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AP-640 Adjustment

Contents

AP-640 Dryer Cable Connection (Setup Guide)

AP-640 Dryer Cable Connection (Setup Guide) Information	5
AP-640 Dryer Cable Connection (Setup Guide) Procedure	7

AP-640 Print head Installation (Setup Guide)

AP-640 Print head Installation (Setup Guide) Information	13
AP-640 Print head Installation (Setup Guide) Procedure	16

AP-640 Adjustment work after ink filling (Setup Guide)

AP-640 Adjustment work after ink filling (Setup Guide) Information	63
AP-640 Adjustment work after ink filling (Setup Guide) Procedure	65

AP-640 Print head position adjustment

AP-640 Print head position adjustment Information	80
AP-640 Print head position adjustment Procedure	81

AP-640 Firmware Installation

AP-640 Firmware Installation Information	93
AP-640 Firmware Installation Procedure	94

AP-640 Firmware Upgrade

AP-640 Firmware Upgrade Information	106
AP-640 Firmware Upgrade Procedure	107

AP-640 Limit Position Initialization

AP-640 Limit Position Initialization Information	112
AP-640 Limit Position Initialization Procedure	113

AP-640 Belt tension adjustment

AP-640 Belt tension adjustment Information	115
AP-640 Belt tension adjustment Procedure	116

AP-640 Belt position adjustment

AP-640 Belt position adjustment Information	121
AP-640 Belt position adjustment Procedure	124

AP-640 Linear Encoder Position Setting

AP-640 Linear Encoder Position Setting Information	142
AP-640 Linear Encoder Position Setting Procedure	143

AP-640 Grid encoder check

AP-640 Grid encoder check Information	147
AP-640 Grid encoder check Procedure	148

AP-640 Feed Calibration

AP-640 Feed Calibration Information	153
AP-640 Feed Calibration Procedure	155

AP-640 Multi Sensor Adjustment

AP-640 Multi Sensor Adjustment Information	170
AP-640 Multi Sensor Adjustment Procedure	171

AP-640 Date and Time Setting

AP-640 Date and Time Setting Information	179
AP-640 Date and Time Setting Procedure	180

AP-640 Dryer Cable Connection (Setup Guide)

AP-640 Dryer Cable Connection (Setup Guide) Information

Step 1 / 4

This is a setup procedure. Perform this procedure when you reach the section on [Connect the cable between the dryer and the dryer controller] in Setup Guide.

[Contents]

1. Connect connectors
2. Cable routing
3. Return to the work in the Setup Guide.



Step 2 / 4

Necessary tools

一般ツール/General Tool

六角レンチ (4.0mm) Hexagonal wrench (4.0mm)	
ニッパー Nippers	

Step 3 / 4

Included items

同梱品/Included Items

ケーブルクランプ Cable clamps	
結束バンド Cable ties	

Step 4 / 4

Typical work time

作業時間/Typical work time

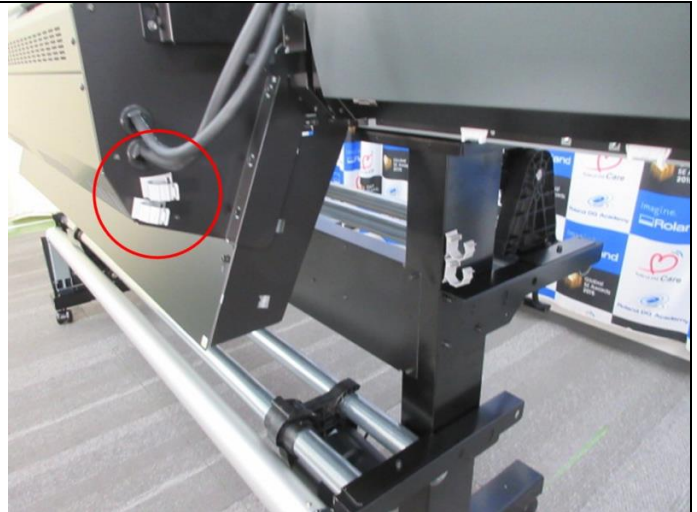
作業内容/Contents of work	時間/Time
ドライヤー～ドライヤーコントローラー間のケーブル接続（セットアップガイド） Dryer Cable Connection (Setup Guide)	8 min.

AP-640 Dryer Cable Connection (Setup Guide)

AP-640 Dryer Cable Connection (Setup Guide) Procedure

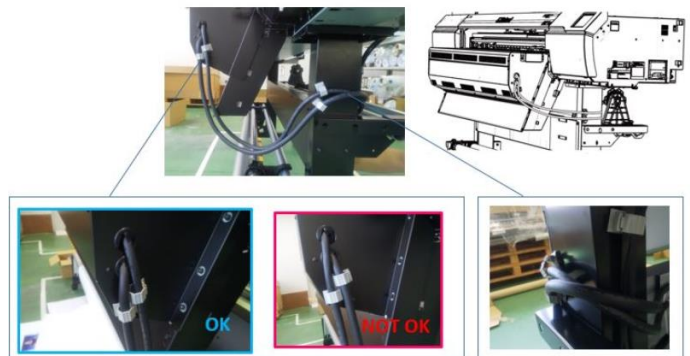
Step 1 / 18

Attach the clamps (×2) to the positions shown in the figure.



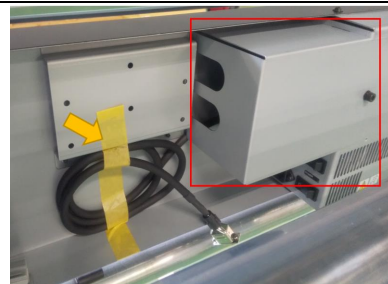
Step 2 / 18

Secure the cable of the dryer unit with the clamp (×4) as shown in the figure and pass it through to the rear of the machine.



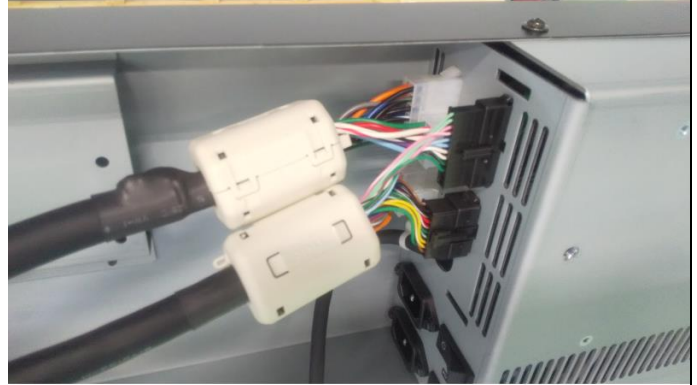
Step 3 / 18

Remove the masking tape and use a hexagonal wrench (4.0 mm) to remove the cover.



Step 4 / 18

Insert the connector to the back with the locking part of the connector facing the front.



Step 5 / 18

Detail1: All five connectors have different shapes, so you cannot insert the connector into any other connector.



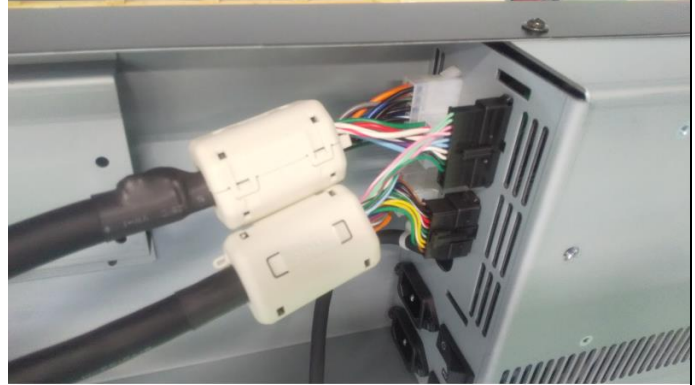
Step 6 / 18

Detail2: The cables are crossed, but they are in the correct position.



Step 7 / 18

Detail3: Connect the cables as shown in the figure.



Step 8 / 18

Make sure that the connectors are firmly inserted. Check if they are loosely inserted or disconnected.



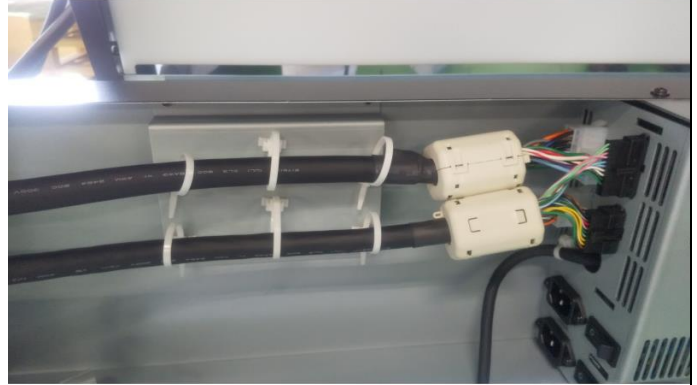
Step 9 / 18

Loosely attach the bundled cable ties (x6) to cables. (three each)



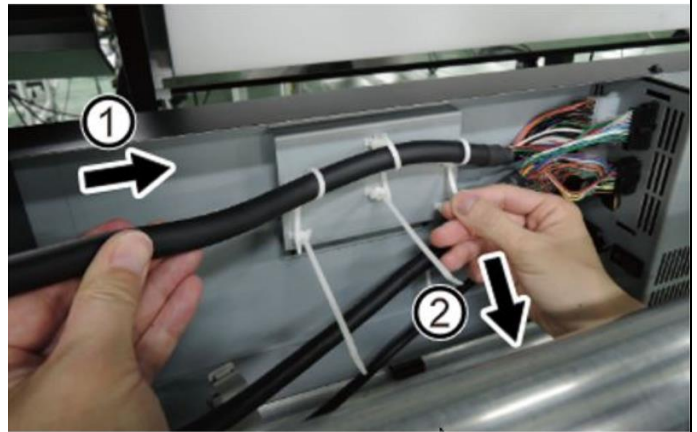
Step 10 / 18

Attach the cable ties attached to the cables to the machine.



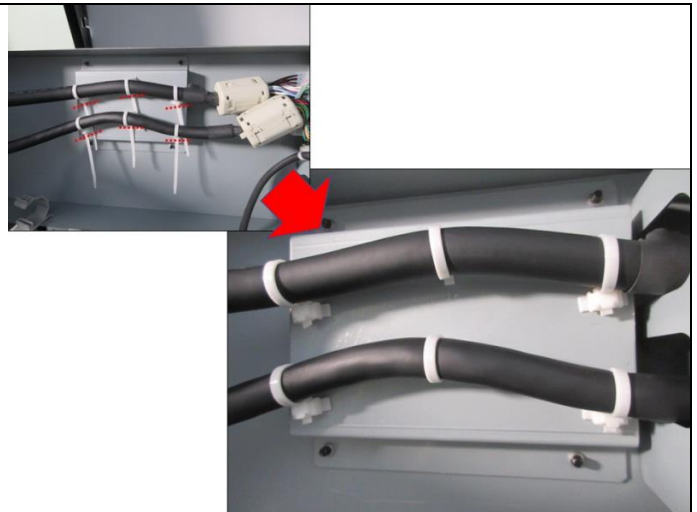
Step 11 / 18

(1) Leave a little slack on the connector side that prevent the cable from being pulled out by excessive force on the connector side. (2) Tighten the cable ties,



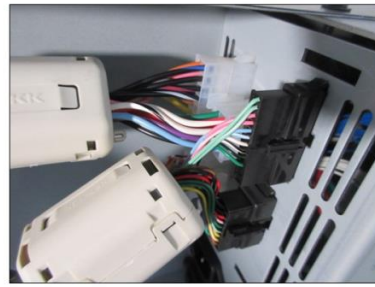
Step 12 / 18

Cut off the excess portion of the cable ties.



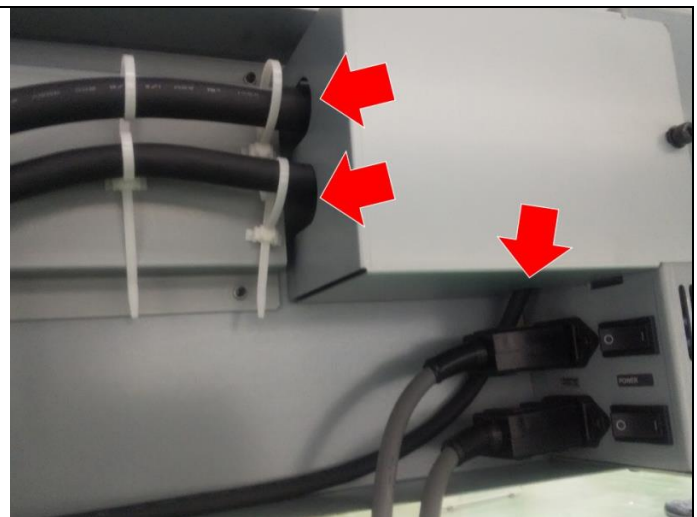
Step 13 / 18

Make sure that the connector is firmly plugged in. Check if they are loosely inserted or disconnected.



Step 14 / 18

Install the cover so that no more than one cable comes out of a single hole.



Step 15 / 18

Cables may interfere with each other when the cover on the R side is opened. Allow slack in the cable on the dryer side to avoid interference.



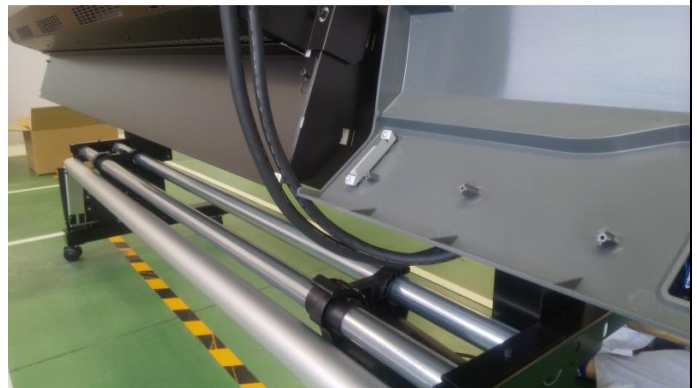
Step 16 / 18

Detail1: Cables viewed from the back side



Step 17 / 18

Open the R side cover and check for any interference between the cable and the cover.



Step 18 / 18

Return to the work in Setup Guide.

Next Step
[Setup Guide]



AP-640 Print head Installation (Setup Guide)

AP-640 Print head Installation (Setup Guide)

Information

Step 1 / 7

This is a setup procedure. Please perform this procedure when you reach the section on [Print head Installation] in Setup guide.

[Contents]

1. Print head installation
2. Damper unit installation
3. Installation of LC filter
4. Tube installation
5. Fill the flushing pad with cleaning liquid.
6. Return to the work in the Setup Guide.

Step 2 / 7

Necessary tools

一般ツール/General Tool

プラスドライバー No.2
No.2 Phillips screwdriver



スケール (定規)
Ruler



Step 3 / 7

特殊道具/Special Tools



Special jig

特殊治具/Special Tools



Step 4 / 7

Typical work time

作業時間/Typical work time

作業内容/Contents of work	時間/Time
プリントヘッドの取り付け (セットアップガイド) Print head Installation(Setup Guide)	27 min.

Step 5 / 7

Included items required for the work

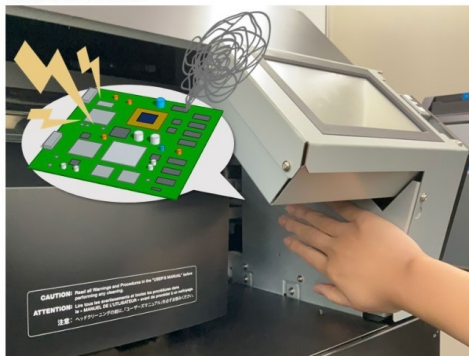
同梱品/Included Items

プリントヘッド用ネジ Print head screws	
ダンパーユニット Damper units	
プリントヘッドユニット Print head units	
チューブ Tubes	
洗浄液ユニット Cleaning liquid bottles	

Step 6 / 7

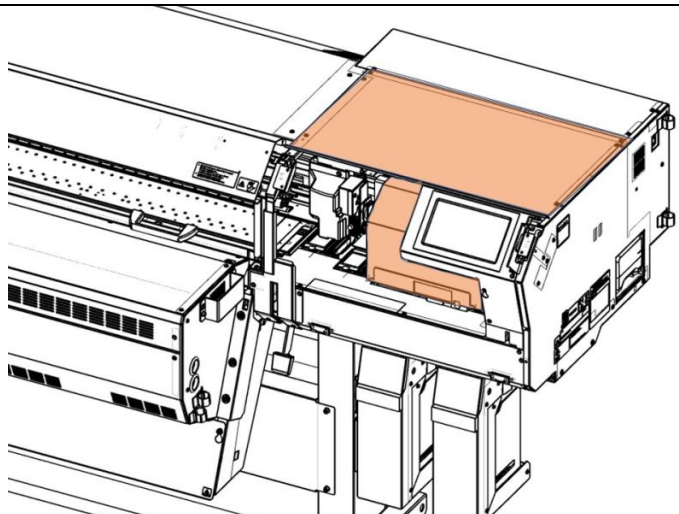
To prevent damage from static electricity, release static electricity from your body before touching electronic components. Touching an unpainted metal surface will release static electricity.

CAUTION !



Step 7 / 7

Cover that needs to be removed

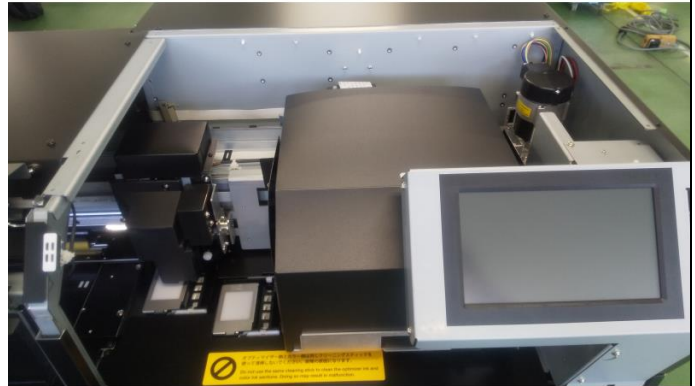


AP-640 Print head Installation (Setup Guide)

AP-640 Print head Installation (Setup Guide) Procedure

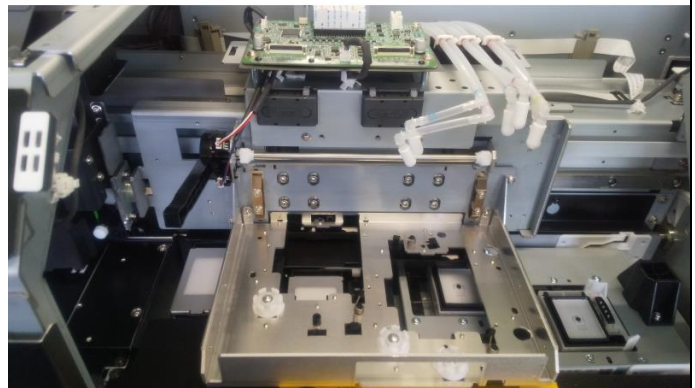
Step 1 / 142

Remove the cover.



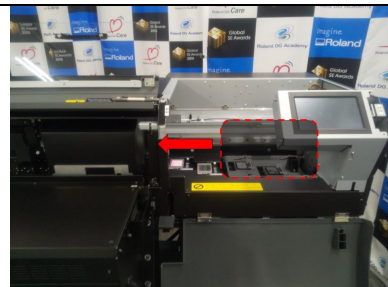
Step 2 / 142

Remove the print head cover.



Step 3 / 142

Unlock the print head carriage and
move it onto the platen.



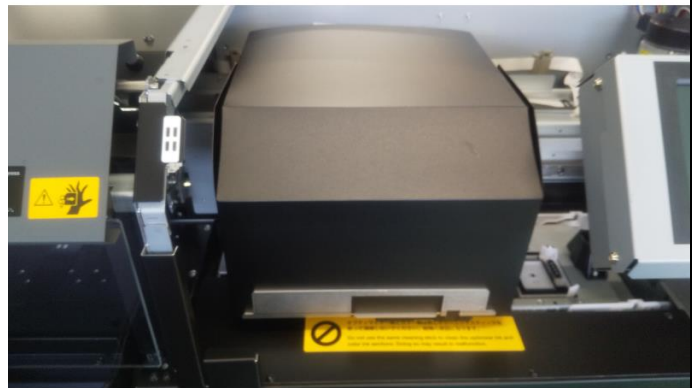
Step 4 / 142

Remove the four screws.



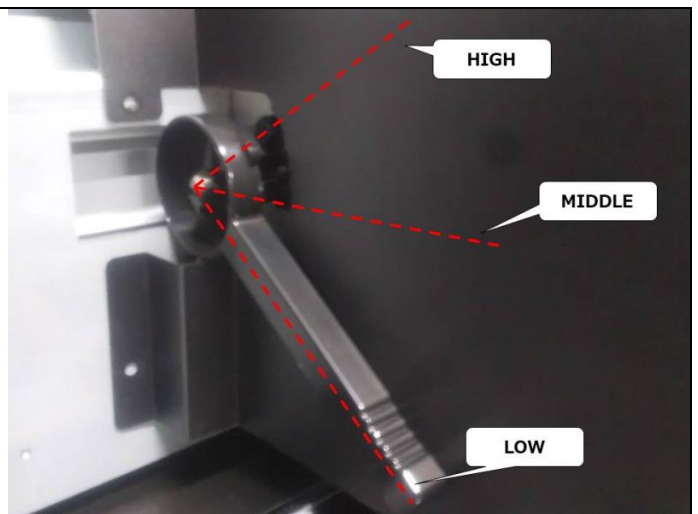
Step 5 / 142

Move the print head carriage to the position shown.



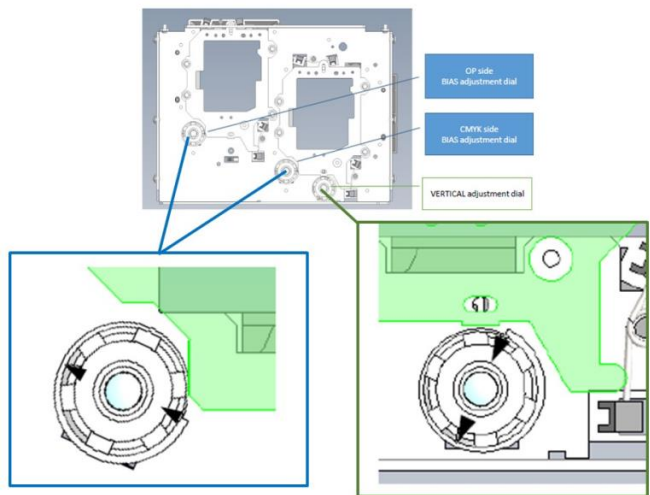
Step 6 / 142

Change the print head height to [MIDDLE] or [HIGH] and remove the cover.



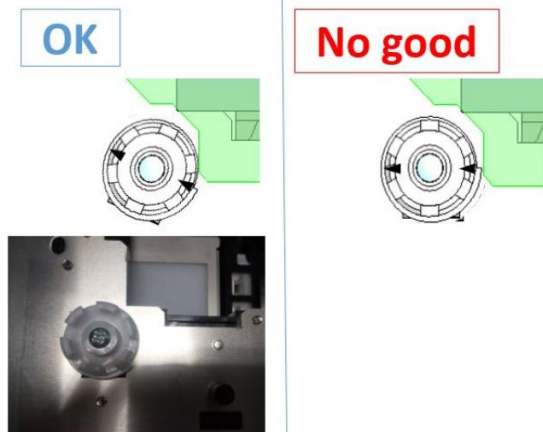
Step 7 / 142

When installing the print head, turn the adjustment dial to the position shown in the figure to reduce the tension between the head plate and the spring, making it easier to install the print head. Turn the adjustment dial to the position shown in the figure for the print head to be replaced. (The green part is the head plate, which is not yet assembled at this point).



Step 8 / 142

The figure shows the position of the BIAS adjustment dials on the OP side and the color side. In the position shown on the right, the tension will be stronger when installing the print head and it will be difficult to install the head.



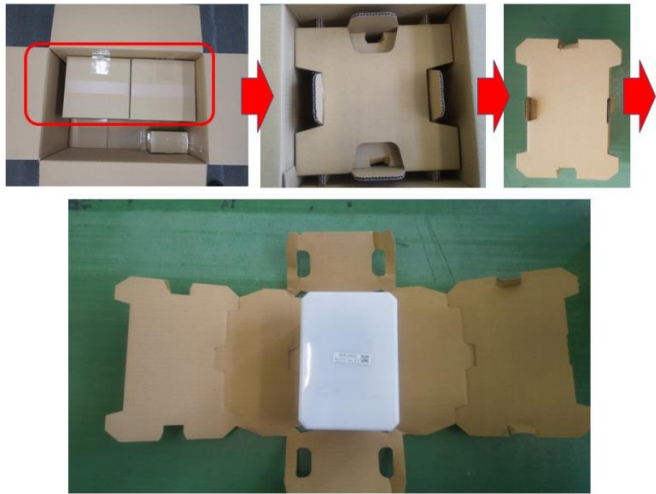
Step 9 / 142

The figure show the position of the VERTICAL adjustment dial. Change the position when replacing the print head on the color side. In the position shown on the right, the tension will be stronger when installing the print head, making it difficult to install the head.



Step 10 / 142

Remove the special container containing the print head from the packing box.



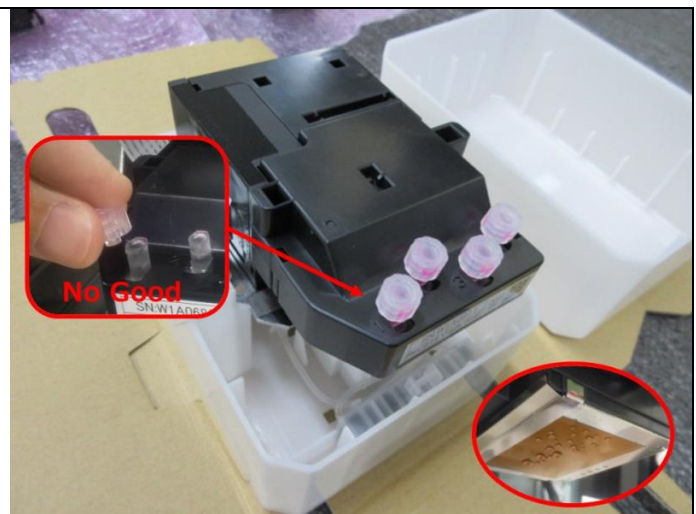
Step 11 / 142

The screws that secure the print head in the container are the screws for this container only. Do not use them in the work of fixing the print head to the printer.



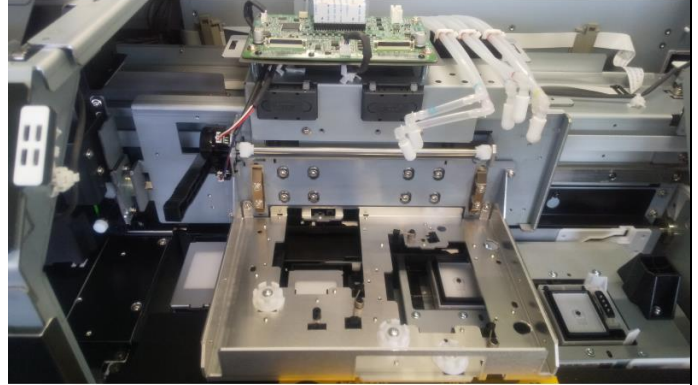
Step 12 / 142

Do not remove the head cap until the print head is installed into the printer, as liquid may drip from the print head.



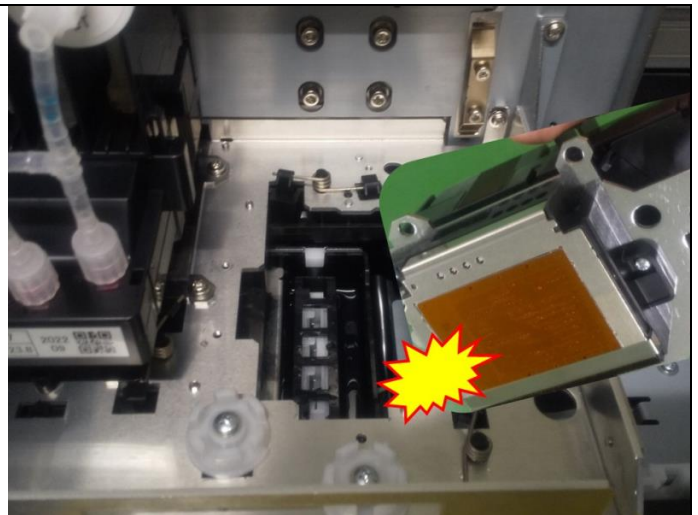
Step 13 / 142

Be sure to remove and install the print head while the print head is not capped.



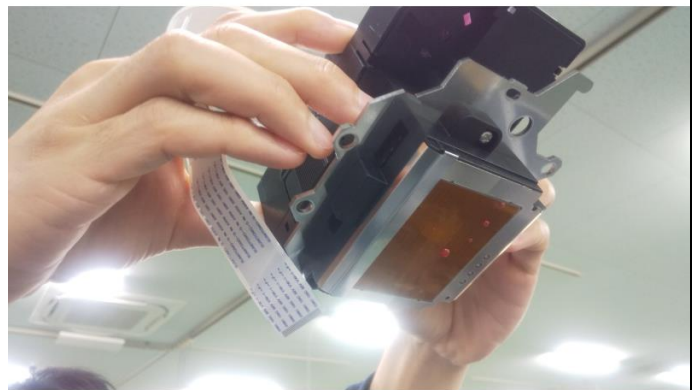
Step 14 / 142

The print head is a very precise component. Handle the print head with care to avoid scratching the head surface.



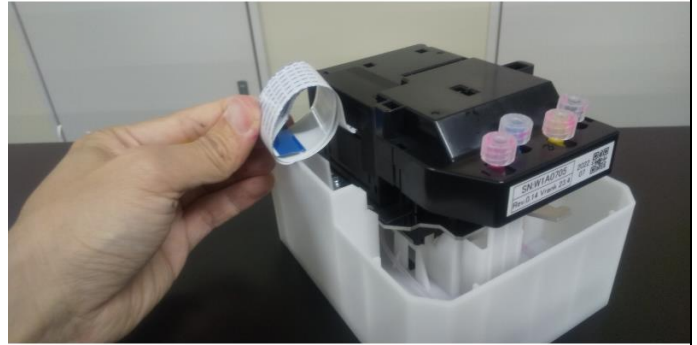
Step 15 / 142

Remove the screws. Be careful not to damage the flexible cable with the screwdriver when loosening the screws at the base of the flexible cable.



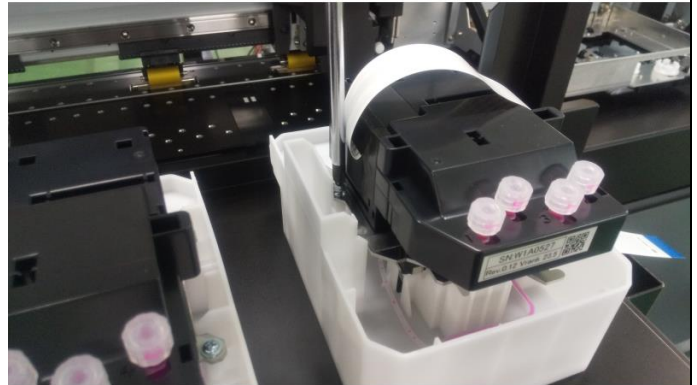
Step 16 / 142

Remove the flexible cable from the storage space.



Step 17 / 142

Remove the screws. Be careful not to damage the flexible cable with a screwdriver when loosening the screws at the base of the flexible cable.



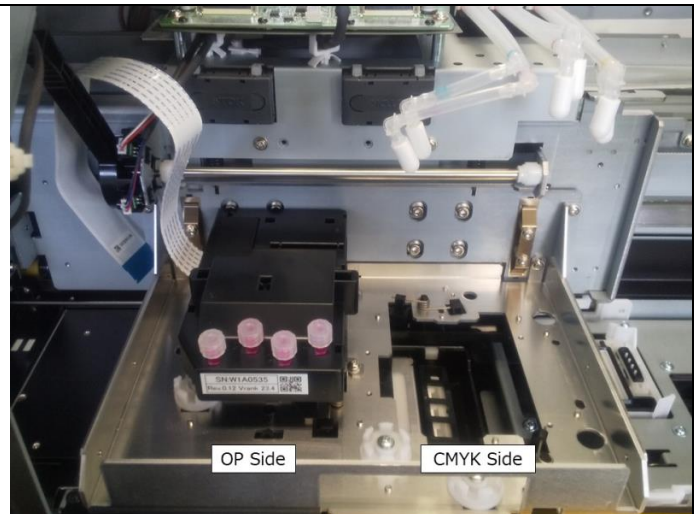
Step 18 / 142

Take out the print head.



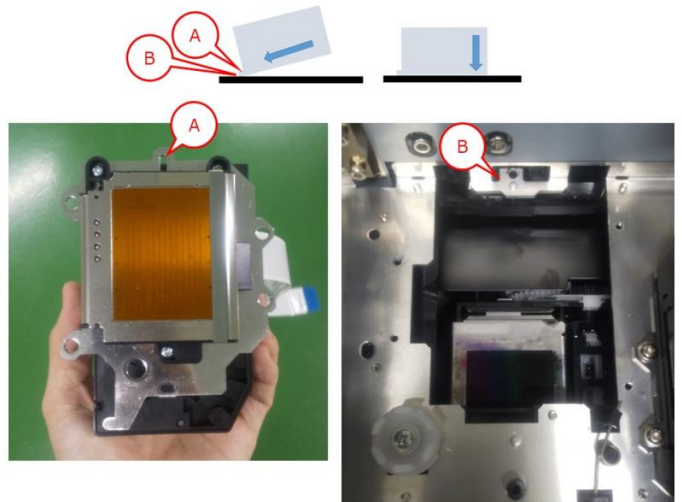
Step 19 / 142

Attach the print head on the OP side.
How to install the print head differs slightly between the OP side print head and color side print head.



Step 20 / 142

Tilt the print head so that the back side of the print head is slightly lowered.
Align the long hole (A) at the back side of the head plate with the positionig pin (B) on the carriage side to make the print head horizontal.



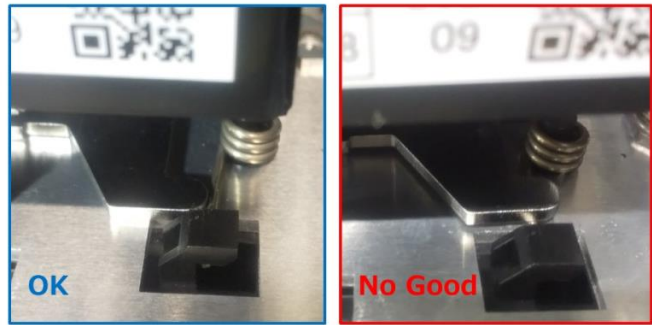
Step 21 / 142

Tilt the print head so that the right side of the head is slightly lowered and push the head plate (B) into the spring (A) on the carriage side.



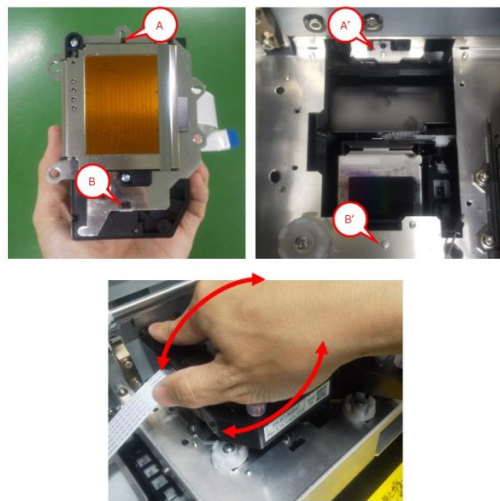
Step 22 / 142

Level the print head with the head plate pushed into the spring. At this time, make sure that the head plate does not overlap the spring.



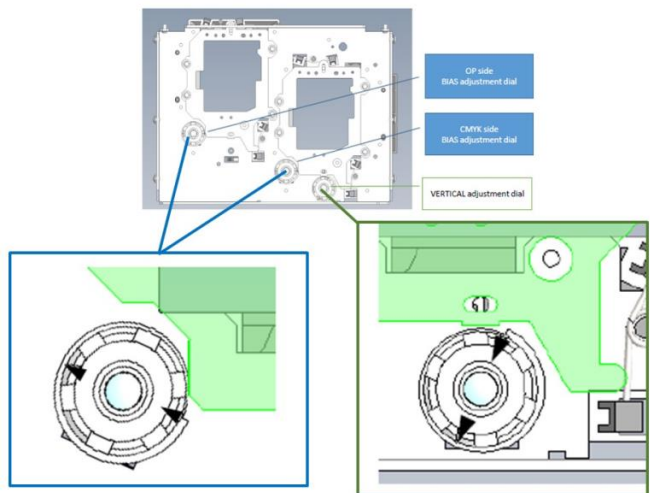
Step 23 / 142

Move the print head slightly to the right and left while pushing the head downwards lightly. Fit the long hole (A) and the positioning pin (A'), and the long hole (B) and the positioning (B') to eliminate the gap between the print head and the carriage.



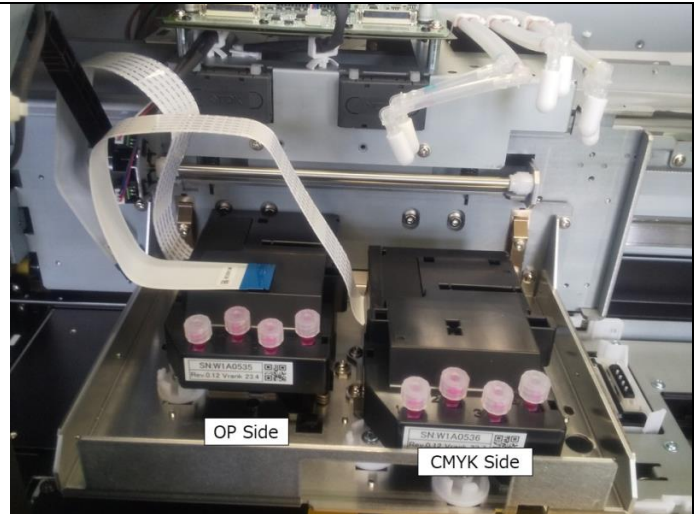
Step 24 / 142

If the print head is difficult to fit, check the position of the adjustment dial.



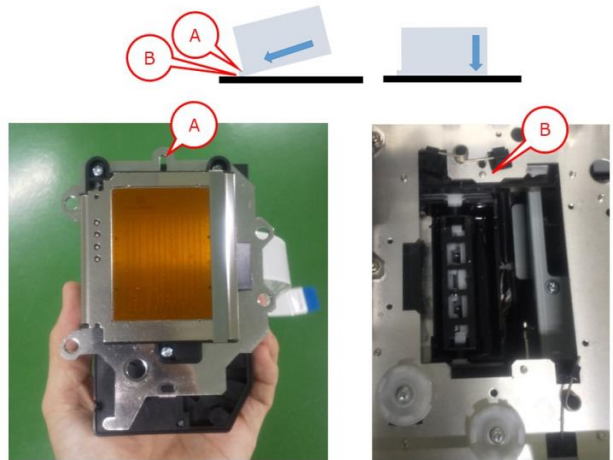
Step 25 / 142

Attach the print head on the color side.
How to install the print head differs slightly between the OP side print head and color side print head.



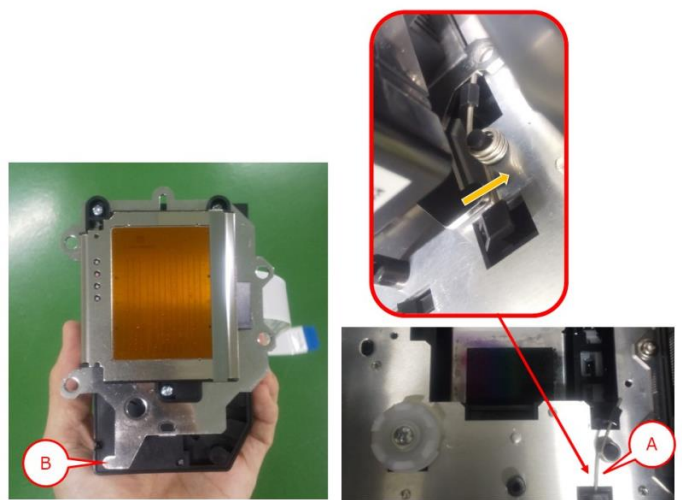
Step 26 / 142

Tilt the head so that the back side of the print head is slightly lowered. Align the long hole (A) at the back side of the head plate with the positioning pin (B) on the carriage side at the approximate position to make the print head horizontal. It does not matter if the head plate rides up on the spring at the back at this point.



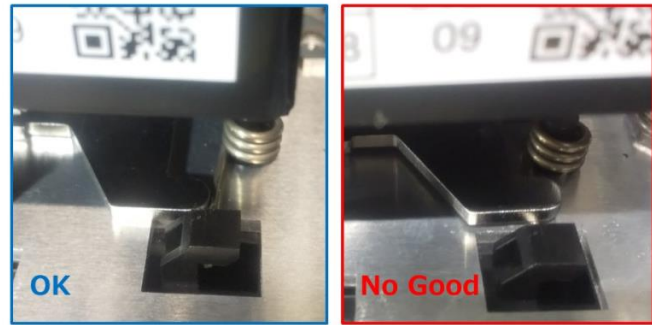
Step 27 / 142

Push the head plate (B) into the spring (A) on the carriage side by tilting the print head so that the right side of the print head is slightly lowered.



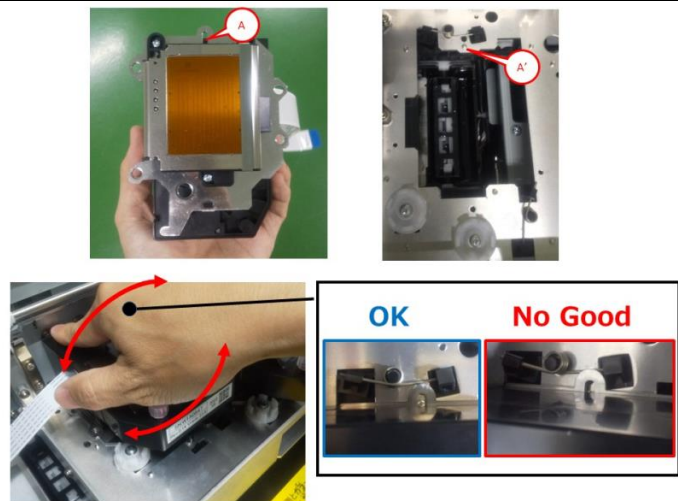
Step 28 / 142

With the head plate pushed into the spring, level the print head. At this time, make sure that the head plate does not overlap the spring.



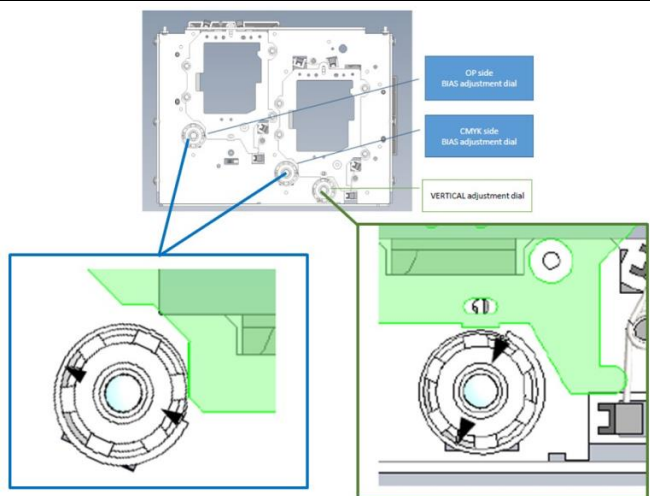
Step 29 / 142

Move the print head slightly to the right and left while pushing the head downwards to fit the long hole (A) and the positioning pin (A') to eliminate the gap between the head and the carriage. Make sure that the head plate on the far side moves from the state of overlapping the spring to the side of the spring in this operation.



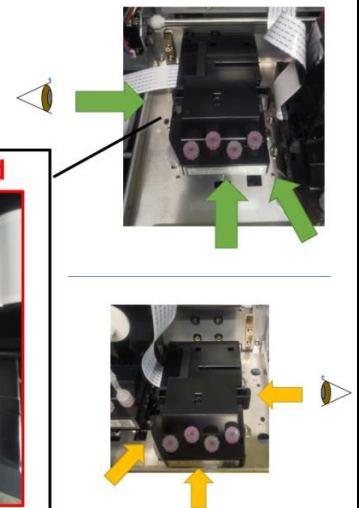
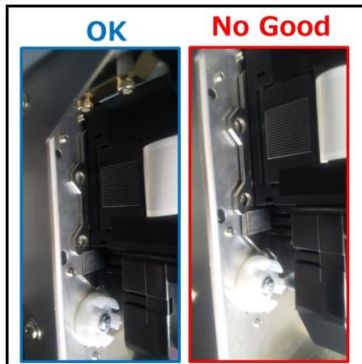
Step 30 / 142

If the head is difficult to fit, check the position of the adjustment dial.



Step 31 / 142

Check from three directions (front, right, and left) that there is no gap between the print head and carriage.



Step 32 / 142

The screws that were used to secure the print head in the container are only for the container. When mounting the head on the carriage, be careful not to mistake the screws.



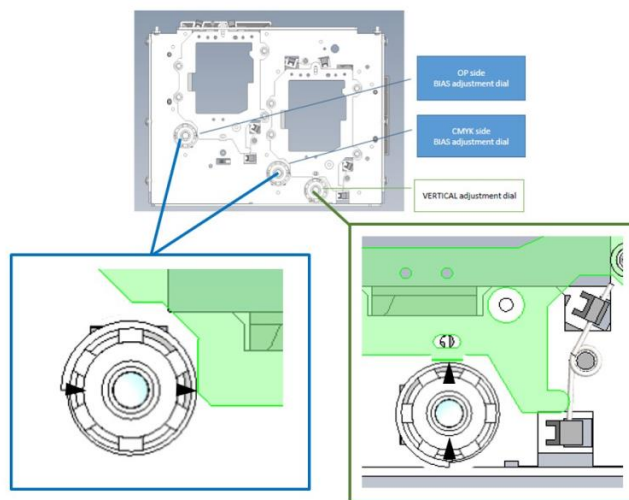
Step 33 / 142

Use a torque wrench [0.6 N-m (6 gf/cm)] for mounting the print head. Please use a type of torque wrench that does not generate impact, as it may cause missing dots.



Step 34 / 142

While holding the installed print head lightly from above, move the adjustment dial clockwise to the position shown in the figure. This position is the initial adjustment position for the print head adjustment.



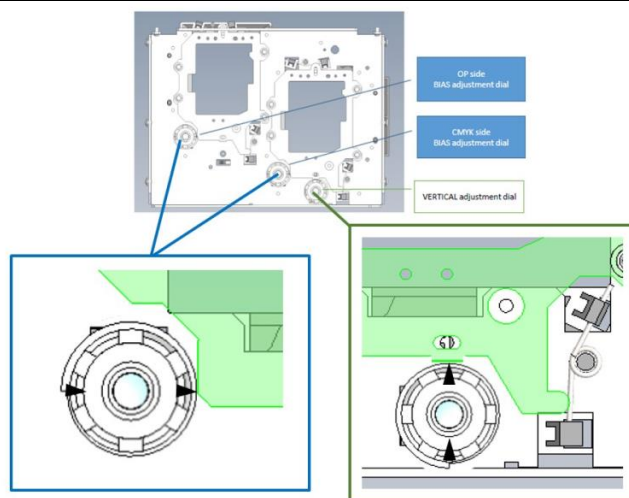
Step 35 / 142

Hold the print head lightly from the top so that it does not float.



