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confidential.



MO-180



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## MO-180 settings

# MO-180 Installation Information

Step 1 / 5

When installing the printer, please use a stand specified by our company or an installation stand that meets the following conditions. -Material: Non-resin material (e.g. metal, wood, etc.) -Size: 700 mm or more (width), 900 mm or more (depth), from 500 to 600mm (height) -Weight capacity: 215kg or more



Step 2 / 5

### General Tools

#### 一般ツール/General Tool

|                                       |                                                                                       |
|---------------------------------------|---------------------------------------------------------------------------------------|
| 六角レンチ 2.0mm<br>2.0mm hexagonal wrench |  |
| 六角レンチ 2.5mm<br>2.5mm hexagonal wrench |  |
| 六角レンチ 3.0mm<br>3.0mm hexagonal wrench |  |

Step 3 / 5

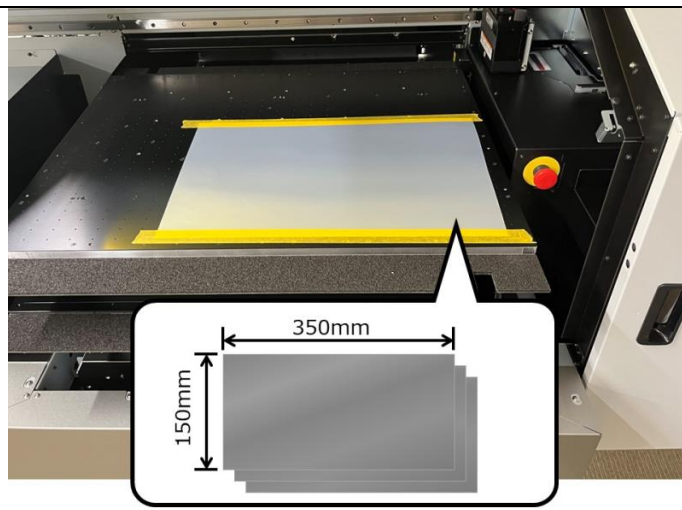
### General Tools 2

#### 一般ツール/General Tool

|               |                                                                                       |
|---------------|---------------------------------------------------------------------------------------|
| メディア<br>Media |  |
|---------------|---------------------------------------------------------------------------------------|

Step 4 / 5

[Details 1] To reduce the hassle of setting up during test printing, it is useful to have multiple pieces of 150 mm x 350 mm media.



Step 5 / 5

Typical work time

### 作業時間/Typical work time

| 作業内容/Contents of work | 時間/Time  |
|-----------------------|----------|
| 設置<br>Unpacking       | 20 min.  |
| インク充てん<br>Ink filling | 100 min. |

MO-180 settings

# MO-180 Installation Procedure

Step 1 / 62

Open the top cover and remove all the boxes and parts inside. Refer to the accessories list in the setup manual to make sure nothing is missing.



Step 2 / 62

[Details 1] Accessories 1



|                                                                                                             |                                                                                                          |                                                                                                          |                                                                                                           |
|-------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| <br>電源ケーブル (1)         | <br>電源ケーブルアダプター (1) | <br>ケーブルバンド (2)     | <br>六角レンチ (3 mm) (1) |
| <br>六角レンチ (2.5 mm) (1) | <br>六角レンチ (1)       | <br>電源ケーブル保護カバー (1) | <br>電源ケーブルバンド (1)    |
| <br>電源ケーブル (1)         | <br>電源ケーブルアダプター (1) | <br>電源ケーブル (1)      | <br>電源ケーブルアダプター (1)  |
| <br>電源ケーブルアダプター (1)    | <br>電源ケーブルアダプター (1) | <br>電源ケーブルアダプター (1) | <br>電源ケーブルアダプター (1)  |
| <br>電源ケーブルアダプター (1)    | <br>電源ケーブルアダプター (1) | <br>電源ケーブルアダプター (1) | <br>電源ケーブルアダプター (1)  |
| <br>電源ケーブルアダプター (1)    | <br>電源ケーブルアダプター (1) | <br>電源ケーブルアダプター (1) | <br>電源ケーブルアダプター (1)  |

Step 3 / 62

[Details 2] Accessories 2



|                                                                                                             |                                                                                                          |                                                                                                          |                                                                                                           |
|-------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| <br>電源ケーブル (1)         | <br>電源ケーブルアダプター (1) | <br>ケーブルバンド (2)     | <br>六角レンチ (3 mm) (1) |
| <br>六角レンチ (2.5 mm) (1) | <br>六角レンチ (1)       | <br>電源ケーブル保護カバー (1) | <br>電源ケーブルバンド (1)    |
| <br>電源ケーブル (1)         | <br>電源ケーブルアダプター (1) | <br>電源ケーブル (1)      | <br>電源ケーブルアダプター (1)  |
| <br>電源ケーブルアダプター (1)    | <br>電源ケーブルアダプター (1) | <br>電源ケーブルアダプター (1) | <br>電源ケーブルアダプター (1)  |
| <br>電源ケーブルアダプター (1)    | <br>電源ケーブルアダプター (1) | <br>電源ケーブルアダプター (1) | <br>電源ケーブルアダプター (1)  |
| <br>電源ケーブルアダプター (1)    | <br>電源ケーブルアダプター (1) | <br>電源ケーブルアダプター (1) | <br>電源ケーブルアダプター (1)  |

Step 4 / 62

### [Details 3] Accessories 3



|                                                                                                          |                                                                                                                |                                                                                                      |                                                                                                        |
|----------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| <br>高剛性ピン (1)         | <br>電源ケーブル、電源プラグアダプター (各 1) | <br>ケーブルラップ (2)   | <br>六角ピン (3 mm) (1) |
| <br>六角ピン (2.5 mm) (1) | <br>固定板 (1)                 | <br>固定板用ドライバー (1) | <br>固定板用スクリュー (1)   |
| <br>固定板用ドライバー (1)     | <br>ケーブル固定クリップ (1)          | <br>ピンセット (1)     | <br>インクカートリッジ (1)   |
| <br>ケーブル固定クリップ (1)    | <br>インク / 液体カートリッジ (各 1)    | <br>ピンセット (1)     | <br>インクカートリッジ (1)   |
| <br>ケーブル固定クリップ (1)    | <br>インク / 液体カートリッジ (各 1)    | <br>ピンセット (1)     | <br>インクカートリッジ (1)   |
| <br>ケーブル固定クリップ (1)    | <br>インク / 液体カートリッジ (各 1)    | <br>ピンセット (1)     | <br>インクカートリッジ (1)   |

\*1: 100 V (標準) 対応機種

Step 5 / 62

### [Details 4] Accessories 4



|                                                                                                          |                                                                                                                |                                                                                                      |                                                                                                        |
|----------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| <br>高剛性ピン (1)         | <br>電源ケーブル、電源プラグアダプター (各 1) | <br>ケーブルラップ (2)   | <br>六角ピン (3 mm) (1) |
| <br>六角ピン (2.5 mm) (1) | <br>固定板 (1)                 | <br>固定板用ドライバー (1) | <br>固定板用スクリュー (1)   |
| <br>固定板用ドライバー (1)     | <br>ケーブル固定クリップ (1)          | <br>ピンセット (1)     | <br>インクカートリッジ (1)   |
| <br>ケーブル固定クリップ (1)   | <br>インク / 液体カートリッジ (各 1)   | <br>ピンセット (1)    | <br>インクカートリッジ (1)  |
| <br>ケーブル固定クリップ (1)  | <br>インク / 液体カートリッジ (各 1)  | <br>ピンセット (1)   | <br>インクカートリッジ (1) |
| <br>ケーブル固定クリップ (1)  | <br>インク / 液体カートリッジ (各 1)  | <br>ピンセット (1)   | <br>インクカートリッジ (1) |

\*1: 100 V (標準) 対応機種

Step 6 / 62

### [Details 5] Accessories 5



|                                                                                                            |                                                                                                                  |                                                                                                        |                                                                                                          |
|------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|
| <br>高剛性ピン (1)         | <br>電源ケーブル、電源プラグアダプター (各 1) | <br>ケーブルラップ (2)   | <br>六角ピン (3 mm) (1) |
| <br>六角ピン (2.5 mm) (1) | <br>固定板 (1)                 | <br>固定板用ドライバー (1) | <br>固定板用スクリュー (1)   |
| <br>固定板用ドライバー (1)     | <br>ケーブル固定クリップ (1)          | <br>ピンセット (1)     | <br>インクカートリッジ (1)   |
| <br>ケーブル固定クリップ (1)    | <br>インク / 液体カートリッジ (各 1)    | <br>ピンセット (1)     | <br>インクカートリッジ (1)   |
| <br>ケーブル固定クリップ (1)    | <br>インク / 液体カートリッジ (各 1)    | <br>ピンセット (1)     | <br>インクカートリッジ (1)   |
| <br>ケーブル固定クリップ (1)    | <br>インク / 液体カートリッジ (各 1)    | <br>ピンセット (1)     | <br>インクカートリッジ (1)   |

\*1: 100 V (標準) 対応機種



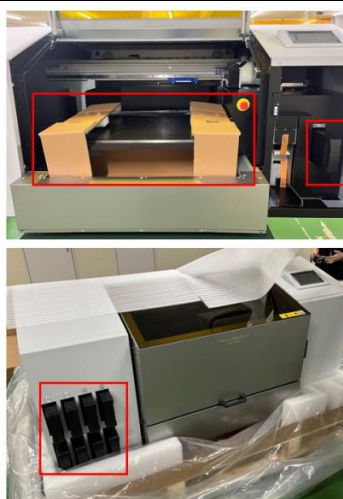
[Details 6] Accessories 6



|                                                                                     |                                                                                     |                                                                                     |                                                                                     |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|  |  |  |  |
| 電線バンド (1)                                                                           | 電線ケーブル用電線ブチ<br>ターテープ (2)                                                            | ケーブルラップ (2)                                                                         | 六角レンチ (3)                                                                           |
|  |  |  |  |
| 六角レンチ (2.5mm) (1)                                                                   | 六角棒 (2)                                                                             | 六角棒インサートブーサー (1)                                                                    | 六角棒インサート (2)                                                                        |
|  |  |  |  |
| 六角棒インサート (1)                                                                        | タコニシスチック (2)                                                                        | ピンセット (2)                                                                           | インサートカラー (2)                                                                        |
|  |  |  |  |
| 六角棒インサート用カラー (1)                                                                    | インサート用カラー (2)                                                                       | タコニシスチック                                                                            | 六角棒インサート (1)                                                                        |
|  |  |  |  |
| 六角棒インサート用カラー (1)                                                                    | 六角棒インサート (2)                                                                        | 六角棒インサート                                                                            | 六角棒インサート (1)                                                                        |
|  |  |  |  |
| 六角棒インサート用カラー (1)                                                                    | 六角棒インサート (2)                                                                        | 六角棒インサート                                                                            | 六角棒インサート (1)                                                                        |

\*1: 100 V/div (2)

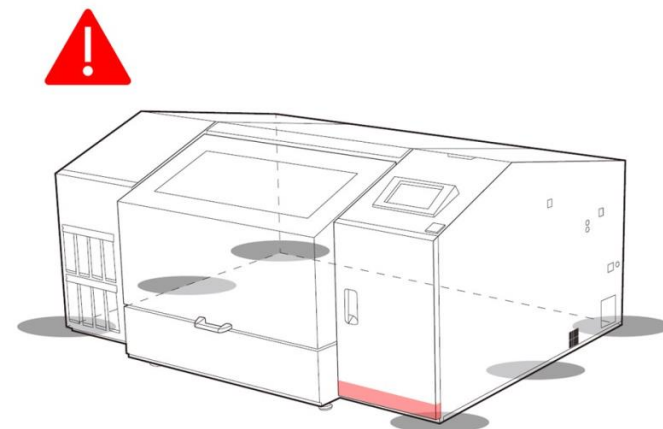
[Details 7] Accessories 7



|                                                                                                          |                                                                                                               |                                                                                                         |                                                                                                           |
|----------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| <br>金属ピン (1)          | <br>電源プラグ、電源アダプター、ケーブル (3) | <br>ワークランプ (2)       | <br>六角ピン (3 mm) (1)    |
| <br>六角ピン (2.5 mm) (1) | <br>金属棒 (1)                | <br>空気調和機フィルター (1)   | <br>固定具 (3 mm) (2)     |
| <br>固定具 (4 mm) (1)    | <br>タコメーターケーブル (1)         | <br>ビス (1)           | <br>インサートネジ (4 mm) (1) |
| <br>ネジ (2.5 mm) (1)   | <br>ネジ (3 mm) (1)          | <br>ネジ (4 mm) (1)    | <br>ネジ (5 mm) (1)      |
| <br>ネジ (6 mm) (1)     | <br>ネジ (7 mm) (1)          | <br>ネジ (8 mm) (1)    | <br>ネジ (9 mm) (1)      |
| <br>ネジ (10 mm) (1)   | <br>ネジ (11 mm) (1)        | <br>ネジ (12 mm) (1)  | <br>ネジ (13 mm) (1)    |
| <br>ネジ (14 mm) (1)  | <br>ネジ (15 mm) (1)       | <br>ネジ (16 mm) (1) | <br>ネジ (17 mm) (1)   |
| <br>ネジ (18 mm) (1)  | <br>ネジ (19 mm) (1)       | <br>ネジ (20 mm) (1) | <br>ネジ (21 mm) (1)   |

100

The printer should be lifted by at least six people. Also, when lifting the printer, do not place your hands on the edges of the maintenance cover, as this may cause deformation or damage.



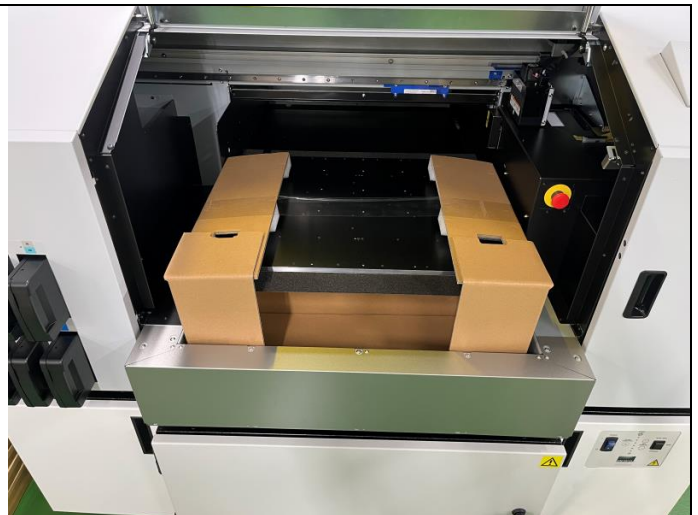
Step 10 / 62

Place the printer on the stand.



Step 11 / 62

Open the front cover and remove the vacuum table unit.



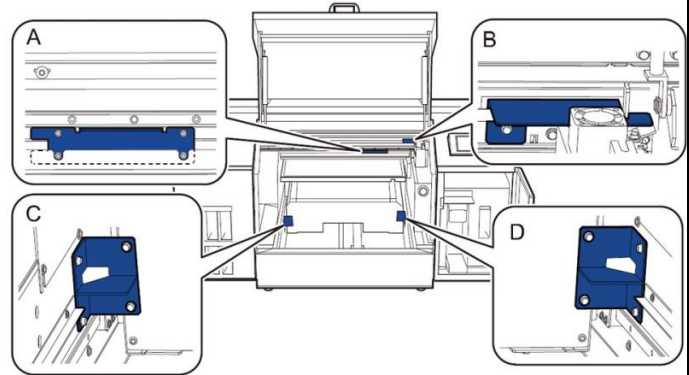
Step 12 / 62

[Details 1] Hold both sides of the vacuum table and pull it towards you to remove it.



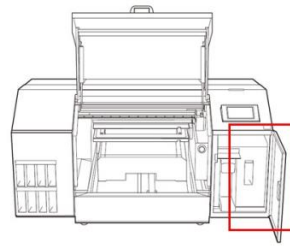
Step 13 / 62

Remove the four retainers.



Step 14 / 62

Reinstall the removed retainers and screws in the positions shown in the figure.



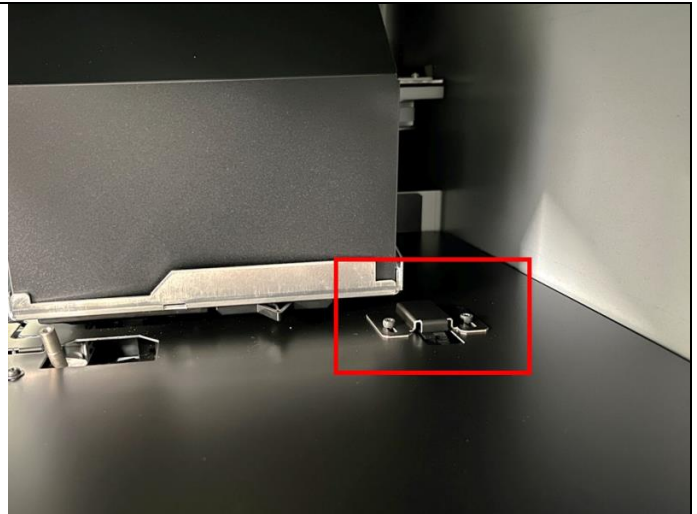
Step 15 / 62

[Detail 1] Store unused screws in a screw holder to prevent loss.



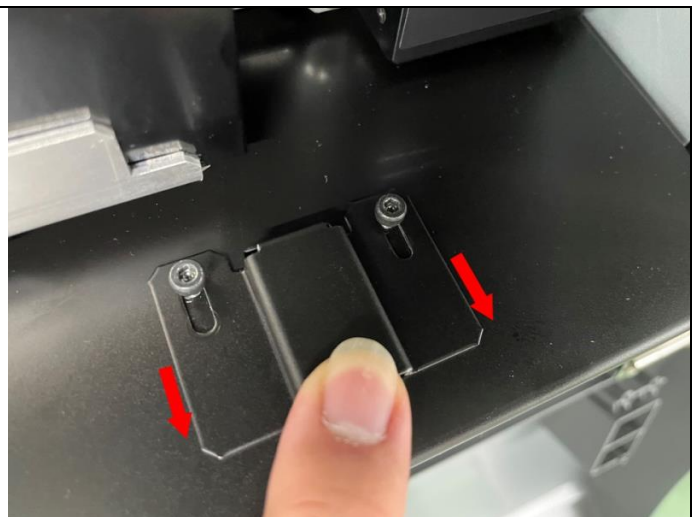
Step 16 / 62

Remove the gear cover, turn it over and reinstall it.



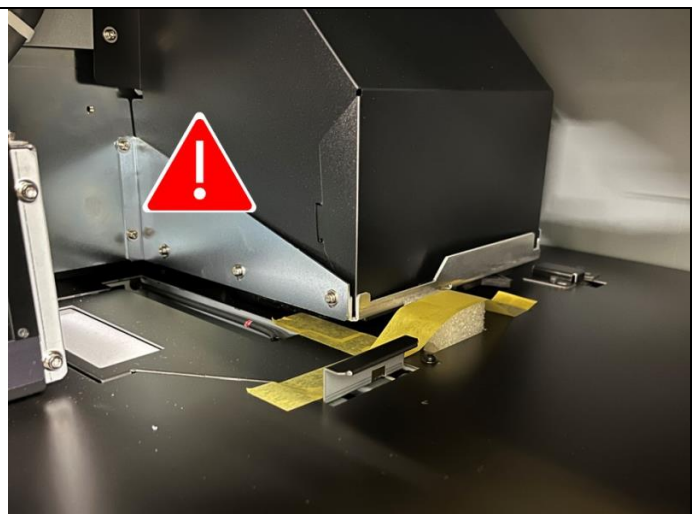
Step 17 / 62

[Detail 1] Re-attach the cover to a position that hides the entire gear, as shown in the figure.



Step 18 / 62

Remove the sponge and tape. The carriage is locked at this time, so do not move it by hand.





Step 19 / 62

Open the maintenance cover and remove the fixing tape.



Step 20 / 62

Remove the cap and inner lid from the drain bottle and attach the drain bottle to the bottle stand.



Step 21 / 62

If you are using the ink type shown in the figure, attach the included cartridge slot label on top of the cartridge slot label on the top row.



Step 22 / 62

Attach the clamps to the printer.



Step 23 / 62

Connect the power cord and ethernet cable to the machine and secure them with clamps in the orientation shown in the figure.



Step 24 / 62

Attach ink labels to the ink and cleaning fluid cartridges.



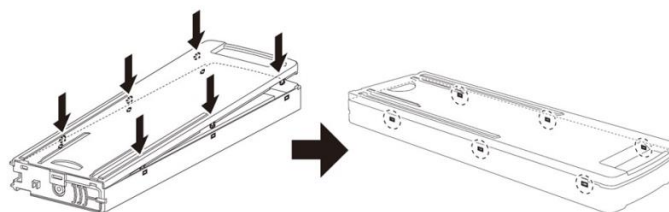
Step 25 / 62

[Details 1] Please attach CL to the cleaning fluid cartridge.



Step 26 / 62

Remove the ink cartridge cover and insert the ink and cleaning solution.



Step 27 / 62

Do not insert the ink cartridges into the machine until the instructions are displayed in the panel.



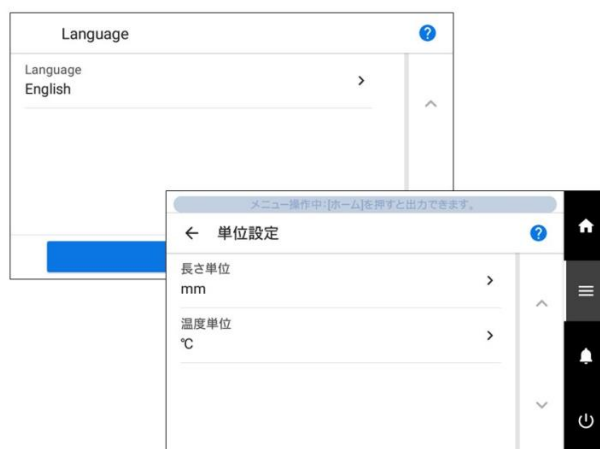
Step 28 / 62

Turn on the main power switch.



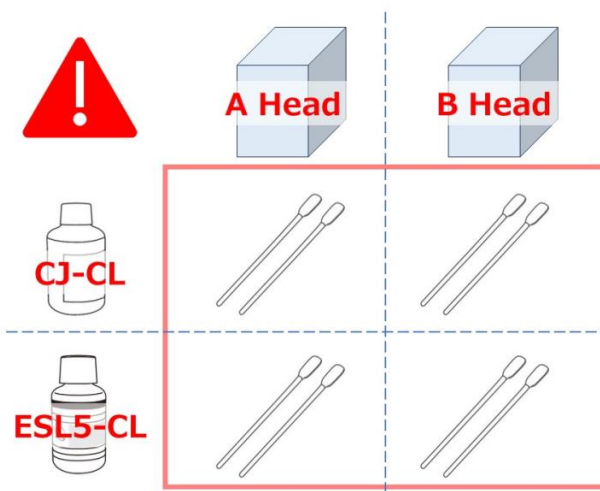
Step 29 / 62

Follow the instructions on the panel to select your desired language, length unit, temperature unit, and desired ink type.



Step 30 / 62

Manual cleaning before ink filling is performed four times for each print head, twice with CJ-CL and twice with ESL5. Use a new cleaning stick each time. A minimum of eight cleaning sticks will be consumed.



Step 31 / 62

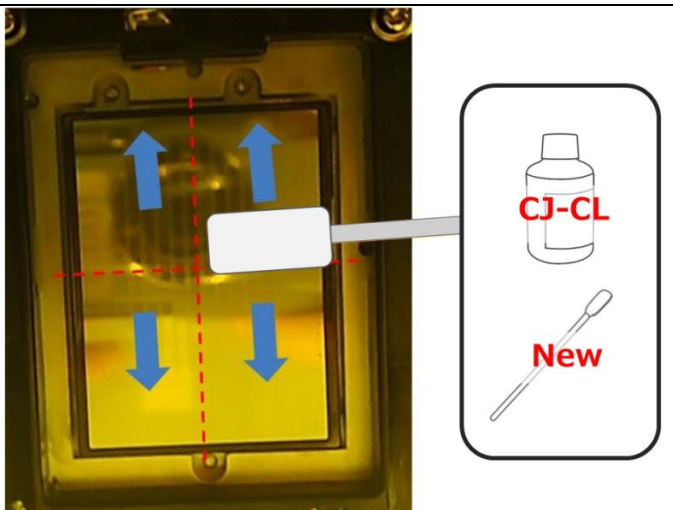
Touch the frame to release any static electricity.





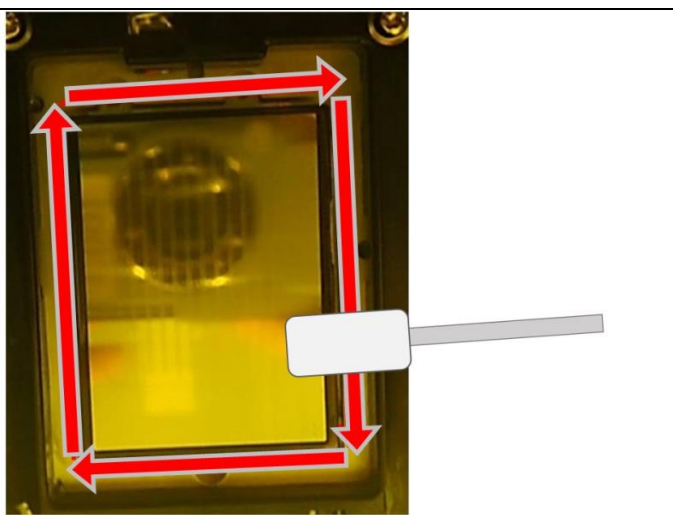
Step 32 / 62

Press the cleaning stick firmly against the nozzle surface of print head A and wipe off any remaining test ink inside and outside the nozzle. Move from the inside to the outside in four separate steps. Do not press or rub too hard.



