FORMAX®

Atlas-TRIO15
Multi-Function Slitter/Creaser/Cutter

10/2018

MAINTENANCE MANUAL

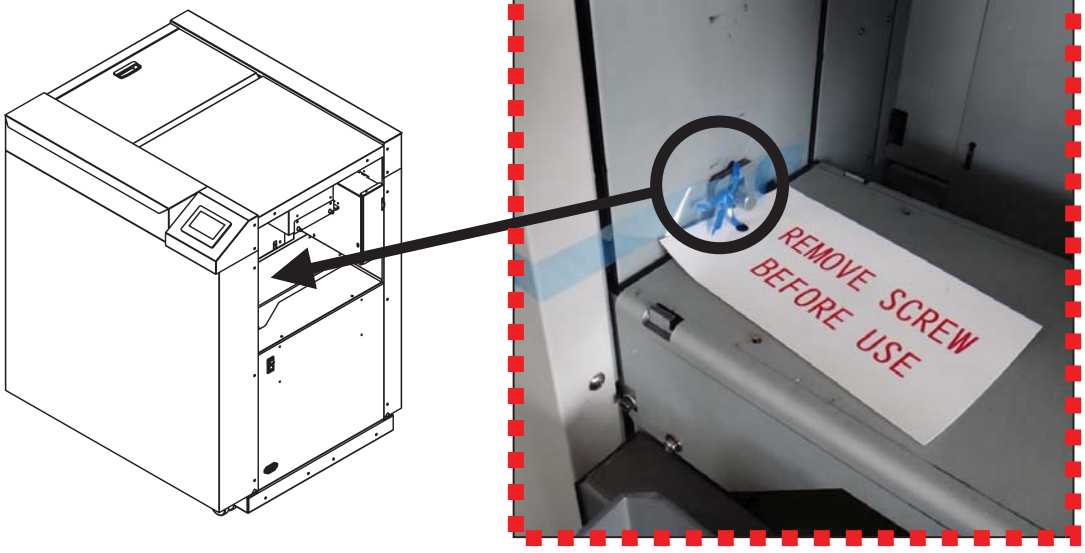
Contents

1. Installation

1- (1)Installation

(a) Fixing screw

The fixing screws shown on below images must be removed before use.

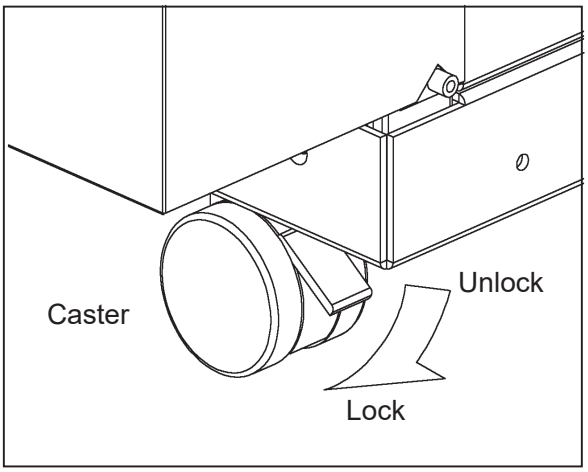


Note.

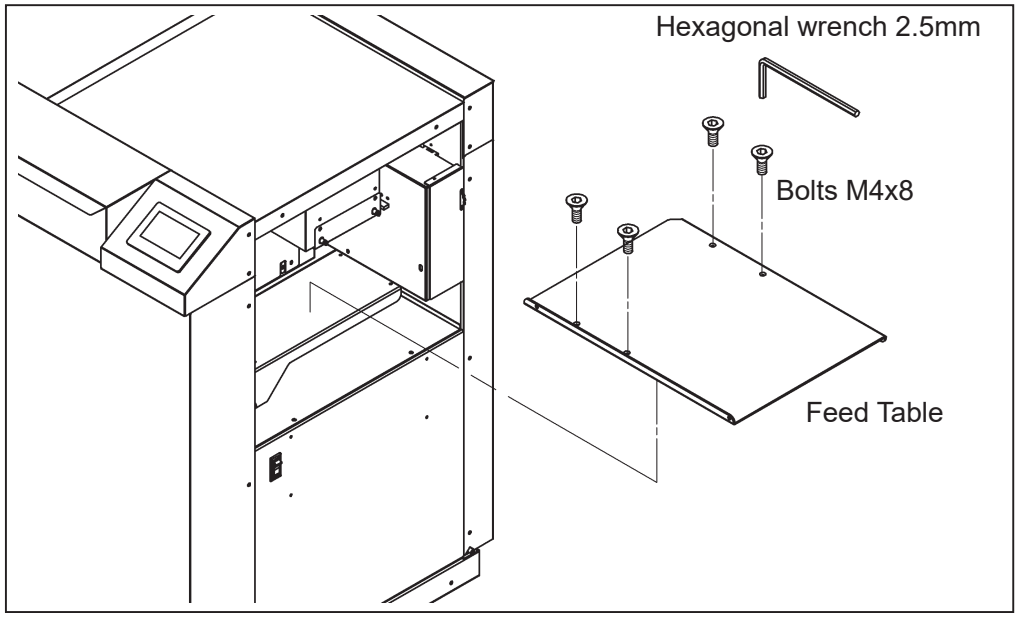
Do not forget to remove screws before use, otherwise machine will be broken.

(b) Caster

Please be sure to lock a caster brake.

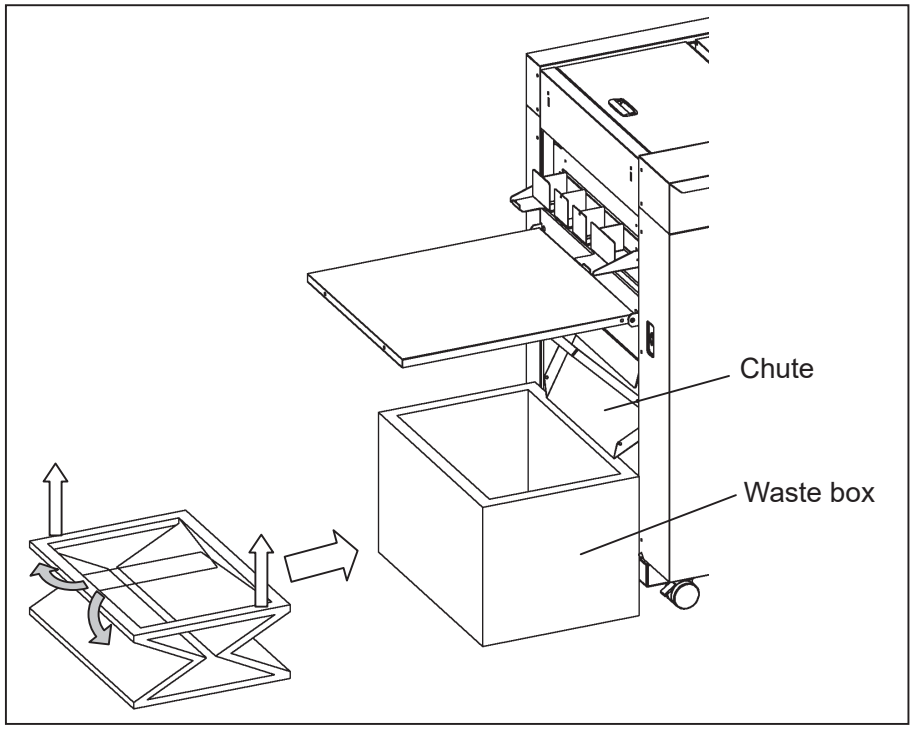


(c) Feed table



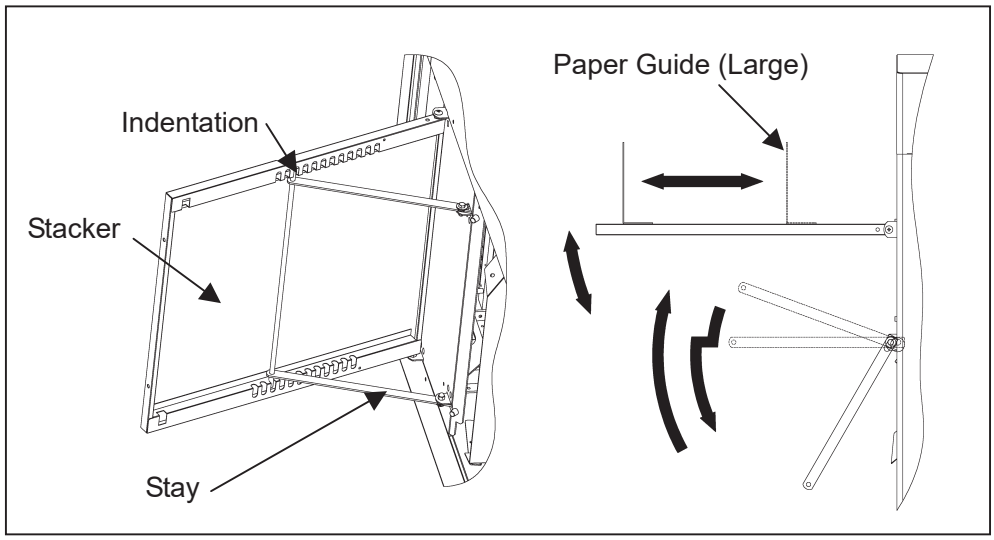
(d) Stacker and Waste box

① Place the Waste box under the Chute.



② Open the stacker and set the stays in the indentation of the back of the stacker at an appropriate angle to allow smooth paper ejection.

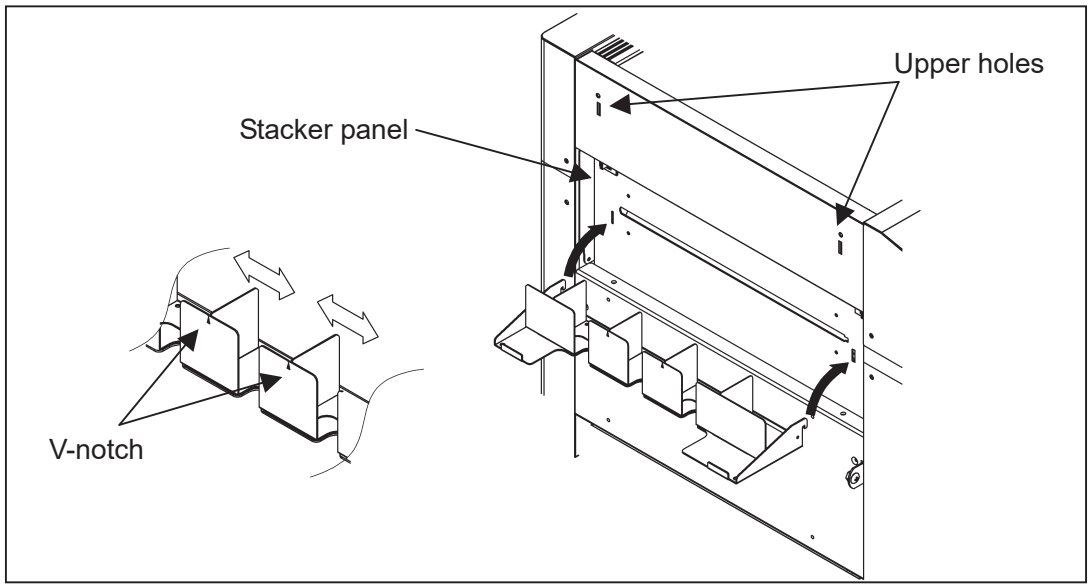
③ Adjust the large paper guide according to the paper size.



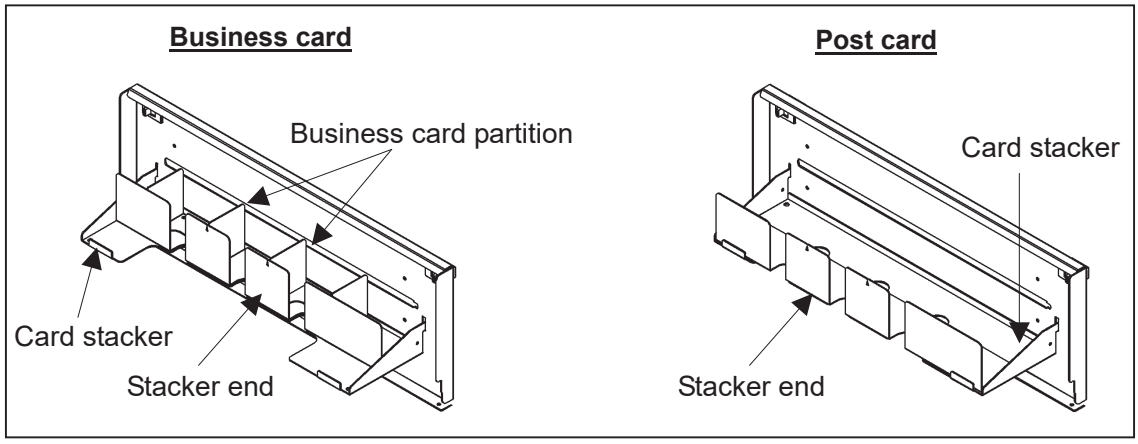
④ Hang the business card stacker to the Stacker panel.

⑤ Find the V- notch to see where to put the business card partition.

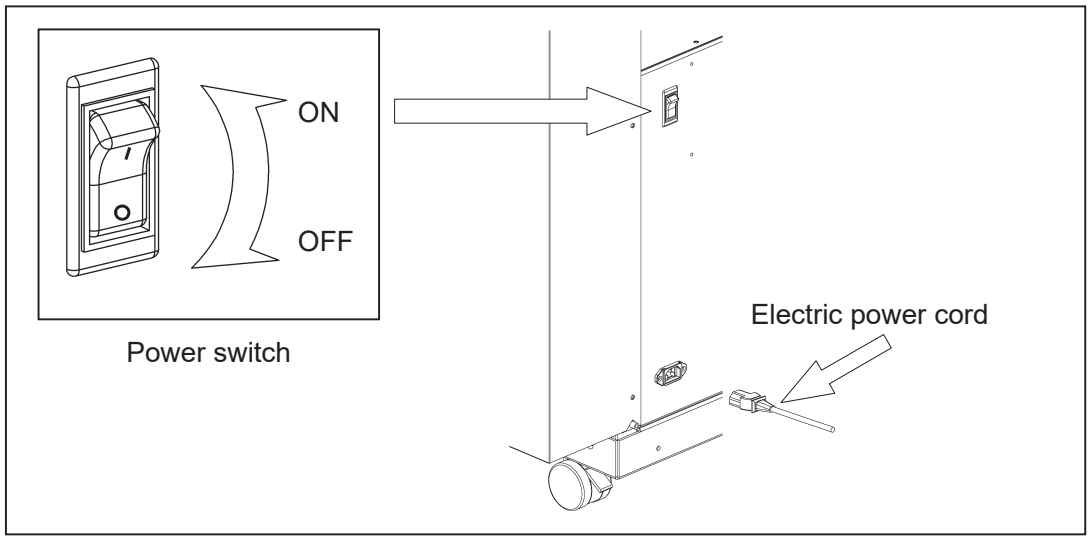
⑥ When it is not used, it may be hooked to the upper holes in the stacker panel.



⑦ Change the settings of the stacker according to the cut pattern.



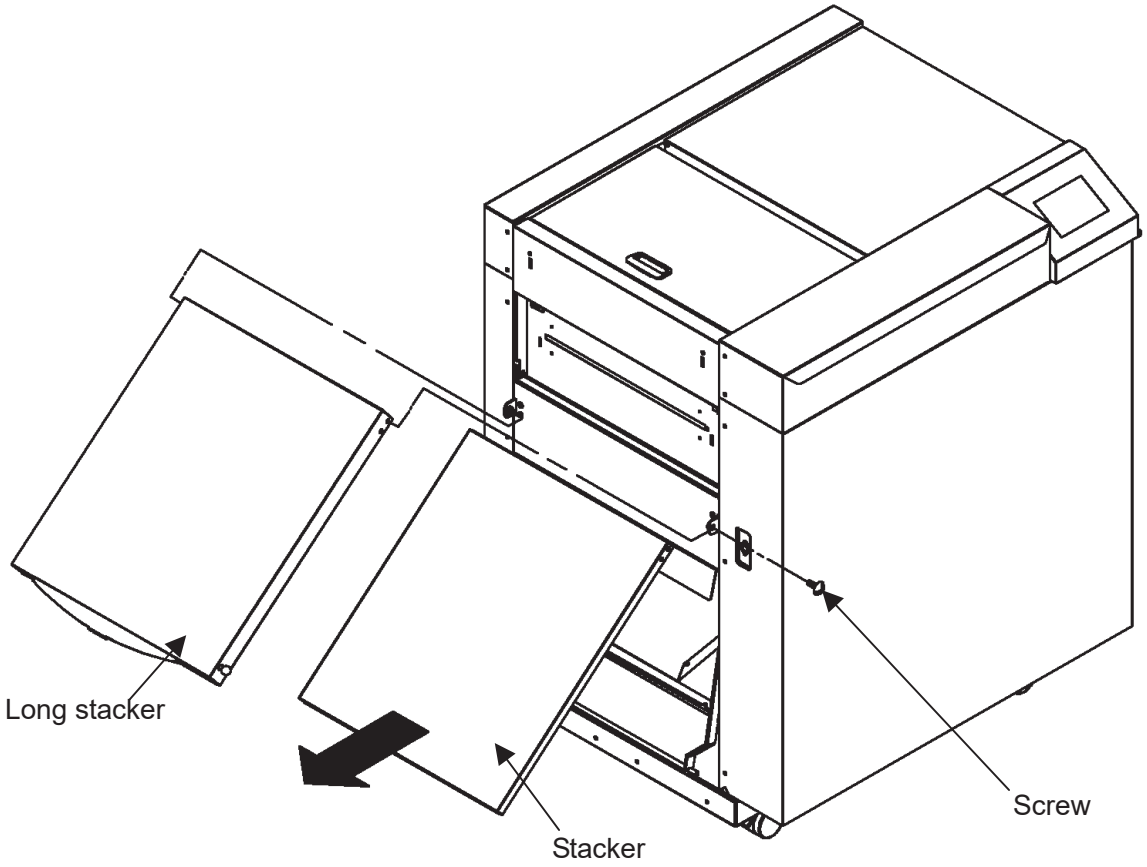
(e) Electric-power



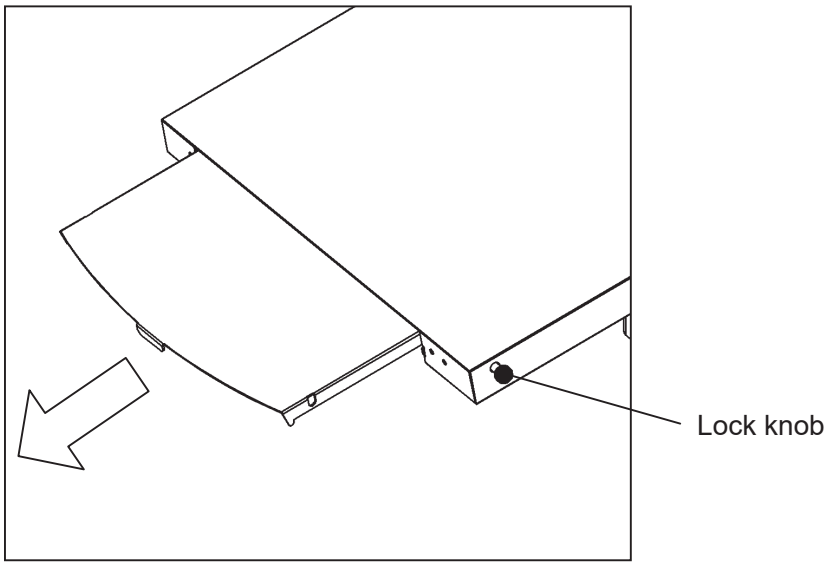
1- (2)Installing options

(a) Long stacker

Loosen the screw to remove the standard stacker, attach the long stacker and tighten the screw.

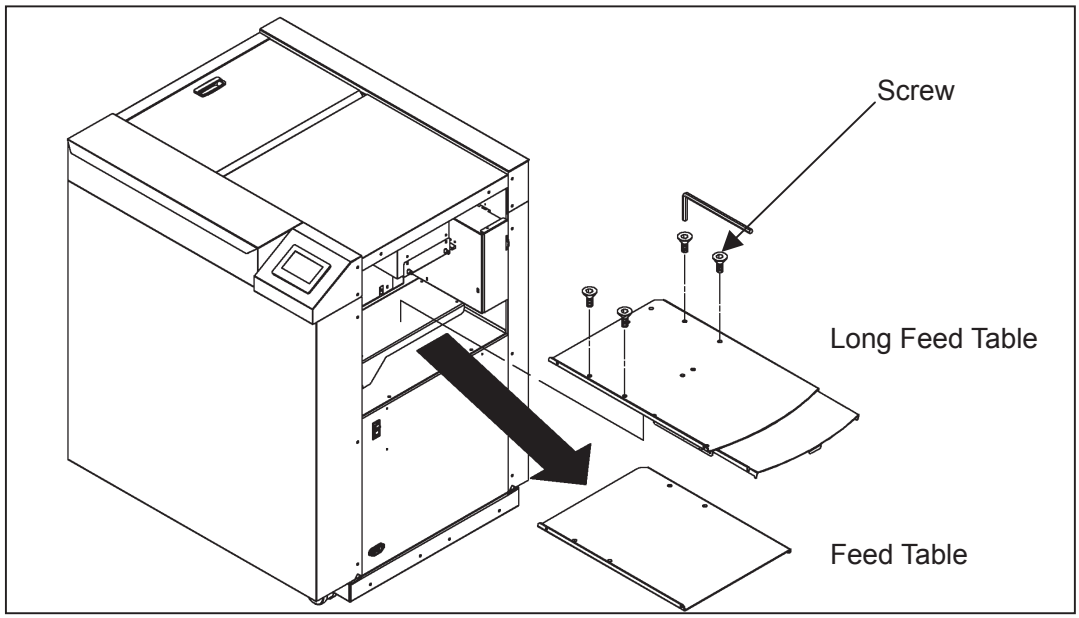


Stacker can be extended by pulling an extension with pulling a lock knob.

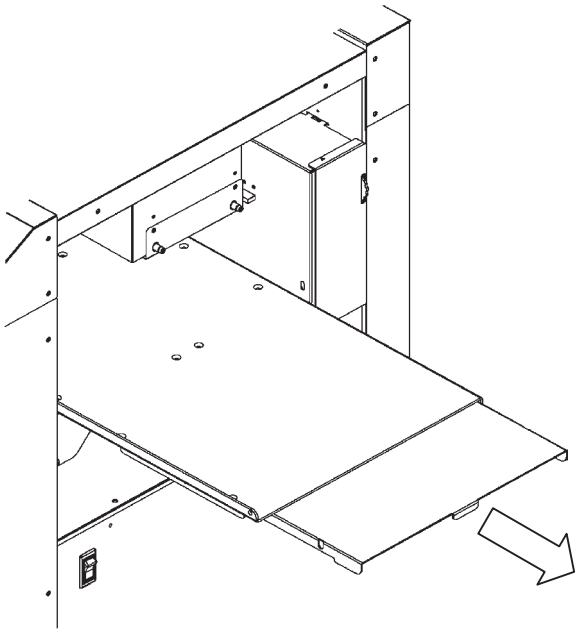


(b) Long Feed Table

Loosen the screws, remove the standard feed table. Attach the long feed table and tighten the screws.

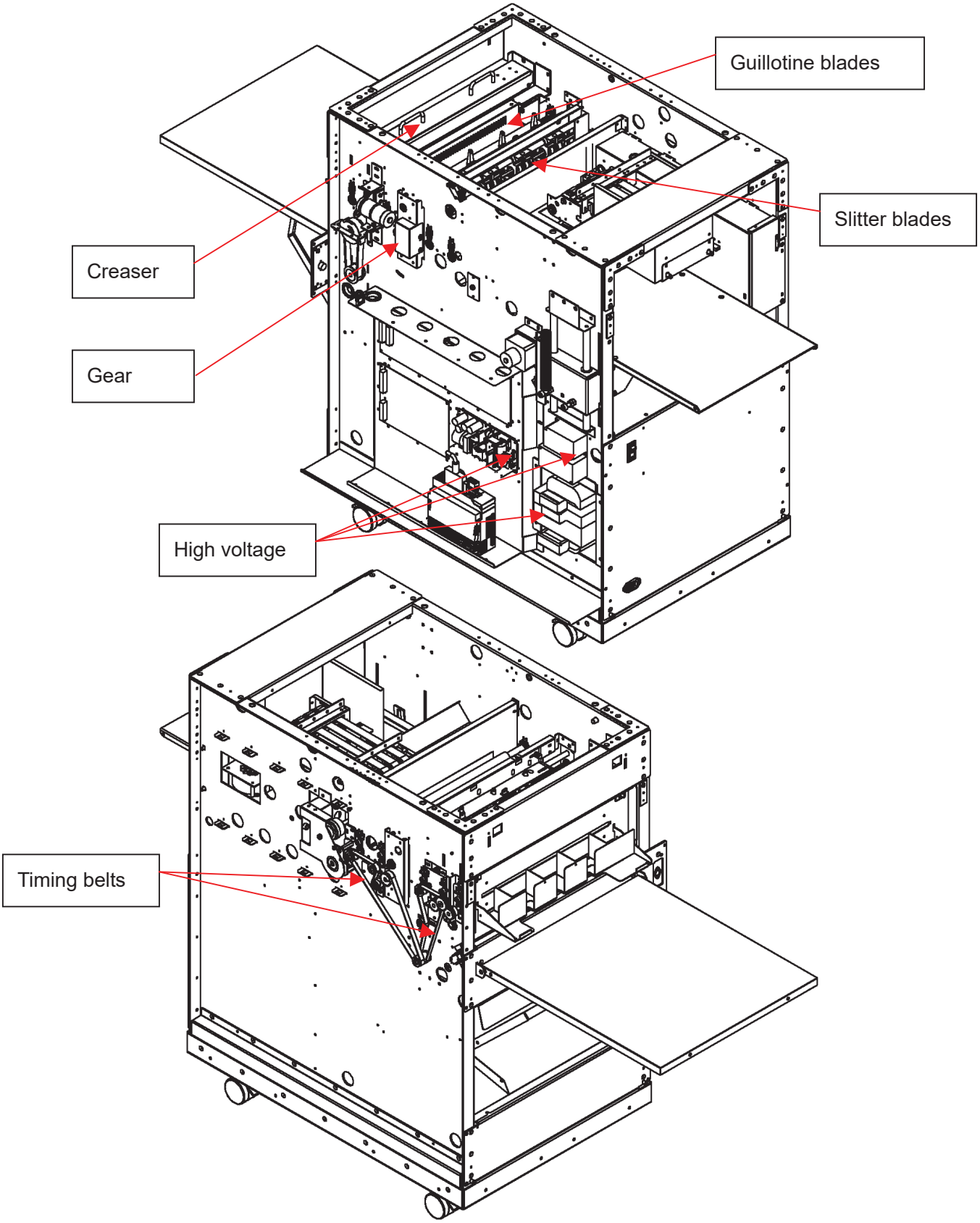


Adjust the large paper guide according to the paper size.



2. General instruction

(a) Caution



(b) Necessary tools

- C-clip ring pliers

For replacing slitter blades

- Maintenance kit

Pipe
(For slitters)

For replacing slitter blades

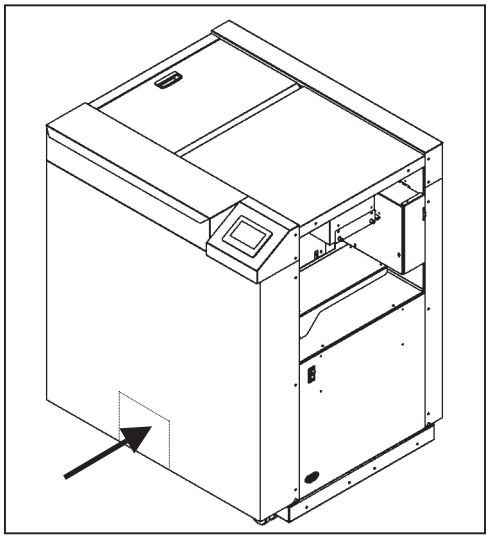
Program update tool

- Feeler gauge

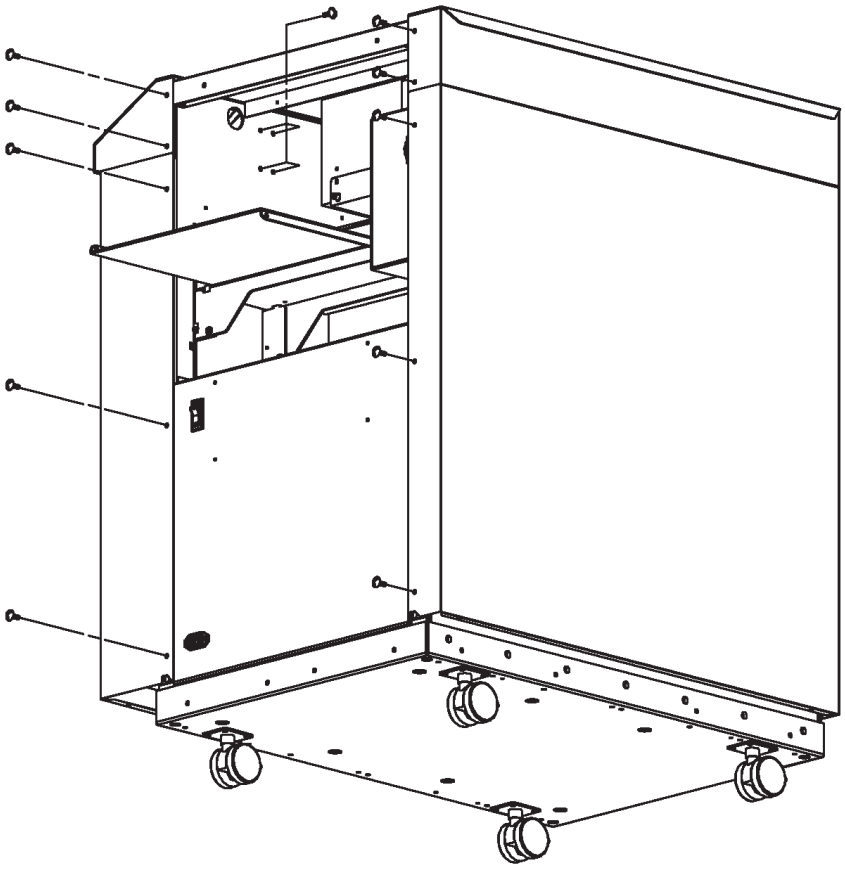
For clutch

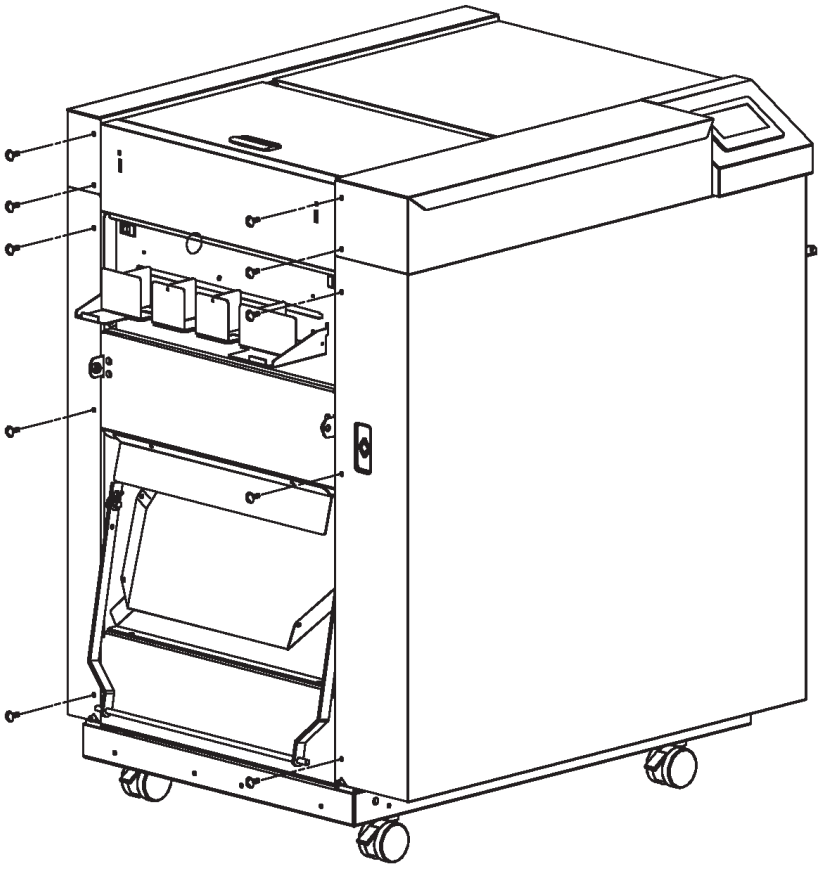
(c) Factory setting

Factory setting sheet is attached inside of the front cover.