Step 36 / 142

Move the adjustment dial on the replaced head clockwise to the position shown in the figure. (One dial on the OP side, two dials on the color side)



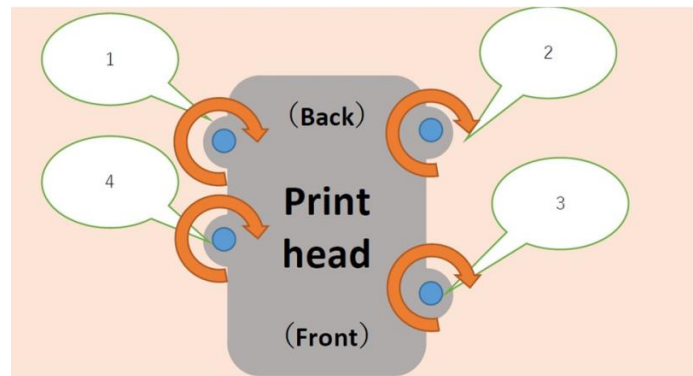
Step 37 / 142

The screw to attach the print head to the carriage is the short screw included in the package. Be careful not to use the long screws from the print head container.



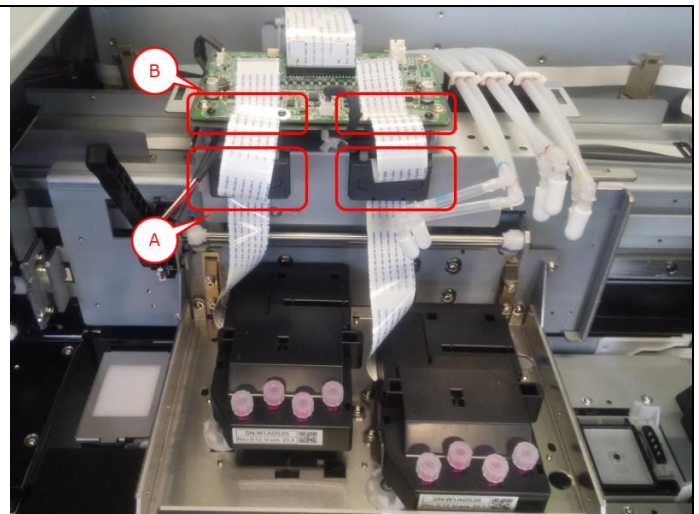
Step 38 / 142

Secure the print head using a torque wrench [0.6 N-m (6 gf/cm)] in the order shown in the figure. Be careful not to damage the flexible cable with the screwdriver when tightening the screws at the base of the flexible cable.



Step 39 / 142

Fasten the flexible cable of the print head to the ferrite core (A) and the circuit board holder (B).



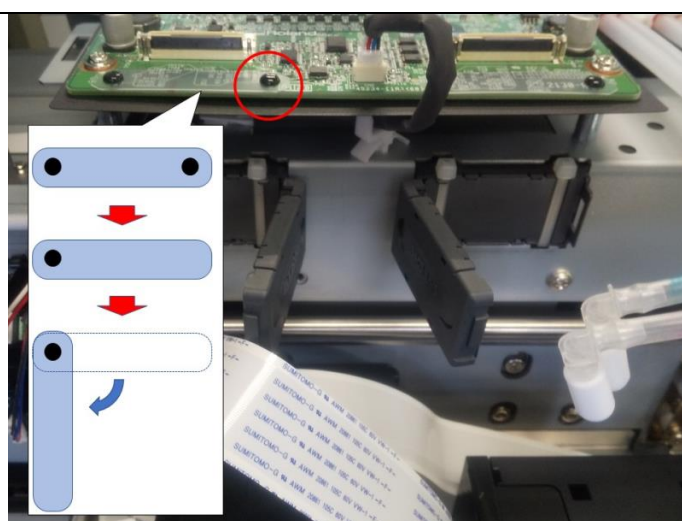
Step 40 / 142

While supporting the carriage so that the ferrite core does not move, press the center of the core with your finger and insert a fingernail or a flat-blade screwdriver into the gap in the locking section to open it.



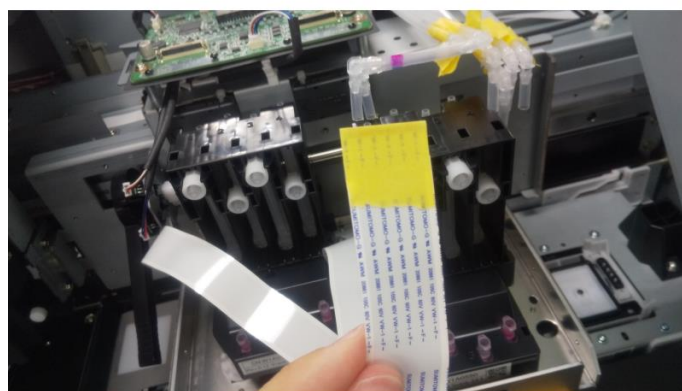
Step 41 / 142

Remove the push pin on one side of the flexible cable clamp on the board.



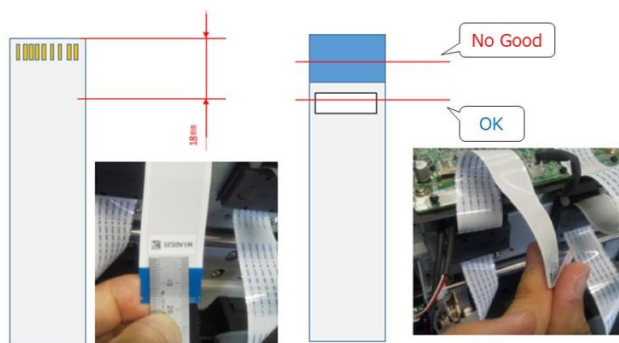
Step 42 / 142

[Caution] When inserting the flexible cable through the gap in the ferrite core, be sure to cover and protect all the terminals of the flexible cable with masking tape to prevent damage to the terminals.



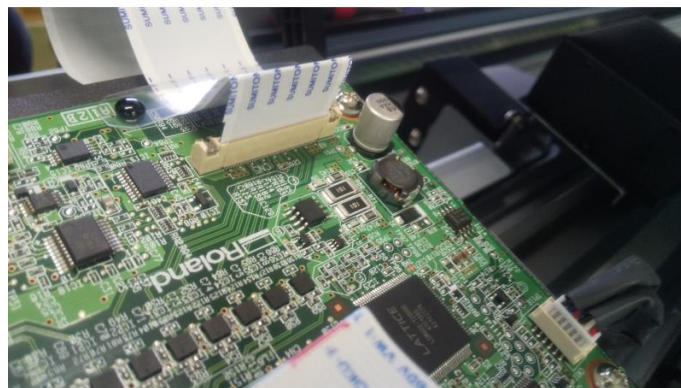
Step 43 / 142

Using a scale, measure approximately 18 mm from the end of the flexible cable and bend it toward the plain flexible cable side. If a sticker is attached, bend over the sticker. However, do not bend the blue part as it may cause a malfunction.



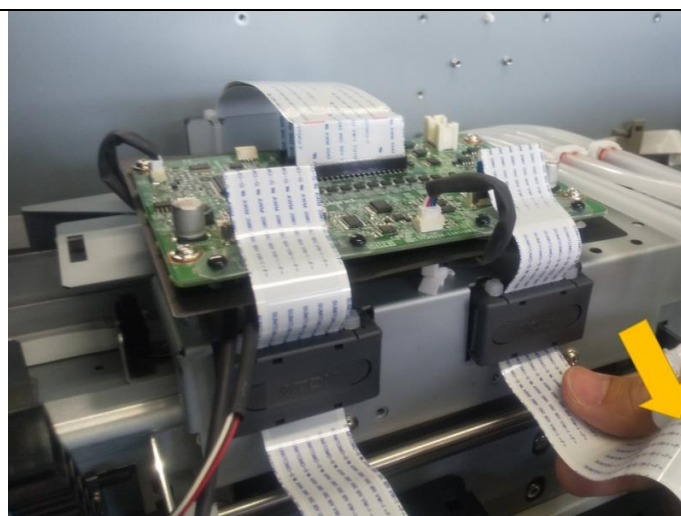
Step 44 / 142

Insert the flexible cable deeply into the connector on the board.



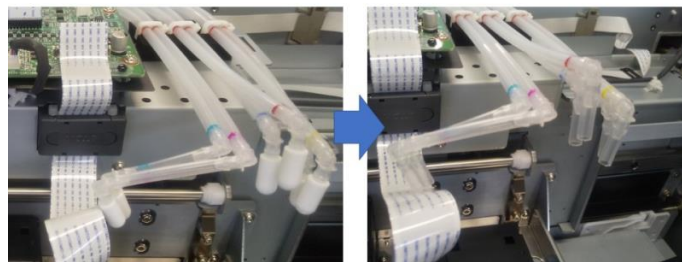
Step 45 / 142

Pull the flexible cable back toward the print head until there is no slack.



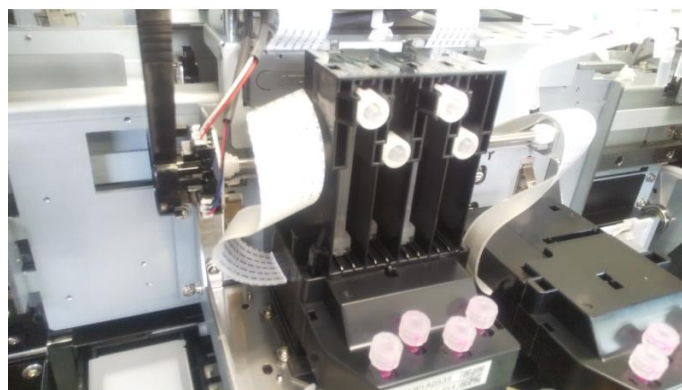
Step 46 / 142

Remove the tube caps by pulling them down (8 positions).



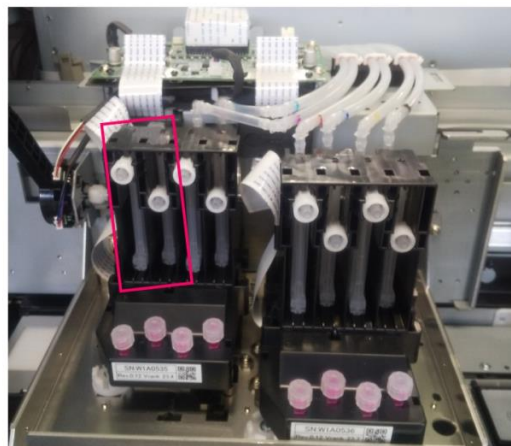
Step 47 / 142

Assemble the damper unit to the print head so as not to pinch the flexible cable.



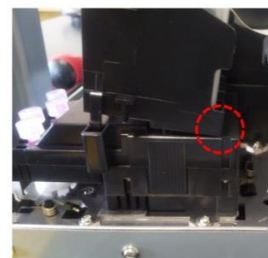
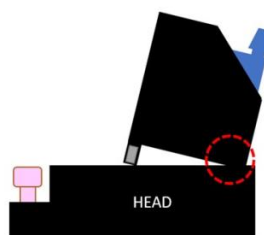
Step 48 / 142

Note: The two dampers on the left side of the OP side are not used, and do not need to be removed. However, if you find it difficult to install the damper unit, remove these dampers to make it easier to install the damper.



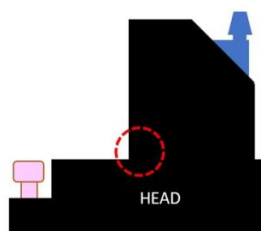
Step 49 / 142

Insert the two claws on the bottom rear side of the damper unit into the holes on the print head side.



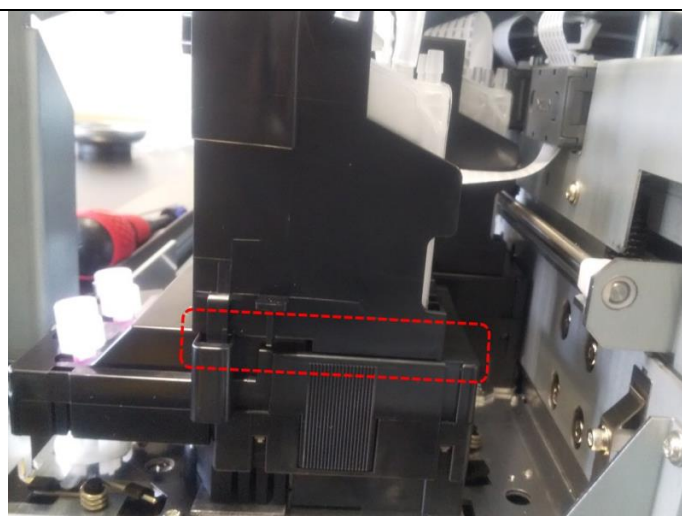
Step 50 / 142

While pushing the damper unit toward the back, push the front side claws in from above.



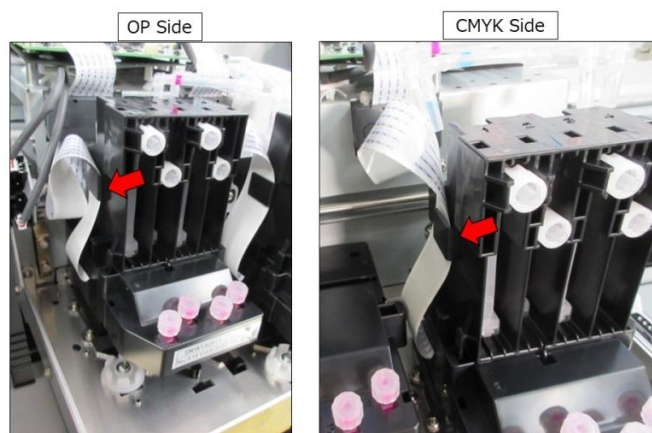
Step 51 / 142

Make sure there is no gap between the print head and the damper unit when viewed from the side.



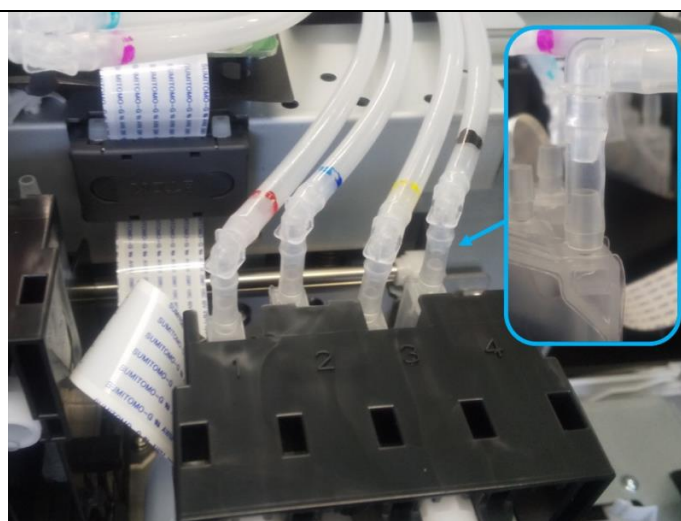
Step 52 / 142

Fix the flexible cable to the side of the damper.



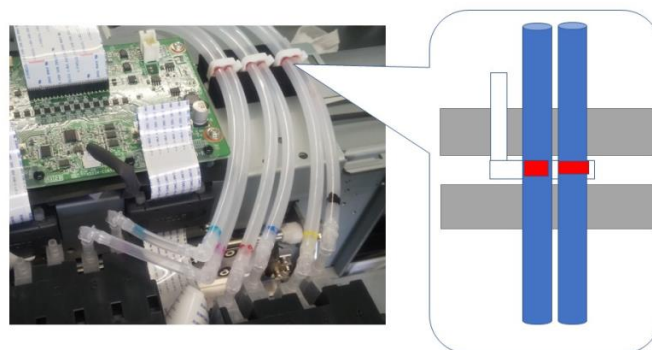
Step 53 / 142

Assemble the tube to the 4 damper locations on the color side. Insert the tube at an angle that allows it to be inserted naturally into the damper from the tube clamp position. Hold the tube near the insertion point and insert it all the way into the damper without bending the tube.



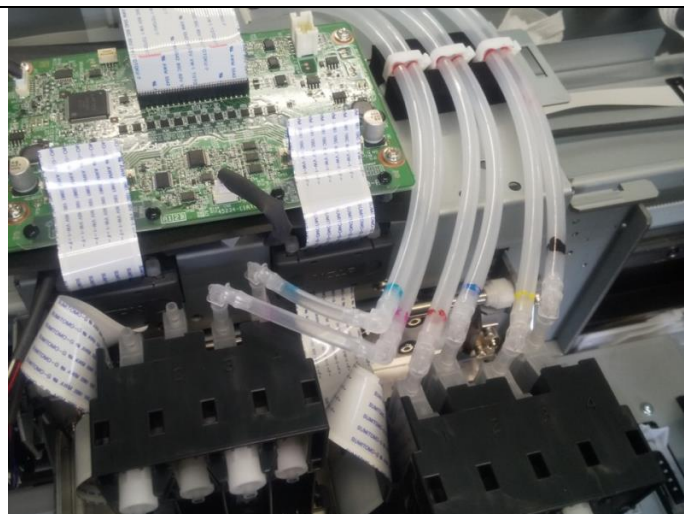
Step 54 / 142

When removing the tube clamp, assemble the tube at the approximate position where the clamp position was aligned with the positioning mark on the tube when inserting the tube.



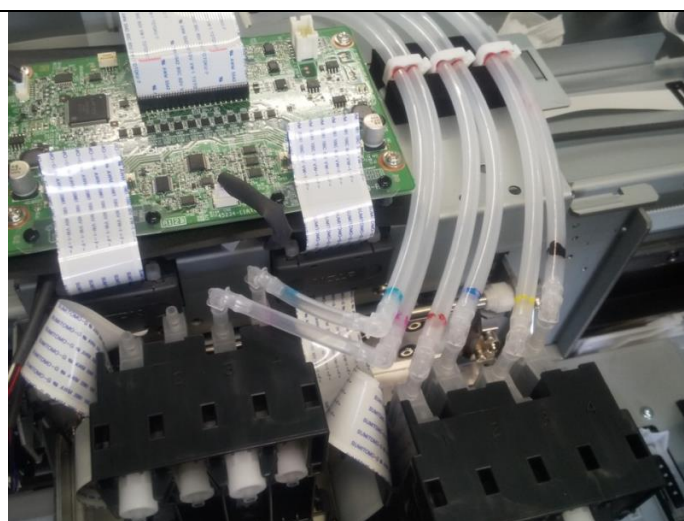
Step 55 / 142

Assemble the damper and tube at a natural angle from the tube clamp position.



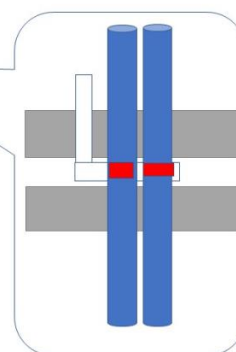
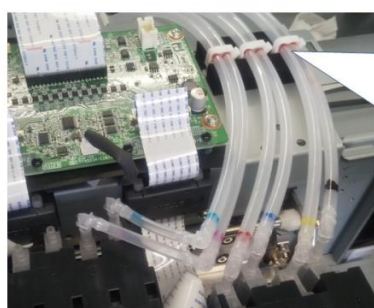
Step 56 / 142

Assemble the tube to the two dampers on the OP side. Insert the tube at an angle that allows the tube to be inserted into the damper naturally from the tube clamp position. Hold the tube near the insertion opening and insert the tube all the way into the damper without bending the tube.



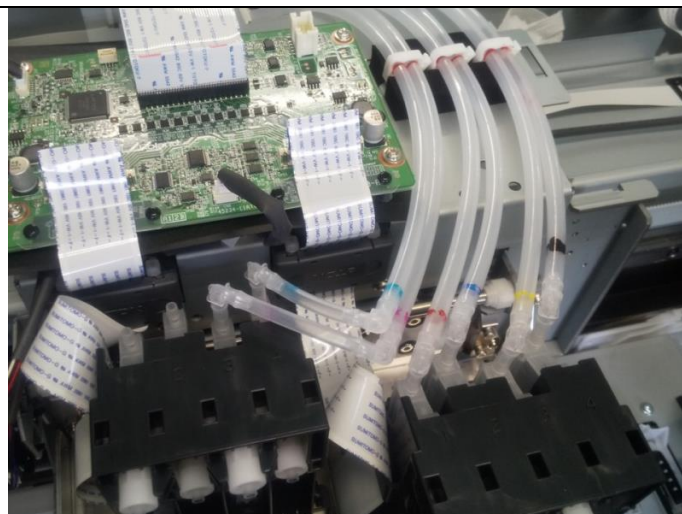
Step 57 / 142

When removing the tube clamp, assemble the tube at the approximate position where the clamp position was aligned with the positioning mark on the tube when inserting the tube.



Step 58 / 142

Assemble the damper and tube at a natural angle from the tube clamp position.



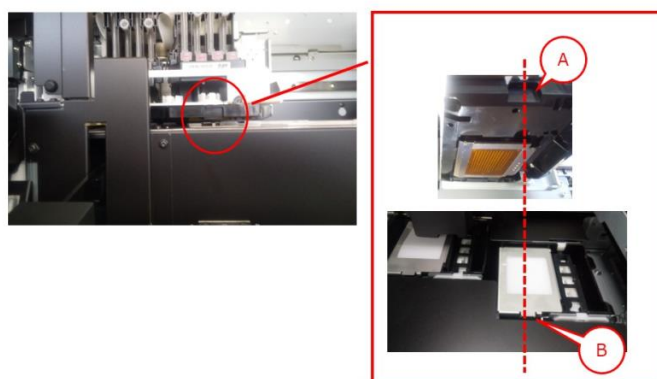
Step 59 / 142

Be sure to remove the cap of the print head in the correct position, as the liquid inside may drip when the cap is removed. As shown in the figure, liquid may drip into unexpected places, leading to malfunction.



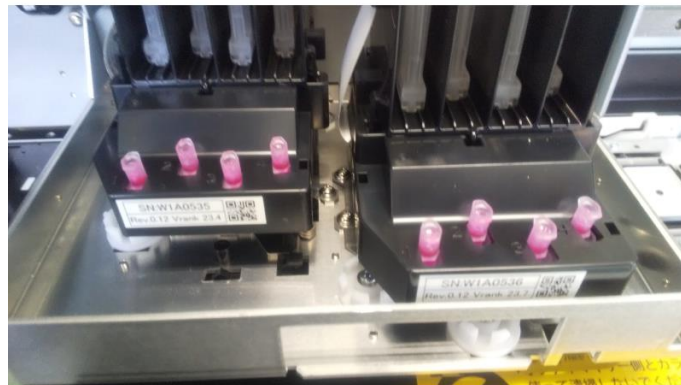
Step 60 / 142

Move the print head carriage to the position where positions A and B overlap.



Step 61 / 142

Remove the 8 head caps.



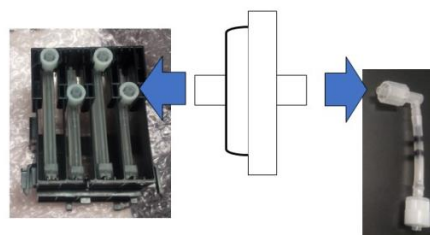
Step 62 / 142

There are different types of LC filters for OP and CMYK. Also, be careful not to make a mistake when installing the LC filter, as they are oriented in certain directions.

CMYK side : 10µm



OP side : 5µm



Step 63 / 142

Remove the LC filter from the tube assembly and install it on the damper.



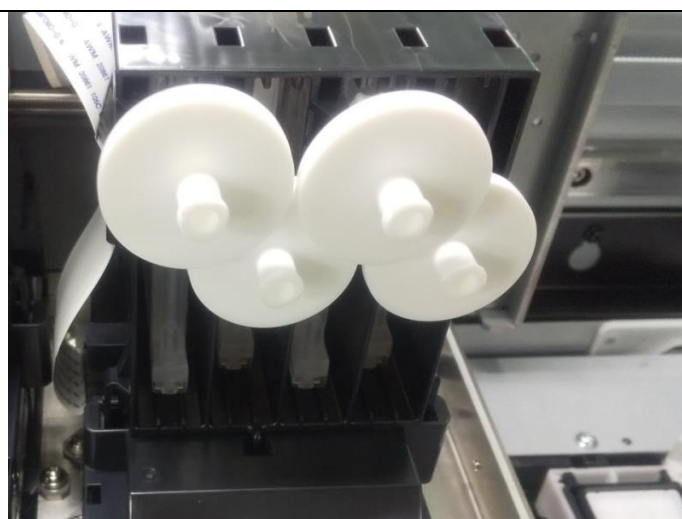
Step 64 / 142

Remove the LC filter from the tube assembly.



Step 65 / 142

Attach the LC filter to the damper.



Step 66 / 142

To prevent the tube from twisting, hold the base of the tube with your right hand, turn the screw with your left hand, and attach the tube in this order: print head side and then LC filter side.



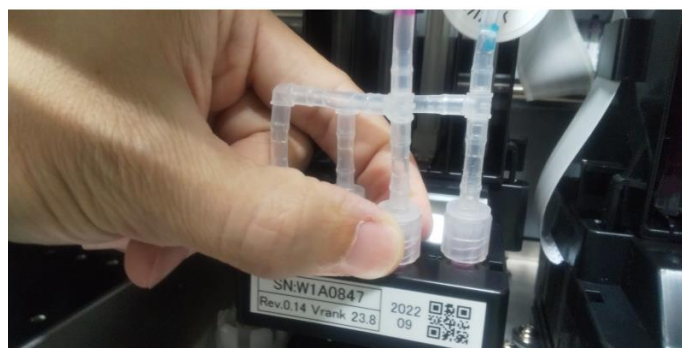
Step 67 / 142

With the tip of the tube inserted into the LC filter, attach the coupling on the print head side.



Step 68 / 142

Make sure that the tube is not twisted.



Step 69 / 142

Attach the LC filter side.



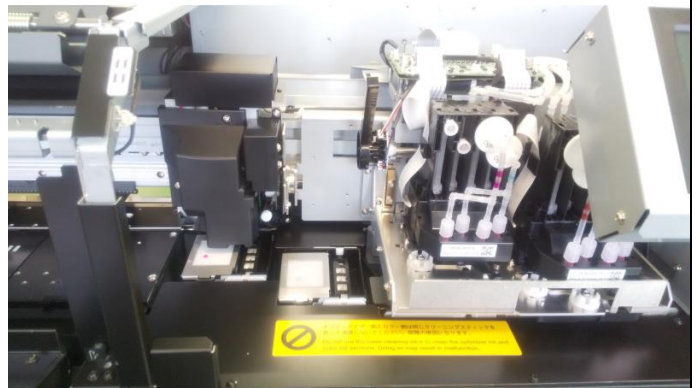
Step 70 / 142

Check if the tube is not twisted.



Step 71 / 142

Return the print head carriage to the home position and lock it.



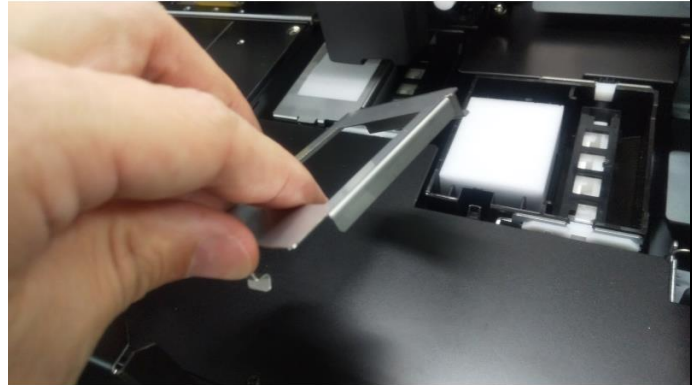
Step 72 / 142

This operation is only for the flushing pad on the color side (right side). 2 bottles of cleaning liquid are included, one bottle is for manual cleaning.



Step 73 / 142

Remove the right side flushing pad frame.



Step 74 / 142

Prepare the cleaning liquid bottle and remove the nozzle.



Step 75 / 142

Remove the cap of the cleaning liquid bottle.



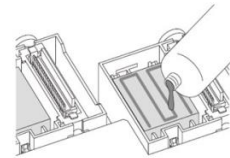
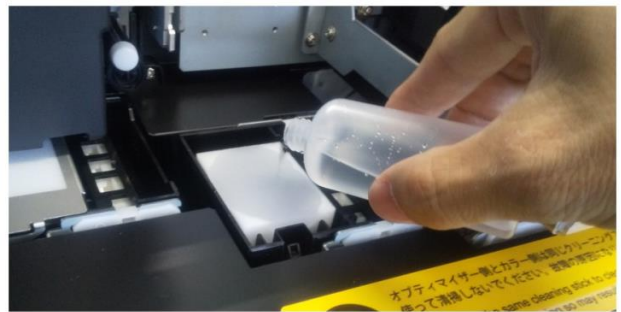
Step 76 / 142

Remove the nozzle from the cleaning liquid bottle.



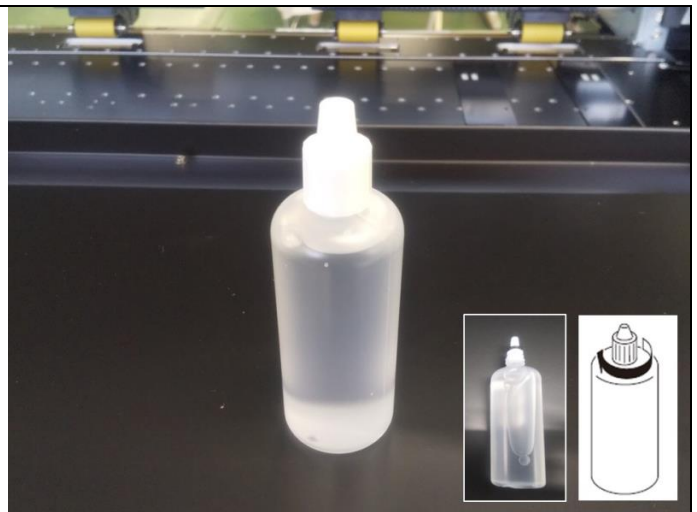
Step 77 / 142

Using one bottle of cleaning liquid, soak the entire pad with the cleaning liquid as shown in the figure.



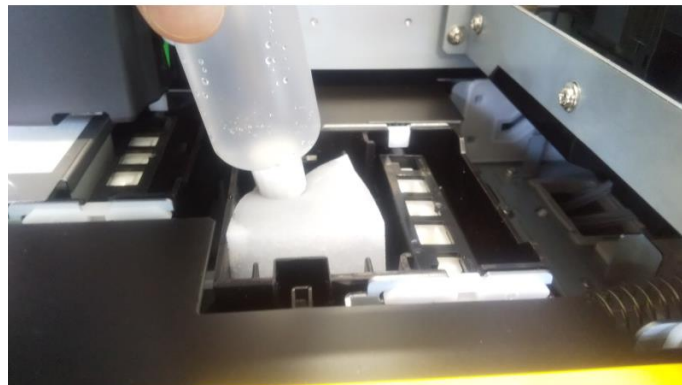
Step 78 / 142

Attach the removed nozzle and cap to the empty cleaning liquid bottle, which will be used in the next step.



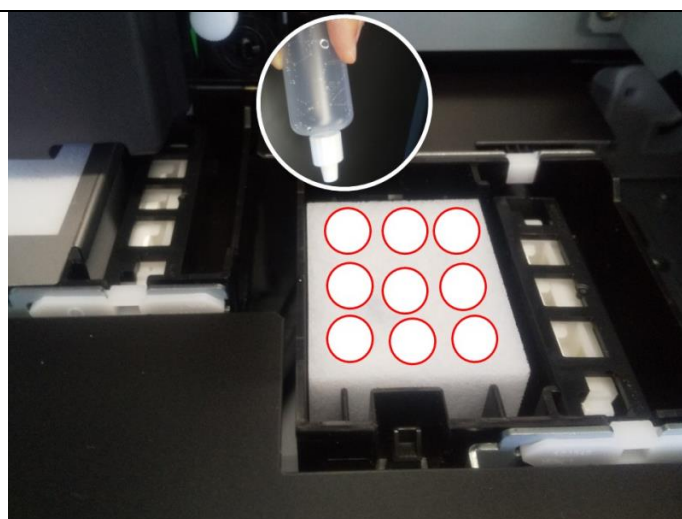
Step 79 / 142

Press the cap of the cleaning liquid bottle against the flushing pad and push the entire pad in several times to spread the cleaning liquid over the entire pad. Do not press it too hard or the pad will be damaged.



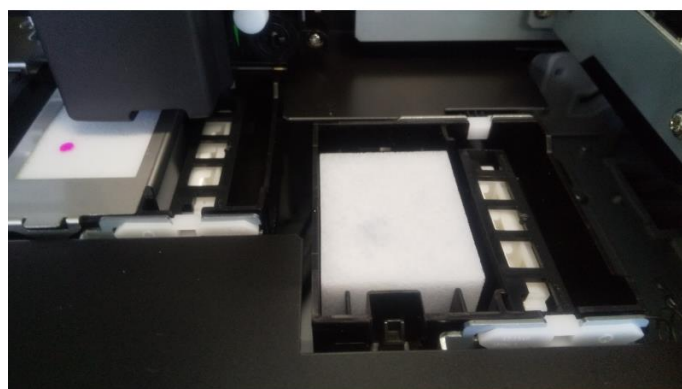
Step 80 / 142

Press the cap of the cleaning liquid bottle into the marked area in the figure several times to spread the cleaning liquid over the entire pad. The cleaning liquid should soak all the way to the bottom of the flushing pad.



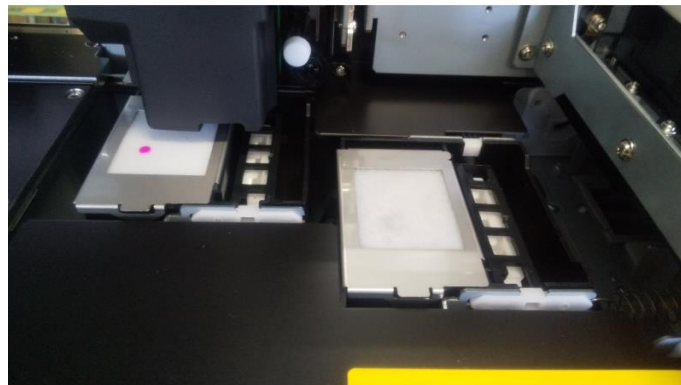
Step 81 / 142

Make sure that the cleaning liquid has soaked into the underside of the pad.



Step 82 / 142

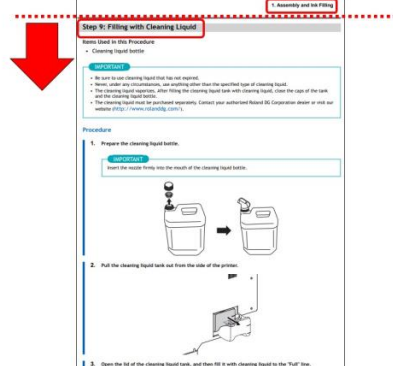
Put back the pad frame.



Step 83 / 142

Please go back the operation described in Setup Guide. If the initial ink filling is failed, please refer to the next section, "If the initial fill fails".

Next Step
[Setup Guide]



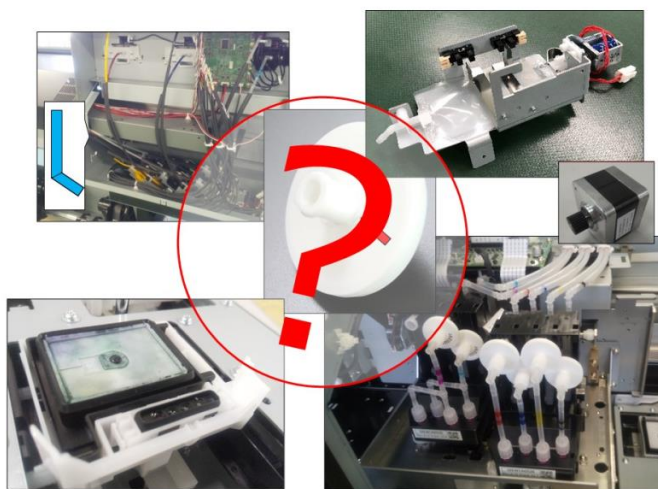
Step 84 / 142

If the initial filling fails at least once, you must perform manual ink filling using a syringe or a new LC filter. If the initial ink filling failed, please perform these operations and perform the ink filling again. If the ink fill was done correctly, this operation is no longer necessary.



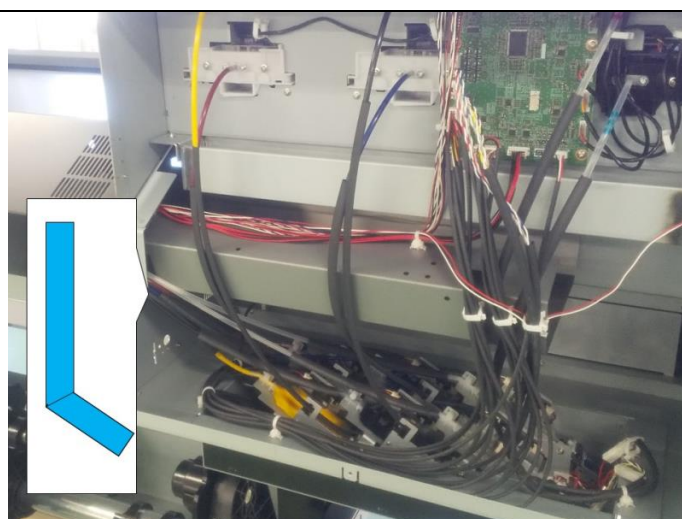
Step 85 / 142

Check and the cause of the initial filling failure and resolve it. It is thought that ink filling failed due to an abnormality in the ink path.



Step 86 / 142

Is the tube broken? (Also check inside the black tube of the sub-tank.)



Step 87 / 142

Are there any loose joints in the ink path, such as tube joints, LC filters, etc.?



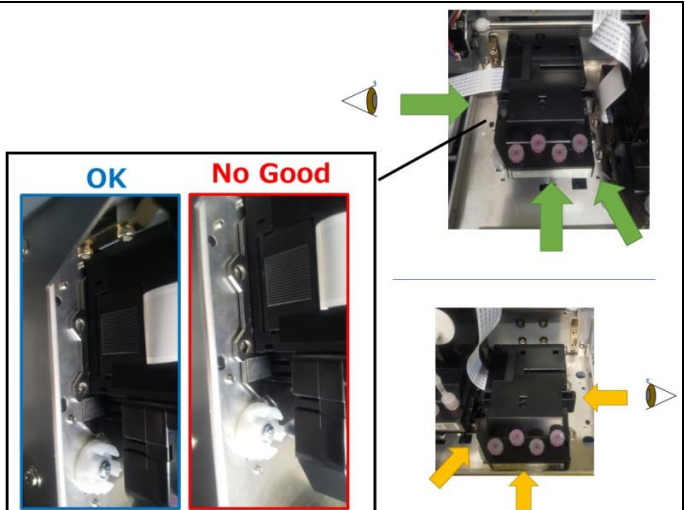
Step 88 / 142

Is the LC filter free of cracks or other damage?



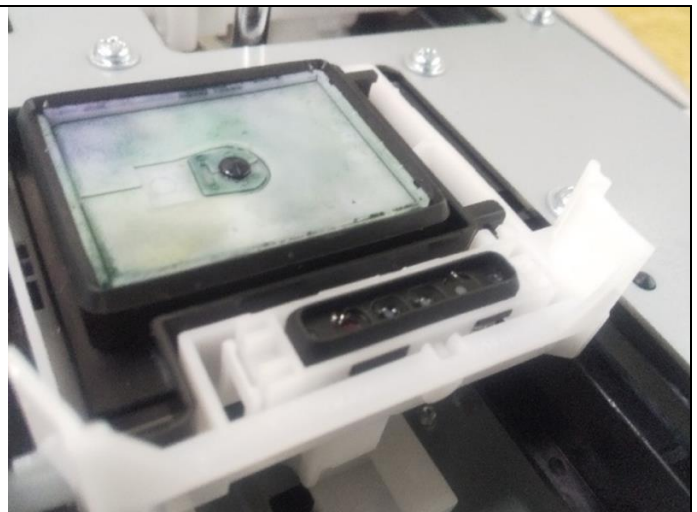
Step 89 / 142

Are the print heads correctly installed?



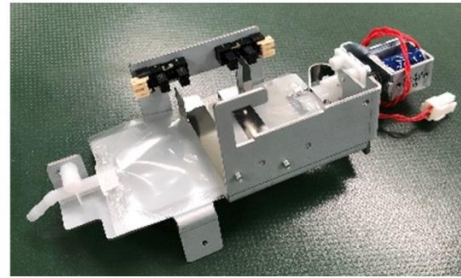
Step 90 / 142

Are the cap tops damaged? (Check the exhaust side as well.) Is the sub-tank intact?



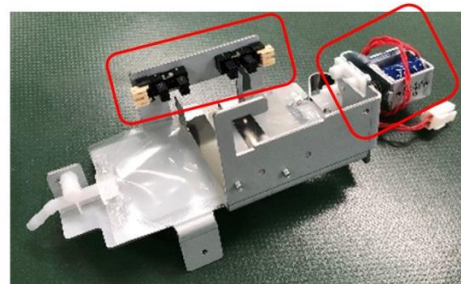
Step 91 / 142

Is there any damage to the sub-tank?



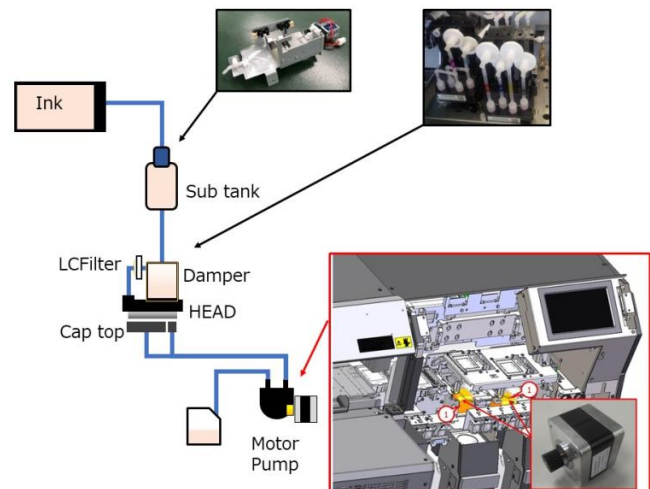
Step 92 / 142

Are there any abnormalities in the sub-tank sensor or solenoid?



Step 93 / 142

Is the cleaning pump working?



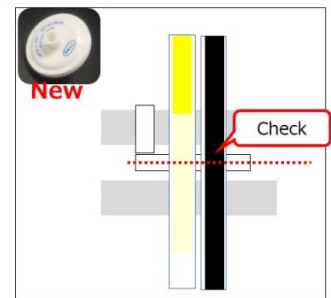
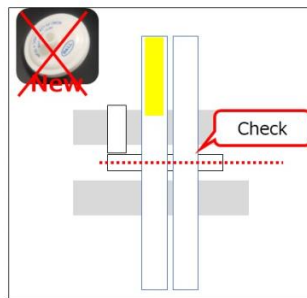
Step 94 / 142

Since the amount of ink filled is unknown, ink refilling is performed for all six pathways.



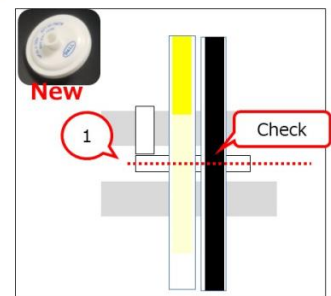
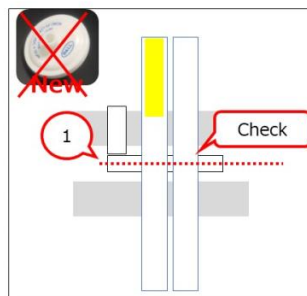
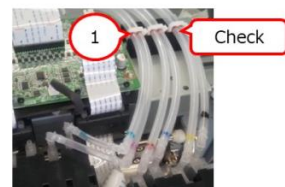
Step 95 / 142

If the tube between the LC filter and the print head is filled with ink, replace the LC filter with a new one.



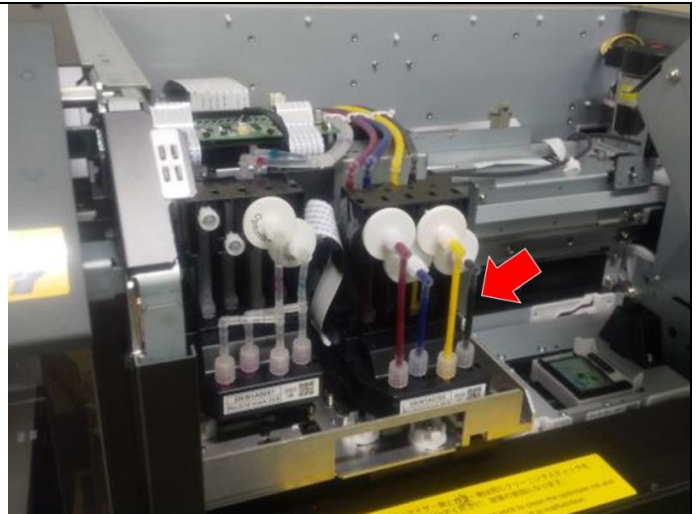
Step 96 / 142

Check the ink location and figure out how many to replace with a new LC filter.



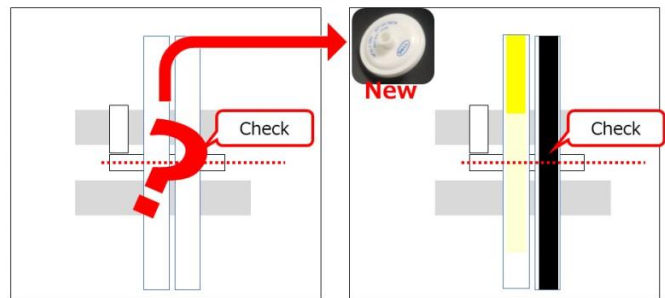
Step 97 / 142

Check the ink tubes and if there is trace of ink exceeding the position of clamp in (1) for both CMYK and OP, the LC filter should be replaced with a new one. Be sure to check the ink traces, not the current ink position, as ink may return to the sub-tank.



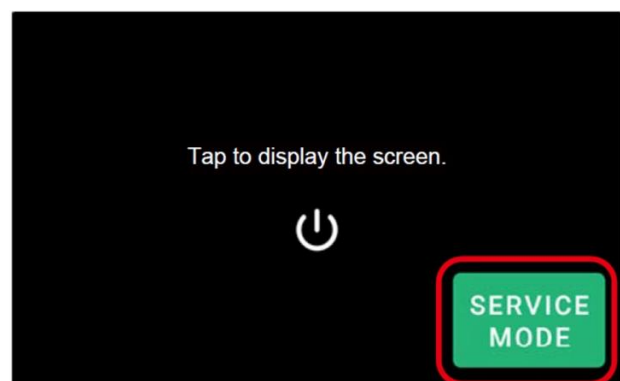
Step 98 / 142

If no ink traces can be found, a new LC filter should still be prepared.



Step 99 / 142

Connect the Peck2 to the machine and enter the Service Mode.



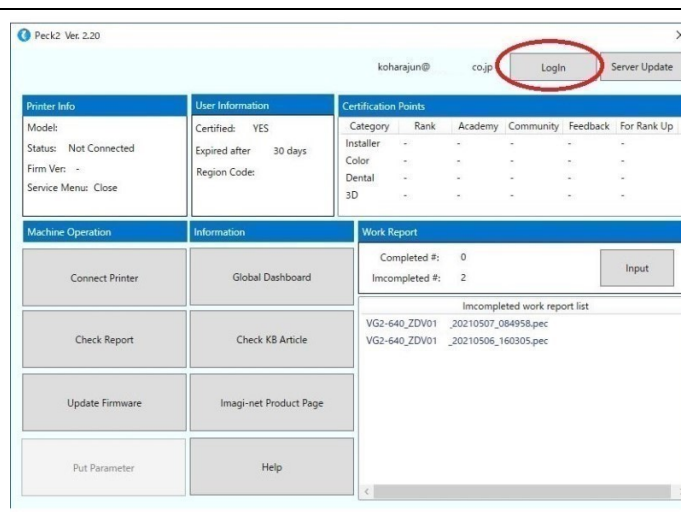
Step 100 / 142

Start Peck2.



