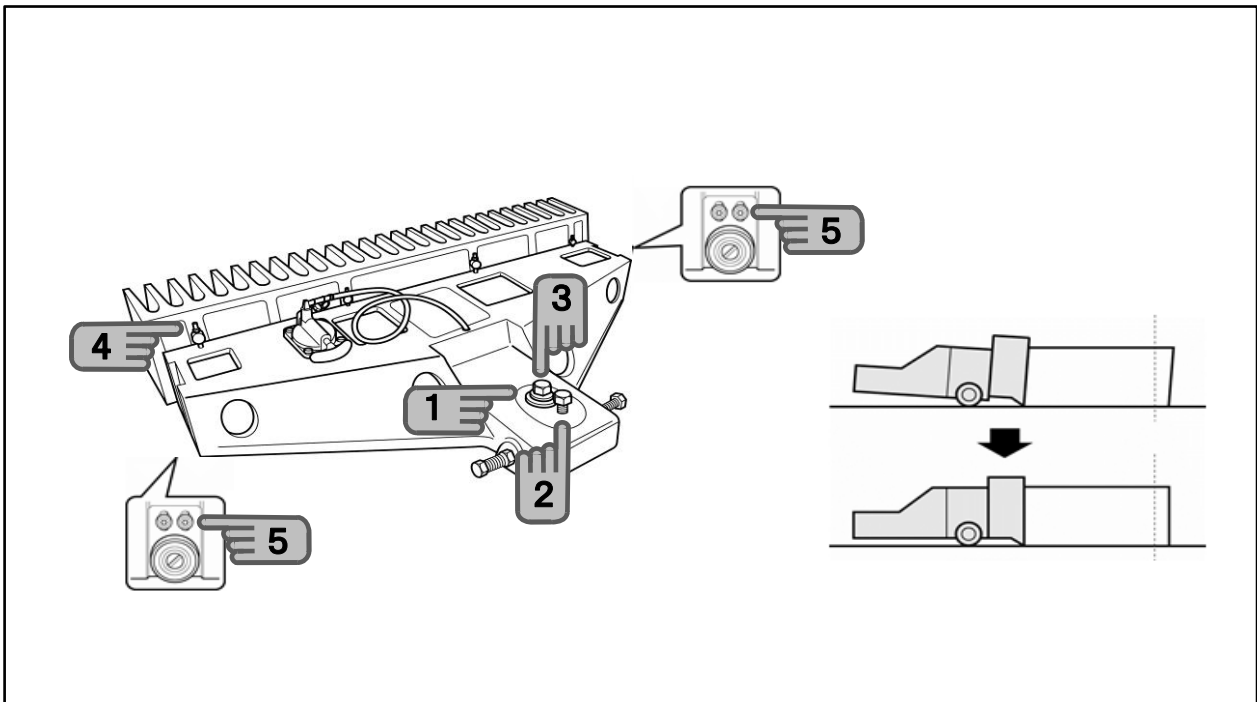
1. Turn the fixing bolt counterclockwise to loosen it.
2. Loosen the lock nut of the left/right adjusting screw on the left side, and turn it counterclockwise by the error to loosen it.
 If the left side protrudes : adjustong scxrew on left side.
 If the right side protrudes : adjusting screw on right side.
3. After loosening the lock nut of the left/right adjusting screw on the right side, turn the screw clockwise by the extent of loosening in step 2 , to tight it.
 If the left side protrudes : adjustong scxrew on right side.
 If the right side protrudes : adjusting screw on left side.
4. Turn the fixing bolt clockwise to fix it.
5. Check the result of adjustment.
6. If the adjustment is insufficient or too much, repeat above 2 - 5 .
7. After adjustment is finished, tighten the lock nuts of thw left/right adjusting screws on both sides.



CAUTION

Do not put all your weight on the wrench or do not use a pipe to tighten excessively. Otherwise the backgauge will be broken.