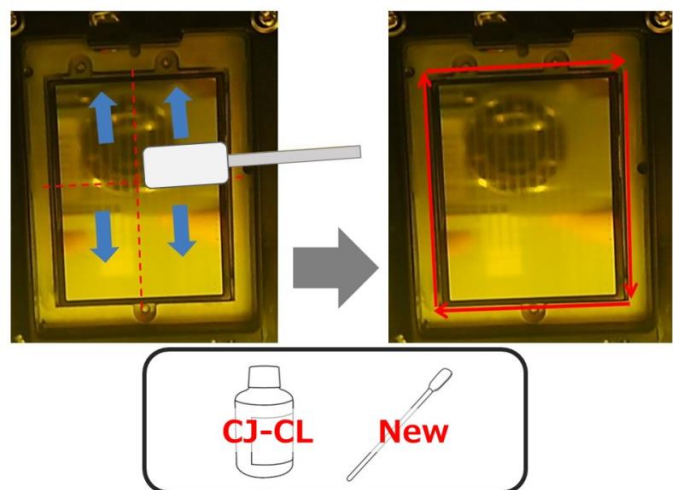
Step 33 / 62

Use the cleaning stick you used earlier to wipe the side of the print head A.



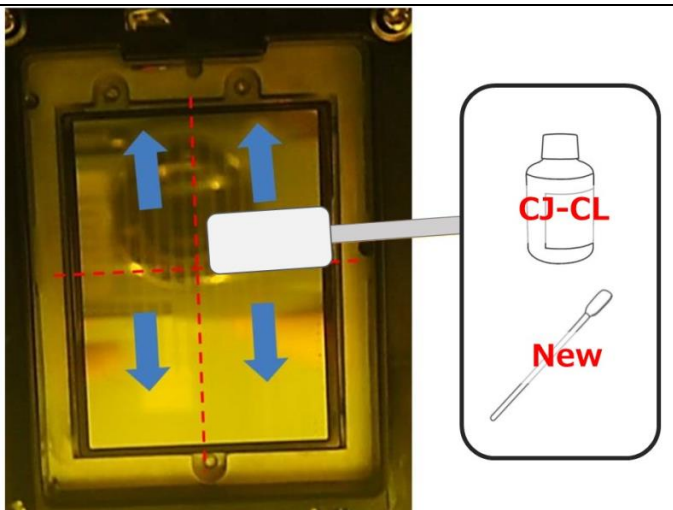
Step 34 / 62

Use a new cleaning stick to clean the surface and sides of the print head A again.



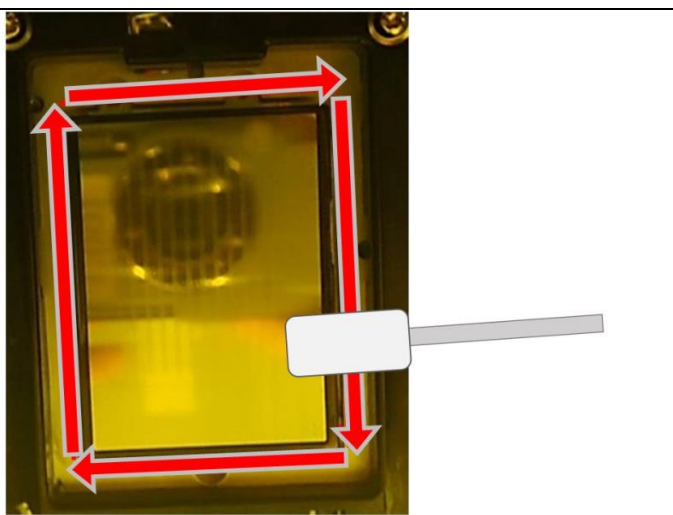
Step 35 / 62

Press the cleaning stick firmly against the nozzle surface of print head B and wipe off any remaining test ink inside and outside the nozzle. Move from the inside to the outside in four separate steps. Do not press or rub too hard.



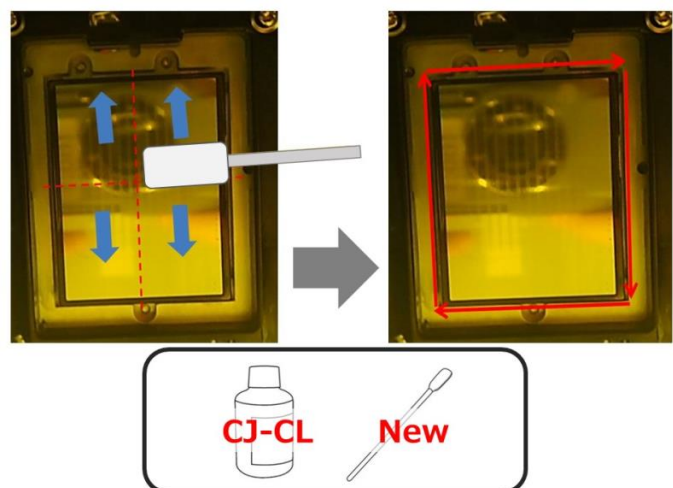
Step 36 / 62

Use the cleaning stick you used earlier to wipe the sides of print head B.



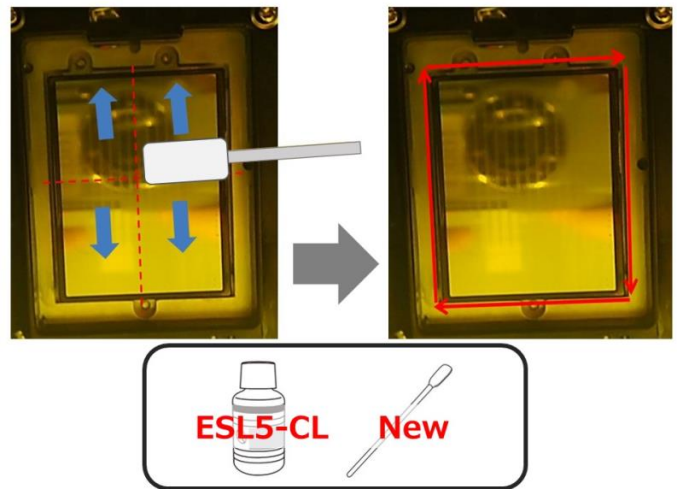
Step 37 / 62

Use a new cleaning stick to clean the surface and sides of print head B again.



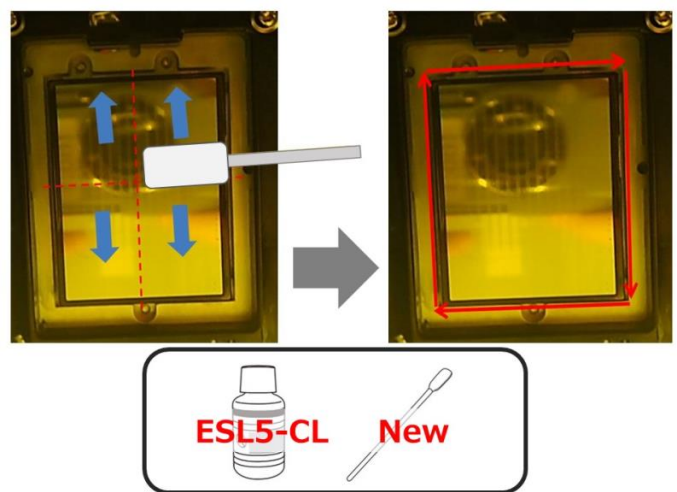
Step 38 / 62

Soak a new cleaning stick in ESL5-CL and clean the surface and sides of the print head A in the same way as you did with the CJ-CL.



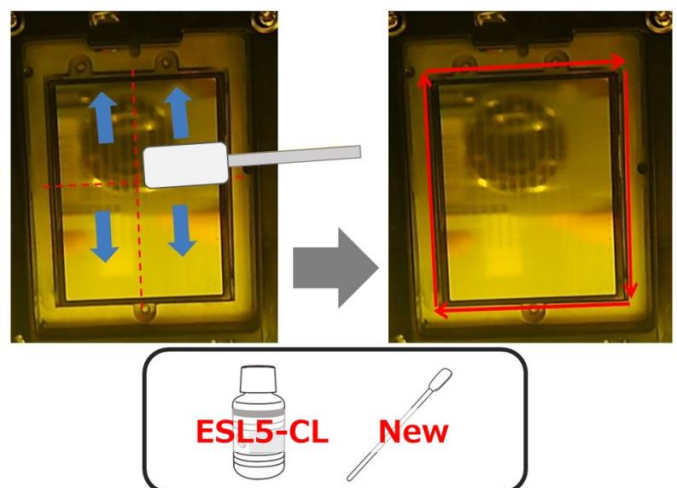
Step 39 / 62

Use a new cleaning stick to clean the surface and sides of the print head A again.



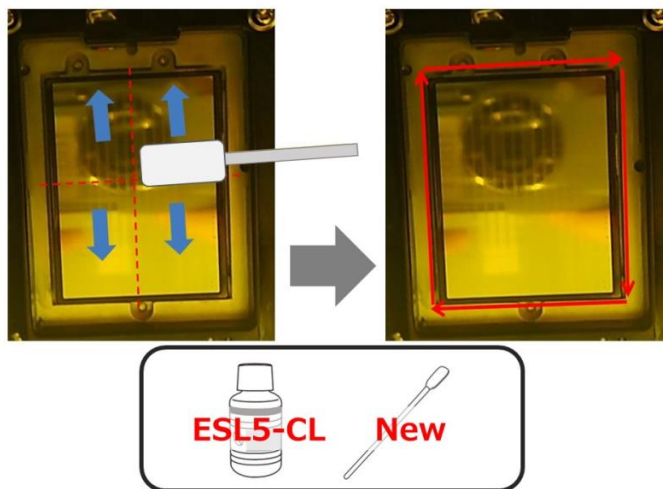
Step 40 / 62

Soak a new cleaning stick in ESL5-CL and clean the surface and sides of the print head B in the same way as you did with the CJ-CL.



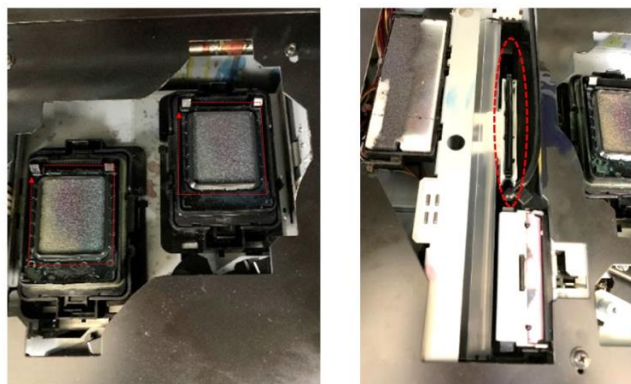
Step 41 / 62

Use a new cleaning stick to clean the surface and sides of the print head B again.



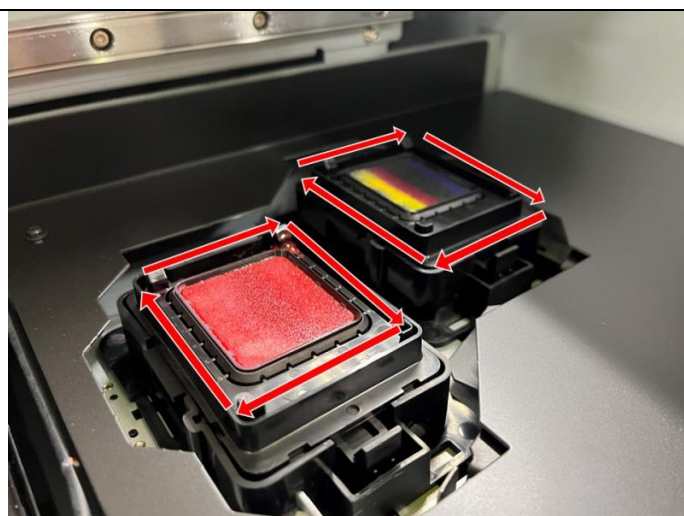
Step 42 / 62

Use the ESL5-CL cleaning stick used to wipe the print head to clean the wiper and print head cap.



Step 43 / 62

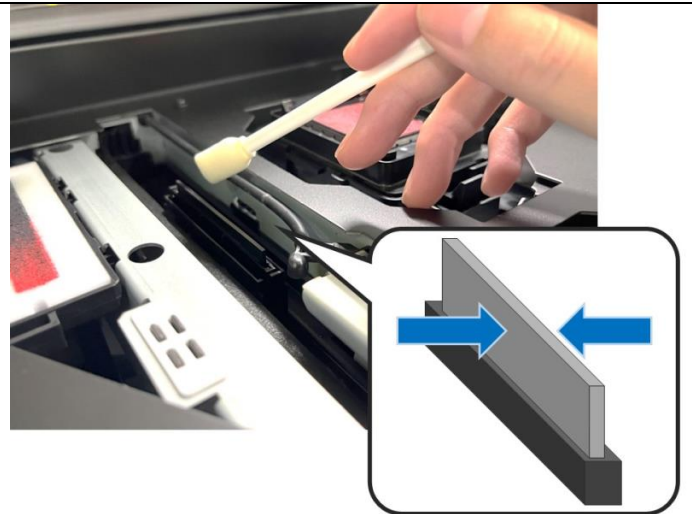
[Detail 1] Clean the edges of the print head caps with a cleaning stick.





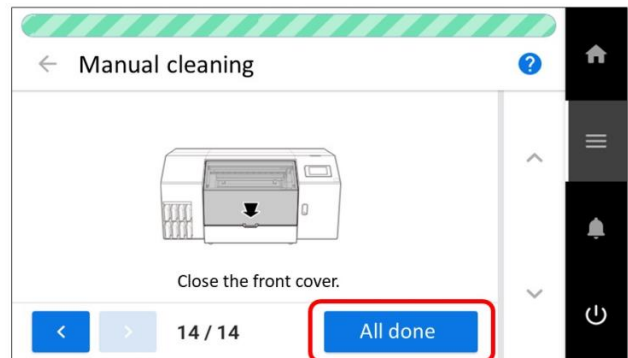
Step 44 / 62

[Details 2] Clean both the left and right sides of the wiper with a cleaning stick.



Step 45 / 62

When you're done, tap [All done] on the panel.



Step 46 / 62

When the panel instructs you to insert the ink cartridge, shake the ink cartridge about 50 times before inserting it into the ink slot. Ink filling will begin. When complete, the top screen will be displayed.



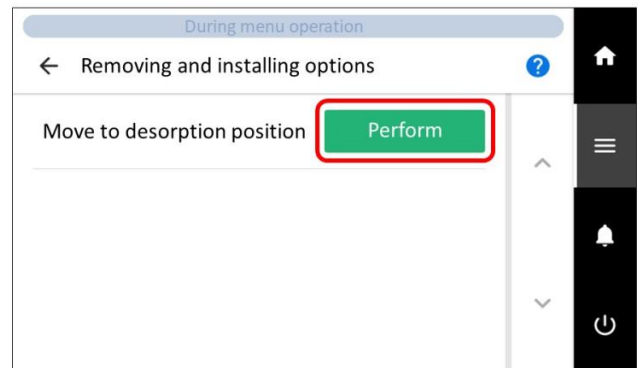
Step 47 / 62

Remove the vacuum table packaging.



Step 48 / 62

Tap [Menu] > [Preferences] > [Removing and installing options] > [Move to desorption position] to move the table.



Step 49 / 62

Open the front cover and lightly clean the surface of the flat table with a cloth or similar.





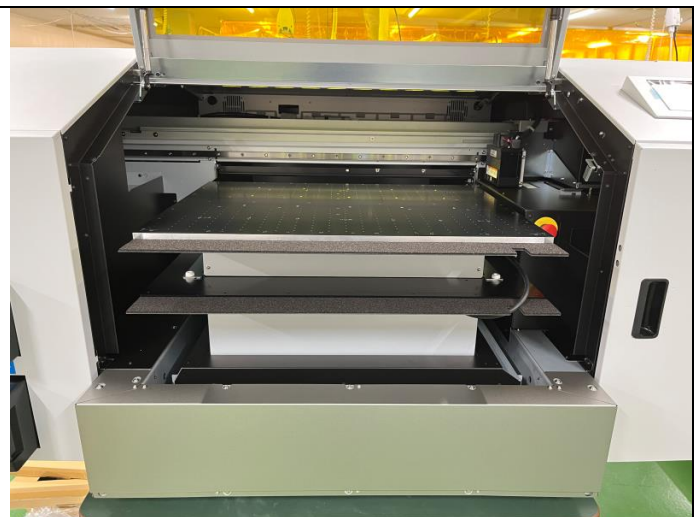
Step 50 / 62

Remove the plug cover from the power plug on the flat table. The plug cover will be attached when the power plug is not in use, so be sure to keep it in a safe place so that it does not get lost.



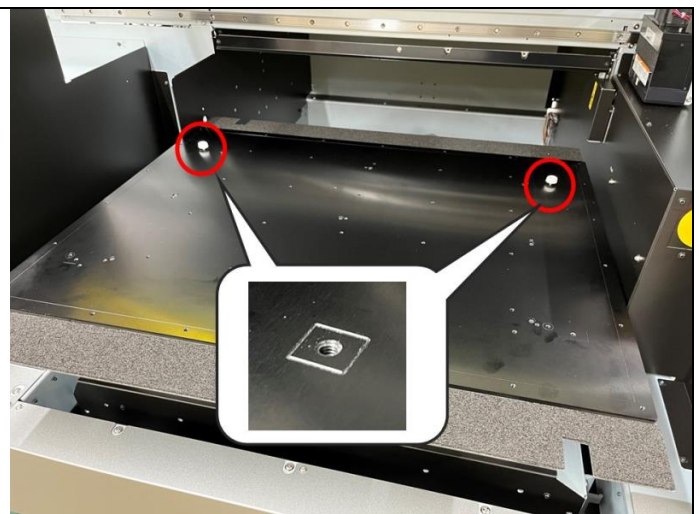
Step 51 / 62

Attach the vacuum table to the flat table.



Step 52 / 62

[Detail 1] Temporarily fasten the two mounting screws to the flat table. There are square marks to indicate the mounting position.



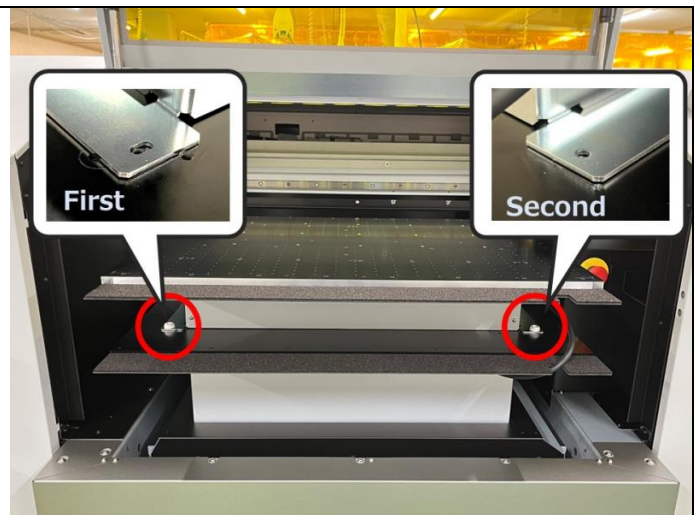
Step 53 / 62

[Details 2] Hold the vacuum table so that the cable is on the right side, and slide the grooves on the left and right rear ends of the vacuum table into the screws that you just temporarily fastened.



Step 54 / 62

[Detail 3] Temporarily tighten the two mounting screws on the front of the vacuum table. It is easier to install if you work from left to right.



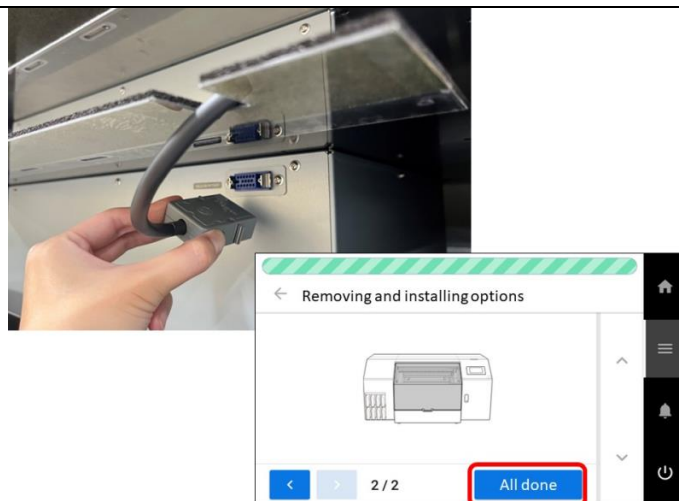
Step 55 / 62

[Detail 4] Fully tighten all mounting screws on the vacuum table.



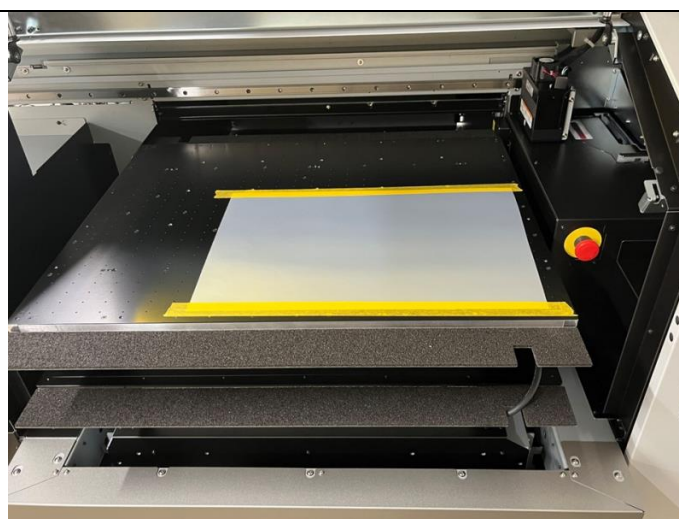
Step 56 / 62

Connect the vacuum table cable to the power plug of the flat table and tap [All done] on the operation panel.



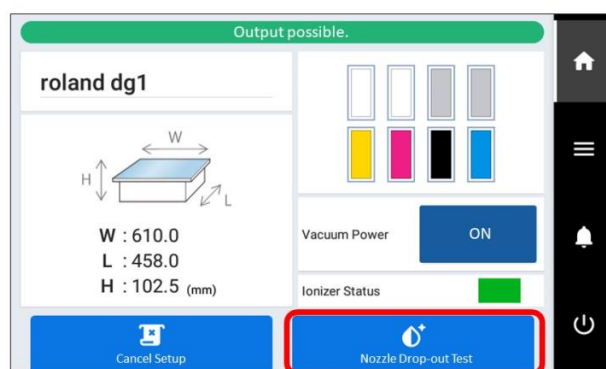
Step 57 / 62

Set up the media on the table.



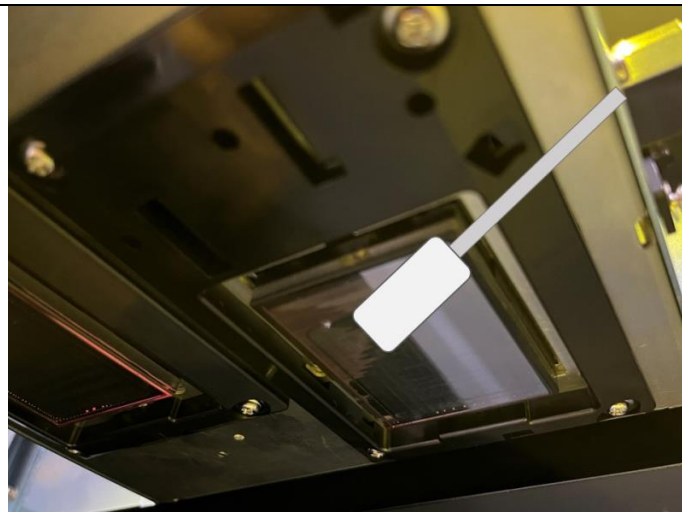
Step 58 / 62

Perform a test print to check for nozzle drop-out or dot displacement.



Step 59 / 62

[Details 1] If you notice any nozzle drop-out or dot displacement, try performing normal cleaning or manual cleaning to resolve the issue.



Step 60 / 62

Align the print head position.



次の手順

プリントヘッド位置調整

**Next Step**

Print head alignment

Step 61 / 62

Adjust the LED pointer position.



次の手順

LEDポインター位置調整

**Next Step**

LED pointer position adjustment

Return to the setup manual and refer to "Network Settings."

| Contents                                        |    |
|-------------------------------------------------|----|
| Introduction .....                              | 2  |
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## MO-180 Ionizer Unit Installation

# MO-180 Ionizer Unit Installation Information

Step 1 / 5

These are the installation procedures for users who have purchased the ionizer option. Please install the ionizer at the same time as installing the printer.



Step 2 / 5

### General Tools

#### 一般ツール/General Tool

|                                            |                                                                                       |
|--------------------------------------------|---------------------------------------------------------------------------------------|
| プラスドライバー No.2<br>No.2 Phillips screwdriver |  |
| ニッパー<br>Nippers                            |  |
| 六角レンチ 2.5mm<br>2.5mm hexagonal wrench      |  |

Step 3 / 5

### Typical work time

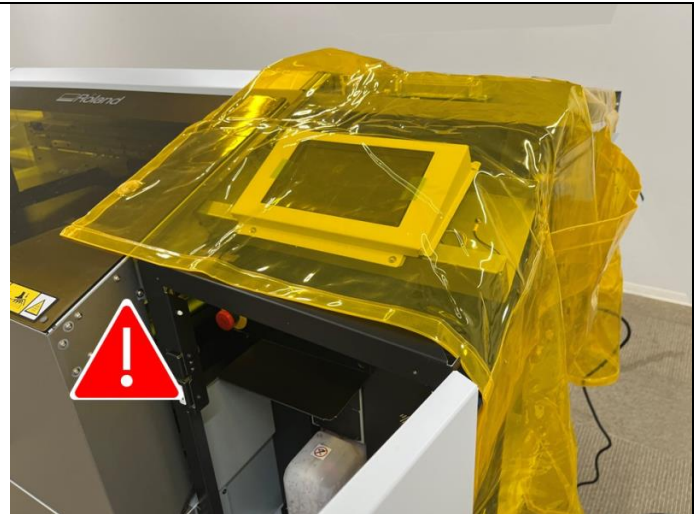
#### 作業時間/Typical work time

| 作業内容/Contents of work       | 時間/Time |
|-----------------------------|---------|
| イオナイザー設置<br>Ionizer setting | 30 min. |



Step 4 / 5

If you remove the cover, use a light-shielding sheet to prevent the ink from hardening.