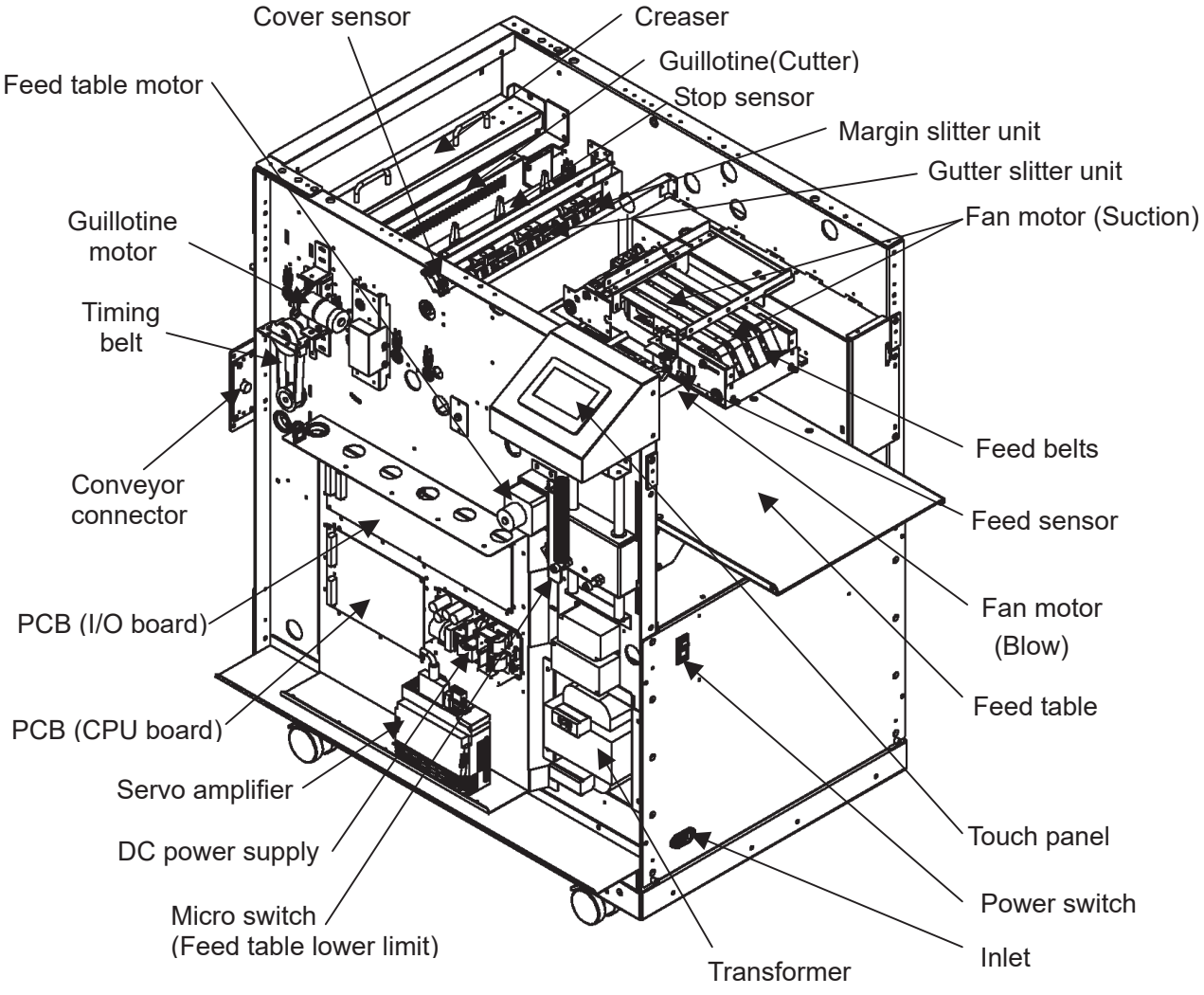


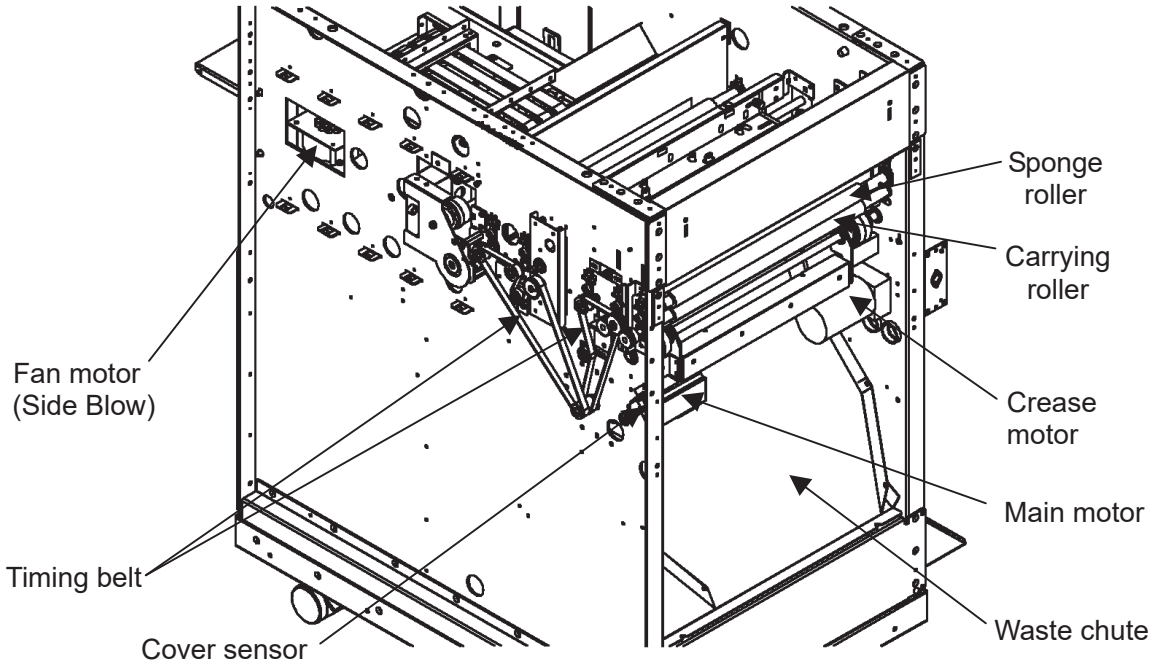
(d) Remove covers





(e) Names of parts





3. Touch panel operation

3- (1) SERVICE MENU

FORMAX®

Initialising.....

Please do not power off the machine.

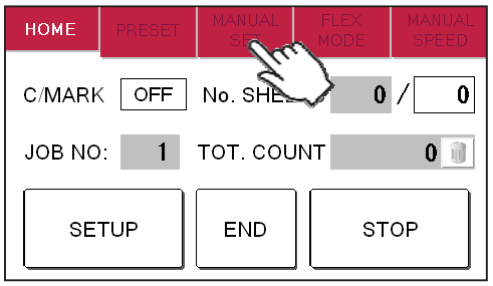
FORMAX®

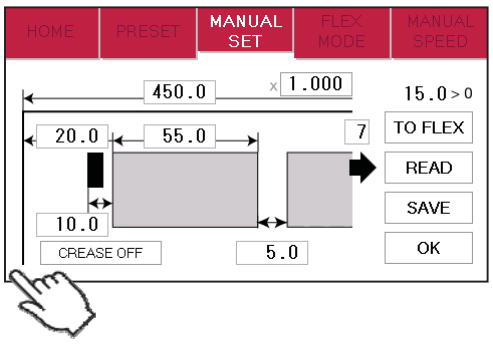
atlas-TRIO15

Program Version

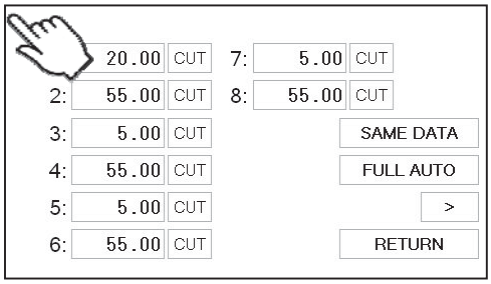
TP-V stands for Version of the Touch Panel image.

CPU-V stands for Version of the CPU board program.



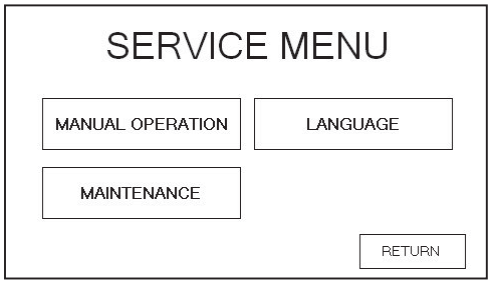


Press and hold the bottom left corner of the screen for 3 seconds.

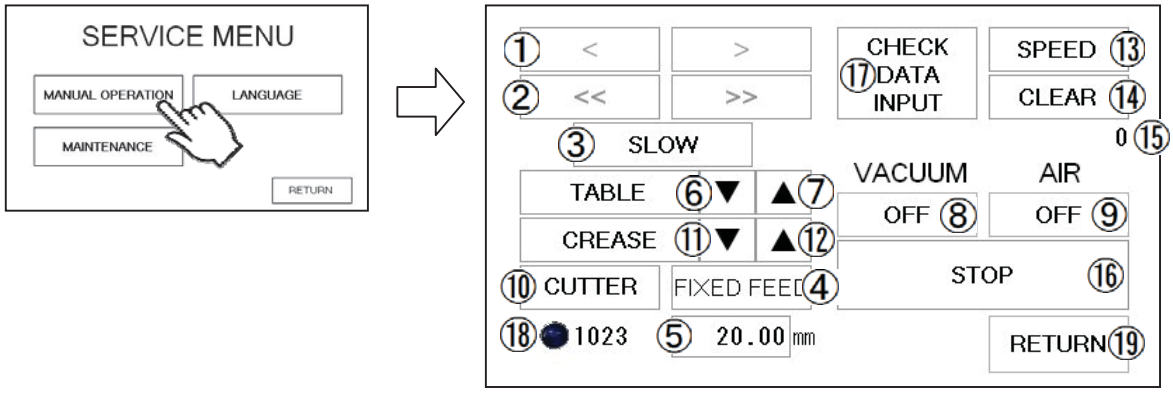


Press and hold the top left corner of the screen for 3 seconds.

Enter the service password.



3- (2) MANUAL OPERATION Screen



① Carrying roller will rotate.

② Carrying roller will rotate. (Continuous)

③ The speed of Carrying roller can be adjusted to two levels (SLOW or FAST).

④ Carrying rollers will rotate at input length. [mm]

⑤ Enter the dimension of Fixed feed.

⑥ FEED TABLE will move downward while this is being pressed.

⑦ FEED TABLE will move upward while this is being pressed.

⑧ Vacuum motor will be turned ON and OFF.

⑨ Blow motor will be turned ON and OFF.

⑩ Guillotine will move once.

⑪ Crease will move upper limit.

⑫ Crease will move lower limit.

⑬ Go to SPEED screen.

⑭ Reset the counter for servo movement to zero.

⑮ Counter for servo movement.

⑯ Stop all operations. Of note, Cutter and Crease will move to the upper limit.

⑰ Go to INPUT DATA CHECK screen.

⑱ Double Feed Detection

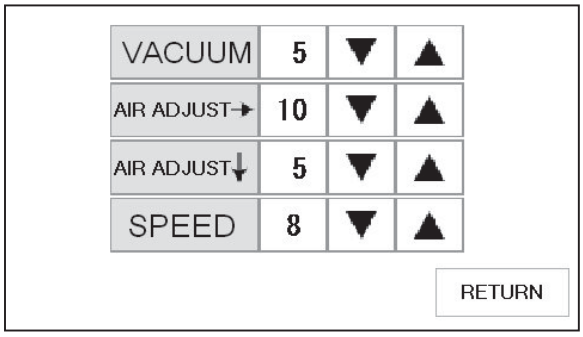
Transmittance of the double feed sensor is shown as an integer between 0 and 1023. The umber 1023 represents the state in which there is no sheet under the sensor, while the number closer to zero indicates that thicker sheets have been detected by the sensor.

: paper sheets are being loaded.

: no paper sheets loaded.

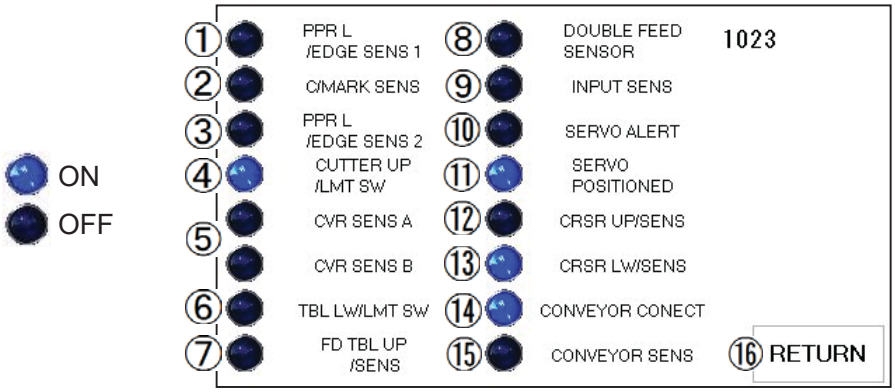
⑲ Return to SERVICE MENU Screen.

3- (3) SPEED Screen



① Regarding suction adjustment and speed change, refer to “5.1 Adjustments on the paper feed section” in Operation Manual.

3- (4) INPUT DATA CHECK Screen



① PPR L/EDGE SENS 1（Origin sensor）

The sensor lamp will be turned off when shielded and turned on when transmitted.

The lamp on the screen will be turned on when shielded and turned off when transmitted.

② C/MARK SENS（Cut mark sensor）

The sensor lamp (orange) will be turned on when detecting black color and turned off with no detection.

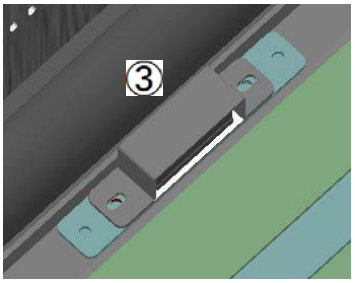
The lamp on the screen will be turned on when detecting black color and turned off with no detection.

How to adjust.（☞Page40）

③ PPR L/EDGE SENS 2（Stop sensor）

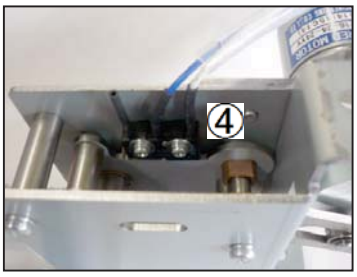
The sensor lamp will be turned on when shielded and turned off when transmitted.

The lamp on the screen will be turned on when shielded and turned off when transmitted.



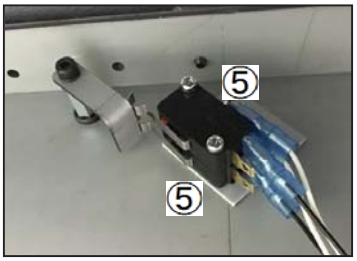
④ CUTTER UP/LMT SW

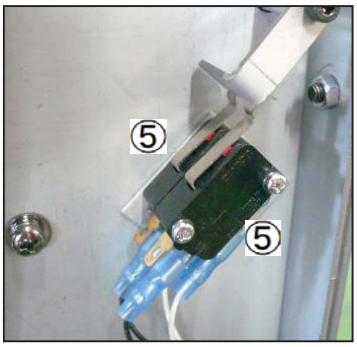
The lamp on the screen will be turned on when the switch is on.



⑤ COVER SENS A, B

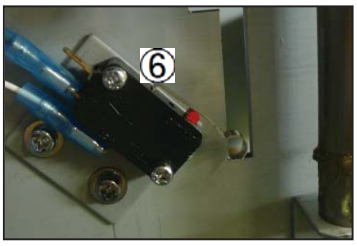
The sensor lamp will be turned off when shielded and turned on when transmitted. The lamp on the screen will be turned off when shielded and turned on when transmitted.





⑥ TBL LW/LMT SW

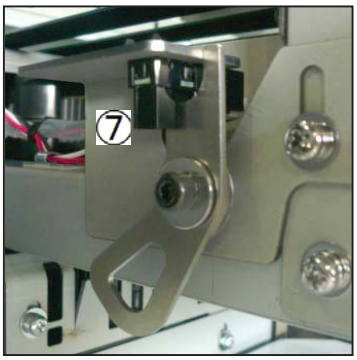
The lamp on the screen will be turned on when switched on.



⑦ FD TBL UP/SENS

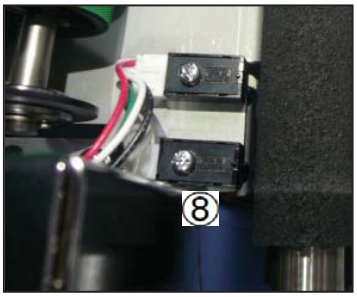
The sensor lamp will be turned off when shielded and turned on when transmitted.

The lamp on the screen will be turned off when shielded and turned on when transmitted.



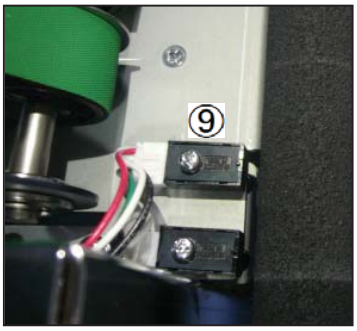
⑧ DOUBLE FEED SENSOR

The lamp on the screen will be turned off when shielded and turned on when transmitted.



⑨ INPUT SENS

The lamp on the screen will be turned on when shielded and turned off when transmitted.



⑩ SERVO ALERT

The lamp will be turned on if an error occurs on the servo motor; the lamp stays off when no error condition exists.

⑪ SERVO POSITIONED

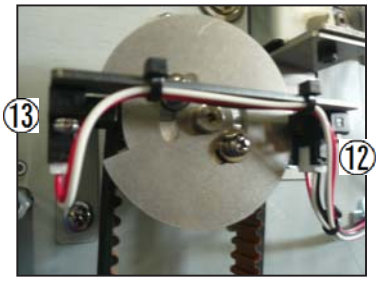
The lamp stays on while the servo motor is not running and stays off while the motor is running.

⑫ CRSR UP/SENS

⑬ CRSR LW/SENS

The sensor lamp will be turned off when shielded and turned on when transmitted.

The lamp on the screen will be turned off when shielded and turned on when transmitted.

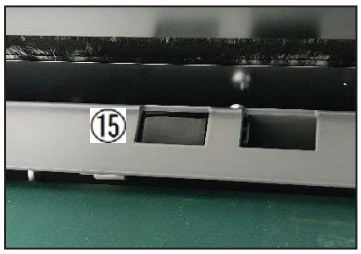


⑭ CONVEYER CONNECT

The lamp on the screen turns on when the harness is connected to the machine. It turns off when the harness is disconnected.

⑮ CONVEYER SENS

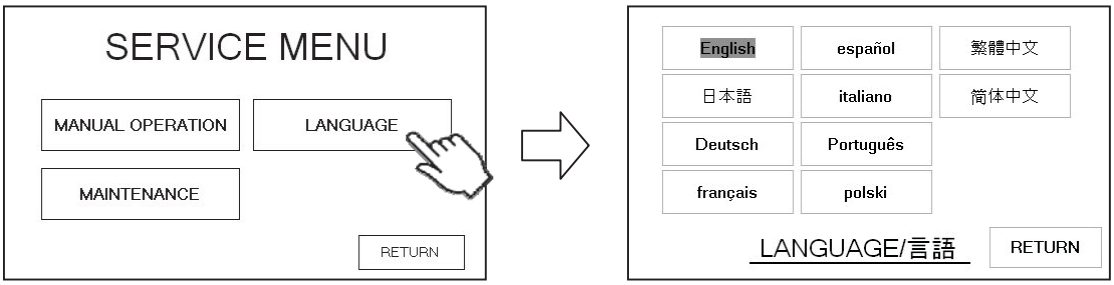
The lamp on the screen will be turned off when shielded and turned on when transmitted.



⑯ RETURN

Return to Manual Operation Screen.

3- (5) LANGUAGE Screen



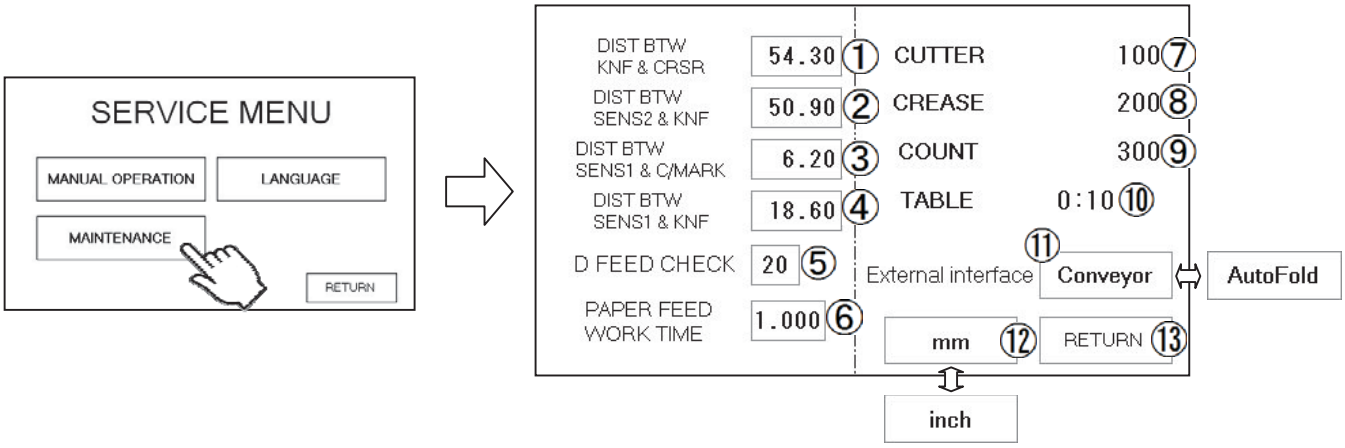
① Language

Select an appropriate language. The language of the touch panel will switch on. English is selected at the time of shipment.

② RETURN

Return to Service menu Screen.

3- (6) MAINTENANCE Screen



① Distance between guillotine and creaser. [mm]

② Distance between stop sensor and guillotine. [mm]

③ Distance between origin sensor and Cutmark sensor. [mm]

④ Distance between origin sensor and guillotine. [mm]

⑤ The number of times that the machine checks double-feed. [times]

⑥ This is the time when the paper feed table goes down. [times]

⑦ Total number of processed Guillotine. [times]

⑧ Total number of processed Crease. [times]

⑨ Total number of processed paper. [sheets]

⑩ Operation time of Feed table. [hours : minutes]

⑪ This is to select either Conveyor or AutoFold as an External interface.

⑫ This is to set either mm or inch as the measurement input unit.

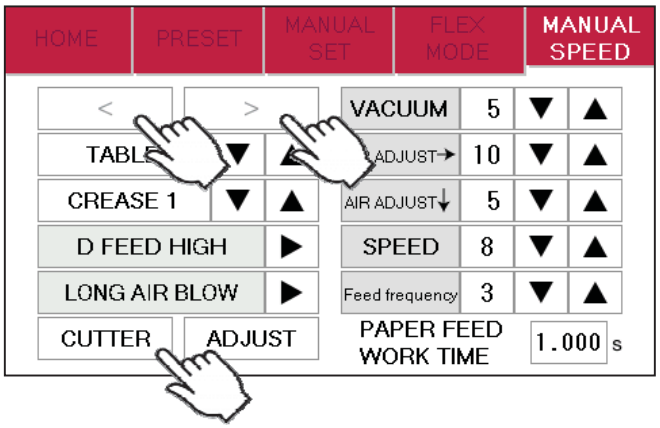
⑬ Return to Service menu Screen.

4. Paper jam

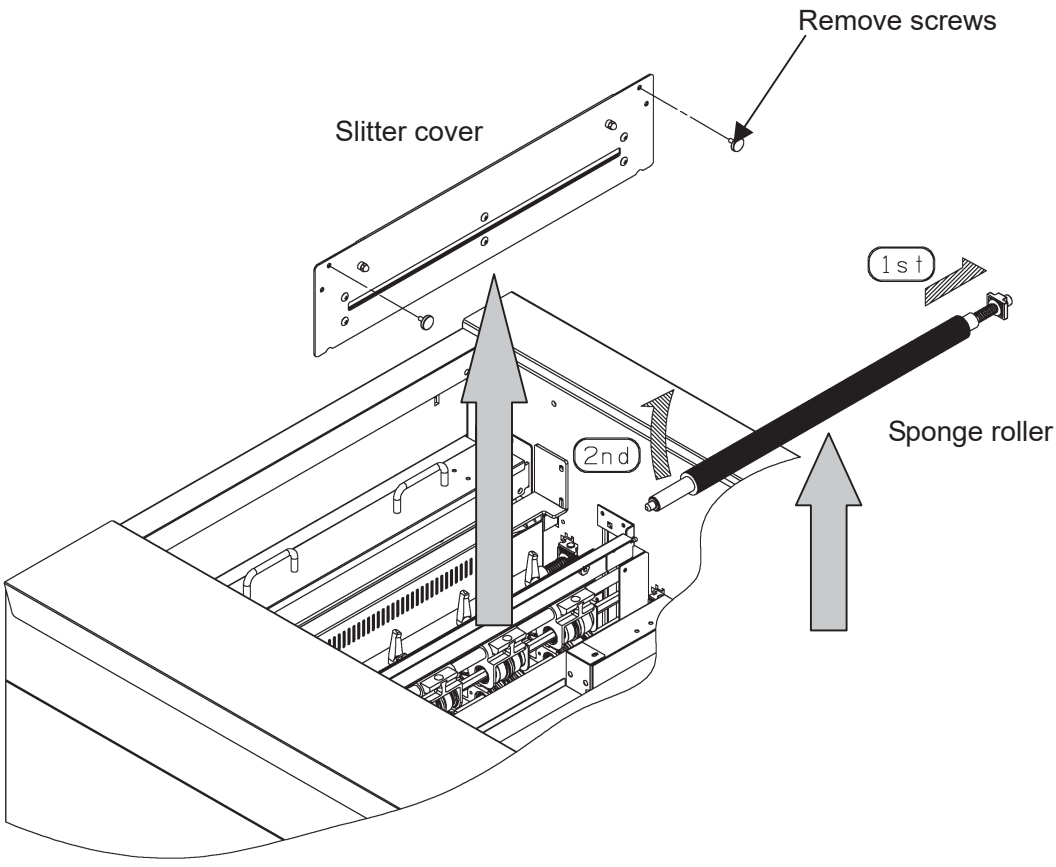
① Enter MANUAL CONTROL screen, press < > buttons to inch the rollers forward/backward and remove the jammed paper.

If paper is stuck around the guillotine section, press CUTTER to cycle the guillotine to chop jammed paper.

MANUAL CONTROL screen

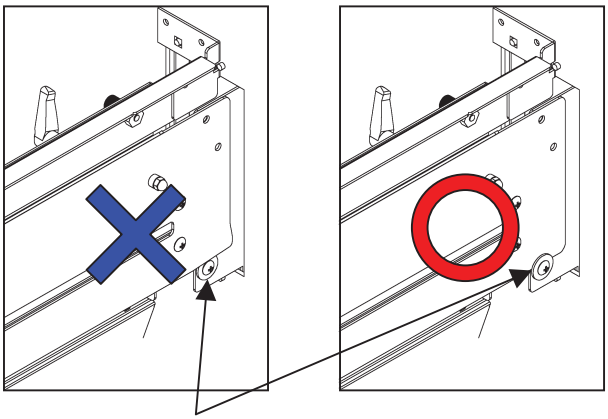


② Detach Sponge roller and Slitter cover if necessary, and remove jammed paper.



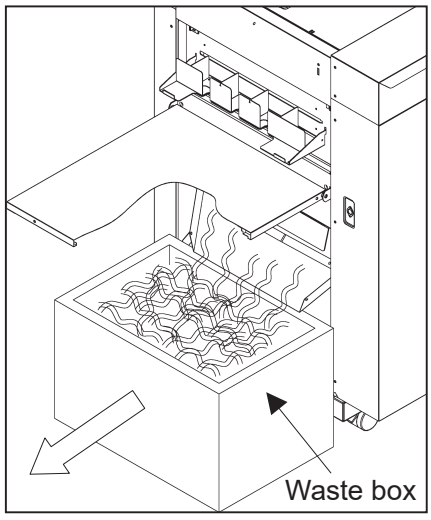
Note.

Do not attach Slitter cover on Washer and Screw. This may cause paper jam.



Note.

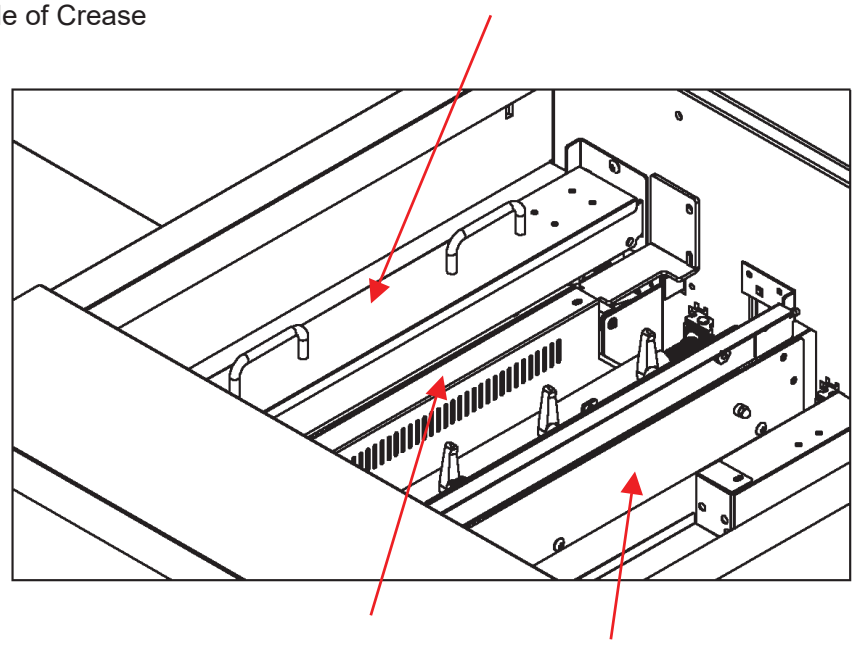
Remove paper in waste box before the waste bin becomes full. It may cause paper strips remain inside the machine and cause paper jam.



Note.

If paper jam often occurs, make sure that paper strip is not left in the indicated sections.

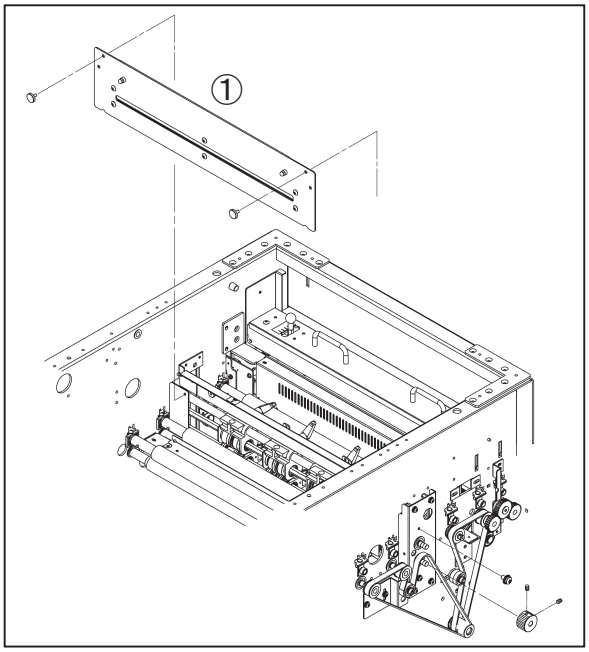
- Inside of Slitter head
- Inside of Guillotine cover
- Inside of Crease



5. Replacement of parts

5- (1) Slitter Unit

① Remove Slitter cover.