Vertical adjustment of the backgauge 1



1. Loosen the fixing bolt.
2. Turn the vertical adjusting screw counterclockwise by the amount of the error.
3. Tighten the fixing bolt.
4. Using the backgauge comb adjusting screw, adjust the gap between the front end of the backgauge comb and surface plate.

Turn the backgauge comb adjusting screw clockwise to widen the gap. Turn counterclockwise so that the backgauge comb is pushed down, to narrow the gap. The gap should be adjusted so that the product does not enter the gap.

5. Adjust so that the guide roller makes light contact with the surface plate.

Vertical difference and other essential point

Adjust to the best clamp pressure.

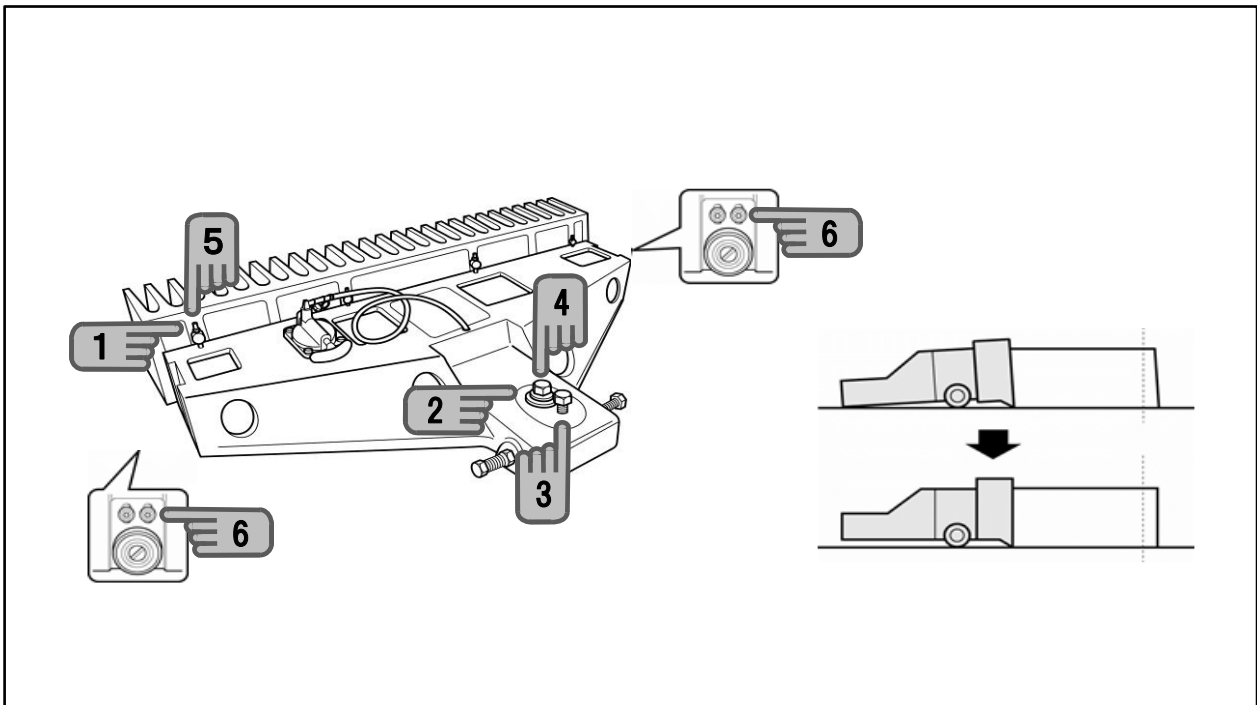
If the bottom layer is cut larger : Reduce the pressure.

If the upper layer is cut larger : Increase the pressure.

If warp is caused to the cutting edge, the bottom layer is cut larger.

Grind to correct.