Step 5 / 5

Before touching any electronic components, discharge static electricity from your body. You can discharge static electricity by touching an unpainted frame.



# MO-180 Ionizer Unit Installation

## MO-180 Ionizer Unit Installation

### Instructions

Step 1 / 39

Remove all the parts from the package and check that there are no missing accessories.



Step 2 / 39

[Details 1] Accessories



Step 3 / 39

[Details 2] Of the included parts, the warning sticker and plastic screwdriver will not be used.



Step 4 / 39

Attach the brackets to both ends of the ionizer so that they are oriented as shown in the figure.



Step 5 / 39

[Details 1] Right side



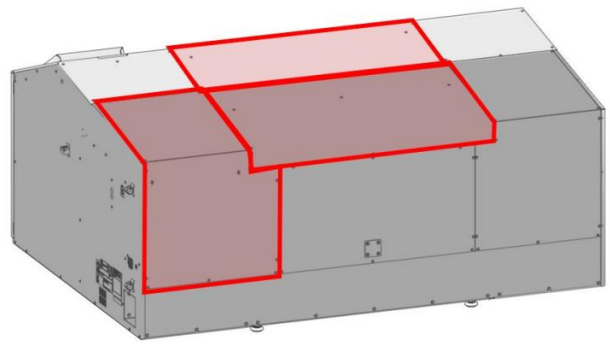
Step 6 / 39

[Details 2] Left side



Step 7 / 39

Remove the covers shown in the figure.



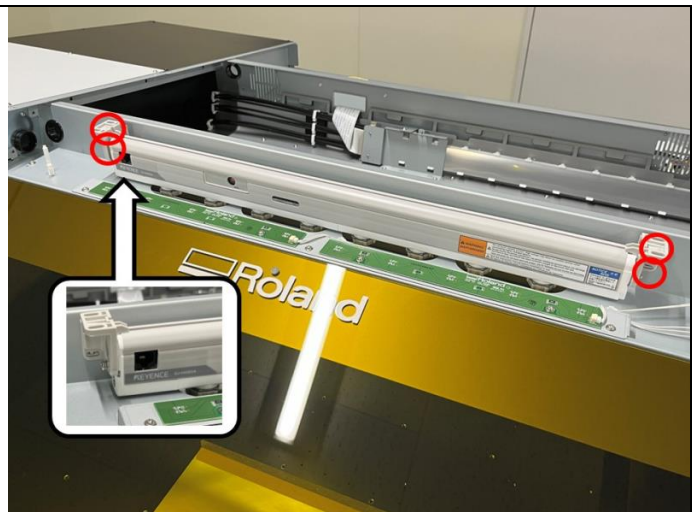
Step 8 / 39

[Details 1] To remove the top cover, lift the back and pull it out from the front.



Step 9 / 39

Place the ionizer on the printer with the LAN connection on the left side, and attach it with the hex screws.





Step 10 / 39

[Detail 1] There are two screws on each side.



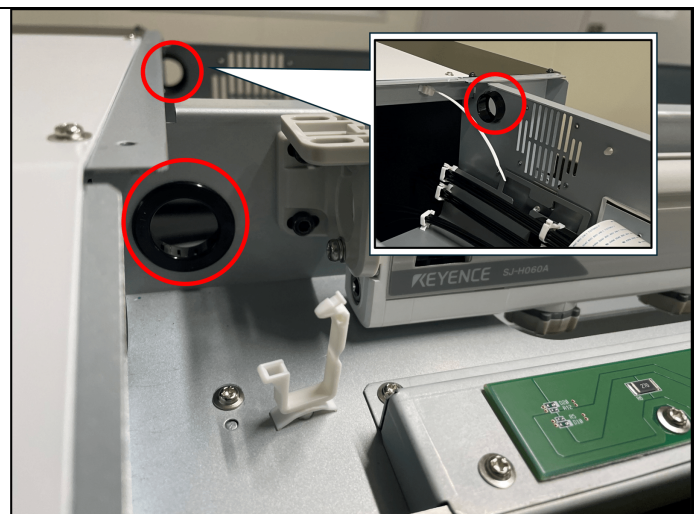
Step 11 / 39

Insert two push mounts into the printer's beams. Three push mounts are included in the package, but one of them will not be used.



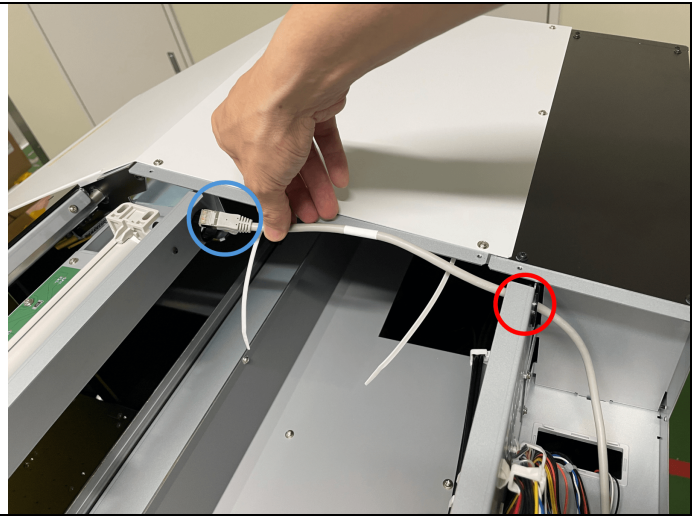
Step 12 / 39

Pass the LAN connector through the two holes on the back side.



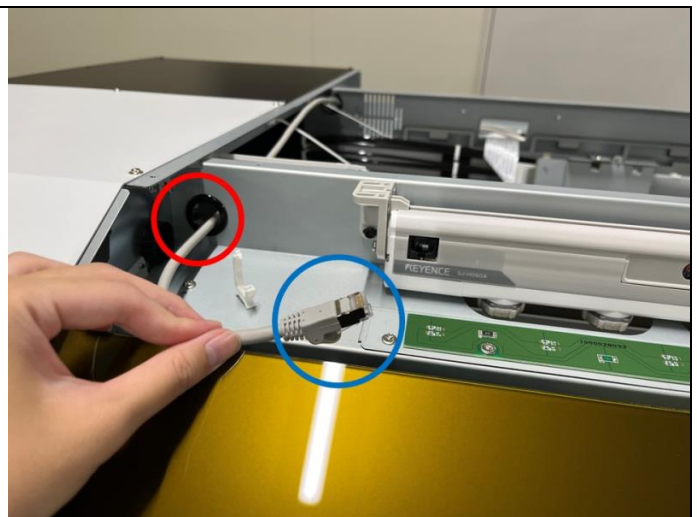
Step 13 / 39

[Detail 1] Hold the LAN connector side and pass the cable through the hole on the back.



Step 14 / 39

[Details 2] Go around to the front of the machine and pass the LAN connector through the hole in the front.



Step 15 / 39

Connect the LAN connector to the ionizer. Gently pull the cable so that there is no slack, and secure it with a cable tie.





Step 16 / 39

Fix the cable to the push mount. Be careful not to let the cable sag.



Step 17 / 39

[Details 1] Tie the cable so that it can still be moved, and pull it lightly toward the back while tightening the push mount ties. Working from the front push mount in order, you can reduce slack.



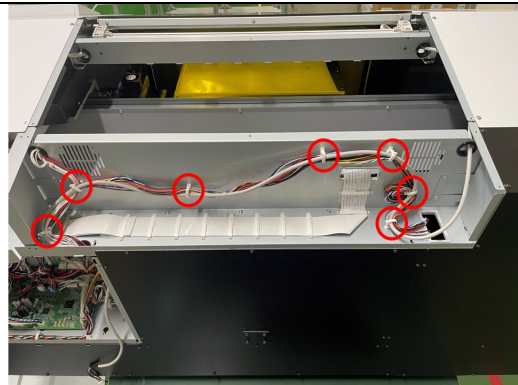
Step 18 / 39

[Details 2] Cut off the excess band with pliers.



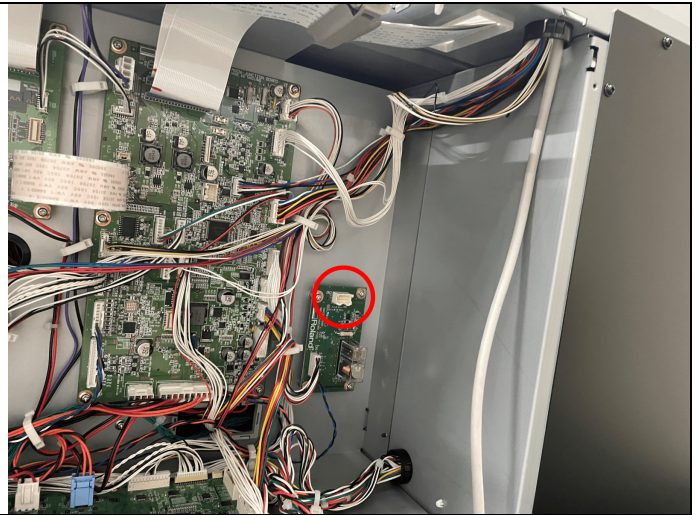
Step 19 / 39

Open the cable ties and secure the cable as shown.



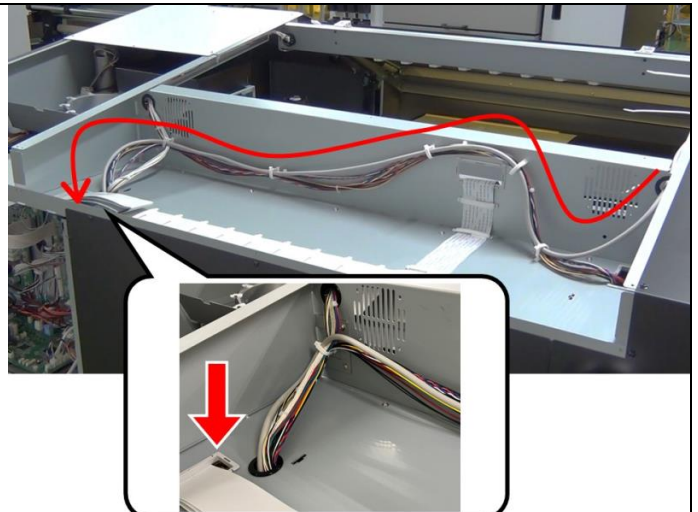
Step 20 / 39

Pass the connector and ground wire through the hole together and connect the connector to the ionizer board.



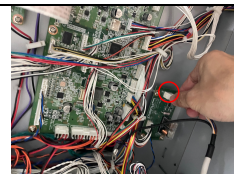
Step 21 / 39

[Detail 1] Pass the connector and ground wire through the hole together. \*The image shows MO-240.

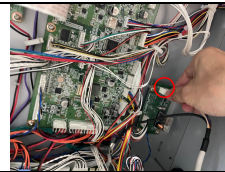


Step 22 / 39

[Details 2] Pull out the cable from the



other side and connect the connector to the ionizer board.



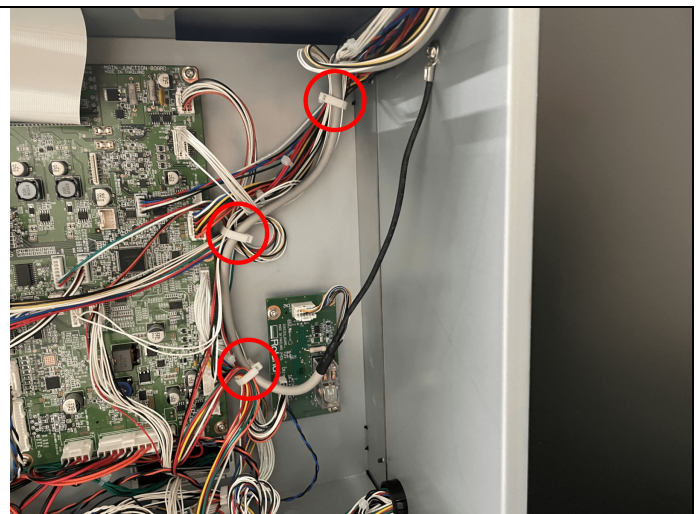
Step 23 / 39

Fix the ground wire to the chassis wall with a screw in the orientation shown in the figure.



Step 24 / 39

Secure the cables with the three cable ties.



Step 25 / 39

Connect the machine to Peck2 and enter service mode.



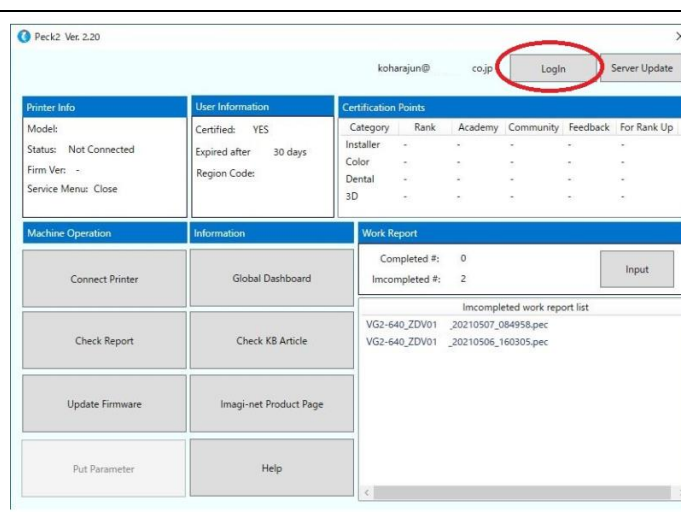
Step 26 / 39

[Details 1] Start Peck2.



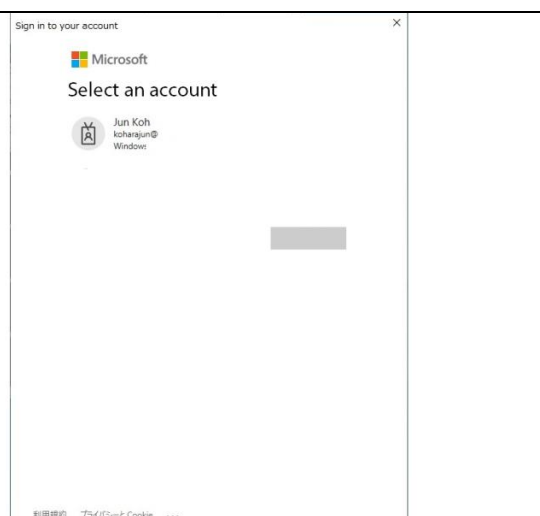
Step 27 / 39

[Details 2] Click the Login button.



Step 28 / 39

[Details 3] Log in with your Imagi-net ID.





Step 29 / 39

[Details 4] 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                  |   |
|------------------------|--|------------------------|--|------------------------------|---|
| <b>Connect Printer</b> |  | Global Dashboard       |  | Completed #:                 | 0 |
| Check Report           |  | Check KB Article       |  | Incompleted #:               | 2 |
| Update Firmware        |  | Imagi-net Product Page |  | Input                        |   |
| Put Parameter          |  | Help                   |  | Incompleted work report list |   |

VG2-640\_ZDV01 \_20210507\_084958.pec  
VG2-640\_ZDV01 \_20210506\_160305.pec

Step 30 / 39

[Details 1] Enter the IP address of the printer you want 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      |             |
|                   |                      |                  |         | 3D                   | 0         | 0       | *         | 200      |             |

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

Step 31 / 39

[Details 6] When you can connect to the printer, 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          |                  |         | Color                | 0         | 0       | 0         | 200      |             |
| Service Menu: | Open          |                  |         | Dental               | 0         | 0       | *         | 200      |             |
|               |               |                  |         | 3D                   | 0         | 0       | *         | 200      |             |

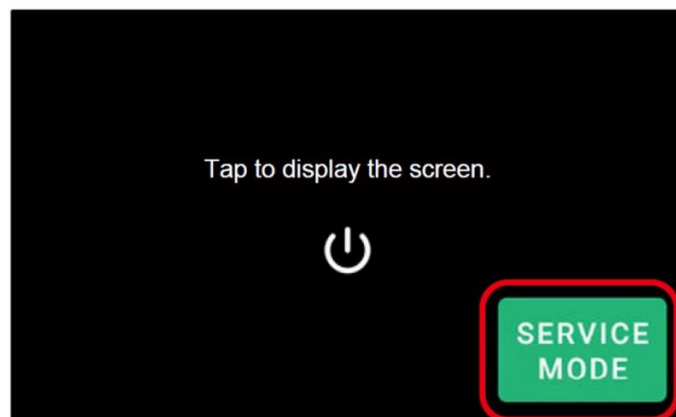
| Machine Operation |  | Information            |  | Work Report                  |   |
|-------------------|--|------------------------|--|------------------------------|---|
| Connect Printer   |  | Global Dashboard       |  | Completed #:                 | 0 |
| Check Report      |  | Check KB Article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

VG2-640\_ZDV01 \_20210507\_084958.pec  
VG2-640\_ZDV01 \_20210506\_160305.pec



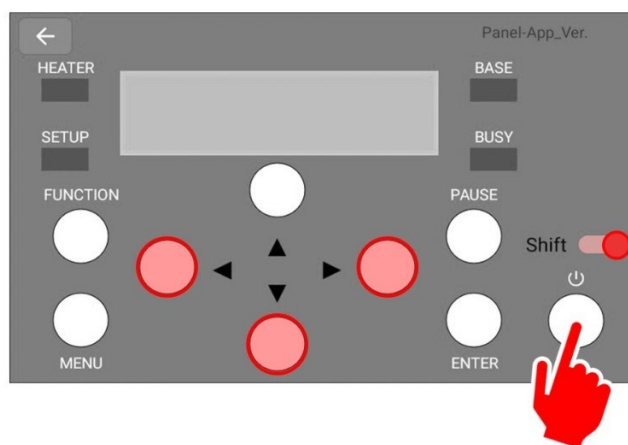
Step 32 / 39

Select the service mode in the panel.



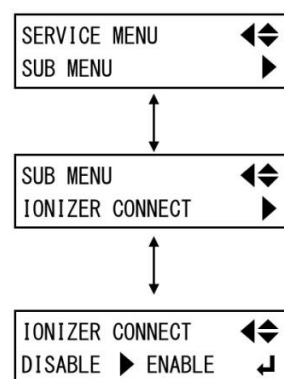
Step 33 / 39

[Details 8] Press [Shift] on the panel > [ ] + [ ] + [ ] + [Sub power] to enter service mode. Turning the [Shift] button ON allows you to press the buttons simultaneously.



Step 34 / 39

Go to [SERVICE MENU] > [SUB MENU] > [ IONIZER CONNECT] and select [ ENABLE], then check that the ionizer lamp is lit.



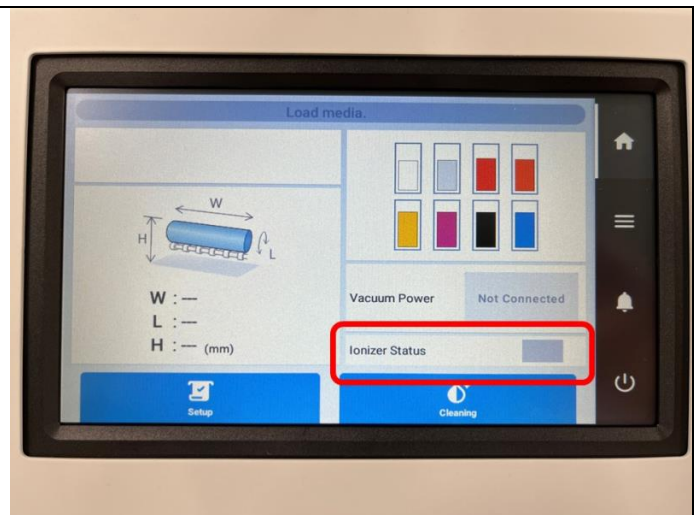
Step 35 / 39

[Detail 1] When the ionizer function is enabled, the ionizer LED will light up.



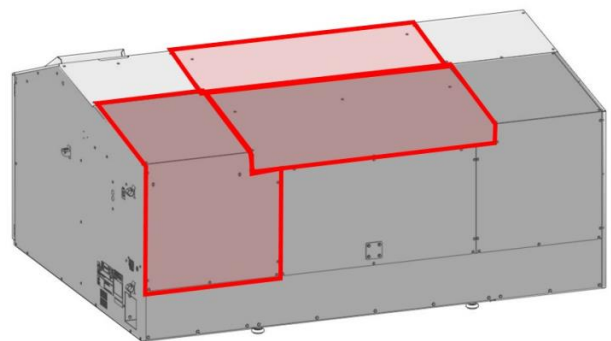
Step 36 / 39

Start the machine in user mode and confirm that the [Ionizer Status] is displayed on the menu screen.



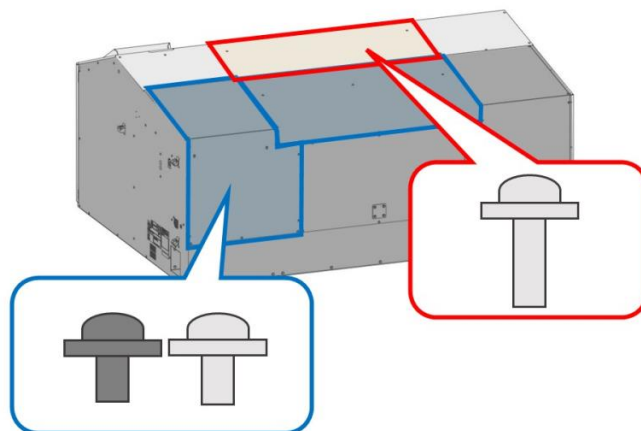
Step 37 / 39

Install the covers that you removed.



Step 38 / 39

[Detail 1] Use 5 mm screws to secure the center cover.



Step 39 / 39

[Detail 2] When installing the top cover, lift the back and then install it from the front.



## MO-180 Print Head Replacement

# MO-180 Printhead Replacement Information

Step 1 / 7

### General Tool 1

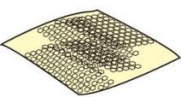
#### 一般ツール/General Tool

|                                                                                     |                                                                                     |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| プラスドライバー No.2<br>(長さ200mm以下)<br>No.2 Phillips screwdriver<br>(Length 200mm or less) |  |
| プラスドライバー No.2 (80mm以下)<br>No.2 Phillips screwdriver<br>(80mm or less)               |  |

Step 2 / 7

### General Tools 2

#### 一般ツール/General Tool

|                                 |                                                                                       |
|---------------------------------|---------------------------------------------------------------------------------------|
| 手袋<br>Groves                    |   |
| 保護メガネ<br>Goggles                |  |
| ウエス<br>Rag                      |  |
| UVカットシート<br>UV protection sheet |  |

Step 3 / 7

### General Tool 3

#### 一般ツール/General Tool

|                               |                                                                                       |
|-------------------------------|---------------------------------------------------------------------------------------|
| クリーニングスティック<br>Cleaning stick |  |
| CJ-CL                         |  |
| ESL5-CL                       |  |

Step 4 / 7

## Special fixture

### 特殊治具/Special Tools

TORQUE DRIVER,LTD120CN



Step 5 / 7

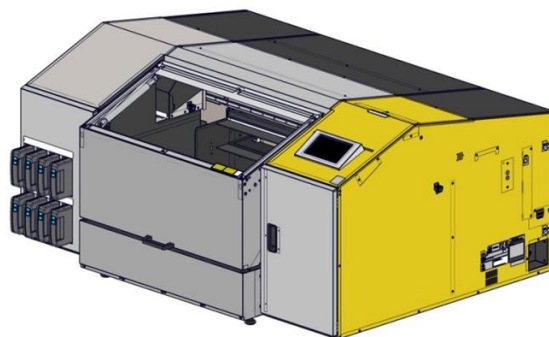
## Standard Work Hours

### 作業時間/Typical work time

| 作業内容/Contents of work               | 時間/Time |
|-------------------------------------|---------|
| プリントヘッド交換<br>Print head replacement | 30 min. |
| プリントヘッド位置調整<br>Print head alignment | 20 min. |

Step 6 / 7

## Removable cover





Step 7 / 7

The print head comes with eight 40mm tubes and four stoppers.

ストッパー / Stopper  
4 個 / 4 Pieces



40mm チューブ / 40mm Tube  
8 本 / 8 Pieces

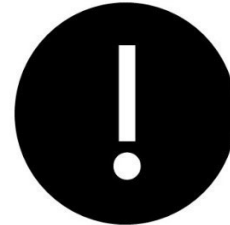


## MO-180 Print Head Replacement

# MO-180 Print head replacement Procedure

Step 1 / 115

The following procedure is for replacing the left print head. When replacing only the right print head, go to "Right print head tube assembly".



Step 2 / 115

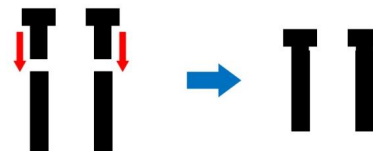
Make 6 tubes (except 2 tubes for circulation tubes) into 30 mm tubes by cutting 10 mm.



Step 3 / 115

Attach stoppers to the two 30 mm tubes.

\*There are 4 stoppers included in the package because 4 stoppers are used when replacing the right print head. However, only 2 stoppers are used when



replacing the left print head.



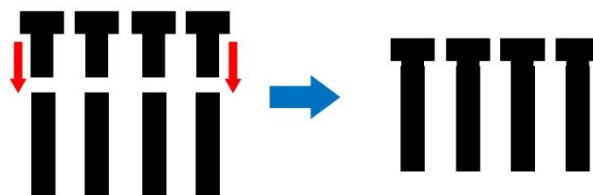
Step 4 / 115

Cut all 8 tubes included in the package to 30 mm in length.