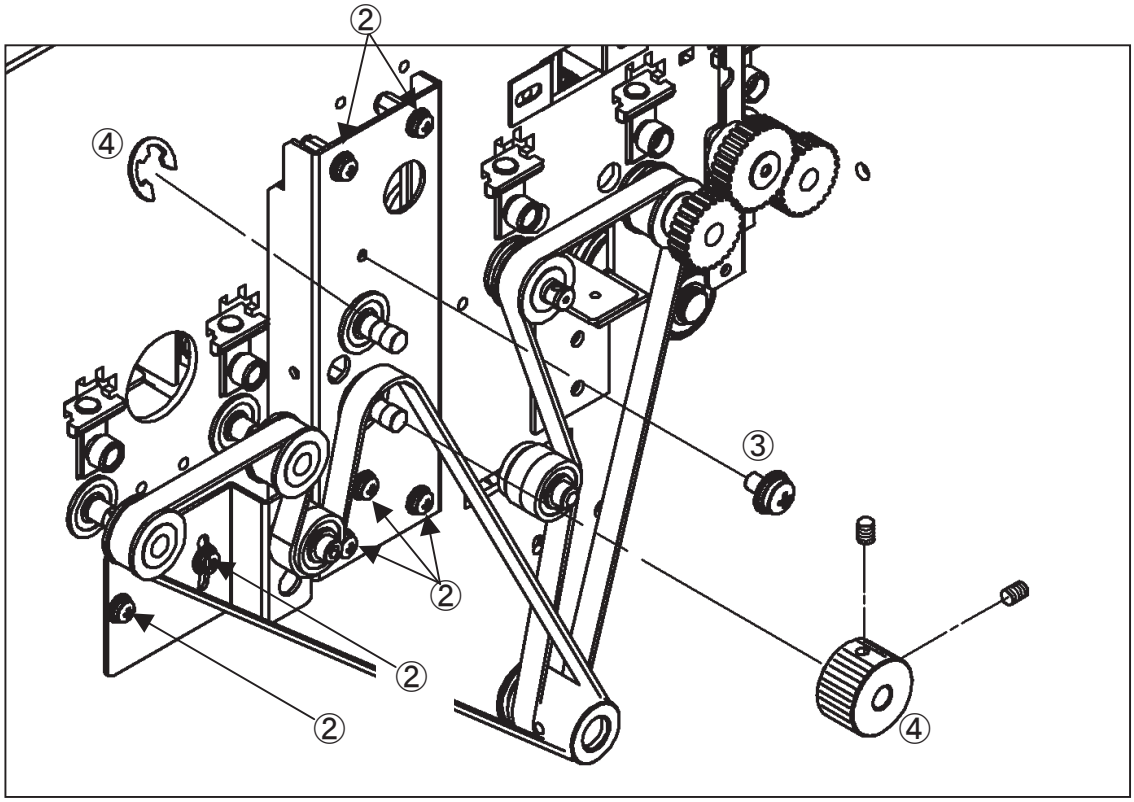


Back side

② Loosen 7screws. (Not remove)

③ Remove 1screw.

④ Remove pulley and Retaining ring-E.

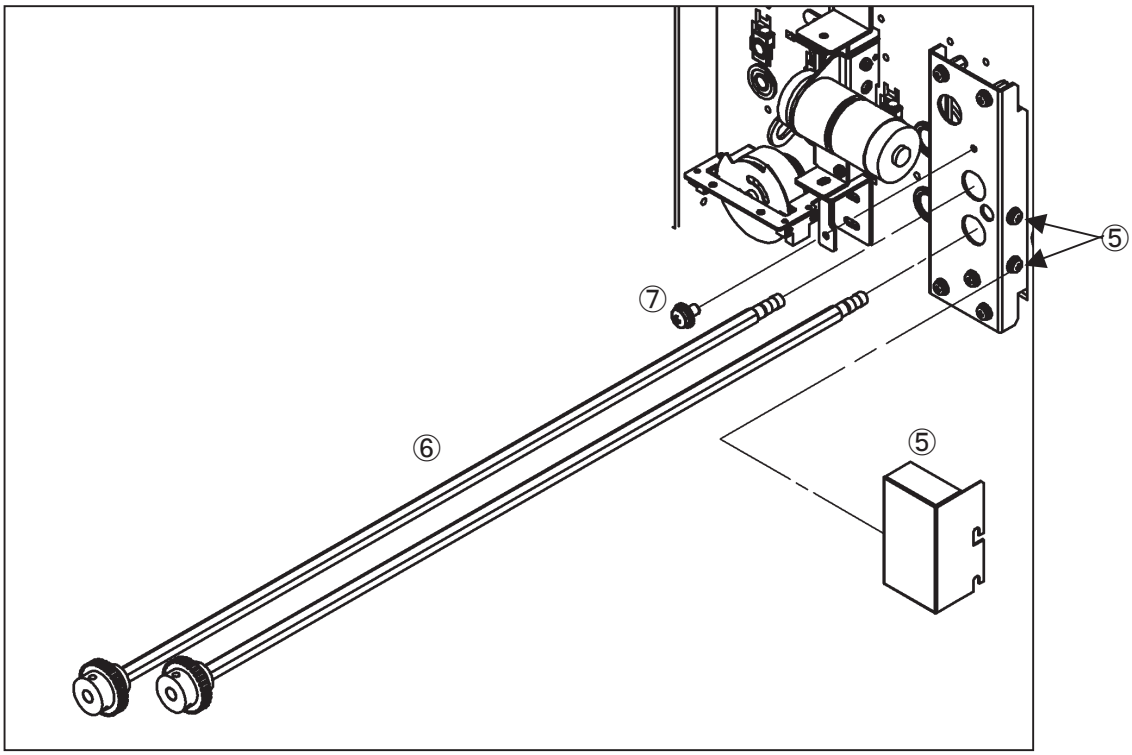


Front side

⑤ Loosen 2screws and remove cover.

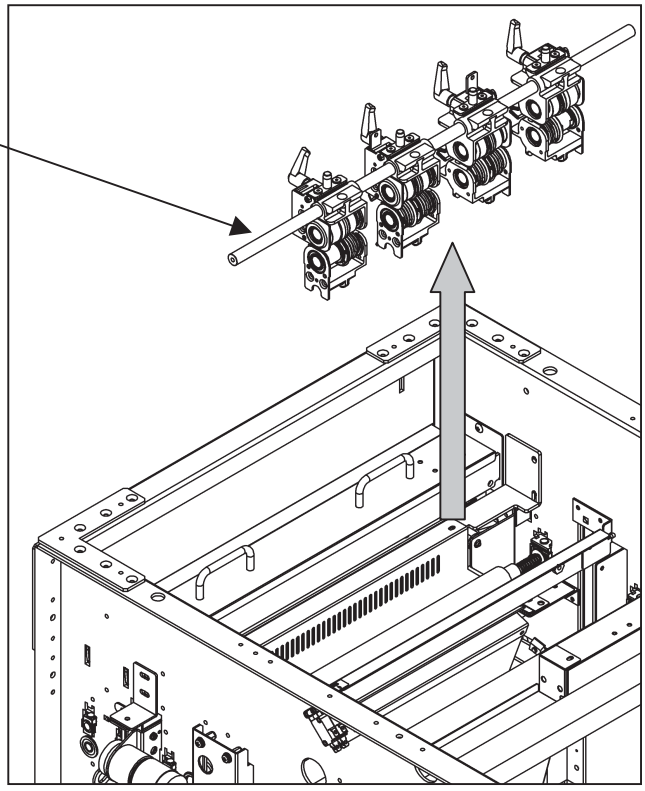
⑥ Remove hexagonal shafts.

⑦ Remove 1screw.



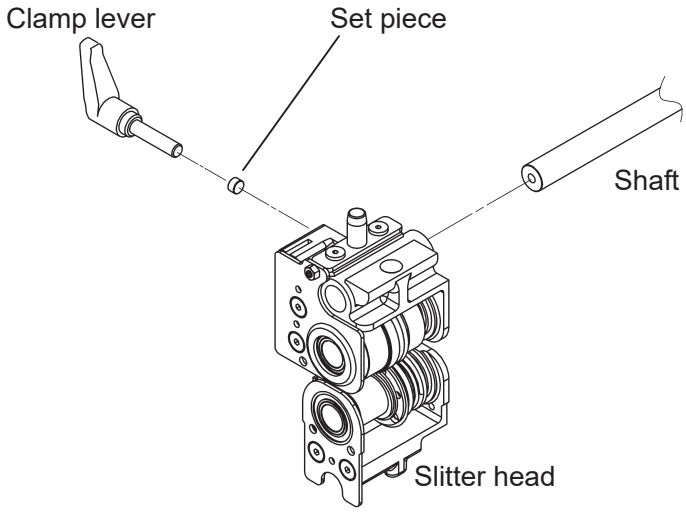
⑧ Pull Slitter Units out.

Shaft might get rusty if touched by bare hands.



Note.

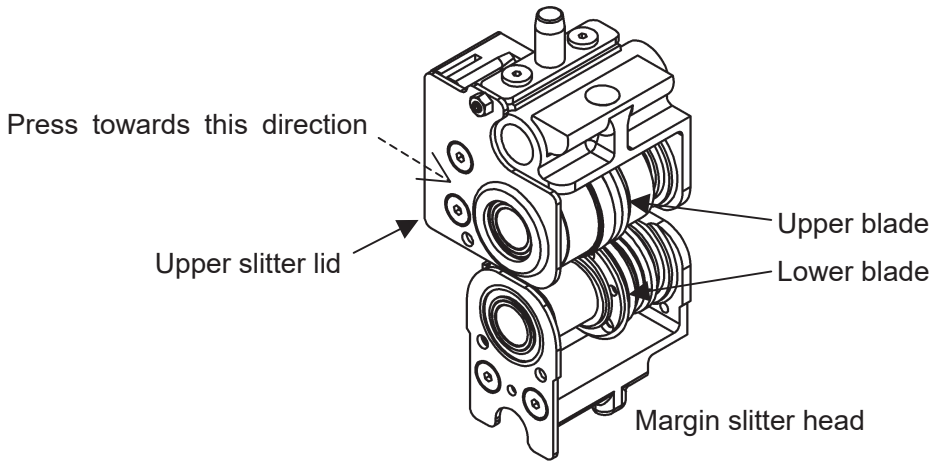
When removing the shaft from the slitter head, ensure not to lose the set piece.

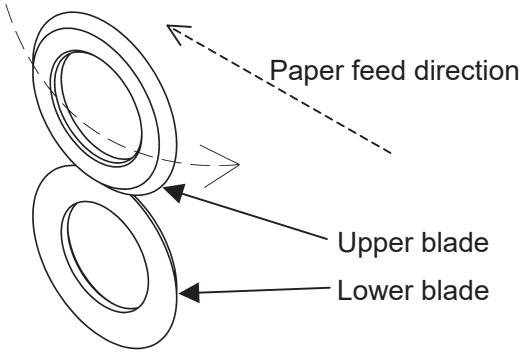


Note.

When fixing a slitter blade on a Margin slitter, fix the screws with pressing the Upper slitter lid towards arrowed direction.

This moves the contact point of the Upper blade and Lower blade, and improves cutting quality.



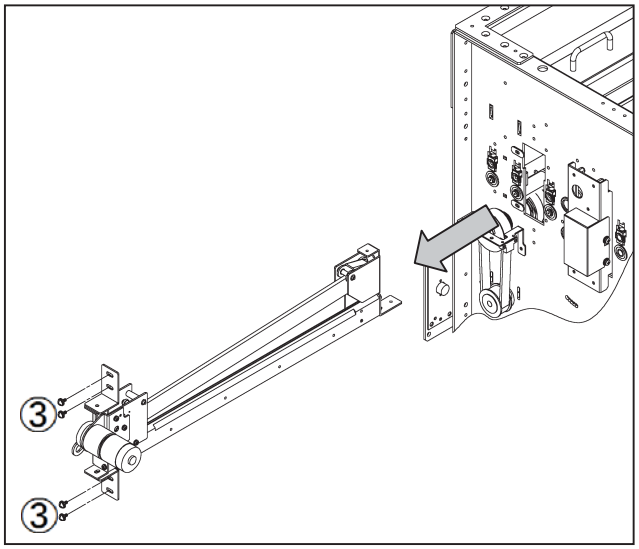


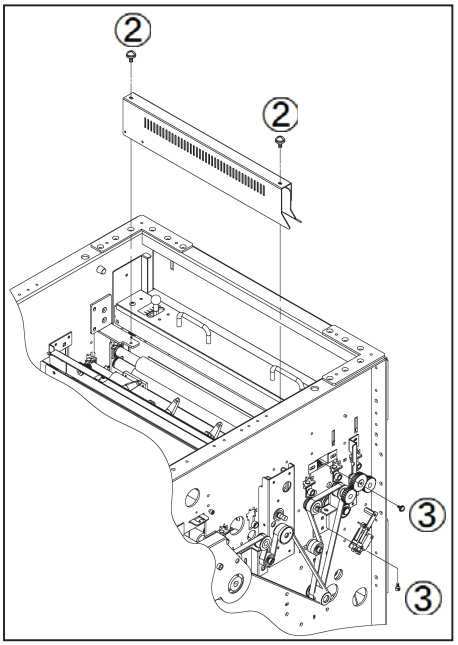
5- (2) Guillotine Unit

① Check if the locating metal plate is in contact with the cutter unit.
This will be a mark for reattachment.

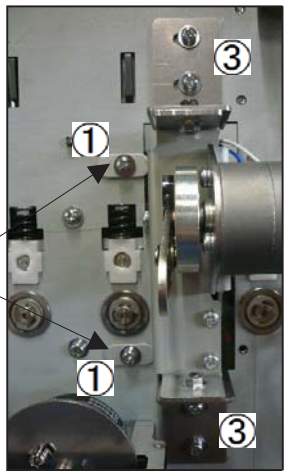
② Remove screws and Guillotine Cover.

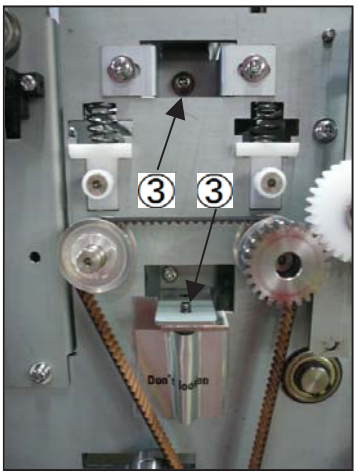
③ Remove screws and pull Guillotine Unit out.





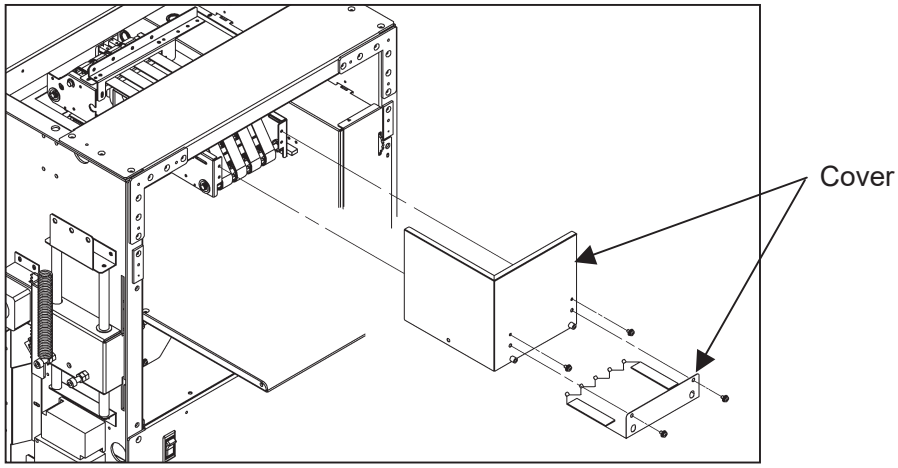
Locating metal plate



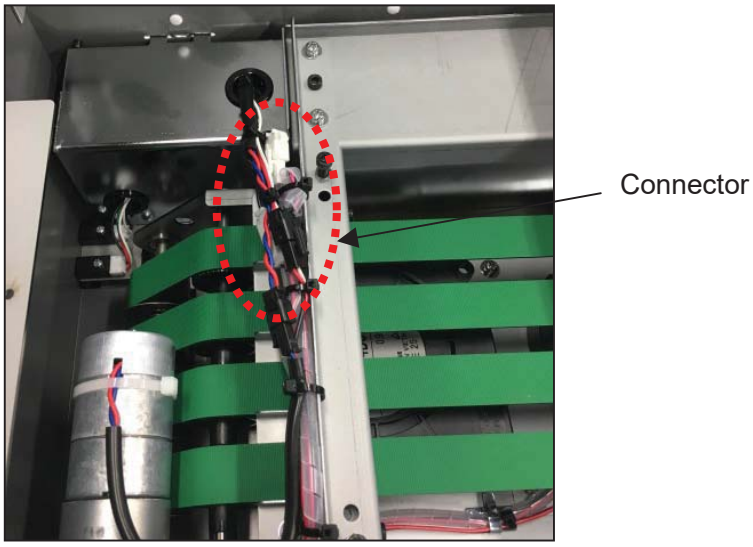


5- (3) Feed belt unit

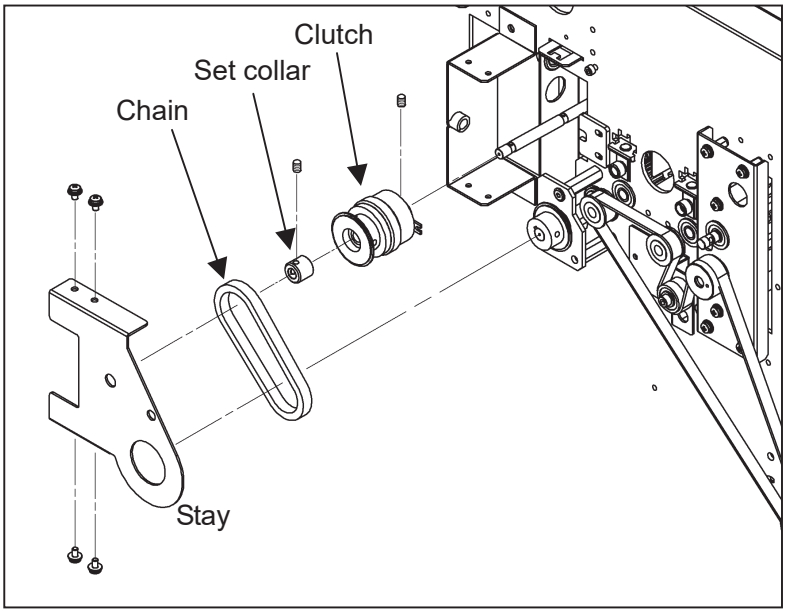
① Remove screws and cover.



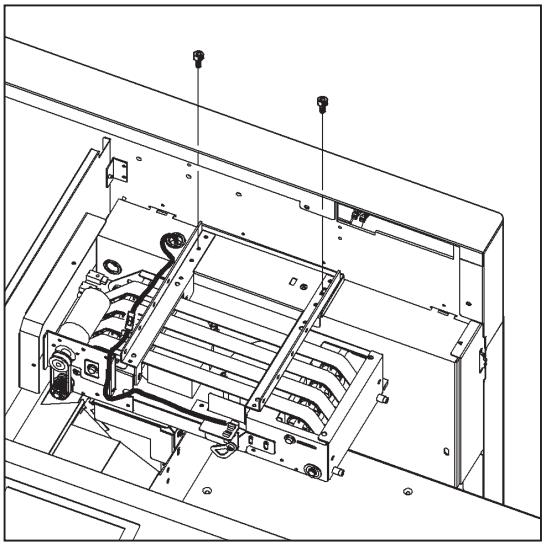
② Disconnect the harness.



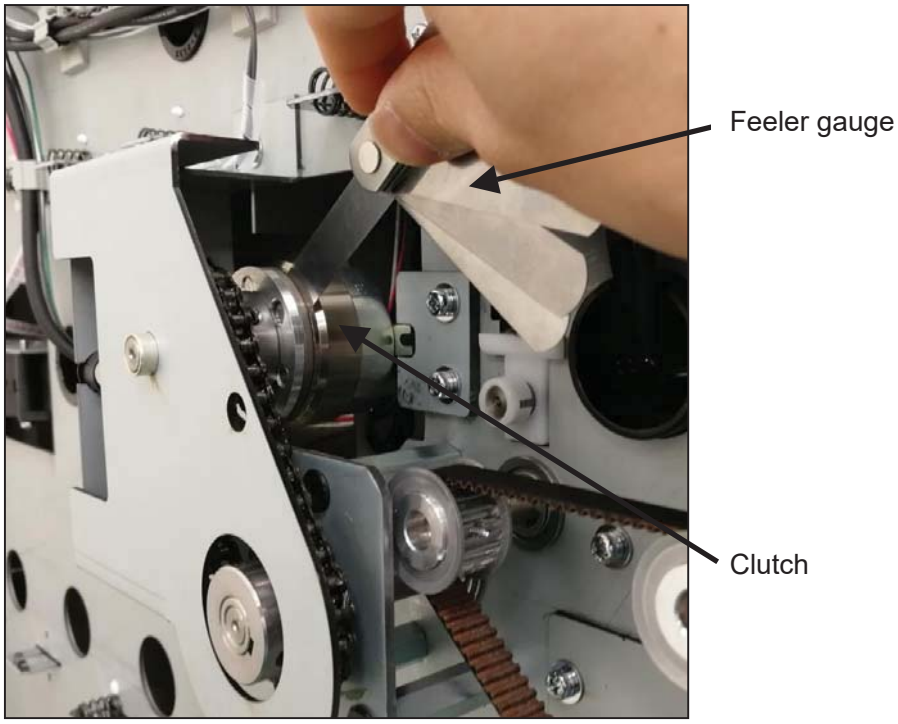
③ Remove clutch.



④ Feed belt unit can be removed after bolts are removed.



Note.
After mounting the feed unit, ensure that the gap between clutches is 0.25±0.1 using a feeler gauge.

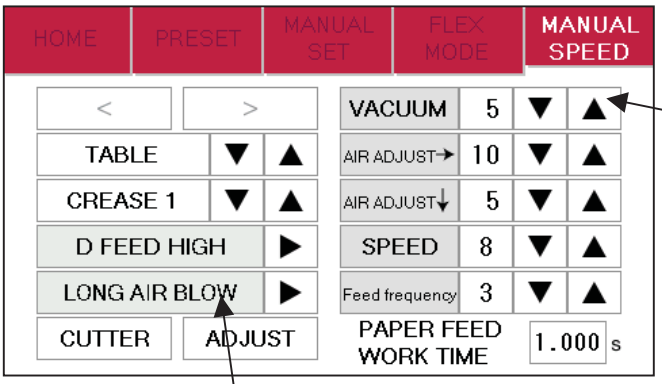


6. Adjustment

6- (1) Feed settings

(a) Blower

Standard Value

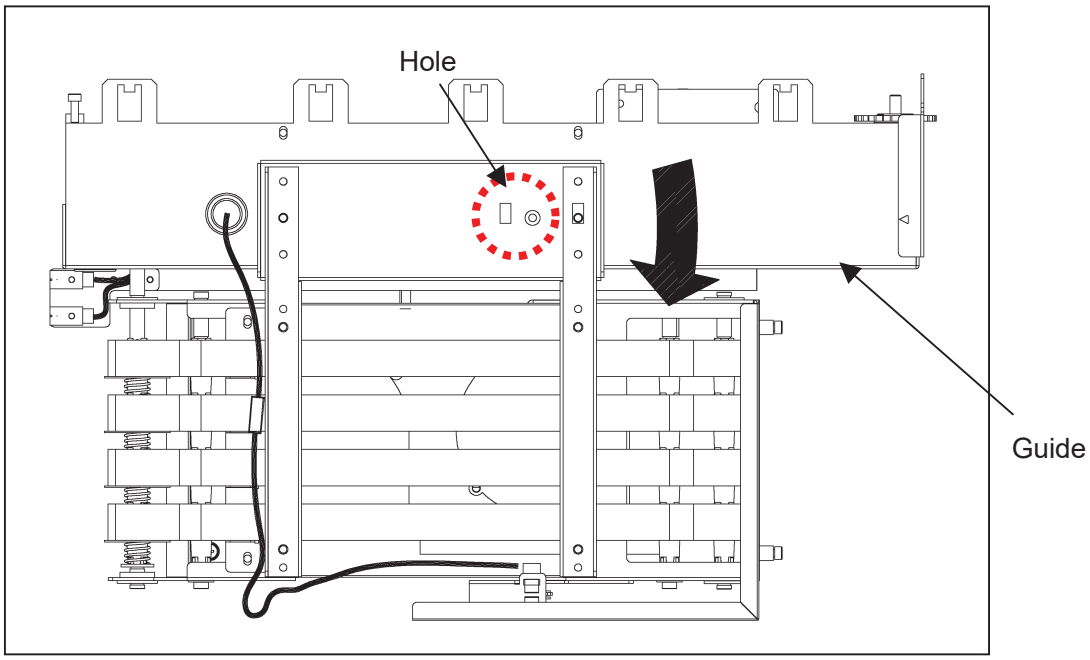


Input 10 in case paper is too heavy to feed.
There will be possibility of double feed if paper is too thin. In this case, input 5.

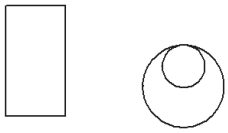
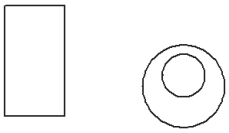
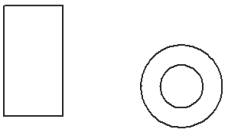
Ensure that LONG AIR BLOW is shown on the screen. There is possibility of empty feed.

(b) Aligner

① Check angle of aligner by position of a hole in below picture when attaching the feed belt unit.

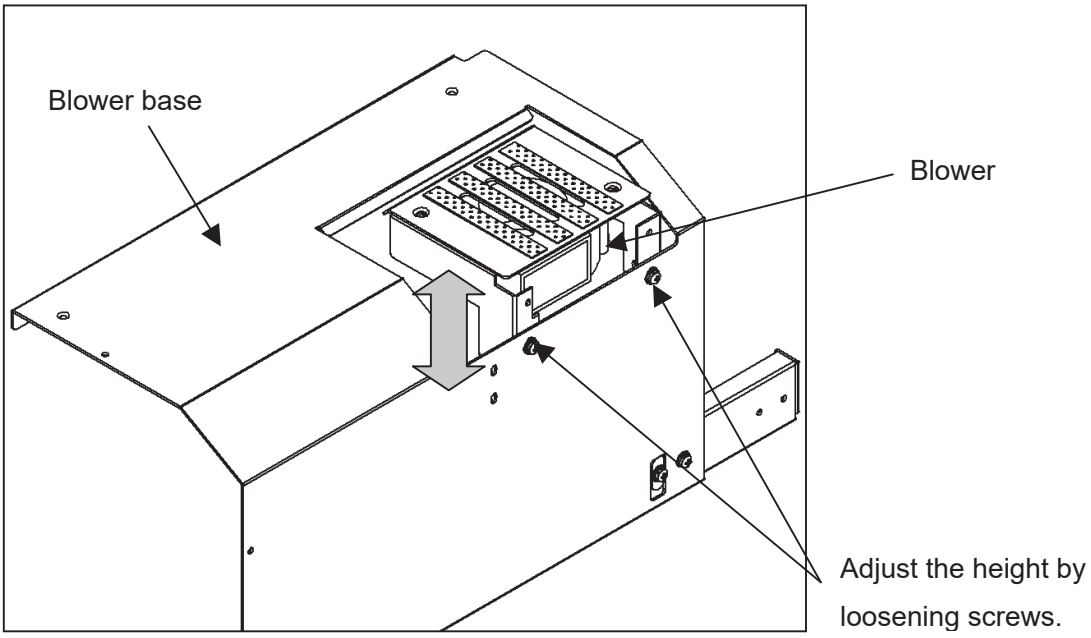


② It is factory setting if Feed belt unit is attached so that a small hole contacts a big hole.

Hole position			
Status	**Default (FactorySetting)**	—	Parallel to Guide
Effectiveness of Aligner	High	Low	None

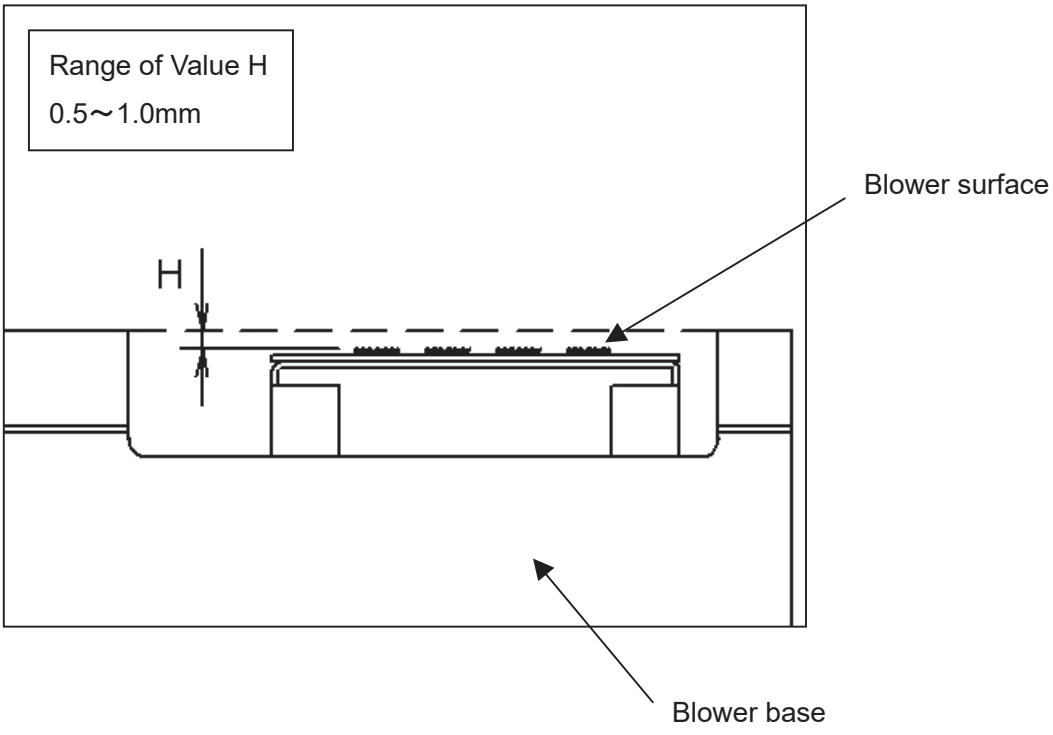
(c)Feed area mechanical adjustments

(1) Lower Blower position

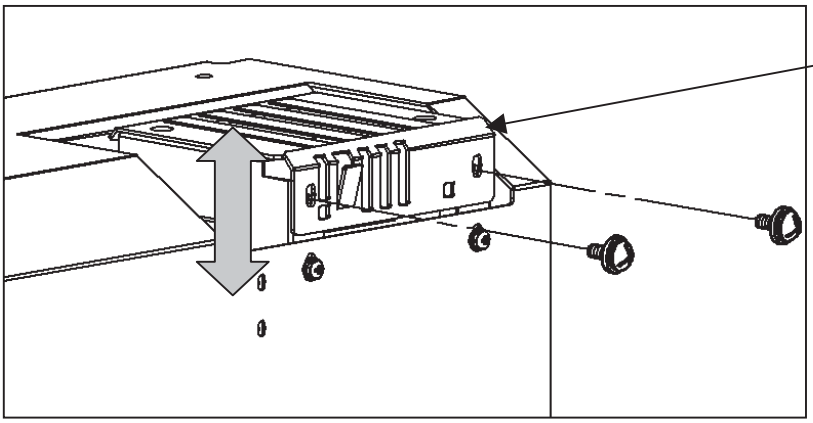


Note.