Vertical adjustment of the backgauge 2



1. Turn the backgauge comb adjusting screw clockwise to raise.
2. Loosen the fixing bolt.
3. Turn the vertical adjustment screw clockwise by the amount of the error.
4. Tighten the fixing bolt.
5. Using the backgauge comb adjusting screw, adjust the gap between the front end of the backgauge comb and surface plate.

Turn the backgauge comb adjusting screw clockwise to widen the gap. Turn counterclockwise so that the backgauge comb is pushed down, to narrow the gap. The gap should be adjusted so that the product does not enter the gap.

6. Adjust so that the guide roller makes light contact with the surface plate.

Vertical difference and other essential point.

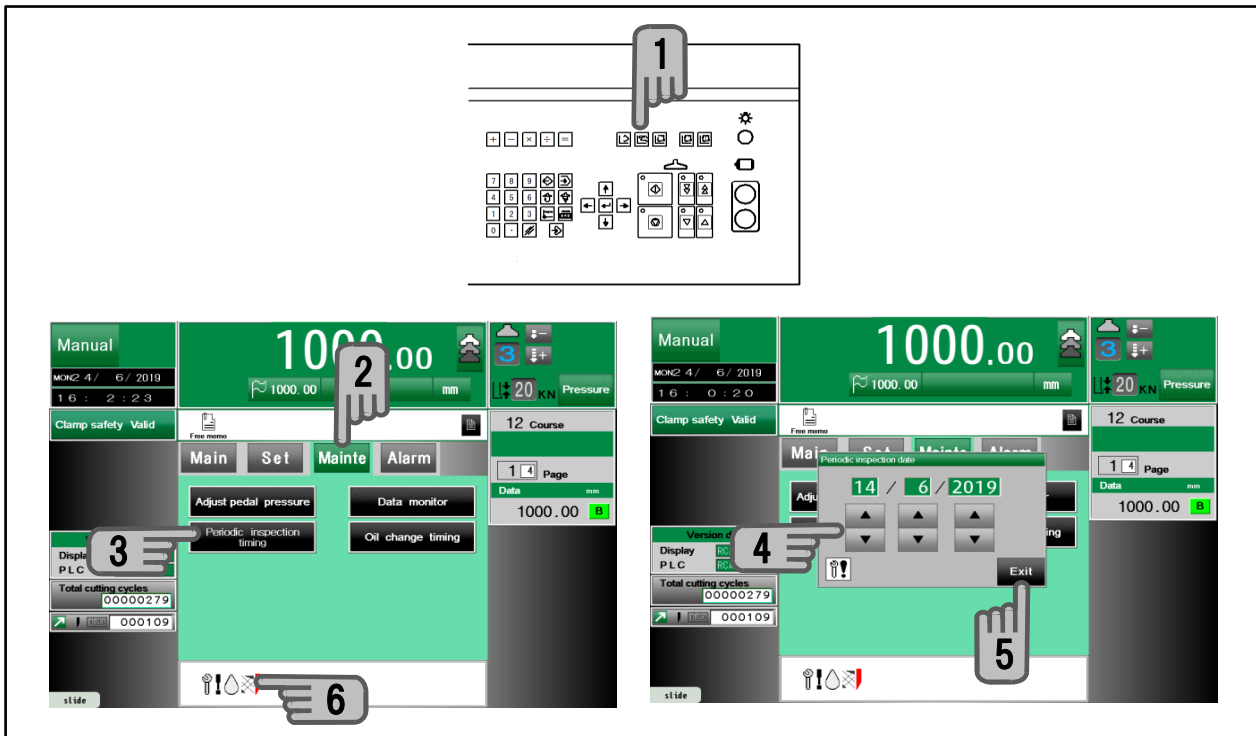
Adjust to the best clamp pressure.

If the bottom layer is cut larger, reduce the pressure.

If the upper layer is cut larger, increase the pressure.