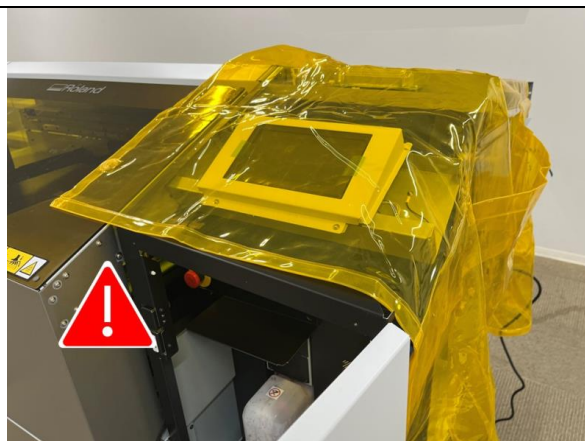
Step 5 / 115

Attach the stoppers to the four tubes.



Step 6 / 115

When the covers are removed, use a light-shielding sheet to prevent the ink from curing.



Step 7 / 115

Turn off the main power switch and unplug the power cable.



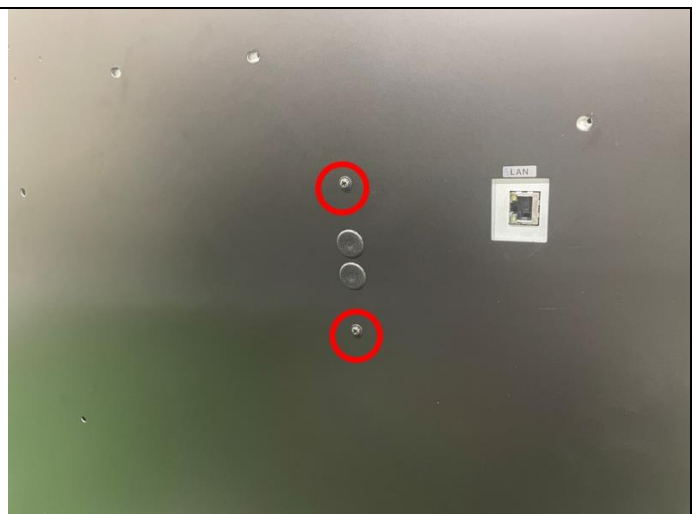
Step 8 / 115

Remove the cover on the top of the print head and the cover on the right side. For subsequent replacement work, it is recommended to work from the right side of the machine.



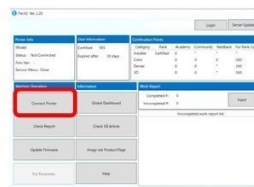
Step 9 / 115

Detail1: The two screws on the right side cover do not need to be removed.



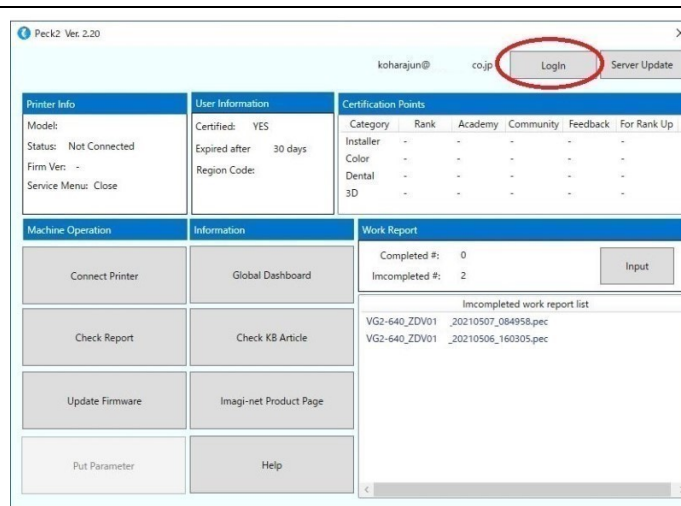
Step 10 / 115

Turn on main power and connect Peck2 to enter Service Mode.



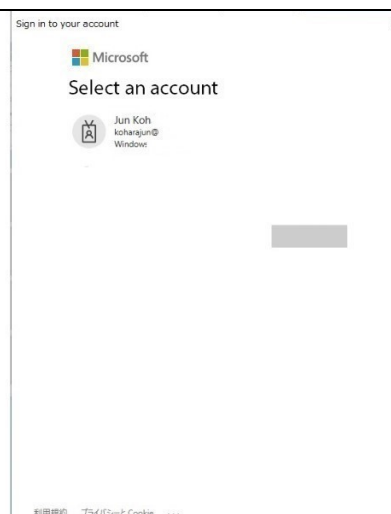
Step 11 / 115

Detail1: Click on the [Login] button.



Step 12 / 115

Detail2: Login with your Imagi-net ID.





Step 13 / 115

Detail3: Click [Connect Printer].

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: -           | 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       | Imcompleted #: 2 |
| Update Firmware   | Imagi-net Product Page | Input            |
| Put Parameter     | Help                   |                  |

Imcompleted work report list

VG2-640\_ZDV01 \_20210507\_084958.pec

VG2-640\_ZDV01 \_20210506\_160305.pec

Step 14 / 115

Detail4: Enter the IP address of the machine you wish 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: -           | 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       | Imcompleted #: 2 |
| Update Firmware   | Imagi-net Product Page | Input            |
| Put Parameter     | Help                   |                  |

Imcompleted work report list

VG2-640\_ZDV01 \_20210507\_084958.pec

VG2-640\_ZDV01 \_20210506\_160305.pec

Step 15 / 115

Detail5: When connected to the 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       | 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       | Imcompleted #: 2 |
| Update Firmware   | Imagi-net Product Page | Input            |
| Put Parameter     | Help                   |                  |

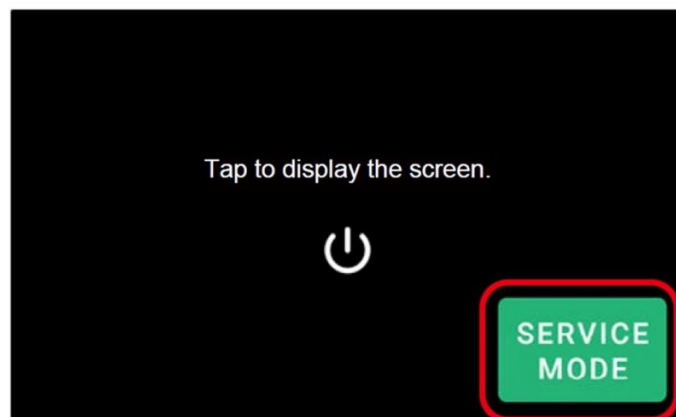
Imcompleted work report list

VG2-640\_ZDV01 \_20210507\_084958.pec

VG2-640\_ZDV01 \_20210506\_160305.pec

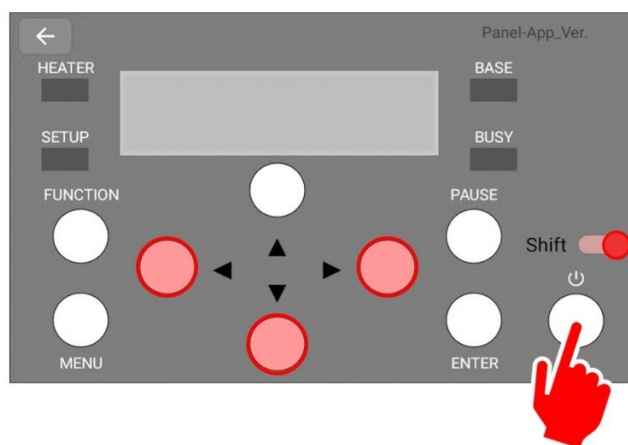
Step 16 / 115

Detail6: Select the service mode in the panel.



Step 17 / 115

Detail7: Press [Shift]> [□]+[□]+[□]+[Sub Power] on the panel to enter Service Mode. By turning on the [Shift] button, the multiple buttons can be pressed simultaneously.



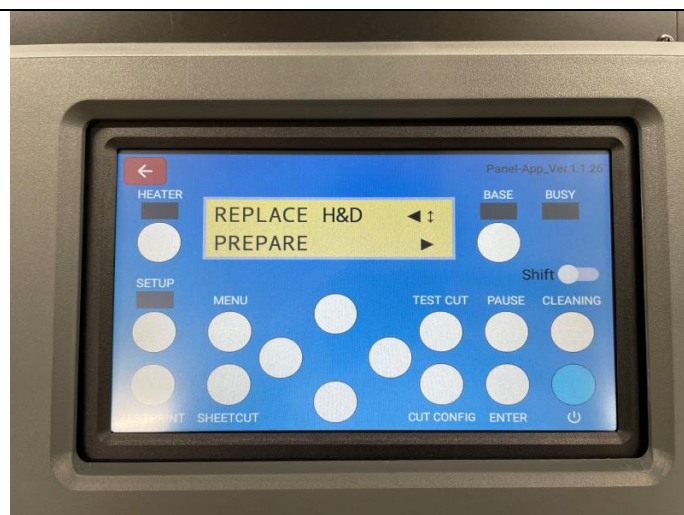
Step 18 / 115

Open [REPLACE H&D] from the [SUB MENU] in the SERVICE MENU.



Step 19 / 115

With [PREPARE] displayed, click [□] to select the group of print head to be replaced.



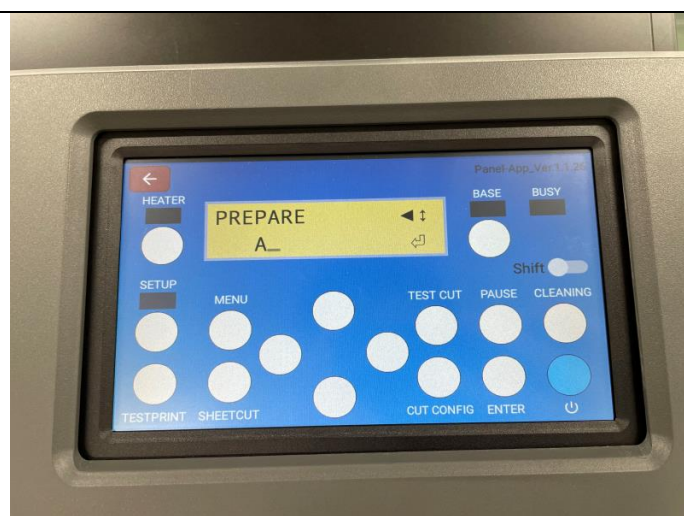
Step 20 / 115

Detail1: Select the group corresponding to the print head to be replaced.



Step 21 / 115

Detail2: A: Left print head



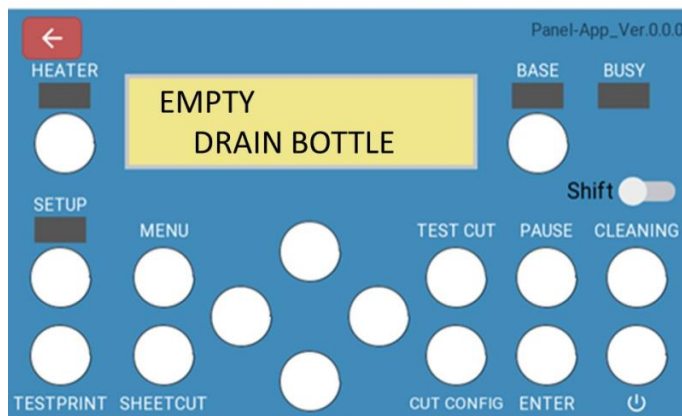
Step 22 / 115

Detail3: B: Right print head



Step 23 / 115

Discard the waste liquid.



Step 24 / 115

Press [ENTER] to start moving the carriage to the left to remove the carriage cover.





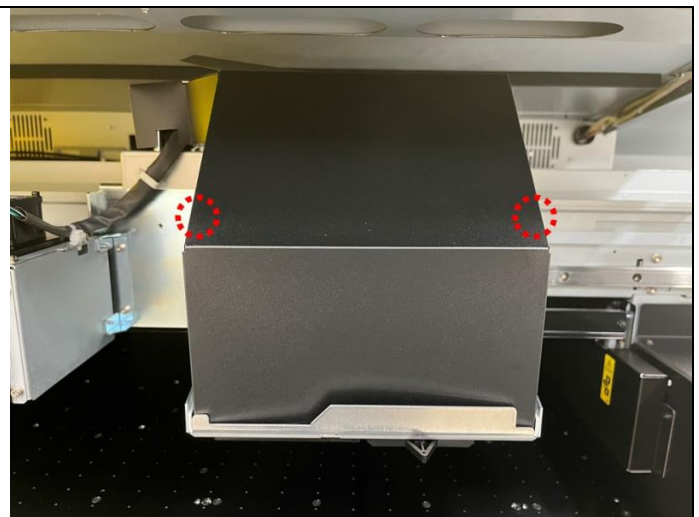
Step 25 / 115

When the screen in the image appears, remove the cover of the carriage that has moved to the center of the table.



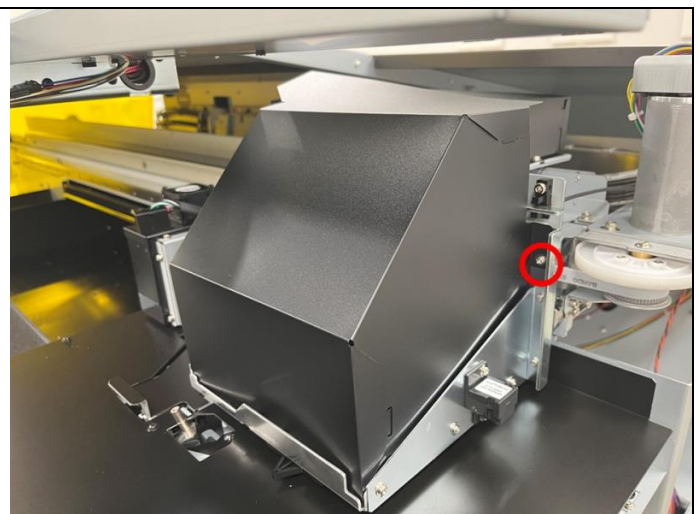
Step 26 / 115

Detail1: The carriage cover has one screw on each side.



Step 27 / 115

Detail2: Right side



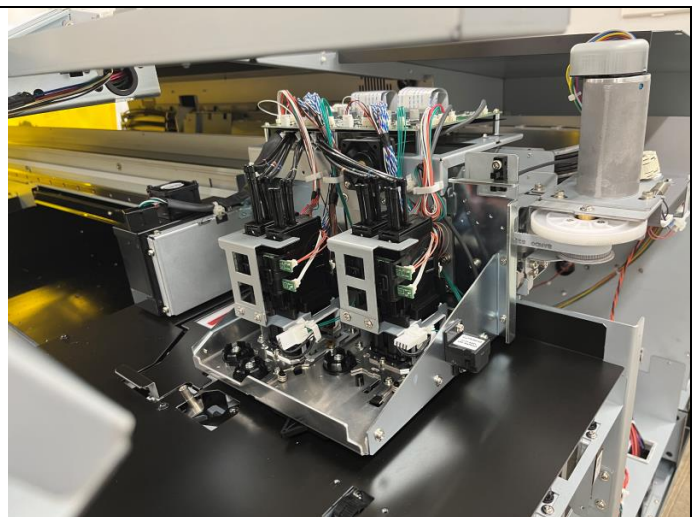
Step 28 / 115

Detail3: Left side



Step 29 / 115

Press [ENTER] to return the carriage to the origin.



Step 30 / 115

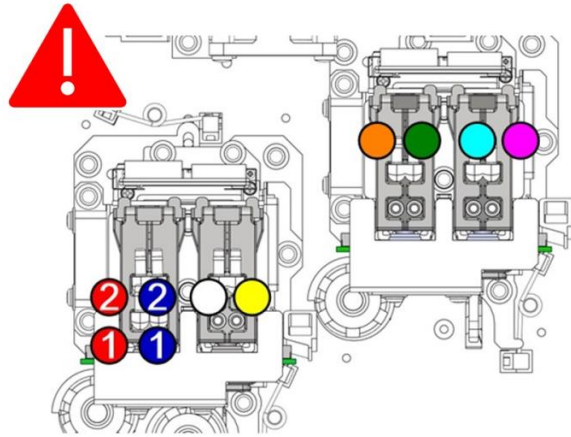
Wear gloves and safety glasses.





Step 31 / 115

When connecting the ink tube, be careful not to insert it into another path by mistake. Doing so may cause color mixing.



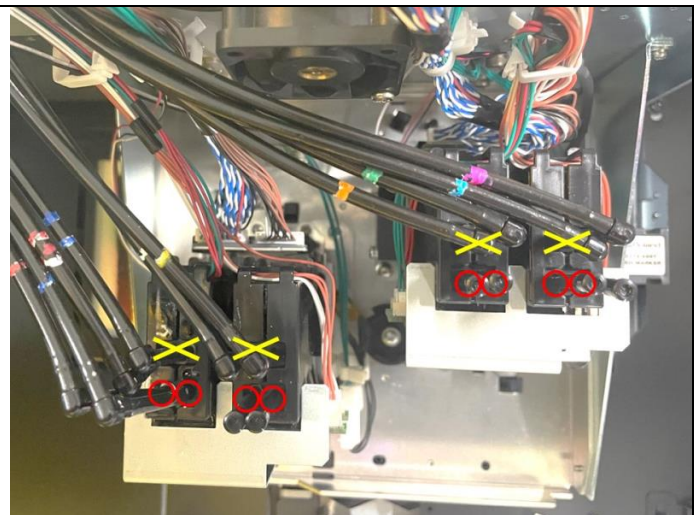
Step 32 / 115

When the image appears, pull out the front tube attached to the print head to be replaced and press [ENTER]. \*Ink may leak out, so please prepare a dry clog and remove the tube. There is a procedure to reconnect the tube, so please make sure you know where the tube is connected.



Step 33 / 115

Detail1: Target tubes



Step 34 / 115

Reconnect the ink tube on the front side that you just pulled out, and press [ENTER].



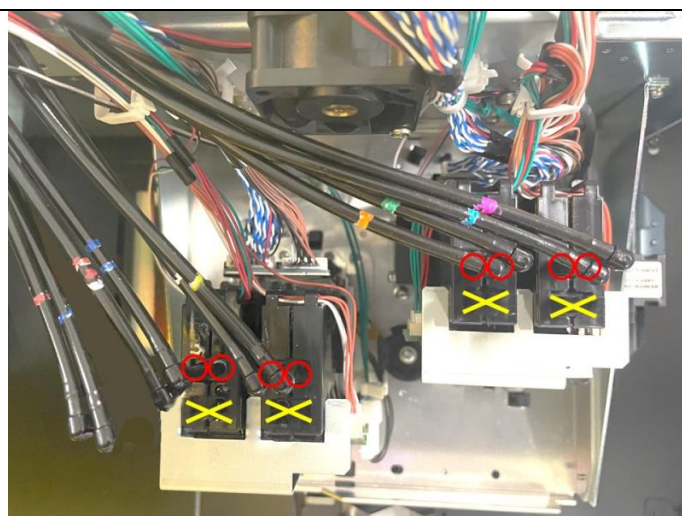
Step 35 / 115

Pull out the back side tube attached to the print head to be replaced, and press [ENTER]. Ink may leak out, so please prepare a dry cloth and remove the tube.



Step 36 / 115

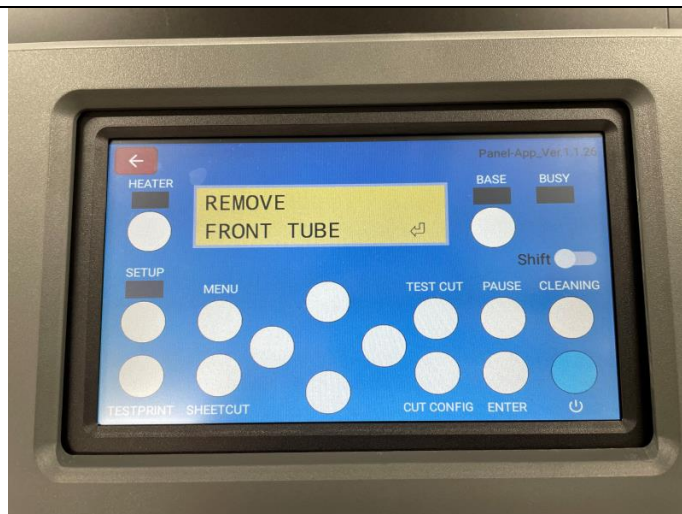
Detail1: Pull out the tube on the back side.





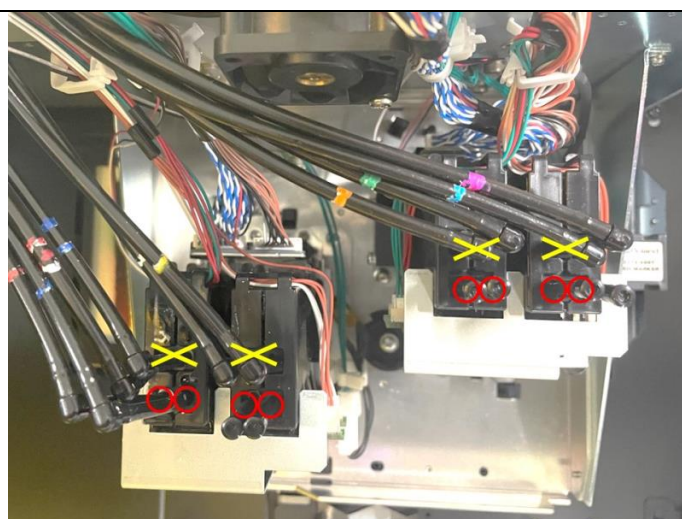
Step 37 / 115

Pull out the tube on the front side of the print head to be replaced again and press [ENTER]. The ink discharge sequence will begin.



Step 38 / 115

Detail1: Pull out the tube on the front side.



Step 39 / 115

When the ink discharge sequence is completed, the sub power will automatically turn off.



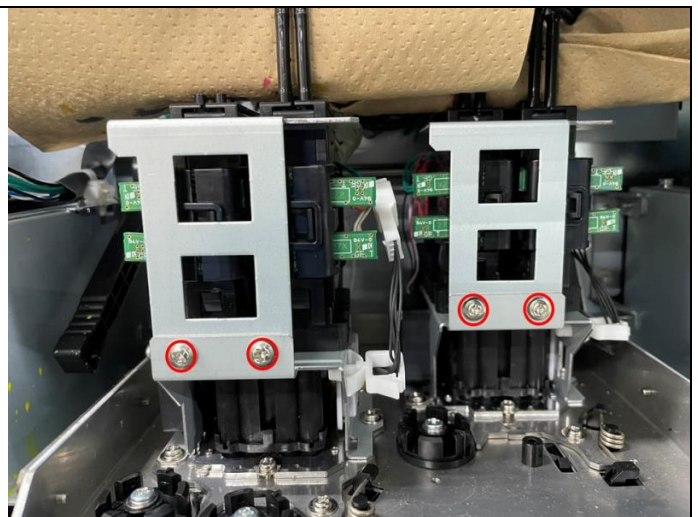
Step 40 / 115

After the sub power is turned off, turn off the main power.



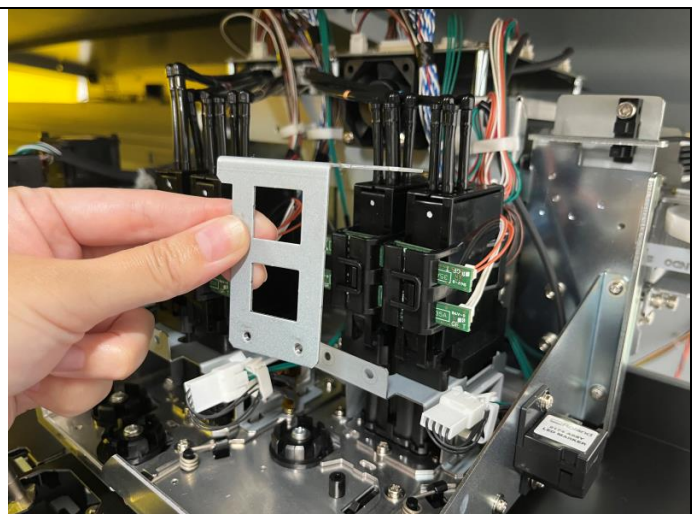
Step 41 / 115

Remove the metal plate attached to the front of the damper. After removing the screws, pull the metal plate upwards to remove it.