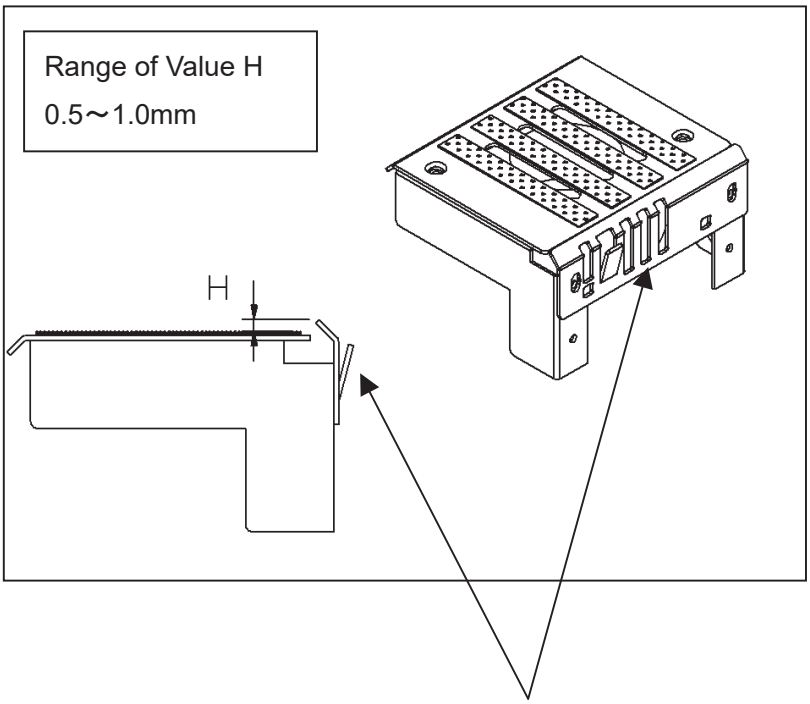
Do not remove screws because blower will drop.



(2) Separator position

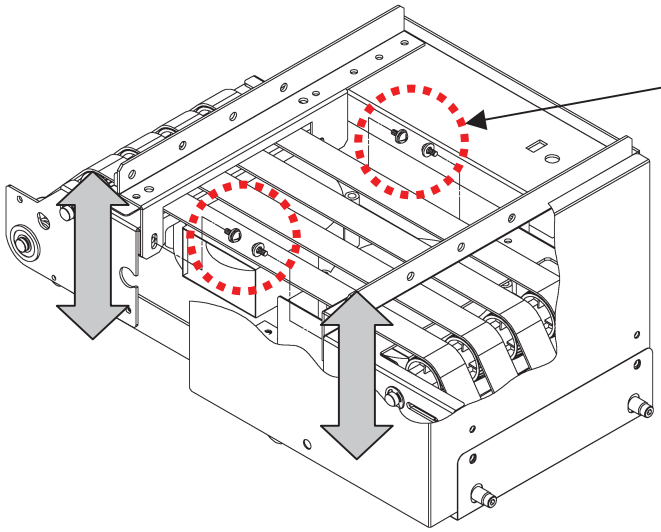


Adjust the height by loosening screws

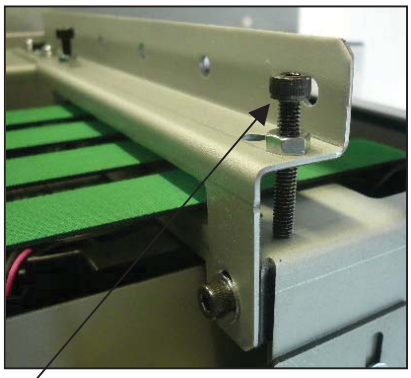


Separator must be placed on higher position than blower surface.

(3) Feed belt unit position

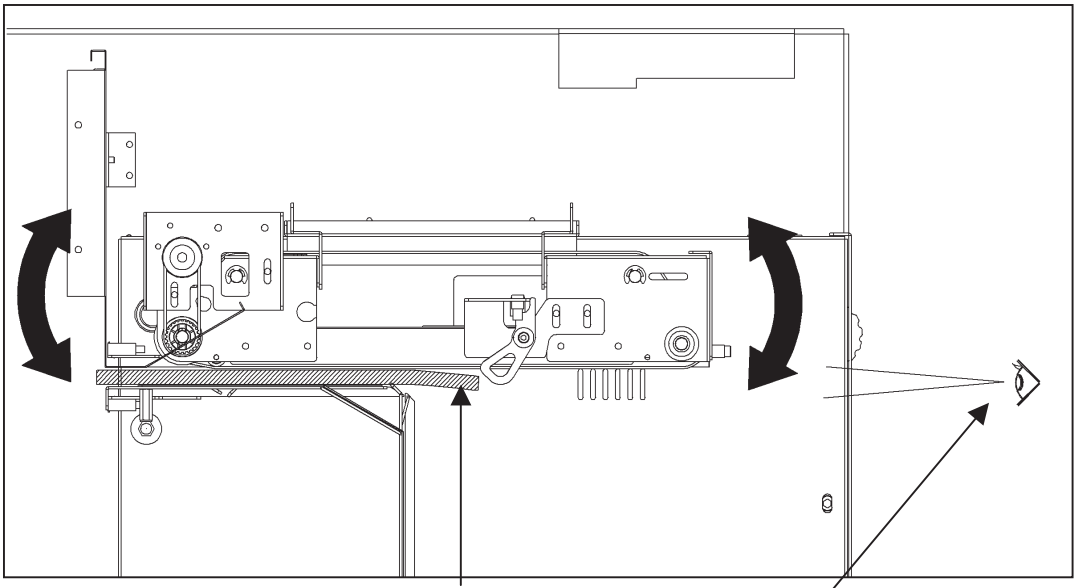


Adjust the height by loosening screws



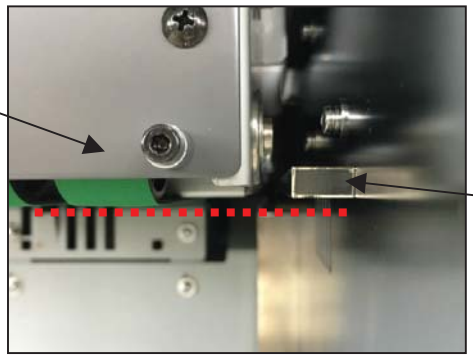
Adjust bolts

This will be a mark for reattachment.



Lift and fix Feed belt unit with 2mm thick paper inserted as above figure.

Ensure that it is parallel to the Feed guide by sight.



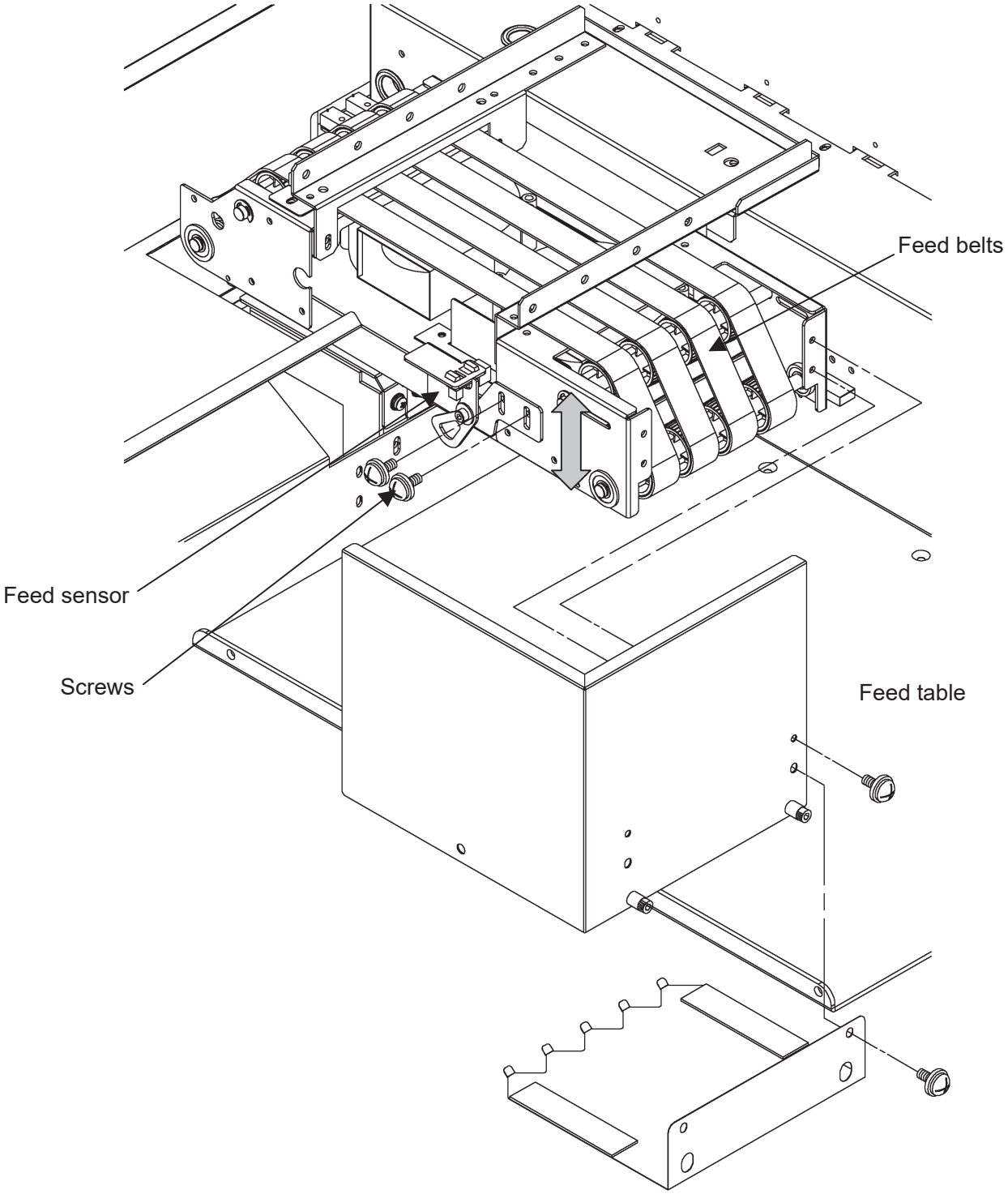
Feed belt unit

Feed guide

(4) Feed sensor position

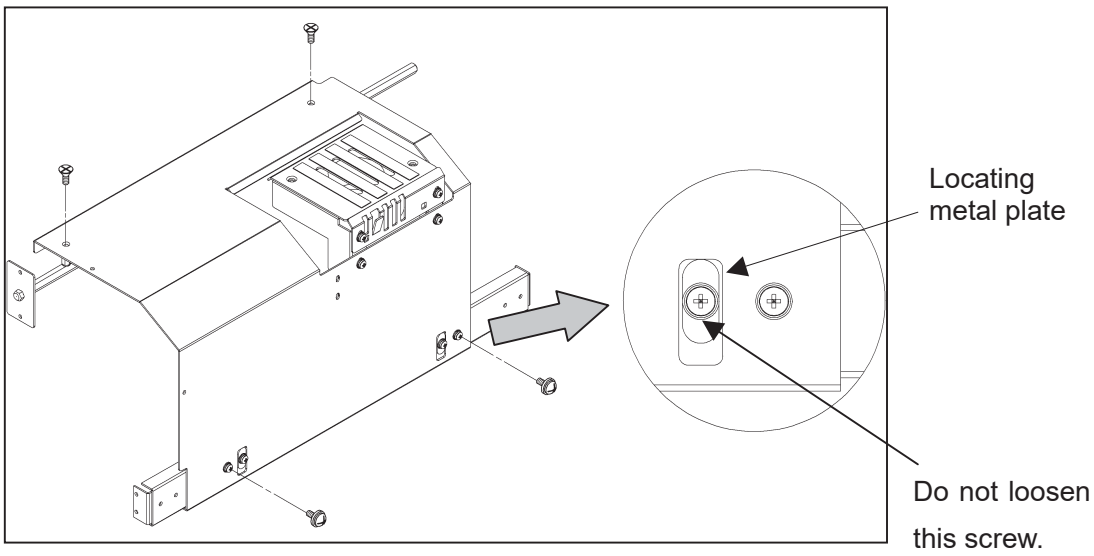
When the feed table is upper dead point, the proper gap between the feed table and the feed belt is 2±0.5mm (0.08”±0.02”).

Loosen the screws and adjust the position of the feed sensor properly.

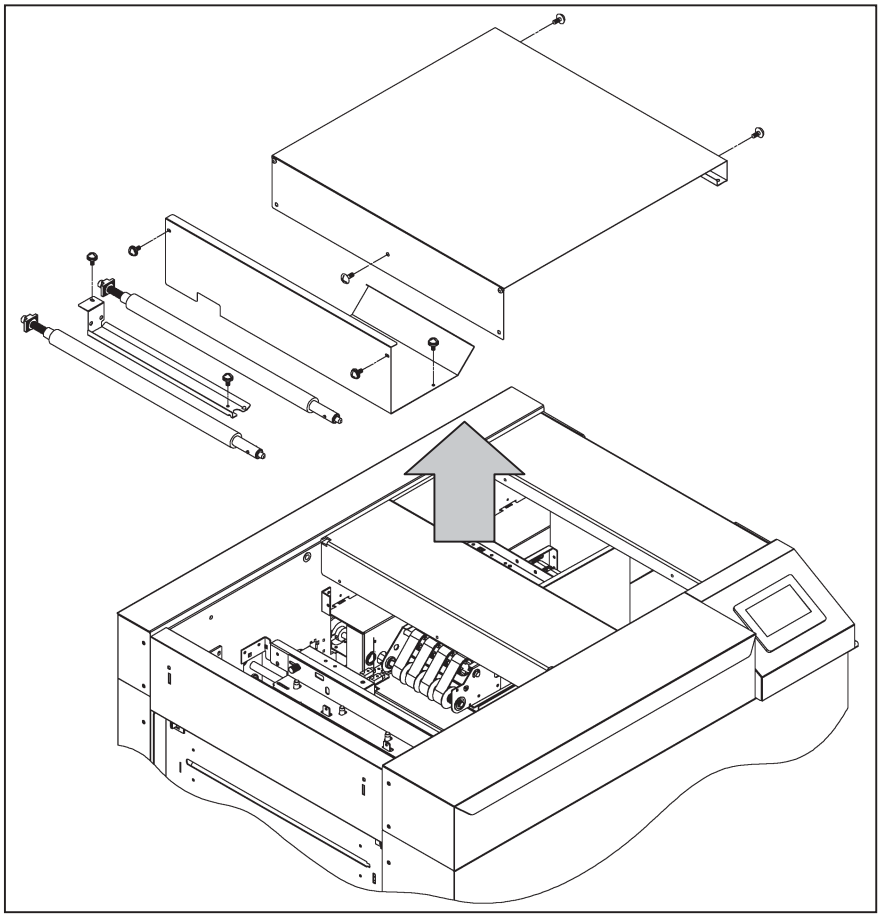


(5) Parallelism of basement

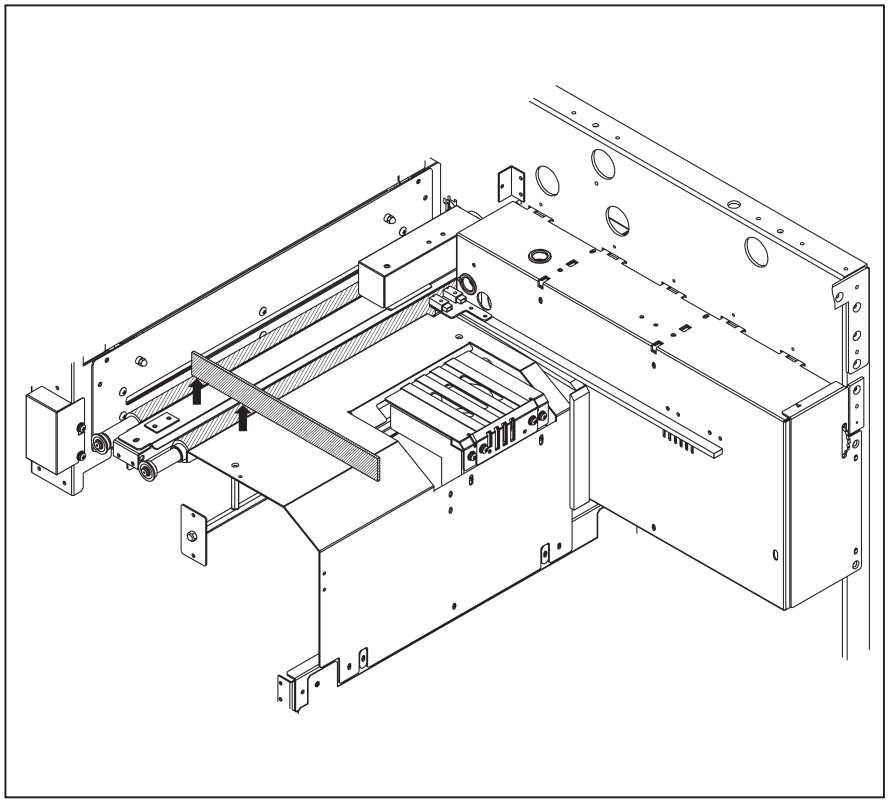
① In case that you detached the basement for the purpose of parts replacement etc., the basement can be attached parallel by pressing the base against Locating metal plate.
(Ensure that the basement is put on Locating metal plate when you detach it)

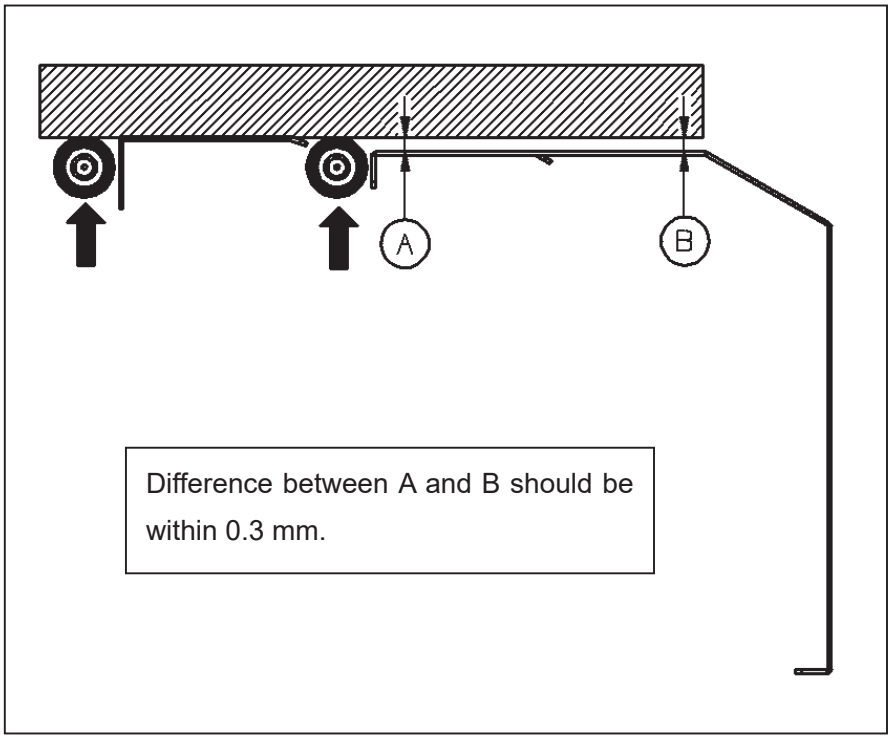


② Please detach this part below in case that the upper surface of the basement is not parallel.



③ Settle a reference from two delivery rollers and adjust parallelism of the base with tolerance within 0.3 mm between A and B.





6- (2) Cut mark sensor

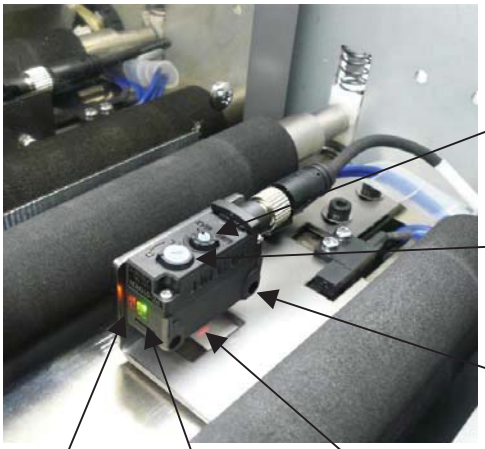
① Remove the sensor cover.

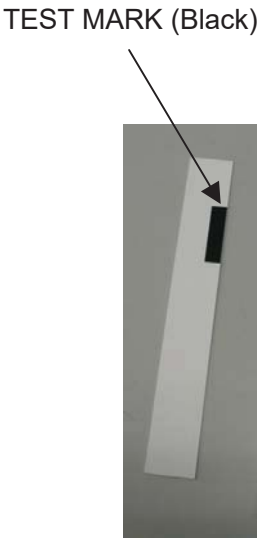
② Adjust the switch at “D” (D⇔L).

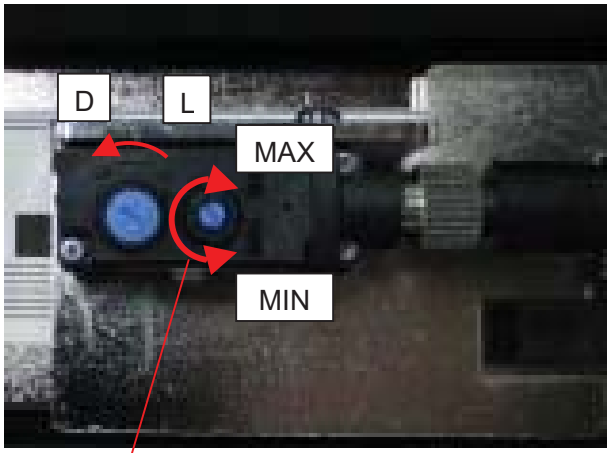
③ Turn the volume from “MIN” to “MAX” slowly without TEST MARK(Black).

④ As the volume is turned, green LED lights off, orange LED lights off, and green LED lights on again. Stop turning the volume at the position where green LED lights on.

⑤ Ensure that the orange LED lights when it senses the TEST MARK (Black) and the orange LED does not light when it senses the white part of the TEST MARK(Black).In addition to above, ensure that the green LED lights at all times. (If the green LED lights off sometime, the sensor may detect cut marks inconsistently.)







Adjust it with a narrow Minus-head screwdriver.

6- (3) PCB setting

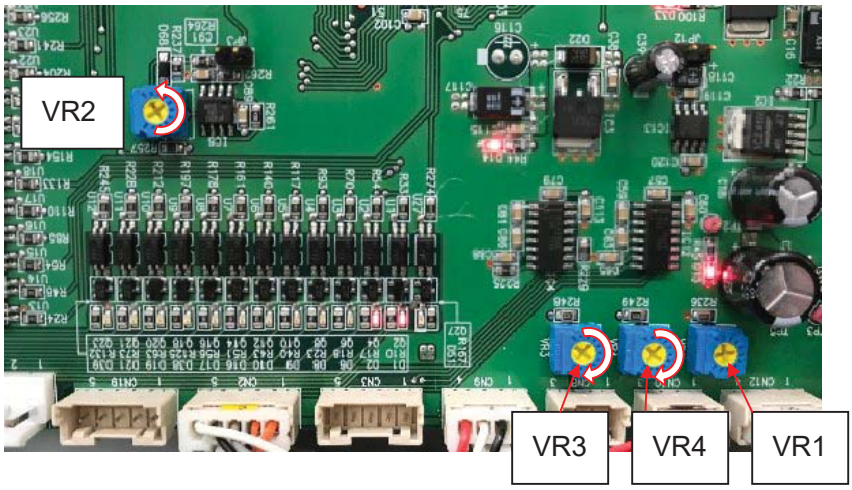
CPU Board

Subject	How to adjust
Origin Sensor	Turn VR3 fully in clockwise.
Stop Sensor	Turn VR4 fully in clockwise.
Double Feed Sensor	Turn VR2 on CPU Board fully in anticlockwise. Adjust VR1 on CPU Board with paper (126gsm) so that Double feed detection counter on Manual Operation Screen shows approximately 500. After this procedure, ensure that Double feed detection shows more than 40 with paper (350gsm). If this value is less than 40, adjust volume so that it shows more than 40.

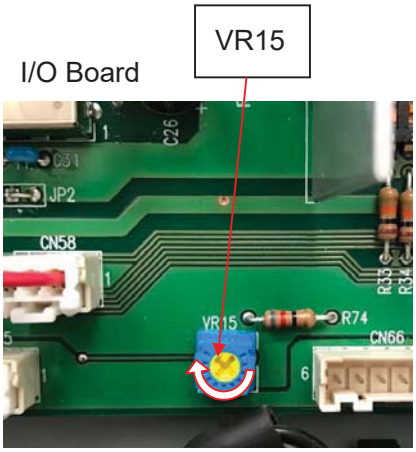
I/O Board

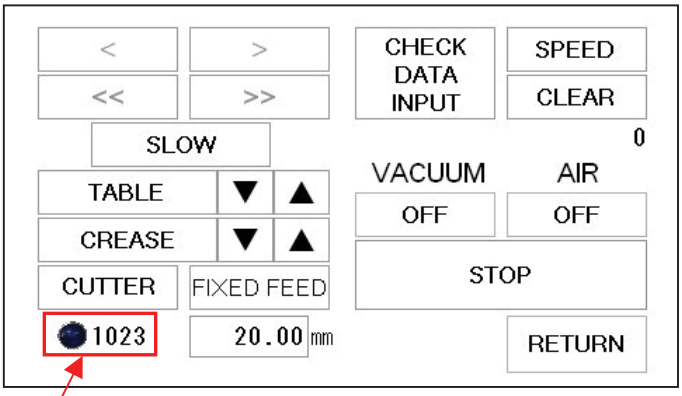
Subject	How to adjust
Feed Sensor	Turn VR15 fully in clockwise.

CPUBoard



I/O Board



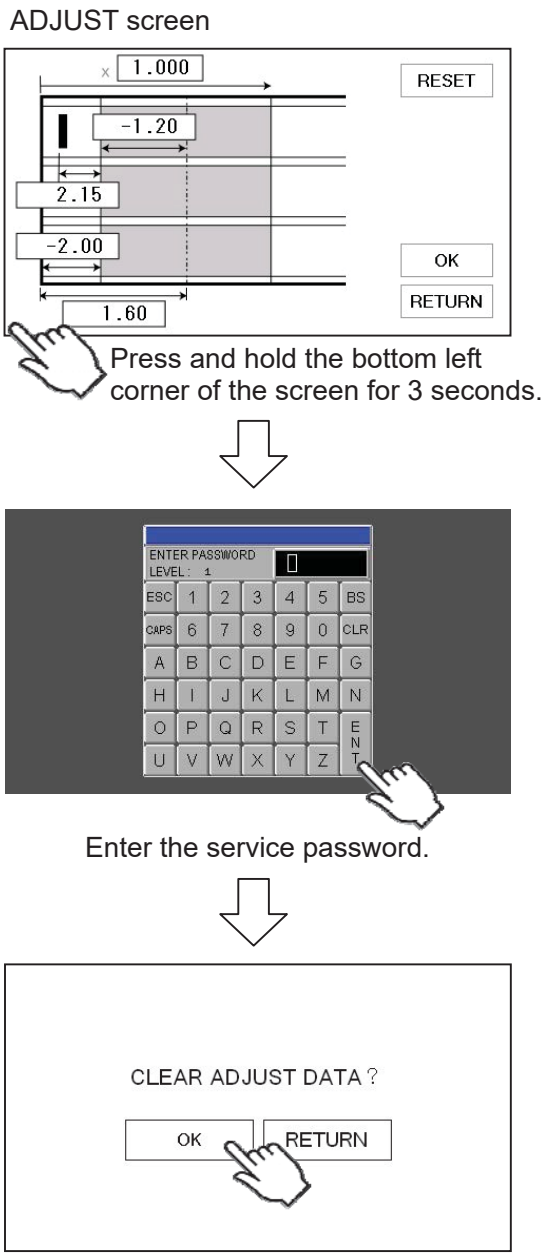


6- (4) Accuracy adjustment

(a) Length adjustment

① Regarding Length adjustment, refer to “5.5.2 If the cut measurement does not match the input value” in Operation Manual.

② Overwrite the initial setting value when you finished adjustment. .

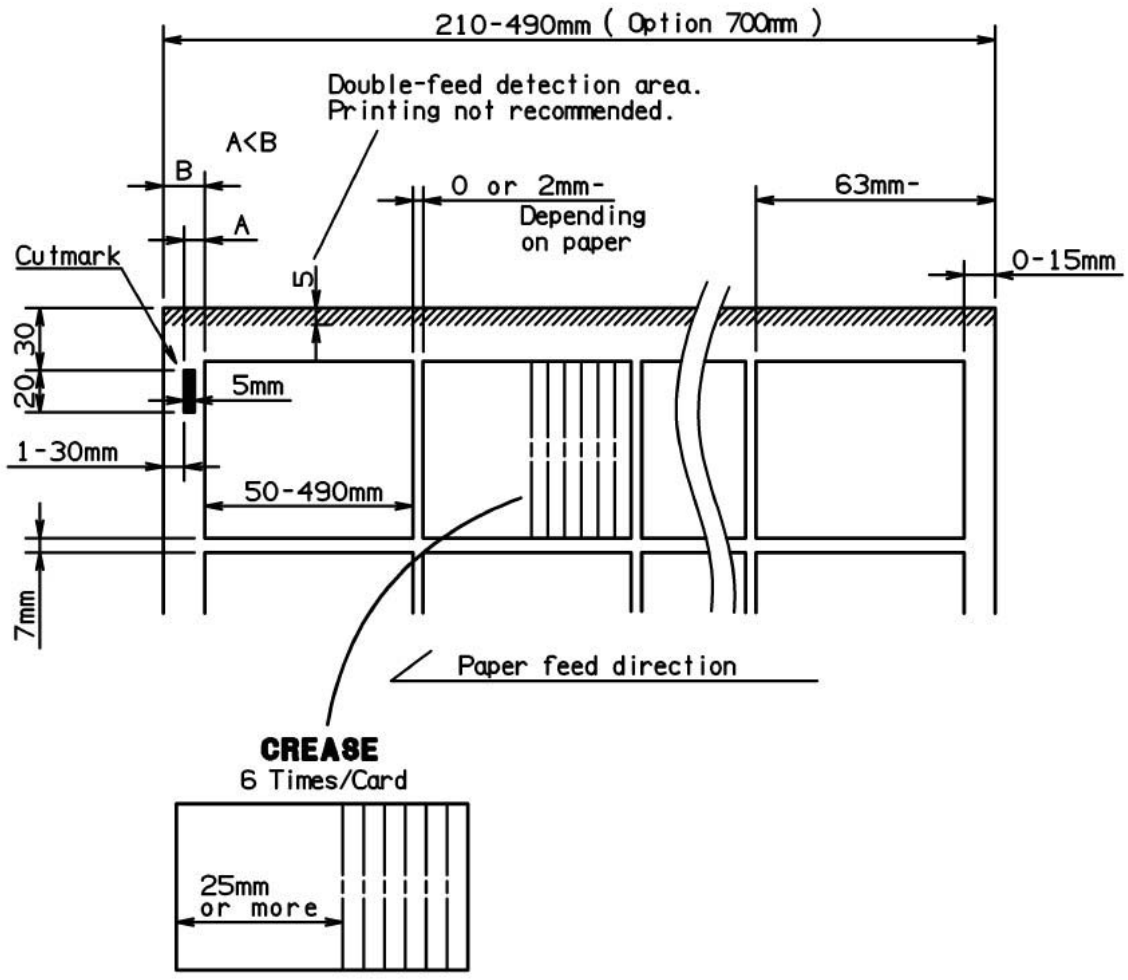


③ The values shown on the screen will be 0 after overwriting.
The ×1.000 (length magnification) part will not become ×1.000 by press keeping 3 seconds at the bottom left corner (will not be stored internally).