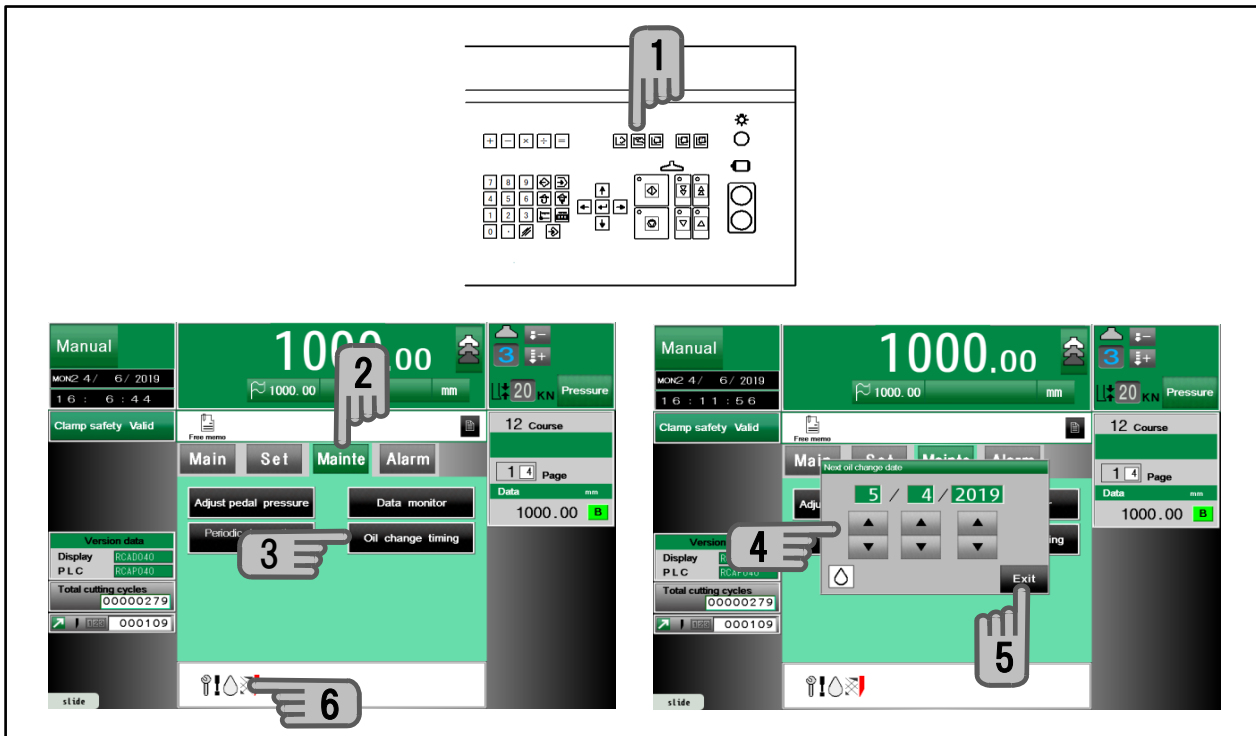
If warp is caused to the cutting edge, the bottom layer is cut larger.
Grind to correct.