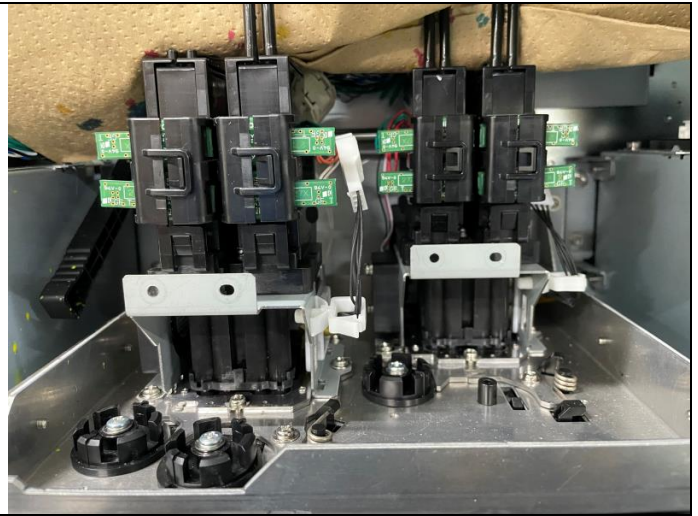
Step 42 / 115

Detail1: Metal plate



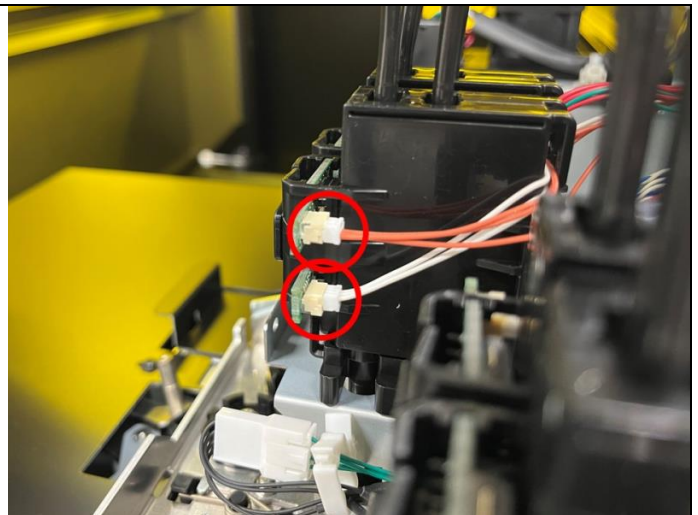
Step 43 / 115

Detail2: After removed



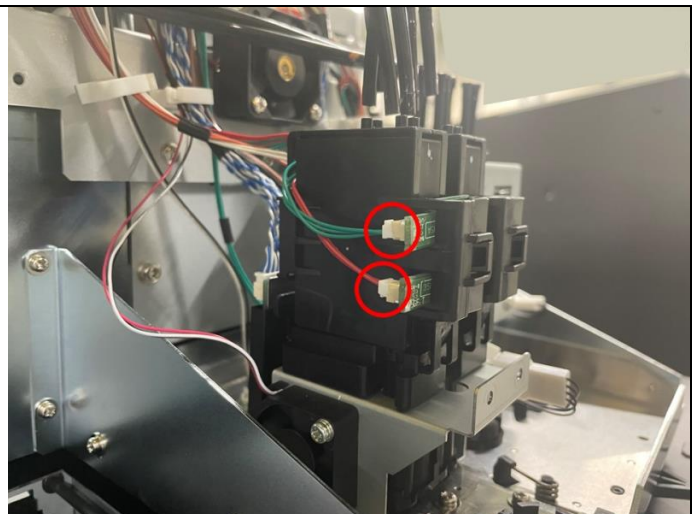
Step 44 / 115

Remove the four pressure sensor connectors. Right side



Step 45 / 115

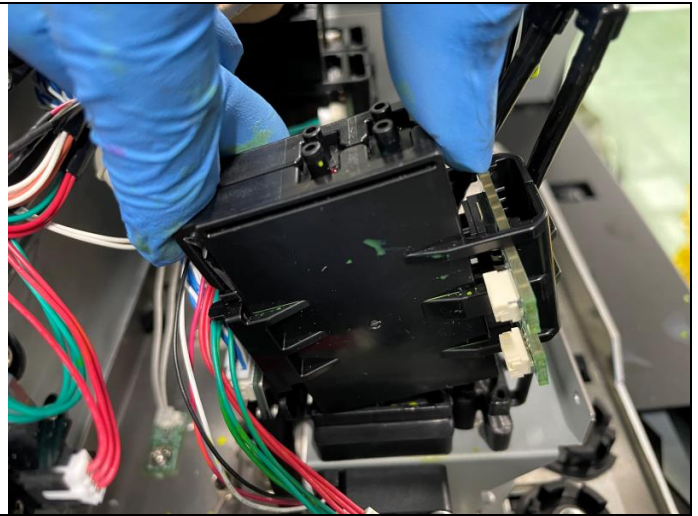
Detail1: Left side





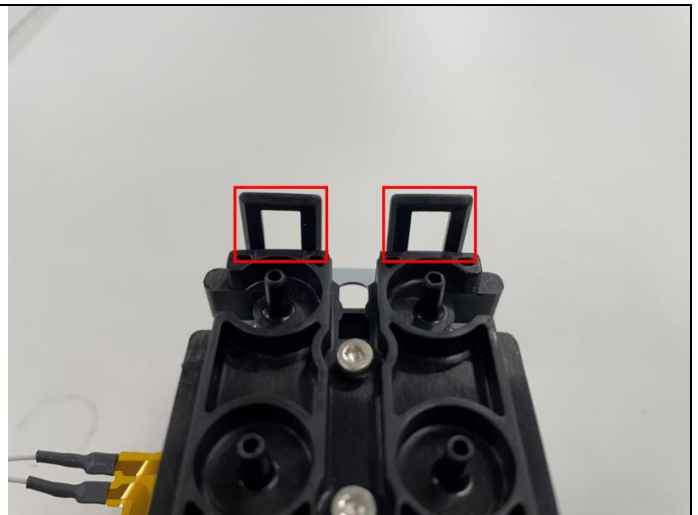
Step 46 / 115

Detail1: Remove the damper.



Step 47 / 115

Detail2: Remove the damper with the claws attached. Front view



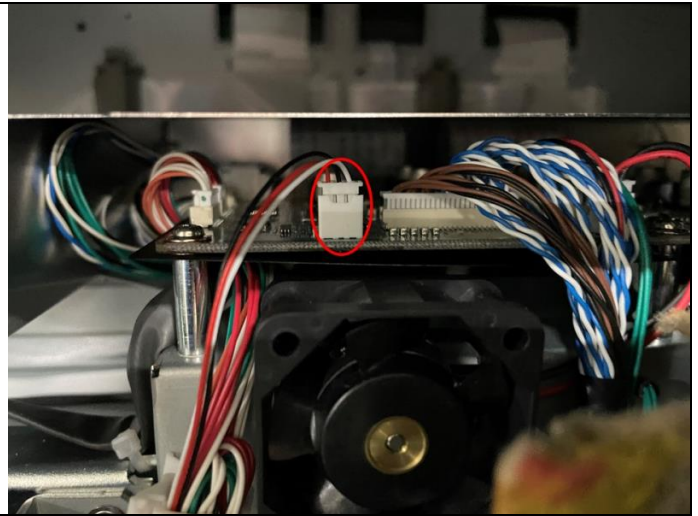
Step 48 / 115

Detail3: The back side also has claws, which can be easily unhooked by pushing the red circled area to the rear. Rear view



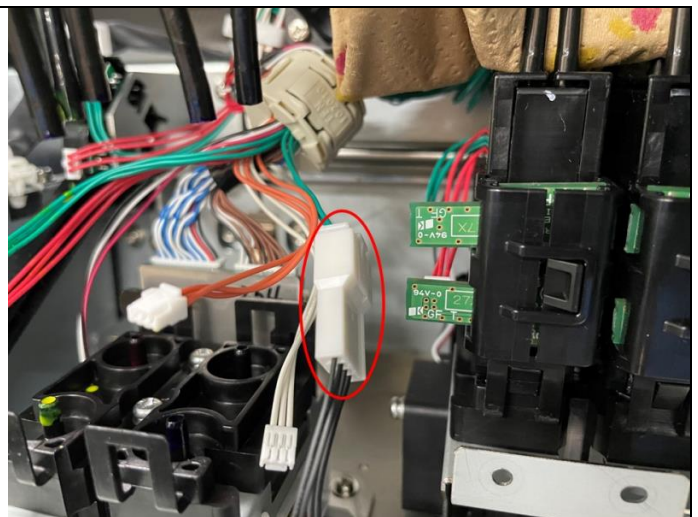
Step 49 / 115

Remove the print head cooling fan connector connected to the print carriage board.



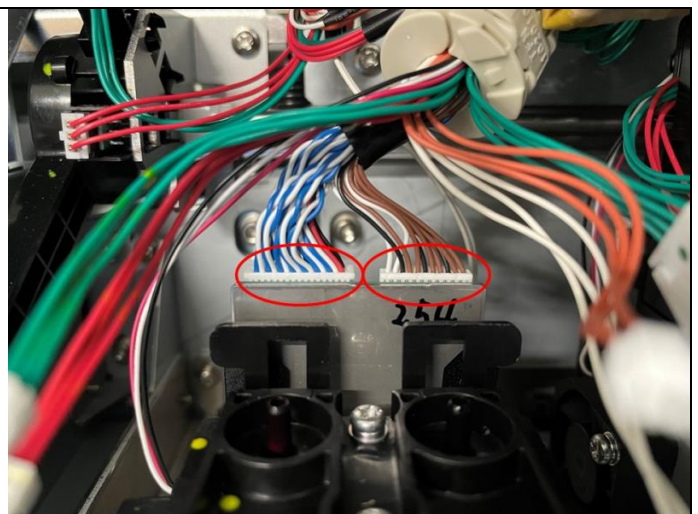
Step 50 / 115

Remove the connector connected to the head heater.



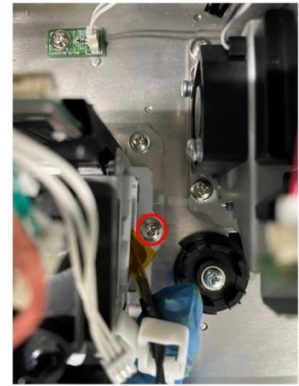
Step 51 / 115

Remove the two connectors connected to the print head. \*Take care not to disconnect the terminals when pulling them out. The connector on the right side has a lock.



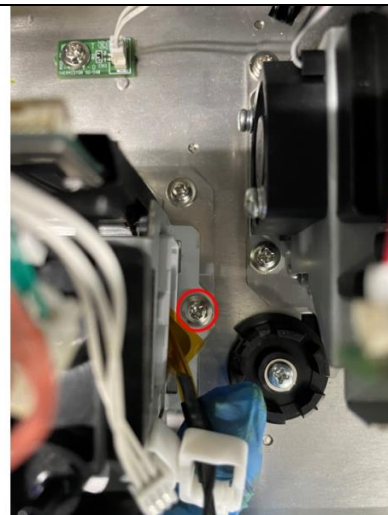
Step 52 / 115

Remove the three adapter fixing screws that are secured to the head plate.



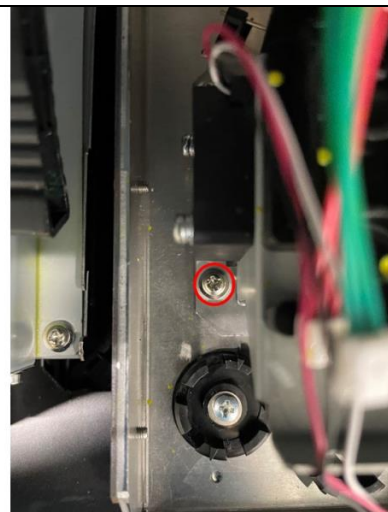
Step 53 / 115

Detail1: Right side



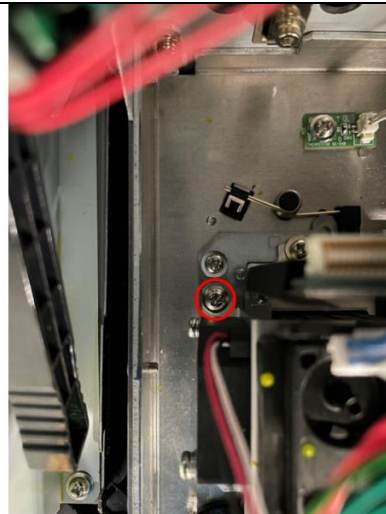
Step 54 / 115

Detail2: Left side from



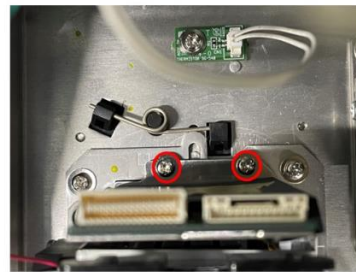
Step 55 / 115

Detail3: Left side back



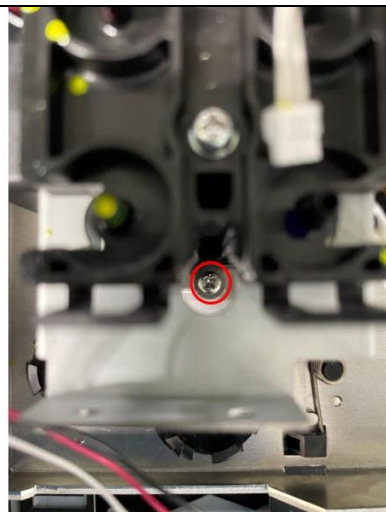
Step 56 / 115

Remove the three screws securing the print head.



Step 57 / 115

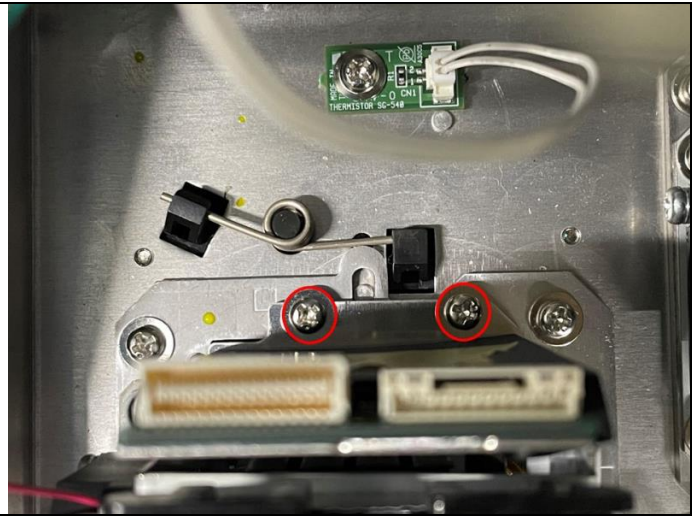
Detail1: Front side of the print head





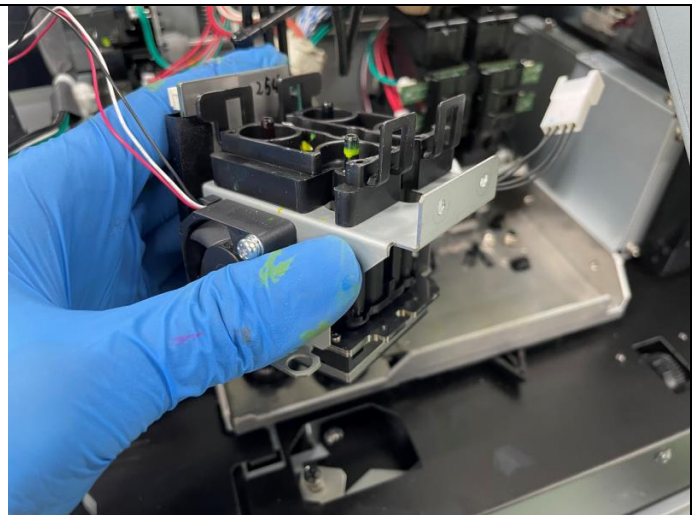
Step 58 / 115

Detail2: Back side of the print head



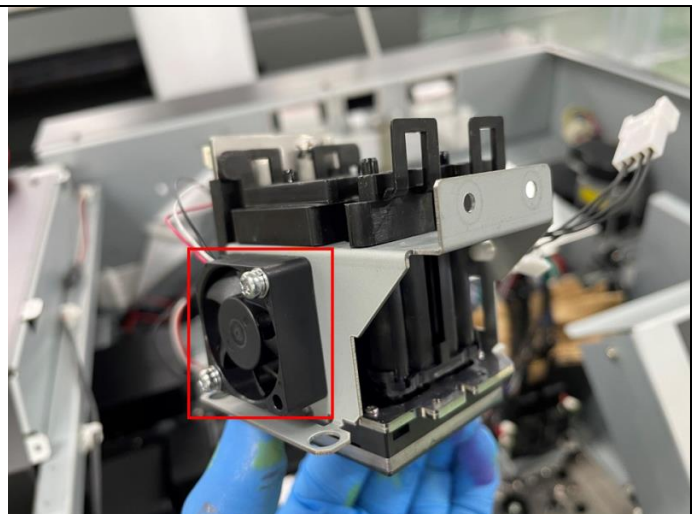
Step 59 / 115

Detail3: Remove the print head.



Step 60 / 115

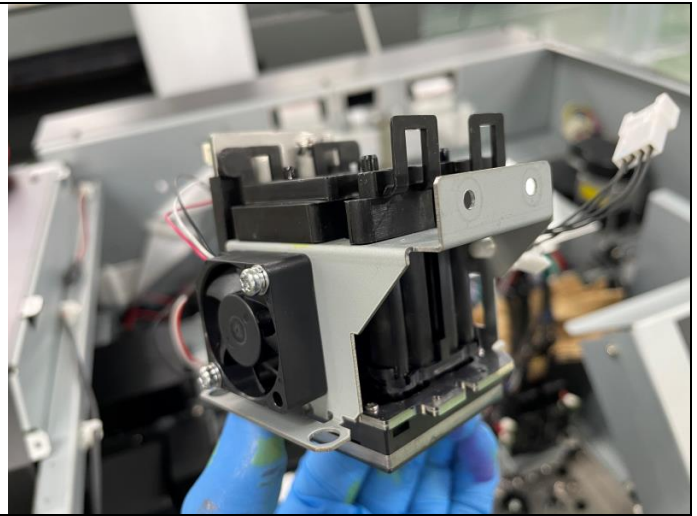
Remove the head cooling fan attached to the print head.





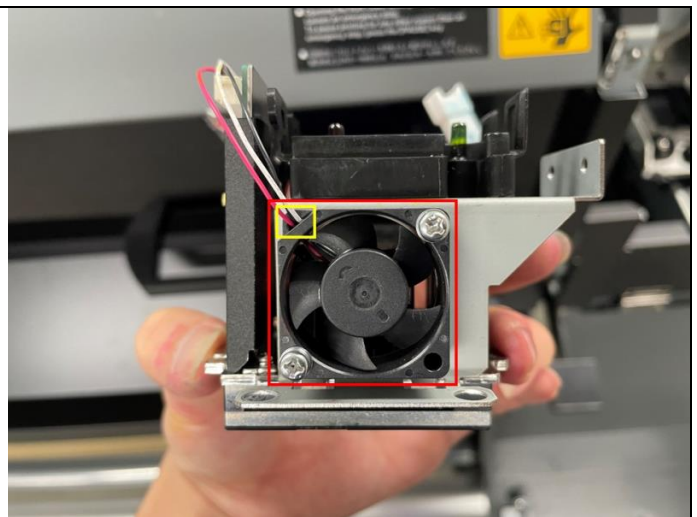
Step 61 / 115

Set the torque screwdriver to 0.3 N-m and attach the head cooling fan to the new print head using a non-idling type torque screwdriver.



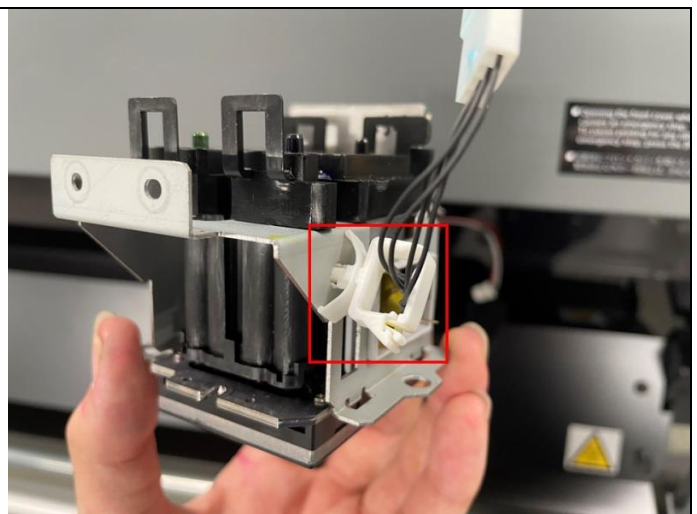
Step 62 / 115

**Detail1:** Pay attention to the mounting orientation of the head cooling fan. \* Install it so that the cable is at the upper rear side.



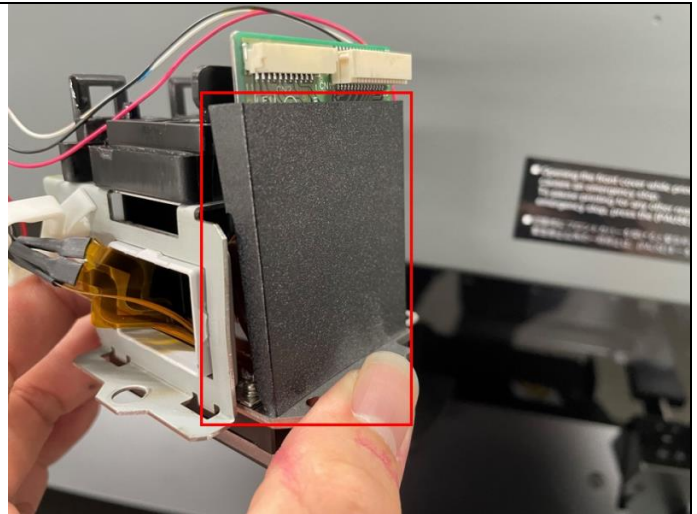
Step 63 / 115

Replace the cable clamp and head board cover from the old print head.



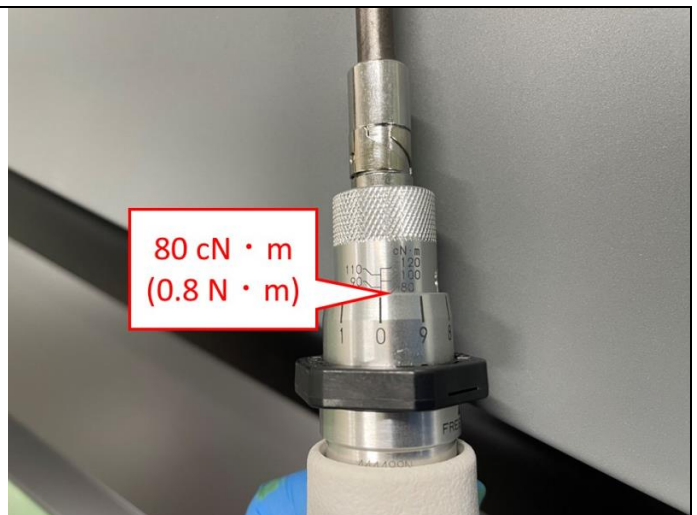
Step 64 / 115

Detail1: Board cover



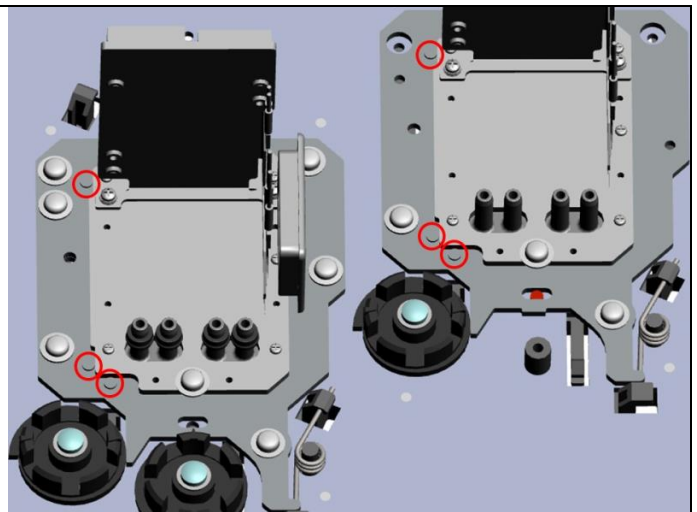
Step 65 / 115

Set the torque driver to 0.8 Nm.



Step 66 / 115

Press the three bossheads and install the print head screws using the torque screwdriver.