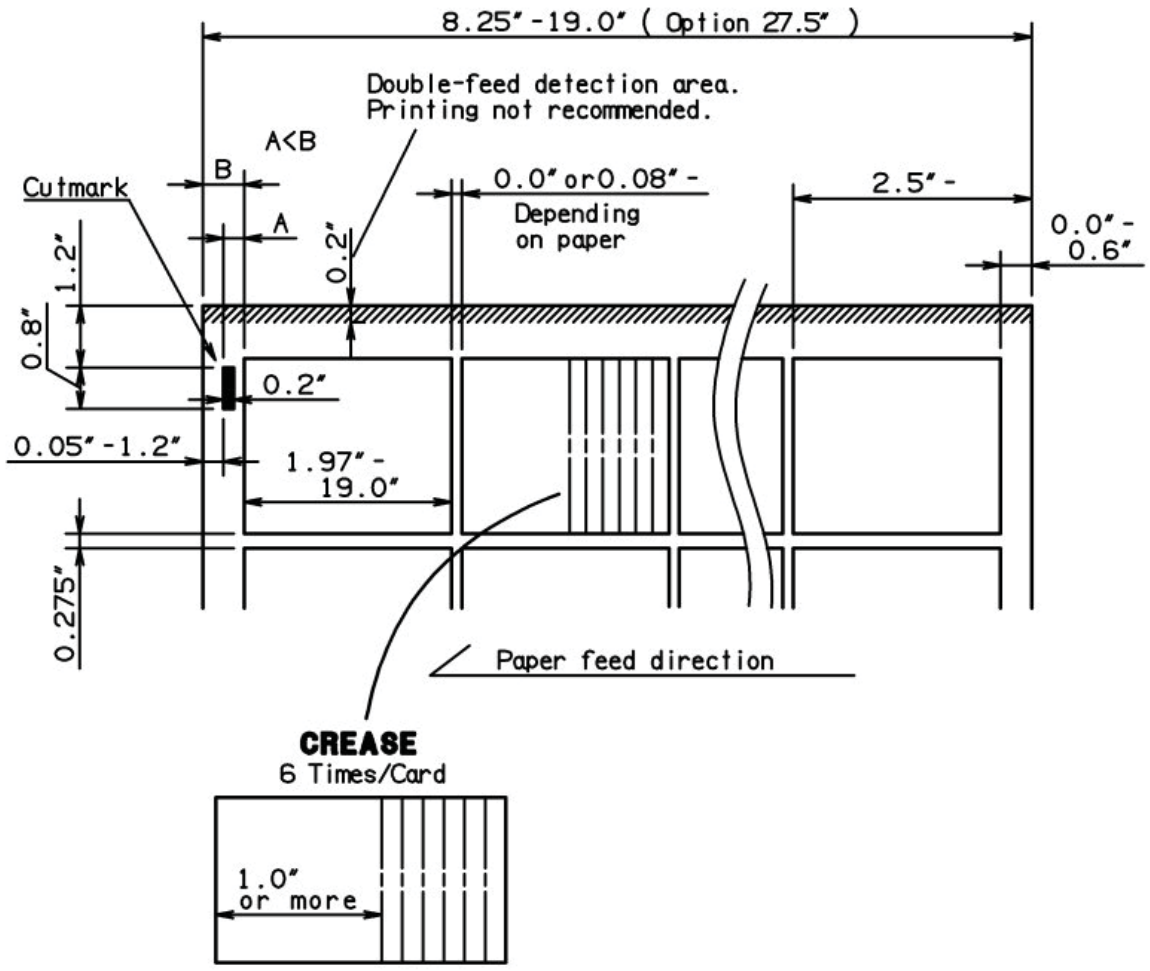
④ If you prefer to reset values to factory settings, amend values shown on the Service Menu screen according to data which is attached inside of the front cover. （☞Page12）

7. How to make layout

7- (1) General template(mm)

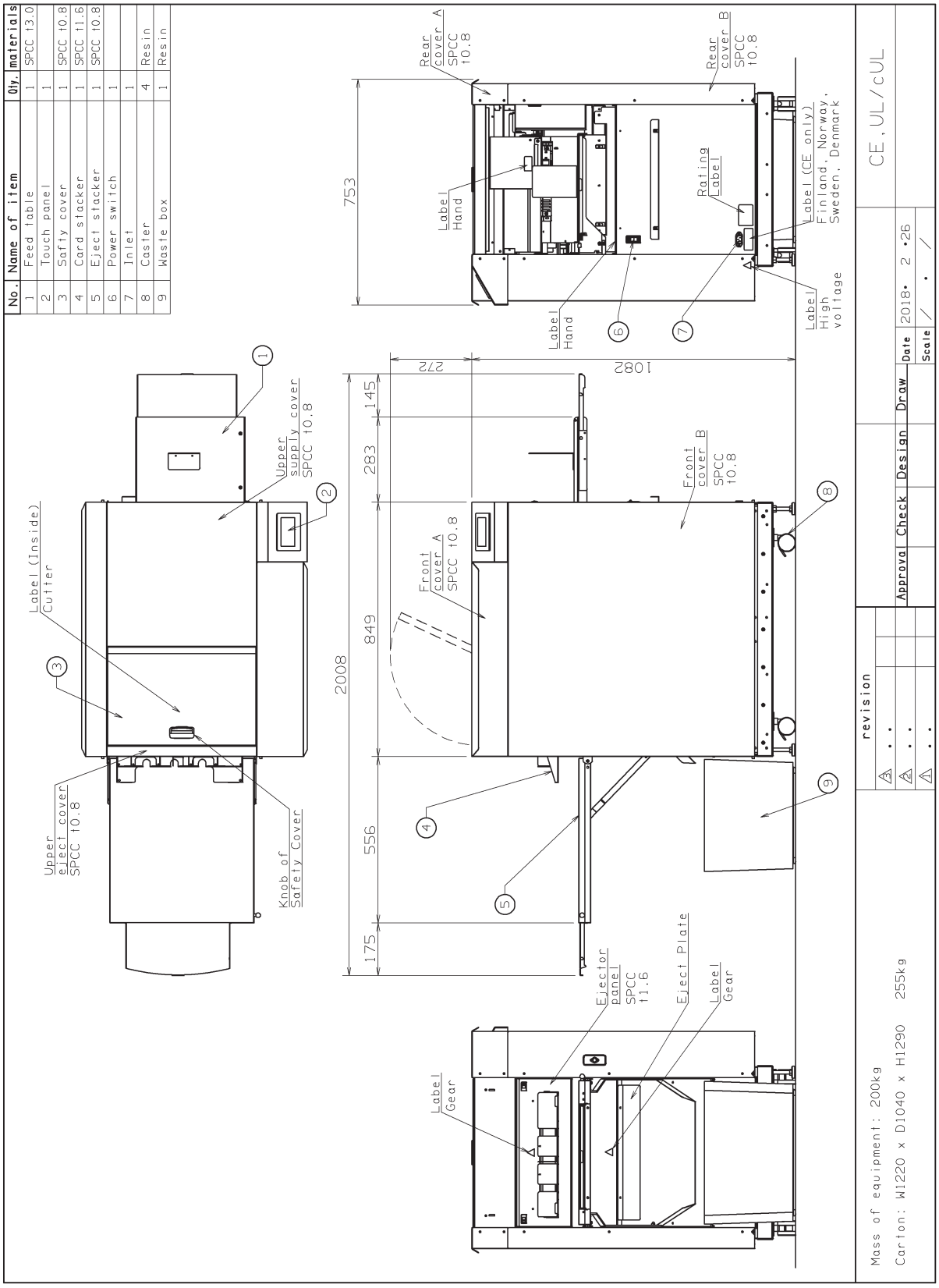


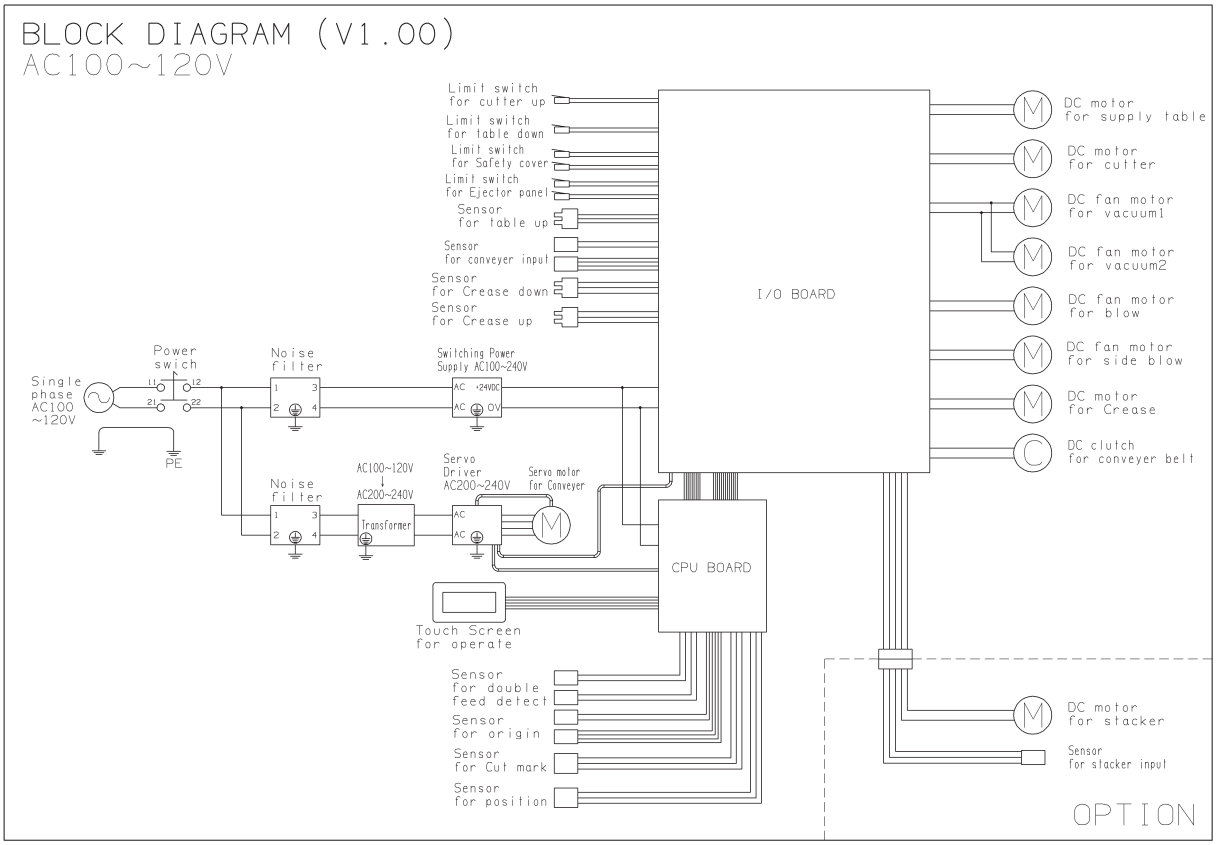
7- (2) General template(inch)

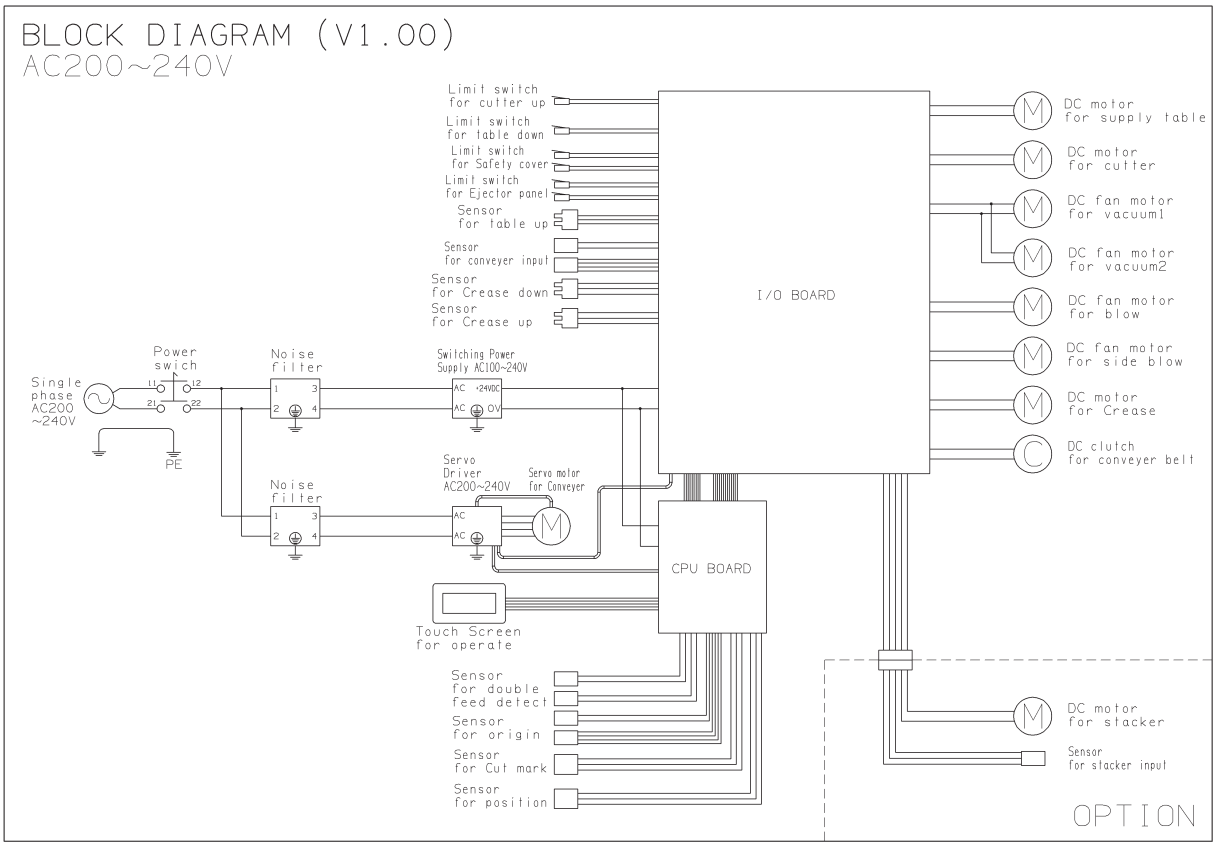


8. Electricity related

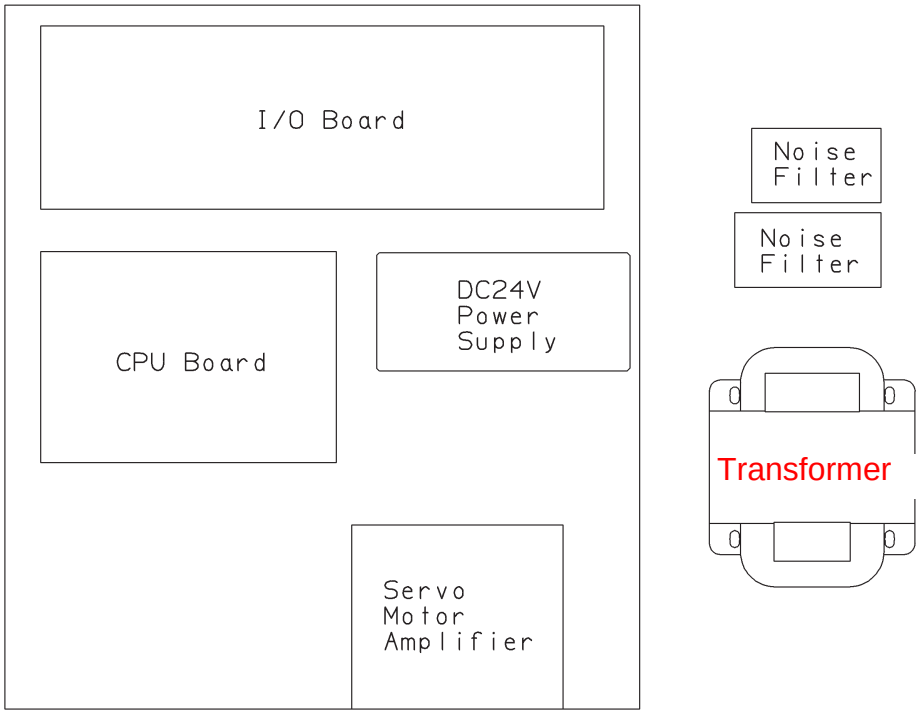
8- (1) Equipment, Electric circuit, and parts




BLOCK DIAGRAM (V1.00)
AC100~120V
Limit switch for cutter up
Limit switch for table down
Limit switch for Safety cover
Limit switch for Ejector panel
Sensor for table up
Sensor for conveyer input
Sensor for Crease down
Sensor for Crease up
I/O BOARD
DC motor for supply table
DC motor for cutter
DC fan motor for vacuum1
DC fan motor for vacuum2
DC fan motor for blow
DC fan motor for side blow
DC motor for Crease
DC clutch for conveyer belt
Power switch
Noise filter
Switching Power Supply AC100~240V
Single phase AC100 ~120V
PE
AC100~120V
AC200~240V
Transformer
Servo Driver AC200~240V
Servo motor for Conveyer
CPU BOARD
Touch Screen for operate
Sensor for double feed detect
Sensor for origin
Sensor for Cut mark
Sensor for position
DC motor for stacker
Sensor for stacker input
OPTION

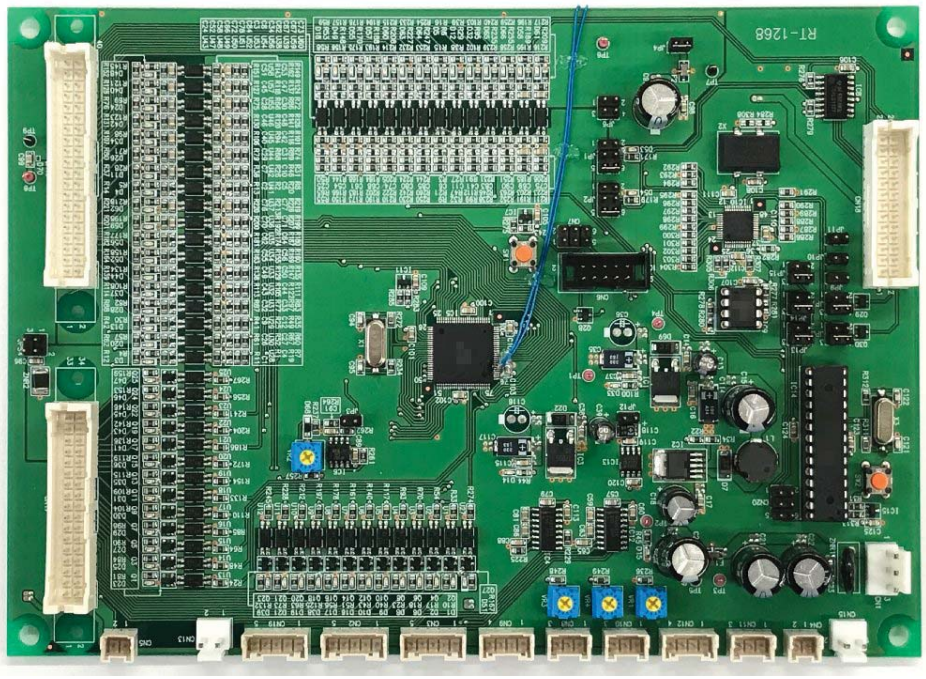

BLOCK DIAGRAM (V1.00)
AC200~240V
Limit switch for cutter up
Limit switch for table down
Limit switch for Safety cover
Limit switch for Ejector panel
Sensor for table up
Sensor for conveyer input
Sensor for Crease down
Sensor for Crease up
I/O BOARD
DC motor for supply table
DC motor for cutter
DC fan motor for vacuum1
DC fan motor for vacuum2
DC fan motor for blow
DC fan motor for side blow
DC motor for Crease
DC clutch for conveyer belt
Power switch
Noise filter
Switching Power Supply AC100~240V
Single phase AC200 ~240V
PE
Servo Driver AC200~240V
Servo motor for Conveyer
CPU BOARD
Touch Screen for operate
Sensor for double feed detect
Sensor for origin
Sensor for Cut mark
Sensor for position
DC motor for stacker
Sensor for stacker input
OPTION

Electrical component



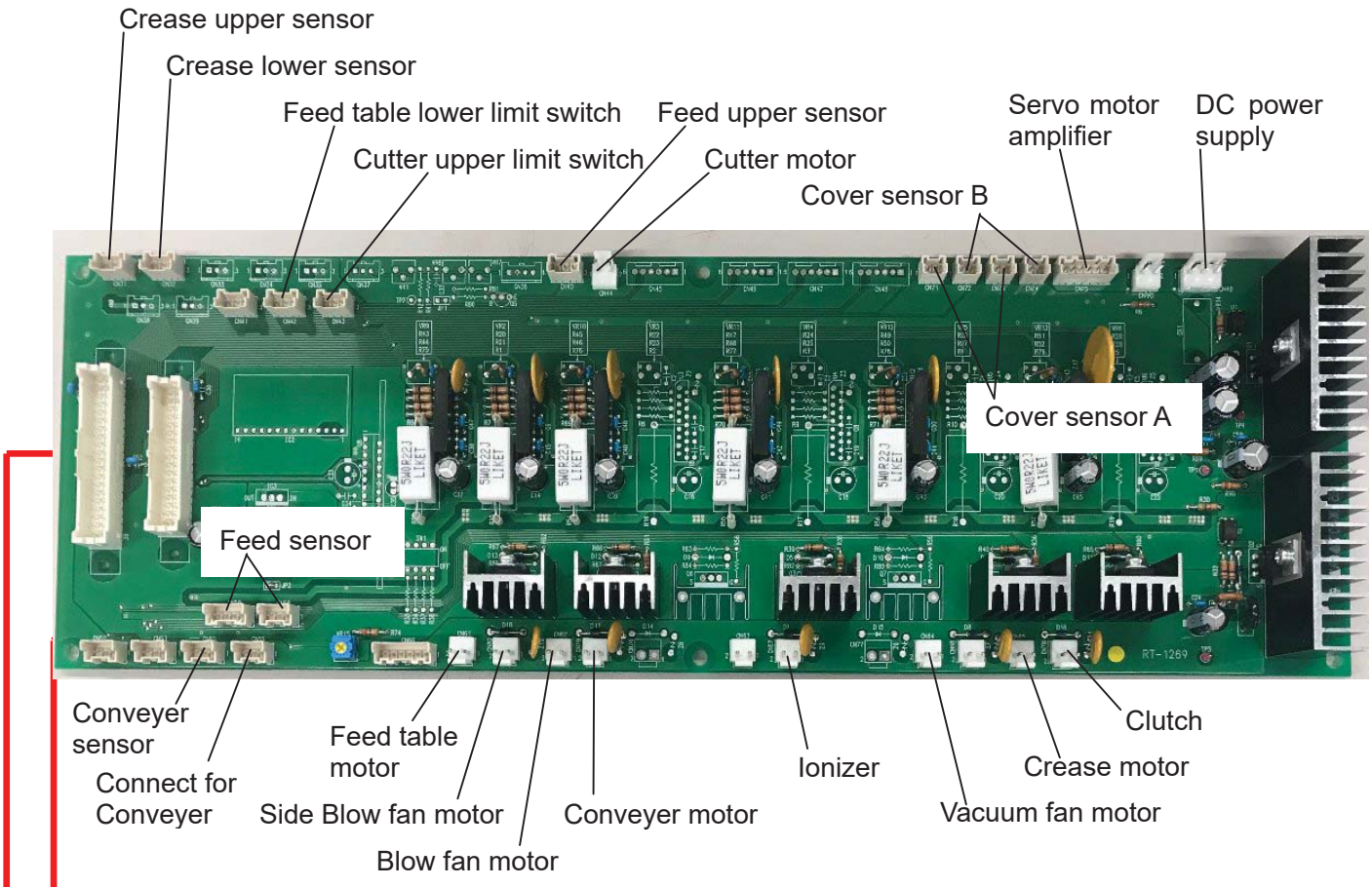
8- (2) Board Details

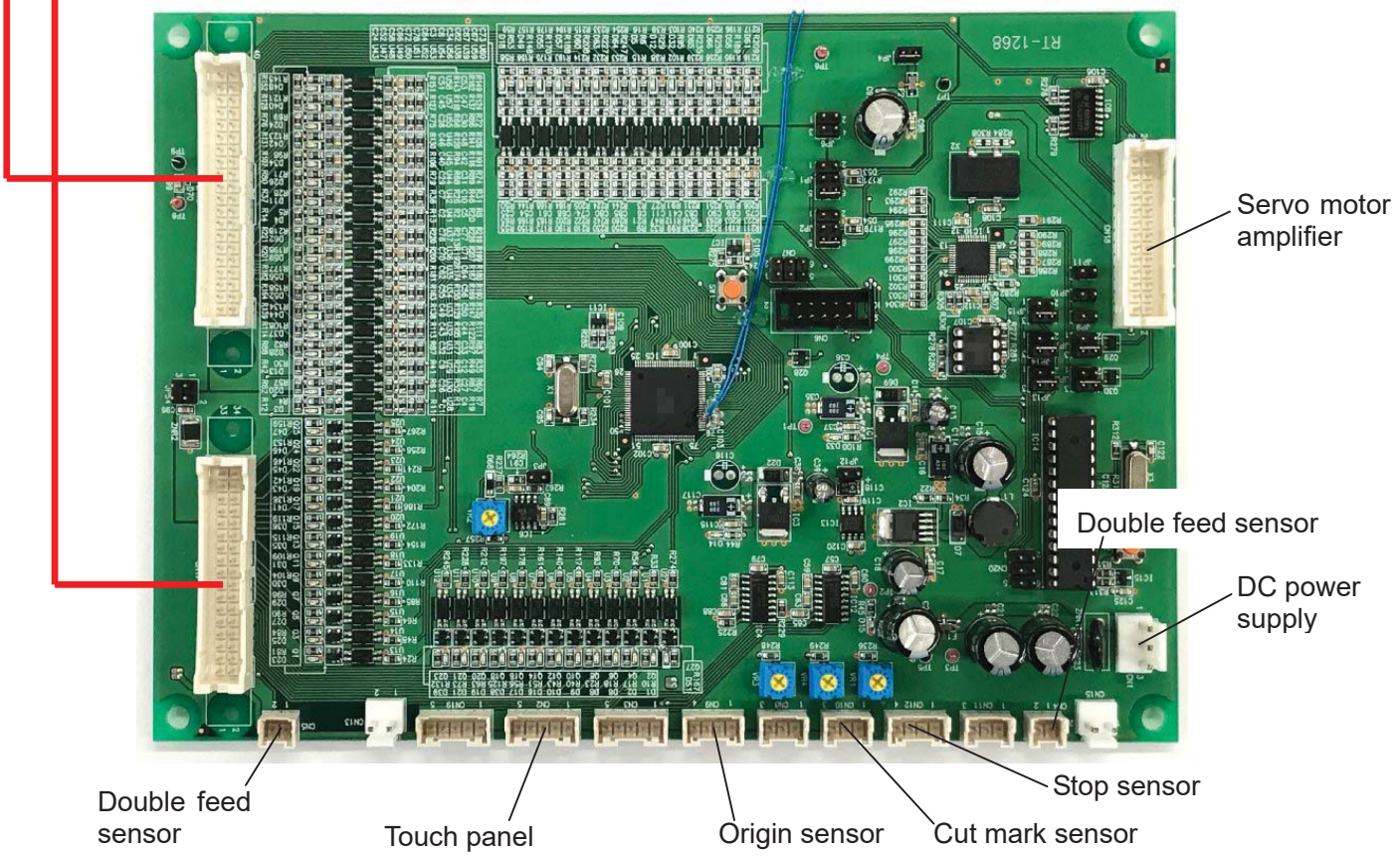
①CPU Board



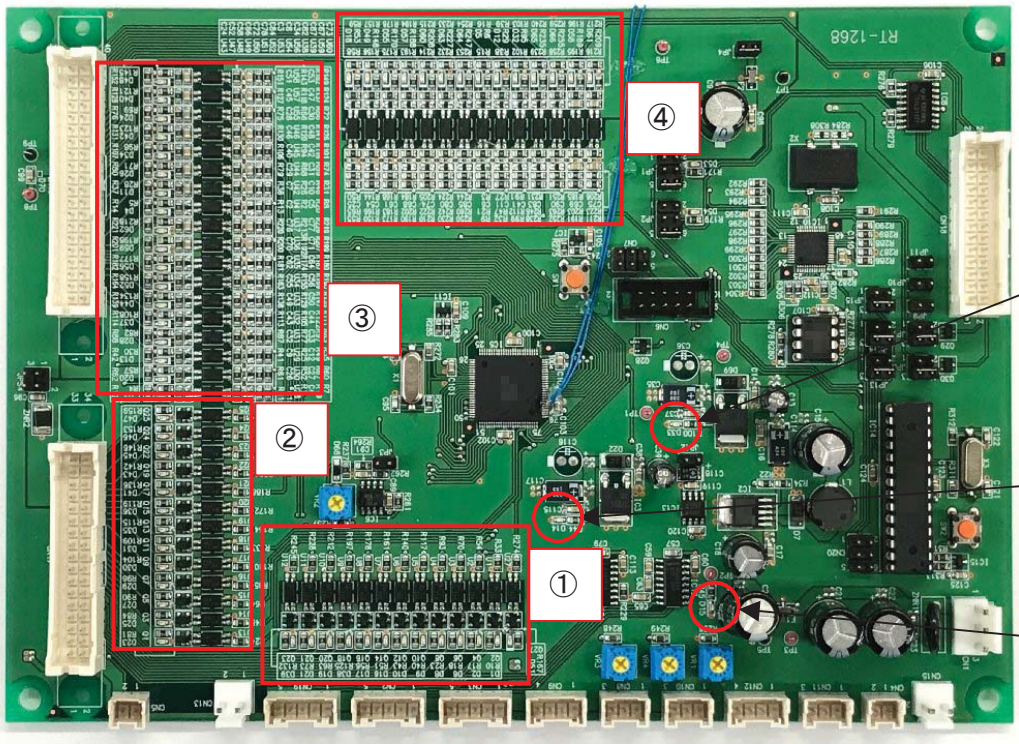
②I / O Board

③ Wiring Details

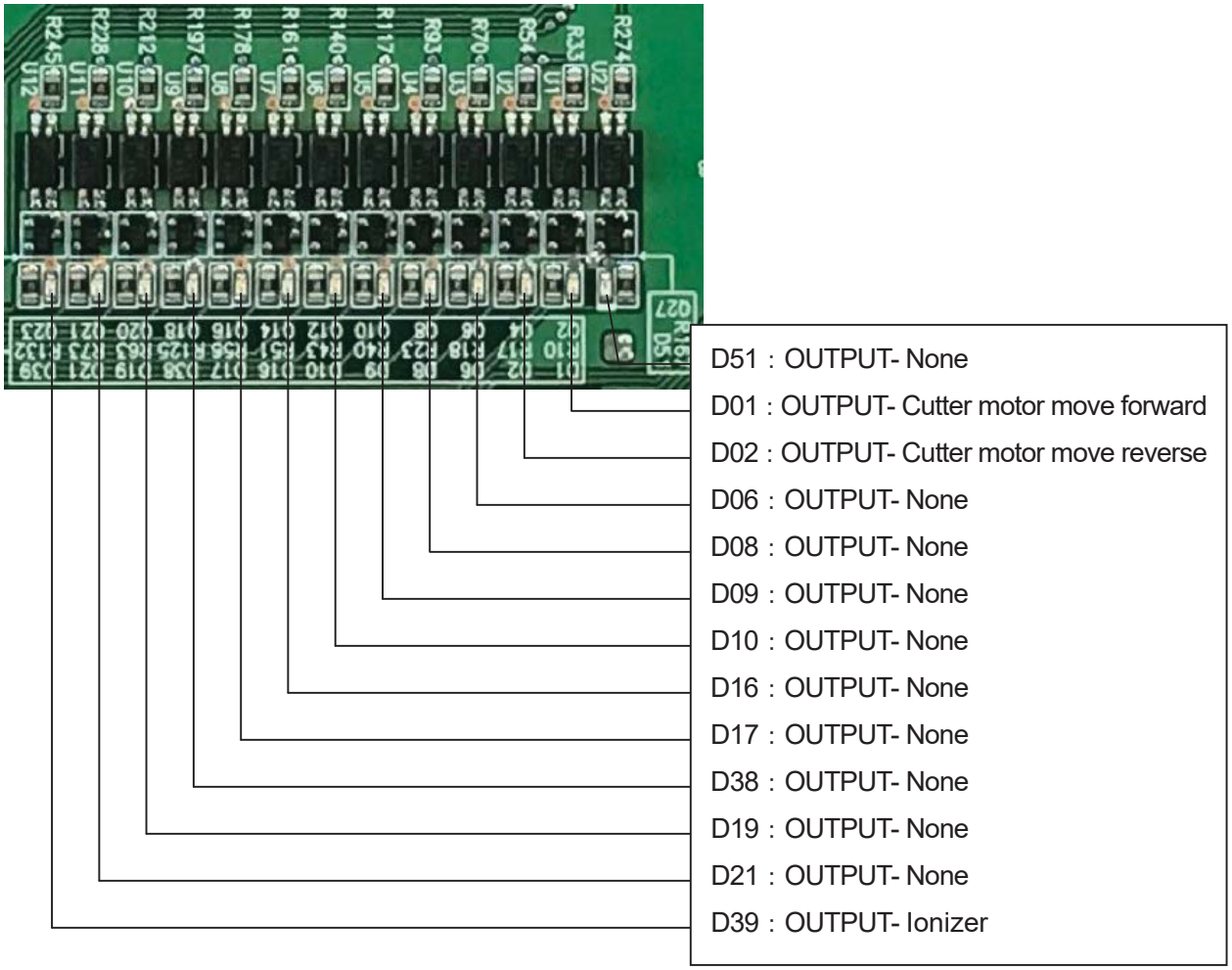




8- (3) Input/Output LED Details

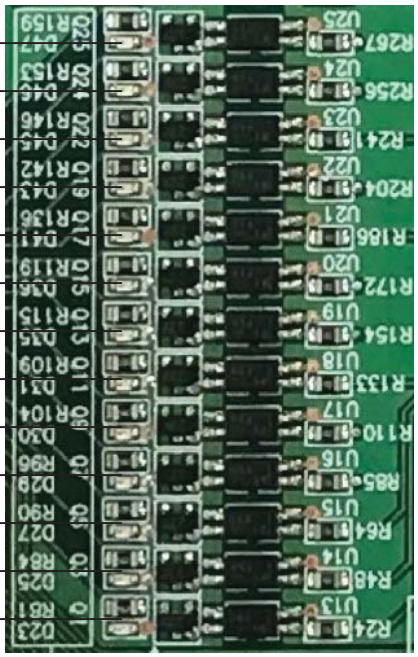


①LED on Lower Side



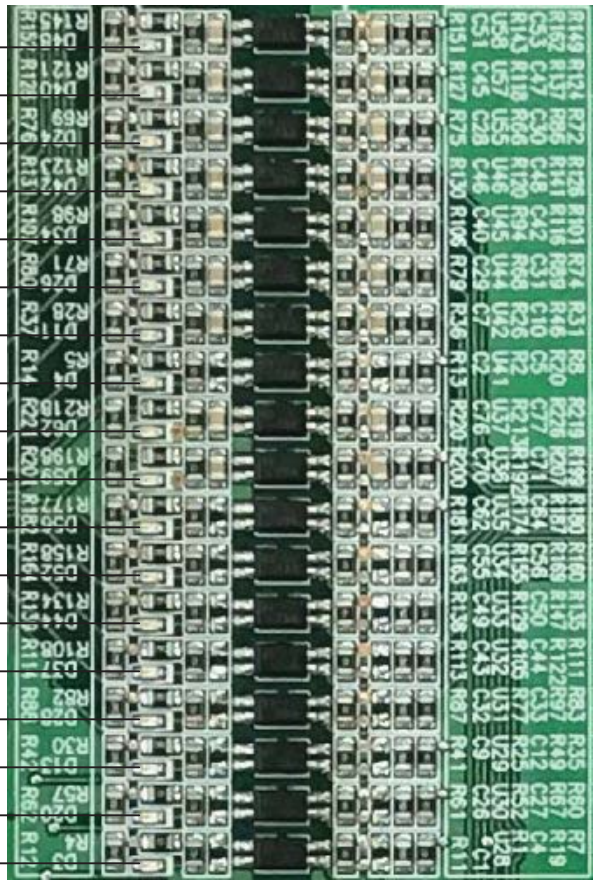
②LED on Left Lower Side

D47 : OUTPUT- None
D46 : OUTPUT- None
D45 : OUTPUT- Clutch
D43 : OUTPUT- Conveyer motor
D41 : OUTPUT- Side Blow fan motor
D36 : OUTPUT- Feed table move down
D35 : OUTPUT- Feed table move up
D31 : OUTPUT- Blow fan motor
D30 : OUTPUT- None
D29 : OUTPUT- None
D27 : OUTPUT- Vacuum fan motor
D25 : OUTPUT- Crease motor move reverse
D23 : OUTPUT- Crease motor move forward