How to set periodic inspection timing



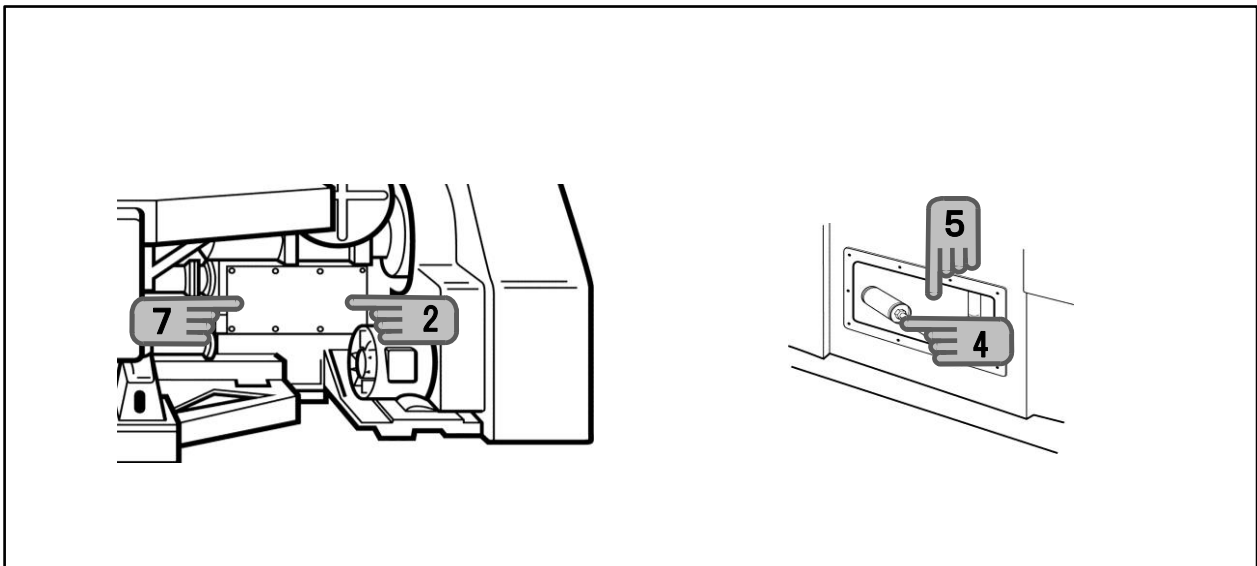
1. Select the manual mode.
2. Press sub mode menu 【 Mainte 】 .
3. Press 【 Periodic inspection timing 】 .
4. Set the year, month, day using 【 ▲ 】 or 【 ▼ 】 .
5. Press 【 Exit 】 .
6. The mark is displayed in the message window if the periodic inspection timing is reached.

How to set oil change timing



1. Select the manual mode.
2. Press sub mode menu 【 Mainte 】.
3. Press 【 Oil change timing 】.
4. Set the year, month, day using 【 ▲ 】 or 【 ▼ 】.
5. Press 【 Exit 】.
6. The mark is displayed in the message window if the oil replacement timing is reached.

Replacement of hydraulic oil



CAUTION

When conducting inspection, maintenance or repairs, turn the circuit breaker off, post a "work under way" sign, post supporting workers and take other measures so that another person will not turn the power on or start operation. Otherwise injuries will be caused.

1. Stop the main motor.

CAUTION

The flywheel, pump pulley, V-belt and main motor pulley keep rotating due to inertia for about 150 seconds after the main motor is stopped. Check for stoppage. Otherwise entanglement and injuries will be caused.

2. Remove the lid of the oil tank.

3. Use a siphon type manual pump or the like to drain old oil.

CAUTION

When using an electric pump, be careful to avoid entanglement. Oil may be hot immediately after the main motor is stopped. Wait until the oil temperature lowers before working. Otherwise injuries or burns will be caused.