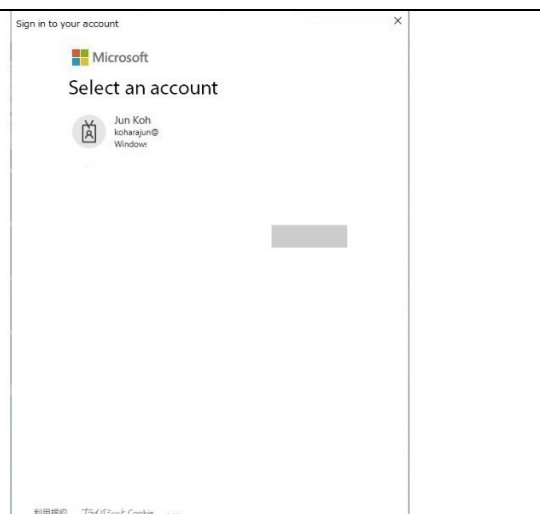
Step 101 / 142

Click on the [Login] button.



Step 102 / 142

Login with your Imagi-net ID.



Step 103 / 142

Click the [Connect Printer] button.

Peck2 Ver. 2.20

koharjun@ .co.jp Login Server Update

Printer Info	User Information	Certification Points
Model: VG2-640_ZDV01	Certified: YES	Category Rank Academy Community Feedback For Rank Up
Status: Not Connected	Expired after: 30 days	Installer Certified 0 * * *
Firm Ver: 2.00	Region Code:	Color 0 0 0 200
Service Menu: Close		Dental 0 0 * 200
		3D 0 0 * 200

Machine Operation	Information	Work Report
Connect Printer	Global Dashboard	Completed #: 0
Check Report	Check KB Article	Input
Update Firmware	Imagi-net Product Page	Imcompleted #: 2
Put Parameter	Help	Imcompleted work report list

VG2-640_ZDV01 _20210507_084958.pec
VG2-640_ZDV01 _20210506_160305.pec

Step 104 / 142

Enter the IP address of the printer you would like to connect to.

Peck2 Ver. 2.20

koharjun@ .co.jp Login Server Update

Printer Info	User Information	Certification Points
Model: VG2-640_ZDV01	Certified: YES	Category Rank Academy Community Feedback For Rank Up
Status: Not Connected	Expired after: 30 days	Installer Certified 0 * * *
Firm Ver: 2.00	Region Code:	Color 0 0 0 200
Service Menu: Close		Dental 0 0 * 200
		3D 0 0 * 200

Machine Operation	Information	Work Report
Connect Printer	Global Dashboard	Completed #: 0
Check Report	Check KB Article	Input
Update Firmware	Imagi-net Product Page	Imcompleted #: 2
Put Parameter	Help	Imcompleted work report list

VG2-640_ZDV01 _20210507_084958.pec
VG2-640_ZDV01 _20210506_160305.pec

Step 105 / 142

When the printer is connected, the printer information will be displayed in [Printer Info].

Peck2 Ver. 2.20

koharjun@ .co.jp Login Server Update

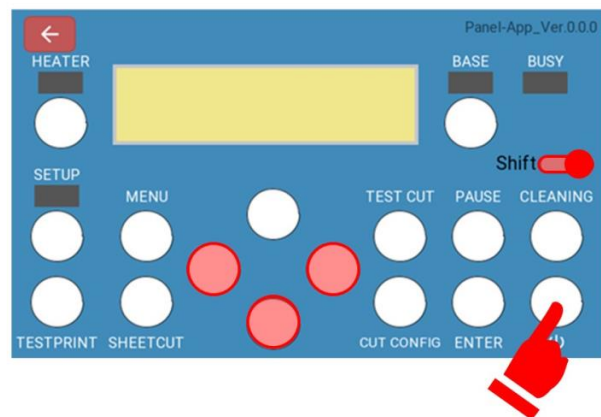
Printer Info	User Information	Certification Points
Model: VG2-640_ZDV01	Certified: YES	Category Rank Academy Community Feedback For Rank Up
Status: UnSetup	Expired after: 30 days	Installer Certified 0 * * *
Firm Ver: 2.00	Region Code:	Color 0 0 0 200
Service Menu: Open		Dental 0 0 * 200
		3D 0 0 * 200

Machine Operation	Information	Work Report
Connect Printer	Global Dashboard	Completed #: 0
Check Report	Check KB Article	Input
Update Firmware	Imagi-net Product Page	Imcompleted #: 2
Put Parameter	Help	Imcompleted work report list

VG2-640_ZDV01 _20210507_084958.pec
VG2-640_ZDV01 _20210506_160305.pec

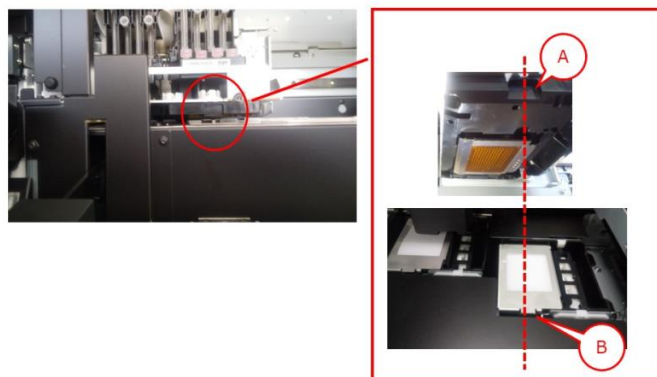
Step 106 / 142

Press [Shift]> [□]+[□]+[□]+[Sub Power] to enter the service mode. By turning on the [Shift] button, multiple buttons can be pressed at the same time.



Step 107 / 142

Ink in the print head may drip out. Make sure that the positions of the print head and flushing pad are aligned.



Step 108 / 142

Remove the tube fixing screw attached to the print head and place a dry cloth under the tube. On the OP side, remove the two fixing screws for forked tube at the same time to reduce the amount of ink remaining in the tube.



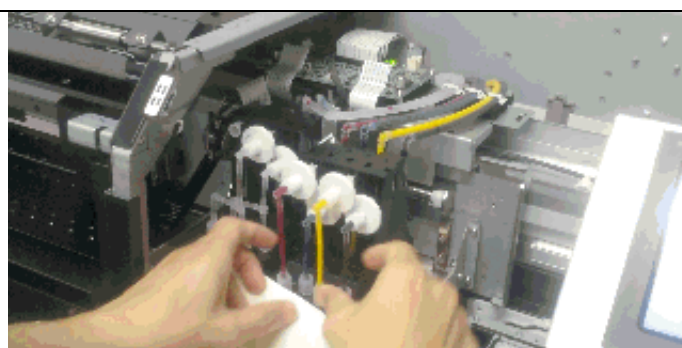
Step 109 / 142

On the H1 OP side, loosen the two screws on the two sides of the tube so that they come off at the same time. If you loosen the screws on one side at a time, ink will easily remain in the tube.



Step 110 / 142

Reference video



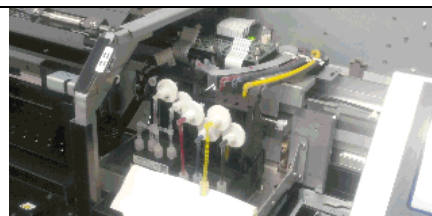
Step 111 / 142

Remove the tube fixing screw attached to the LC filter, and remove the tube from the LC filter.



Step 112 / 142

Reference video



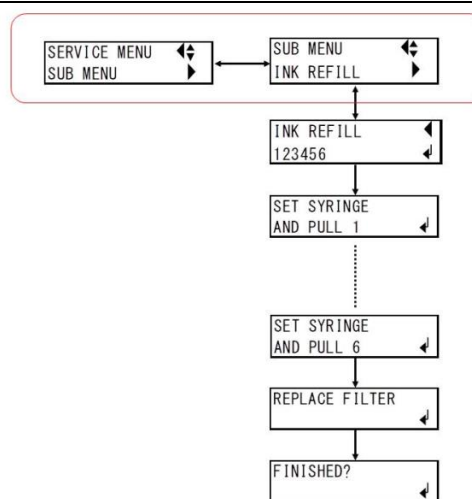
Step 113 / 142

Do not discard the removed LC filter as it will be used in the subsequent process.



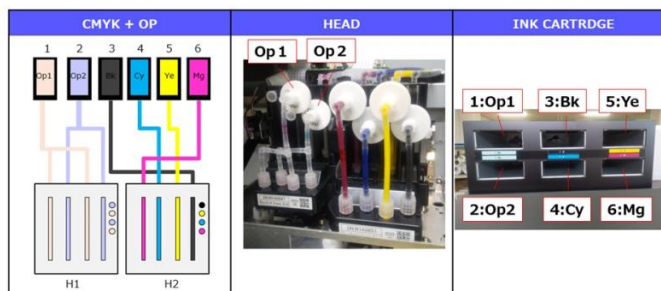
Step 114 / 142

Select [SERVICE MENU] > [SUB MENU] > [INK REFILL]. If [DRAIN INK] has been executed, only the executed path number will be displayed. Confirm the number and press [ENTER]. If [INK REFILL] is not executed, all numbers are displayed.



Step 115 / 142

Ink arrangement



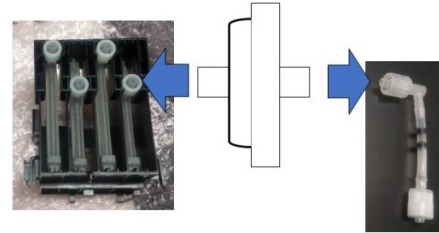
Step 116 / 142

LC filters are different for OP and CMYK.
Also, be sure to install them in the
correct direction.

CMYK side : 10µm



OP side : 5µm



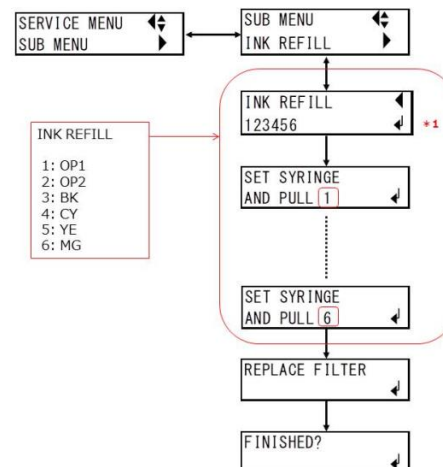
Step 117 / 142

Use one syringe for each color, and be
careful to dispose of the waste liquid, as
the OP and ink will coagulate when
mixed.



Step 118 / 142

Install the LC filter of the same ink as
the removed filter to the number
displayed on the panel. The number of
the path to pull OP/INK is indicated as [
AND PULL *] .



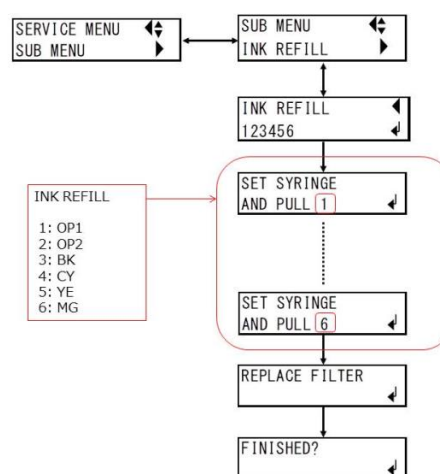
Step 119 / 142

Use the syringe to suck ink.



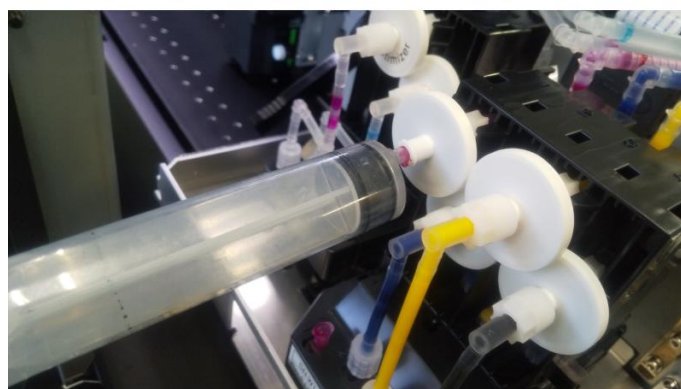
Step 120 / 142

Check that the numbered portion of the panel display [SET SYRINGE/AND PULL *] is the ink path you want to fill ink.



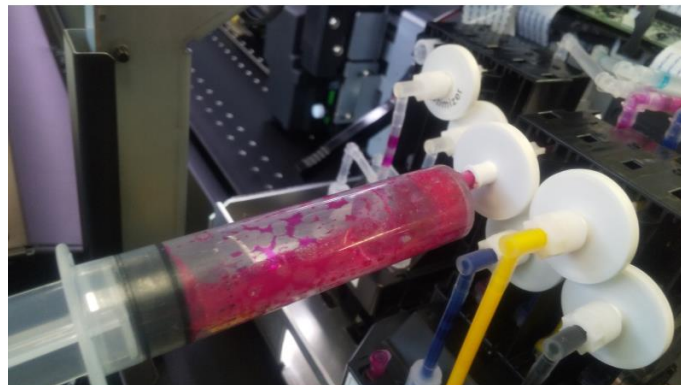
Step 121 / 142

Press the syringe onto the LC filter.



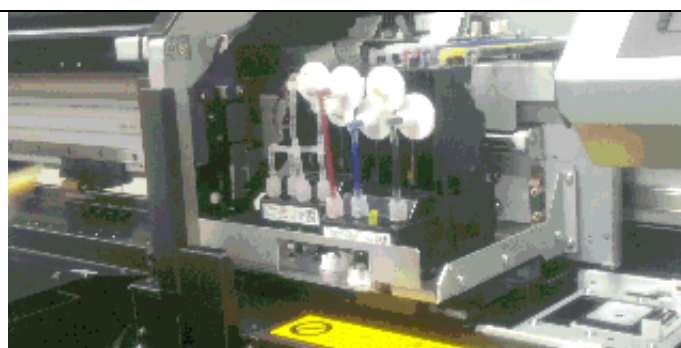
Step 122 / 142

Suck about half of the syringe (about 10 ml) of ink. If ink cannot be sucked at one time, suck ink in several times.



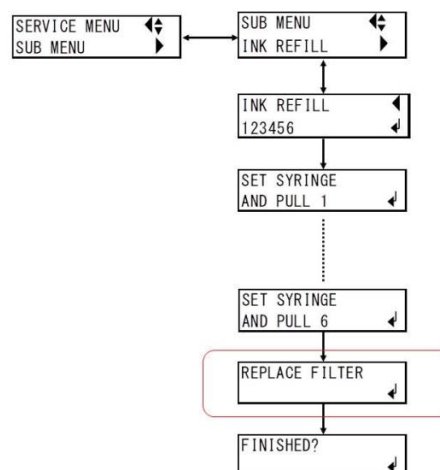
Step 123 / 142

Reference video



Step 124 / 142

After all the target ink paths have been filled, confirm that the panel display shows [REPLACE FILTER].



Step 125 / 142

Do not remove the LC filter in the following operation for ink paths that

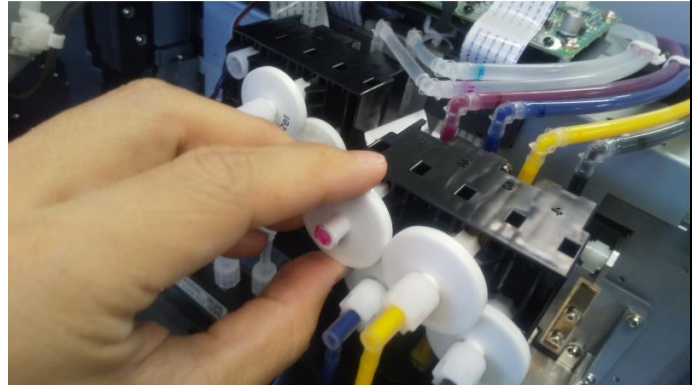


do not require replacement with a new LC filter. If you removed it, replace it with a new LC filter.



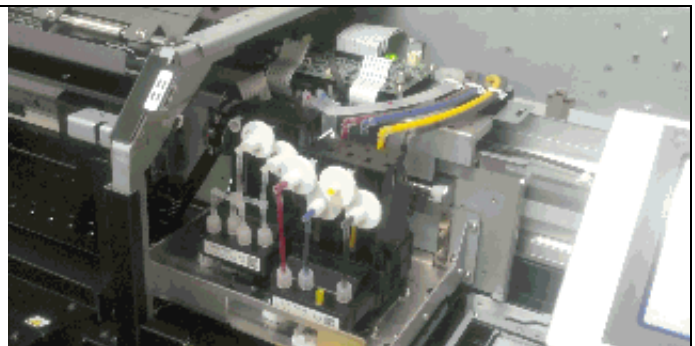
Step 126 / 142

Remove the old LC filter with ink sucked with a syringe. Replace it with a new LC filter.



Step 127 / 142

Reference video



Step 128 / 142

If air remains in the ink path, quality defects will occur. Be sure to use a syringe to suck ink to the LC filter.



Step 129 / 142

Use one syringe for each color, and be careful to dispose of the waste liquid, as the OP and ink will be cured when mixed.



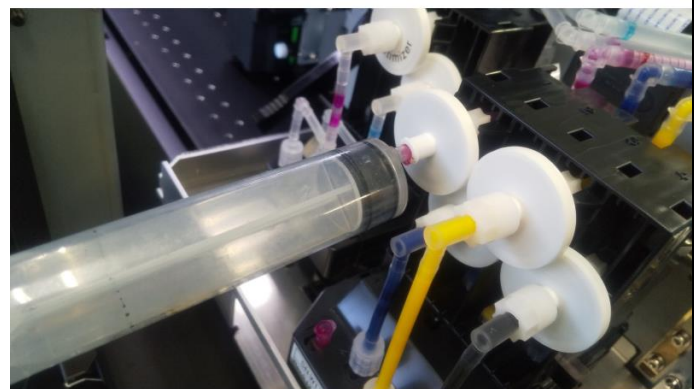
Step 130 / 142

Suck about 10 ml of ink using the syringe.



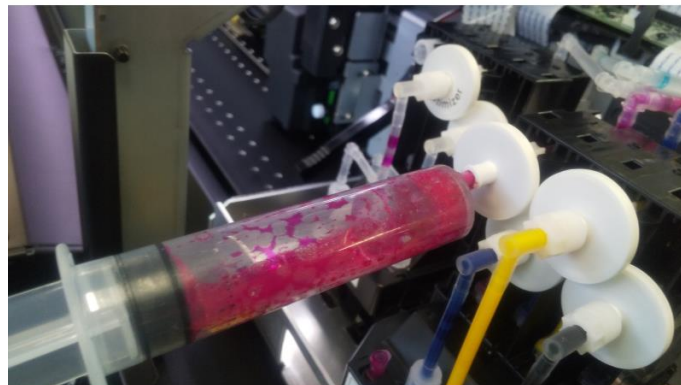
Step 131 / 142

Press the syringe against the LC filter.



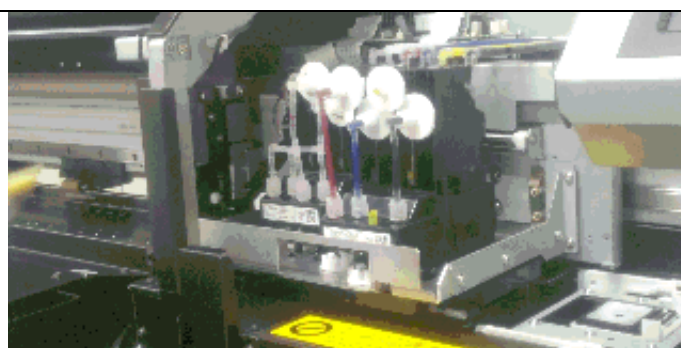
Step 132 / 142

Suck about half of the syringe (about 10 ml) of ink. If ink cannot be sucked at one time, suck ink in several times. Do not mix the sucked ink in the syringe with the OP side and the CMYK side, and put them into the drain bottle.



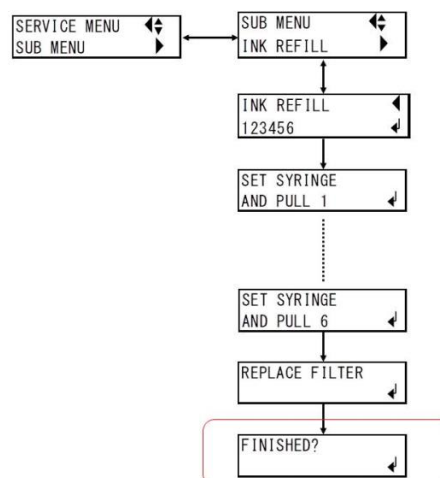
Step 133 / 142

Reference video



Step 134 / 142

Confirm that the panel is set to [REPLACE FILTER] and press the [ENTER] button to exit [INK REFILL].



Step 135 / 142

Attach the tube to the print head, then the LC filter, in that order to prevent the



tube from twisting.



Step 136 / 142

With the tip of the tube inserted into the LC filter, attach the joints on the print head.



Step 137 / 142

Make sure that the tube is not twisted.



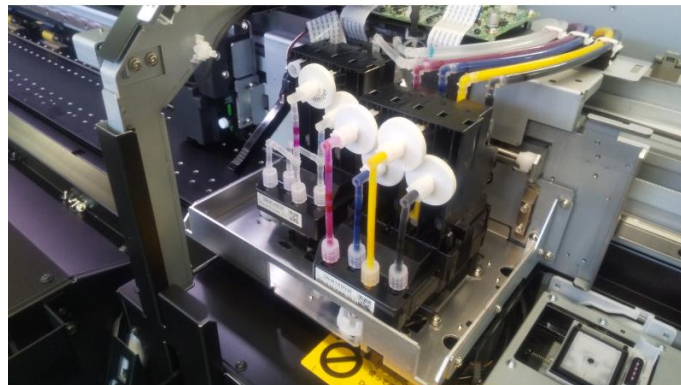
Step 138 / 142

Attach the joints on the LC filter.



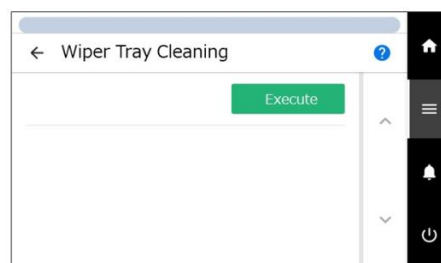
Step 139 / 142

Check that the tube is not twisted.



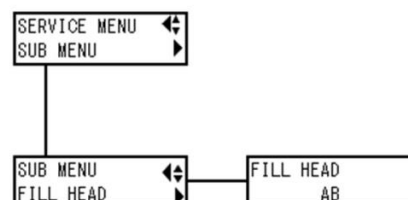
Step 140 / 142

Fill the wiper unit with cleaning solution in the user menu [TRAY CLEANING] .



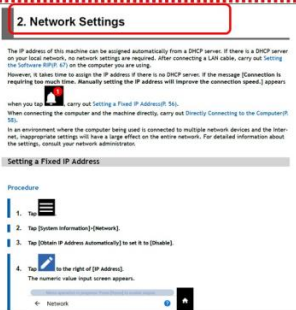
Step 141 / 142

Fill the head with ink using [FILL HEAD] (A/B) in the Service menu. Ink filling is completed.



Please perform the installation process after ink filling.

Next Step
[Setup Guide]



AP-640 Adjustment work after ink filling (Setup Guide)

AP-640 Adjustment work after ink filling (Setup Guide) Information

Step 1 / 4

This is a setup procedure. Perform this procedure when you reach the section on [Adjusting] in Setup guide.

[Contents]

1. Print head check
2. Head rank input
3. BIAS/VERTICAL adjustment
4. M-GAP DEFAULT adjustment
5. HORIZONTAL adjustment
6. Date and time setting
7. Return to the work in Setup Guide

Step 2 / 4

Necessary tools

一般ツール/General Tool

プラスドライバー No.2
No.2 Phillips screwdriver



Step 3 / 4

Special jig

特殊治具/Special Tools

TORQUE DRIVER LTD 120 CN	
BIT, PHILLIPS NO.2 L200MM	

Step 4 / 4

Typical work time

作業時間/Typical work time

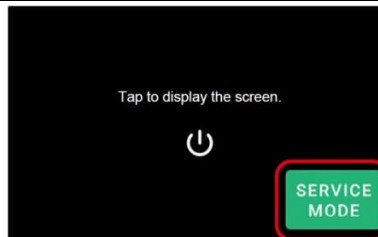
作業内容/Contents of work	時間/Time
ヘッドランクを入力 Input head rank	2 min.
BIAS/VERTICAL調整 BIAS・VERTICAL adjustment	20 min.
M-GAP DEFAULT調整 M-GAP DEFAULT adjustment	5 min.
ホリゾンタル位置調整 Horizontal adjustment	4 min.
日付設定 Date and time setting	3 min.

AP-640 Adjustment work after ink filling (Setup Guide)

AP-640 Adjustment work after ink filling (Setup Guide) Procedure

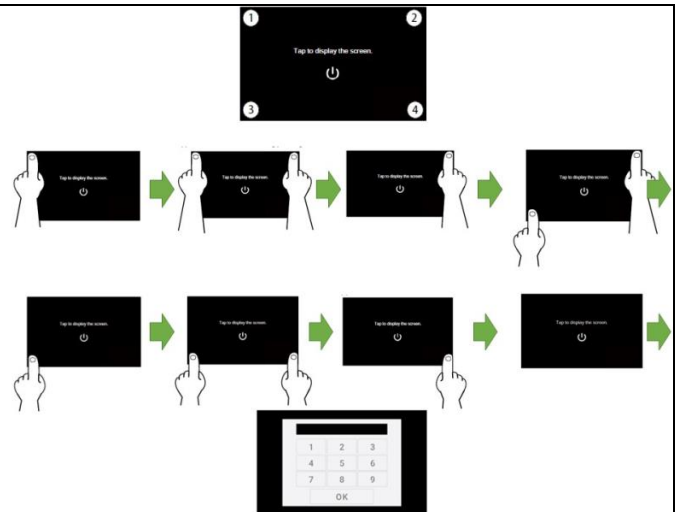
Step 1 / 44

Connect the machine to Peck2 and enter the service mode. Or, enter the support mode by operating the special key (9166583545).



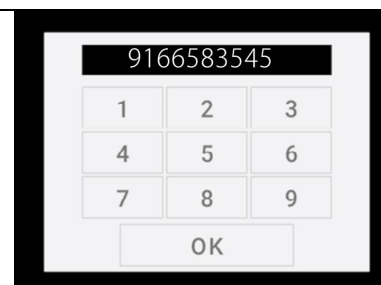
Step 2 / 44

(How to enter support mode) While the printer panel is displayed as shown in the figure on top, touch the panel with your finger according to the order shown in the figure to bring up the special key operation screen. (upper left -> upper right -> lower left -> lower right)



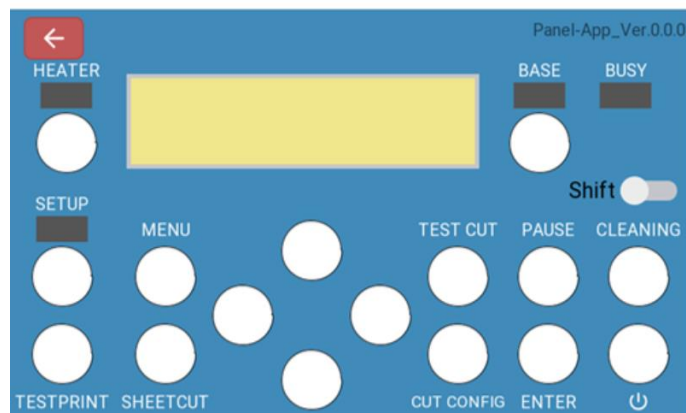
Step 3 / 44

(How to enter support mode) Enter 9166583545 to bring up the support mode and press [OK].



Step 4 / 44

(How to enter support mode) You can use the support mode functions from the menu.



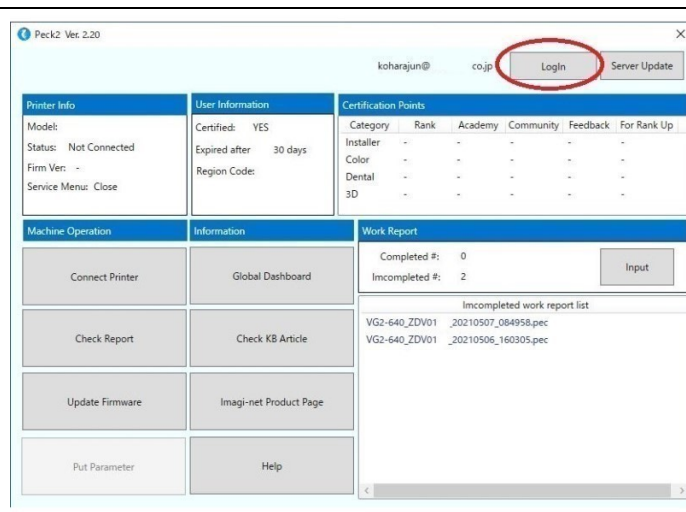
Step 5 / 44

(How to connect Peck2 to the machine)
Start Peck2.



Step 6 / 44

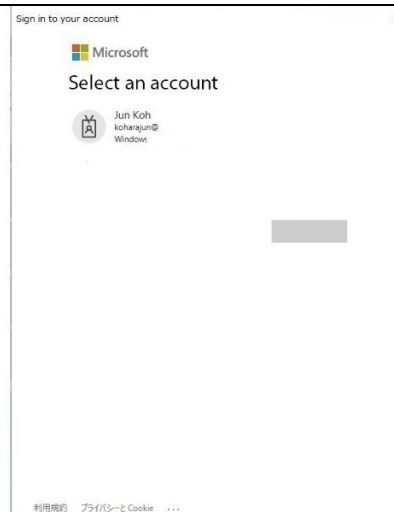
(How to connect Peck2 to the machine)
Click the Login button.



Step 7 / 44

(How to connect Peck2 to the machine)

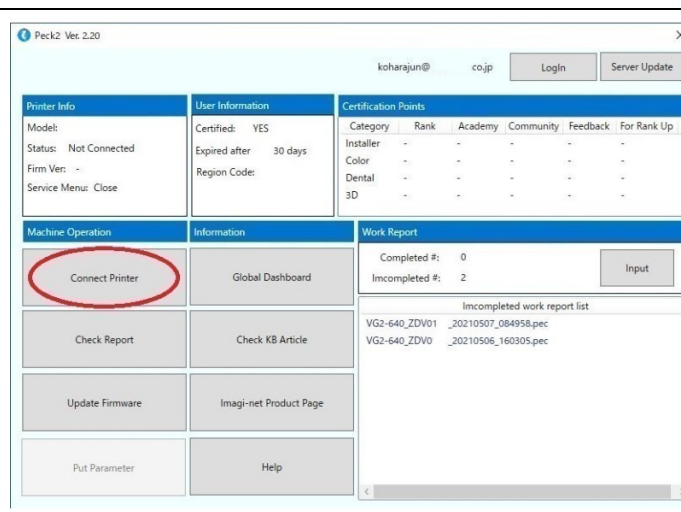
Login with your Imag-net ID.



Step 8 / 44

(How to connect Peck2 to the machine)

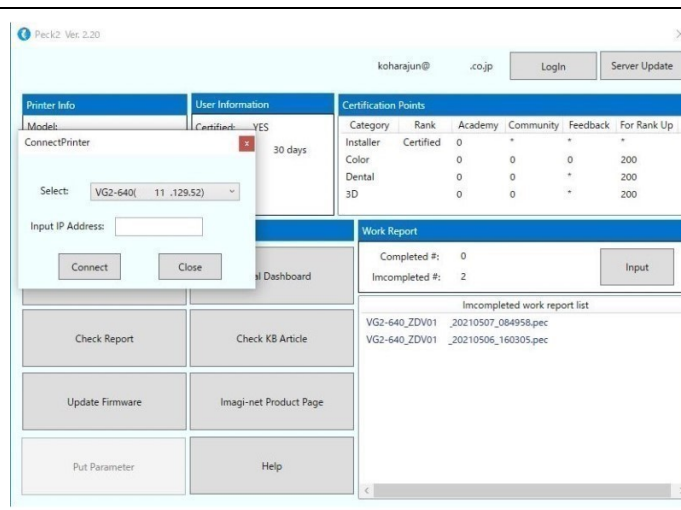
Click [Connect Printer] button.



Step 9 / 44

(How to connect Peck2 to the machine)

Enter the IP address of the machine to be connected.



Step 10 / 44

(How to enter service mode) When the printer is connected, the printer information is displayed in [Printer Info].

Peck2 Ver. 2.20

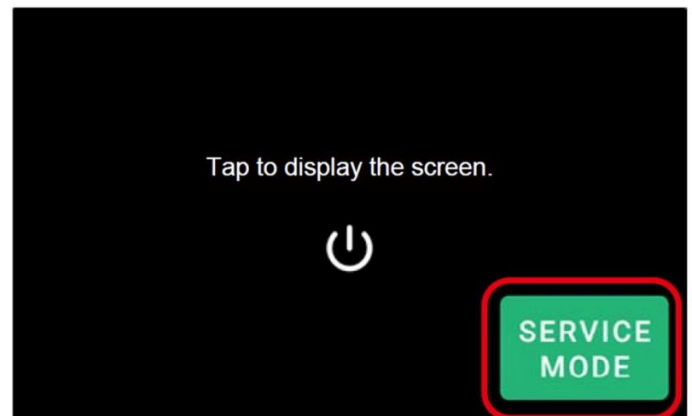
koharajun@ .co.jp Login Server Update

Printer Info		User Information		Certification Points					
Model:	VG2-640_ZDV01	Certified:	YES	Category	Rank	Academy	Community	Feedback	For Rank Up
Status:	UnSetup	Expired after:	30 days	Installer	Certified	0	*	*	*
Firm Ver:	2.00			Color	0	0	0	0	200
Service Menu:	Open			Dental	0	0	*	*	200
				3D	0	0	0	*	200

Machine Operation		Information		Work Report	
Connect Printer	Global Dashboard	Completed #:	0		
Check Report	Check KB Article	Incompleted #:	2	Input	
Update Firmware	Imagi-net Product Page	Incompleted work report list			
Put Parameter	Help	VG2-640_ZDV01 : _20210507_084958.pec			
		VG2-640_ZDV01 : _20210506_160305.pec			

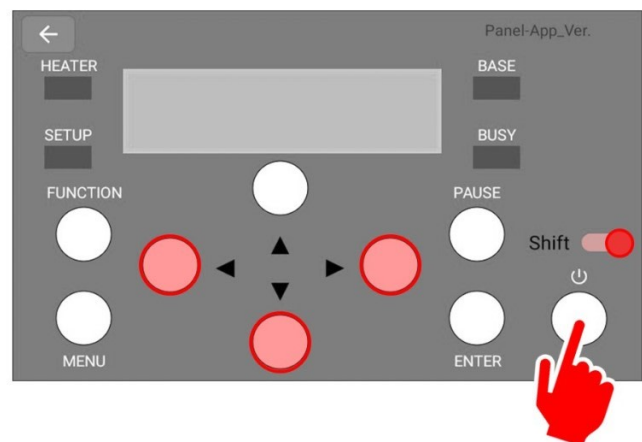
Step 11 / 44

(How to enter service mode) Select the service mode on the panel.



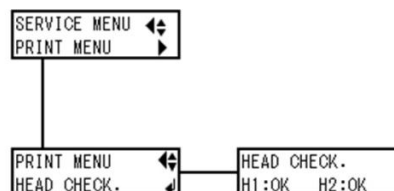
Step 12 / 44

(How to enter service mode) Press [Shift]> [□]+[□]+[□]+[Sub Power] on the machine panel to enter the service mode. Turning the [Shift] button ON enables you to press two or more buttons at the same time.



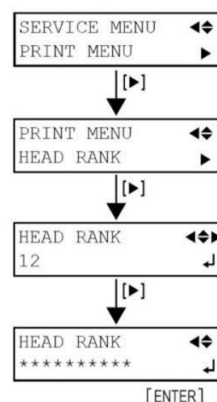
Step 13 / 44

Perform [HEAD CHECK] and check if the print heads are connected correctly. If OK is not displayed, the flexible cable or other parts may not be assembled correctly.



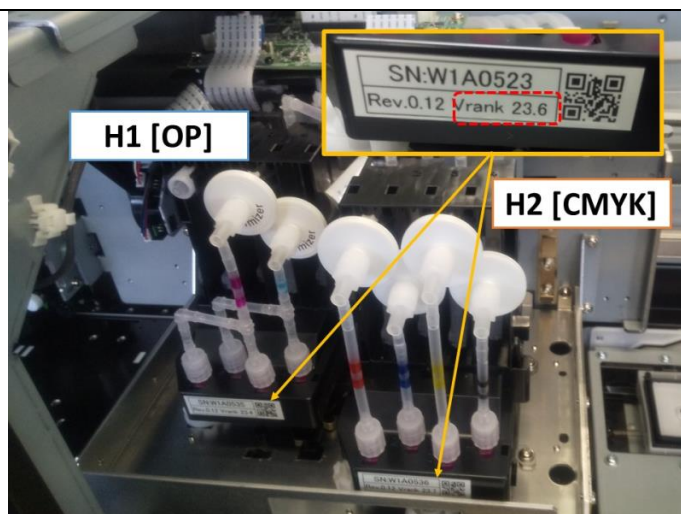
Step 14 / 44

Enter the [HEAD RANK] value; if the [HEAD RANK] is not entered correctly, the output quality will be affected, so be sure to enter the correct value.



Step 15 / 44

H1 (OP) is the print head on the left side as you face it, and H2 (CMYK) is the print head on the right side as you face it.



Step 16 / 44

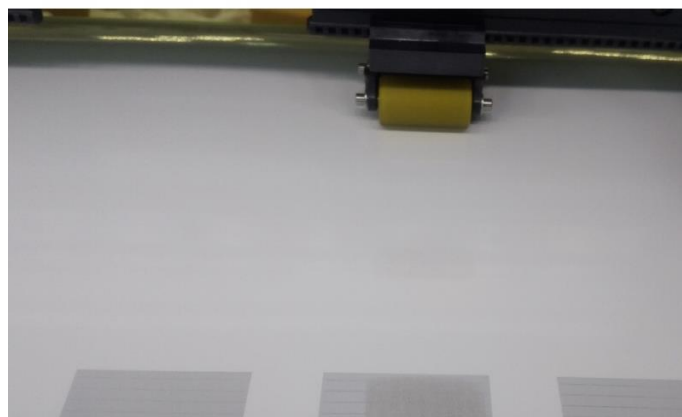
Since the test pattern is difficult to see on some types of media, the listed media are recommended.

The following media are recommended when performing adjustment.

- 3M IJ5331
- 3M IJ180
- Oraful3164
- Oraful3951
- Avery MPI 2002

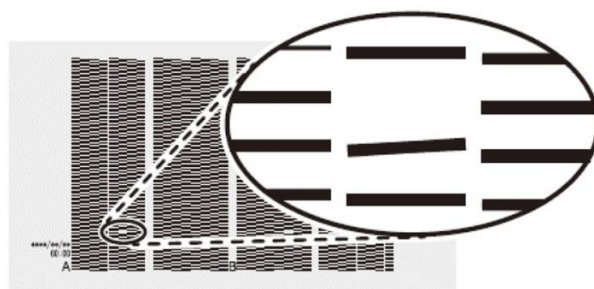
Step 17 / 44

Heater is not used when test patterns are printed as default, so the ink is not dry. Please be careful so that the pinch rollers will not step on the test pattern when checking the patterns.



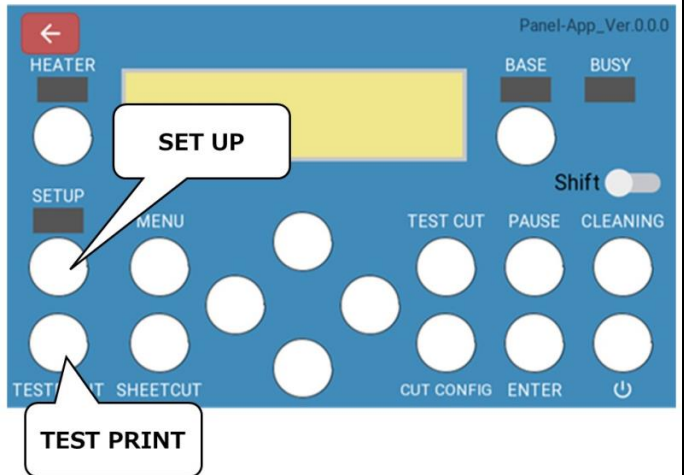
Step 18 / 44

Load the media, print the test pattern, and check if there are missing dots or dot displacement.



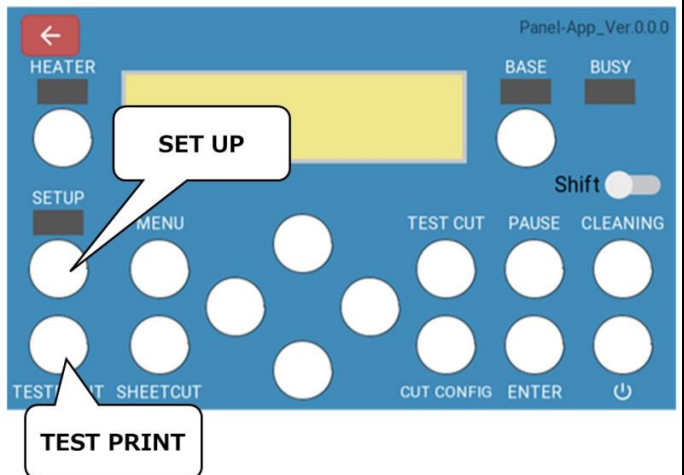
Step 19 / 44

Load the media and lower the loading lever. Then press "SET UP" on the panel to complete the setup.



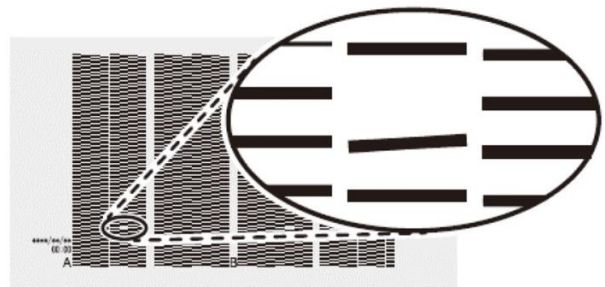
Step 20 / 44

Press [TEST PRINT] to print a test pattern on the media.



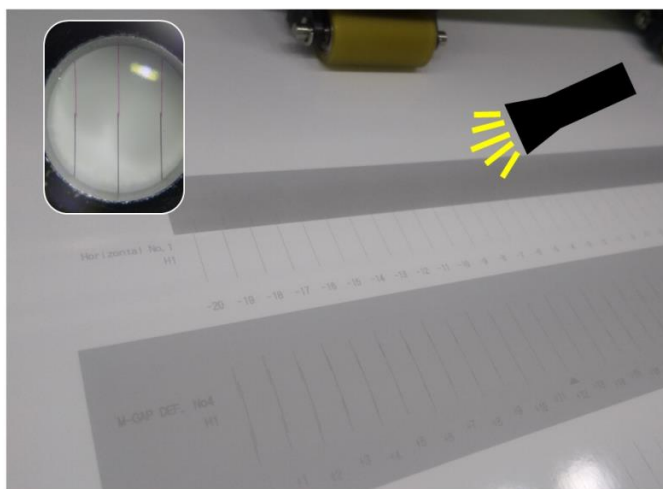
Step 21 / 44

Check if there are missing dots or dot displacement.



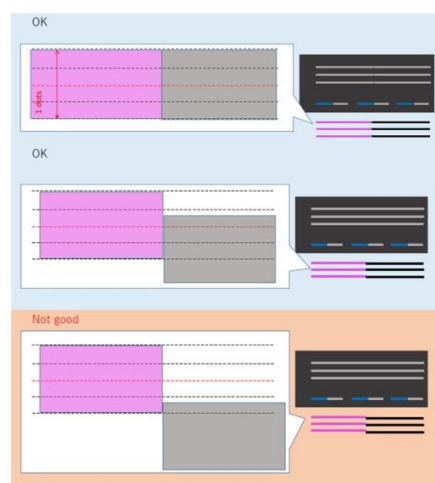
Step 22 / 44

When checking the test pattern, use a flash light or magnifying lens to make it easier to check.



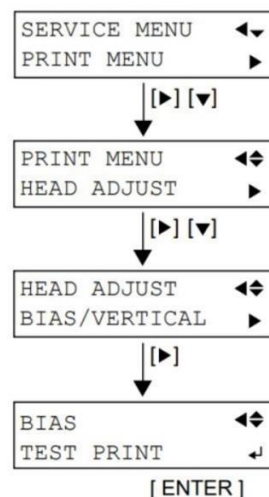
Step 23 / 44

Print the BIAS/VERTICAL test patterns and check if the amount of displacement is within 0.5 dots.



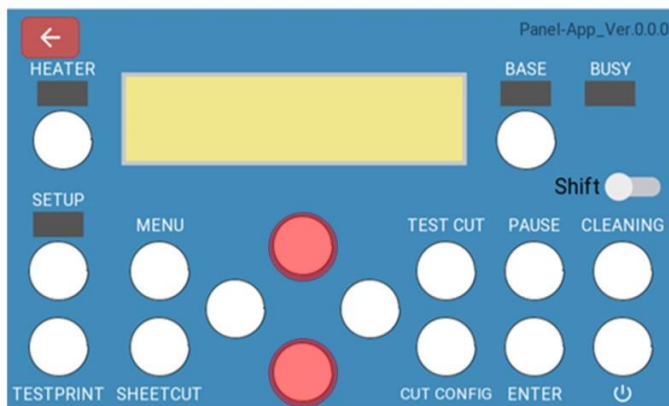
Step 24 / 44

Select [PRINT MENU] > [HEAD ADJUST] > [BIAS/VERTICAL] > [TEST PRINT] and press [ENTER] key.



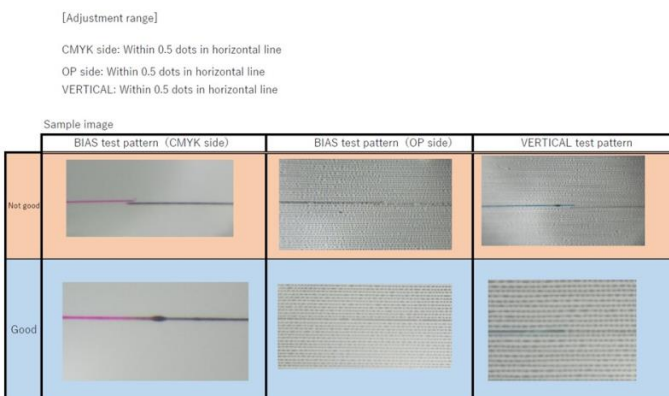
Step 25 / 44

When checking the test pattern, press [] or [] on the panel to move the test pattern to a more visible position.



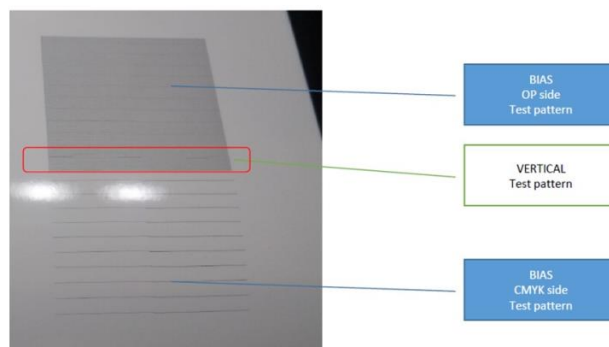
Step 26 / 44

Check that the amount of displacement of the test pattern line is within 0.5 dots.