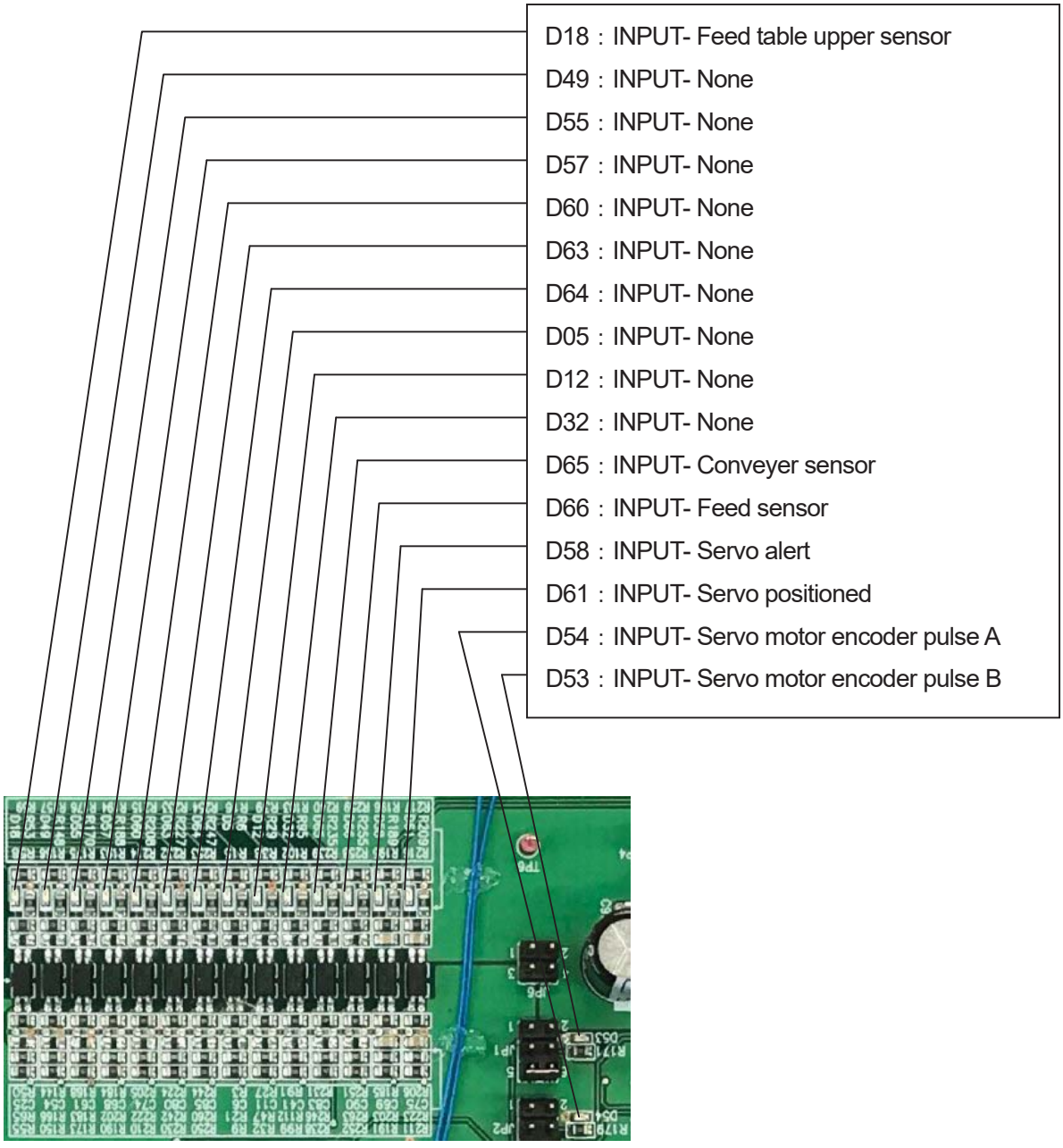


③LED on Left Upper Side

D48 : INPUT- None
D40 : INPUT- None
D24 : INPUT- Connect for Conveyer
D42 : INPUT- Cutter upper limit switch
D34 : INPUT- Feed table lower limit switch
D26 : INPUT- None
D11 : INPUT- None
D04 : INPUT- None
D62 : INPUT- Cover limit switch B
D59 : INPUT- Cover limit switch A
D56 : INPUT- None
D52 : INPUT- None
D44 : INPUT- None
D37 : INPUT- Crease upper sensor
D28 : INPUT- Crease lower sensor
D13 : INPUT- Cut mark sensor
D20 : INPUT- Stop sensor
D03 : INPUT- Origin sensor

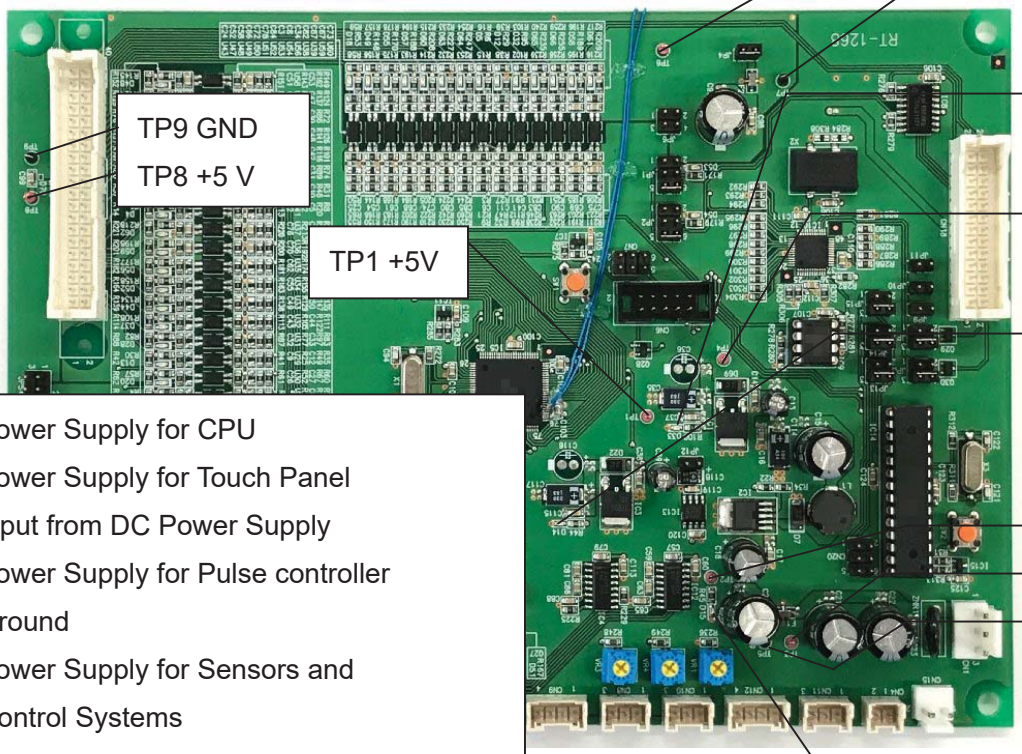


④LED on Upper Side



8- (4) Tap Voltage Details

CPU BOARD



TP6 +24 V
TP7 GND

+3.3V LED
(TP4-TP5)

TP4 +3.3V

+5 V LED
(TP1-TP5)

TP2 +24 V
TP3 +24 V
TP5 GND

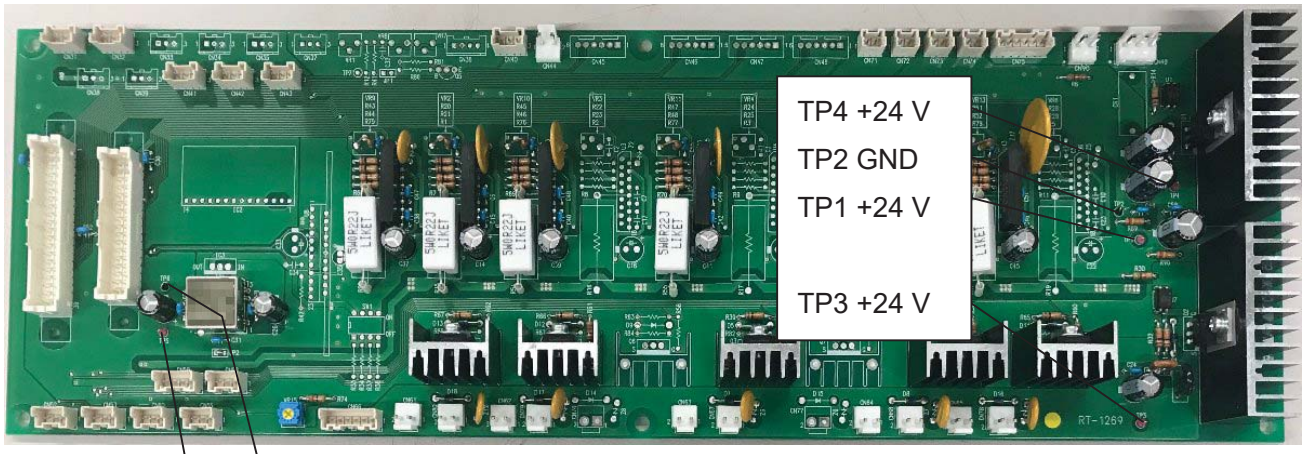
+24 V LED
(TP2-TP5)

TP9 GND
TP8 +5 V

TP1 +5V

TP1 : Power Supply for CPU
TP2 : Power Supply for Touch Panel
TP3 : Input from DC Power Supply
TP4 : Power Supply for Pulse controller
TP5 : Ground
TP6 : Power Supply for Sensors and
Control Systems
TP7 : Ground
TP8 : Power Supply for sensors and motor driver

I/O BOARD



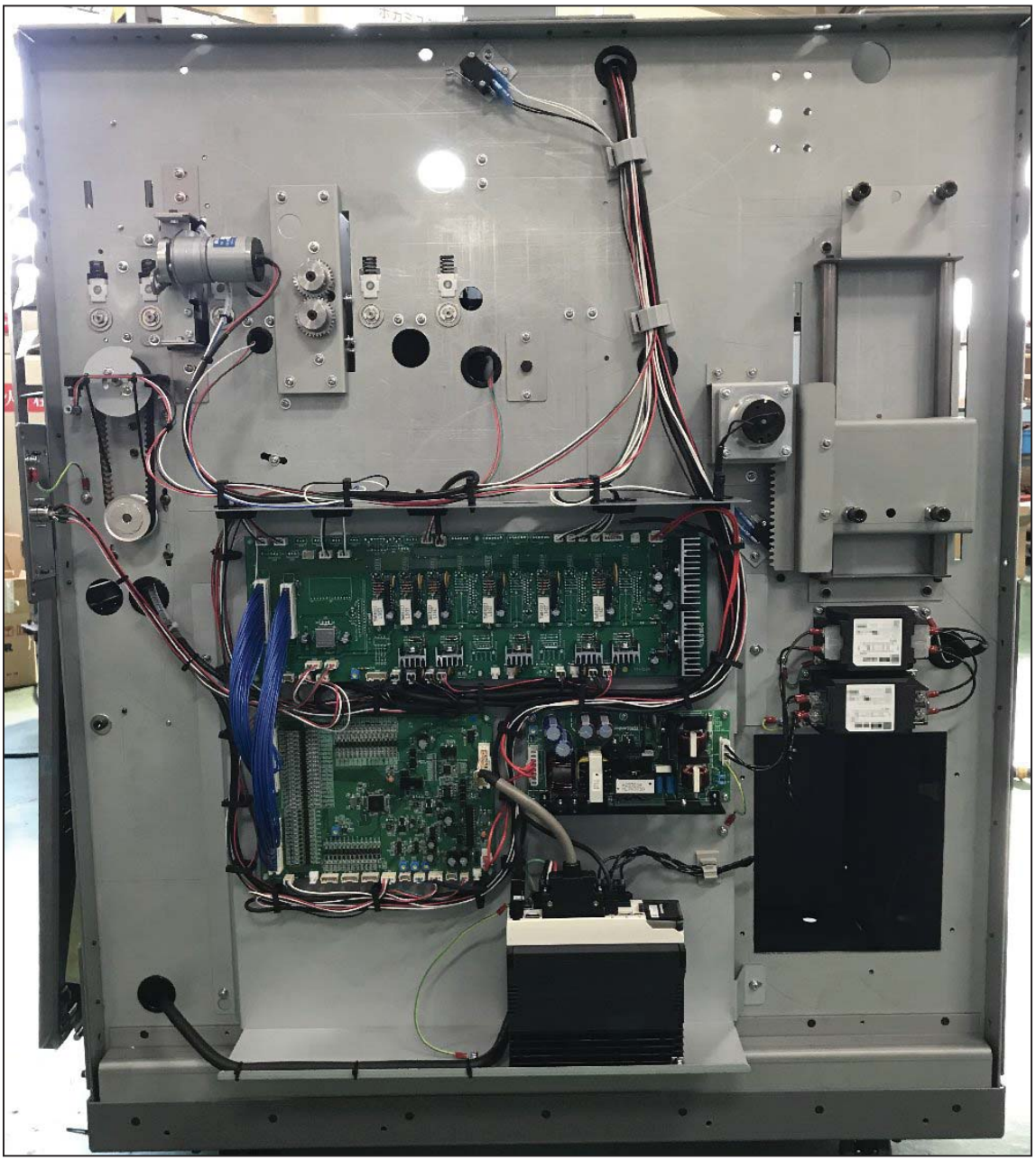
TP4 +24 V
TP2 GND
TP1 +24 V

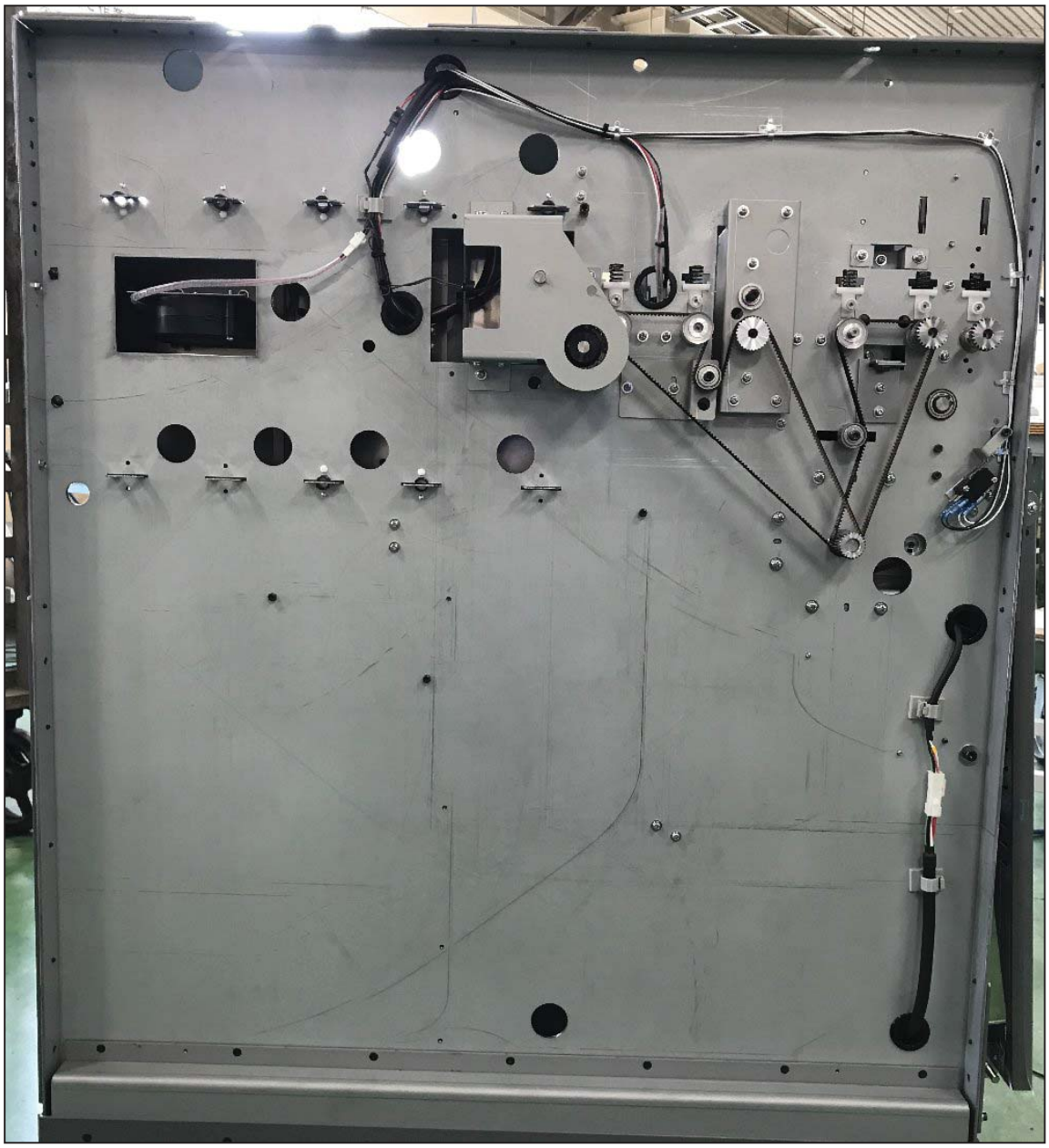
TP3 +24 V

TP6 GND
TP5 +5 V

TP1 : Power Supply for Motors
TP2 : Ground
TP3 : Power Supply for Sensors and Control Systems
TP4 : Power Supply for None
TP5 : Power Supply for Sensors and Motor driver
TP6 : Ground

8- (5) Wiring Details





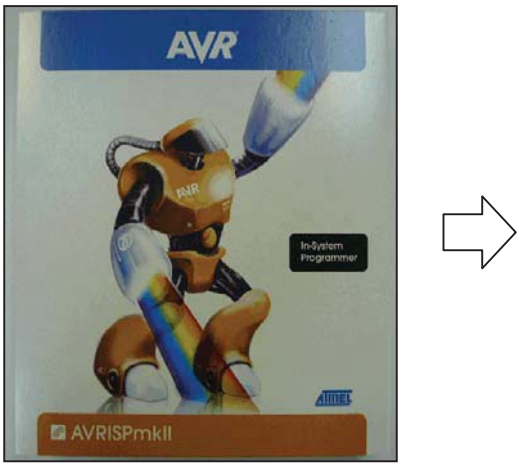
9. Program update

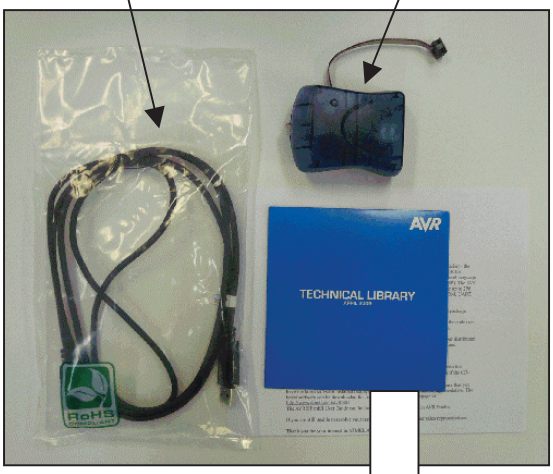
9- (1) Software install

(a) Requirements

	Transfer Tool	AVR STUDIO
Supported OS	Windows XP/VISTA/7/8/10	Windows XP/VISTA/7/8/10
CPU	Pentium Ⅳ 1 GHz processor or equivalent	Pentium 200 MHz processor or equivalent
Memory	1 GB or more	256 MB or more
Hard disk space	340 MB or more	100 MB or more
Display	1024 × 768 screen 16 bit high color or better	1024 × 768 screen (minimum 800 × 600 screen)
Interface	USB port	USB port

(b) Confirmation of Accessories





USB cable

AVRISP mk Ⅱ

DISK1 will not be used for installation.
It contains files such as AVR-related instruction manuals.
Please refer to them when needed.

2 CD-Rs

DISK 1

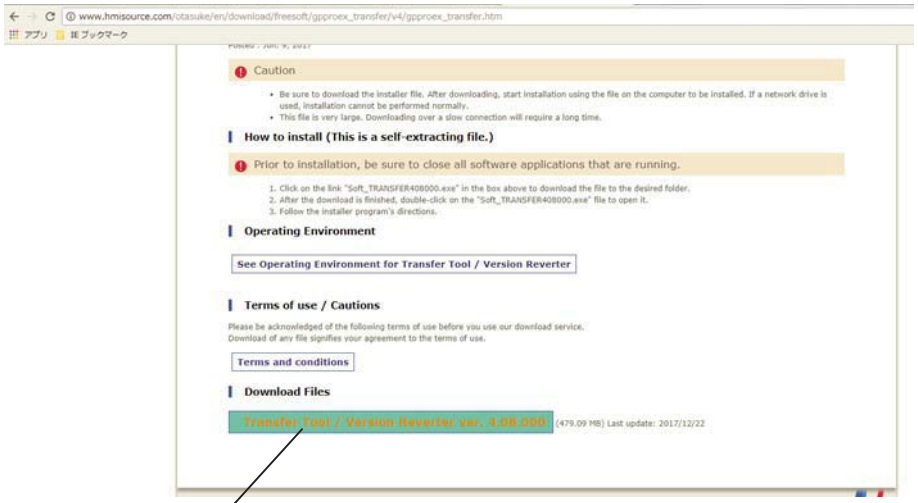
DISK 2

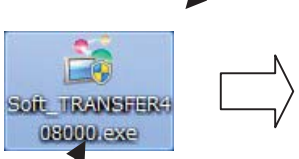
(c) How to install Transfer Tool

Download the Transfer Tool Installer via below link.

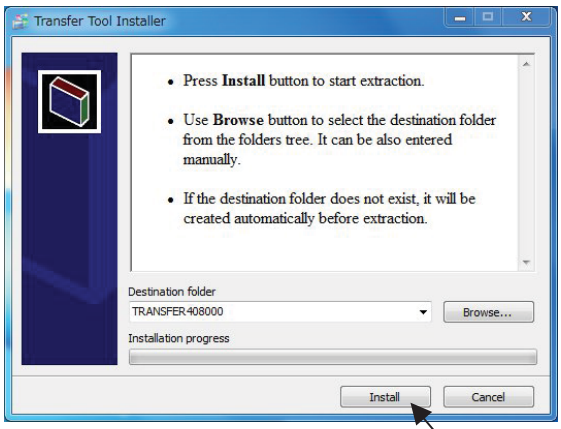
http://www.hmisource.com/otasuke/en/download/freesoft/gpproex_transfer/v4/gpproex_transfer.htm

(The procedure below is for WINDOWS 7)





② Click



③ Install

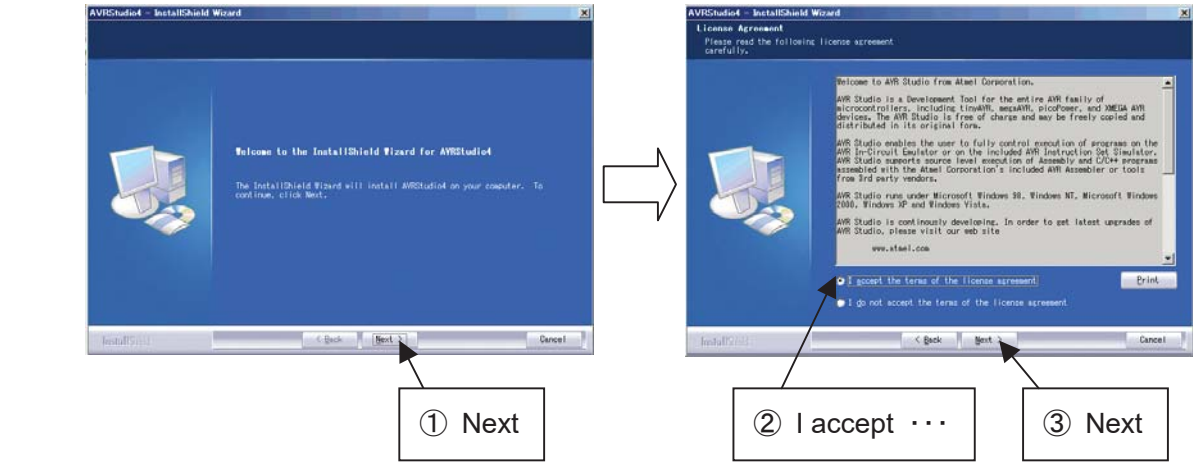
④Click

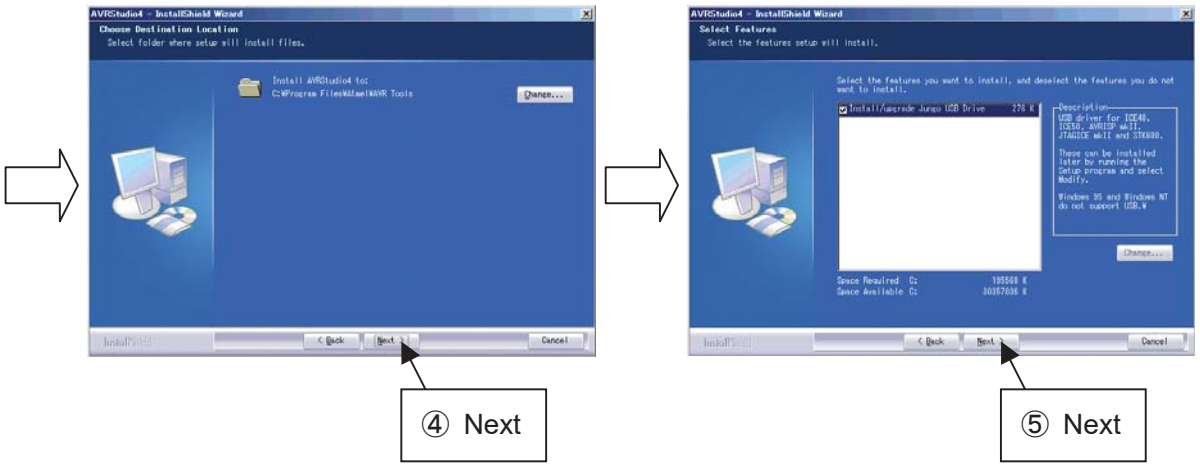
Follow the dialogues to complete installation.