4. Remove the strainer and clean it with light oil. Install the strainer.

5. Clean the inside of the tank

6. Supply new oil up to the middle in the oil gauge.

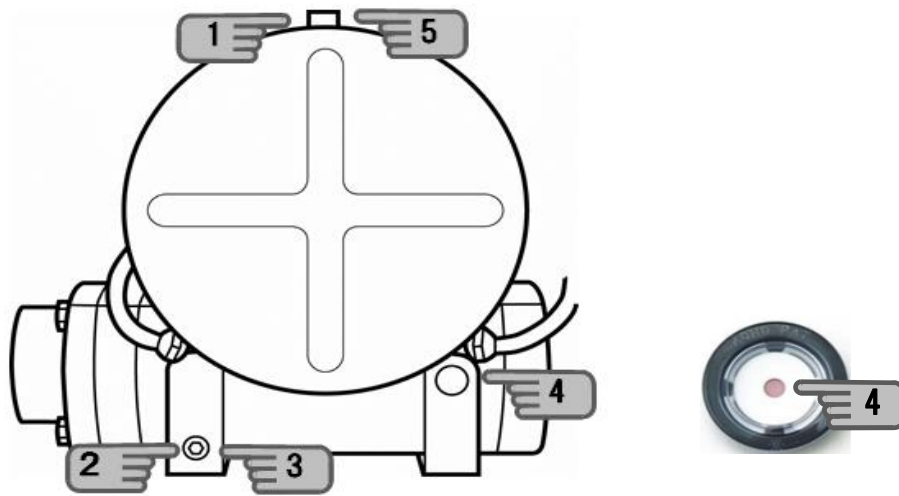


7. Install the lid of the oil tank.

8. Start the main motor and check the movement of the clamp.

A "jumping clamp" symptom is caused by bubbles having entered the hydraulic circuit during oil change. Repeat air cutting until bubbles are eliminated and motion becomes stabilized.

Replacement of gear oil



1. Remove the oil cap.
2. Prepare an empty can,
Remove the blind plug and drain old oil.
3. Close the blind plug.
4. Supply gear oil up to the middle in the oil gauge.
5. Install oil cap.

Recommend replacement every 2000 hours.

Please order us for oil change.

Oil table

Oil table

	Hydraulic oil	Gear oil	Grease	Machine oil
Idemitsu	Daphne hydraulic Fluid 32	Daphne Super Gear Oil 320	Daphne Eponex Grease No.2(No.3)	Daphne Super Multi Oil 68
Cosmo Oil	Cosmo hidro AW32	cosmo Gear SE320	Cosmo Grease Dynamax No.2(No.3)	Cosmo New Dynaway 68
Showa Shell	Tellus Oil 32	Omala Oil 320	Alvania No.2(No.3)	Tonna Oil S68
JX Energy	Super Hyrando 32	Bonnoc M320	Multinoc Grease 1·2	Uniway SF68
ExxonMobil	Mobil DTE 24	Mobil Gear 632	Mobilux No.2(No.3)	Vactra No.2

The above is at the time of issue.

Oil capacity

	Hydraulic oil	Gear oil
SC-100Z	35 L	4 L (2x2)
SC-115Z	35 L	4 L (2x2)
SC-137Z	35 L	4 L (2x2)
SC-160Z	35 L	4 L (2x2)
SC-170Z	50 L	4 L (2x2)
SC-200Z	50 L	4 L (2x2)
SC-250Z	50 L	4 L (2x2)

Recommend replacement every 2000 hours.