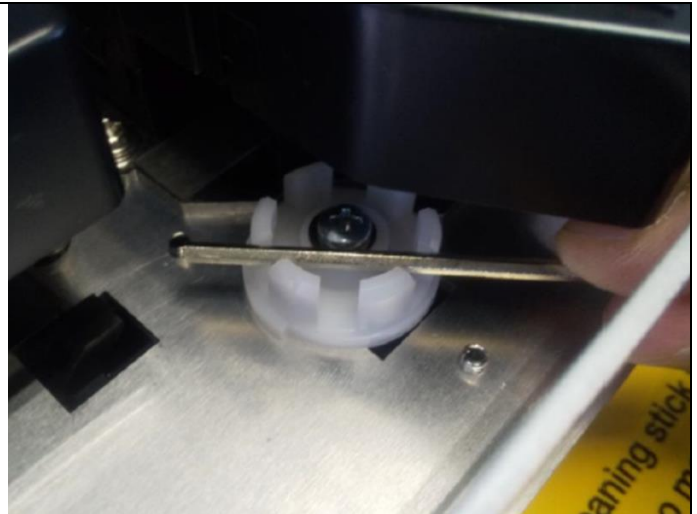
Step 27 / 44

Both BIAS and VERTICAL can be adjusted at the same time. If the adjustment cannot be made within the dial adjustment range, the print head may not be installed correctly.



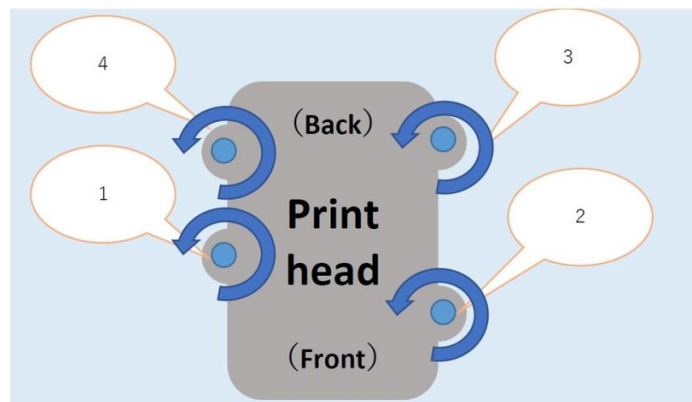
Step 28 / 44

If the adjustment dial is hard to turn, you can easily turn it by using a hex wrench (2.0 mm) as shown in the figure.



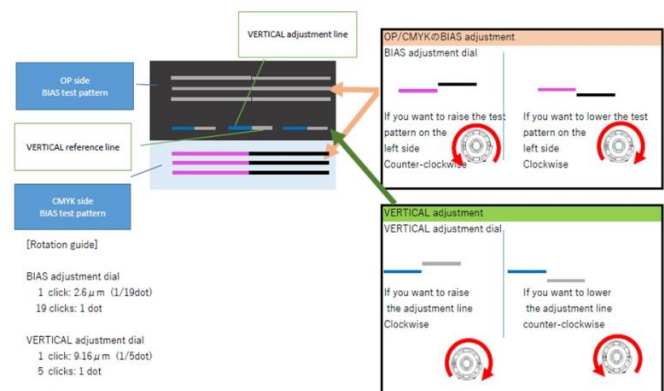
Step 29 / 44

Loosen the screws of the print head that needs adjustment about half way in the order shown in the figure.



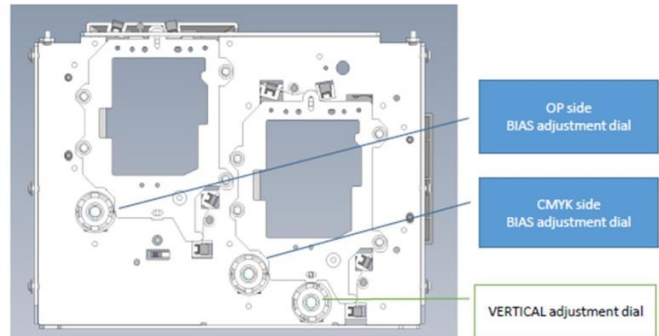
Step 30 / 44

Turn the adjustment dials as shown in the figure to adjust BIAS and VERTICAL.



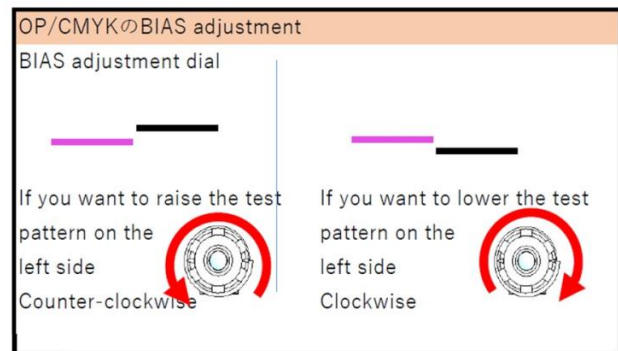
Step 31 / 44

The left dial is the BIAS adjustment dial on the OP side. The center dial is the BIAS adjustment dial for the color side. The right dial is the VERTICAL adjustment dial.



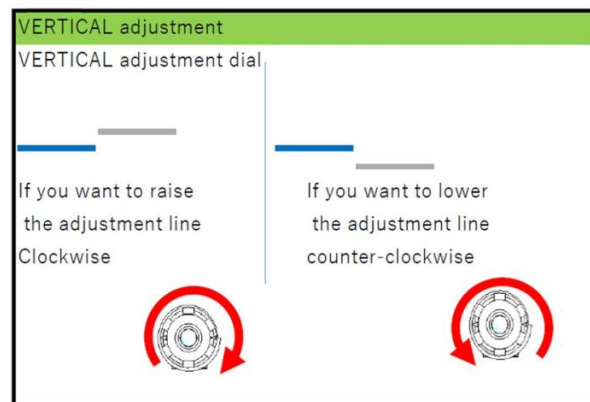
Step 32 / 44

[BIAS adjustment] If you want to move up the line on the left side, turn the dial counterclockwise. If you want to lower line on the left side, turn the dial clockwise. [1 Click: 2.6 μ m (1/19 dot) / 19 Click: 1 dot]



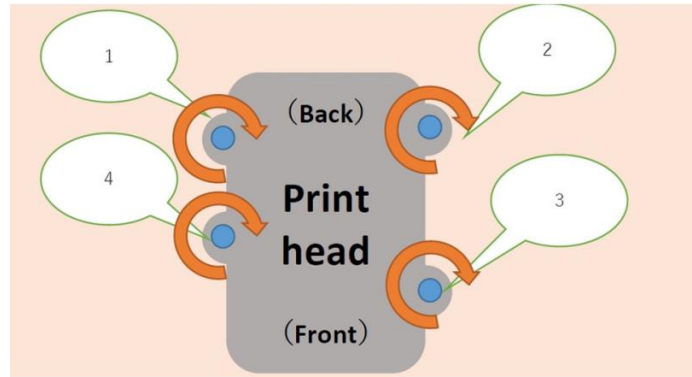
Step 33 / 44

[VERTICAL adjustment] Turn the dial clockwise if you want to move up the line on the left side. To lower the line on the left side, turn the dial counterclockwise. [1 Click: 9.16 μ m (1/5 dot) / 5 Click: 1 dot].



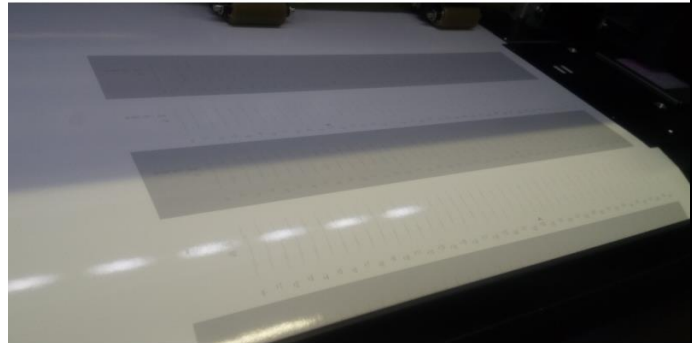
Step 34 / 44

Fix the print head using a torque wrench [0.6 N-m (6gf/cm)] in the order shown in the figure. Be careful not to damage the flexible cable with the screwdriver when tightening the screws at the base of the flexible cable.



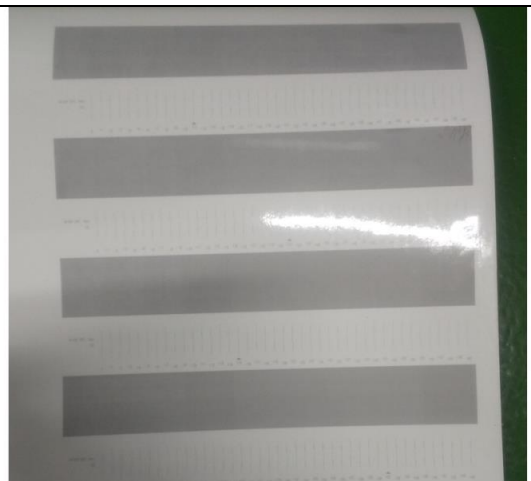
Step 35 / 44

Print the test pattern for M-GAP DEFAULT at the head height HIGH first, then switch the height to LOW and print the pattern consecutively. If HIGH and LOW are output consecutively, the HIGH test pattern will enter the drying system and become invisible. It is recommended to check the values when switching the head height from HIGH to LOW.



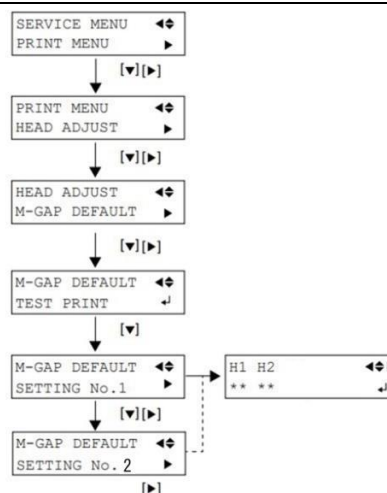
Step 36 / 44

Print the test pattern for M-GAP DEFAULT.



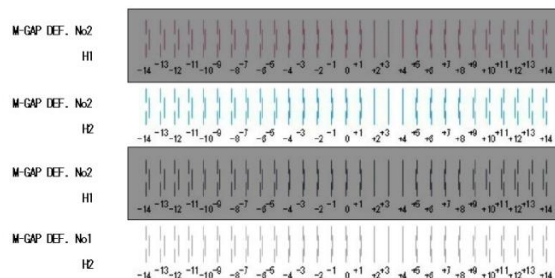
Step 37 / 44

Select [PRINT MENU] > [HEAD ADJUST]
> [M-GAP DEFAULT] > [TEST PRINT] and
press [ENTER].



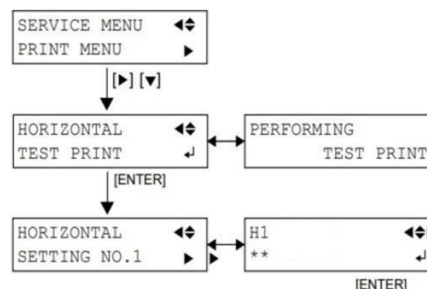
Step 38 / 44

Find the numbers that two lines are
overlapped exactly and enter all the
values for [H1] and [H2]. HIGH (No.1 &
No.2) / LOW (No.3 & No.4)



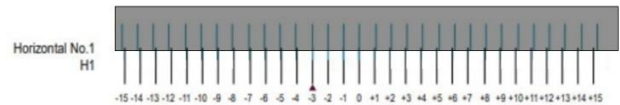
Step 39 / 44

Print a test pattern of HORIZONTAL



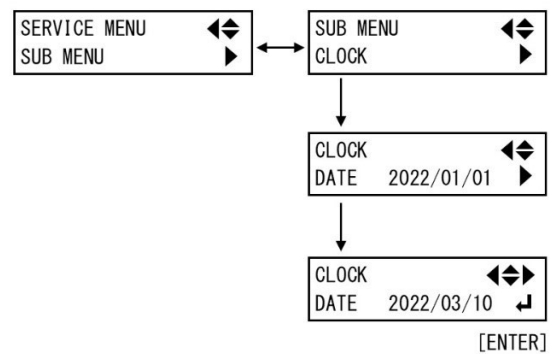
Step 40 / 44

Find the numbers that two lines are overlapped exactly and enter the numbers for [H1].



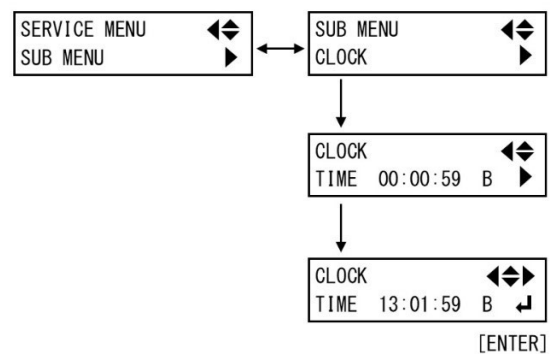
Step 41 / 44

Select [SERVICE MENU] > [SUB MENU] > [CLOCK] > [DATE]. Set the date and press [ENTER].



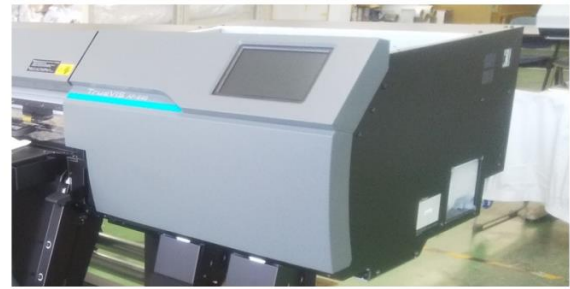
Step 42 / 44

Select [SERVICE MENU] > [SUB MENU] > [CLOCK] > [TIME]. Set the time and press the [ENTER] key.



Step 43 / 44

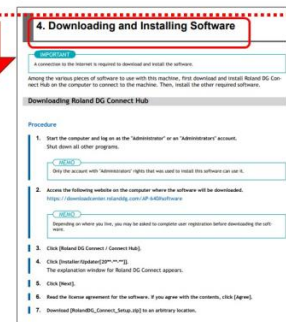
Install the removed cover.



Step 44 / 44

Return to the work in Setup Guide.

Next Step
[Setup Guide]



AP-640 Print head position adjustment

AP-640 Print head position adjustment

Information

Step 1 / 3

Necessary tools

一般ツール/General Tool

プラスドライバー No.2 No.2 Phillips screwdriver	
ライト Light	
拡大鏡 Loupe	

Step 2 / 3

Special jig

特殊治具/Special Tools

TORQUE DRIVER LTD 120 CN	
BIT, PHILLIPS NO.2 L200MM	

Step 3 / 3

Typical work time

作業時間/Typical work time

作業内容/Contents of work	時間/Time
ヘッド位置調整 Print head position adjustment	34 min.

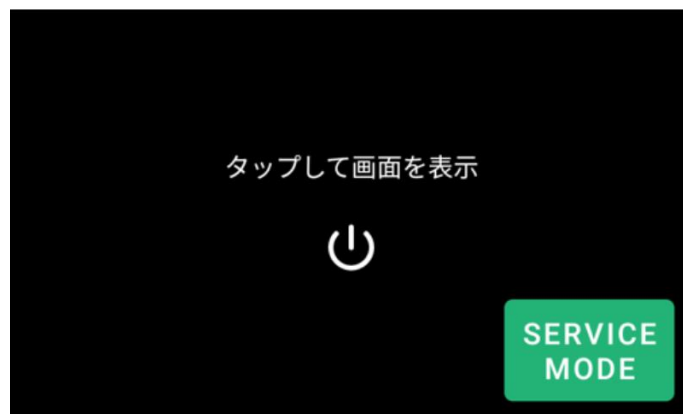
AP-640 Print head position adjustment

AP-640 Print head position adjustment

Procedure

Step 1 / 36

Connect Peck2 to the machine and enter service mode.



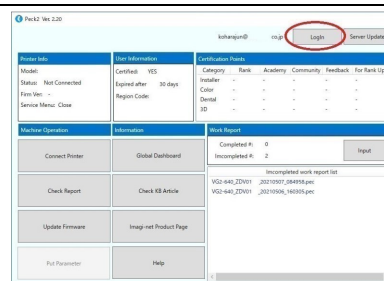
Step 2 / 36

Start Peck2.



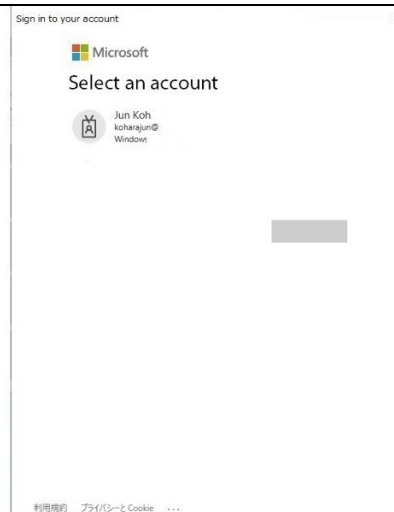
Step 3 / 36

Click [Login] button.



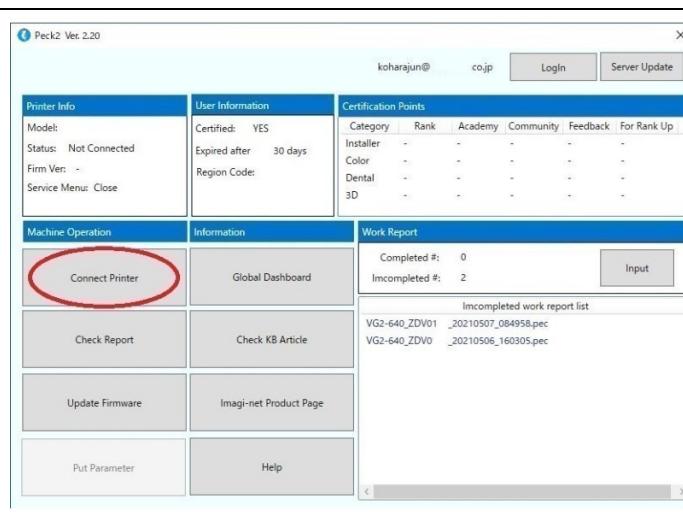
Step 4 / 36

Login with your Imagi-net ID.



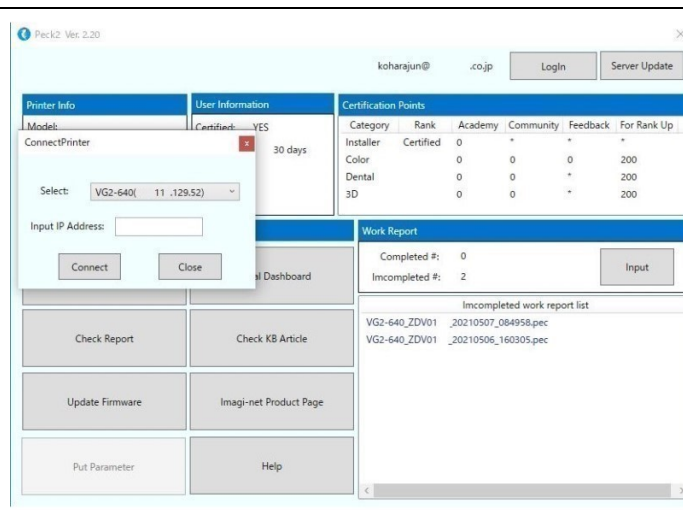
Step 5 / 36

Click the [Connect Printer] button.



Step 6 / 36

Enter the IP address of the device you would like to connect to.



Step 7 / 36

When the printer is connected, printer information will be displayed in [Printer Info].

Peck2 Ver. 2.20

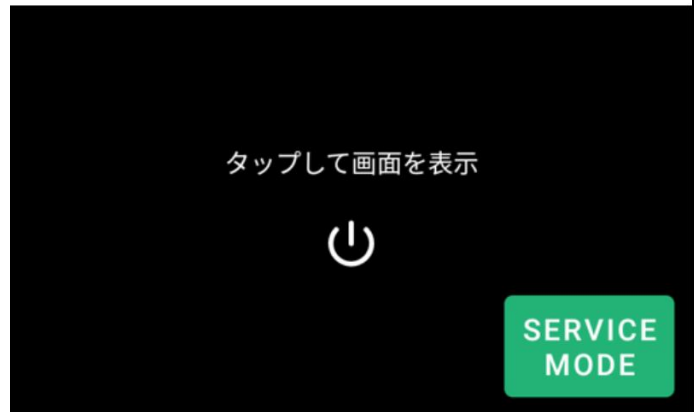
koharajun@ .co.jp Login Server Update

Printer Info		User Information		Certification Points				
Model: VG2-640_ZDV01	Certified: YES	Category	Rank	Academy	Community	Feedback	For Rank Up	
Status: UnSetup	Expired after: 30 days	Installer	Certified	0	*	*	*	
Firm Ver: 2.00		Color	0	0	0	200		
Service Menu: Open		Dental	0	0	*	200		
		3D	0	0	*	200		

Machine-Operation		Information		Work Report	
Connect Printer	Global Dashboard	Completed #:	0	Input	
Check Report	Check KB Article	Incompleted #:	2		
Update Firmware	Imagi-net Product Page	Incompleted work report list			
Put Parameter	Help	VG2-640_ZDV01 _20210507_084958.pec			
		VG2-640_ZDV01 _20210506_160305.pec			

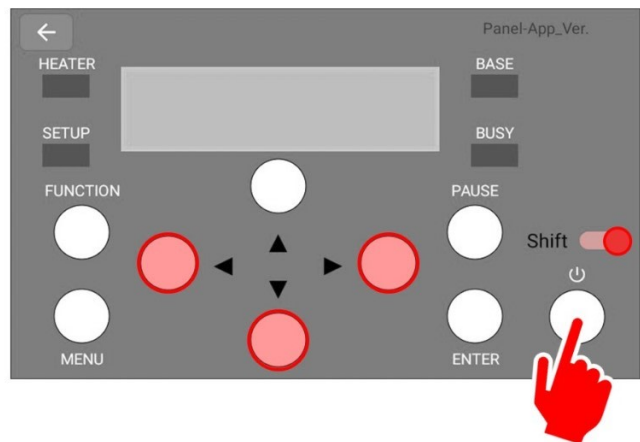
Step 8 / 36

Tap [SERVICE MODE] on the panel.



Step 9 / 36

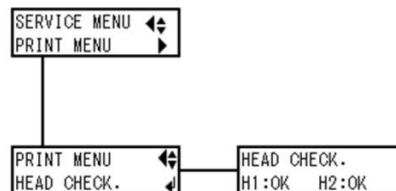
Press [Shift]> [□]+[□]+[□]+[Sub Power] on the machine panel to enter the service mode. Turning the [Shift] button ON enables you to press two or more buttons at the same time.



Step 10 / 36

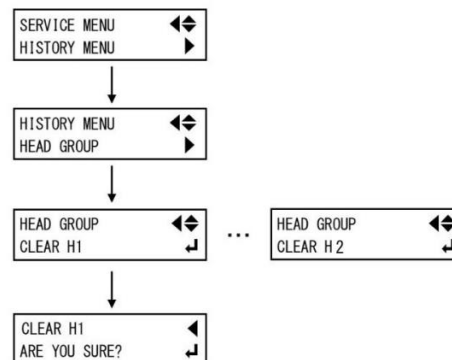
Perform [HEAD CHECK] to check if the print head is connected correctly.

Confirm that the panel display shows [OK] for both H1 and H2.



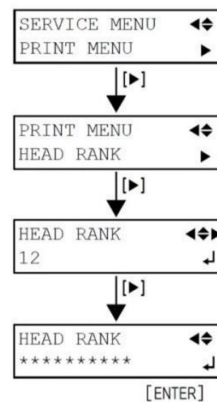
Step 11 / 36

Clear the history of [HEAD GROUP].



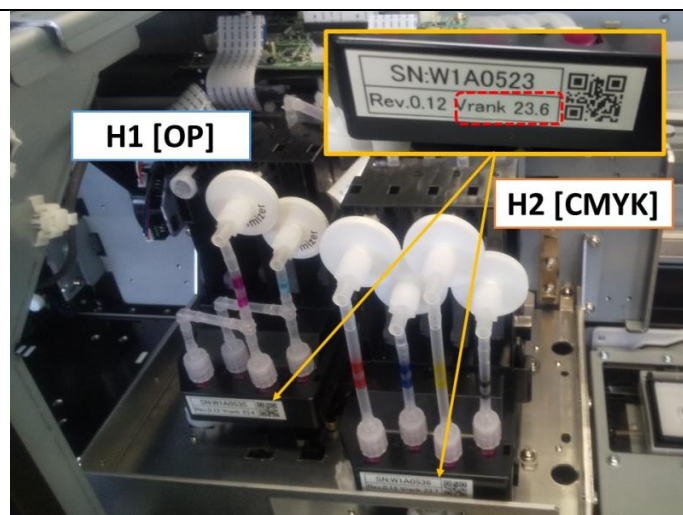
Step 12 / 36

Enter the [HEAD RANK] value, which must be correct because incorrectly entered [HEAD RANK] values will affect output quality.



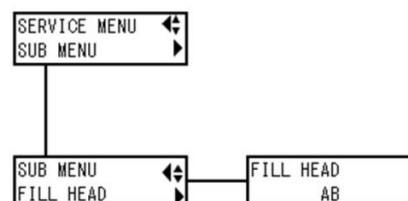
Step 13 / 36

The [HEAD RANK] is indicated in the position shown in the figure.



Step 14 / 36

[FILL HEAD] fills the print head with ink.



Step 15 / 36

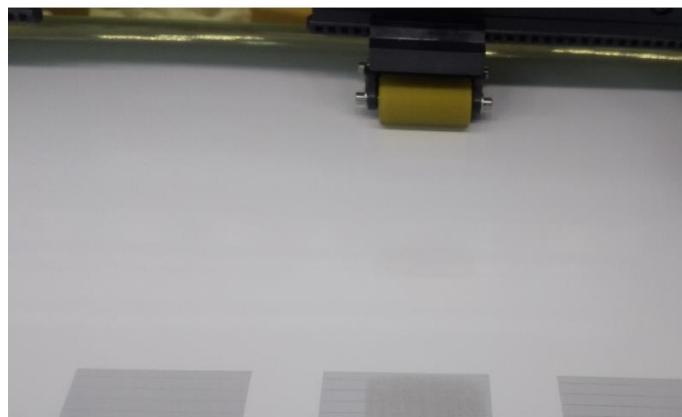
Since the test pattern is difficult to see on some types of media, the listed media are recommended.

The following media are recommended when performing adjustment.

- 3M IJ5331
- 3M IJ180
- Oraful3164
- Oraful3951
- Avery MPI 2002

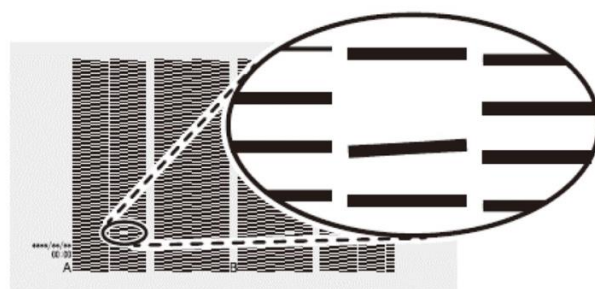
Step 16 / 36

Heater is not used when test patterns are printed as default, so the ink is not dry. Please be careful so that the pinch rollers will not step on the test pattern when checking the patterns.



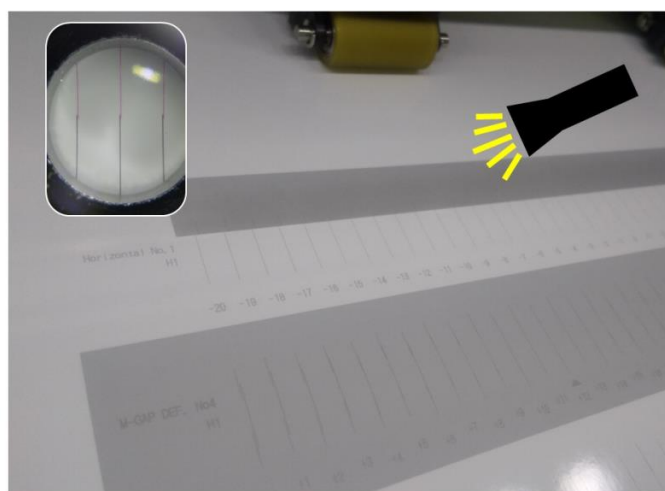
Step 17 / 36

Load the media, print the test pattern, and check if there are missing dots or dot displacement.



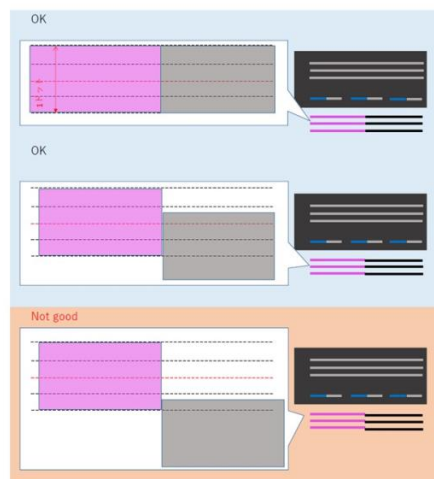
Step 18 / 36

When checking the test pattern, use a flash light or magnifying lens to make it easier to check.



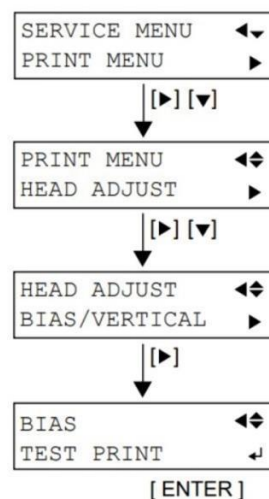
Step 19 / 36

Print the BIAS/VERTICAL test pattern and check if the amount of displacement is within 0.5 dots.



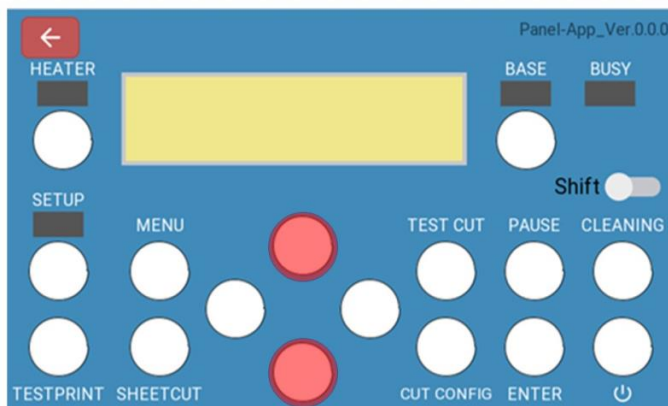
Step 20 / 36

Select [PRINT MENU] > [HEAD ADJUST] > [BIAS/VERTICAL] > [TEST PRINT] and press [ENTER] key.



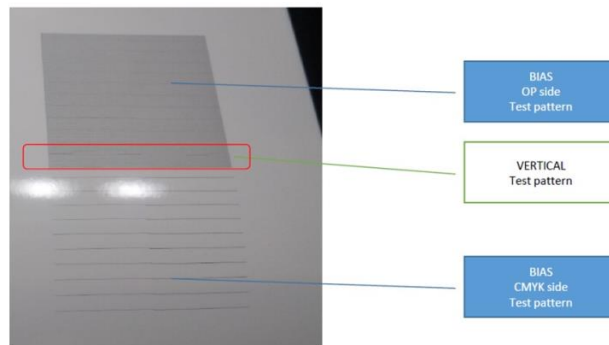
Step 21 / 36

When checking the test pattern, press [←] or [→] on the panel to move the test pattern to a more visible position.



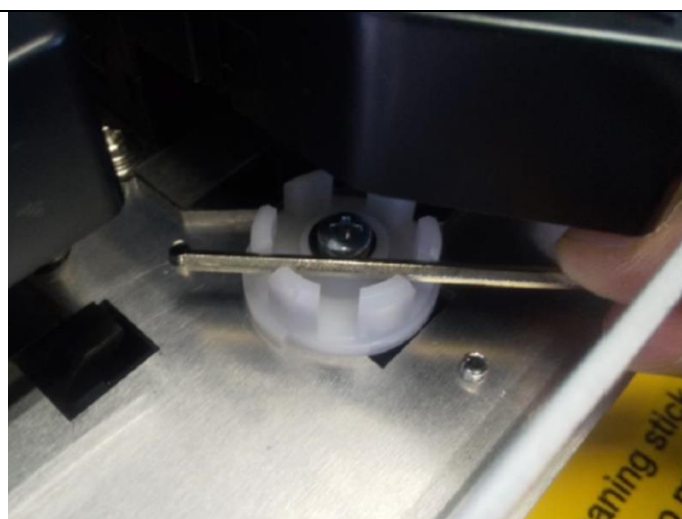
Step 22 / 36

Both BIAS and VERTICAL can be adjusted at the same time. If the adjustment cannot be made within the dial adjustment range, the print head may not be installed correctly.



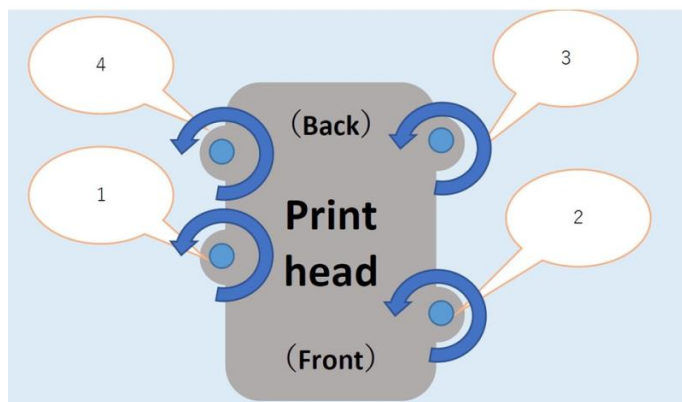
Step 23 / 36

If the adjustment dial is hard to turn, you can easily turn it by using a hex wrench (2.0 mm) as shown in the figure.



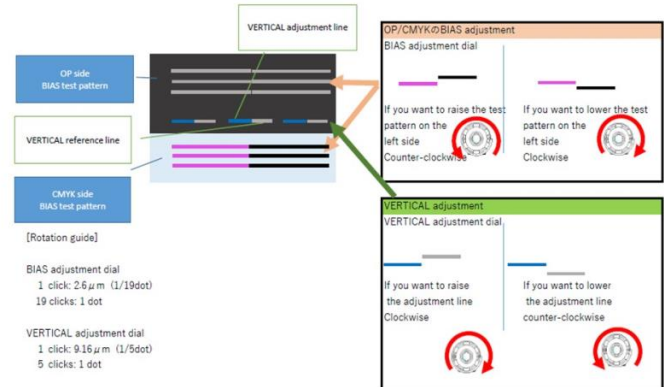
Step 24 / 36

Loosen the screws of the print head that needs adjustment about half way in the order shown in the figure.



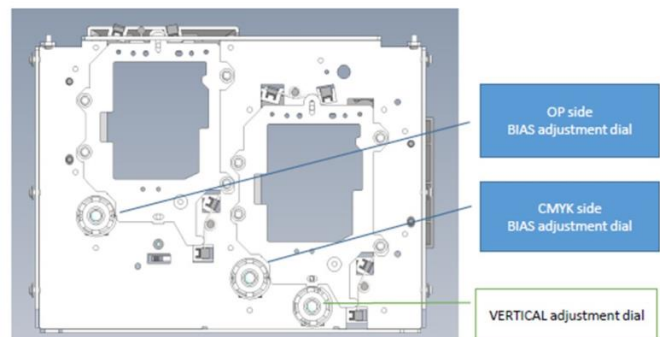
Step 25 / 36

Turn the adjustment dials as shown in the figure to adjust BIAS and VERTICAL.



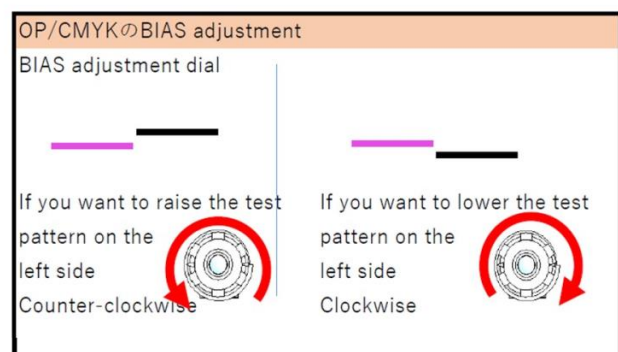
Step 26 / 36

The left dial is the BIAS adjustment dial on the OP side. The center dial is the BIAS adjustment dial for the color side. The right dial is the VERTICAL adjustment dial.



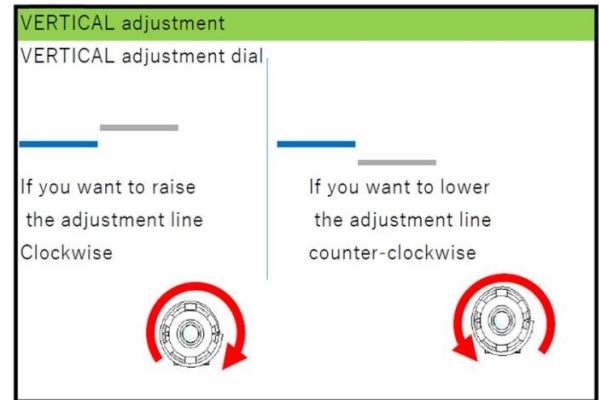
Step 27 / 36

[BIAS adjustment] If you want to move up the line on the left side, turn the dial counterclockwise. If you want to lower line on the left side, turn the dial clockwise. [1 Click: 2.6μm (1/19 dot) / 19 Click: 1 dot]



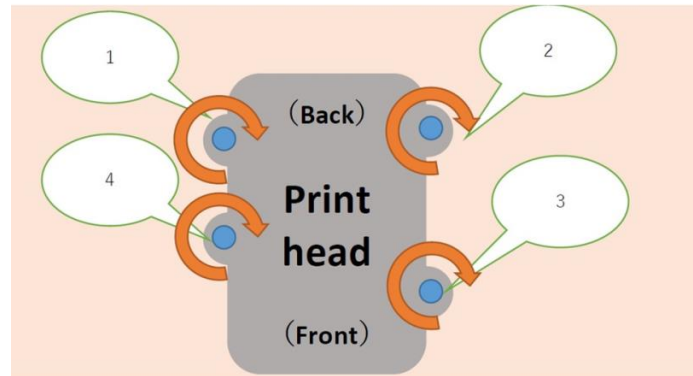
Step 28 / 36

[VERTICAL adjustment] Turn the dial clockwise if you want to move up the line on the left side. To lower the line on the left side, turn the dial counterclockwise. [1 Click: 9.16 μ m (1/5 dot) / 5 Click: 1 dot].



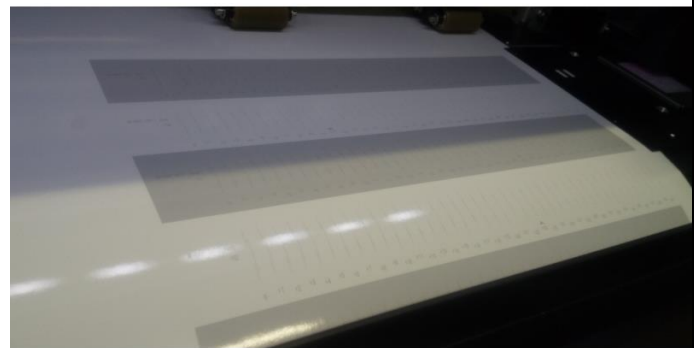
Step 29 / 36

Fix the head using a torque wrench [0.6N-m (6gf/cm)] in the order shown in the figure. When tightening the screws at the base of the flexible cable, be careful not to damage the flexible cable with the screwdriver.

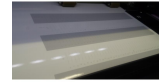


Step 30 / 36

Print the test pattern for M-GAP DEFAULT at the head height HIGH first, then switch the height to LOW and print the pattern consecutively. If HIGH and LOW are output consecutively, the HIGH test pattern will enter the drying system and become invisible. It is recommended to check the values when switching the head height from HIGH to

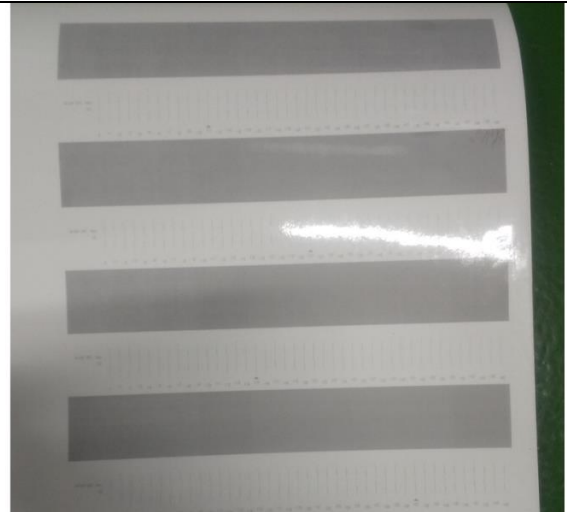


LOW.



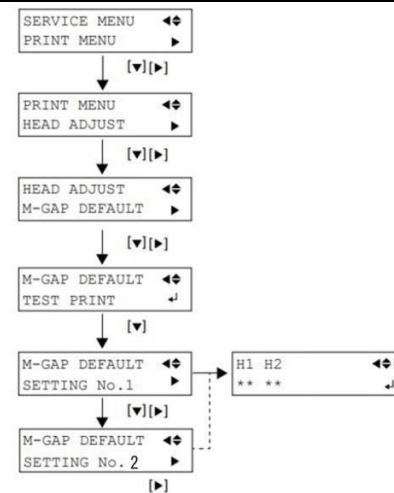
Step 31 / 36

Print the test pattern for M-GAP
DEFAULT.



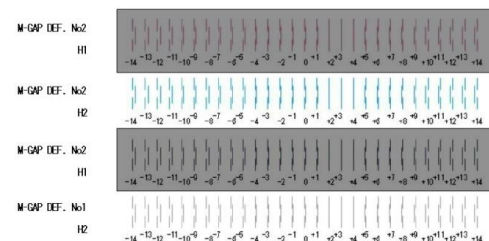
Step 32 / 36

Select [PRINT MENU] > [HEAD ADJUST]
> [M-GAP DEFAULT] > [TEST PRINT] and
press [ENTER].



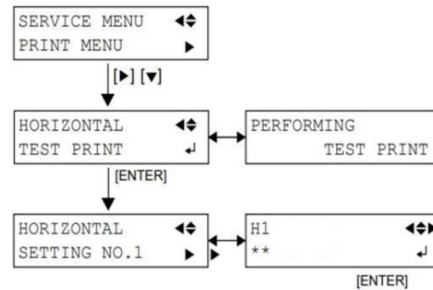
Step 33 / 36

Find the numbers that the lines are
overlapped exactly and enter all the
values for [H1] and [H2]. HIGHT (No.1
& No.2) / LOW (No.3 & No.4)



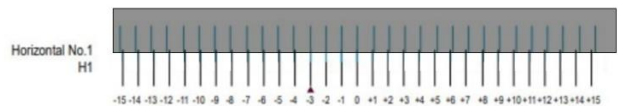
Step 34 / 36

Print a test pattern for HORIZONTAL.



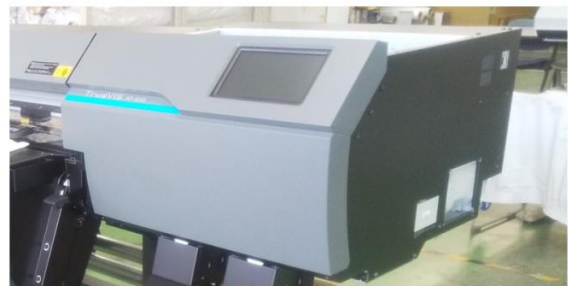
Step 35 / 36

Find the numbers that the lines are overlapped exactly and enter the values for [H1].



Step 36 / 36

Attach the cover that was removed.



AP-640 Firmware Installation

AP-640 Firmware Installation Information

Step 1 / 3

Firmware installation is required when a new mainboard without firmware is installed.

Step 2 / 3

Necessary Tools

一般ツール/General Tool

無し None	
------------	--

特殊治具/Special Tools

無し None	
------------	--

Step 3 / 3

Typical work time. If you do not have the system parameters obtained from Peck2 at the time of mainboard replacement, you need to perform extra adjustment works. In that case, the work time will be about 20 minutes longer.

作業時間/Typical work time

作業内容/Contents of work	時間/Time
ファームウェアインストール Firmware file installation	15 min.

AP-640 Firmware Installation

AP-640 Firmware Installation Procedure

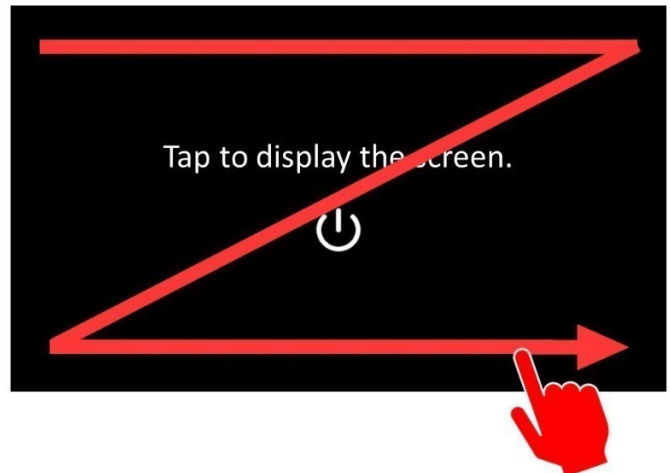
Step 1 / 35

Enter "3764892655" in the special number input screen to enter the temporary IP address mode.



Step 2 / 35

Detail1: Without releasing your finger, trace the screen in the order of upper left, upper right, lower left, and lower right.



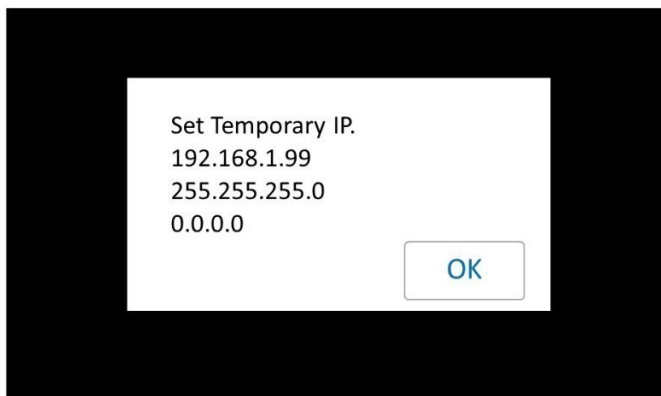
Step 3 / 35

Detail2: Enter "3764892655" in the special number input screen and press [OK].



Step 4 / 35

The temporary IP address will be displayed; press [OK], a buzzer will sound and the network settings will be temporarily set to 192.168.1.99/255.255.255.0/0.0.0.0.



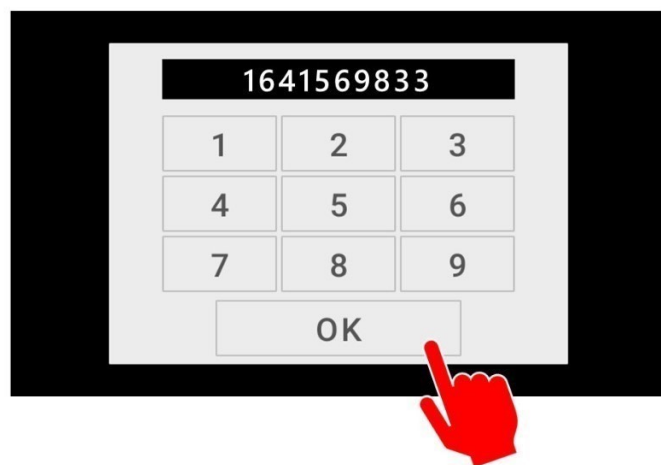
Step 5 / 35

Detail1: The temporary IP mode is released by turning off the main power or rebooting (turning the sub power from on to off) the machine.