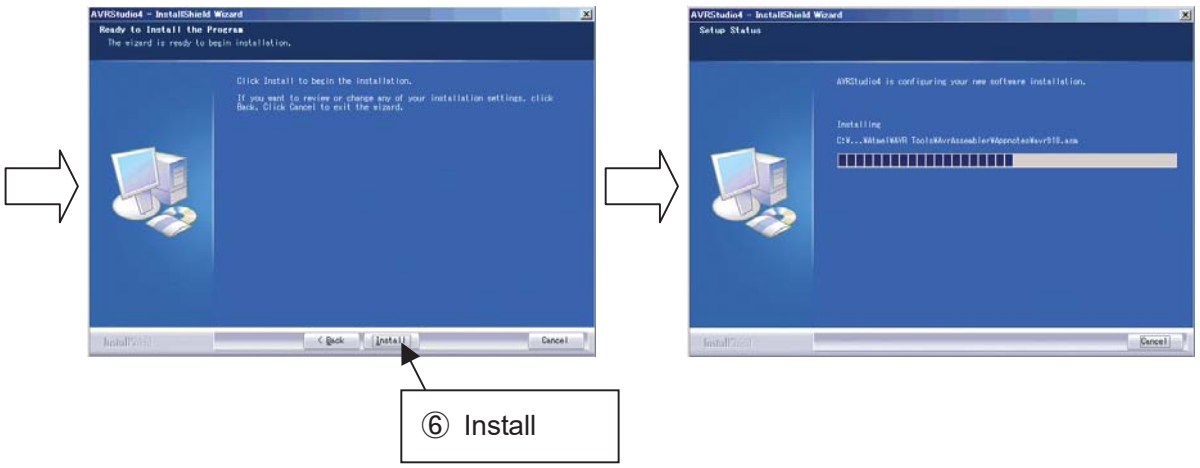
(d) How to install AVR STUDIO

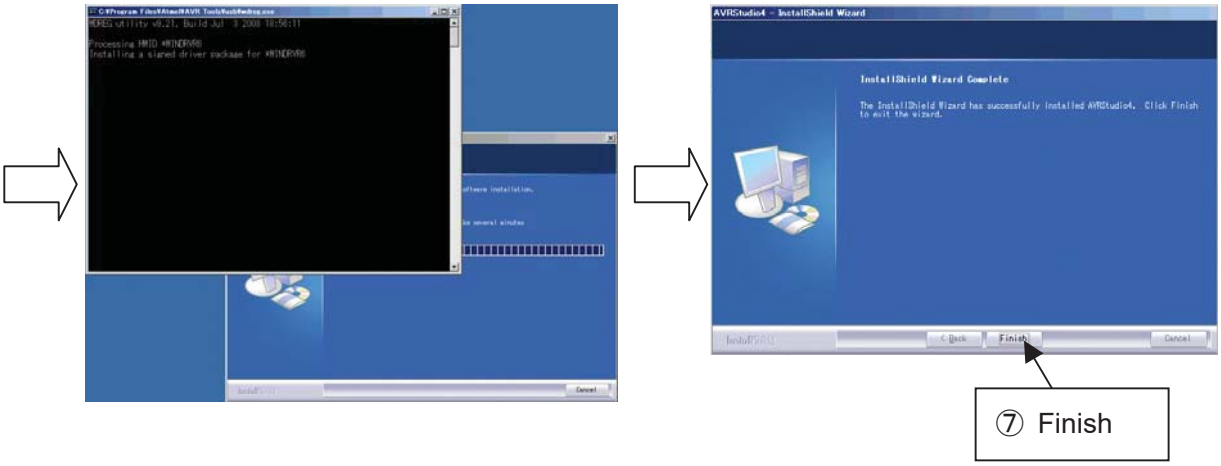
(The procedure below is for WINDOWS XP)

Double click on “AVR_TOOL¥ AvrStudio4Setup.exe” of the CD/DVD.



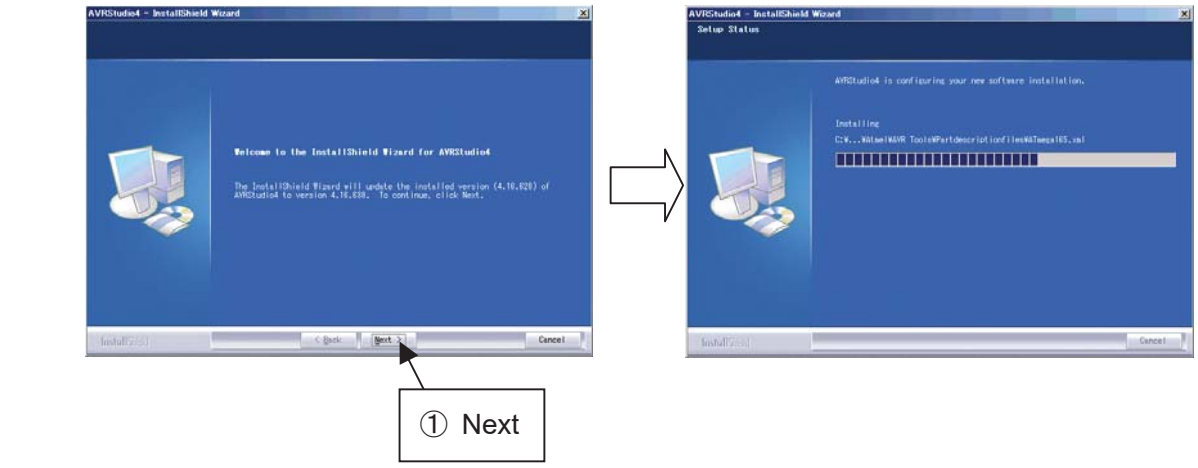


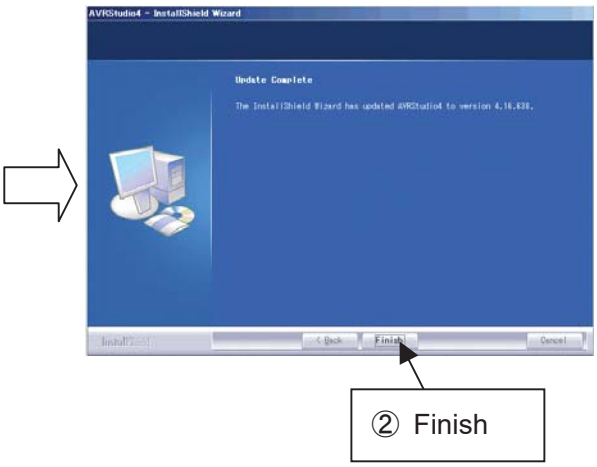




Next is the update of AVR STUDIO.

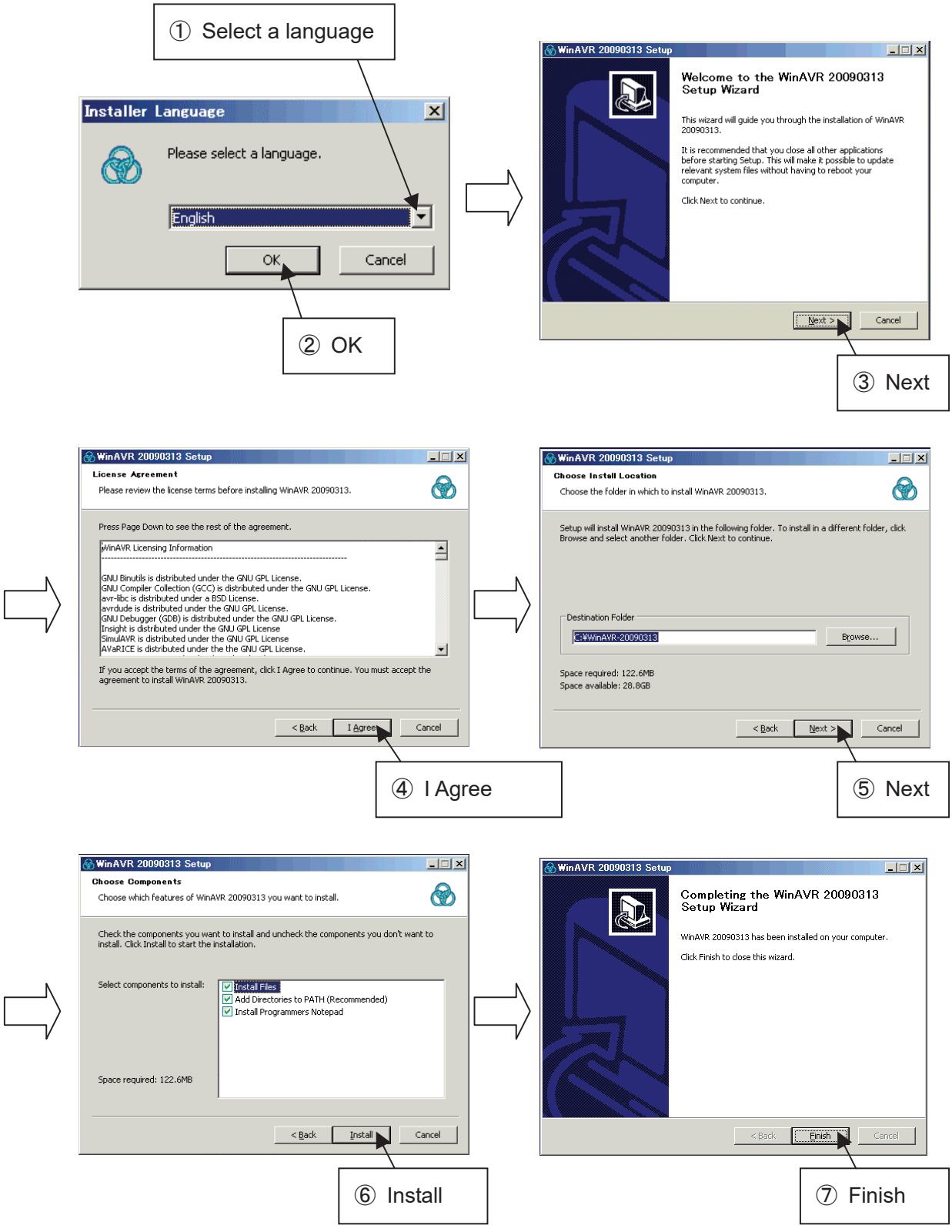
Double click on “AVR_TOOL¥ AVRStudio4.18SP3.exe” of the CD/DVD.



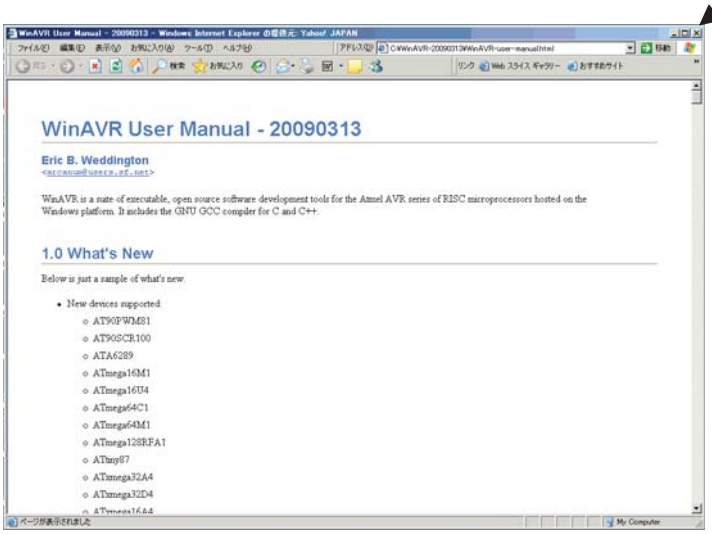


Next is the installation of WINAVR.

Double click on “AVR_TOOL¥ WinAVR-20100110-install -install.exe” of the CD/DVD.



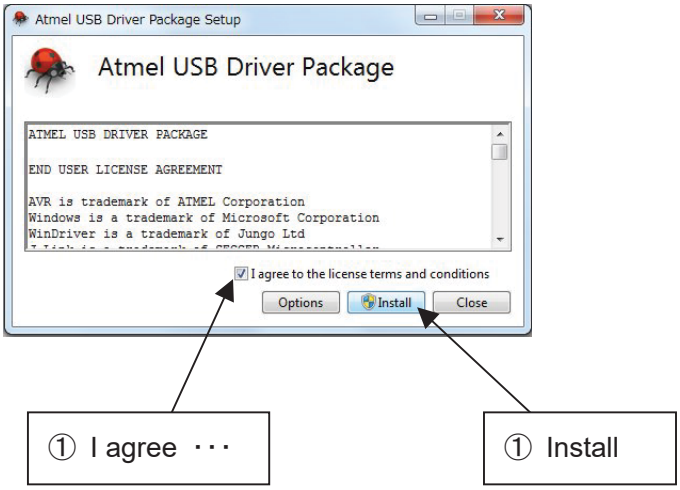
⑧× (Close the Window)

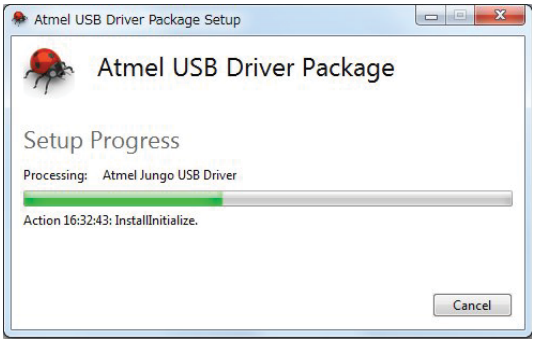


Next is the installation of win8_10_atmel_driver.

If the OS of the PC is Windows 8 or 10, install this driver.

Double click on “win8_10_atmel_driver¥ driver-atmel-bundle-7.0.888.exe” of the CD/DVD.





9- (2) Touch panel

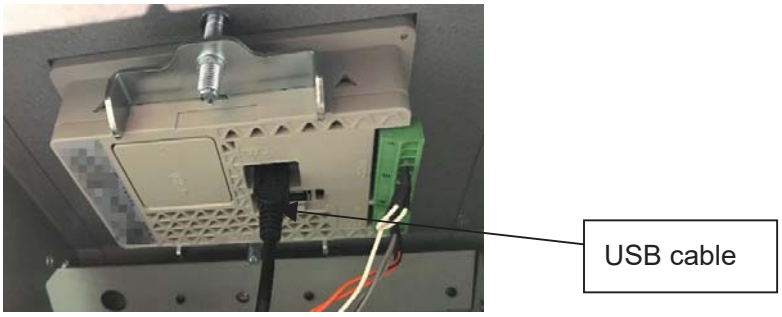
(a) Connecting to a computer / Transfer Tool operation

If any changes are made to the touch panel content, we will send the data to you most likely by e-mail.

The data format will look like “Morgana AutoCut_V100.prx” with a file extension of “.prx”. The figure “100” refers to a version, which means Version 1.00.

Save this data in a folder of your choice in your computer and upgrade the version as follows:

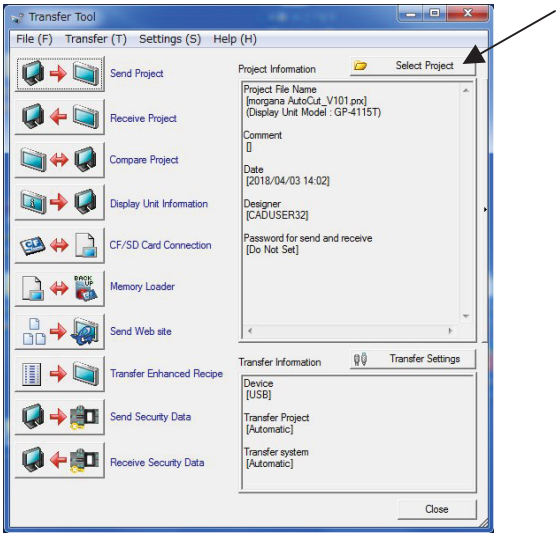
① Remove the unit cover, and connect the USB cable provided with the unit to the back of the touch panel as shown below. (The procedure below is for WINDOWS XP).



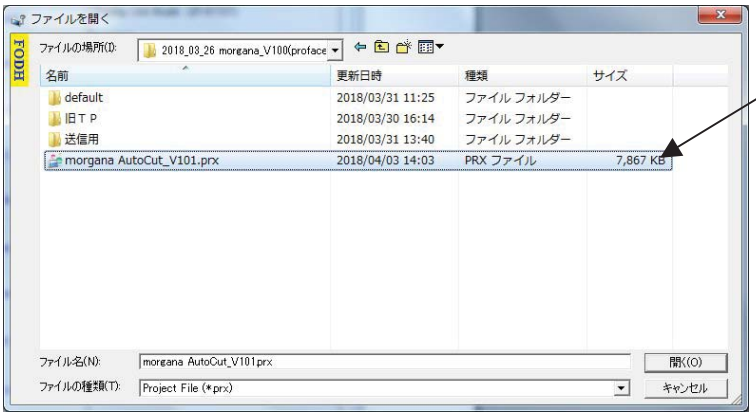
② Turn on the power supply. If the installation of the USB driver is necessary at this point, install the driver using DISK2, which contains the driver in the USB folder.

③ Start up the computer and double click on 

④ Click on Select Project.

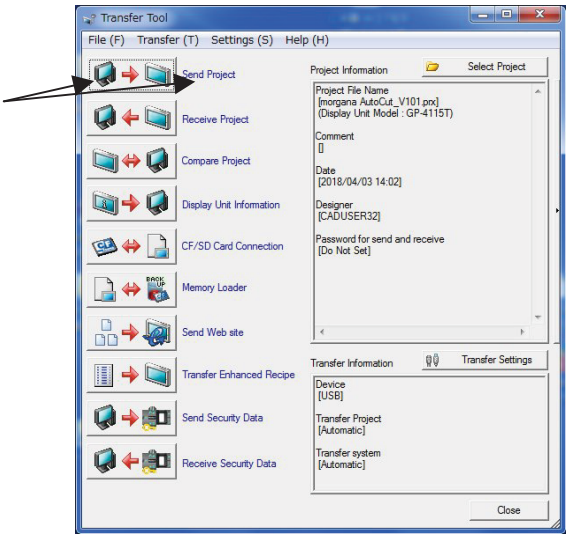


⑤ Select the folder in which you saved our screen data, select a file with a file extension of prx.

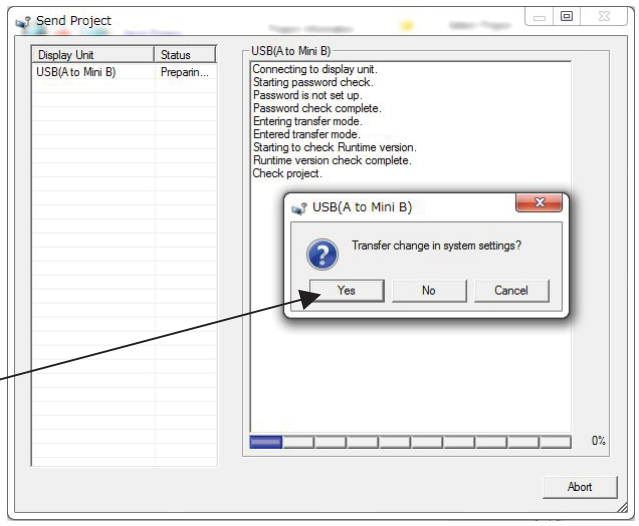


Select where you saved the ".prx" file sent from us.

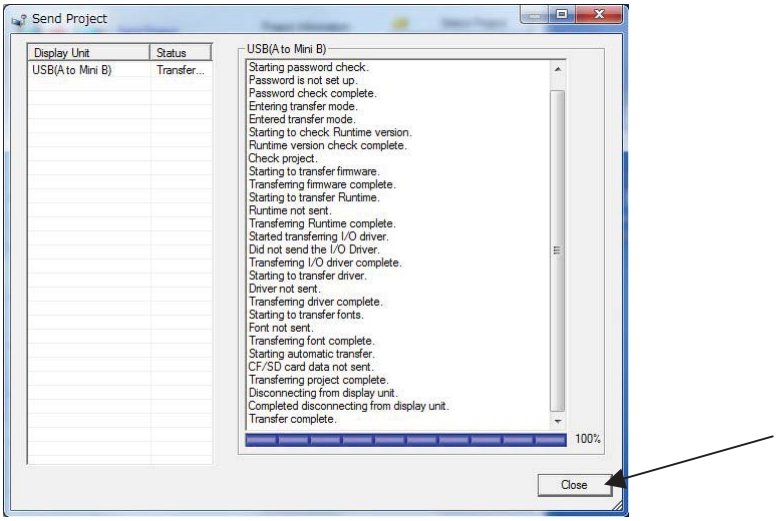
⑥ Click on Send Project or  .



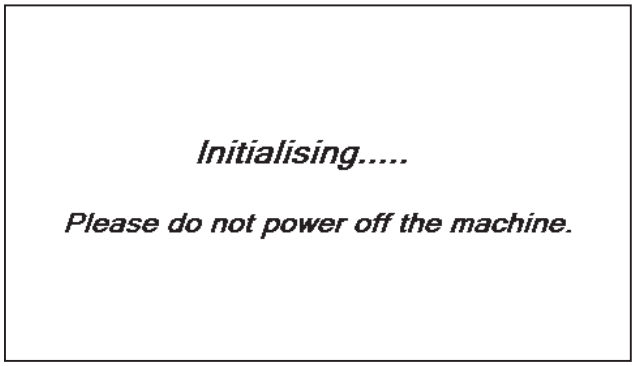
⑦ Click Yes if a question, "Transfer change in system setting?" is asked. If the question is not asked, you do not need to do anything.



⑧ The touch panel will make a peep sound when the transmission has completed. Click Close.



⑨ After your installing updated software, the direction you can see the below will remain on the touch panel. After seeing that words on the screen, turn off the machine and turn it on again.

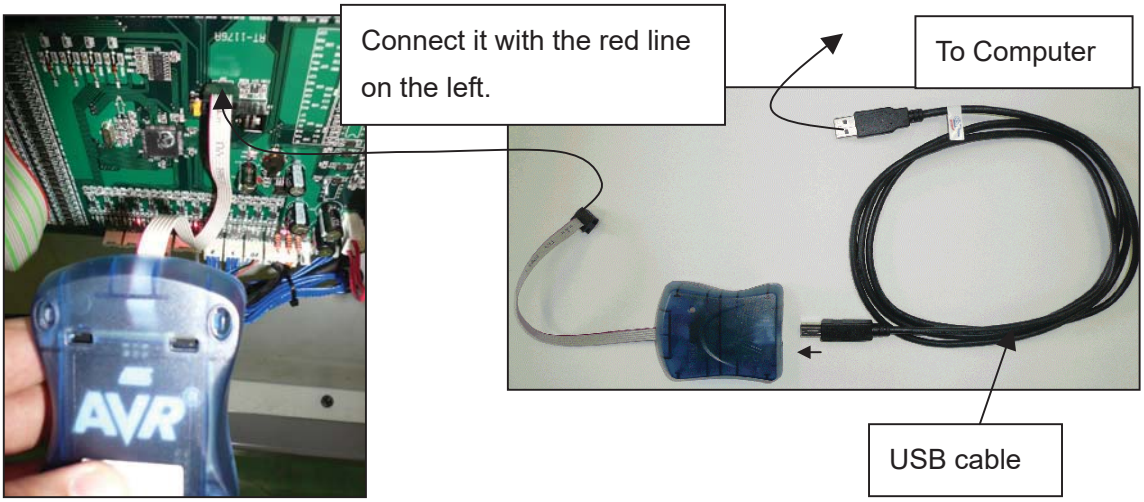


9- (3) CPU board

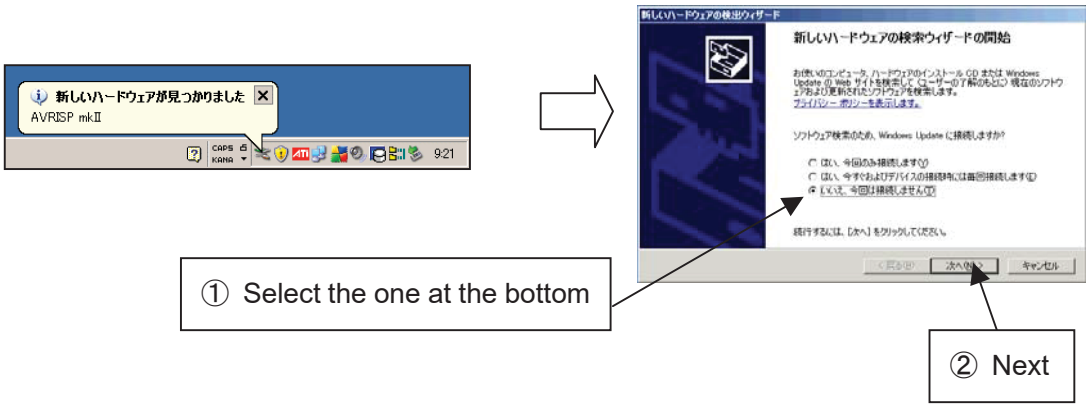
(a) AVRISP mkⅡ connection and AVR STUDIO operation

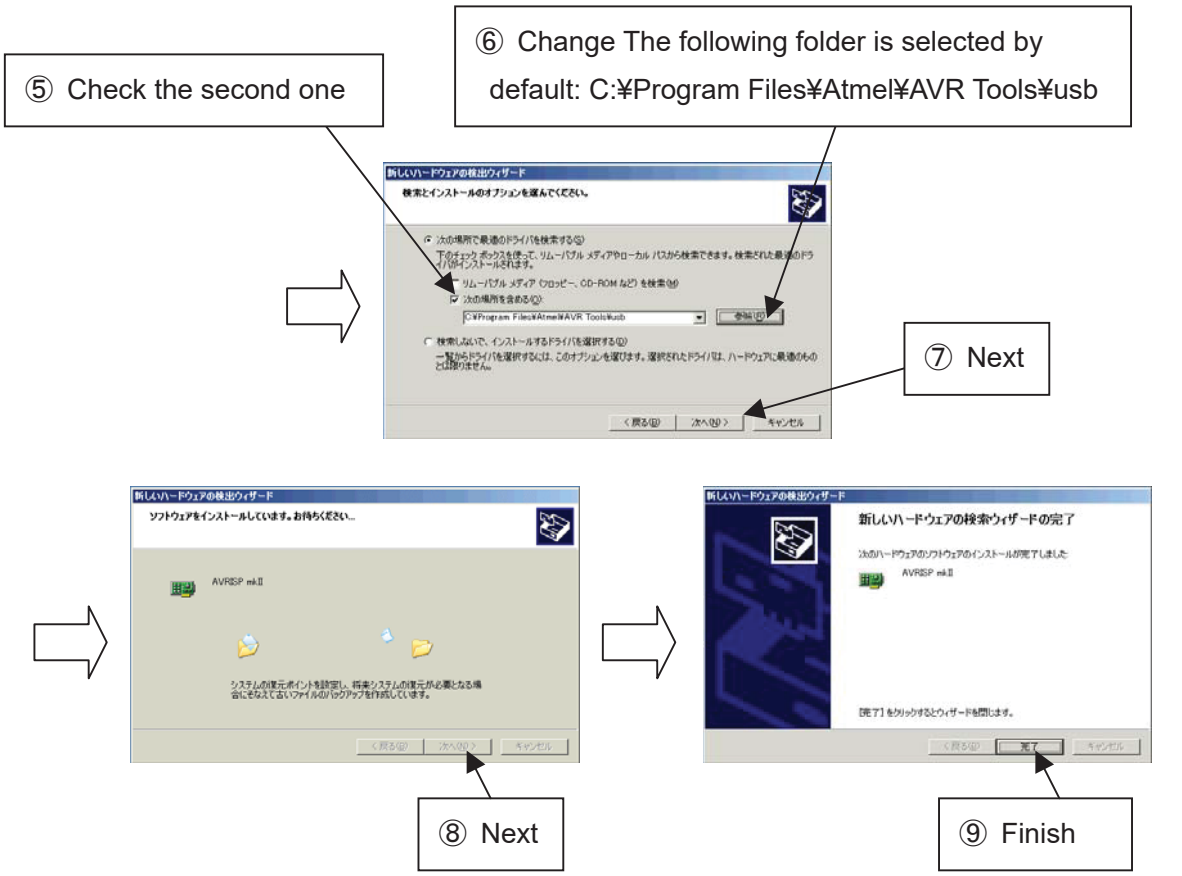
If any changes are made to the program content, we will send the data to you most likely by e-mail.
The data format will look like “Morgana AutoCut_V100.hex” with a file extension of “.hex” The figure “100” refers to a version, which means Version 1.00. Save this data in a folder of your choice in your computer and upgrade the version as follows:

① Remove the cover at the bottom of the front of the unit. Connect AVRISP mkⅡ provided with the unit to CN7 of the CPU Board, and connect the USB cable to the computer.

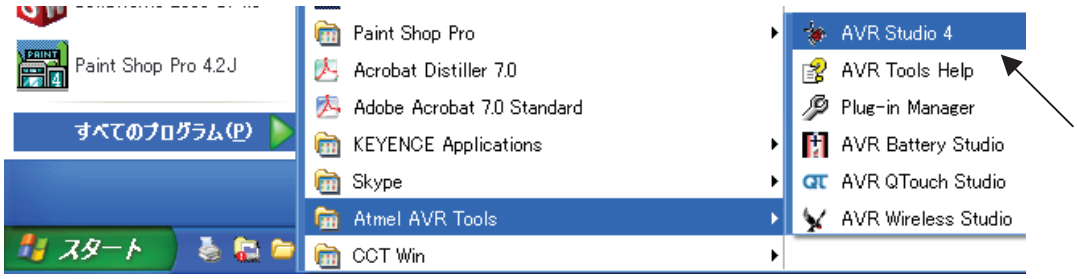


② If the installation of the USB driver is necessary at this point, install the driver following the procedure below (The procedure below is for WINDOWS XP).

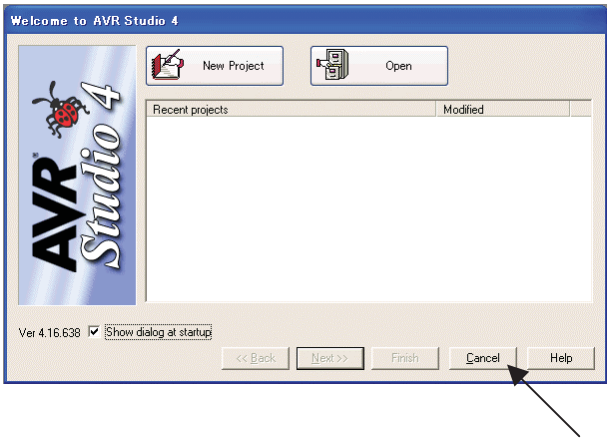




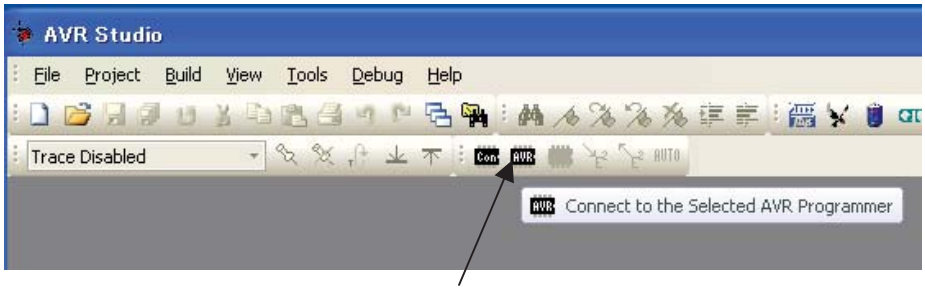
③ Start up the computer and double click on Start ⇒ Program ⇒ Atmel AVR Tools ⇒ AVR Studio 4.



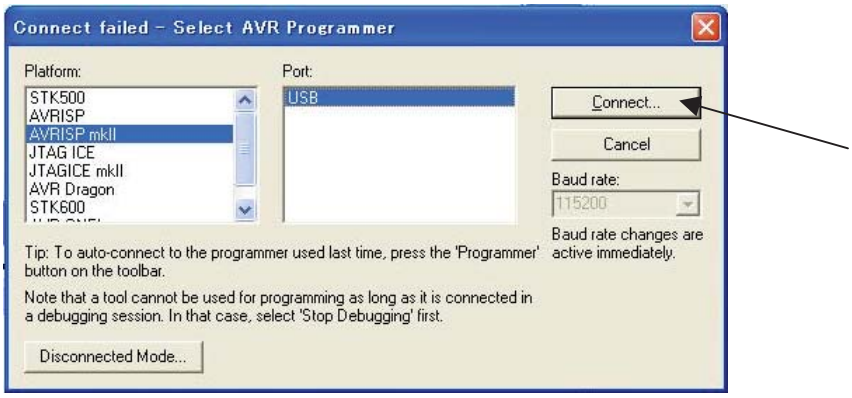
④ Click on Cancel.



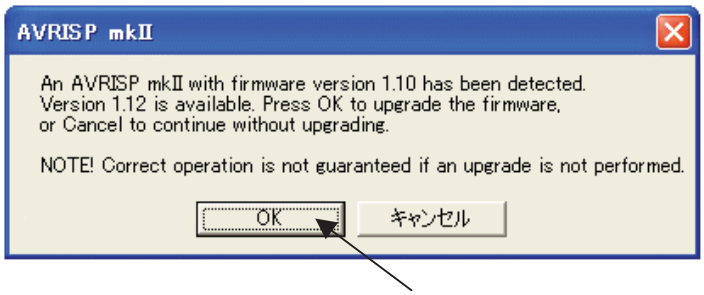
⑤ Click on AVR (Connect to the Selected AVR Programmer).