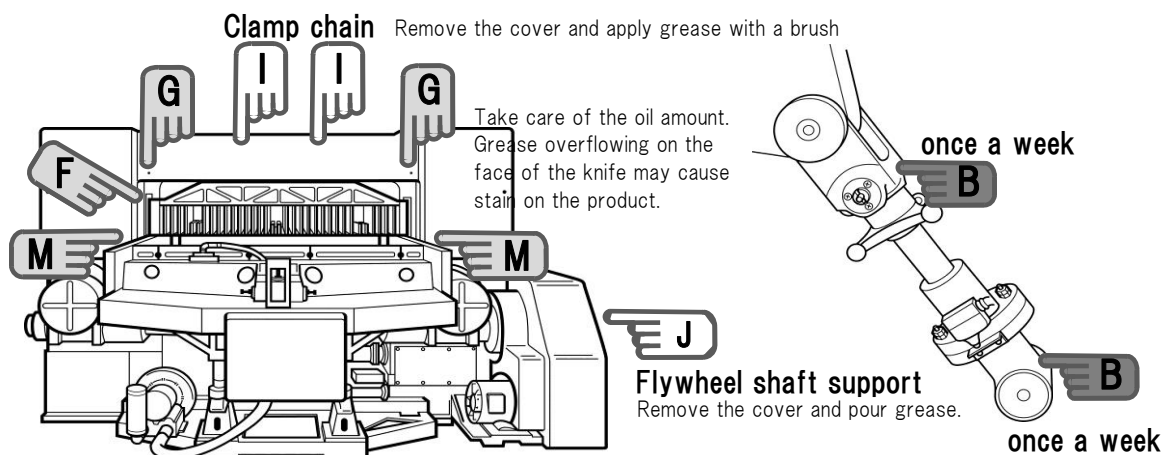
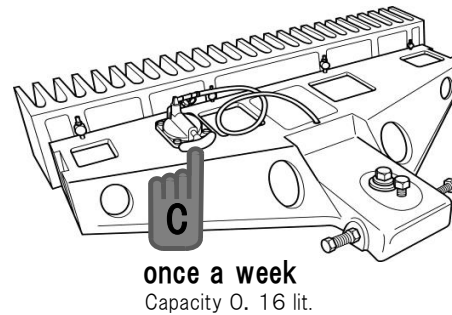
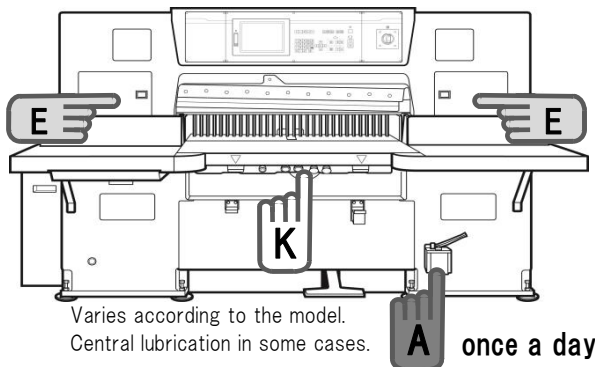
Lubrication and grease up



Grease once a year

Grease once a month

Machine oil



CAUTION

When conducting inspection, maintenance or repairs, turn the power off, post "work under way", post supporting workers and take other measures so that another person will not turn the power on or start operation.

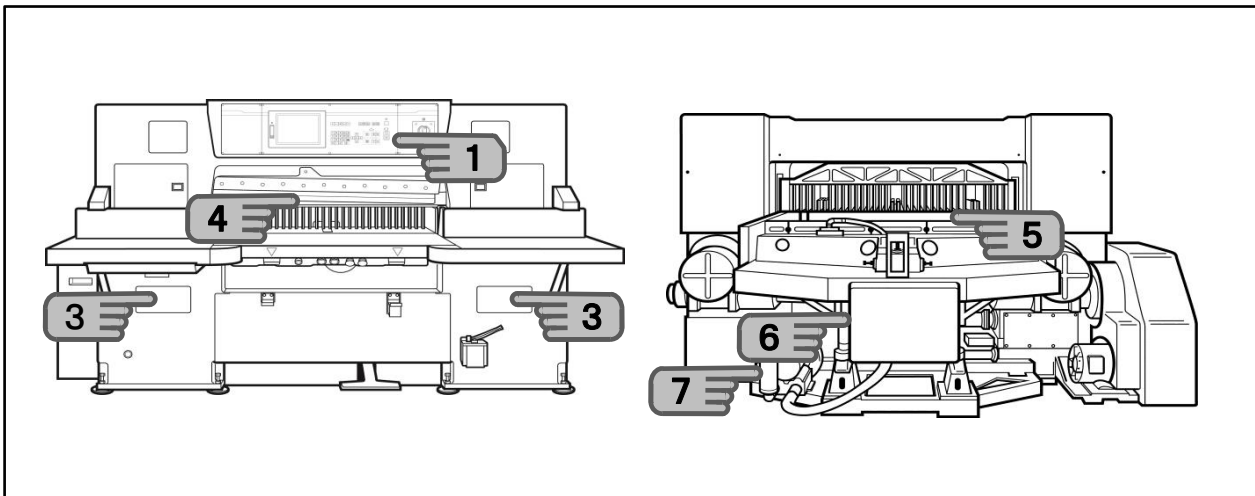
The flywheel, pump pulley, V-belt and main motor pulley keep rotating due to inertia for about 150 seconds after the main motor is stopped. Check for stoppage before continuing to work.