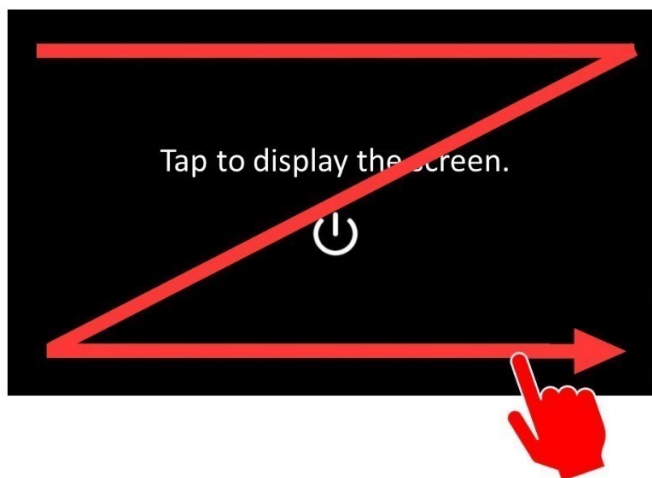
Step 6 / 35

Enter "1641569833" from the special number input screen to enter [UPDATE FIRMWARE] mode.



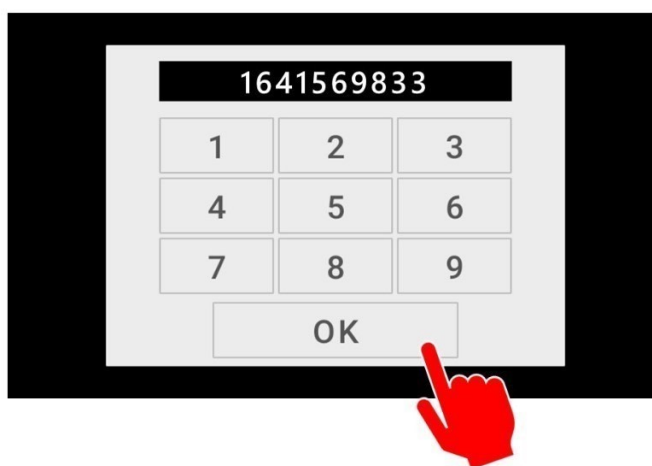
Step 7 / 35

Detail1: Without releasing your finger, trace the screen in the order of upper left, upper right, lower left, and lower right.



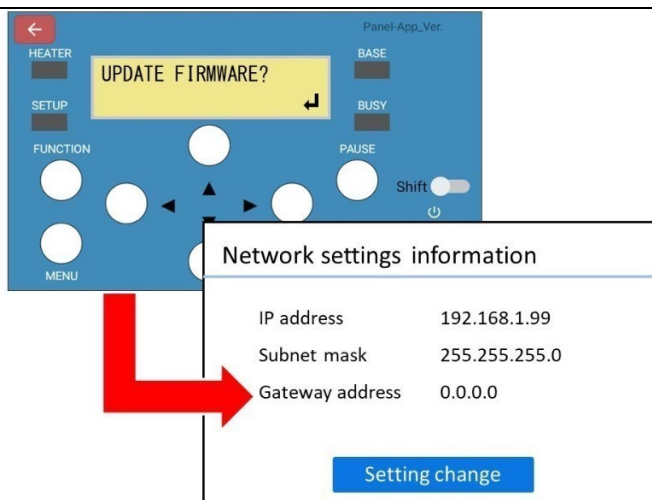
Step 8 / 35

Detail2: At the special number input screen, enter "1641569833" and press [OK].



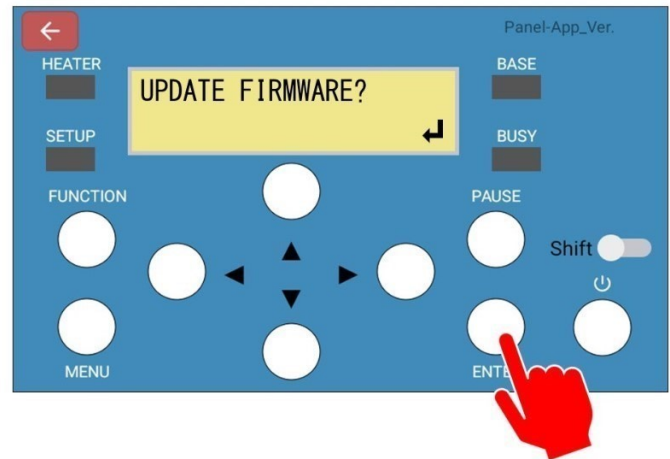
Step 9 / 35

Press [Enter] on the Service Mode screen to display the Network Settings Information screen.



Step 10 / 35

Detail1: Press [Enter] on the service mode screen.



Step 11 / 35

Detail2: The network settings information will be displayed.

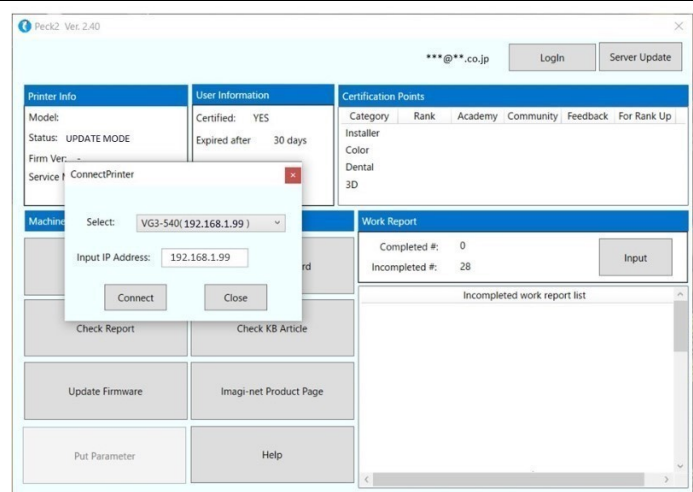
Network settings information

IP address	192.168.1.99
Subnet mask	255.255.255.0
Gateway address	0.0.0.0

Setting change

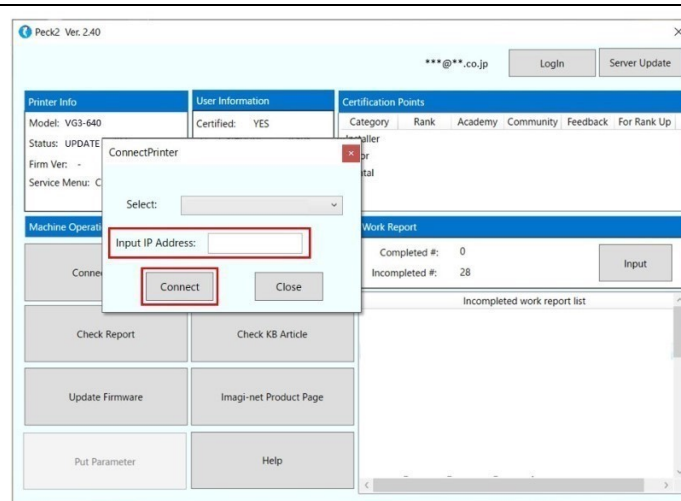
Step 12 / 35

Set the IP address to "192.168.1.99" from [Connect Printer] on Peck2 and press [Connect].



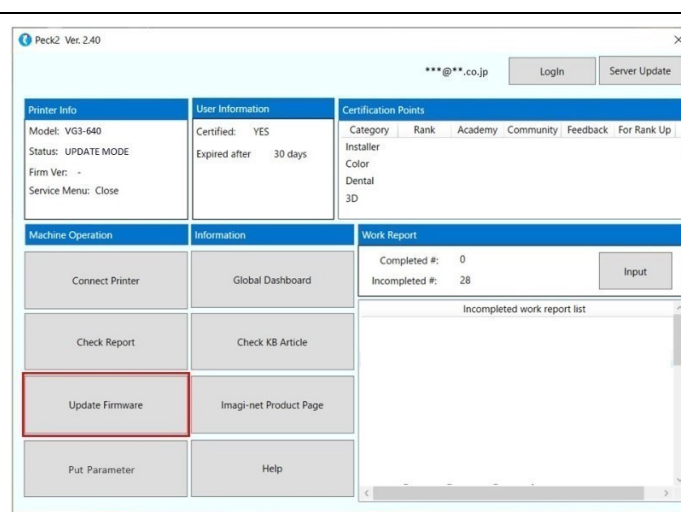
Step 13 / 35

Detail1: Set the IP address to "192.168.1.99" and press the [Connect] button.



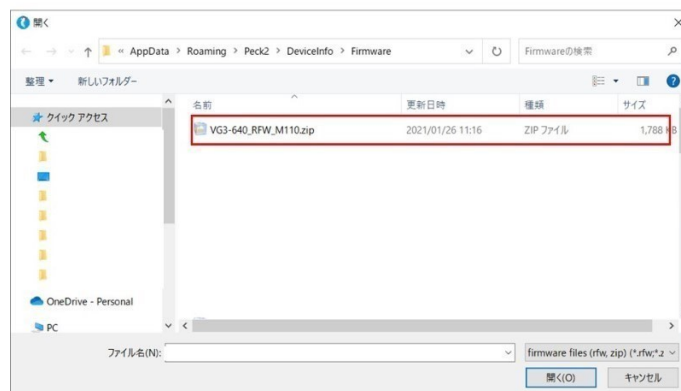
Step 14 / 35

Click the [Update Firmware] button and select the firmware.



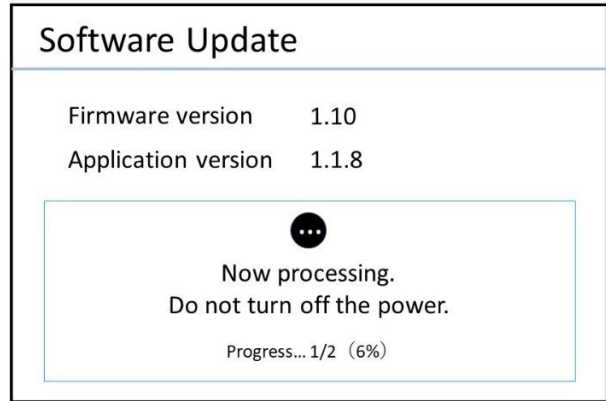
Step 15 / 35

Detail1: Click the [Open] button to transfer the firmware to the printer.



Step 16 / 35

The firmware installation will begin.
Wait 5 minutes for the installation to complete.



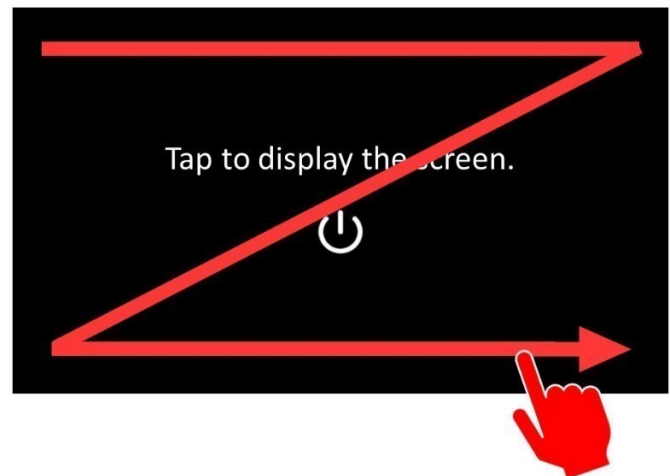
Step 17 / 35

Enter "6181355894" from the special number input screen to enter the system parameter initialize mode.



Step 18 / 35

Detail1: Without releasing your finger, trace the screen in the order of upper left, upper right, lower left, and lower right.



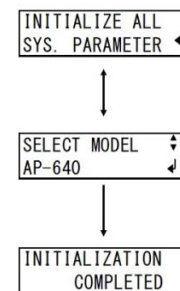
Step 19 / 35

Detail2: From the special number input screen, enter "6181355894" and press [OK].



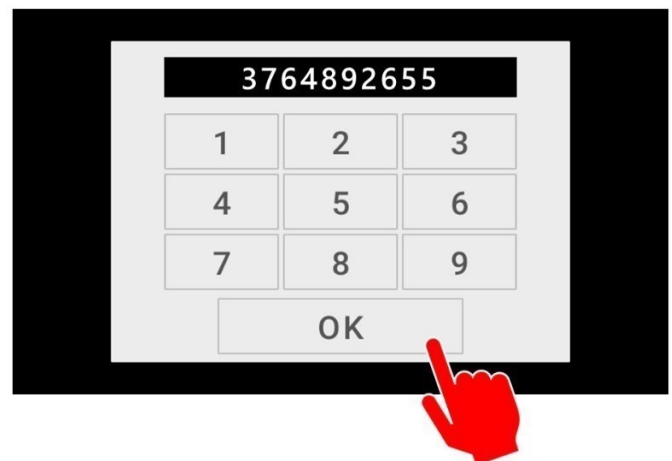
Step 20 / 35

Use the [] [] keys to select the model and press [ENTER] to execute initialization. When completed, the sub power will automatically turn off.



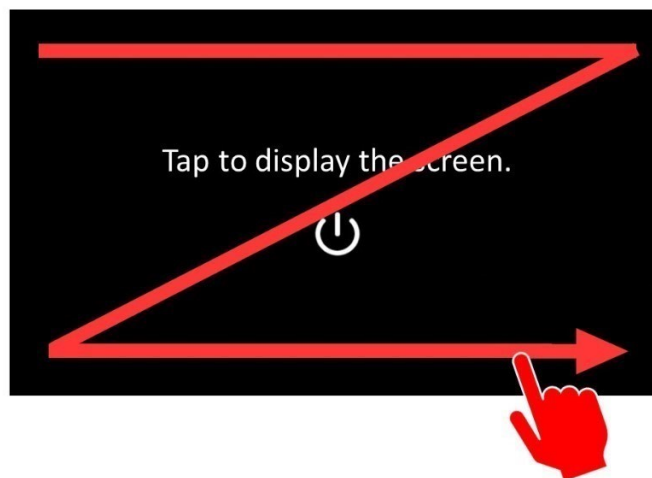
Step 21 / 35

Enter "3764892655" in the special number input screen to enter the temporary IP address mode.



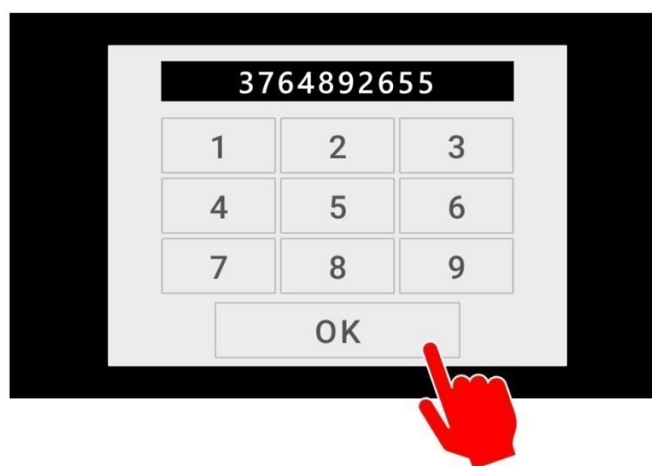
Step 22 / 35

Detail1: Without releasing your finger, trace the screen in the order of upper left, upper right, lower left, and lower right.



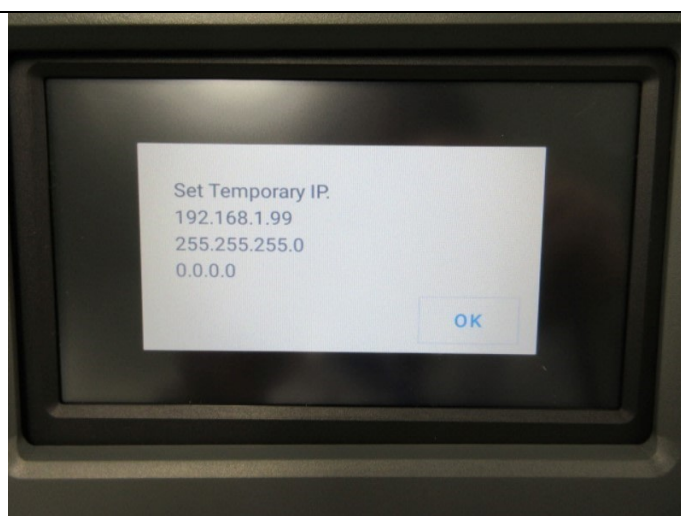
Step 23 / 35

Detail2: Enter "3764892655" on the special number input screen and press [OK].



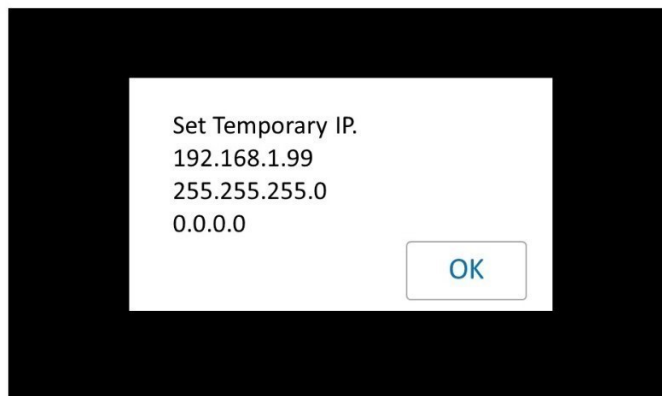
Step 24 / 35

Detail3: Press [OK] on the panel display, a buzzer sounds and the network settings are temporarily set to 192.168.1.99/255.255.255.0/0.0.0.0.



Step 25 / 35

The temporary IP address will be displayed; pressing [OK] will sound a buzzer and the network settings will be temporarily set to the 192.168.1.99/255.255.255.0/0.0.0.0.



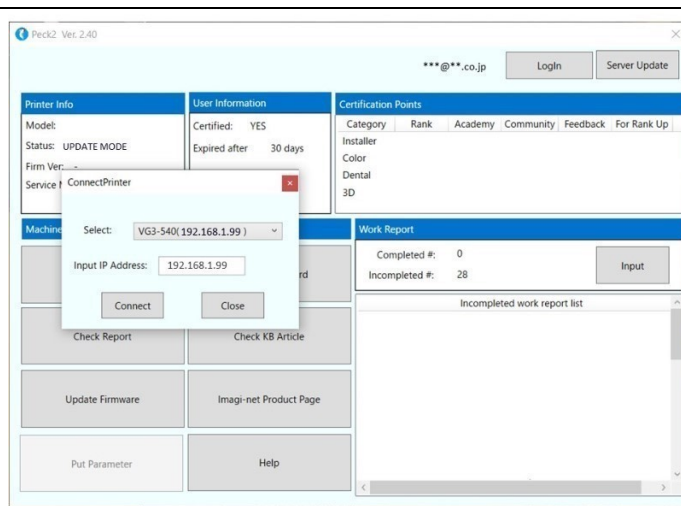
Step 26 / 35

Detail1: Temporary IP address mode will be released by turning off the main power or rebooting (turning the sub power from on to off).



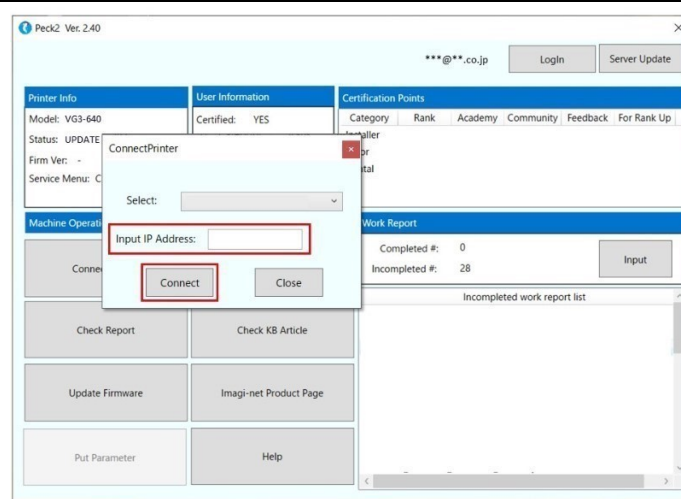
Step 27 / 35

Set the IP address to "192.168.1.99" from the Peck2 [Connect Printer] and press the [Connect] button.



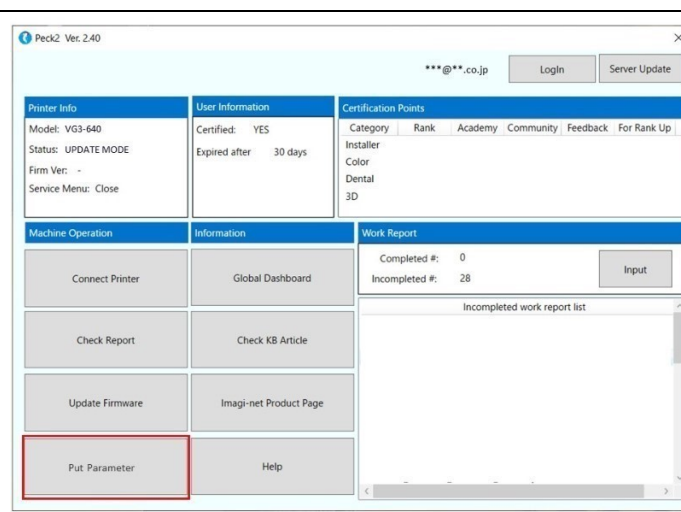
Step 28 / 35

Detail1: Set the IP address to "192.168.1.99" and press the [Connect] button.



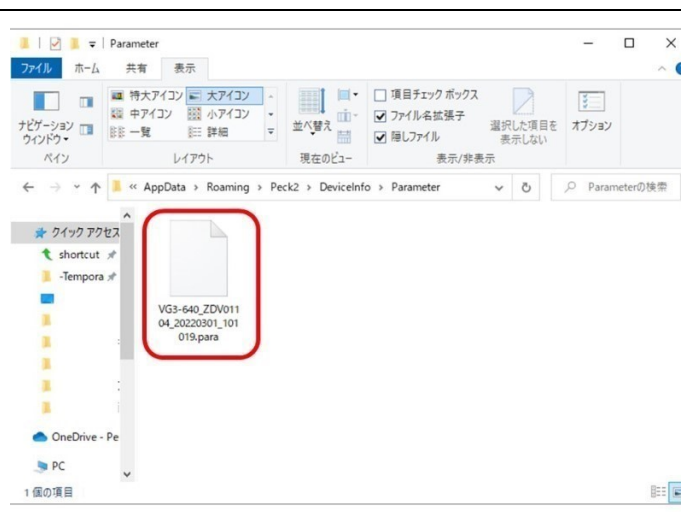
Step 29 / 35

Click the [Put Parameter] button to transfer the system parameters to the printer.



Step 30 / 35

Detail1: Select the system parameter file that was obtained before the main board replacement, or other work. Click the [Open] button to transfer the system parameters to the printer.



Step 31 / 35

Click the [Check Report] button to obtain a report on the machine. Confirm that the parameters have been written correctly.

The screenshot shows the Peck2 software interface. The top bar includes the title 'Peck2 Ver. 2.40', a user email '***@*.co.jp', and buttons for 'Login' and 'Server Update'. The main area is divided into several sections: 'Printer Info' (Model: VG3-640, Status: UPDATE MODE, Firm Ver: -, Service Menu: Close), 'User Information' (Certified: YES, Expired after: 30 days), 'Certification Points' (Category, Rank, Academy, Community, Feedback, For Rank Up), 'Machine Operation' (Connect Printer, Check Report, Update Firmware, Put Parameter), 'Information' (Global Dashboard, Check KB Article, Imagi-net Product Page, Help), and 'Work Report' (Completed #: 0, Incompleted #: 28, Input button). The 'Check Report' button in the 'Machine Operation' section is highlighted with a red border.

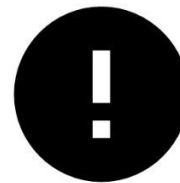
Step 32 / 35

Detail1: Confirm that the parameters have been written correctly.

The screenshot shows the 'Check Report' window in the Peck2 software. It displays a list of system parameters on the left, a detailed view of the selected parameter on the right, and a 'Put Parameter' button at the bottom right. The 'Put Parameter' button is highlighted in red.

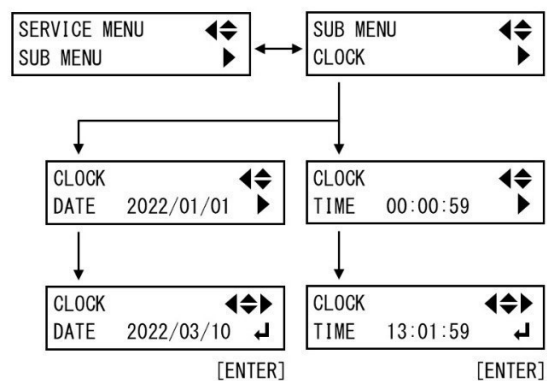
Step 33 / 35

The temporary network settings will be rewritten to the IP addresses stored in the system parameters when [Put Parameter] is executed. If necessary, re-configure the settings.



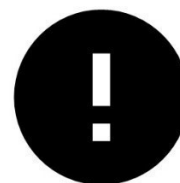
Step 34 / 35

Set the date and time from [SERVICE MENU]>[SUB MENU]>[CLOCK].



Step 35 / 35

If you are unable to transfer the parameters in Peck2, please refer to "If you are unable to transfer the parameters in Peck2" in the Main Board Replacement procedure.



AP-640 Firmware Upgrade

AP-640 Firmware Upgrade Information

Step 1 / 3

The following is required for firmware upgrade/installation.

- Firmware
- Windows PC (must be equipped with a network port)
- Peck2
- Network cable (if directly connected to a computer, a crossover cable is required)

Firmware upgrade is required if you replace the panel with a new one.

Step 2 / 3

Necessary Tools

一般ツール/General Tool

無し None	
------------	--

特殊治具/Special Tools

無し None	
------------	--

Step 3 / 3

Typical Work Time

作業時間/Typical work time

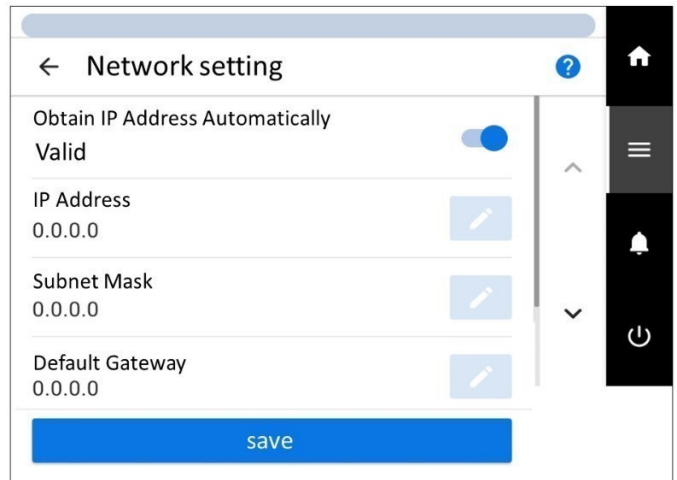
作業内容/Contents of work	時間/Time
ファームウェアアップグレード Firmware Upgrade	10 min.

AP-640 Firmware Upgrade

AP-640 Firmware Upgrade Procedure

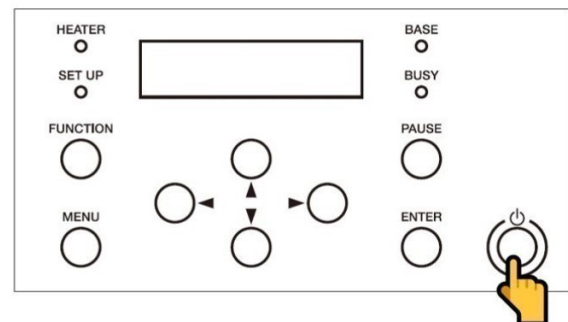
Step 1 / 13

Check the IP address of the printer. Turn on the main power and sub power switch, and check [Hamburger button] > [Network Settings] > [IP Address] on the panel of the machine.



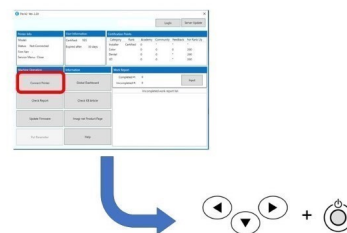
Step 2 / 13

Turn off the sub power.



Step 3 / 13

Connect Peck2 to the machine and enter Service Mode.



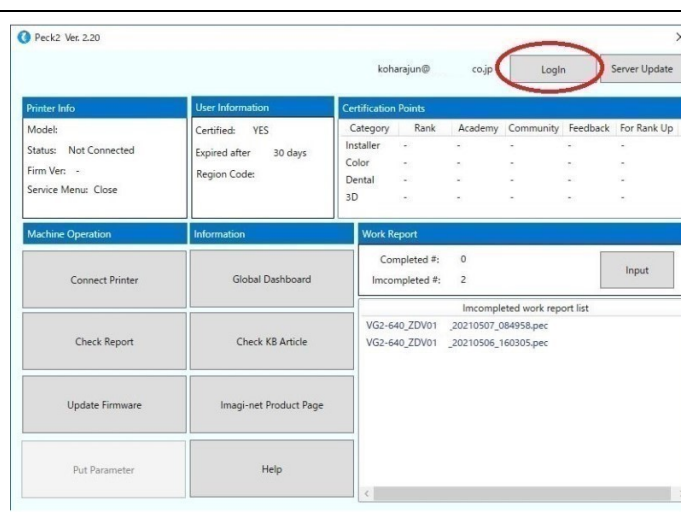
Step 4 / 13

Detail1: Start Peck2.



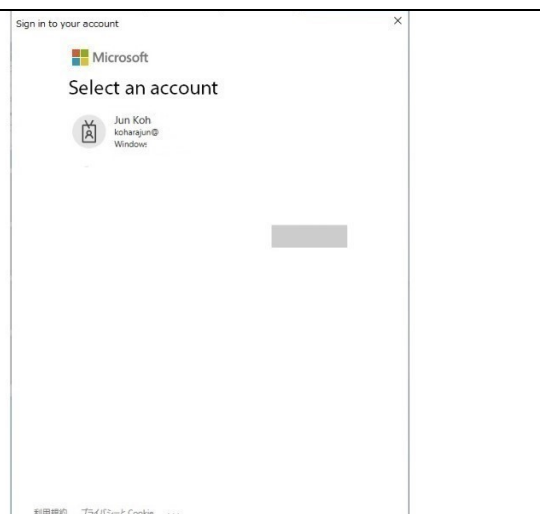
Step 5 / 13

Detail2: Click the [Login] button.



Step 6 / 13

Detail3: Login with your Imagi-net ID.



Step 7 / 13

Detail4: Click the [Connect Printer] button.

Peck2 Ver 2.20

koharjun@ .co.jp Login Server Update

Printer Info		User Information		Certification Points					
Model:		Certified:	YES	Category	Rank	Academy	Community	Feedback	For Rank Up
Status:	Not Connected	Expired after	30 days	Installer	Certified	0	*	*	*
Firm Ver:	-	Region Code:		Color		0	0	0	200
Service Menu:	Close			Dental		0	0	*	200
				3D		0	0	*	200

Machine Operation		Information		Work Report	
Connect Printer	Global Dashboard	Completed #:	0	Input	
Check Report	Check KB Article	Incompleted #:	2		
Update Firmware	Imagi-net Product Page	Incompleted work report list			
Put Parameter	Help	VG2-640_ZDV01 _20210507_084958.pec			
		VG2-640_ZDV01 _20210506_160305.pec			

Step 8 / 13

Detail5: Enter the IP address of the machine you would like to connect to.

Peck2 Ver 2.20

koharjun@ .co.jp Login Server Update

Printer Info		User Information		Certification Points					
Model:		Certified:	YES	Category	Rank	Academy	Community	Feedback	For Rank Up
ConnectPrinter		Expired after	30 days	Installer	Certified	0	*	*	*
Select:	VG2-640 11.129.52			Color		0	0	0	200
Input IP Address:				Dental		0	0	*	200
Connect	Close			3D		0	0	*	200

Machine Operation		Information		Work Report	
Connect Printer	Global Dashboard	Completed #:	0	Input	
Check Report	Check KB Article	Incompleted #:	2		
Update Firmware	Imagi-net Product Page	Incompleted work report list			
Put Parameter	Help	VG2-640_ZDV01 _20210507_084958.pec			
		VG2-640_ZDV01 _20210506_160305.pec			

Step 9 / 13

Detail6: The printer information will appear in the [Printer Info] section of the Peck2 main screen, confirming that it is connected to the machine.

Peck2 Ver 2.20

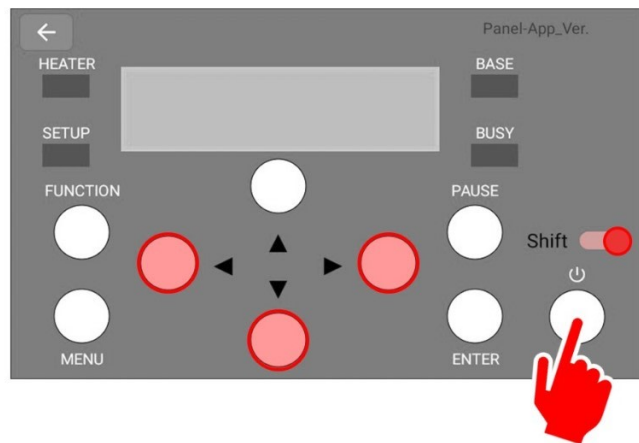
koharjun@ .co.jp Login Server Update

Printer Info		User Information		Certification Points					
Model:	VG2-640_ZDV01	Certified:	YES	Category	Rank	Academy	Community	Feedback	For Rank Up
Status:	UnSetup	Expired after	30 days	Installer	Certified	0	*	*	*
Firm Ver:	2.00			Color		0	0	0	200
Service Menu:	Open			Dental		0	0	*	200
				3D		0	0	*	200

Machine Operation		Information		Work Report	
Connect Printer	Global Dashboard	Completed #:	0	Input	
Check Report	Check KB Article	Incompleted #:	2		
Update Firmware	Imagi-net Product Page	Incompleted work report list			
Put Parameter	Help	VG2-640_ZDV01 _20210507_084958.pec			
		VG2-640_ZDV01 _20210506_160305.pec			

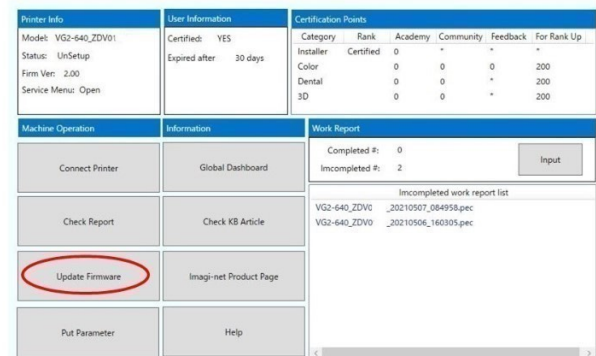
Step 10 / 13

Detail7: Press [Shift]> [□]+[□]+[□]+[Sub Power] of the panel to enter Service Mode. Turn on the [Shift] button enables you to press mutiple buttons at the same time.



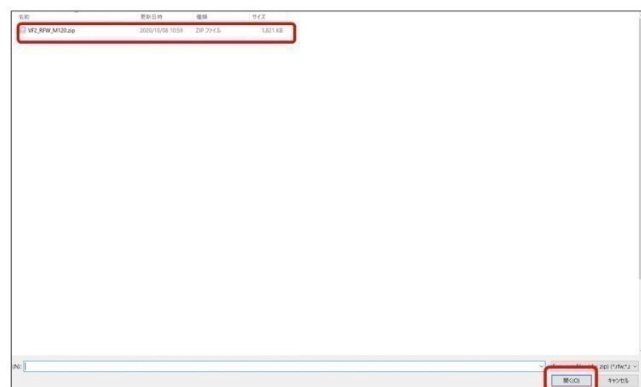
Step 11 / 13

Press the [Update Firmware] button to select the firmware and the firmware will be transferred to the printer.



Step 12 / 13

Detail1: Select the firmware and click the [Open] button to transfer the firmware to the printer.



Step 13 / 13

The machine will automatically enter Firmware Upgrade mode and the sub power will automatically turn off after the upgrade is complete. The upgrade will take at least 5 minutes.

Software Update

Firmware version	1.10
Application version	1.1.8



Now processing.
Do not turn off the power.

Progress... 1/2 (6%)



AP-640 Limit Position Initialization

AP-640 Limit Position Initialization Information

Step 1 / 3

- Set the limit position.
- If the limit position is not correct, the head will not be capped, the print carriage will not be locked, etc. or the print carriage does not lock.

Step 2 / 3

Necessary Tools

一般ツール/General Tool

無し None	
------------	--

特殊治具/Special Tools

無し None	
------------	--

Step 3 / 3

Typical Work Time

作業時間/Typical work time

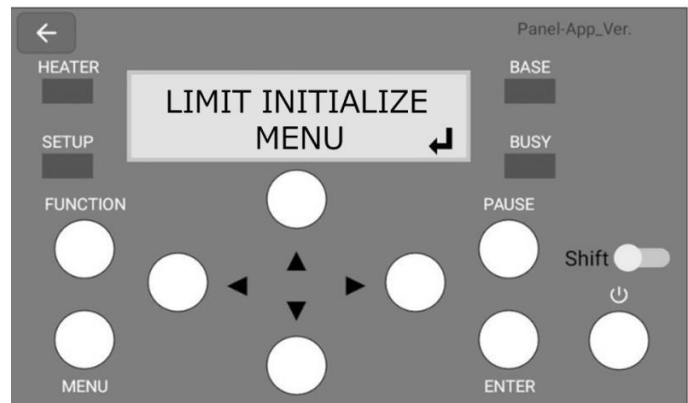
作業内容/Contents of work	時間/Time
リミット位置調整 Limit Position Initialization	3 min.

AP-640 Limit Position Initialization

AP-640 Limit Position Initialization Procedure

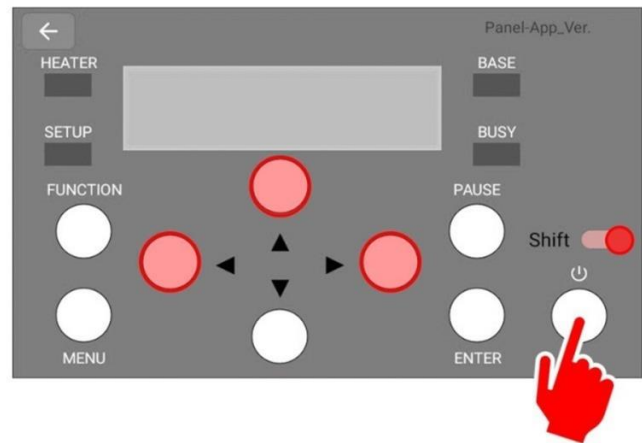
Step 1 / 4

Enter the limit position initialization mode.



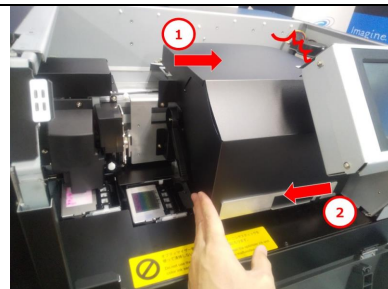
Step 2 / 4

On the Service Mode screen, press [Shift], then press [] + [] + [] keys, then press the sub power switch.

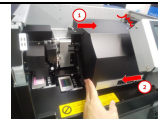


Step 3 / 4

Lock the print head carriage. Confirm that the print head carriage is locked by pushing it lightly to the left to eliminate

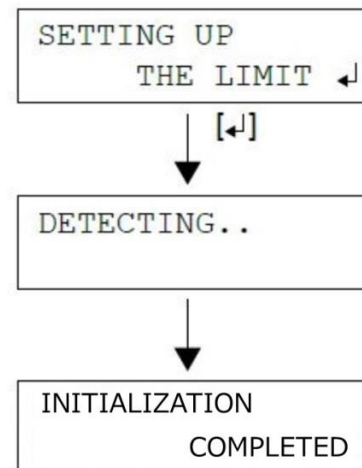


looseness.



Step 4 / 4

Confirm that the print head is capped properly, and press the [ENTER] key. Limit position initialization will start. After initialization is completed, the message is displayed.



AP-640 Belt tension adjustment

AP-640 Belt tension adjustment Information

Step 1 / 4

<Process after work> Perform belt position adjustment.

Step 2 / 4

General Tools

一般ツール/General Tool

プラスドライバー No.2 No.2 Phillips screwdriver	
六角レンチ 3.0mm 3.0mm hexagonal wrench	
スケール (定規) Ruler	

Step 3 / 4

Special Tools

特殊治具/Special Tools

ST-001 TENSION GAUGE 2000GF/2000CN	
---------------------------------------	---

Step 4 / 4

Typical Work Time

作業時間/Typical work time

作業内容/Contents of work	時間/Time
ベルトテンション調整 Belt Tension Adjustment	40 min.

AP-640 Belt tension adjustment

AP-640 Belt tension adjustment Procedure

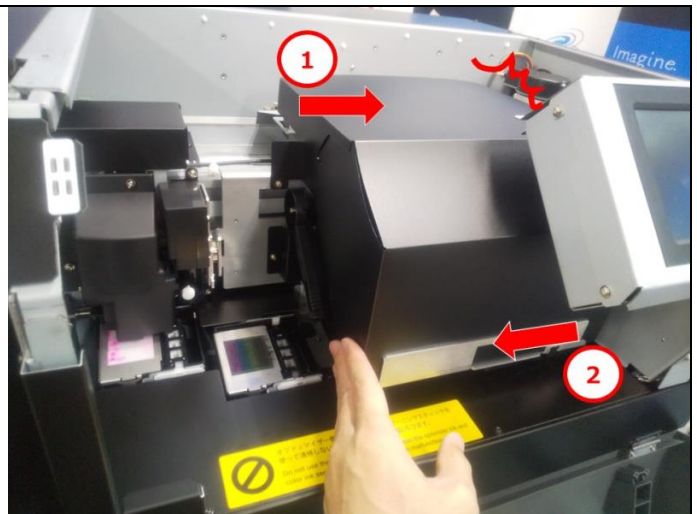
Step 1 / 14

Open the left and right maintenance covers.



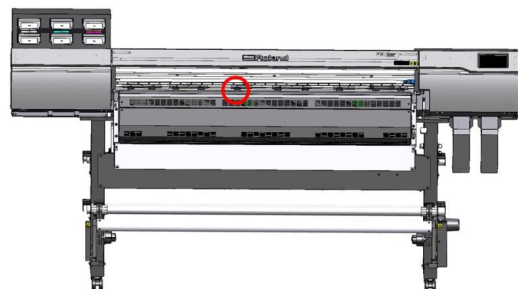
Step 2 / 14

After locking the print head carriage, push the carriage to the left side to check the lock and eliminate play at the same time.



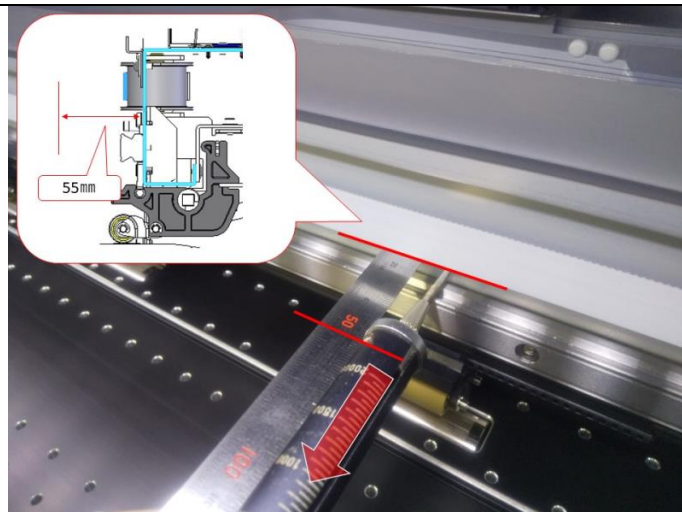
Step 3 / 14

Using a tension gauge, measure the belt tension at the center position of the 6th pinch roll from the right.



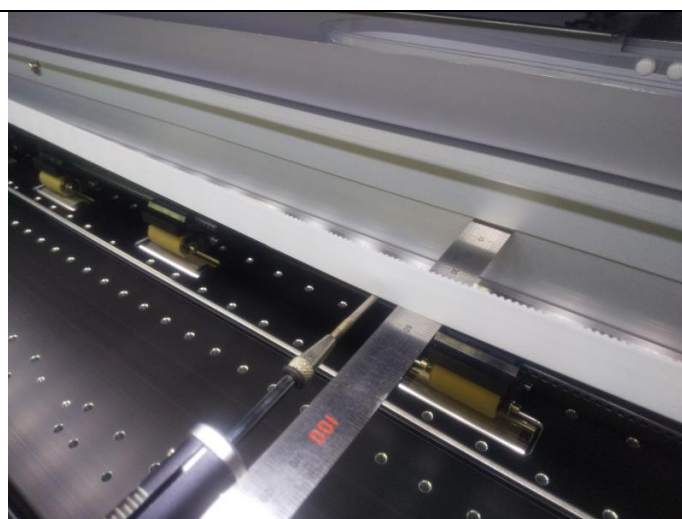
Step 4 / 14

Measure the tension when the underside of the belt is raised 55 mm above the rail mounting plate. If the measured value is within 1.2 kgf to 1.6 kgf, it is considered to be the correct tension.



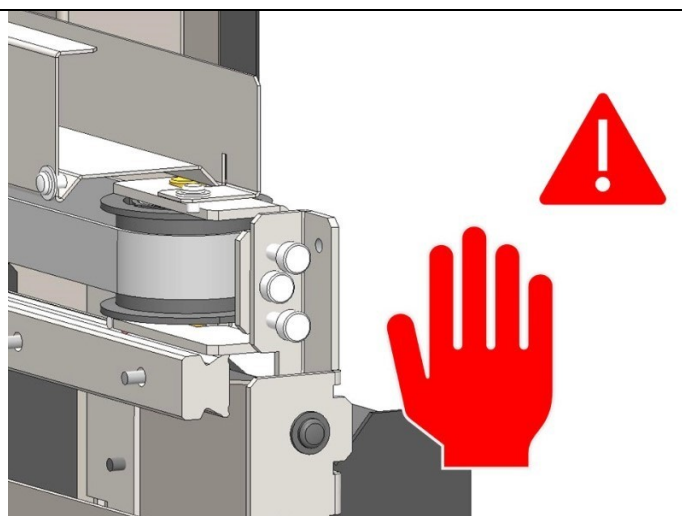
Step 5 / 14

Pull the lower surface of the belt up to 55 mm from the rail mounting plate.



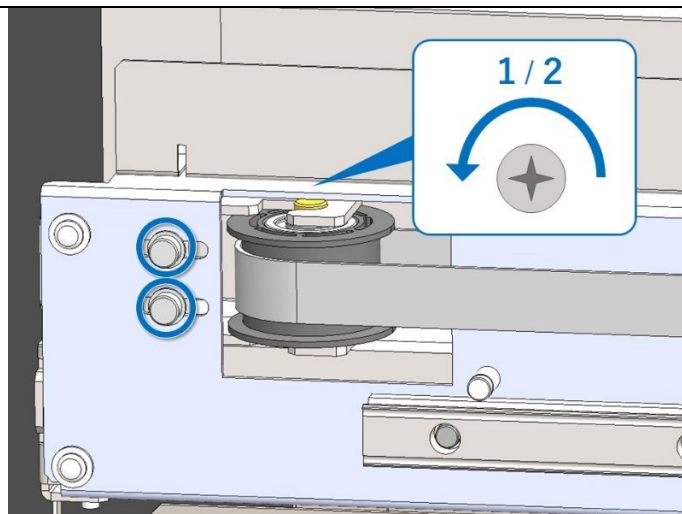
Step 6 / 14

When turning the screw, be careful of surrounding protrusions. Failure to do so may result in hand injury.