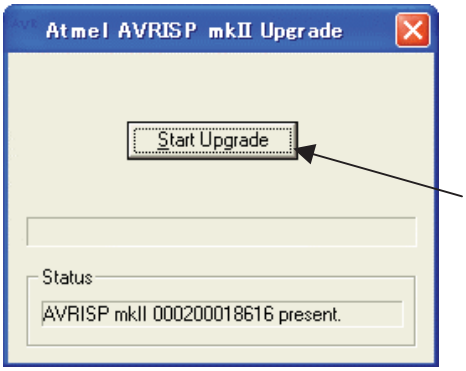
⑥ Select AVRISP mkⅡ for Platform, Select USB for Port, click on Connect.



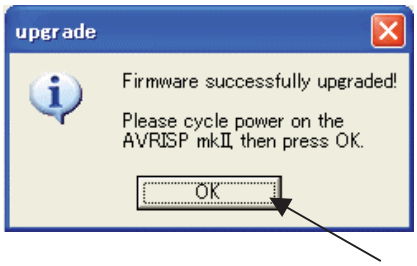
⑦ If the following warning appears on the screen, AVRISP mkⅡ firmware upgrade is necessary. Click on OK. If the warning does not appear on the screen, skip to ⑩.



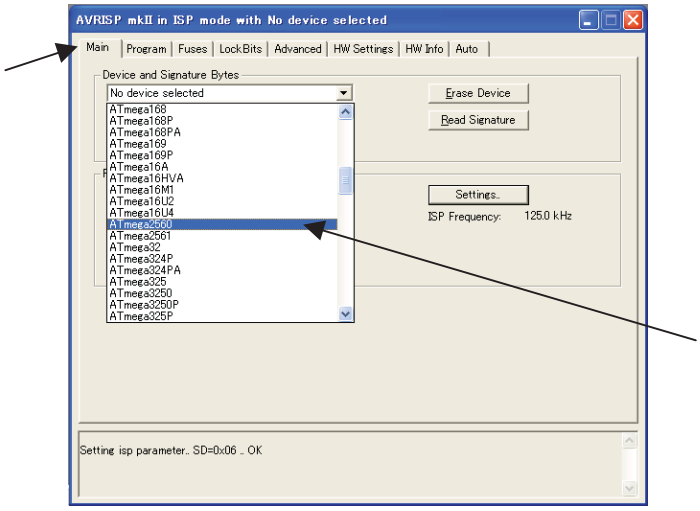
⑧ Click on Start Upgrade.



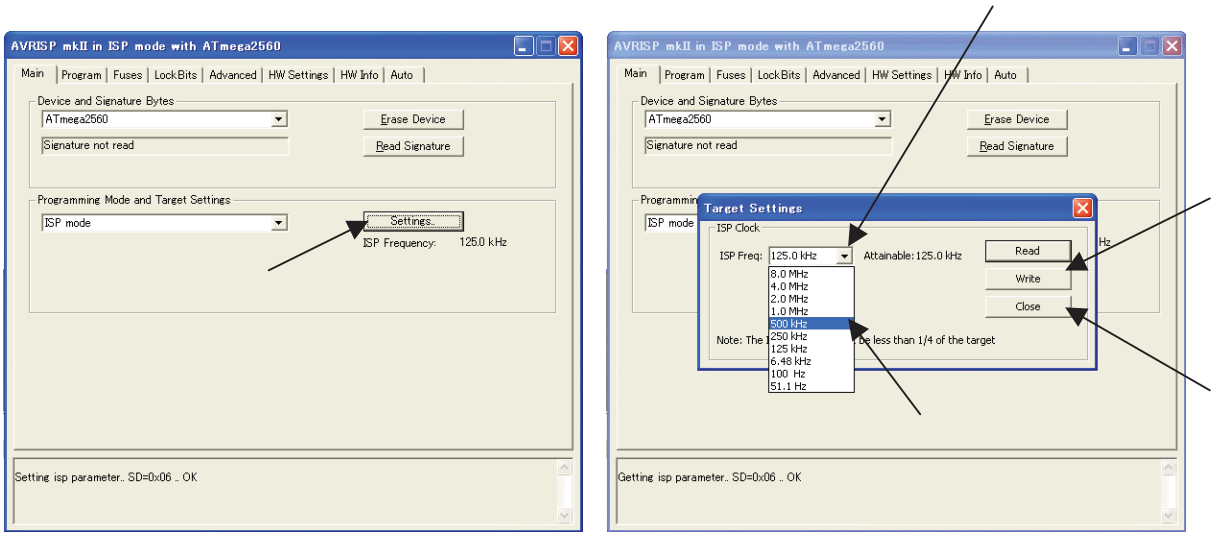
⑨ Disconnect the USB cable of AVRISP mk Ⅱ and connect it again. After that, click on OK. If AVR STUDIO has shut down, return to ③ and conduct the operation again.



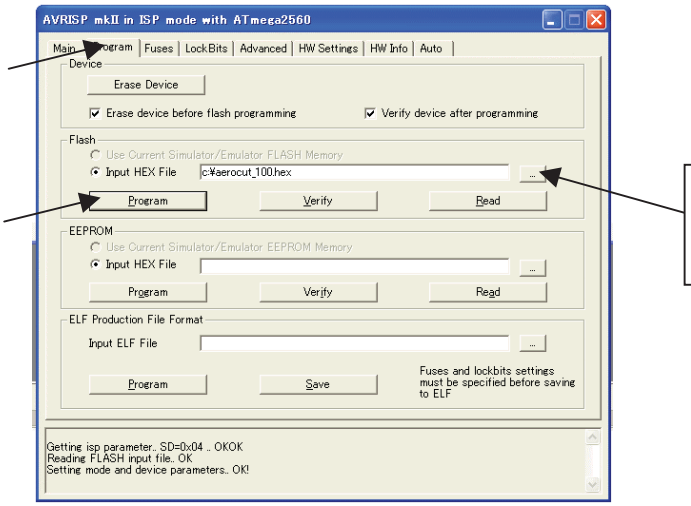
⑩ Click on Main tab, select the Atmega2560 for Device and Signature Bytes.



⑪ Click on Main tab and on Settings. Select 500 kHz for ISP Freq, click on Write, and click on Close.



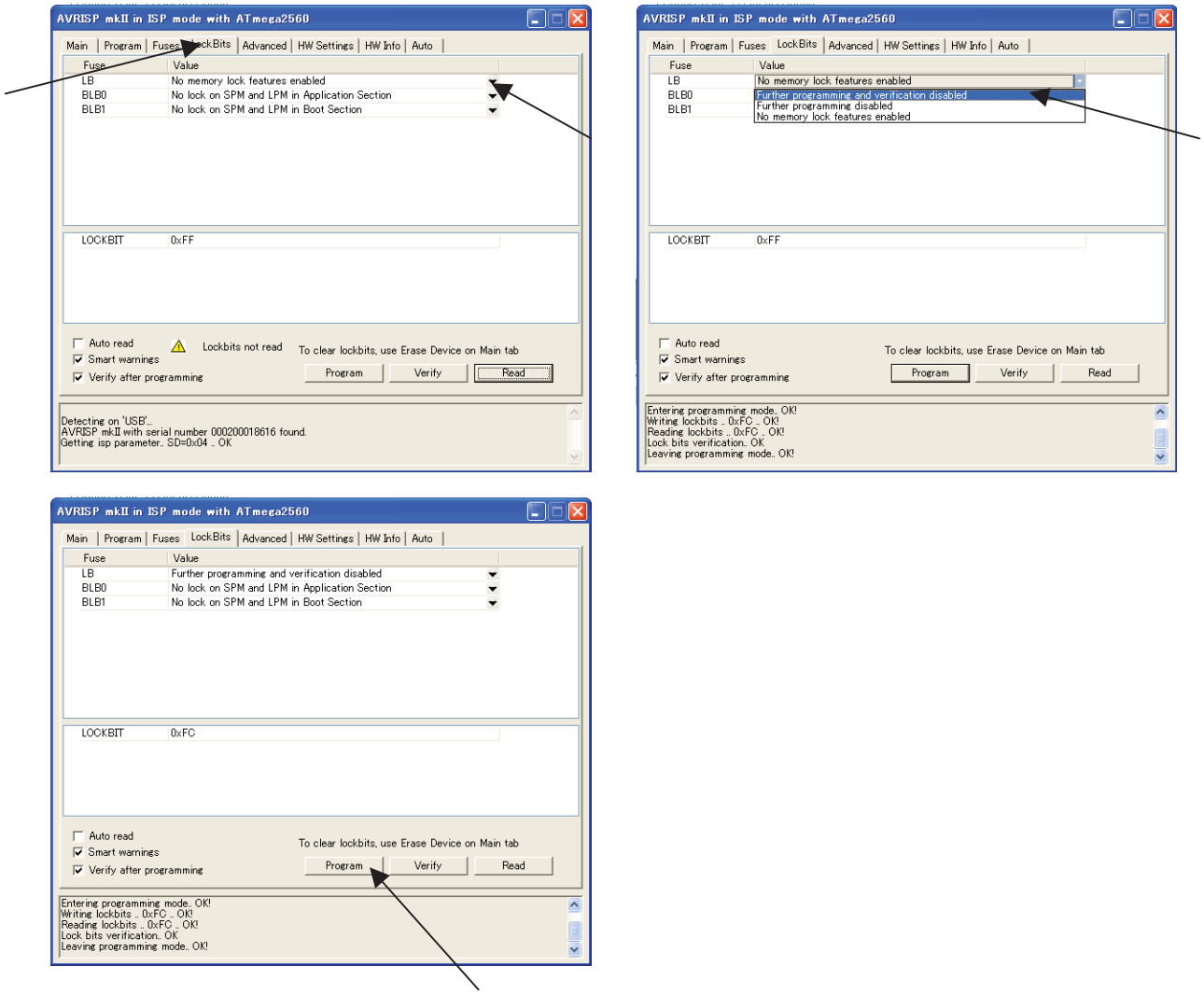
⑫ After clicking on Program tab, select the folder where the file was initially saved as the save location. By clicking on Program, the transmission of the program will start. (About 30 sec.)



Select where our ".hex" file was initially saved.

⑬ Click the LockBits tab, and click ▼ next to “No memory lock features enabled,” then, select

“Further programming and verification disabled.” Click “program”.

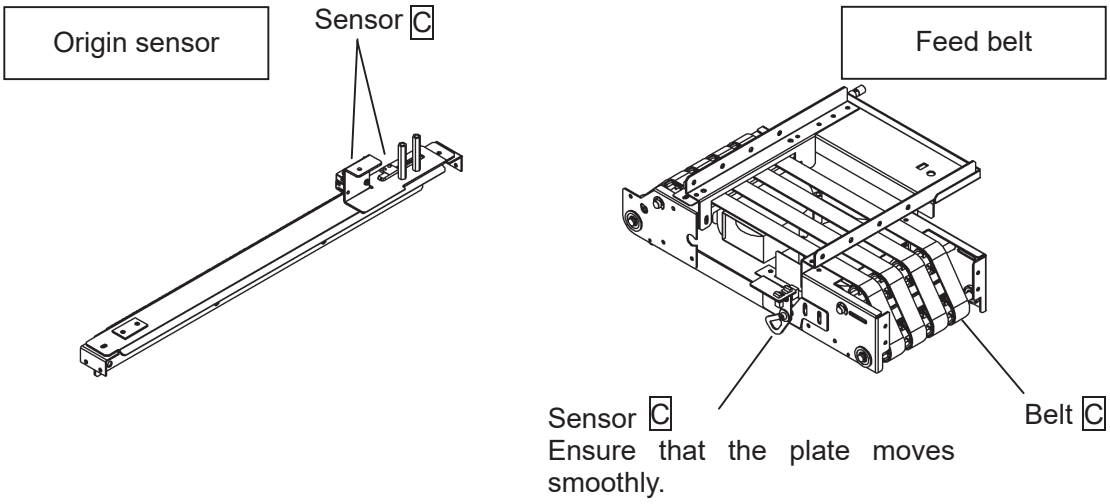


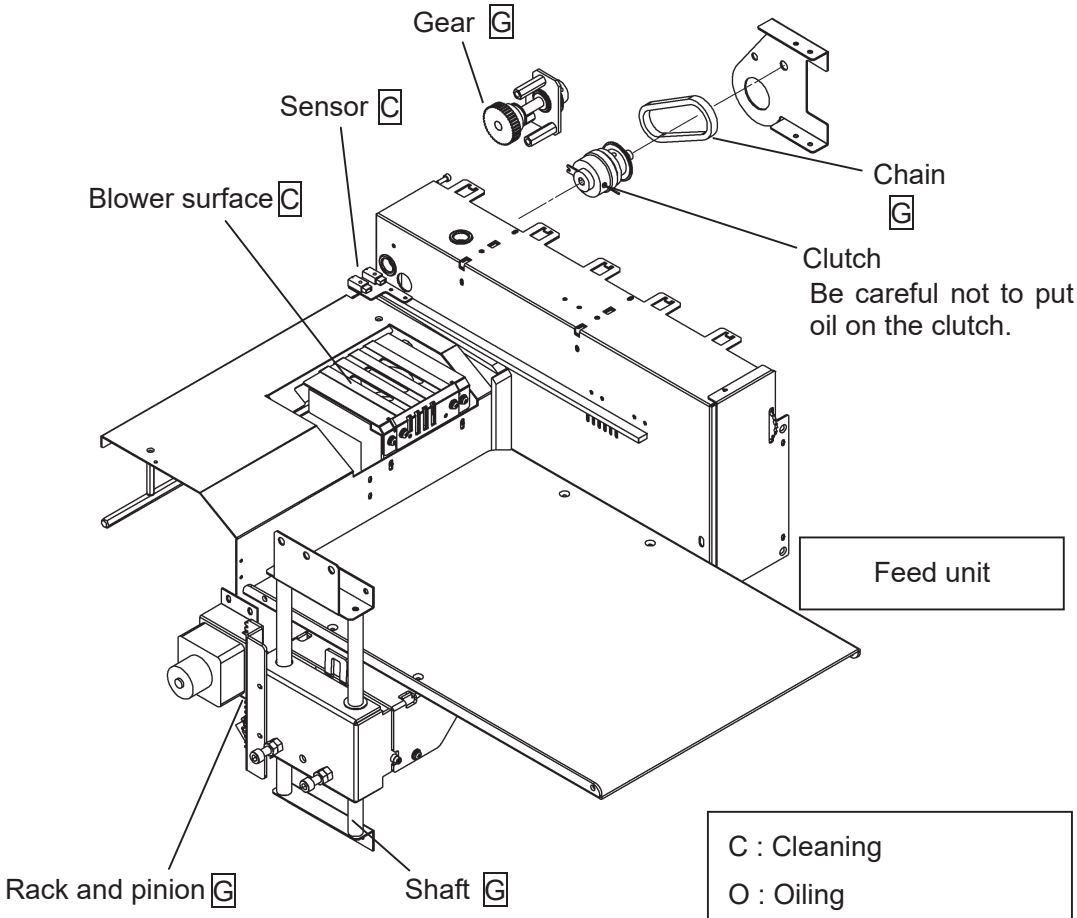
⑭ The process is completed when the transmission of the program has finished.

⑮ From the next time onward, proceed in the order of ③,④,⑤,⑩,⑫, and ⑬.

10. Cleaning & greasing

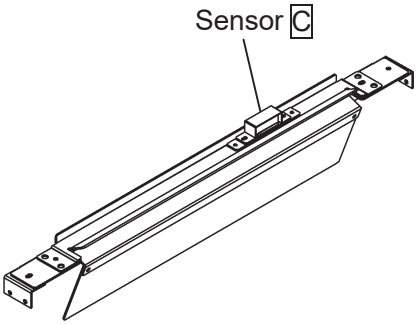
Do not remove these parts out of the machine when cleaning & greasing as regular maintenance.



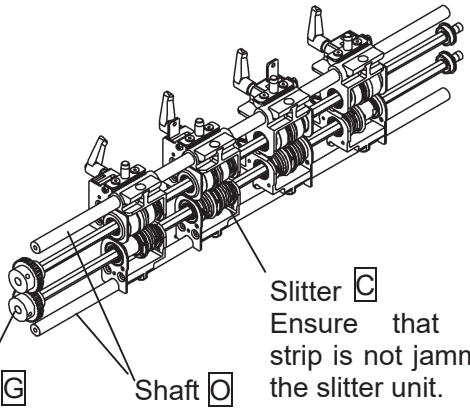


C : Cleaning
O : Oiling
G : Greasing
Gp : Greasing for plastic

Stop sensor

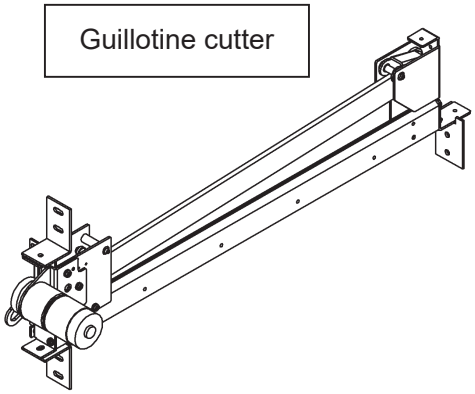


Slitter

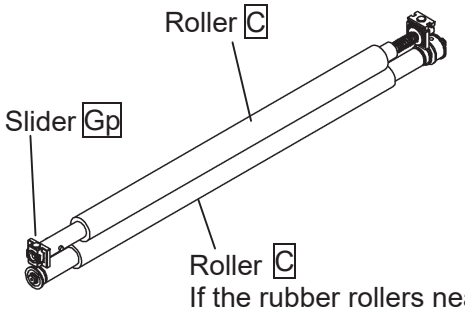


Ensure that paper strip is not jammed in the slitter unit.

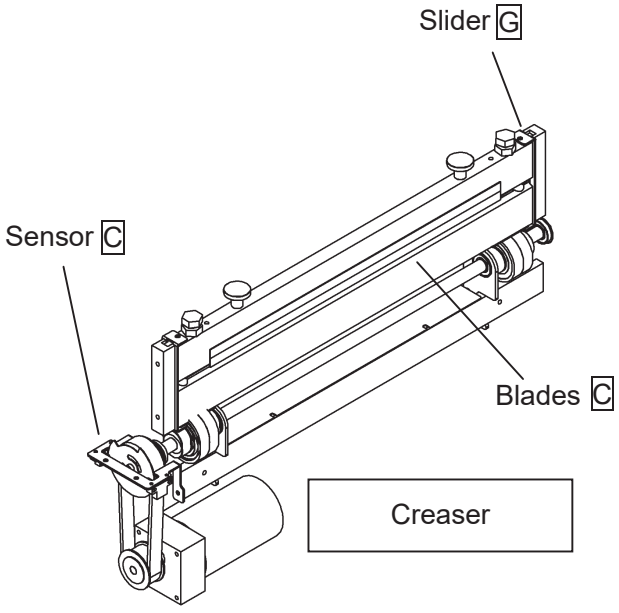
Guillotine cutter



Roller



If the rubber rollers near the guillotine are dirty, it may affect accuracy. Be careful not to put oil on the rollers.



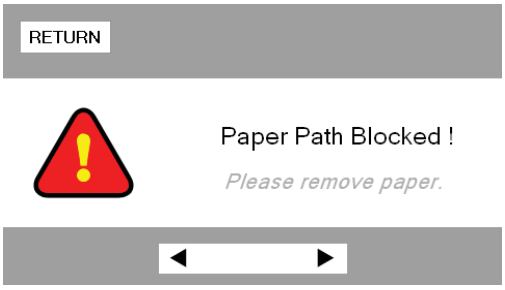
Creaser

C : Cleaning
O : Oiling
G : Greasing
Gp : Greasing for plastic

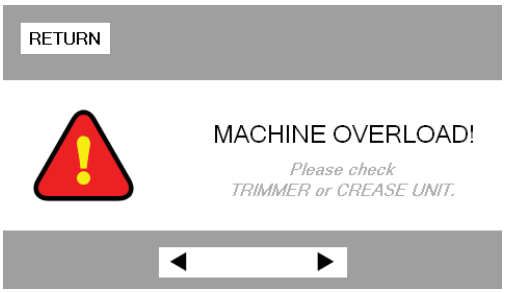
11. Recommended replacement parts

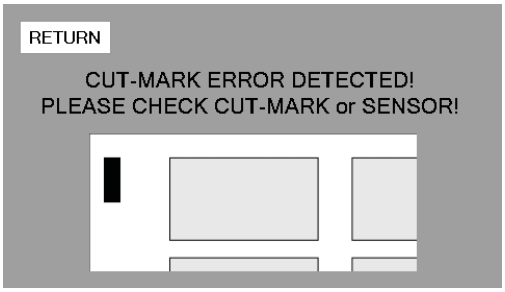
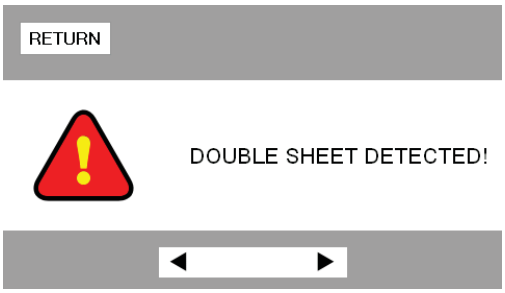
Parts name	Parts No.	Qty	Parts list
Slitter blade ASSY (Margin, upper)	7707-8001	2	Page 3
Slitter blade ASSY (Gutter, upper)	7707-8002	2	
Slitter blade ASSY (Lower)	7707-8003	6	
Paper feed belt	80-718	4	Page 13
Guillotine	61-045	1	Page 27
Carrying roller (Soft)	7703-0602	5	Page 37
Carrying roller (Hard)	7707-0601	1	
Carrying roller (Hard)	7703-7601	1	
Carrying roller (Hard) With black mark	7703-7602	2	
Carrying roller (Soft)	7703-0603	1	
Timing belt	82-541	1	
Timing belt	82-542	1	

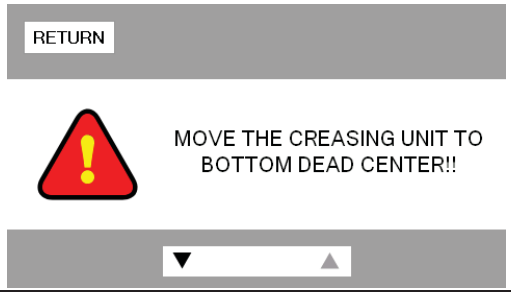
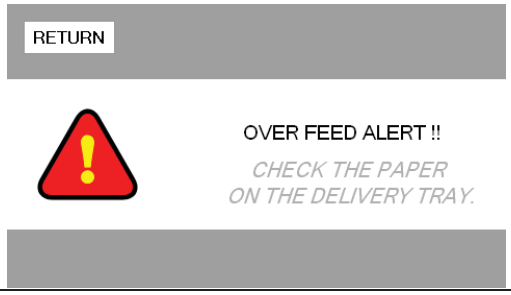
12. Troubleshooting

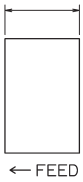
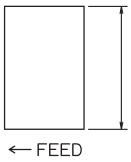
1	This occurs when the Safety cover or Stacker panel is opened. If the screen below remains after close the both cover. 	▪ Cover Sensor either A or B, or both may be out of order. ☞3- (4) INPUT DATA CHECK Screen ▪ The angle of the shield plate may be wrong. ☞3- (4) INPUT DATA CHECK Screen ▪ I/O Board may be out of order. ▪ CPU Board may be out of order. ▪ Wire breakage or connection failure may have occurred.
2	This occurs when the unit was started with paper still remaining inside the unit. If the screen below remains after paper removal. 	▪ Either Origin Sensor, C/M Sensor, or Stop Sensor may be out of order. ☞3- (4) INPUT DATA CHECK Screen ▪ CPU Board may be out of order. ▪ Wire breakage or connection failure may have occurred.
3	This occurs when the paper did not pass through Origin Sensor at time of paper feeding. If this occurs frequently (except when there is no paper on Feed Table) 	When Feed Belt and Carrying Roller are both rotating: ▪ Paper guides (Small) hold the sheets too tightly on the Feed table. ▪ Paper tip could remain inside of the machine. ▪ Clean feed belts. ▪ Vacuum motor may be out of order. ▪ Origin Sensor may be out of order. ☞3- (4) INPUT DATA CHECK Screen ▪ I/O Board may be out of order. ▪ CPU Board may be out of order. ▪ Wire breakage or connection failure may have occurred.

3		When Feed Belt is not rotating: ▪ Clutch may be out of order. ▪ I/O Board may be out of order. ▪ CPU Board may be out of order. ▪ Wire breakage or connection failure may have occurred. When Carrying roller is not rotating: ▪ Servo Motor and/or Driver may be out of order. ▪ CPU Board may be out of order. ▪ Wire breakage or connection failure may have occurred.
4	This occurs when the paper did not pass between Origin Sensor and Stop Sensor within a designated period of time. If this frequently occurs, 	When Carrying Roller is rotating: ▪ Paper tip could remain inside of the machine. ▪ Origin Sensor may be out of order. ☞3- (4) INPUT DATA CHECK Screen ▪ Stop Sensor may be out of order. ☞3- (4) INPUT DATA CHECK Screen ▪ Slipping is caused by powdered paper at Feed Roller. ▪ Paper warpage may have occurred. ▪ Slitter may be out of order. ▪ CPU Board may be out of order. ▪ Wire breakage or connection failure may have occurred. When Carrying roller is not rotating: ▪ Servo Motor and/or Driver may be out of order. ▪ CPU Board may be out of order. ▪ Wire breakage or connection failure may have occurred.

5	This occurs when Feed Table is overloaded. If this occurs frequently, 	・ Feed Motor may be out of order. ・ Switch (FD TBL UP/SENS, TBL LW/LMT SW) may be out of order. ☞3- (4) INPUT DATA CHECK Screen ・ Screws of the coupling may be loose. ・ I/O Board may be out of order. ・ CPU Board may be out of order. ・ Wire breakage or connection failure may have occurred.
6	This occurs when Cutter or Crease are overloaded. If this occurs frequently, 	When Cutter is overloaded: ・ Paper tip could remain inside of the machine. ・ Paper double feeding. ・ Paper thickness is out of specification. ・ Cutter blade may be blunt. ・ Cutter Motor may be out of order. ・ Switch (CUTTER UP/LMT SW) may be out of order. ☞3- (4) INPUT DATA CHECK Screen ・ I/O Board may be out of order. ・ CPU Board may be out of order. ・ Wire breakage or connection failure may have occurred. When Crease is overloaded: ・ Paper tip could remain inside of the machine. ・ Paper double feeding. ・ Paper thickness is out of specification. ・ Crease depth adjustment may be set incorrectly. ・ Crease Motor may be out of order. ・ Sensor (CRSR LW/SENS) may be out of order. ☞3- (4) INPUT DATA CHECK Screen ・ I/O Board may be out of order. ・ CPU Board may be out of order. ・ Wire breakage or connection failure may have occurred.

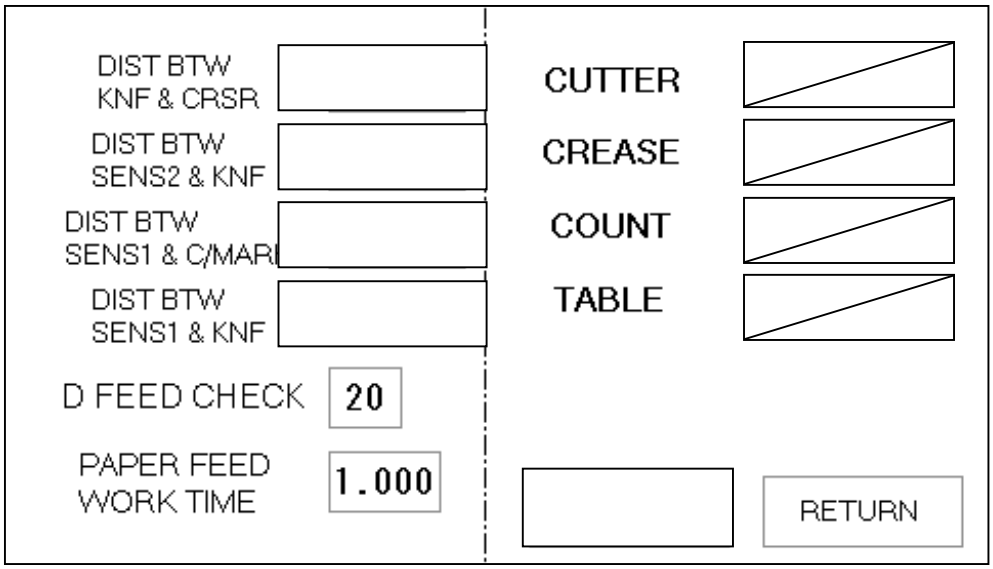
7	This occurs when Cut Mark could not be detected. 	・ Cut Mark printing density needs to be checked. ・ Cut Mark Sensor needs to be re-adjusted. ☞6- (2) Cut mark sensor ・ Cut Mark Sensor may be out of order. ☞3- (4) INPUT DATA CHECK Screen ・ CPU Board may be out of order. ・ Wire breakage or connection failure may have occurred.
8	Two or more sheets are fed at one time. If this occurs frequently, 	・ Fan out the paper sufficiently and jog the paper to make the each of the sheets separately. ・ Adjust the volume of Blower Fan and Vacuum Fan. ☞3- (3) SPEED Screen ・ Blow motor may be out of order. Note: Activate double-feed detection mode. ☞OPERATION MANUAL 「5.1 Adjustments on the paper feed section」
9	This occurs when a servo error is detected. If this occurs frequently, 	・ COVER SENS A, B may be out of order. ☞3- (4) INPUT DATA CHECK Screen ・ Servo Motor Driver may be out of order. ・ Servo Motor may be out of order. ・ CPU Board may be out of order. ・ Wire breakage or connection failure may have occurred.

10	This occurs at times of communication errors. If this occurs frequently, 	・ Touch Panel may be out of order. ・ CPU Board may be out of order. ・ Wire breakage or connection failure may have occurred.
11	This occurs at times that machine is operated when Cutter is not on top dead center. If this occurs frequently, 	・ Switch (CUTTER UP/LMT SW) may be out of order. ☞3- (4) INPUT DATA CHECK Screen ・ I/O Board may be out of order. ・ CPU Board may be out of order. ・ Wire breakage or connection failure may have occurred.
12	This occurs at times that machine is operated when Cutter is not on bottom dead center. If this occurs frequently, 	・ Sensor (CRSR UP/SENS) may be out of order. ☞3- (4) INPUT DATA CHECK Screen ・ I/O Board may be out of order. ・ CPU Board may be out of order. ・ Wire breakage or connection failure may have occurred.
13	This occurs when more sheets than set number has been delivered. If this occurs frequently, 	・ Clutch may be out of order. ・ I/O Board may be out of order. ・ CPU Board may be out of order. ・ Wire breakage or connection failure may have occurred.

14	The dimensions of finished card are different from the measurements you have input.	・ Make it correct at ADJUST Screen. ☞OPERATION MANUAL 「5.6.2 If the cut measurement does not match the input value」
15	The lengths of finished cards are uneaqual.  	・ Clean Carrying rollers. ・ Clean Sensors. ・ Cutter blades could have got damaged and got partly dull. Replace the cutter unit.
16	The widths of finished cards are uneaqual.  	・ Clean Carrying rollers. ・ Slitter blade could have got damaged and got partly dull. ・ CPU Board may be out of order. ・ Servo Motor Driver may be out of order. ・ Servo Motor may be out of order.
17	Two or more sheets are fed at one time. If this occurs frequently,	・ Fan out the paper sufficiently and jog the paper to make the each of the sheets separately. ・ Adjust the volume of Blower Fan and Vacuum Fan. ☞3- (3) SPEED Screen ・Blow motor may be out of order. Note: Activate double-feed detection mode. ☞OPERATION MANUAL 「5.1 Adjustments on the paper feed section」
18	A sheet stops after moving slightly（with noise）	・ Thick paper cannot be fed at higher speed and a sheet stop being fed with noise. Please slow down the speed.

19	Paper jam occurs frequently.	・ Paper curl too much to be conveyed smoothly. ・ The dimensions of the paper are different from the measurements you input into the machine. ・ Paper tip could remain inside of the machine. (Origin sensor, Slitter, Cutter, Creaser)
20	Paper remains at a Crease blade.	・Make Crease depth smaller. ☞OPERATION MANUAL 「5.5 Creaser adjustment」
21	The movement of slitter block is not smooth.	Please adjust slitter head. ☞Page. 26

Factory setting



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