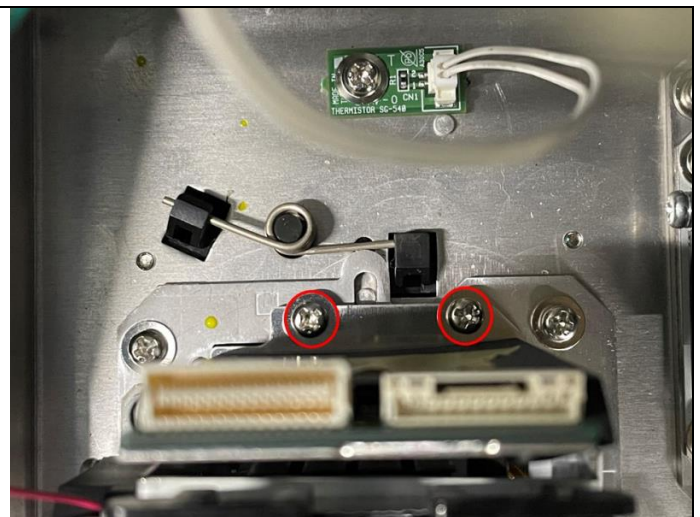
Step 67 / 115

Detail1: Print head fixing screw



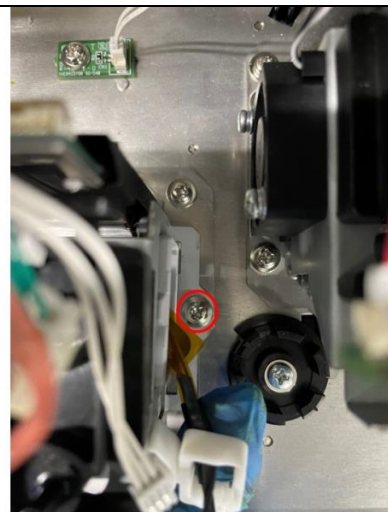
Step 68 / 115

Detail2: Print head fixing screws



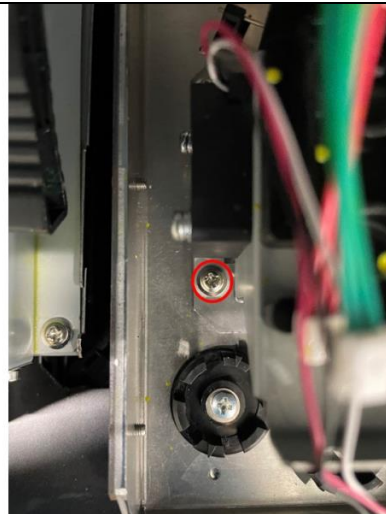
Step 69 / 115

Attach the adapter fixing meal plate screws using a non-idling type torque screwdriver set to 0.8 N·m. \*Print head right side



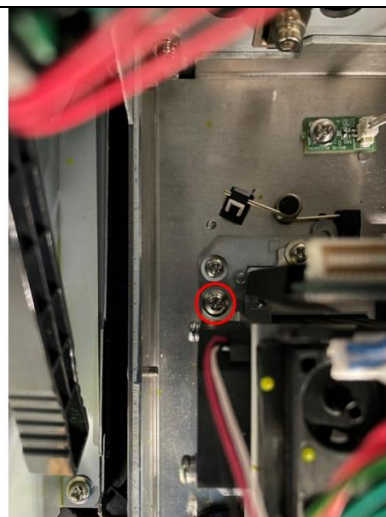
Step 70 / 115

Detail1: Print head left side front



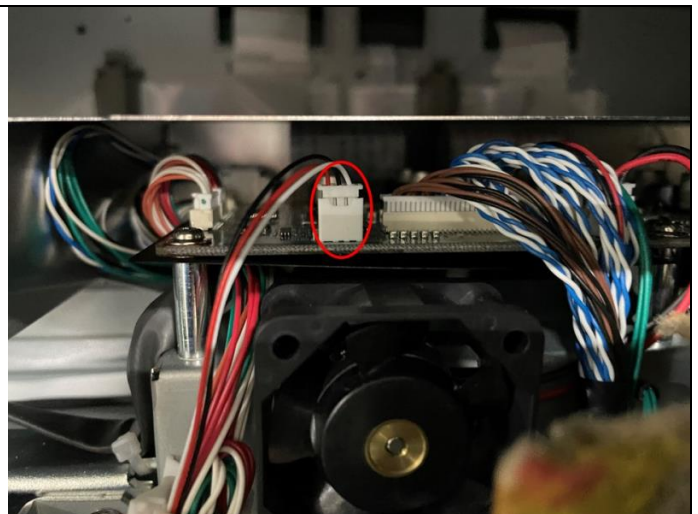
Step 71 / 115

Detail2: Print head left side back



Step 72 / 115

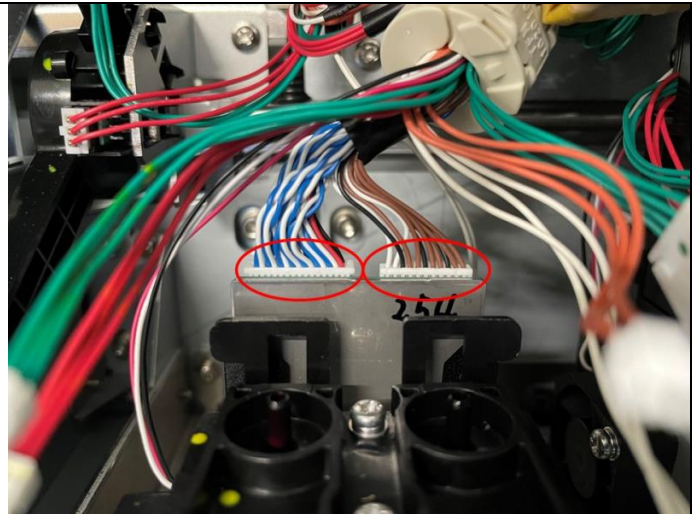
Connect the removed connectors.  
Connect each connector through the  
fixing parts on the back side of the cable  
clamp or damper.





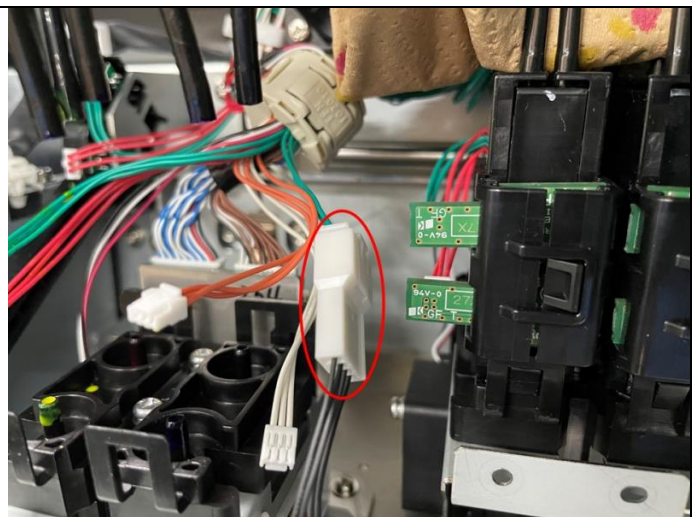
Step 73 / 115

### Detail1: Head connector



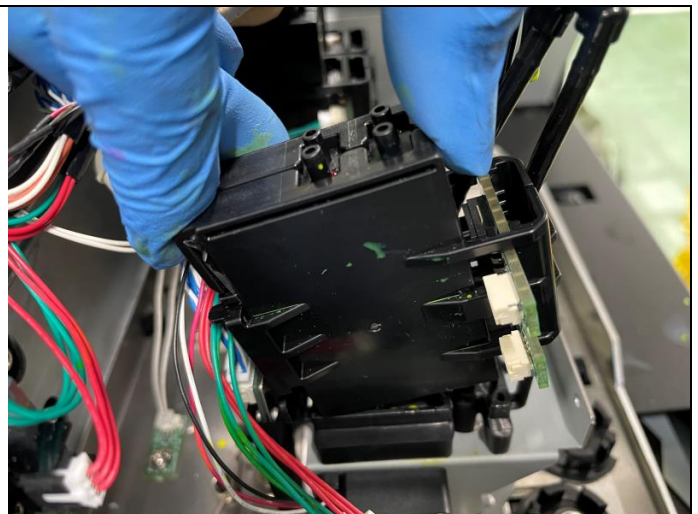
Step 74 / 115

### Detail2: Head heater connector



Step 75 / 115

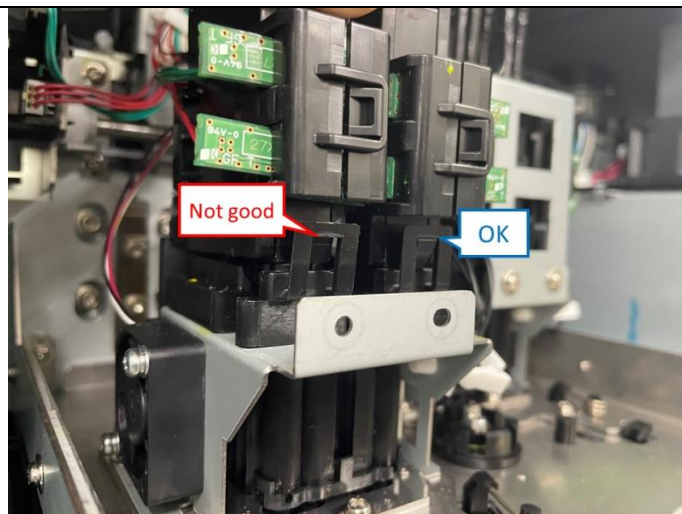
Install the damper. Make sure the claws on the front and rear are firmly engaged.





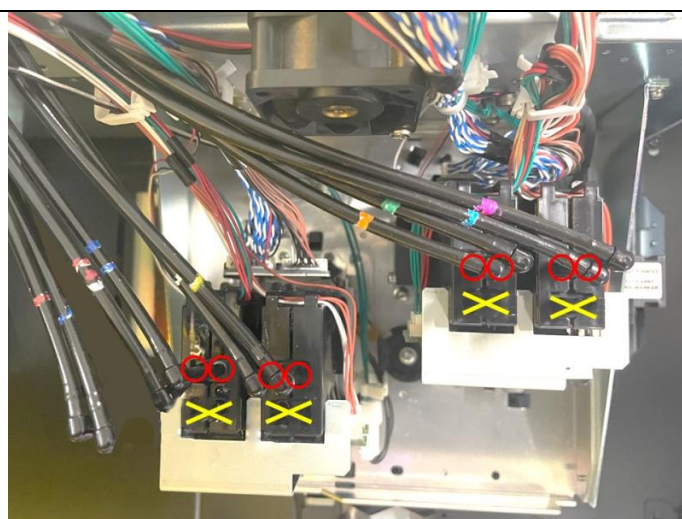
Step 76 / 115

Detail1: Not good: The claws are not firmly engaged.



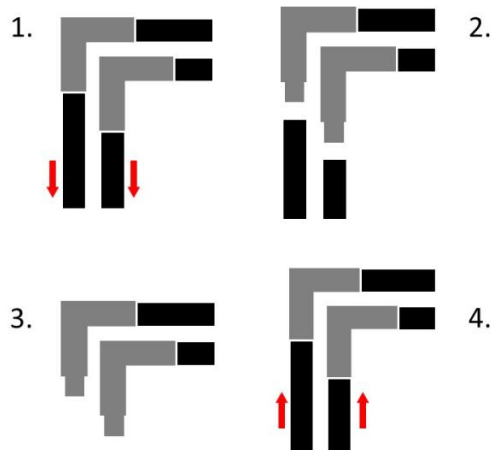
Step 77 / 115

Replace the tube at the back side with a new tube and connect it to the damper.



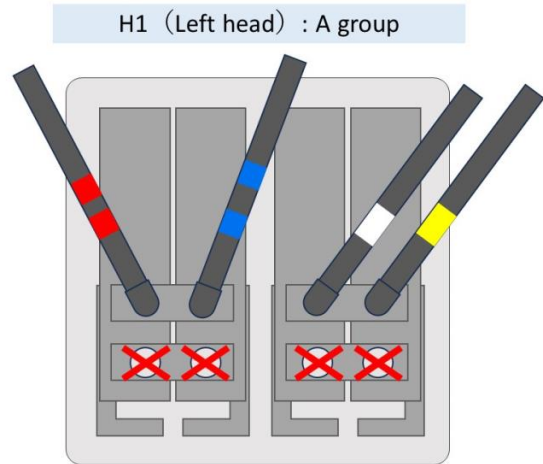
Step 78 / 115

Detail1: Install the 30 mm tube that was cut during the print head tube assembly procedure. Pull out the old tube from the L-joint, install the new tube into the L-joint, and then connect it to the damper.



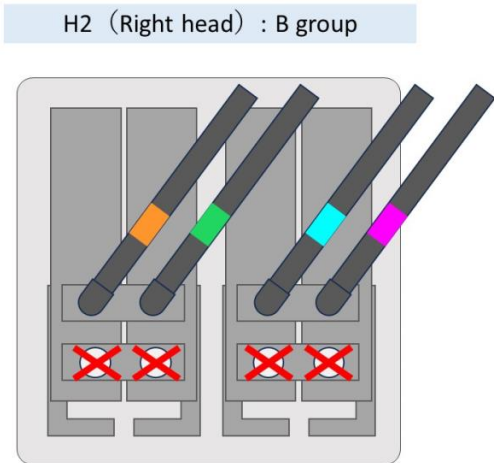
Step 79 / 115

### Detail2: H1 Tube routing



Step 80 / 115

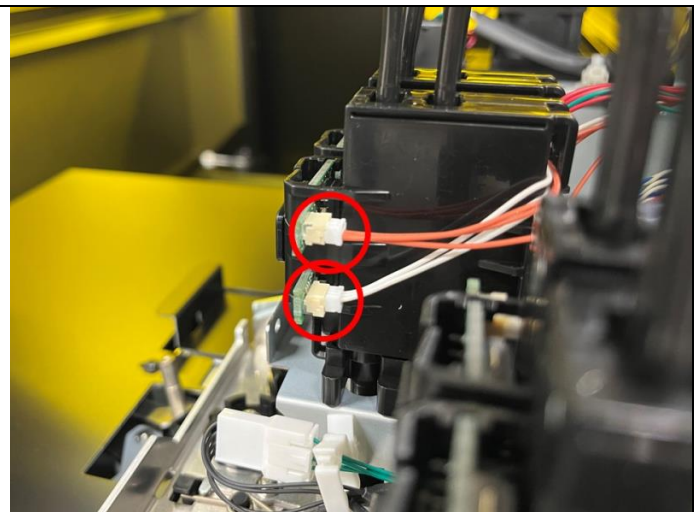
### Detail3: H2 Tube routing



Step 81 / 115

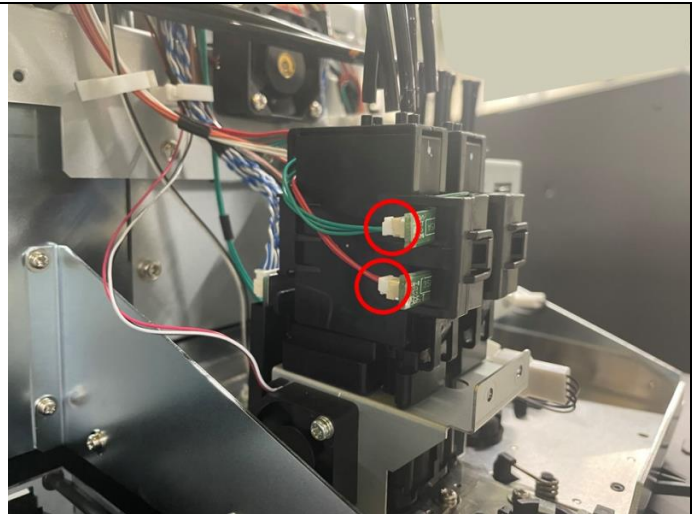
Connect the connector of the pressure sensor that was removed, being careful not to make a cable insertion mistake.

Right side



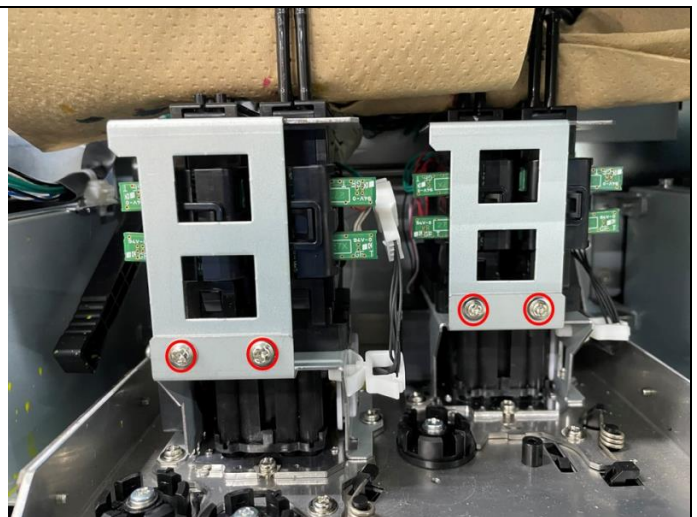
Step 82 / 115

Detail1: Left side



Step 83 / 115

Attach the damper fixing metal plate using a non-idling type torque screwdriver set to 0.8 N-m.



Step 84 / 115

Start the machine in service mode and open [REPLACE H&D] from the [SUB MENU] in the SERVICE MENU.





Step 85 / 115

Press [□] from [PREPARE] performed at the time of ink removal and select [FINALIZE] to select the group of the print head that was replaced.



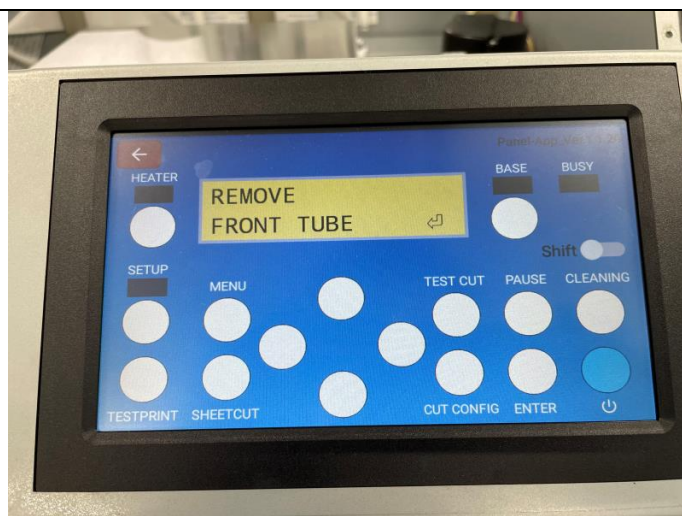
Step 86 / 115

Detail1: Select the group corresponding to the print head that was replaced. \*A: Left print head B: Right print head



Step 87 / 115

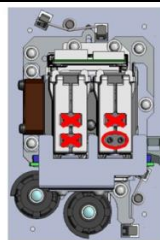
Remove the tube on the front side and press [ENTER] to initialize the pressure sensor.



Step 88 / 115

Connect the tube assembled in the print head tube assembly procedure to the front side.

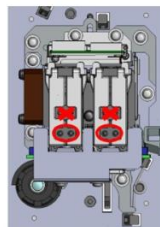
左ヘッド  
Left head



30mmチューブ+ストッパー×2  
30mm tube + Stopper\*2



右ヘッド  
Right head



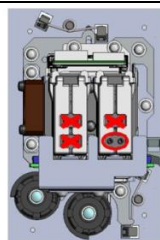
30mmチューブ+ストッパー×4  
30mm tube + Stopper\*4



Step 89 / 115

Detail1: Except for the circulation tube on the left side of the left print head, connect the each 30 mm tube with the stopper attached.

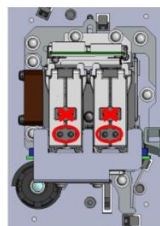
左ヘッド  
Left head



30mmチューブ+ストッパー×2  
30mm tube + Stopper\*2



右ヘッド  
Right head

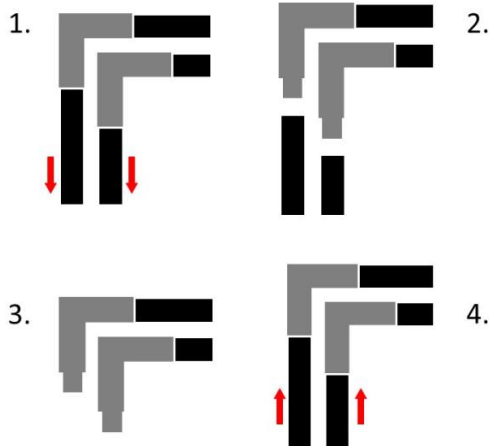


30mmチューブ+ストッパー×4  
30mm tube + Stopper\*4



Step 90 / 115

Detail2: If the left print head is replaced, replace the old tube from the L-joint on the left side and install the new tube in the same way as the tube on the back side.





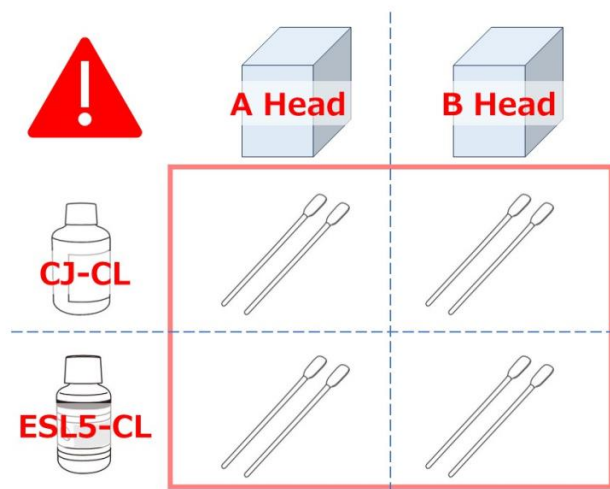
Step 91 / 115

After the carriage moves to the center of the table, perform manual cleaning. \*Do not press [ENTER] until manual cleaning is completed.



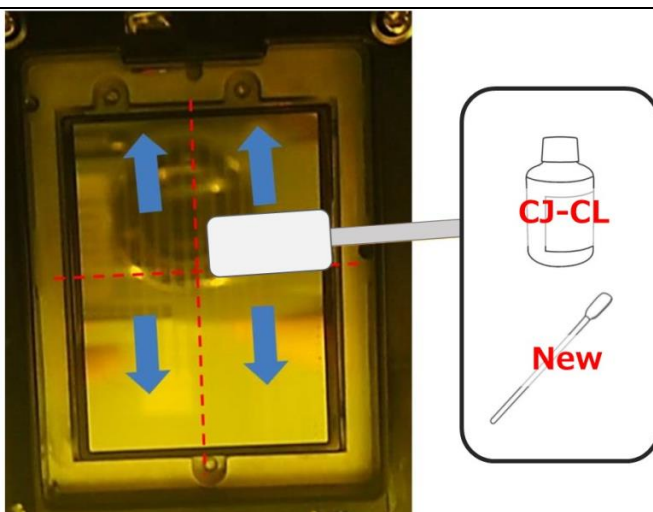
Step 92 / 115

Manual cleaning before ink filling is performed four times per print head: twice with CJ-CL and twice with ESL5. Use a new cleaning stick for each cleaning.



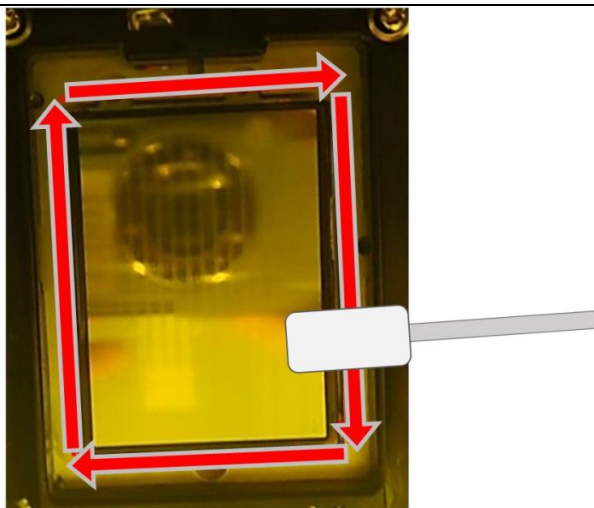
Step 93 / 115

Press the cleaning stick soaked with CJ-CL firmly onto the nozzle surface of the print head and wipe off any inspection ink remaining inside and outside the nozzle. Move the stick in four separate movements from the inside to the outside. At this time, do not press too hard or rub too much.



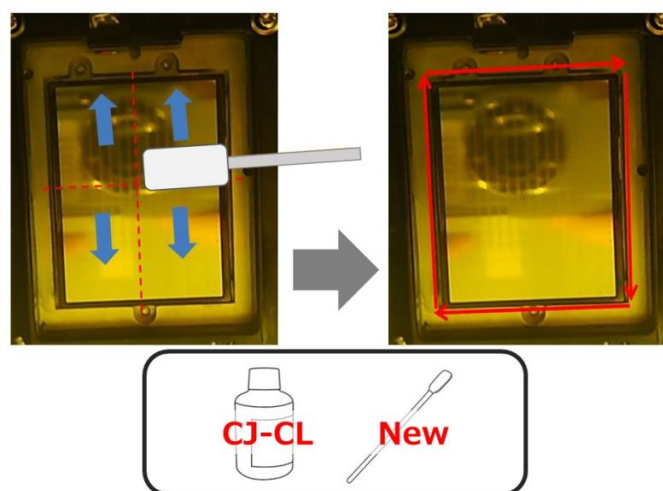
Step 94 / 115

Wipe off the sides of the print head with the cleaning stick you just used.



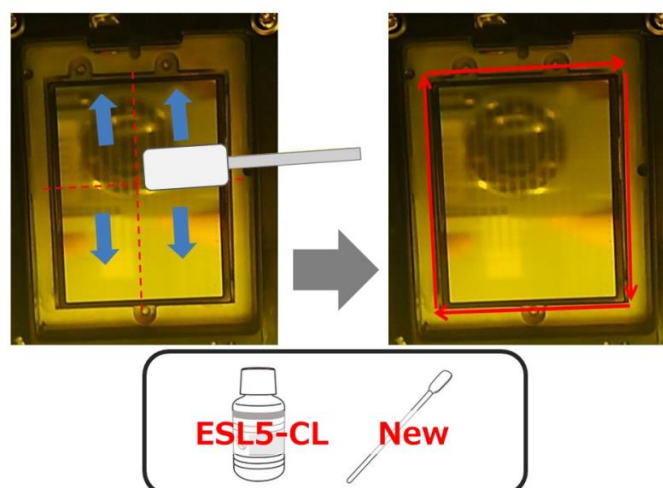
Step 95 / 115

Using a new cleaning stick, clean the surface and sides of the print head once more with the CJ-CL.



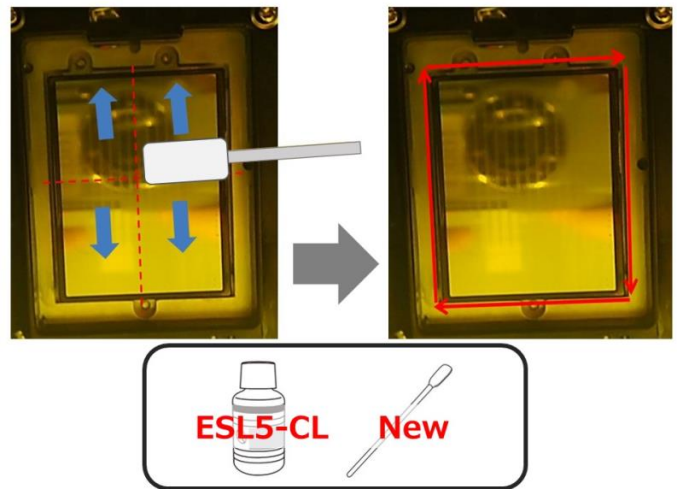
Step 96 / 115

Soak a new cleaning stick with ESL5-CL and clean the surface and sides of the print head as you did with CJ-CL.



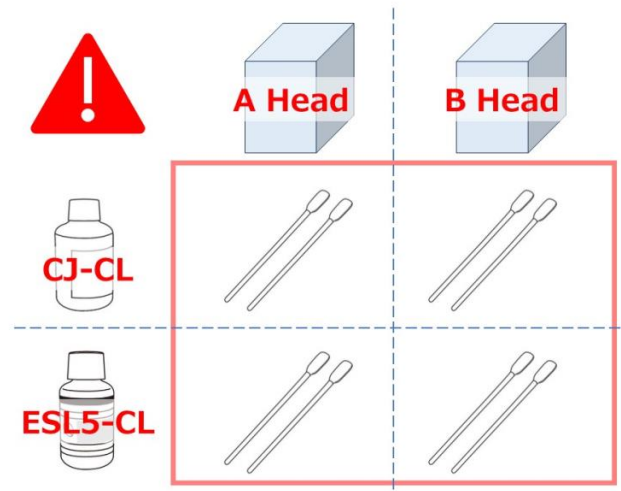
Step 97 / 115

Clean the surface and sides of the print head once more with the new cleaning stick.