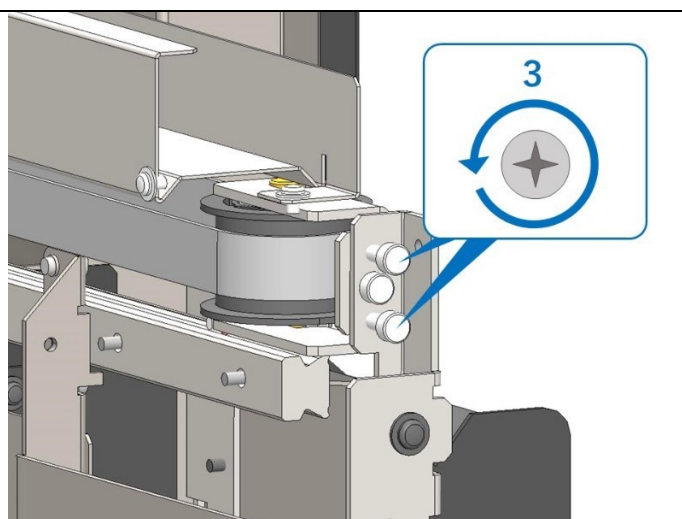
Step 7 / 14

Loosen the two fixing screws at the left end of the belt by about 1/2.



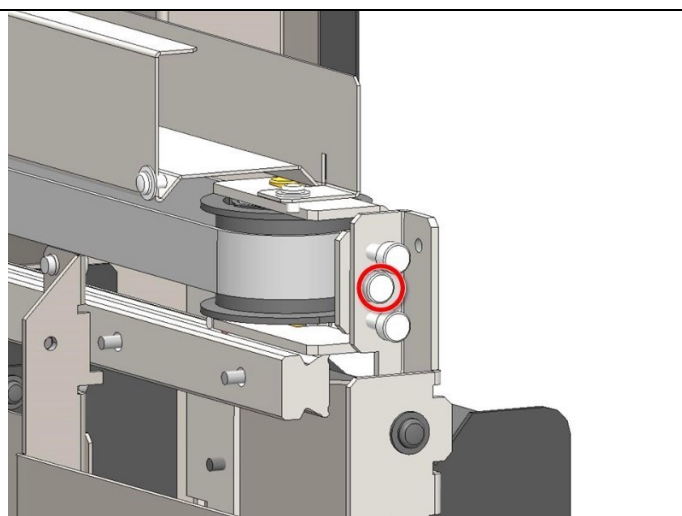
Step 8 / 14

Loosen the adjustment screws (2 places) about 3 times, and make a gap of about 3 mm between the tip of the screws and the idle pulley holder. If they are in contact, further tension cannot be applied.



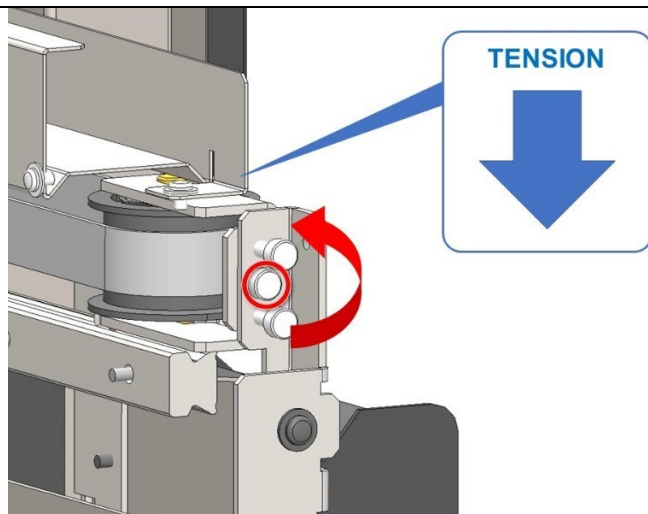
Step 9 / 14

Turn the adjustment screw and adjust the tension gauge value so that it falls within the proper range according to the following.



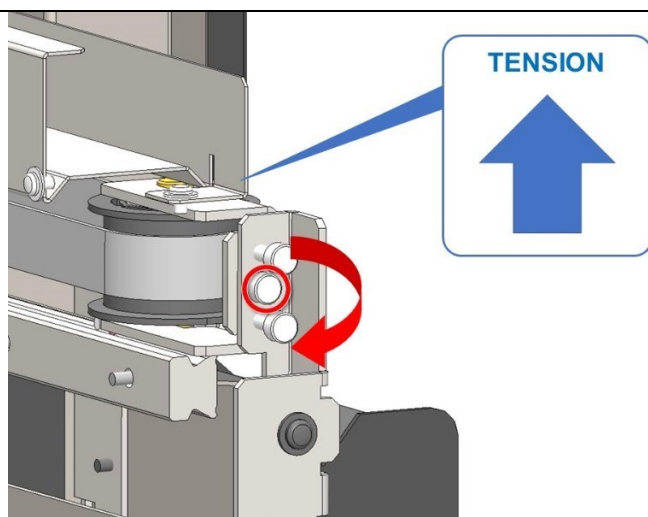
Step 10 / 14

Turn the screw to the left: decrease the tension.



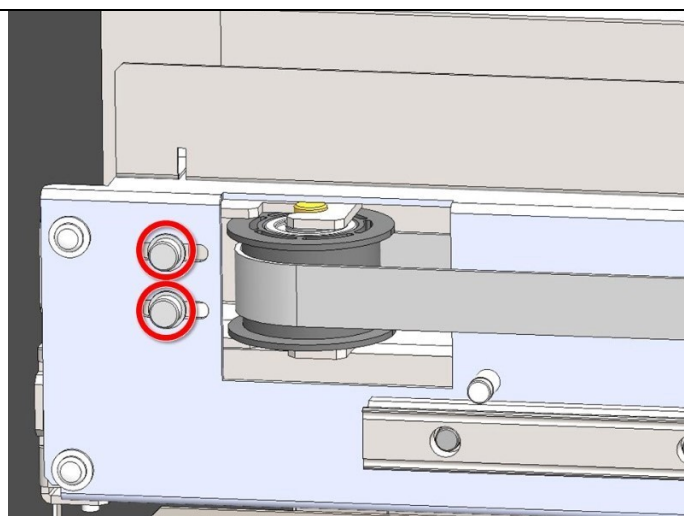
Step 11 / 14

Turn the screw to the right: Increase the tension.



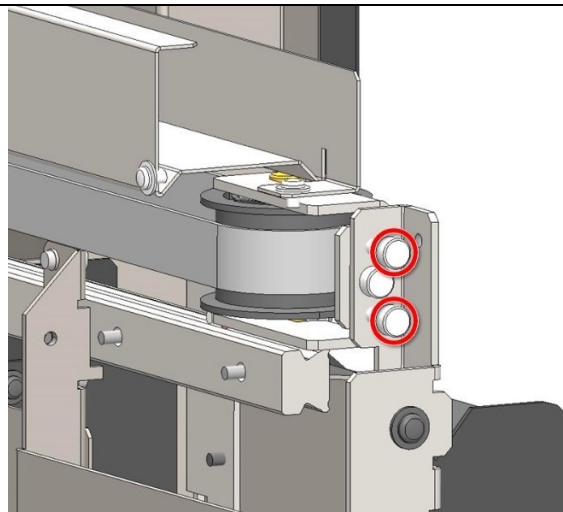
Step 12 / 14

Tighten the fixing screws (2 places) and check again that the tension is within the proper range.



Step 13 / 14

Tighten the adjusting screws (2 places) just enough to lightly contact the idle pulley holder. Note that if the tightening force is too strong, the fixed idle pulley holders may move.



Step 14 / 14

The work is complete. Adjust the belt position.



次の手順

ベルト位置調整

Next Step

Belt Position Adjustment

AP-640 Belt position adjustment

AP-640 Belt position adjustment Information

Step 1 / 9

This is done to prevent belt wear due to strong contact of the belt with the pulley flange. After adjusting the belt tension, check the belt position and adjust if necessary. When adjusting the drive pulley side, the pressure of engagement between the white gear of the drive pulley and the scan motor gear is changed, possibly resulting in teeth breaking on the white gear or failure of the scan motor. After adjusting the belt position, it is necessary to loosen the scan motor fixing screw and retighten it.

Step 2 / 9

General Tools

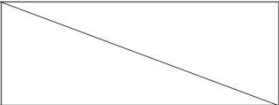
一般ツール/General Tool

プラスドライバー No.2 No.2 Phillips screwdriver	
六角レンチ 3.0 mm 3.0 mm hexagonal wrench	

Step 3 / 9

Special Tools

特殊治具/Special Tools

なし None	
------------	---

Step 4 / 9

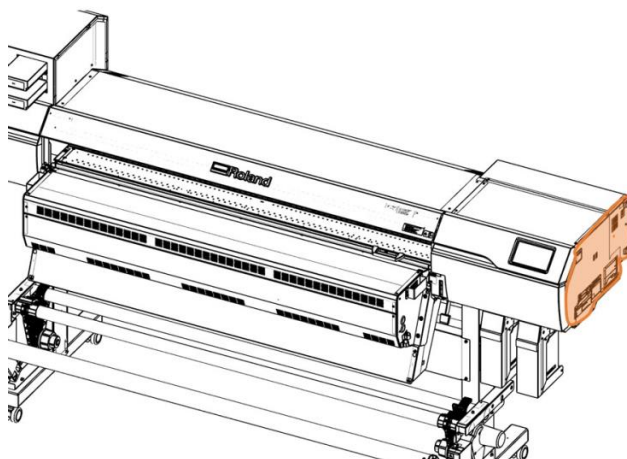
Typical Work Time

作業時間/Typical work time

作業内容/Contents of work	時間/Time
キャリッジベルト位置調整 Carriage Belt Position Adjustment	50 min.

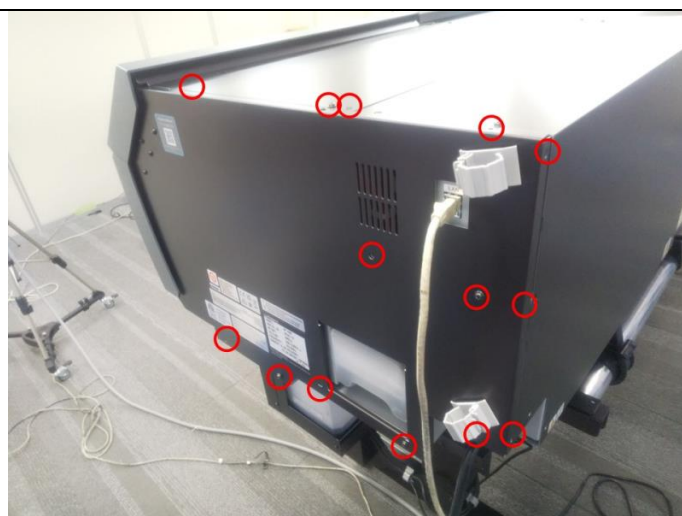
Step 5 / 9

Cover that needs to be removed



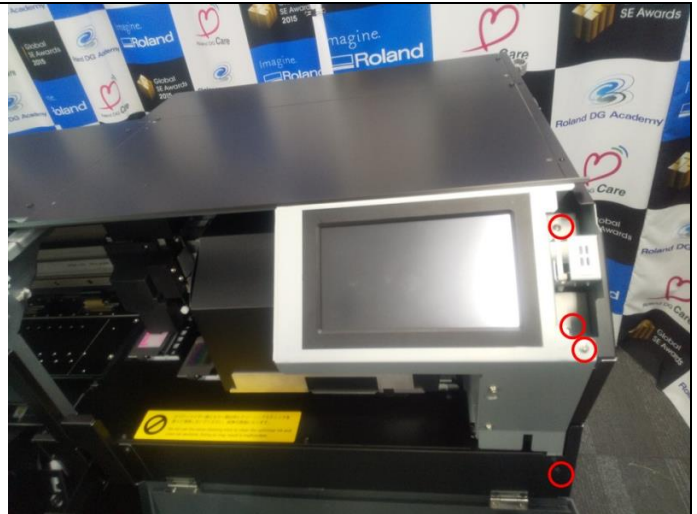
Step 6 / 9

Remove the screws on the right side of the machine.



Step 7 / 9

Remove the screws around the panel.



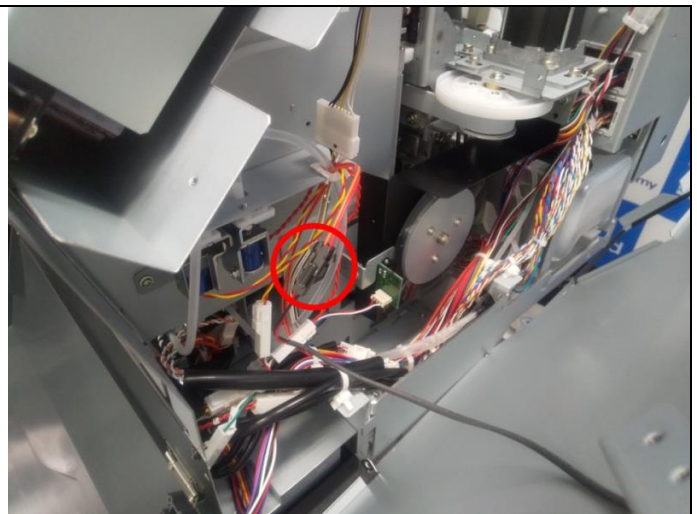
Step 8 / 9

Remove the screws on the front side of the machine.



Step 9 / 9

Remove the cover sensor connector.

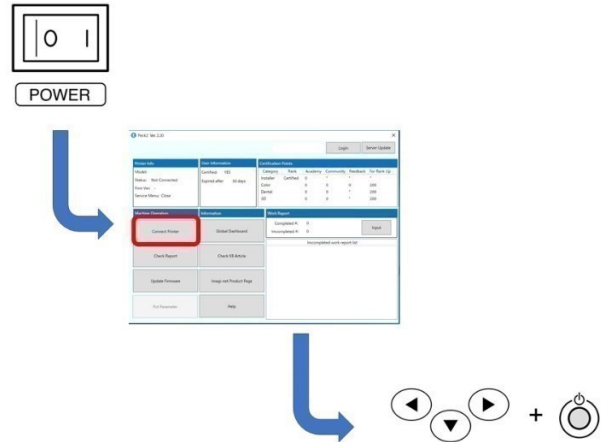


AP-640 Belt position adjustment

AP-640 Belt position adjustment Procedure

Step 1 / 54

Turn on the power and connect the Peck2 to the machine to enter the service mode.



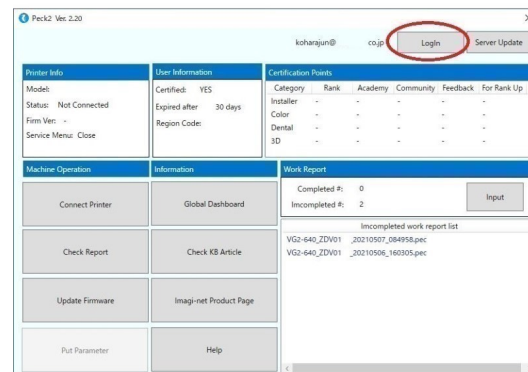
Step 2 / 54

Start Peck2.



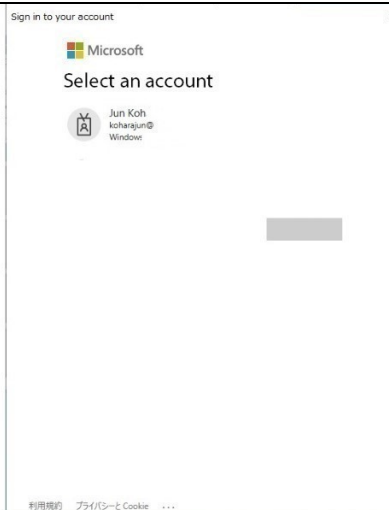
Step 3 / 54

Click the [Login] button.



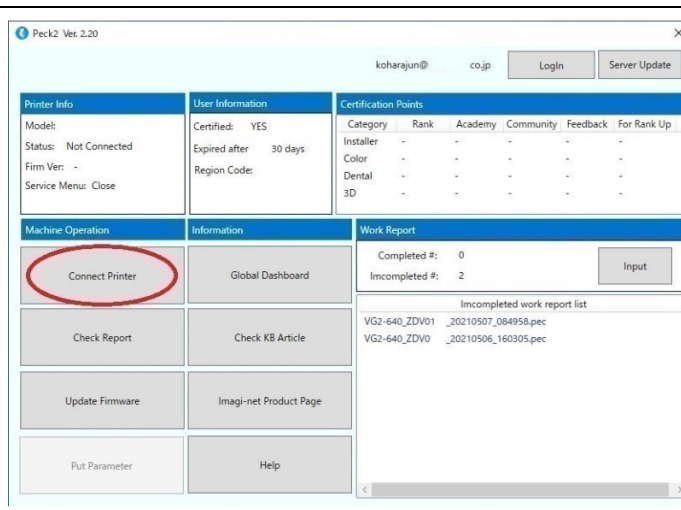
Step 4 / 54

Log in with your Imagi-net ID.



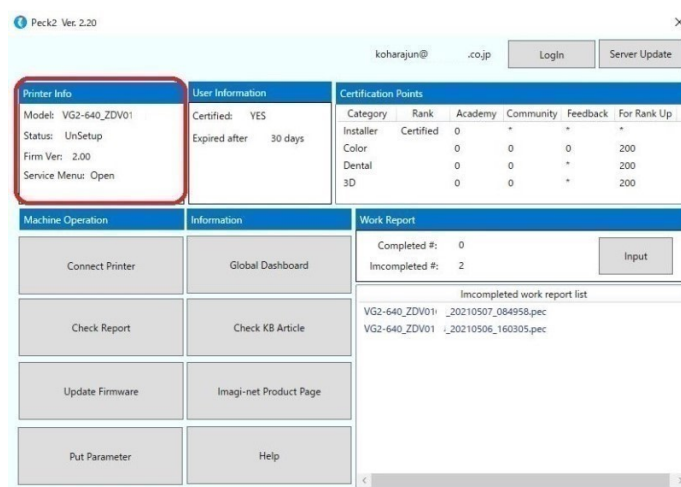
Step 5 / 54

Click [Connect Printer].



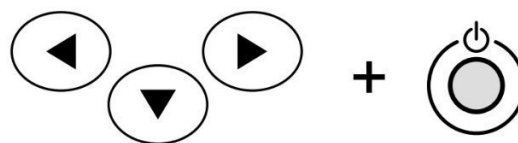
Step 6 / 54

Printer information will be displayed.



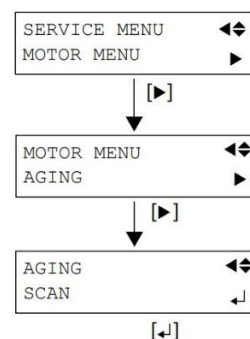
Step 7 / 54

Start Service Mode.



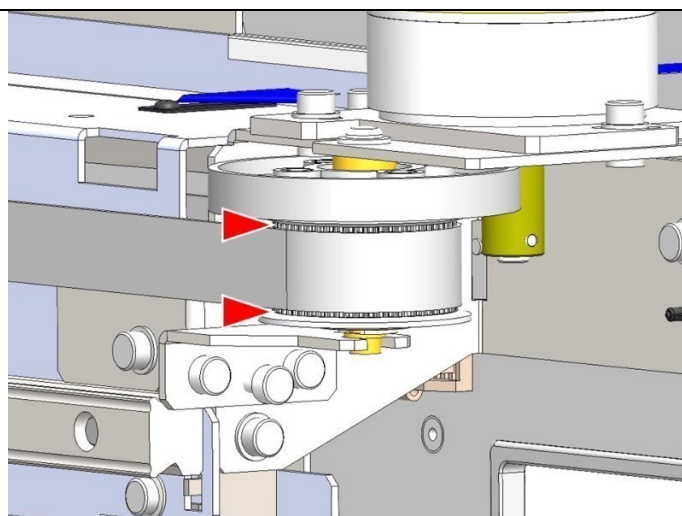
Step 8 / 54

Aging of the scan motor will be performed. Select [MOTOR MENU] > [AGING] > [SCAN] and press [ENTER].



Step 9 / 54

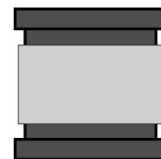
Check the belt position. If the belt is not in excessive contact with the flange of the drive pulley, it is proper. If there is only partial contact, it is considered proper.



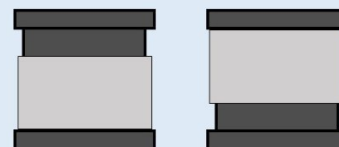
Step 10 / 54

If it is proper, no adjustment is necessary and proceed to the idle pulley side adjustment with performing aging.
If not, proceed to the next step for adjustment.

OK



No good



Step 11 / 54

Press the [ENTER] key to finish aging.

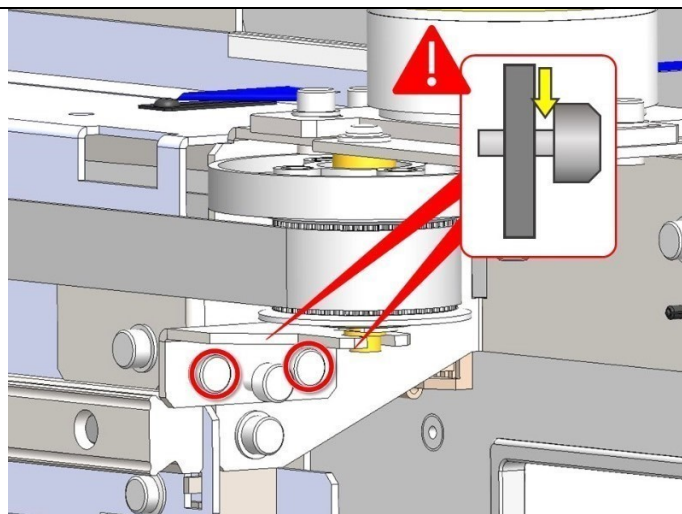
SCAN
NOW AGING



[↵]

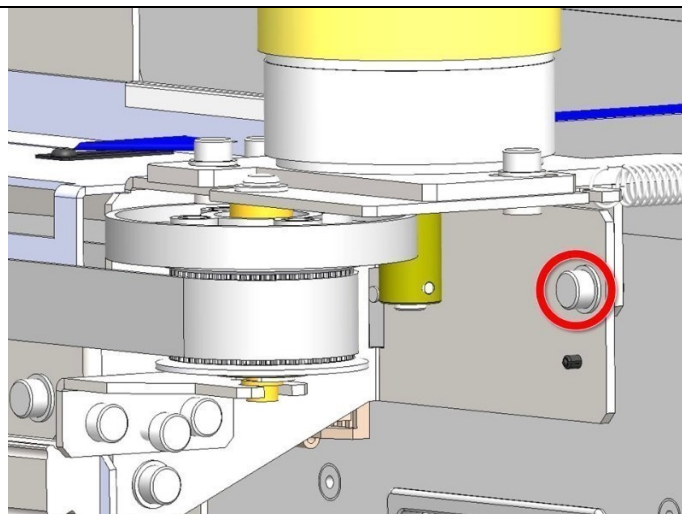
Step 12 / 54

Loosen the two fixing screws at the right end of the belt to the extent that the drive pulley stay shaft and the seat of the fixing screw do not touch.



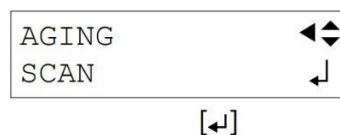
Step 13 / 54

Loosen the fixing screws located at the bottom of the scan motor about half way.



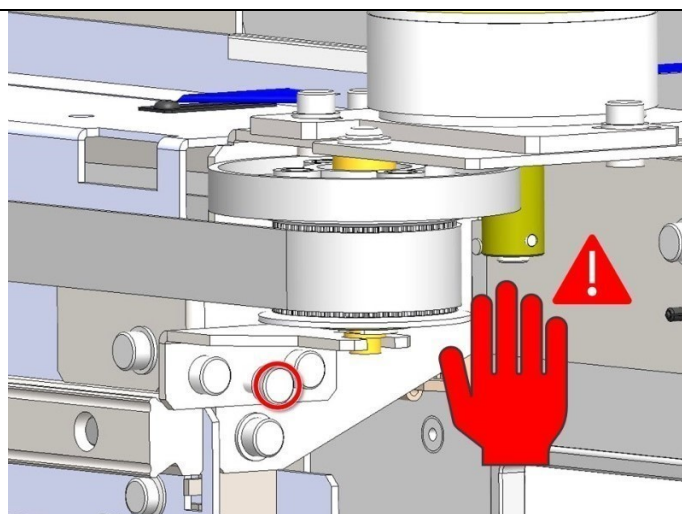
Step 14 / 54

Press the [ENTER] key to perform aging of the scan motor again.



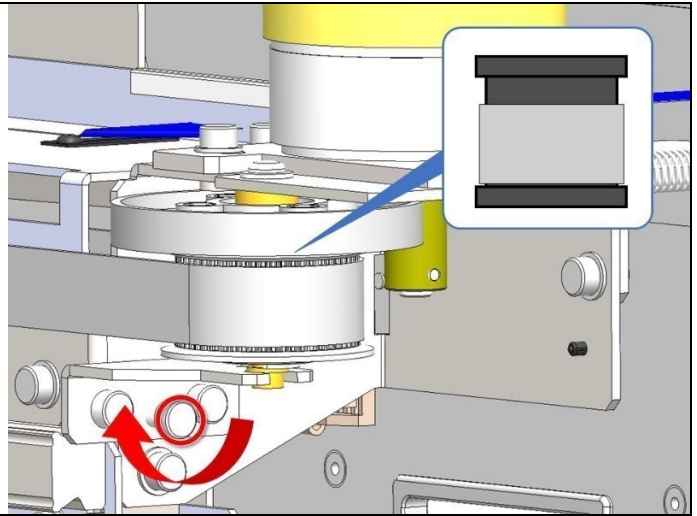
Step 15 / 54

Turn the adjusting screw and adjust the belt position referring to the following. Since the work space is small, be careful not to let your hands touch the rotating pulleys or the belt.



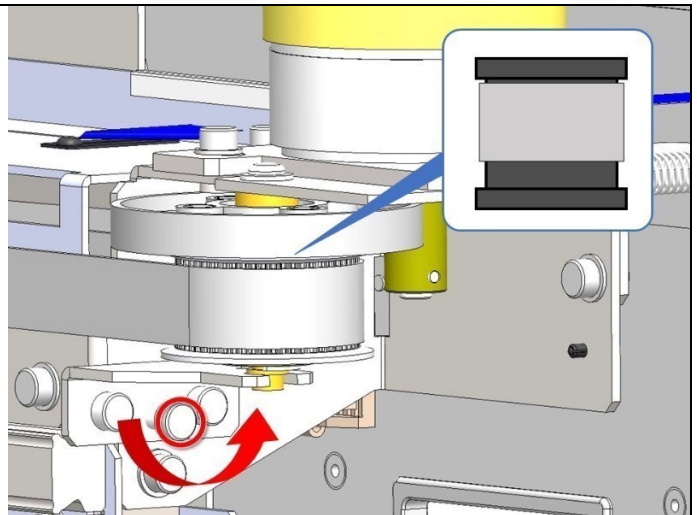
Step 16 / 54

If the belt is positioned toward the bottom of the machine, turn the adjustment screw clockwise (in the direction of tightening) a little at a time.



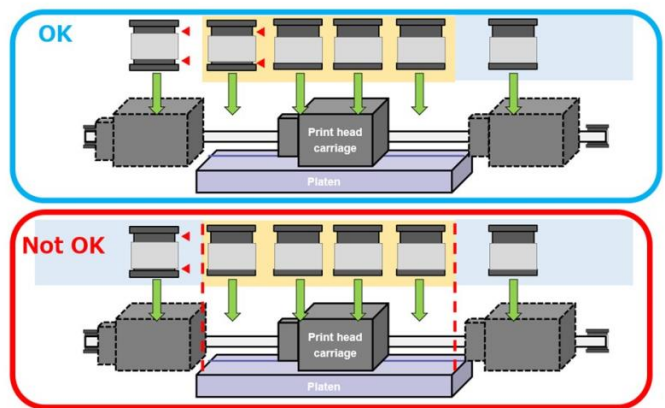
Step 17 / 54

If the belt is near the upper side of the machine, turn the adjustment screw counterclockwise (in the direction of loosening) a little at a time.



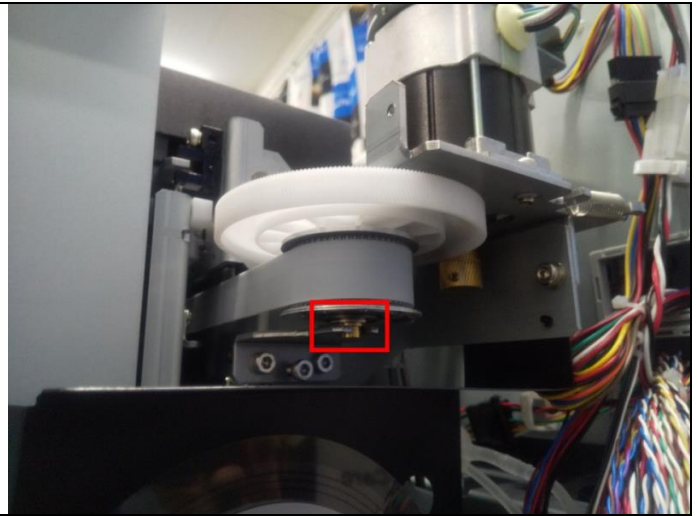
Step 18 / 54

Repeat the adjustment until the belt is not in contact with the pulley flange when the carriage is within the printing area.



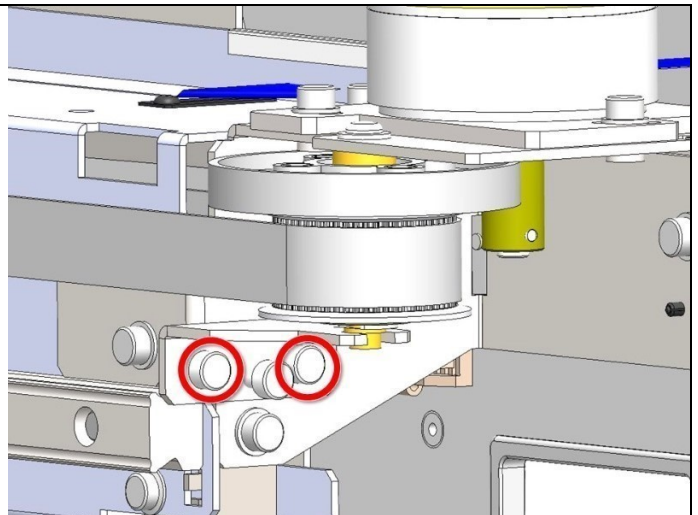
Step 19 / 54

Make sure the shaft is not detached from the stay.



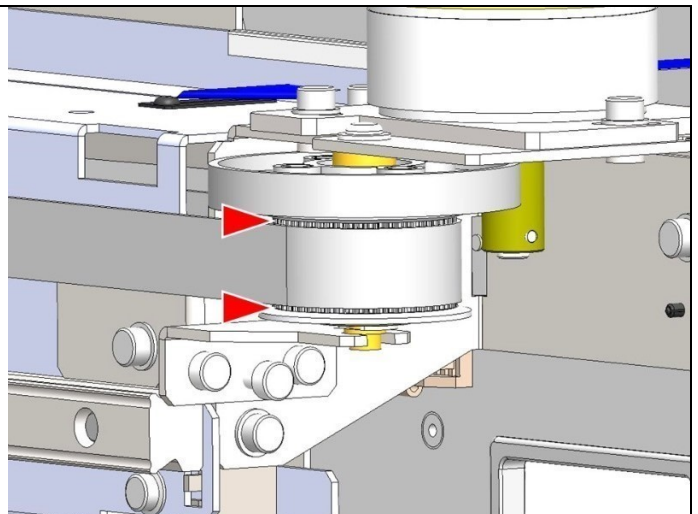
Step 20 / 54

Tighten the two fixing screws. Note that excessive tightening force may cause the adjusted pulley to move.



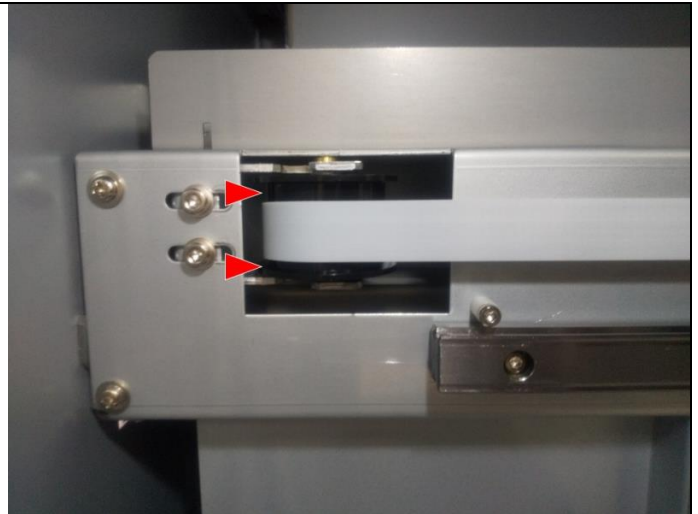
Step 21 / 54

Check for excessive contact of the belt with the pulley flange. If there is excessive contact, perform the adjustment again. If the position is correct, proceed to the next "idle pulley side adjustment" with the aging process still in place.



Step 22 / 54

Check the belt position.



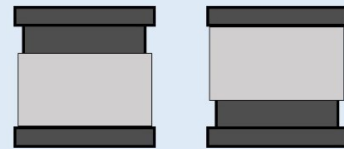
Step 23 / 54

If the belt is not in excessive contact with the idle pulley flange, it is proper. If there is only partial contact, it is considered proper. If it is proper, complete this adjustment. If not proper, perform subsequent adjustments.

OK



No good



Step 24 / 54

Press the [ENTER] key to finish aging.

SCAN

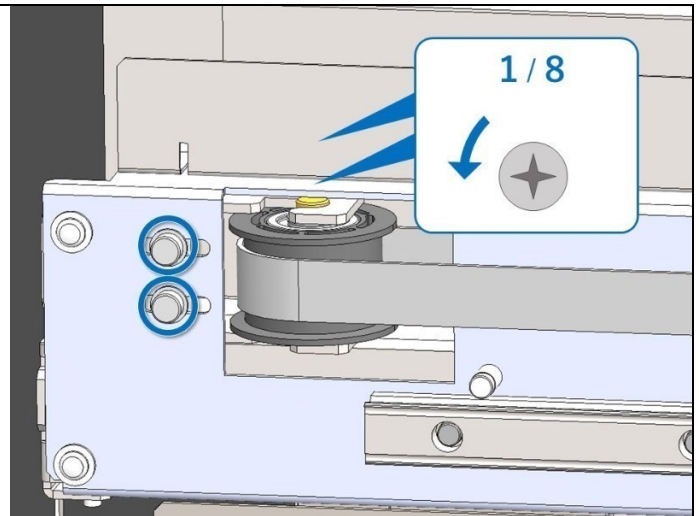
NOW AGING



[↵]

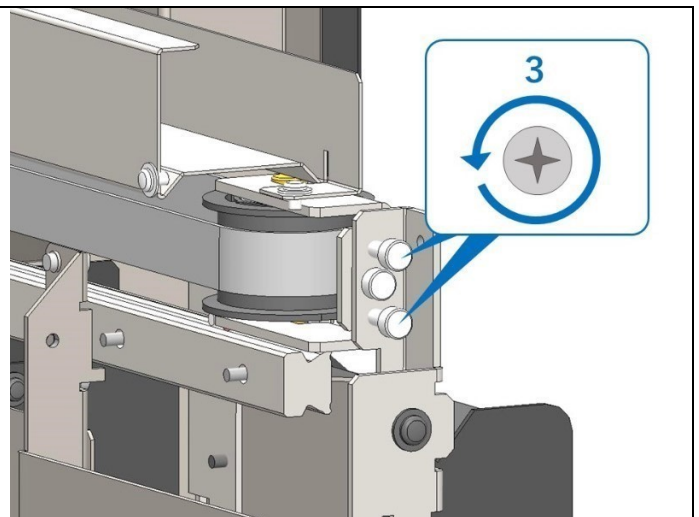
Step 25 / 54

Loosen the two fixing screws at the left end of the belt about 1/8 to 1/4 turn. The larger the amount of loosening the screws, the harder it will be to adjust. When turning the screws, be careful of surrounding protrusions. Failure to do so may result in hand injury.



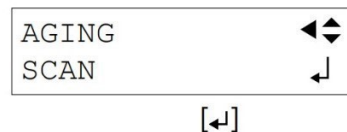
Step 26 / 54

Loosen the adjustment screws (2 positions) 3 times to create a gap between the tip of the screw and the idle pulley holder.



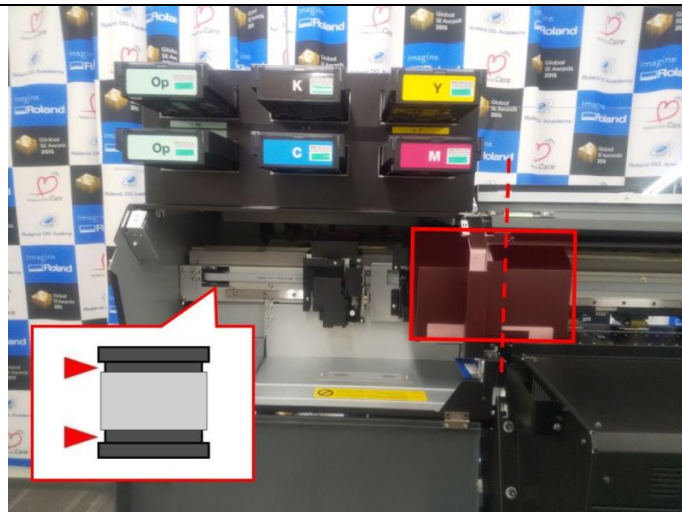
Step 27 / 54

Press the [ENTER] key to perform aging of the scan motor again.



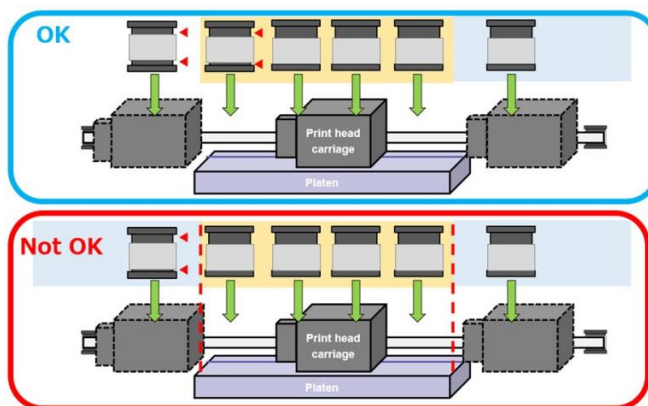
Step 28 / 54

With the print head carriage is on the platen, finish the adjustment if there is any point where the belt does not make contact from the pulley flange. (It is not necessary that the belt is always away from the flange.)



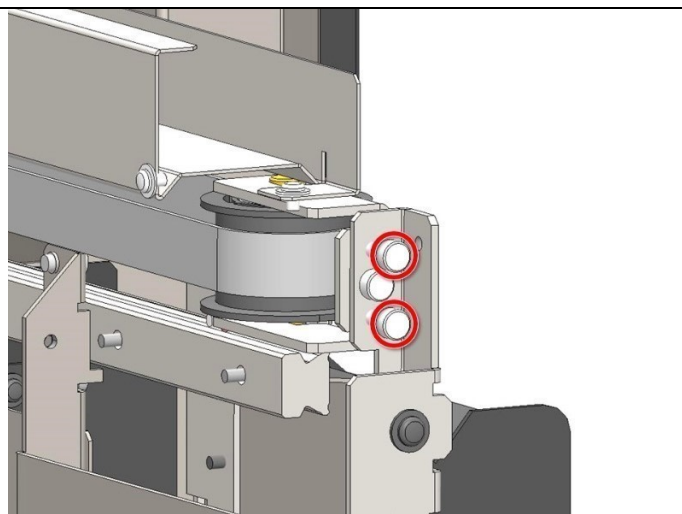
Step 29 / 54

Reference



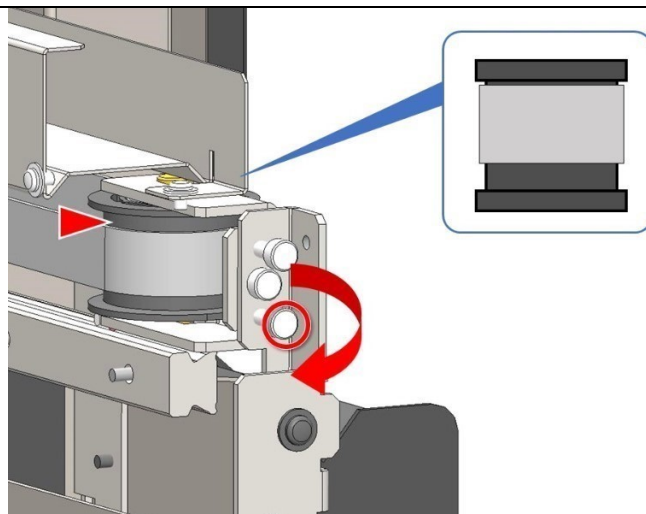
Step 30 / 54

Adjust the belt position by turning the adjusting screw referring to the following. Since there are no grooves on the pulleys, the belt tends to slide up and down, so adjust slowly.



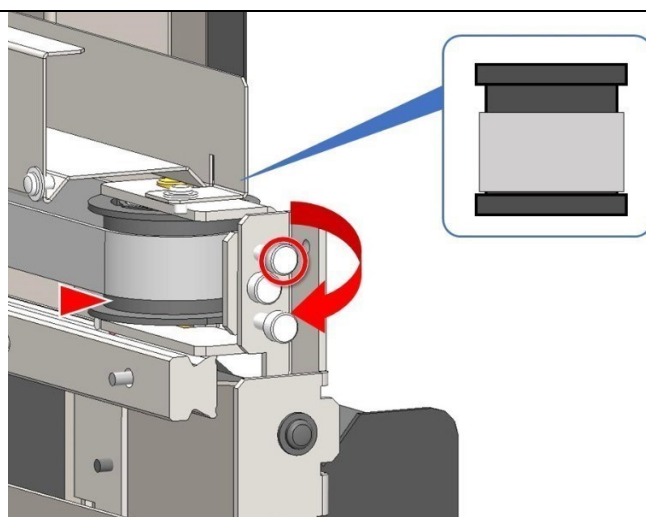
Step 31 / 54

If the belt is close to the upper side of the main unit, turn the adjustment screw (bottom) clockwise a little and press it against the idler pulley holder.



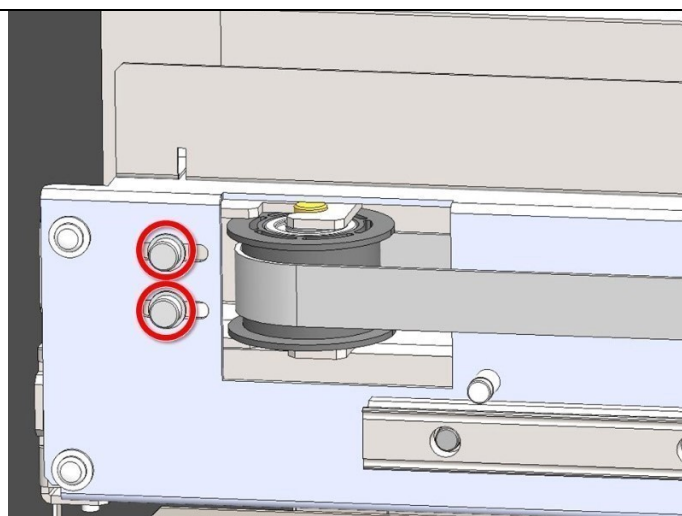
Step 32 / 54

If the belt is on the lower side of the machine, turn the adjusting screw (upper) clockwise a little and press it against the idler pulley holder.



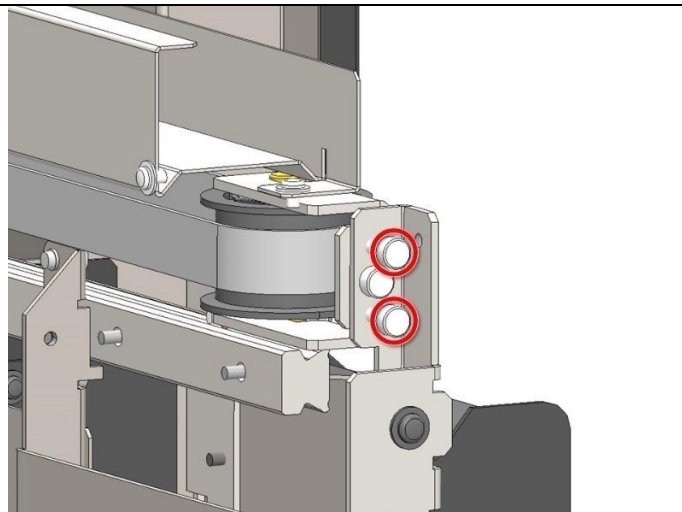
Step 33 / 54

Tighten the two fixing screws.



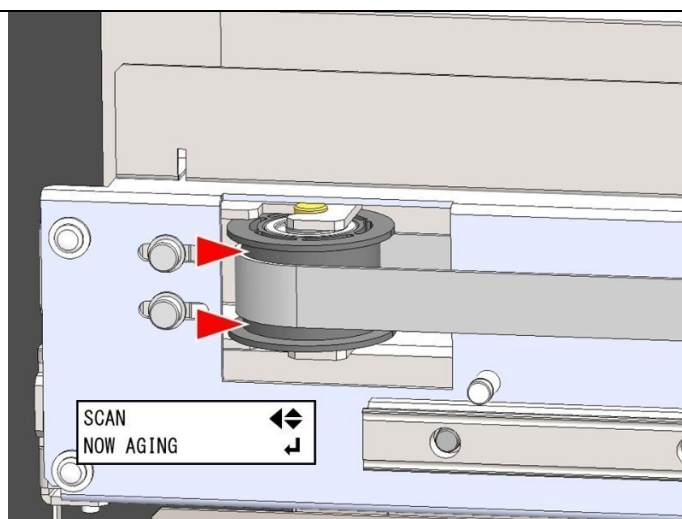
Step 34 / 54

Tighten the one of the adjustment screws that is not in contact with the idle pulley holder to the extent that it lightly contacts the idle pulley holder. If the tightening force is too strong, the idle pulley holder may move.



Step 35 / 54

Press the [ENTER] key to finish aging.



Step 36 / 54

Loosen the scan motor fixing screws (3 places) once, move the carriage left and right, and then retighten the screws in sequence.



Step 37 / 54

Loosen the fixing screws (3 places) of the scan motor once.



Step 38 / 54

Move the carriage left and right by hand to confirm that the gears are engaged. Do not use aging for this checking process.