When supplying grease to the clamp chain, wear non-slippery shoes and gloves. Use a brush or the like to apply grease.

Otherwise you will drop from the surface plate or touch edge of the machine

The oil amount and frequency vary according to the operating state of the machine. While inspecting the state of oil film, adjust the amount and lubrication period.

Cleaning 1



CAUTION

When conducting inspection, maintenance or repairs, turn the power off, post "work under way", post supporting workers and take other measures so that another person will not turn the power on or start operation.

1. Stop the main motor.



CAUTION

The flywheel, pump pulley, V-belt and main motor pulley keep rotating due to inertia for about 150 seconds after the main motor is stopped. Check for stoppage before continuing to work. Otherwise entanglement and injuries will be caused.

2. Remove paper powder, cutting waste and so on from the surface plate. Use silicone spray or other sliding agents to handle the product easier.

3. Open the left and right waste removal windows and remove cutting waste inside.



CAUTION

When removing cutting waste from the waste removal window on the left side, be careful of the left end of the cutting edge of the knife. Otherwise injuries will be caused with the cutting edge.

4. Move the waste cloth across the front face of the knife and clamp from the top to the bottom to remove dirt.



CAUTION

When cleaning the front face of the knife and clamp, wear gloves. Avoid wiping from the bottom to the top or sideways along the cutting edge. Otherwise injuries will be caused with cutting edge of the knife.

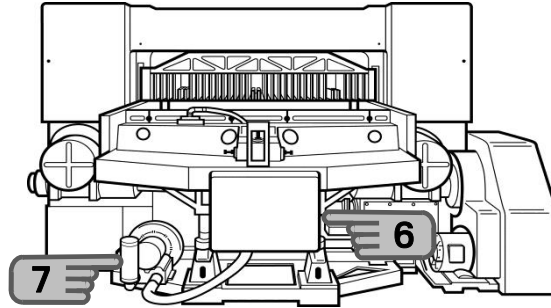
5. Lower the knife so that it makes contact with the cutting stick. Press the reset button and raise the clamp and wipe the knife and back face of the knife carrier to remove dirt.



CAUTION

When cleaning the back face of the knife, turn the power off. Otherwise entanglement will be caused with the clamp or backgauge operated by a third party. When stopping the knife at the bottom dead center to clean the back face of the knife, make the cutting edge of the knife into full contact with the cutting stick.

Cleaning 2



CAUTION

When conducting inspection, maintenance or repairs, turn the power off, post "work under way", post supporting workers and take other measures so that another person will not turn the power on or start operation.

6. Wipe off oil accumulated in the oil pan.



CAUTION

Do not place a matter on the oil pan. Entanglement with the backgauge mechanism or other failures will be caused.

7. Clean the filter of the blower motor.



CAUTION

The blower motor is hot during operation or immediately after the machine is stopped. Wait and keep away the temperature lowers. Otherwise burns will be caused.

Discarding

1. Dispose of old parts after replacement or consumable parts while taking environmental effects into consideration.
2. When disposing of the cutting stick, discharge appropriately while taking environmental effects into consideration.
3. When disposing of the knife, request a contractor so that disposal is safe with a worn out cutting edge or the like.



CAUTION

Do not dispose of the knife in the original state as an iron waste.
Otherwise the sharp cutting edge will cause injuries.

4. When disposing of the machine, contact us.



CAUTION

When disposing of the machine, be sure to remove the knife.
Otherwise the sharp cutting edge will cause injuries.

Edit 2019.08 SCZ2001 (EN)



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