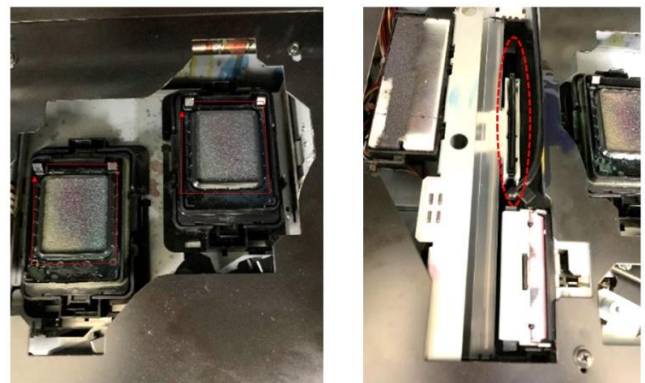
Step 98 / 115

If two print heads have been replaced, perform the same operation on the other print head.



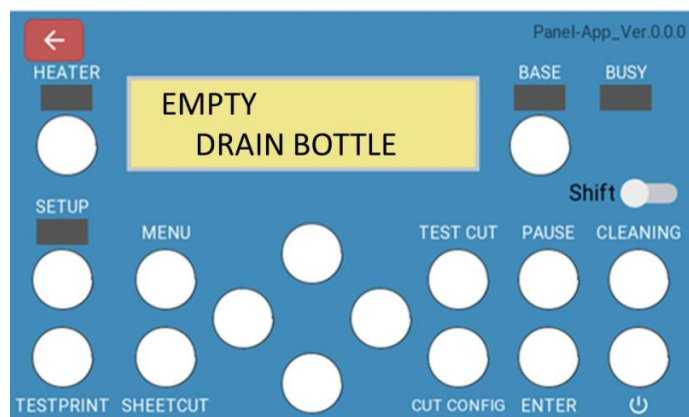
Step 99 / 115

When cleaning is complete, wipe off the wiper and print head cap using the ESL5-CL cleaning stick that was used to wipe off the print head.



Step 100 / 115

Discard the waste liquid.



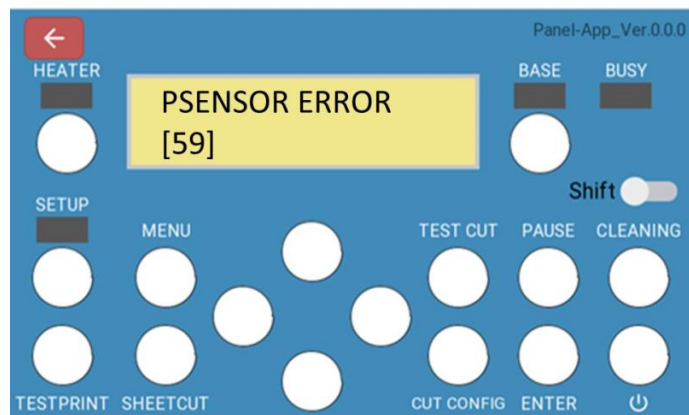
Step 101 / 115

Press [ENTER] to move the carriage to the capping position and start ink filling.



Step 102 / 115

If the ink filling is not successful, a message similar to the one shown in the image will appear. Check the tube connection of the path displayed in [ ] and execute the [FINALIZE] menu again.





Step 103 / 115

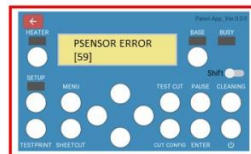
## Detail1: Calculation Method

### 算出方法/Calculation method

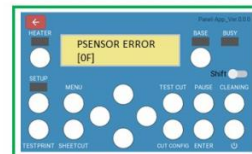
|      |      |      |      |      |      |      |      |
|------|------|------|------|------|------|------|------|
| 0    | 1    | 2    | 3    | 4    | 5    | 6    | 7    |
| 0000 | 0001 | 0010 | 0011 | 0100 | 0101 | 0110 | 0111 |

|      |      |      |      |      |      |      |      |
|------|------|------|------|------|------|------|------|
| 8    | 9    | A    | B    | C    | D    | E    | F    |
| 1000 | 1001 | 1010 | 1011 | 1100 | 1101 | 1110 | 1111 |



0101 1001

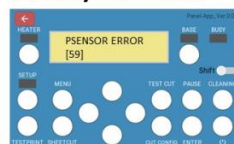


0000 1111

Step 104 / 115

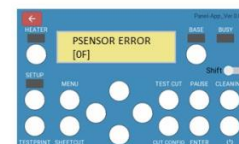
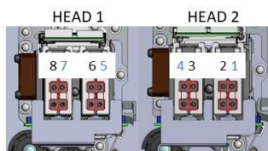
## Detail2: Corresponding ink line

### インク経路/Ink line



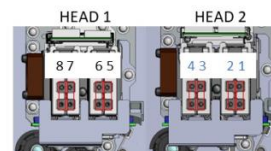
[ 59 ]

0 1 0 1   1 0 0 1  
↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓  
8 7 6 5   4 3 2 1



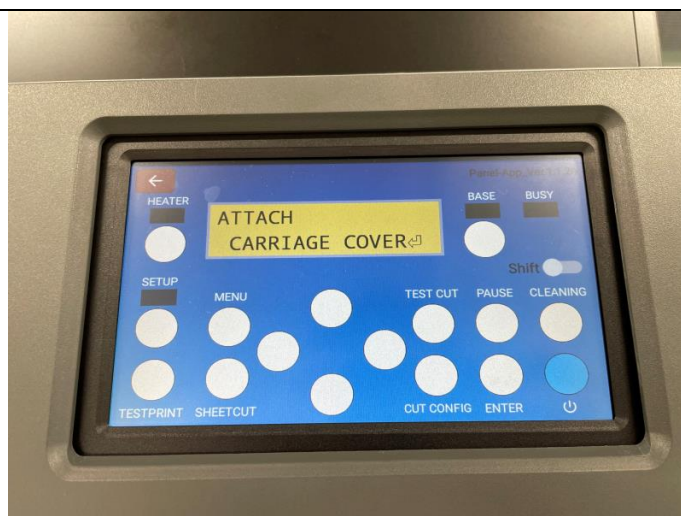
[ 0F ]

0 0 0 0   1 1 1 1  
↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓  
8 7 6 5   4 3 2 1



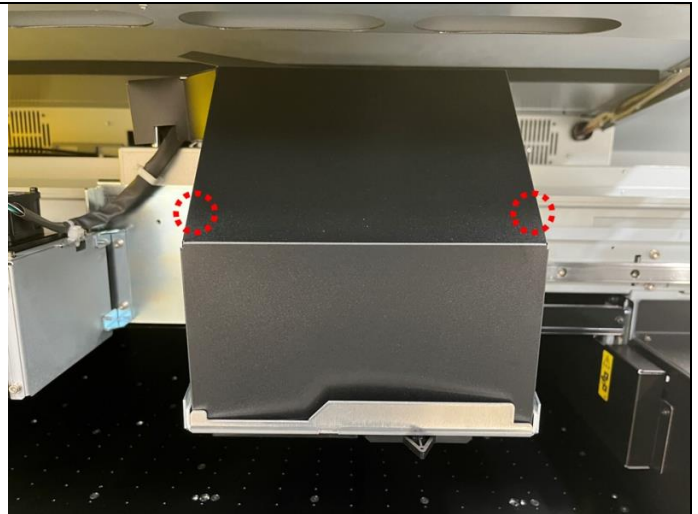
Step 105 / 115

When ink filling is completed, a message shown in the image appears. The carriage will move to the center of the table again. After attaching the carriage cover, press [ENTER].



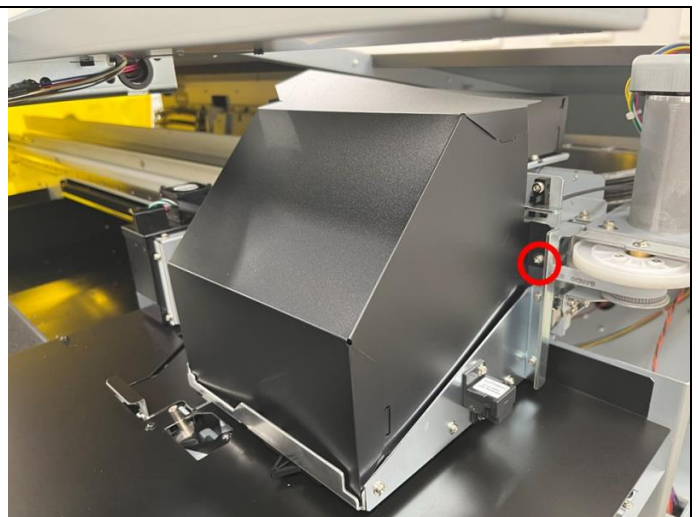
Step 106 / 115

Detail1: The carriage cover has one screw on each side.



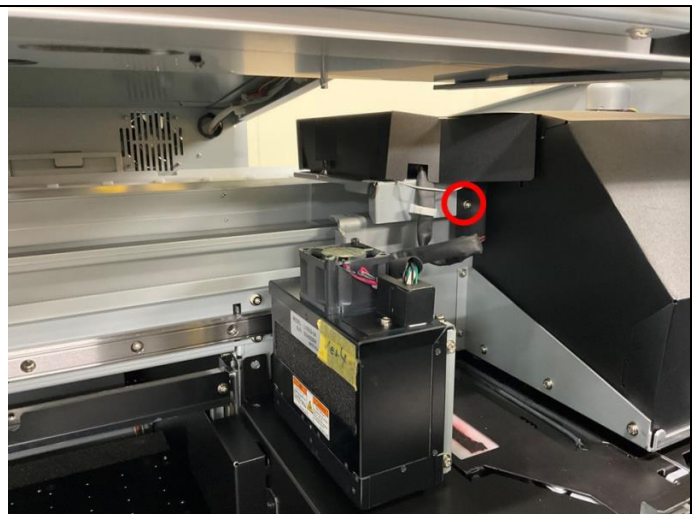
Step 107 / 115

Detail2: Right side



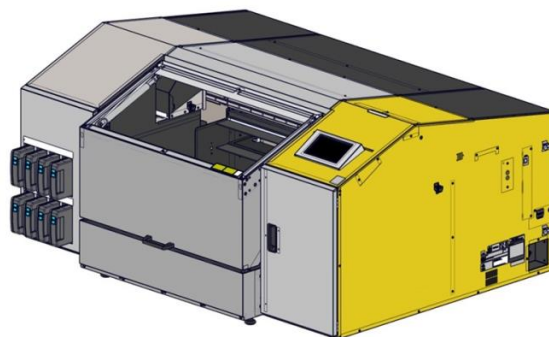
Step 108 / 115

Detail3: Left side



Step 109 / 115

Attach the removed covers.



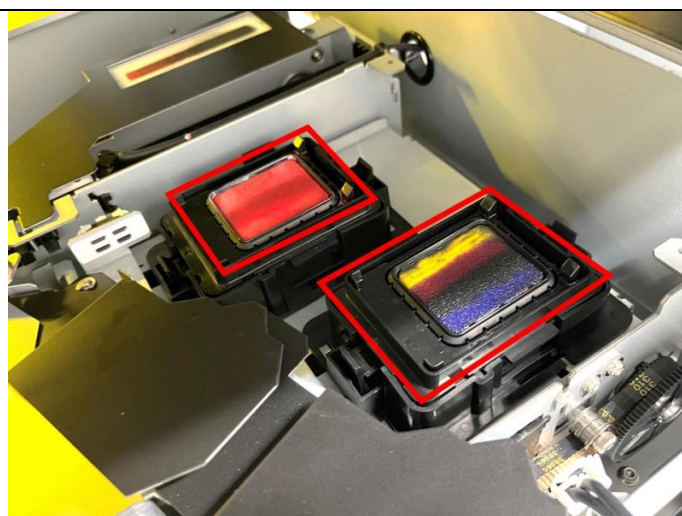
Step 110 / 115

After the replacement work is completed, execute [CAP CHECK] from the [I/S MENU]. If it fails, check the detailed items.

|              |    |
|--------------|----|
| SERVICE MENU | ◀▶ |
| I/S MENU     | ▶  |
|              | ▶  |
| I/S MENU     | ◀▶ |
| CAP CHECK    | ▶  |

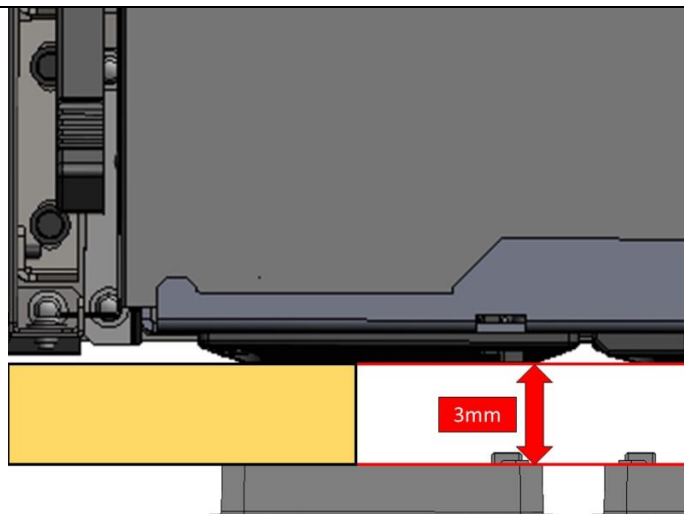
Step 111 / 115

Detail1.: Reinstall the print head cap



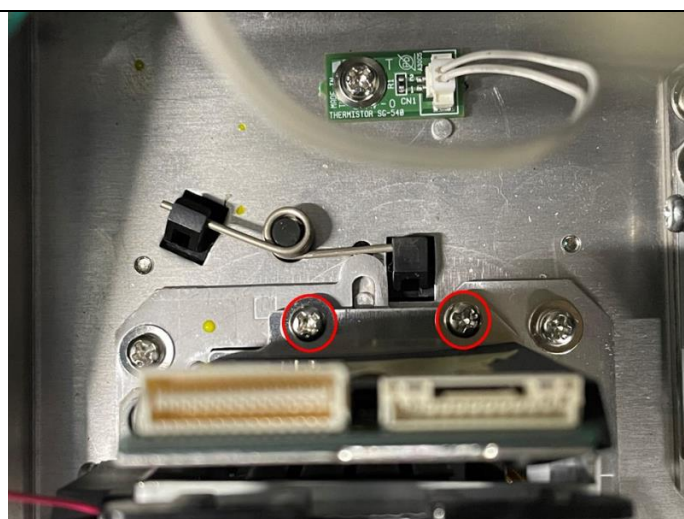
Step 112 / 115

:Detail2: Adjust the cap heigh



Step 113 / 115

Detail3: Reconfirm the print head mounting position.



Step 114 / 115

Perform print head alignment.



次の手順

プリントヘッド位置調整

**Next Step**

Print head alignment



Step 115 / 115

Perform limit position initialization.



**次の手順**

リミット位置調整

**Next Step**

Limit position initialization

## MO-180 Damper replacement

# MO-180 Damper replacement Information

Step 1 / 7

Tubes and stoppers are not included with the damper. Please arrange separately for the required number of tubes and stoppers.



Step 2 / 7

General tool 1

### 一般ツール/General Tool

|                                                                                     |  |
|-------------------------------------------------------------------------------------|--|
| プラスドライバー No.2<br>(長さ200mm以下)<br>No.2 Phillips screwdriver<br>(Length 200mm or less) |  |
| プラスドライバー No.2 (80mm以下)<br>No.2 Phillips screwdriver<br>(80mm or less)               |  |

Step 3 / 7

General tool 2

### 一般ツール/General Tool

|                                 |  |
|---------------------------------|--|
| 手袋<br>Groves                    |  |
| 保護メガネ<br>Goggles                |  |
| ウエス<br>Rag                      |  |
| UVカットシート<br>UV protection sheet |  |

Step 4 / 7

## Special jig

### 特殊治具/Special Tools

TORQUE DRIVER,LTD120CN



Step 5 / 7

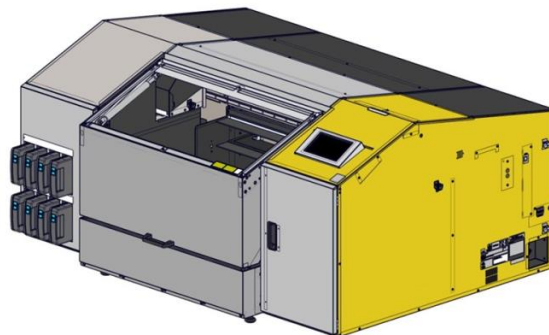
## Typical work time

### 作業時間/Typical work time

| 作業内容/Contents of work        | 時間/Time |
|------------------------------|---------|
| ダンパー交換<br>Damper replacement | 15 min. |

Step 6 / 7

## Covers that need to be removed



Step 7 / 7

Eight 40 mm tubes and four stoppers  
are included.

ストッパー/ Stopper  
4 個/4 Pieces



40mm チューブ/40mm Tube  
8 本/8 Pieces





## MO-180 Damper replacement

# MO-180 Damper replacement Procedure

Step 1 / 75

The following procedure is for replacing the left damper. When replacing only the right head damper, go to "Right print head tube assembly".



Step 2 / 75

Make 6 tubes (except 2 tubes for circulation tubes) into 30 mm tubes by cutting 10 mm.

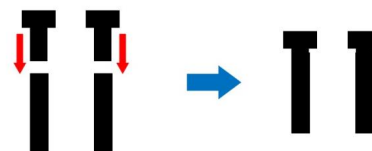


Step 3 / 75

Attach stoppers to the two 30 mm tubes.

There are 4 stoppers included in the package because 4 stoppers are used when replacing the right damper.

However, only 2 stoppers are used when

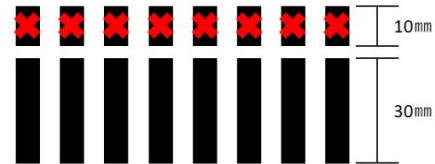


replacing the left damper.



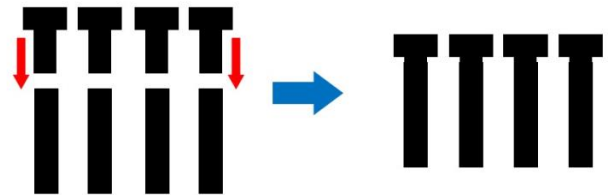
Step 4 / 75

Cut all 8 tubes included in the package to 30 mm in length.



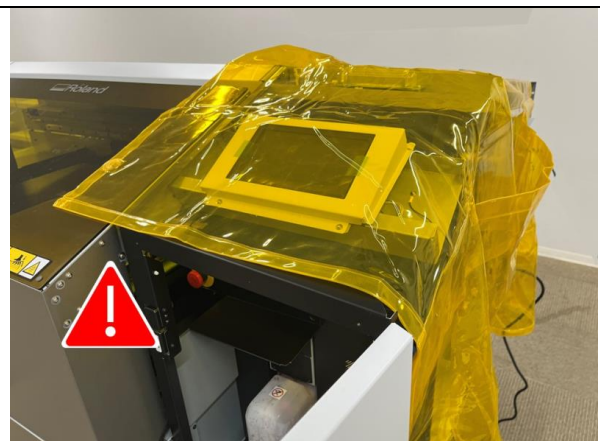
Step 5 / 75

Attach the stoppers to the four tubes.



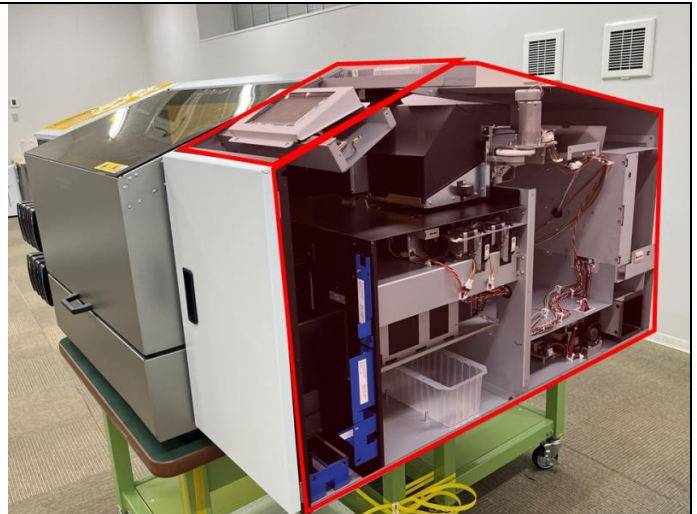
Step 6 / 75

When the cover is removed, use a light-shielding sheet to prevent the ink from curing.



Step 7 / 75

Remove the cover on the top of the print head and the cover on the right side. It is recommended that any further replacement work be done from the right side of the machine.



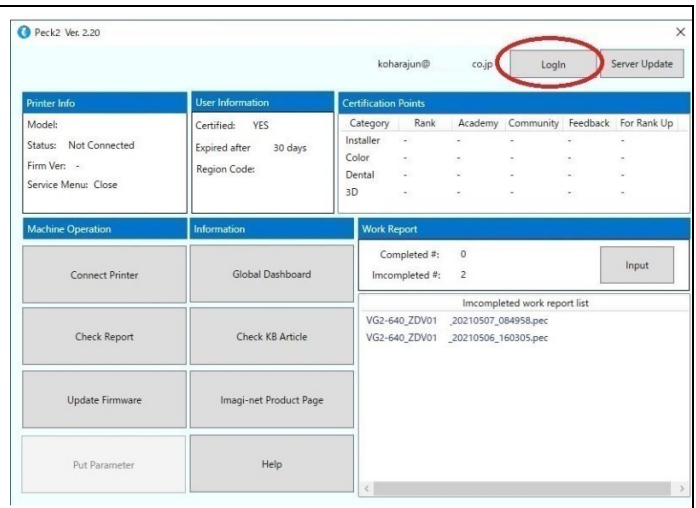
Step 8 / 75

Start Peck2.



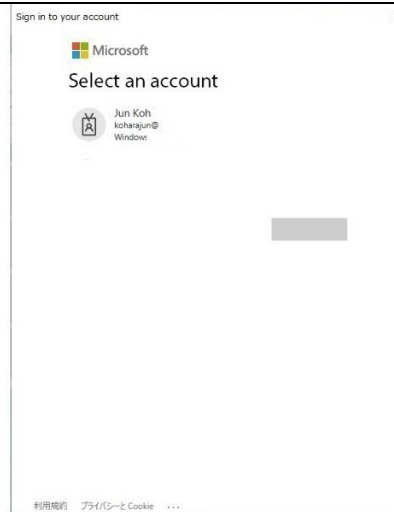
Step 9 / 75

Detail1: Click the [Login] button.



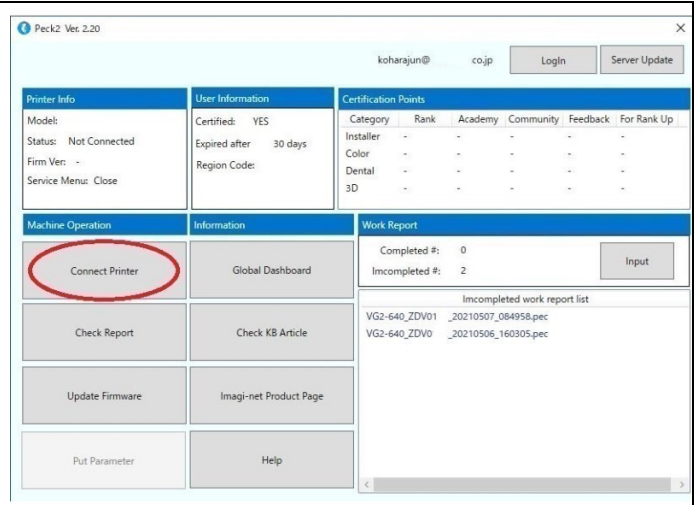
Step 10 / 75

Detail2: Login with your Imagi-net ID.



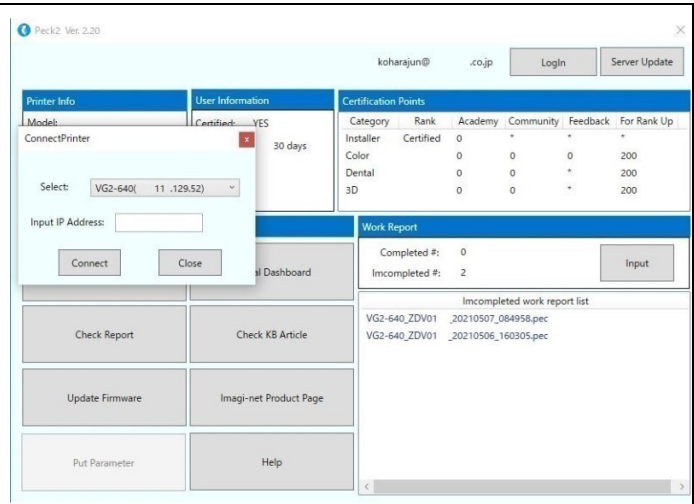
Step 11 / 75

Detail3: Click [Connect Printer].



Step 12 / 75

Detail4: Enter the IP address of the device you wish to connect to.



Step 13 / 75

Detail5: When connected to the printer, printer information will be displayed in [Printer Info].