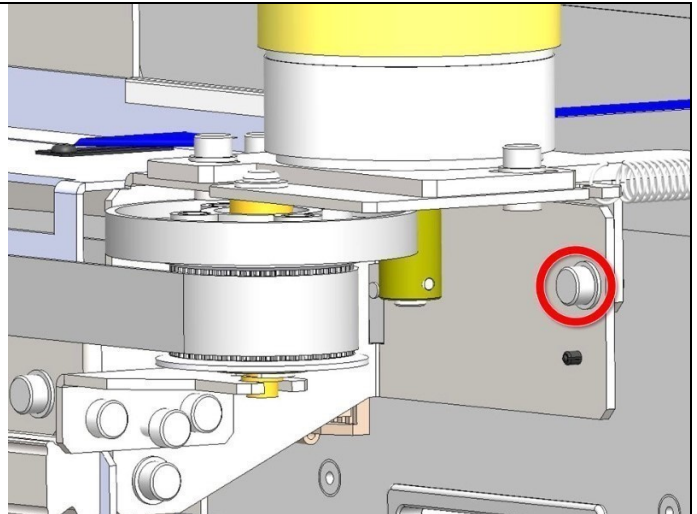
Step 39 / 54

Tighten the screws as per the order.



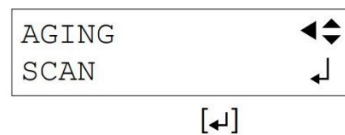
Step 40 / 54

Tighten the fixing screws at the bottom of the scan motor.



Step 41 / 54

Press the [ENTER] key and again perform the aging of the scan motor. If the belt is not in excessive contact with the idle pulley flange, it is proper, so finish this belt position adjustment.



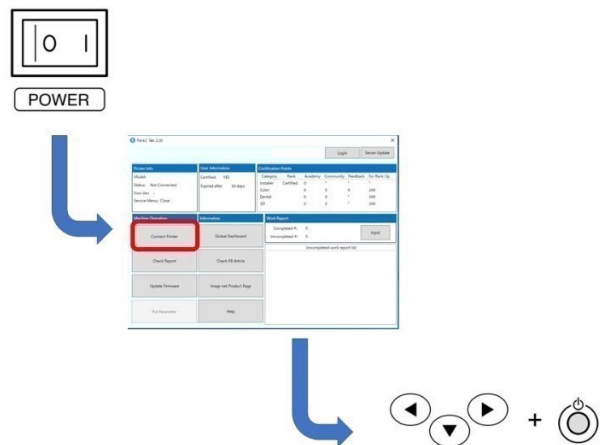
Step 42 / 54

Attach the cover that was removed.



Step 43 / 54

Turn on the power, connect the Peck2 to the machine, and enter the service mode.



Step 44 / 54

Connect the power cable and turn on the power.



Step 45 / 54

Start Peck2.



Step 46 / 54

Click the [Login] button.

Peck2 Ver 2.20

koharjun@ co.jp Login Server Update

Printer Info	User Information	Certification Points
Model:	Certified: YES	Category Rank Academy Community Feedback For Rank Up
Status: Not Connected	Expired after 30 days	Installer - - - - -
Firm Ver: -	Region Code:	Color - - - - -
Service Menu: Close		Dental - - - - -
		3D - - - - -

Machine Operation	Information	Work Report
Connect Printer	Global Dashboard	Completed #: 0 Incomplete #: 2 Input
Check Report	Check KB Article	Imcompleted work report list
Update Firmware	Imagi-net Product Page	VG2-640_ZDV01 _20210507_084958.pec VG2-640_ZDV01 _20210506_160305.pec
Put Parameter	Help	

Step 47 / 54

Login with your Imagi-net ID.

Sign in to your account

Microsoft

Select an account

Jun Koh koharjun@ Windows

利用規約 プライバシーとCookie ...

Step 48 / 54

Click the [Connect Printer] button.

Peck2 Ver 2.20

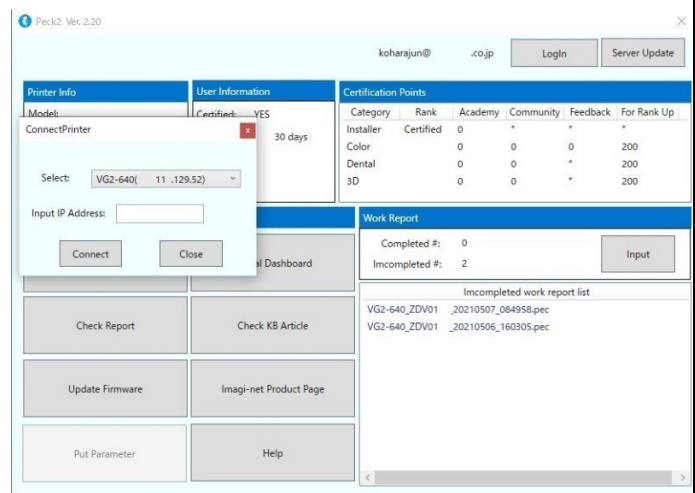
koharjun@ co.jp Login Server Update

Printer Info	User Information	Certification Points
Model:	Certified: YES	Category Rank Academy Community Feedback For Rank Up
Status: Not Connected	Expired after 30 days	Installer - - - - -
Firm Ver: -	Region Code:	Color - - - - -
Service Menu: Close		Dental - - - - -
		3D - - - - -

Machine Operation	Information	Work Report
Connect Printer	Global Dashboard	Completed #: 0 Incomplete #: 2 Input
Check Report	Check KB Article	Imcompleted work report list
Update Firmware	Imagi-net Product Page	VG2-640_ZDV01 _20210507_084958.pec VG2-640_ZDV01 _20210506_160305.pec
Put Parameter	Help	

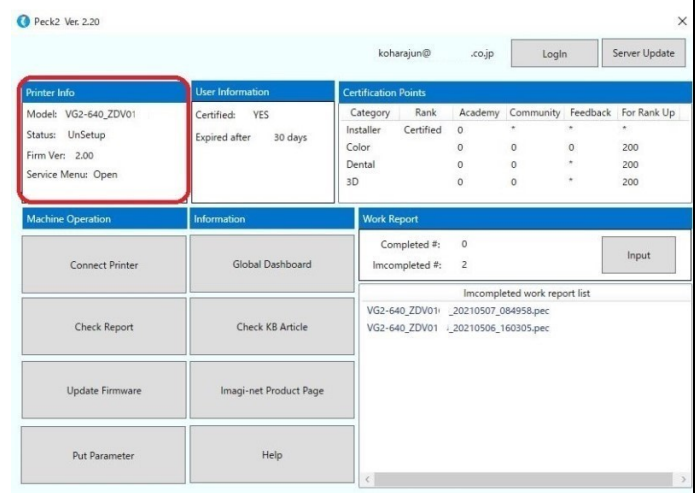
Step 49 / 54

Enter the IP address of the printer you would like to connect to.



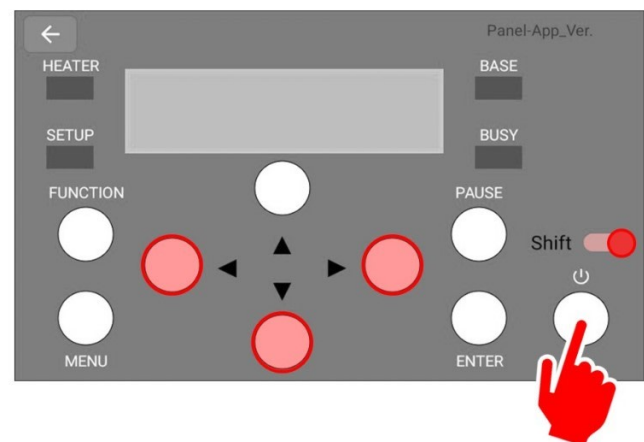
Step 50 / 54

When the printer is connected, the printer information will be displayed in [Printer Info].



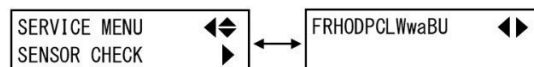
Step 51 / 54

Press [Shift]> []+[]+[]+[Sub Power] on the panel to enter the service mode. By turning on the [Shift] button, the multiple buttons can be pressed at the same time.



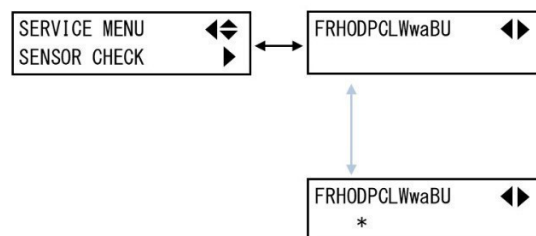
Step 52 / 54

Select [SERVICE MENU] > [SENSOR CHECK] and check if the cover sensor is responding properly.



Step 53 / 54

Check the display of * under the monitor display "D" and make adjustments if indicated.



Step 54 / 54

Loosen the screw and adjust the cover sensor back and forth.



AP-640 Linear Encoder Position Setting

AP-640 Linear Encoder Position Setting Information

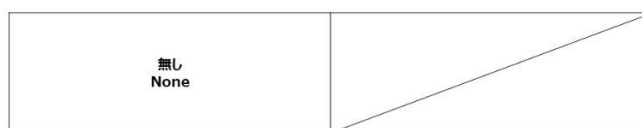
Step 1 / 3

[Details] This adjustment is for checking reading by the linear encoder and for calibrating encoder expansion/contraction caused by the operation environment. This operation is required when the limit sensor, encoder scale or encoder sensor is replaced or the position is adjusted.

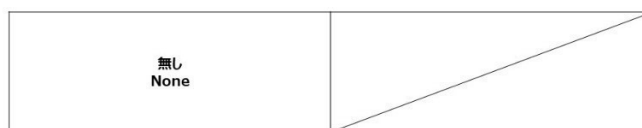
Step 2 / 3

Necessary Tools

一般ツール/General Tool



特殊治具/Special Tools



Step 3 / 3

Typical Work Time

作業時間/Typical work time

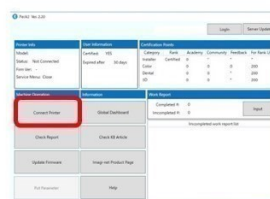
作業内容/Contents of work	時間/Time
リニアエンコーダー位置設定 Linear encoder setup	5 min.

AP-640 Linear Encoder Position Setting

AP-640 Linear Encoder Position Setting Procedure

Step 1 / 12

Connect Peck2 to the machine and enter Service Mode.



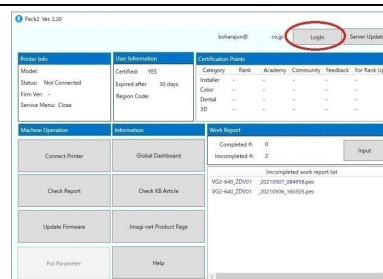
Step 2 / 12

Start Peck2.



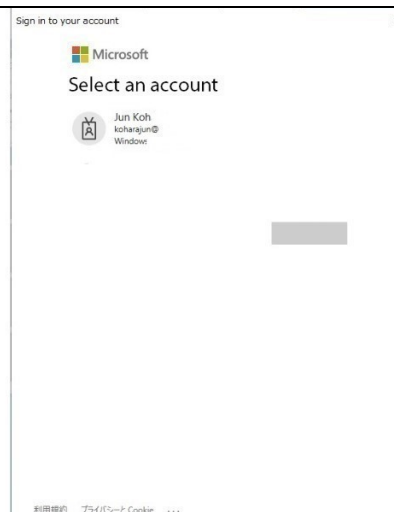
Step 3 / 12

Click on the [Login] button.



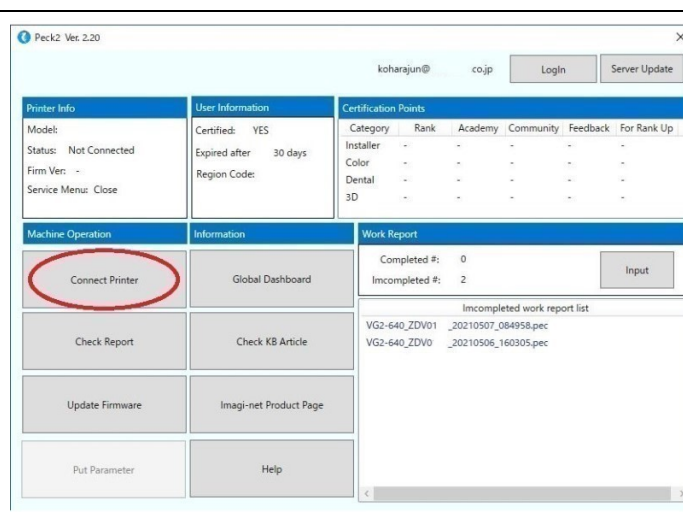
Step 4 / 12

Login with your Imagi-net ID.



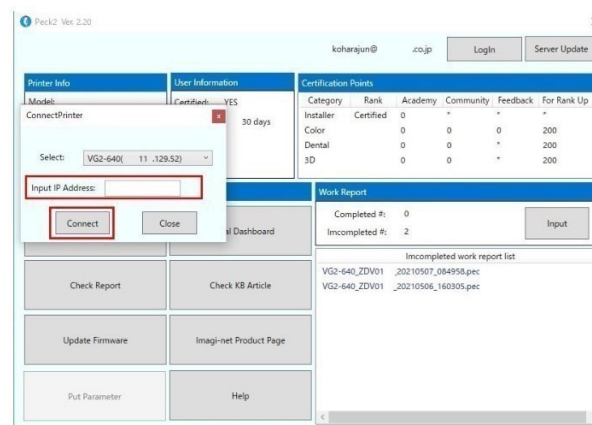
Step 5 / 12

Click on the [Connect Printer] button.



Step 6 / 12

Enter the IP address of the printer you would like to connect to.



Step 7 / 12

When the printer is connected, printer information will be displayed in [Printer Info].

Peck2 Ver. 2.20

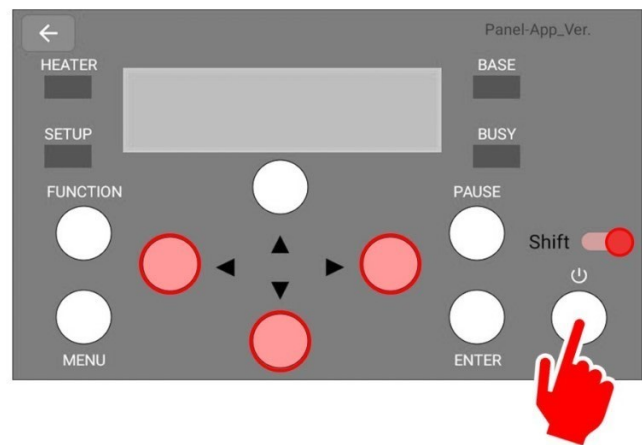
koharjun@ .co.jp Login Server Update

Printer Info		User Information		Certification Points				
Model: VG2-640_ZDV01	Certified: YES	Category	Rank	Academy	Community	Feedback	For Rank Up	
Status: UnSetup	Expired after: 30 days	Installer	Certified	0	*	*	*	
Firm Ver: 2.00		Color	0	0	0	200		
Service Menu: Open		Dental	0	0	*	200		
		3D	0	0	*	200		

Machine-Operation		Information		Work Report	
Connect Printer	Global Dashboard	Completed #:	0		
Check Report	Check KB Article	Incompleted #:	2	Input	
Update Firmware	Imagi-net Product Page	Incompleted work report list			
Put Parameter	Help	VG2-640_ZDV01 _20210507_084958.pec			
		VG2-640_ZDV01 _20210506_160305.pec			

Step 8 / 12

Press [Shift]> [□]+[□]+[□]+[Sub Power] on the panel to enter Service Mode. By turning the [Shift] button ON, multiple buttons can be pressed at the same time.



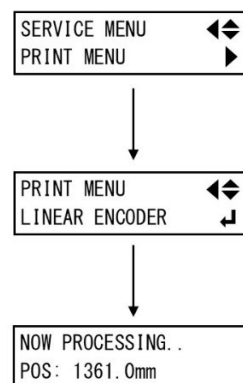
Step 9 / 12

Remove the media if attached and lower the pinch roller.



Step 10 / 12

Select [SERVICE MENU] > [PRINT MENU]
> [LINEAR ENCODER] and press [ENTER].



Step 11 / 12

When exiting the menu, one of the following messages will be displayed. If the message is [SETUP COMPLETED], the program terminates normally. If the message is one of the following, [NG:EXTEND] [NG:SHLINK] [NG:GO BACK] [NG:BLANK ****. *mm], identify the cause of the problem and take measures before readjustment.

確認/confirm

LINEAR ENCODER SETUP COMPLETED	作業終了 Work done
LINEAR ENCODER SETUP FAILED	再調整 Readjustment

Step 12 / 12

Check for messages other than [SETUP FAILED].

確認/Confirm

エンコーダスケールの汚れ、傷 Dirt/scratches on the encoder scale
エンコーダセンサーの汚れ、破損 Dirt/scratches on the encoder sensor
リミット位置異常 Limit position initialization error
スキャンモーターギアとドライブギアとのバックラッシュ Backlash of the scan motor gear and the drive gear
キャリッジとベルトとの固定 Fastening of the carriage and the carriage belt
ケーブル接触不良 Bad cable contact

AP-640 Grid encoder check

AP-640 Grid encoder check Information

Step 1 / 2

The grit encoder check verifies that the grit encoder is functioning properly. Perform this work when replacing the grit encoder, feed motor, or grit encoder board. Note that the grid roller operates during the check.

Step 2 / 2

Typical Work Time

作業時間/Typical work time

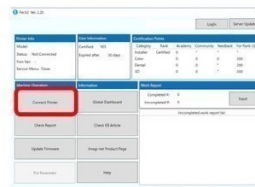
作業内容/Contents of work	時間/Time
グリッドエンコーダチェック Grid Encoder Check	1 min.

AP-640 Grid encoder check

AP-640 Grid encoder check Procedure

Step 1 / 13

Turn on the power and connect Peck2 to the machine to enter the service mode.



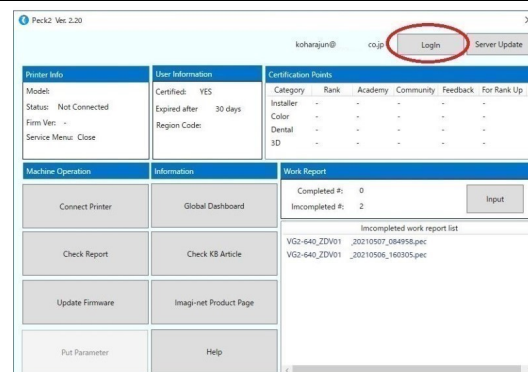
Step 2 / 13

Start Peck2.



Step 3 / 13

Click the [Login] button.

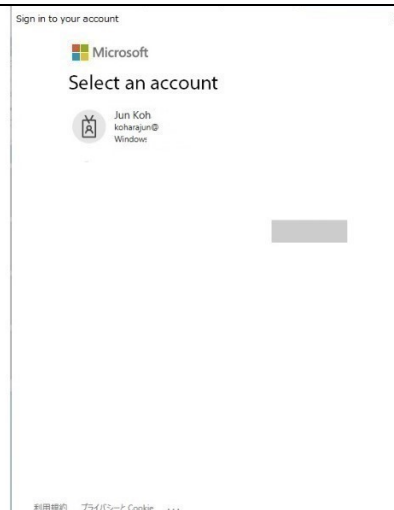


Tuesday, July 1, 2025 2:34 PM

Language: en

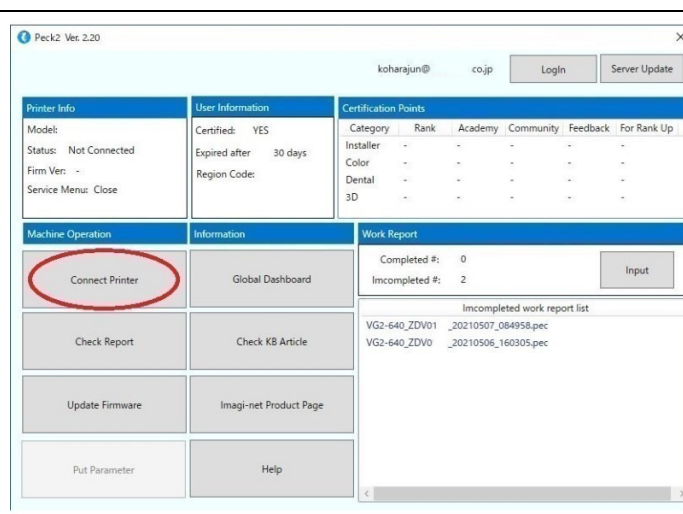
Step 4 / 13

Login with your Imagi-net ID.



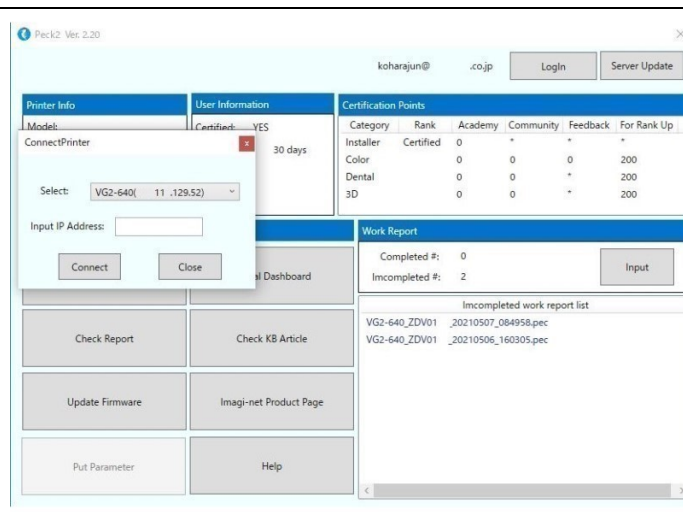
Step 5 / 13

Click the [Connect Printer] button.



Step 6 / 13

Enter the IP address of the printer you would like to connect to.



Step 7 / 13

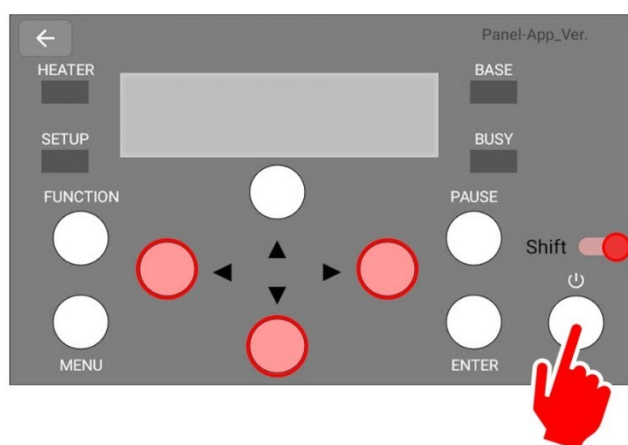
When the printer is connected, the printer information will be displayed in [Printer Info].

Printer Info		User Information		Certification Points				
Model:	VG2-640_ZDV01	Certified:	YES	Category	Rank	Academy	Community	Feedback
Status:	UnSetup	Expired after:	30 days	Installer	Certified	0	*	*
Firm Ver:	2.00			Color	0	0	0	200
Service Menu:	Open			Dental	0	0	*	200
				3D	0	0	*	200

Machine-Operation		Information		Work Report	
Connect Printer	Global Dashboard	Completed #:	0	Imcompleted #:	2
Check Report	Check KB Article				
Update Firmware	Imagi-net Product Page	Imcompleted work report list			
Put Parameter	Help	VG2-640_ZDV01 _20210507_084958.pec			
		VG2-640_ZDV01 _20210506_160305.pec			

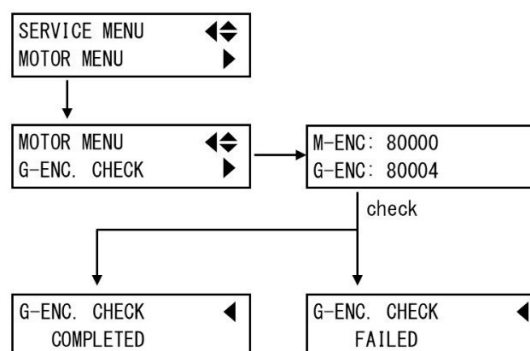
Step 8 / 13

Press [Shift]> [□]+[□]+[□]+[Sub Power] on the panel to enter the service mode. By turning on the [Shift] button, the multiple buttons can be pressed at the same time.



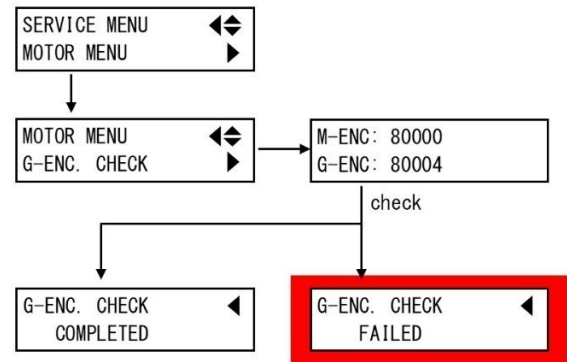
Step 9 / 13

Select [MOTOR MENU] > [G-ENC. CHECK] and press [ENTER]. Confirm that [G-ENC. CHECK COMPLETED] is displayed and that the grit encoder is functioning properly.



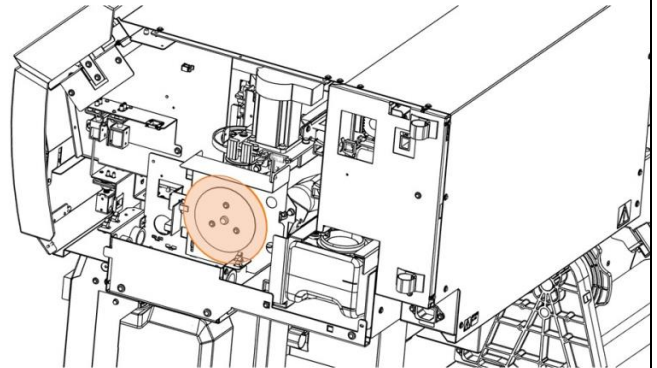
Step 10 / 13

If [G-ENC. CHECK FAILED] is displayed, find the cause and resolve it and check again.



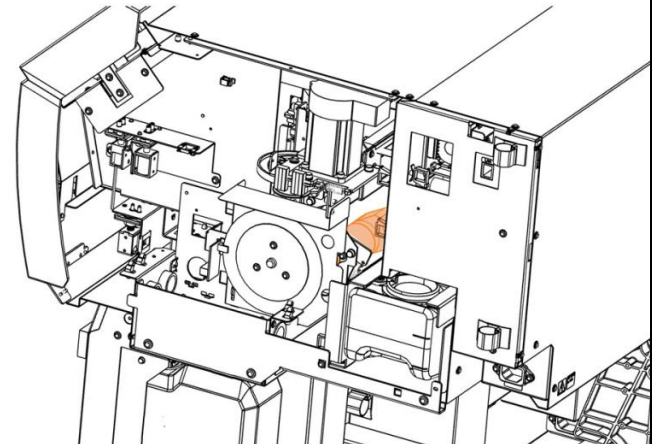
Step 11 / 13

[Check Point 1] Is the grit encoder properly attached?



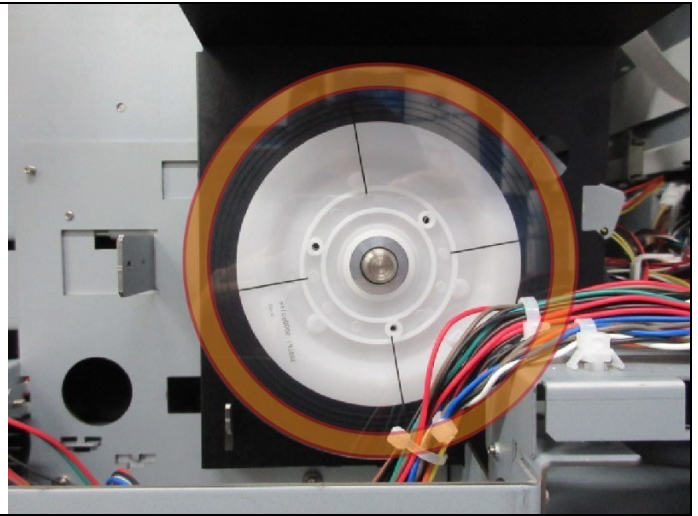
Step 12 / 13

[Check Point 2] Is the feed motor correctly installed?



Step 13 / 13

[Check Point 3] Is the grit encoder free of scratches or dirt?



AP-640 Feed Calibration

AP-640 Feed Calibration Information

Step 1 / 4

- This adjustment is for calibrating the feed amount of media. It allows the media to be fed in proper amount by calibrating the variation in grit roller diameter. Calibration is made based on the value in feeding media [SP-M]. Without proper calibration, it may cause misalignment in the feed amount of media, and it results in the problems such as white banding, D32banding of overlap or the dimension error of print result compared to the original data.
- If SP-M is not available, use solvent PET film with low elasticity.
- Do not use a take-up device for this adjustment.

Step 2 / 4

Necessary Tools. A minimum setup width of 510 mm is required to run a test print.

一般ツール/General Tool

SP-M(マットPET合成紙)
SP-M(Matter-PET artificial paper)

Step 3 / 4

Typical Work Time

作業時間/Typical work time

作業内容/Contents of work	時間/Time
距離補正(送り方向) Feed calibration	15 min.

Step 4 / 4

Typical work time

作業時間/Typical work time

作業内容/Contents of work	時間/Time
ヘッドランクを入力 Input head rank	2 min.
BIAS/VERTICAL調整 BIAS・VERTICAL adjustment	20 min.
M-GAP DEFAULT調整 M-GAP DEFAULT adjustment	5 min.
ホリゾンタル位置調整 Horizontal adjustment	4 min.
日付設定 Date and time setting	3 min.

AP-640 Feed Calibration

AP-640 Feed Calibration Procedure

Step 1 / 44

Connect Peck2 to the machine and enter service mode. Attach SP-M to the machine, and set up.

Peck2 Ver. 2.20

Printer Info

User Information

Certification Points

Model: Status: Not Connected
Firm Ver.: -
Service Menu: Close

Certified: YES
Expired after: 30 days

Region Code:

Category: Rank: Academy: Community: Feedback: For Rank Up

Installer: Certified: 0: -: -: -: -

Color: 0: 0: 0: 0: 200

Dental: 0: 0: -: -: 200

3D: 0: 0: -: -: 200

Machine Operation

Information

Work Report

Connect Printer

Global Dashboard

Completed #: 0
Incomplete #: 0

Check Report

Check KB Article

Completed #: 0
Incomplete #: 0

Update Firmware

Image-net Product Page

Completed #: 0
Incomplete #: 0

Put Parameter

Help

Completed #: 0
Incomplete #: 0

Input

Input

Input

Peck2 Ver. 2.20

Printer Info

User Information

Certification Points

Model: Status: Not Connected
Firm Ver.: -
Service Menu: Close

Certified: YES
Expired after: 30 days

Region Code:

Category: Rank: Academy: Community: Feedback: For Rank Up

Installer: Certified: 0: -: -: -: -

Color: 0: 0: 0: 0: 200

Dental: 0: 0: -: -: 200

3D: 0: 0: -: -: 200

Machine Operation

Information

Work Report

Connect Printer

Global Dashboard

Completed #: 0
Incomplete #: 0

Check Report

Check KB Article

Completed #: 0
Incomplete #: 0

Update Firmware

Image-net Product Page

Completed #: 0
Incomplete #: 0

Put Parameter

Help

Completed #: 0
Incomplete #: 0

Input

Input

Input

Peck2 Ver. 2.20

Printer Info

User Information

Certification Points

Model: Status: Not Connected
Firm Ver.: -
Service Menu: Close

Certified: YES
Expired after: 30 days

Region Code:

Category: Rank: Academy: Community: Feedback: For Rank Up

Installer: Certified: 0: -: -: -: -

Color: 0: 0: 0: 0: 200

Dental: 0: 0: -: -: 200

3D: 0: 0: -: -: 200

Machine Operation

Information

Work Report

Connect Printer

Global Dashboard

Completed #: 0
Incomplete #: 0

Check Report

Check KB Article

Completed #: 0
Incomplete #: 0

Update Firmware

Image-net Product Page

Completed #: 0
Incomplete #: 0

Put Parameter

Help

Completed #: 0
Incomplete #: 0

Input

Input

Input

Step 2 / 44

Start Peck2.

Peck2

Ver. X.XX

Imagine. Roland

Step 3 / 44

Click on the [Login] button.

Peck2 Ver. 2.20

Printer Info

User Information

Certification Points

Model: Status: Not Connected
Firm Ver.: -
Service Menu: Close

Certified: YES
Expired after: 30 days

Region Code:

Category: Rank: Academy: Community: Feedback: For Rank Up

Installer: Certified: 0: -: -: -: -

Color: 0: 0: 0: 0: 200

Dental: 0: 0: -: -: 200

3D: 0: 0: -: -: 200

Machine Operation

Information

Work Report

Connect Printer

Global Dashboard

Completed #: 0
Incomplete #: 2

Check Report

Check KB Article

Completed #: 0
Incomplete #: 2

Update Firmware

Image-net Product Page

Completed #: 0
Incomplete #: 2

Put Parameter

Help

Completed #: 0
Incomplete #: 2

Input

Input

Input

Peck2 Ver. 2.20

Printer Info

User Information

Certification Points

Model: Status: Not Connected
Firm Ver.: -
Service Menu: Close

Certified: YES
Expired after: 30 days

Region Code:

Category: Rank: Academy: Community: Feedback: For Rank Up

Installer: Certified: 0: -: -: -: -

Color: 0: 0: 0: 0: 200

Dental: 0: 0: -: -: 200

3D: 0: 0: -: -: 200

Machine Operation

Information

Work Report

Connect Printer

Global Dashboard

Completed #: 0
Incomplete #: 2

Check Report

Check KB Article

Completed #: 0
Incomplete #: 2

Update Firmware

Image-net Product Page

Completed #: 0
Incomplete #: 2

Put Parameter

Help

Completed #: 0
Incomplete #: 2

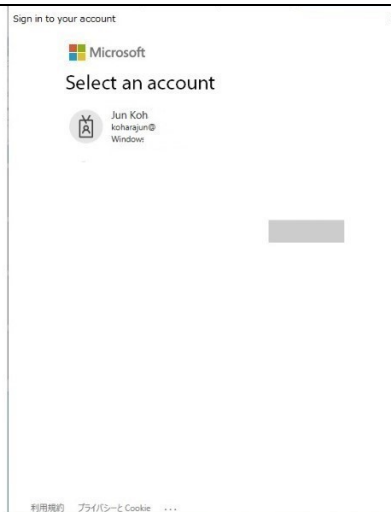
Input

Input

Input

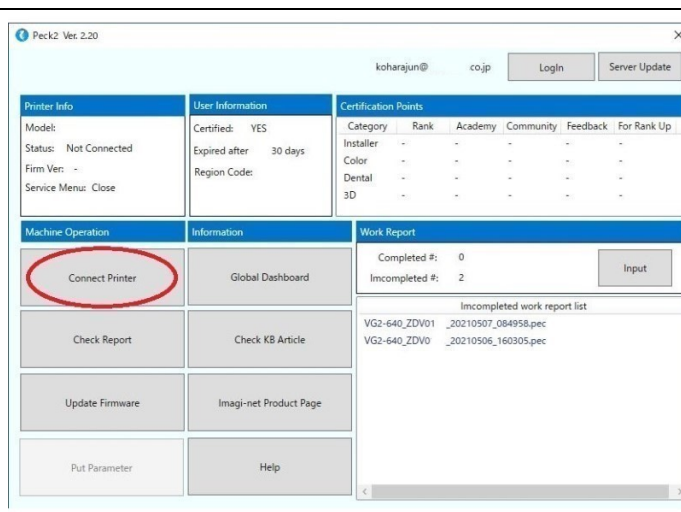
Step 4 / 44

Login with your Imagi-net ID.



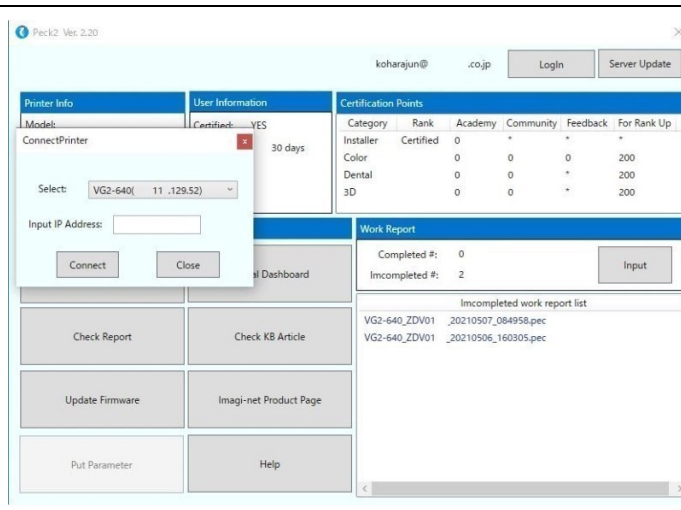
Step 5 / 44

Click the [Connect Printer] button.



Step 6 / 44

Enter the IP address of the printer you would like to connect to.



Step 7 / 44

When the printer is connected, the printer information will be displayed in [Printer Info].

Peck2 Ver: 2.20

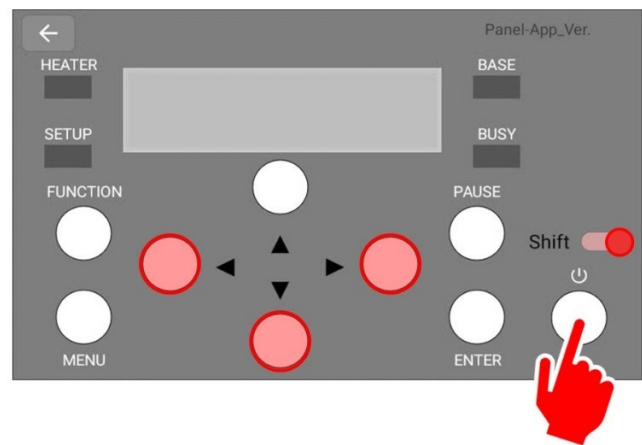
koharajun@ .co.jp Login Server Update

Printer Info		User Information		Certification Points					
Model:	VG2-640_ZDV01	Certified:	YES	Category	Rank	Academy	Community	Feedback	For Rank Up
Status:	UnSetup	Expired after:	30 days	Installer	Certified	0	*	*	*
Firm Ver:	2.00			Color		0	0	0	200
Service Menu:	Open			Dental		0	0	*	200
				3D		0	0	*	200

Machine-Operation		Information		Work Report	
Connect Printer	Global Dashboard	Completed #:	0	Input	
Check Report	Check KB Article	Incompleted #:	2		
Update Firmware	Imagi-net Product Page	Incompleted work report list			
Put Parameter	Help	VG2-640_ZDV01 _20210507_084958.pec			
		VG2-640_ZDV01 _20210506_160305.pec			

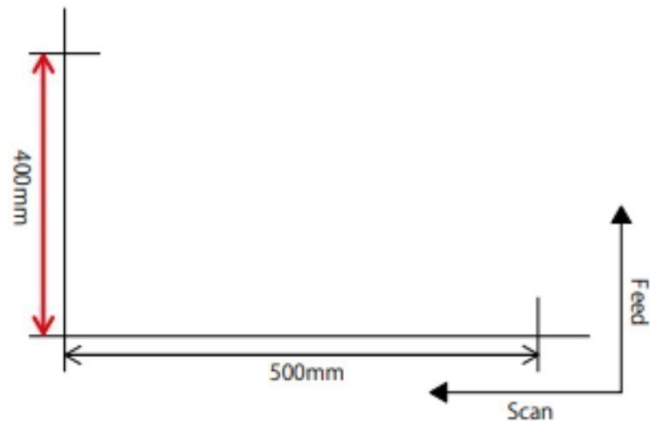
Step 8 / 44

Press [Shift]> []+[]+[]+[Sub Power] on the panel to enter the service mode. By turning the [Shift] button ON, multiple buttons can be pressed at the same time.



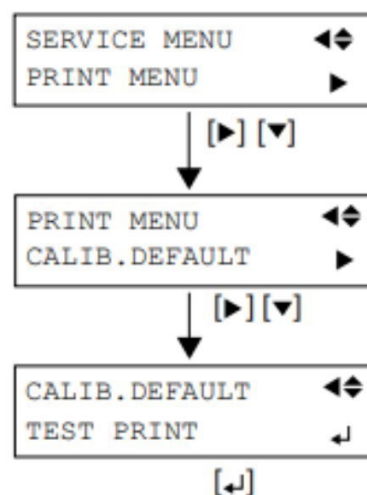
Step 9 / 44

Media setup width must be 510 mm or more for test print.



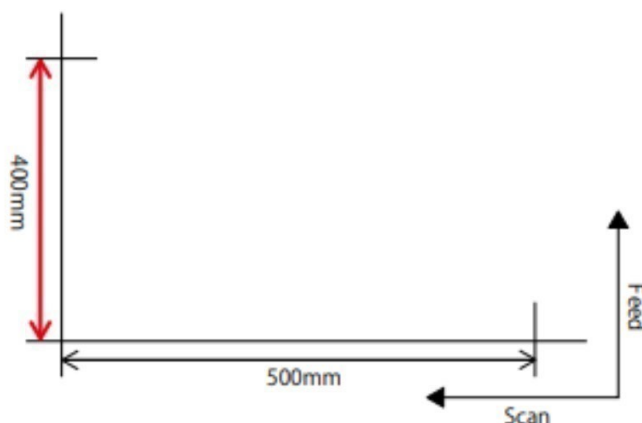
Step 10 / 44

Select [PRINT MENU] > [CALIB.DEFAULT] > [TEST PRINT] and press [ENTER].



Step 11 / 44

Measure the length in the feed direction from the test print result. The test pattern is always output as a correction value of 0.00 %. Changing the value in the [SETTING] menu does not change the test pattern.



Step 12 / 44

Use the formula to obtain the correction value.

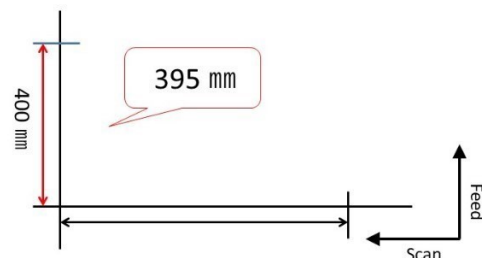
$$\text{補正值} = \frac{400 - \text{測定値}}{\text{測定値}} \times 100$$

$$\text{Correction value} = \frac{400 - \text{Measured value}}{\text{Measured value}} \times 100$$

Step 13 / 44

Calculation example

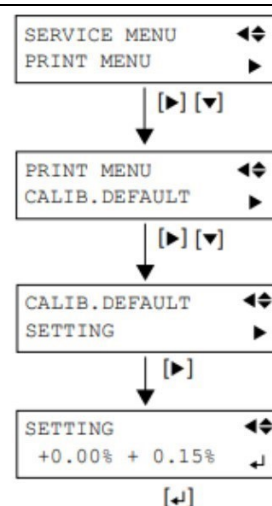
e.g.



$$1.27 = \frac{400 - 395}{395} \times 100$$

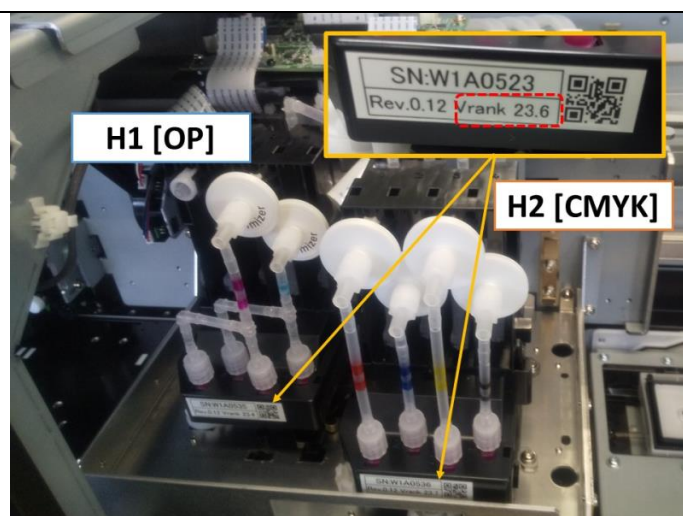
Step 14 / 44

Select [PRINT MENU] > [CALIB.DEFAULT] > [SETTING], press the [] [] keys to enter the correction value, and press [ENTER] to save the setting.



Step 15 / 44

H1 (OP) is the print head on the left side as you face it, and H2 (CMYK) is the print head on the right side as you face it.



Step 16 / 44

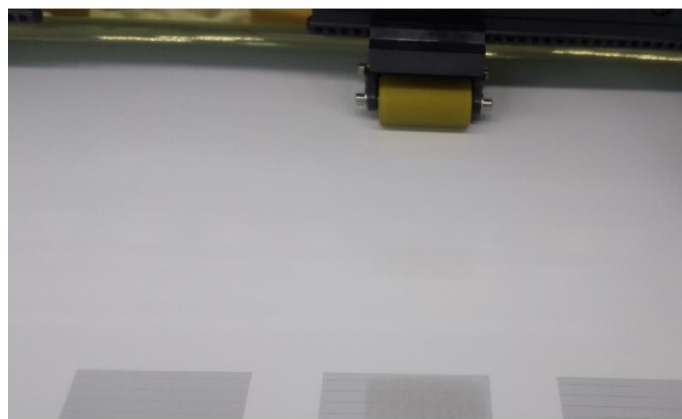
Since the test pattern is difficult to see on some types of media, the listed media are recommended.

The following media are recommended when performing adjustment.

- 3M IJ5331
- 3M IJ180
- Oraful3164
- Oraful3951
- Avery MPI 2002

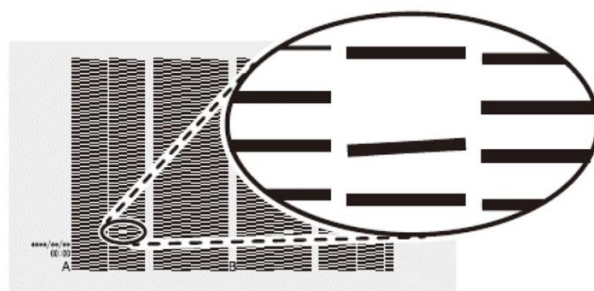
Step 17 / 44

Heater is not used when test patterns are printed as default, so the ink is not dry. Please be careful so that the pinch rollers will not step on the test pattern when checking the patterns.



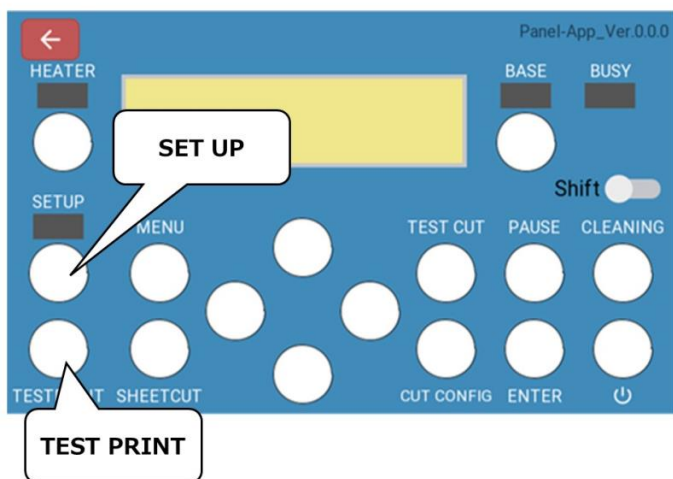
Step 18 / 44

Load the media, print the test pattern, and check if there are missing dots or dot displacement.



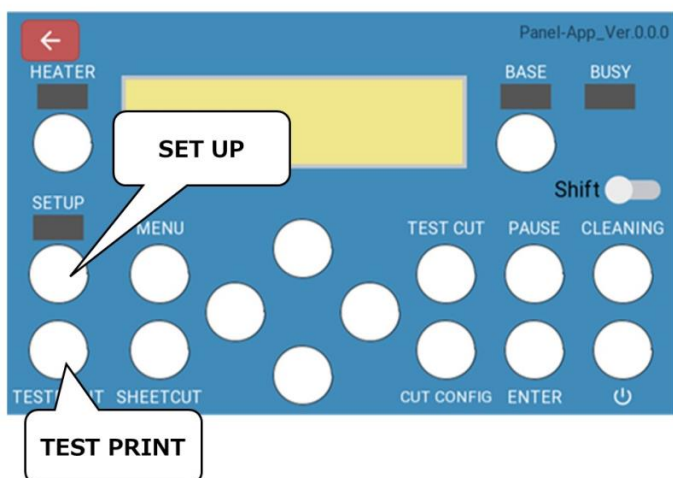
Step 19 / 44

Load the media and lower the loading lever. Then press "SET UP" on the panel to complete the setup.



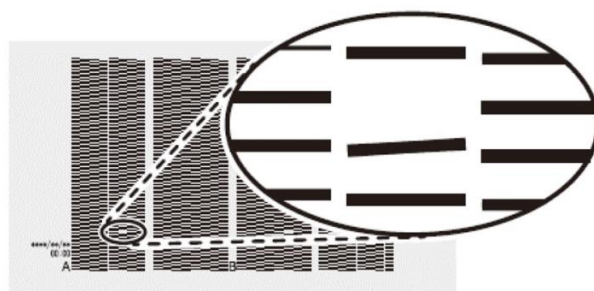
Step 20 / 44

Press [TEST PRINT] to print a test pattern on the media.



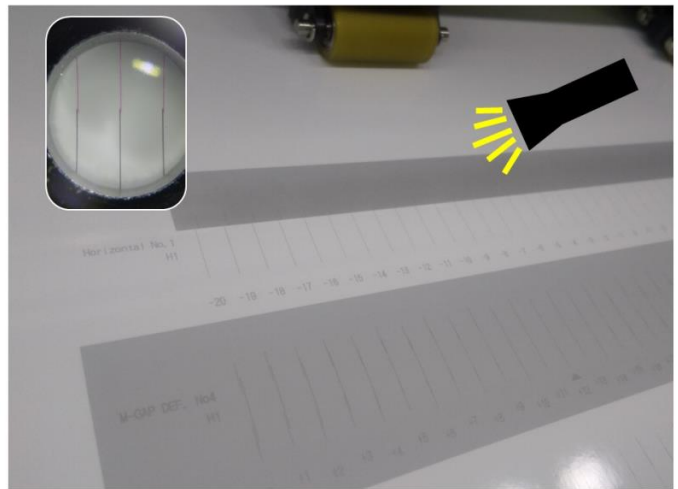
Step 21 / 44

Check if there are missing dots or dot displacement.



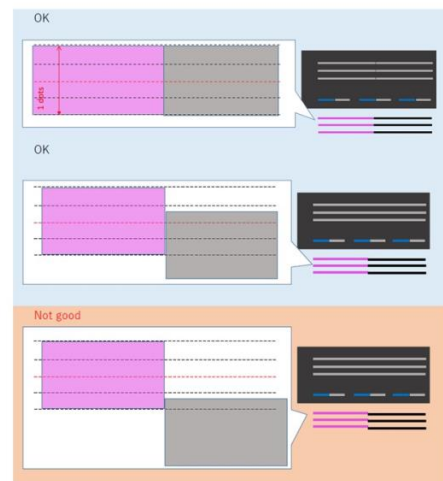
Step 22 / 44

When checking the test pattern, use a flash light or magnifying lens to make it easier to check.



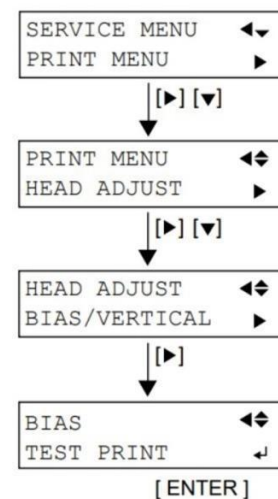
Step 23 / 44

Print the BIAS/VERTICAL test patterns and check if the amount of displacement is within 0.5 dots.



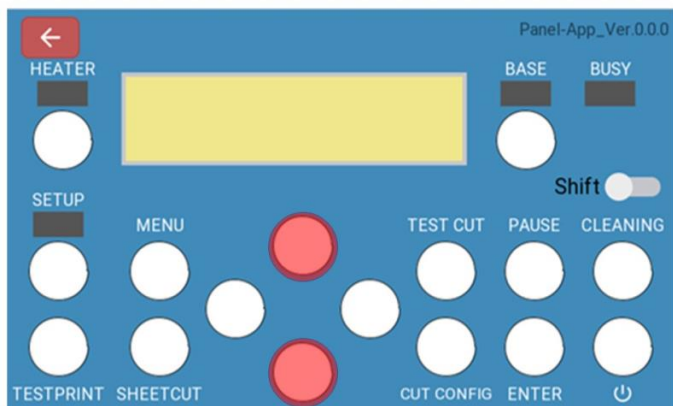
Step 24 / 44

Select [PRINT MENU] > [HEAD ADJUST] > [BIAS/VERTICAL] > [TEST PRINT] and press [ENTER] key.



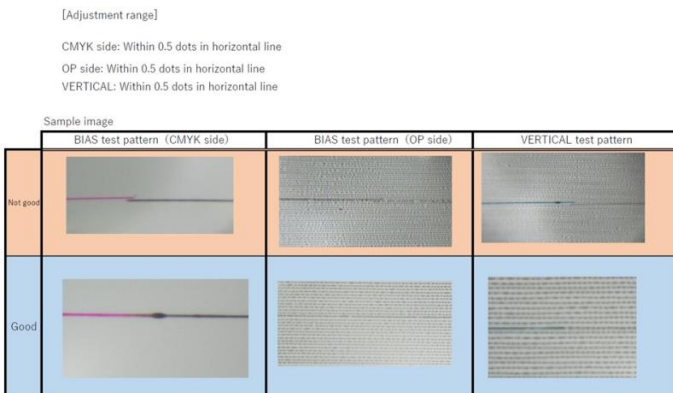
Step 25 / 44

When checking the test pattern, press [] or [] on the panel to move the test pattern to a more visible position.



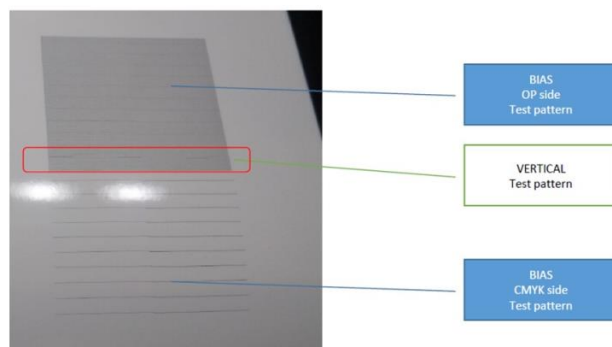
Step 26 / 44

Check that the amount of displacement of the test pattern line is within 0.5 dots.



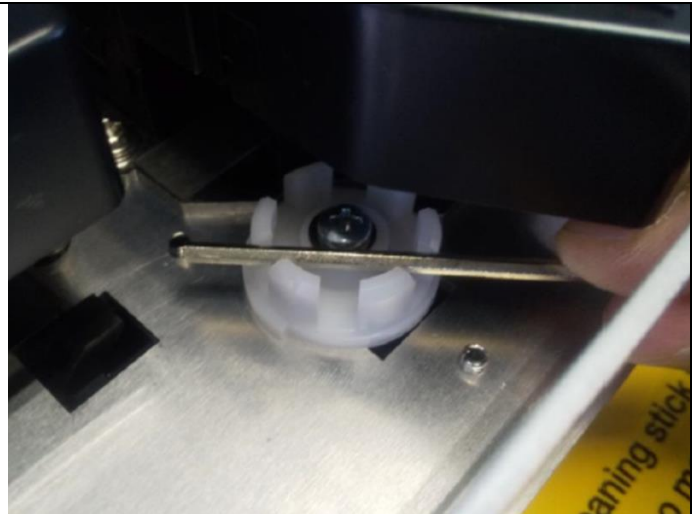
Step 27 / 44

Both BIAS and VERTICAL can be adjusted at the same time. If the adjustment cannot be made within the dial adjustment range, the print head may not be installed correctly.



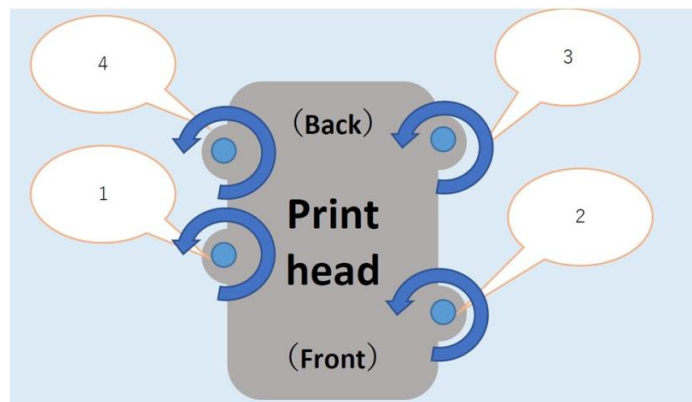
Step 28 / 44

If the adjustment dial is hard to turn, you can easily turn it by using a hex wrench (2.0 mm) as shown in the figure.



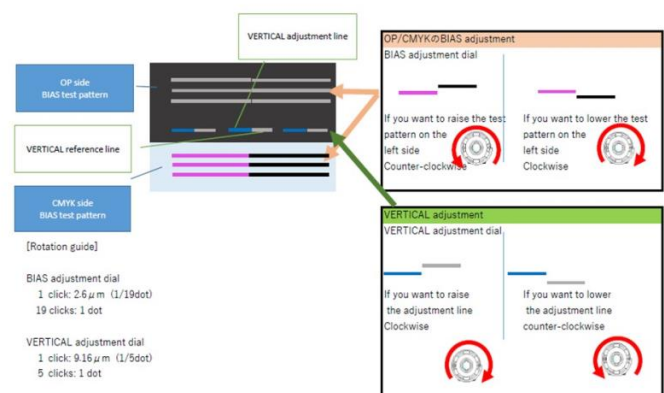
Step 29 / 44

Loosen the screws of the print head that needs adjustment about half way in the order shown in the figure.



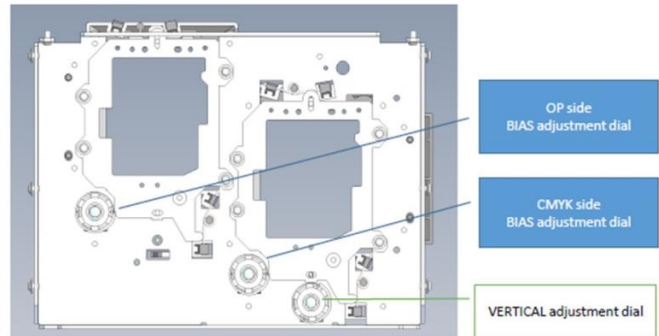
Step 30 / 44

Turn the adjustment dials as shown in the figure to adjust BIAS and VERTICAL.



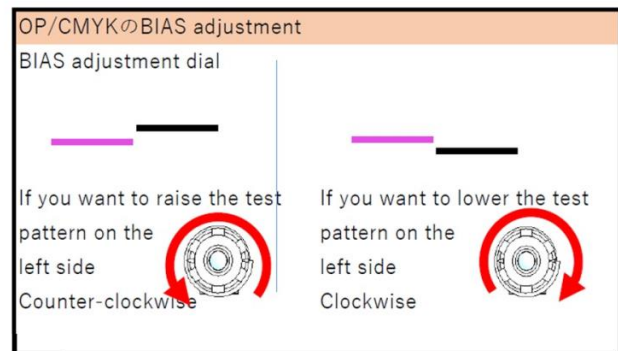
Step 31 / 44

The left dial is the BIAS adjustment dial on the OP side. The center dial is the BIAS adjustment dial for the color side. The right dial is the VERTICAL adjustment dial.



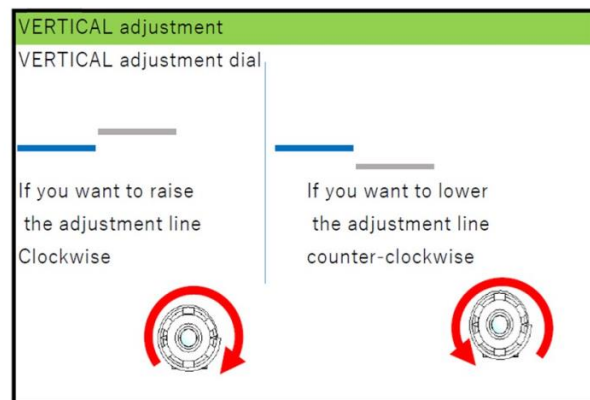
Step 32 / 44

[BIAS adjustment] If you want to move up the line on the left side, turn the dial counterclockwise. If you want to lower line on the left side, turn the dial clockwise. [1 Click: 2.6 μ m (1/19 dot) / 19 Click: 1 dot]



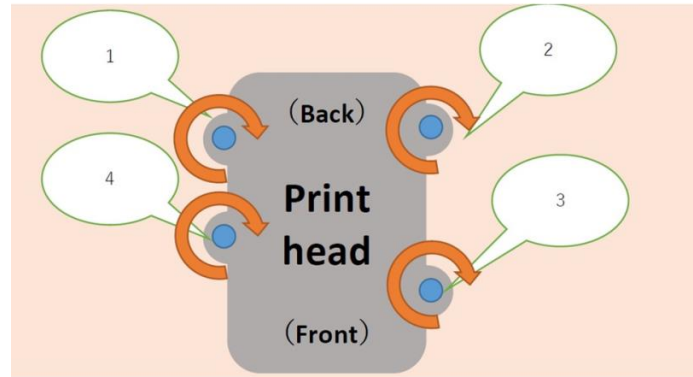
Step 33 / 44

[VERTICAL adjustment] Turn the dial clockwise if you want to move up the line on the left side. To lower the line on the left side, turn the dial counterclockwise. [1 Click: 9.16 μ m (1/5 dot) / 5 Click: 1 dot].



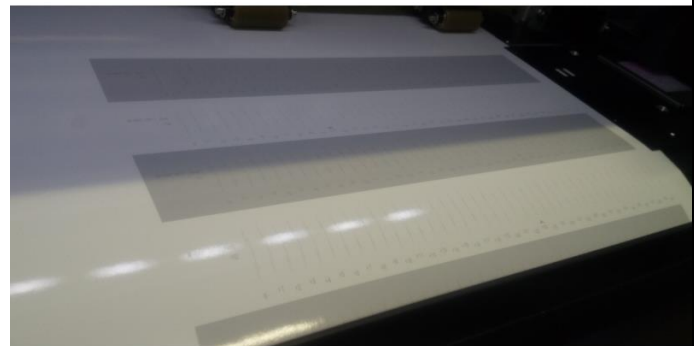
Step 34 / 44

Fix the print head using a torque wrench [0.6 N-m (6gf/cm)] in the order shown in the figure. Be careful not to damage the flexible cable with the screwdriver when tightening the screws at the base of the flexible cable.



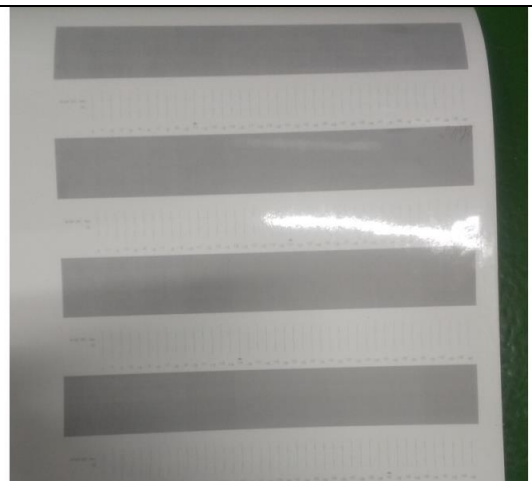
Step 35 / 44

Print the test pattern for M-GAP DEFAULT at the head height HIGH first, then switch the height to LOW and print the pattern consecutively. If HIGH and LOW are output consecutively, the HIGH test pattern will enter the drying system and become invisible. It is recommended to check the values when switching the head height from HIGH to LOW.



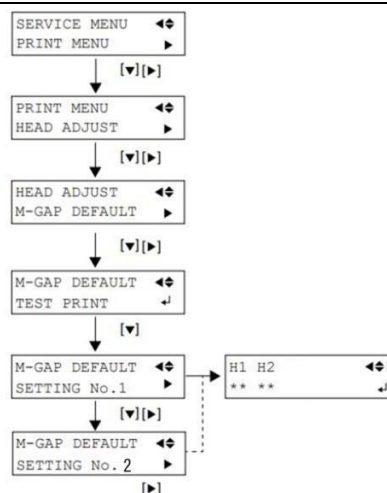
Step 36 / 44

Print the test pattern for M-GAP DEFAULT.



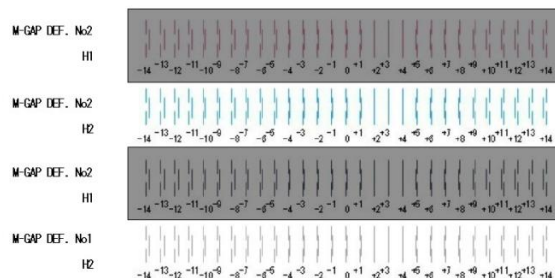
Step 37 / 44

Select [PRINT MENU] > [HEAD ADJUST]
> [M-GAP DEFAULT] > [TEST PRINT] and
press [ENTER].



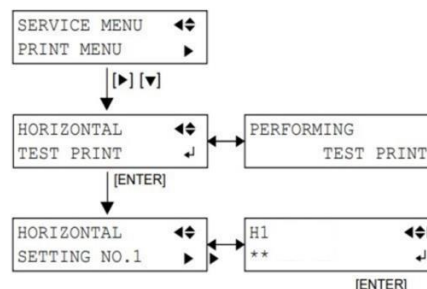
Step 38 / 44

Find the numbers that two lines are
overlapped exactly and enter all the
values for [H1] and [H2]. HIGH (No.1 &
No.2) / LOW (No.3 & No.4)



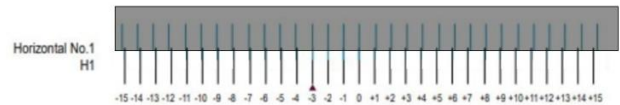
Step 39 / 44

Print a test pattern of HORIZONTAL



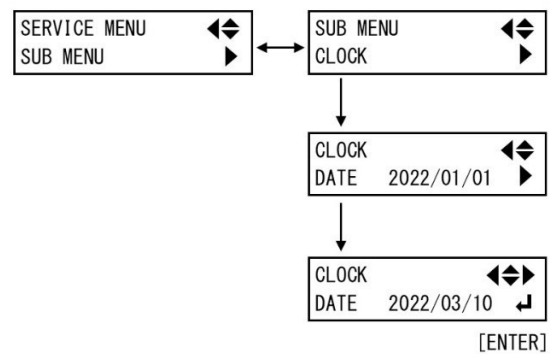
Step 40 / 44

Find the numbers that two lines are overlapped exactly and enter the numbers for [H1].



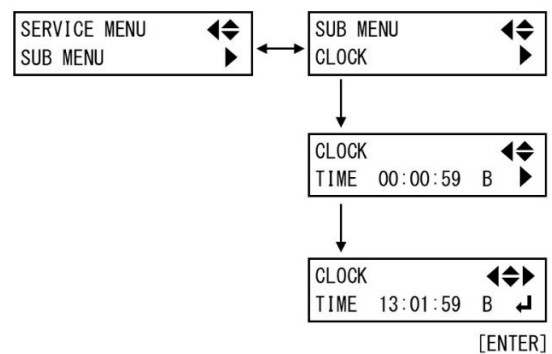
Step 41 / 44

Select [SERVICE MENU] > [SUB MENU] > [CLOCK] > [DATE]. Set the date and press [ENTER].



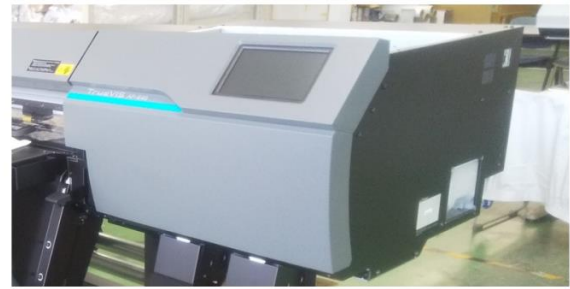
Step 42 / 44

Select [SERVICE MENU] > [SUB MENU] > [CLOCK] > [TIME]. Set the time and press the [ENTER] key.



Step 43 / 44

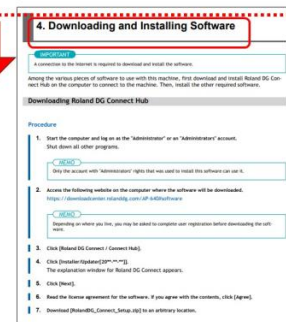
Install the removed cover.



Step 44 / 44

Return to the work in Setup Guide.

Next Step
[Setup Guide]



AP-640 Multi Sensor Adjustment

AP-640 Multi Sensor Adjustment Information

Step 1 / 2

Necessary Tools Recommended media
are IJ5331, IJ1220, LLSPEX, 3164G, and
SPM.

一般ツール/General Tool

白いステッカーメディア (IJ5331推奨)
White sticker media
(IJ5331 recommended)



Step 2 / 2

Typical Work Time

作業時間/Typical work time

作業内容/Contents of work	時間/Time
マルチセンサー調整 Multi sensor Adjustment	5 min.

AP-640 Multi Sensor Adjustment

AP-640 Multi Sensor Adjustment Procedure

Step 1 / 22

Connect the aircraft to Peck2 and enter service mode.

Tap to display the screen.



SERVICE
MODE

Step 2 / 22

Start Peck2.



Peck2

Ver. X.XX

Imagine. 

Step 3 / 22

Click on the [Login] button.

Peck2 Ver. 2.20

koharjun@co.jp

Login

Server Update

Printer Info

User Information

Certification Points

Model: -

Certified: YES

Category: -

Rank: -

Academy: -

Community: -

Feedback: -

For Rank Up: -

Status: Not Connected

Expired after: 30 days

Installer: -

Color: -

Dental: -

3D: -

Firm Ver: -

Region Code: -

Machine Operation

Information

Work Report

Connect Printer

Global Dashboard

Completed #: 0

Input

Check Report

Check KB Article

Incompleted #: 2

Update Firmware

Imagi-net Product Page

Incompleted work report list

Put Parameter

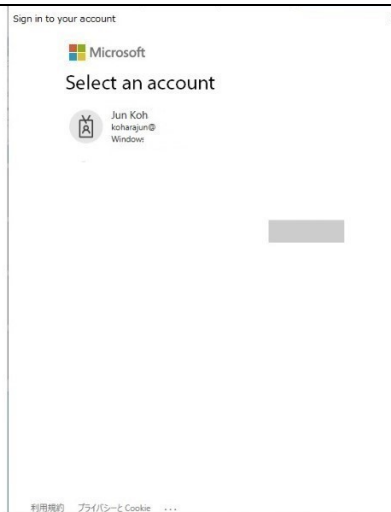
Help

VG2-640_ZDV01_20210907_084958.pec

VG2-640_ZDV01_20210906_160305.pec

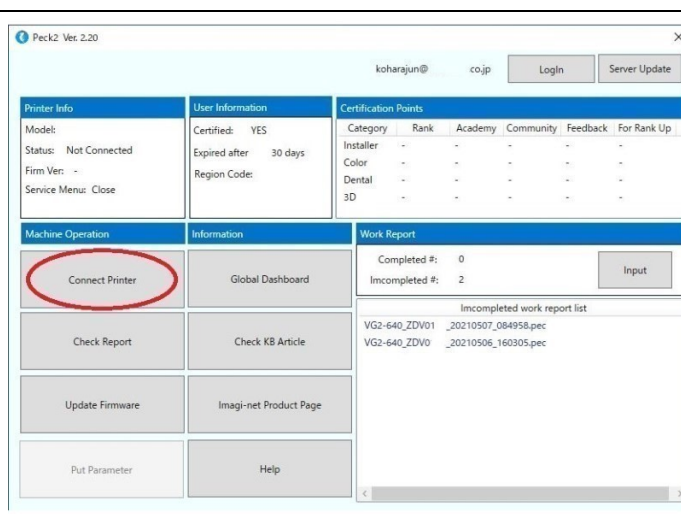
Step 4 / 22

Login with your Imag-net ID.



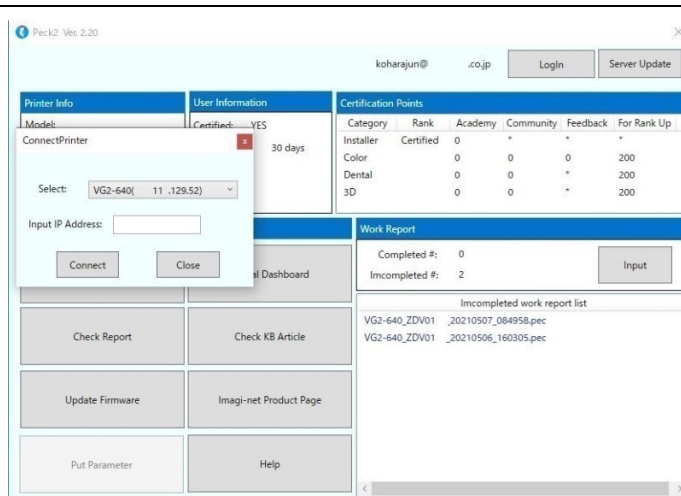
Step 5 / 22

Click on the [Connect Printer] button.



Step 6 / 22

Enter the IP address of the printer you would like to connect to.



Step 7 / 22

If you are able to connect to a printer, printer information will be displayed in [Printer Info].

Peck2 Ver. 2.20

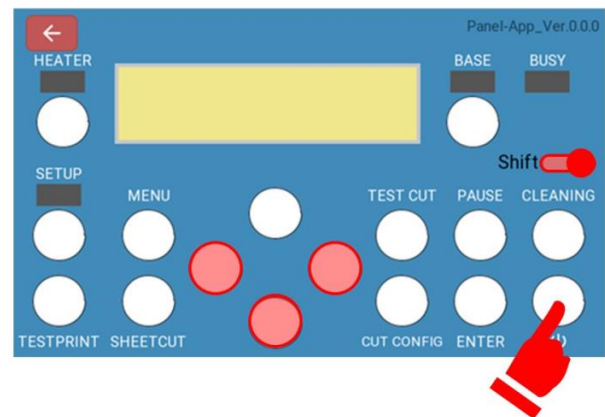
koharjun@ .co.jp Login Server Update

Printer Info		User Information		Certification Points					
Model:	VG2-640_ZDV01	Certified:	YES	Category	Rank	Academy	Community	Feedback	For Rank Up
Status:	UnSetup	Expired after:	30 days	Installer	Certified	0	*	*	*
Firm Ver:	2.00			Color		0	0	0	200
Service Menu:	Open			Dental		0	0	*	200
				3D		0	0	*	200

Machine-Operation		Information		Work Report	
Connect Printer	Global Dashboard	Completed #:	0	Input	
Check Report	Check KB Article	Incompleted #:	2		
Update Firmware	Imagi-net Product Page	Incompleted work report list			
Put Parameter	Help	VG2-640_ZDV01 _20210507_084958.pec VG2-640_ZDV01 _20210506_160305.pec			

Step 8 / 22

Press [Shift]> [←]+[→]+[→]+[Sub Power] on the panel to enter the service mode. By turning on the [Shift] button, multiple buttons can be pressed at the same time.



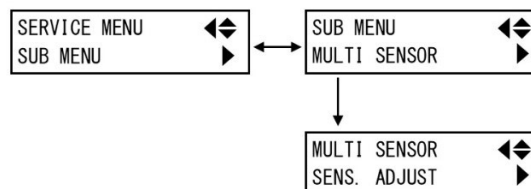
Step 9 / 22

Load the recommended media on the machine and perform set up.



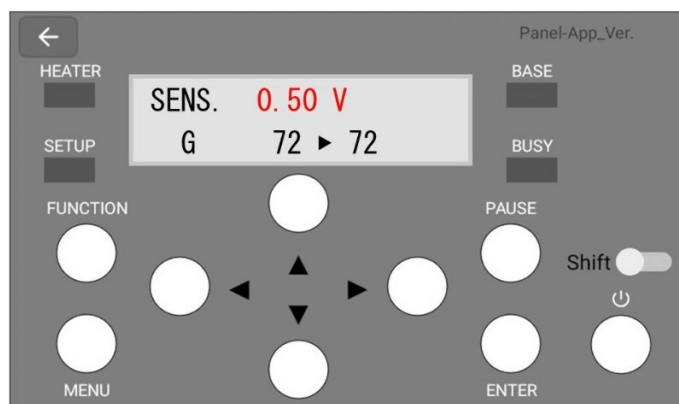
Step 10 / 22

Select [SERVICE MENU] > [SUB MENU] > [MULTI SENSOR] > [SENS. ADJUST].



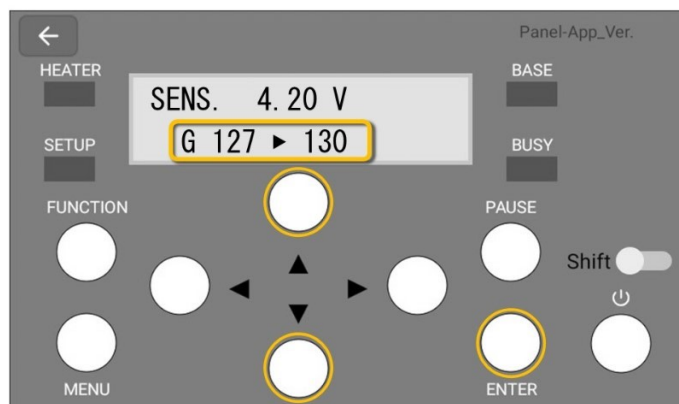
Step 11 / 22

Adjust the LED intensity so that the light-receiving voltage is $0.50V \pm 0$. Decreasing the value lowers the light-receiving voltage, and increasing the value raises the light-receiving voltage.



Step 12 / 22

Use the up and down keys to change the LED intensity, and press the [ENTER] key to update the light-receiving voltage.



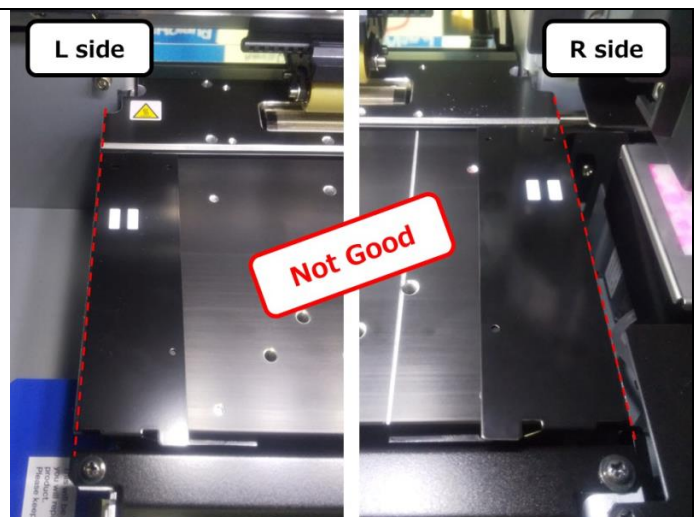
Step 13 / 22

Remove the media.



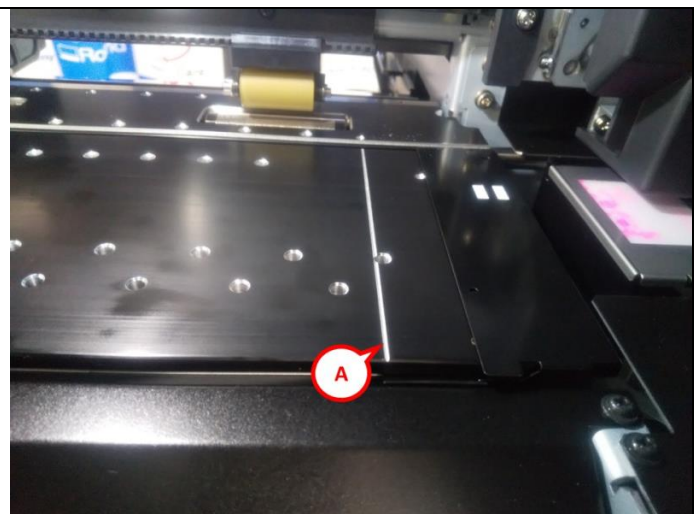
Step 14 / 22

Do not set the media clamp at the far end because the detection will not be performed correctly.



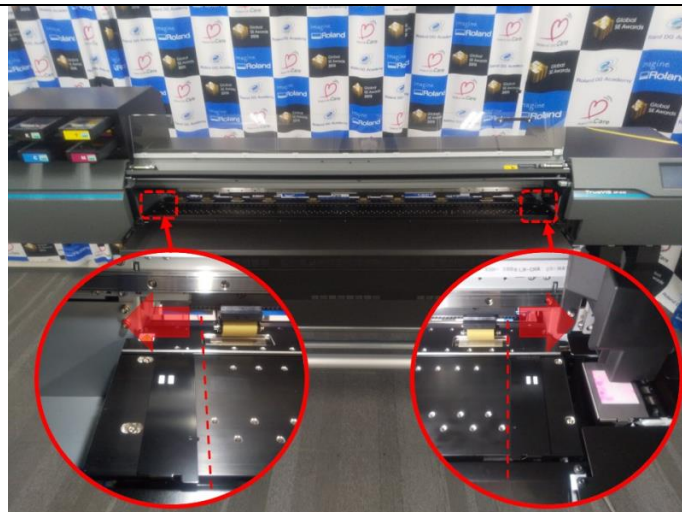
Step 15 / 22

If the guide of A is visible, the detection cannot be done correctly. Make sure that the guides are not visible with the media clamps.



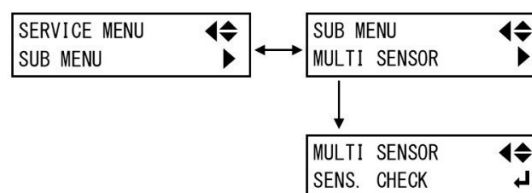
Step 16 / 22

Set the media clamps outside of the grid rollers at both ends. If media clamps are not attached, install them.



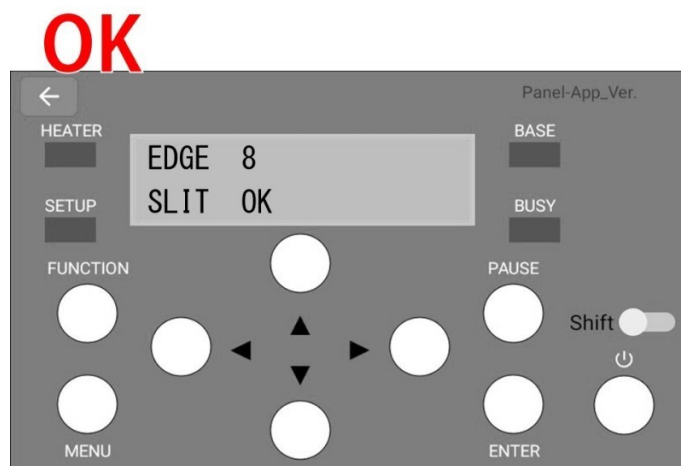
Step 17 / 22

Select [SERVICE MENU] > [SUB MENU] > [MULTI SENSOR] > [SENS. CHECK].



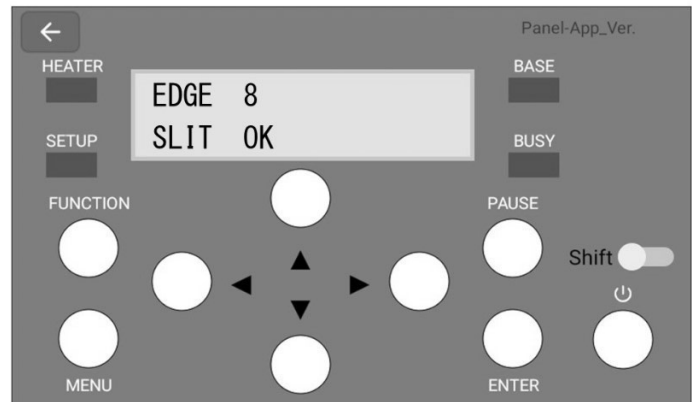
Step 18 / 22

Check if [EDGE 8] is displayed in the upper part of the panel and [SLIT OK] in the lower part. If it looks like this, the detection has been done correctly and the operation is complete.



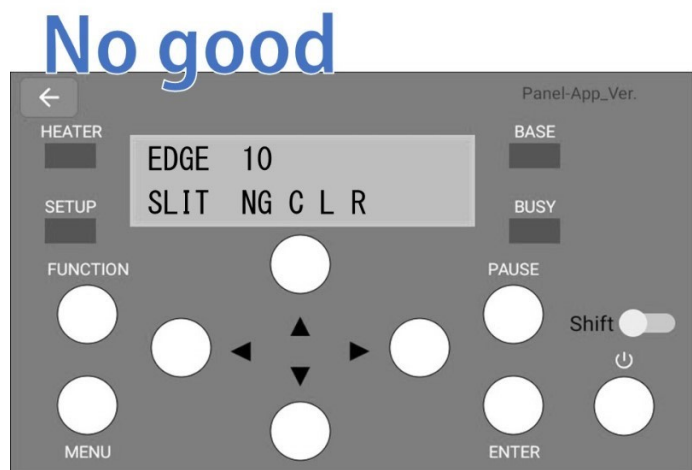
Step 19 / 22

Upper row: Number of detected edges,
Lower row: Status of white slits in the
media clamps



Step 20 / 22

If a different display appears on the
panel, check and perform adjustment
again.



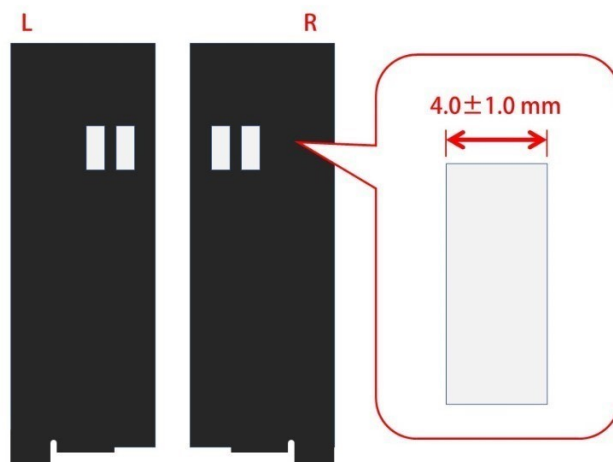
Step 21 / 22

1. Check the platen and media clamp
for foreign objects, scratches, dirt,
etc.
2. Check if the media clamp
is not deformed.
3. Check if the
multi sensor is properly attached.



Step 22 / 22

[C]: When the number of black and white edges is other than the number of slits (8 slits).
[L]: When the length of the left slit exceeds the range of 4 ± 1 mm
[R]: When the length of the right slit exceeds the range of 4 ± 1 mm.



AP-640 Date and Time Setting

AP-640 Date and Time Setting Information

Step 1 / 2

Necessay Tools

一般ツール/General Tool

無し None	
------------	--

特殊治具/Special Tools

無し None	
------------	--

Step 2 / 2

Typical Work time

作業時間/Typical work time

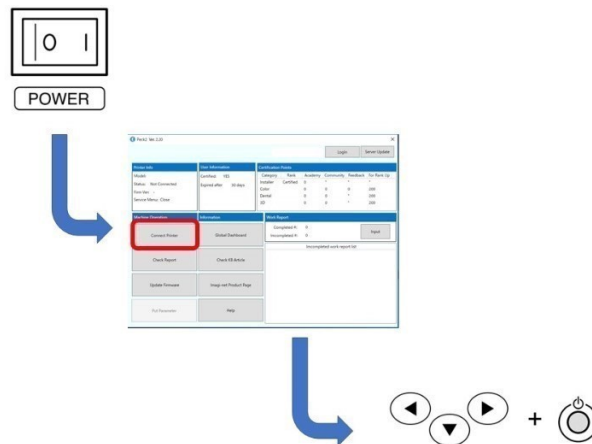
作業内容/Contents of work	時間/Time
日時設定 Date and time settings	2 min.

AP-640 Date and Time Setting

AP-640 Date and Time Setting Procedure

Step 1 / 11

Connect the machine to Peck2 and enter the service mode.



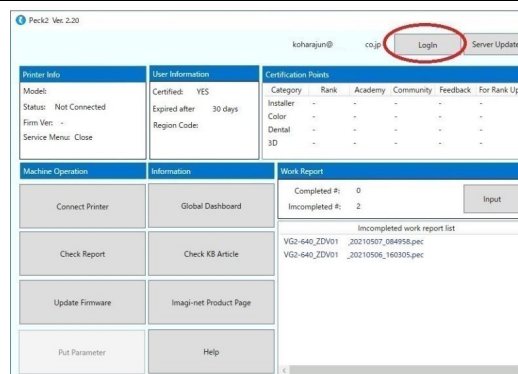
Step 2 / 11

Start Peck2.



Step 3 / 11

Click on the [Login] button.

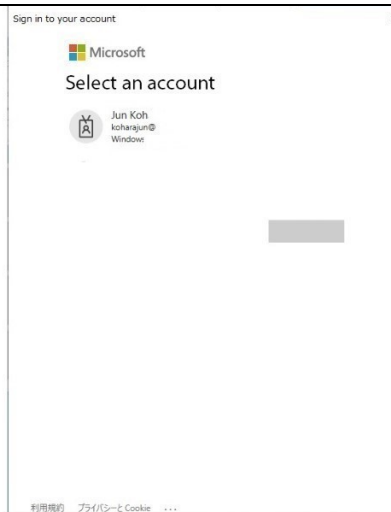


Tuesday, July 1, 2025 2:34 PM

Language: en

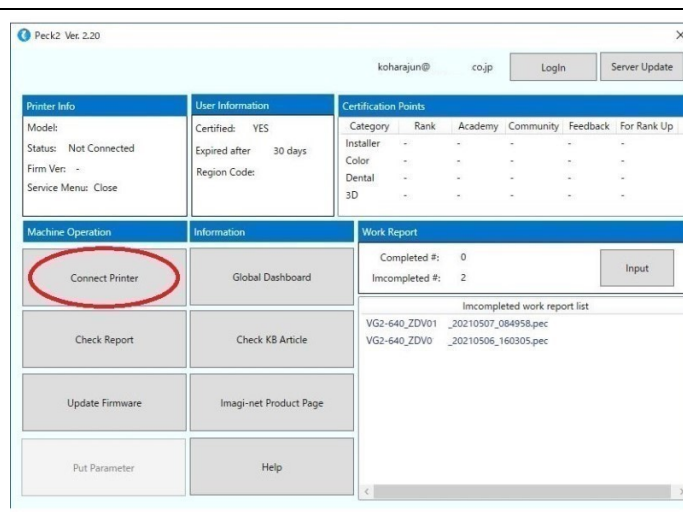
Step 4 / 11

Login with your Imagi-net ID.



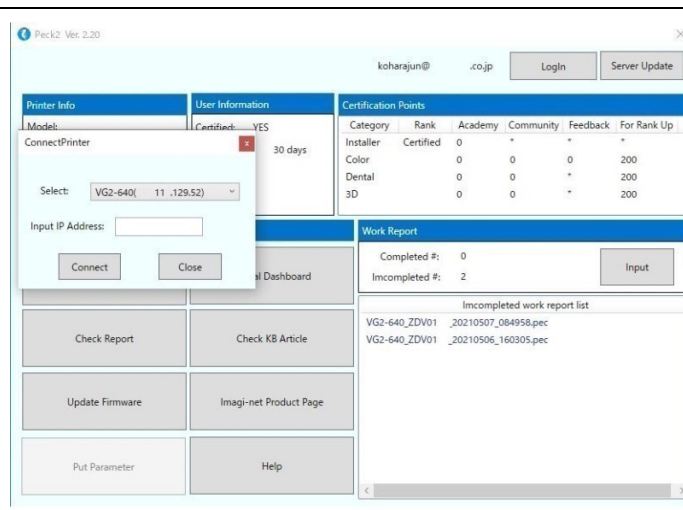
Step 5 / 11

Click the [Connect Printer] button.



Step 6 / 11

Enter the IP address of the printer you would like to connect to.



Step 7 / 11

When the printer is connected, the printer information will be displayed in [Printer Info].

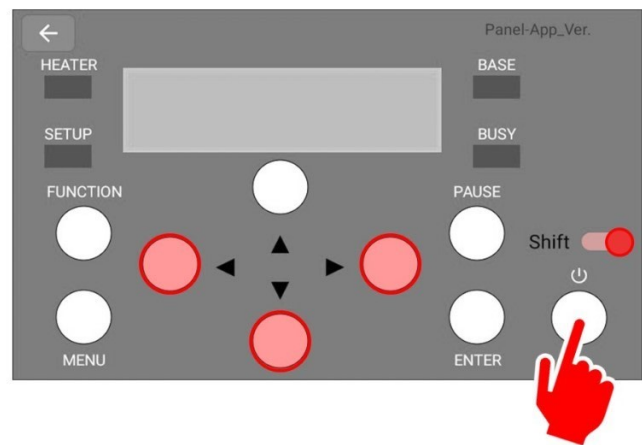
Peck2 Ver: 2.20 koharajun@ .co.jp Login Server Update

Printer Info		User Information		Certification Points					
Model:	VG2-640_ZDV01	Certified:	YES	Category	Rank	Academy	Community	Feedback	For Rank Up
Status:	UnSetup	Expired after:	30 days	Installer	Certified	0	*	*	*
Firm Ver:	2.00			Color	0	0	0	200	
Service Menu:	Open			Dental	0	0	*	200	
				3D	0	0	*	200	

Machine Operation		Information		Work Report	
Connect Printer	Global Dashboard	Completed #:	0	Input	
Check Report	Check KB Article	Incompleted #:	2		
Update Firmware	Imagi-net Product Page	Incompleted work report list			
Put Parameter	Help	VG2-640_ZDV01 _20210507_084958.pec			
		VG2-640_ZDV01 _20210506_160305.pec			

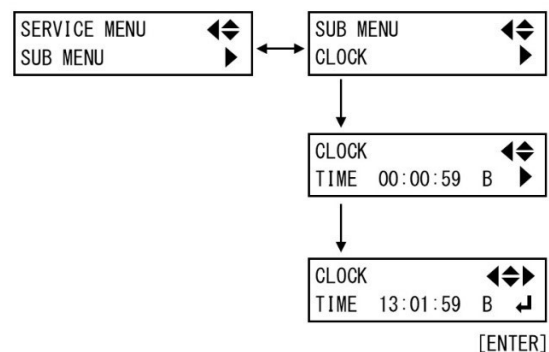
Step 8 / 11

Press [Shift]> [□]+[□]+[□]+[Sub Power] on the panel to enter the service mode. By turning on the [Shift] button, multiple buttons can be pressed at the same time.



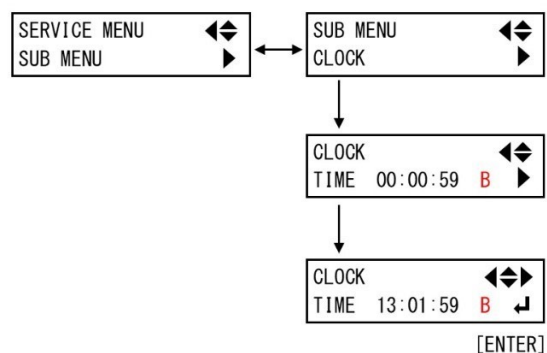
Step 9 / 11

Select [SERVICE MENU]>[SUB MENU]>[CLOCK]>[TIME]. Set the time and press [ENTER] key.



Step 10 / 11

When the operation is completed, the [B] display will disappear, indicating that the battery is dead.



Step 11 / 11

Select [SERVICE MENU]>[SUB MENU]>[CLOCK]>[DATE]. Set the date and press [ENTER].