Peck2 Ver. 2.20

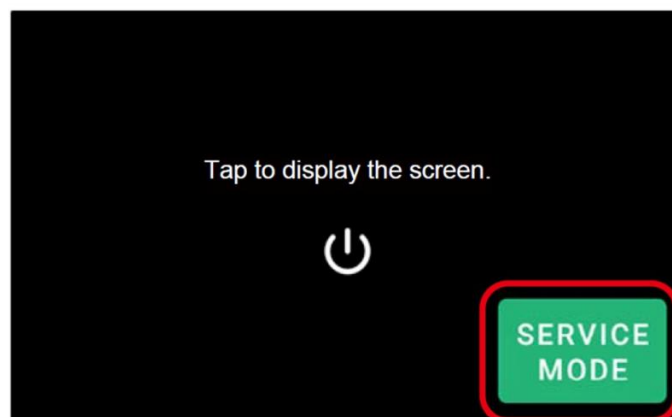
koharajun@ .co.jp Login Server Update

| 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 |             |  |
| 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 |   |             |  |

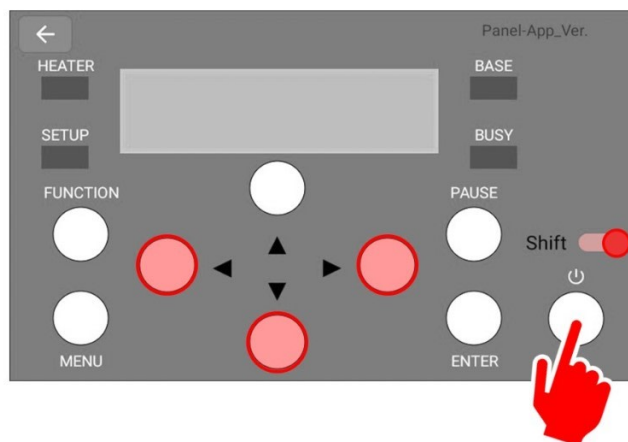
Step 14 / 75

Detail6: Select the service mode in the panel.



Step 15 / 75

Detail7: Press [Shift]> [□]+[□]+[□]+[Sub Power] on the panel to enter Service Mode. By turning on the [Shift] button, multiple buttons can be pressed at the same time.





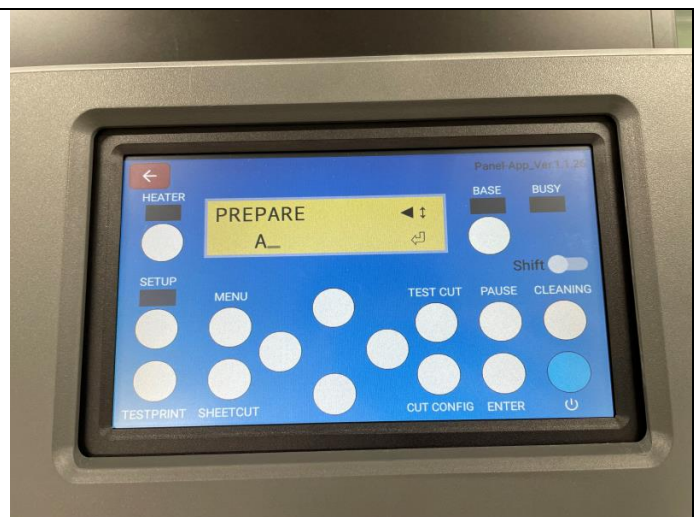
Step 16 / 75

Select the group of damper to be replaced by pressing [SERVICE MENU] > [SUB MENU] > [REPLACE H&D] > [PREPARE] > [AB].



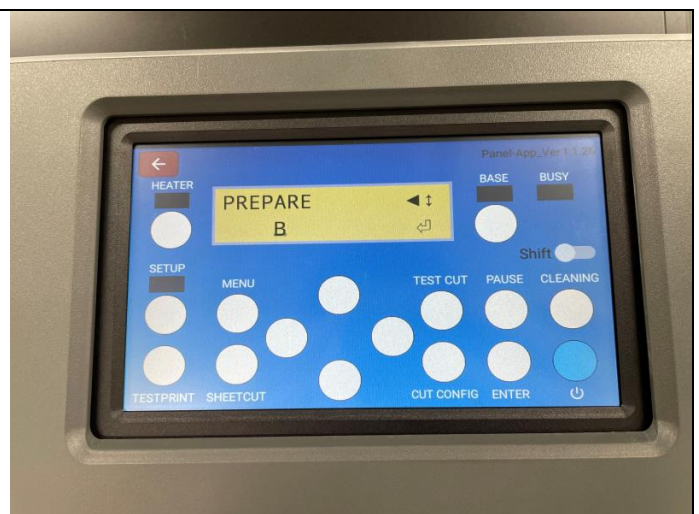
Step 17 / 75

Detail1: A: Left damper



Step 18 / 75

Detail2: B: Right damper



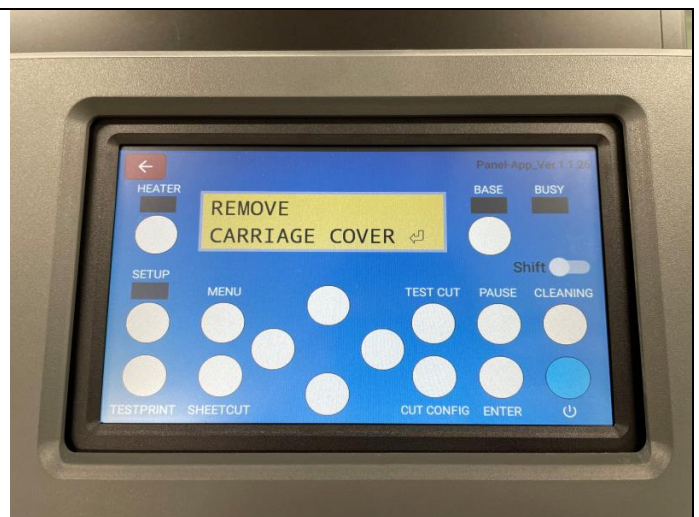
Step 19 / 75

Detail3: Press [ENTER] to start moving the carriage to the left to remove the carriage cover.



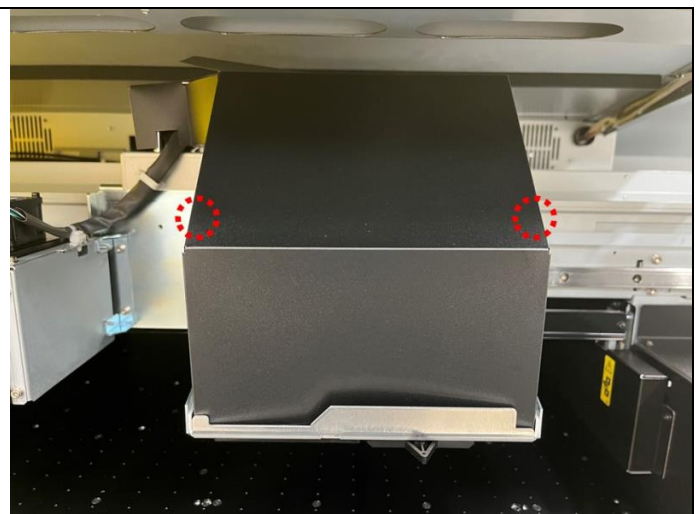
Step 20 / 75

When [CARRIAGE COVER] is displayed, remove the cover of the carriage that has moved to the center of the table.



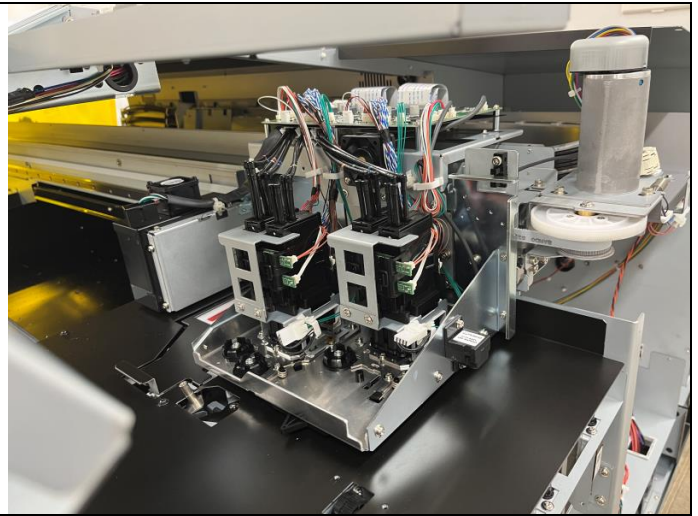
Step 21 / 75

Detail1: The carriage cover has one screw on each side.



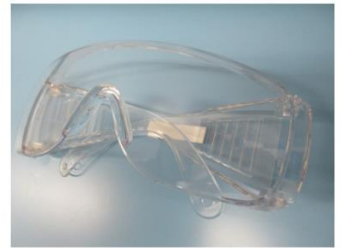
Step 22 / 75

Press [ENTER] to return the carriage to the origin.



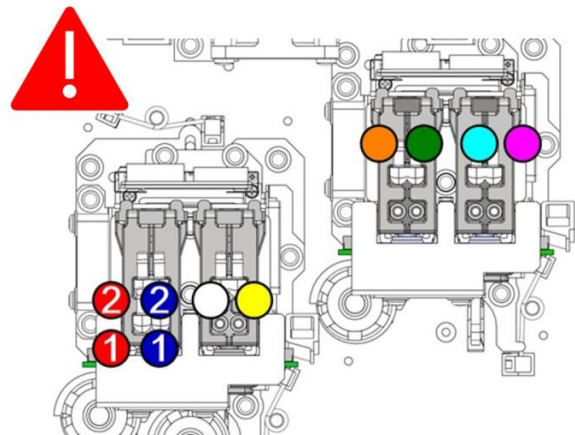
Step 23 / 75

Wear gloves and safety glasses.



Step 24 / 75

When connecting the ink tube, be careful not to insert it into another path by mistake. It may cause color mixing.





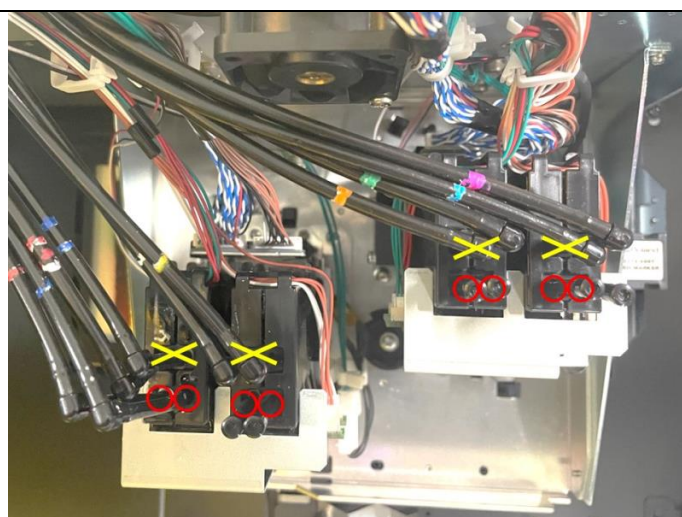
Step 25 / 75

When [REMOVE FRONT TUBE] is displayed, pull out the front tube attached to the damper to be replaced and press [ENTER]. \*Ink may leak out, so please prepare a dry cloth and remove the tube. Since it will be reconnected, make sure you know where the tube is connected.



Step 26 / 75

Detail1: Target Tubes



Step 27 / 75

When [CONNECT FRONT TUBE] is displayed, reconnect the front side ink tube you just disconnected and press [ENTER].



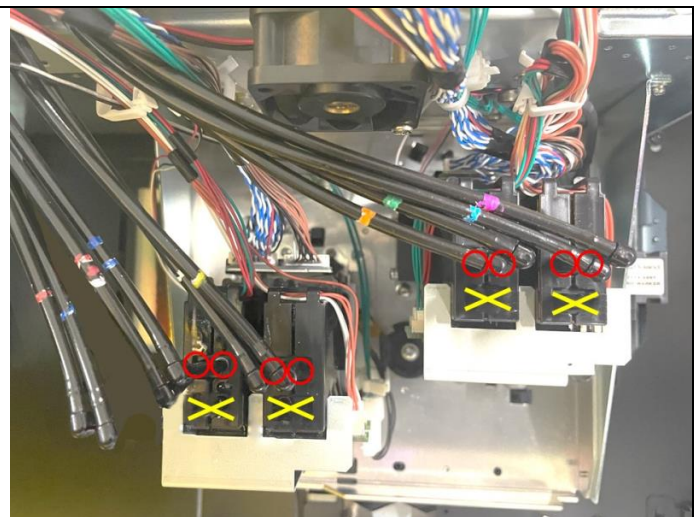
Step 28 / 75

When [REMOVE REAR TUBE] is displayed, pull out the back side tube attached to the damper to be replaced, and press [ENTER]. \*Please prepare a dry cloth and remove the tube as ink may leak out.



Step 29 / 75

Detail1: Target tube



Step 30 / 75

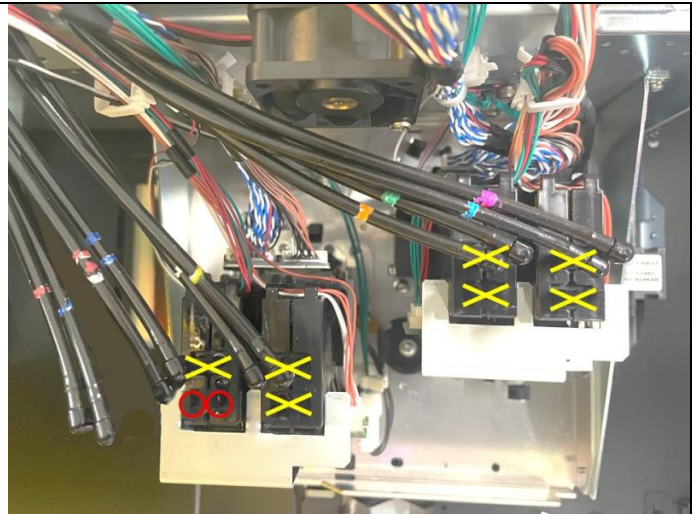
When the display shows [REMOVE CIRCULATE TUBE], pull out the long tube connected to the front left side of the left damper and press [ENTER]. This message will appear only when Group A is selected.





Step 31 / 75

Detail1: Target tube



Step 32 / 75

When the ink discharge is completed, the sub power will automatically turn off.



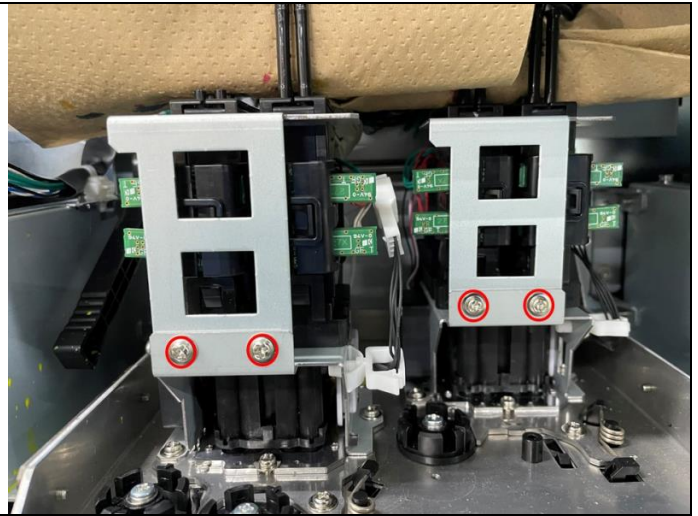
Step 33 / 75

After the sub power is turned off, turn off the main power.



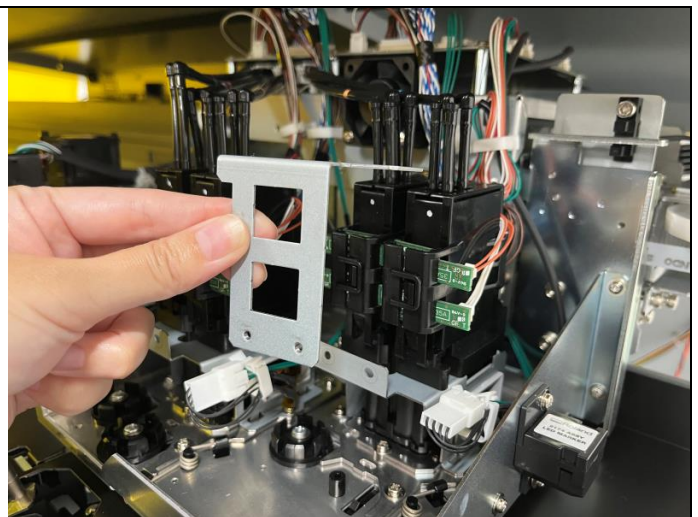
Step 34 / 75

Remove the metal plate attached to the front of the damper. After removing the screws, pull the metal plate upwards to remove it.



Step 35 / 75

Detail1: Metal plate



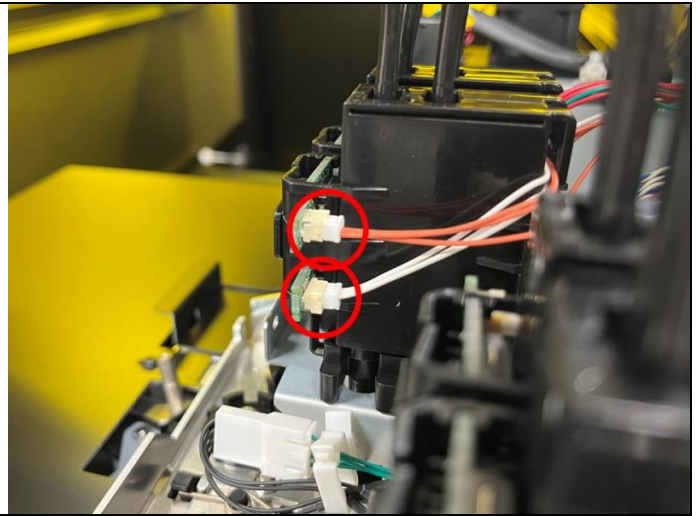
Step 36 / 75

Detail2: After removed



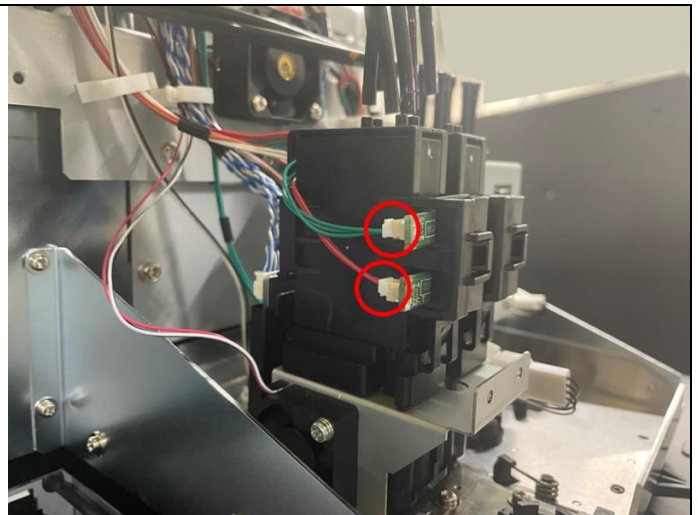
Step 37 / 75

Remove the four pressure sensor connectors. Right side



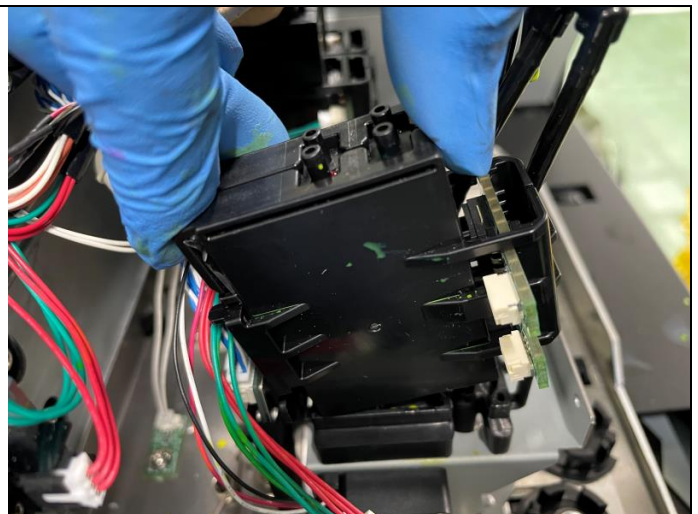
Step 38 / 75

Detail1: Left side



Step 39 / 75

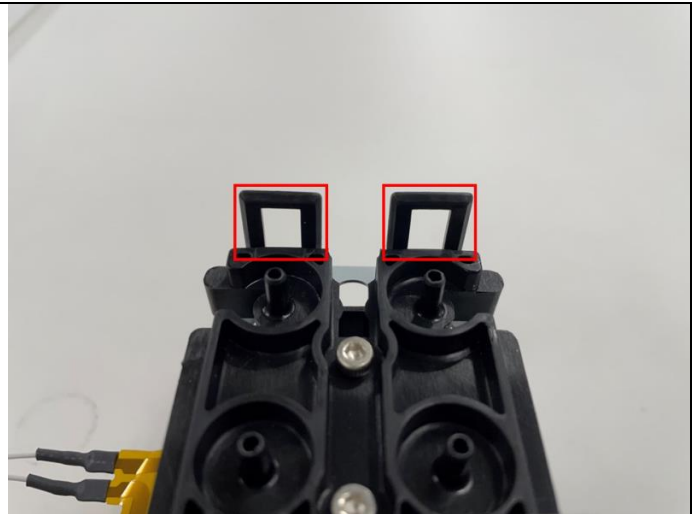
Remove the damper.





Step 40 / 75

**Detail1:** Remove the damper with the claws attached. Front view



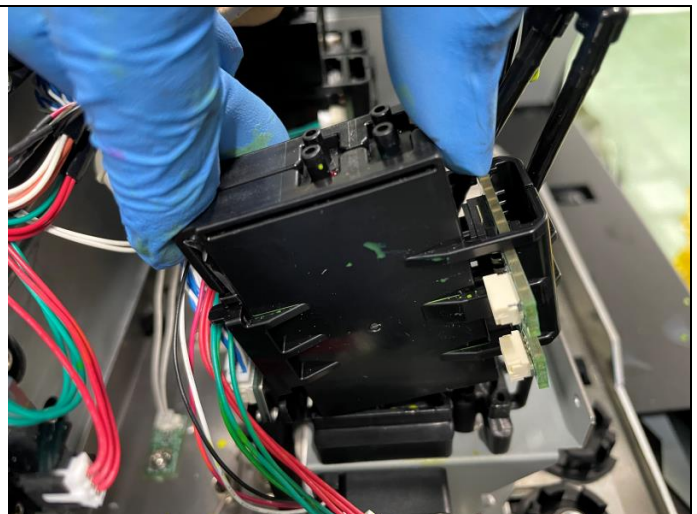
Step 41 / 75

**Detail2:** The back side also has claws, which can be easily unhooked by pushing the red circled area to the rear. Rear view



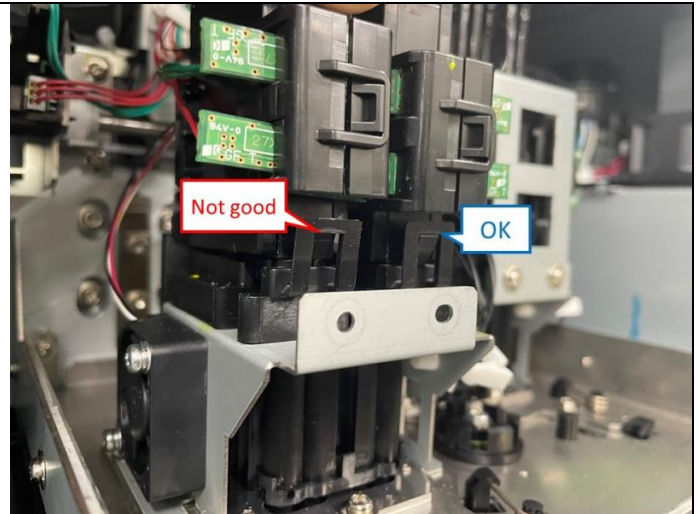
Step 42 / 75

**Attach the damper.** Make sure that the claws on the front and rear are firmly engaged.



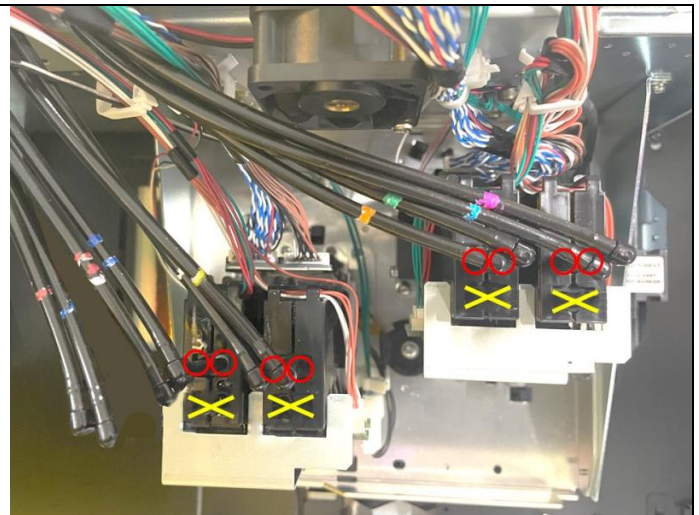
Step 43 / 75

Detail1: Not good: The claws are not firmly engaged.



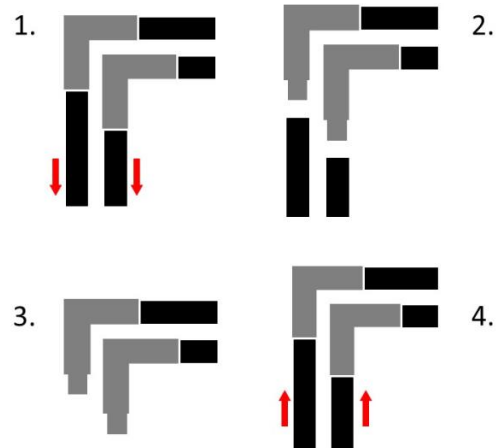
Step 44 / 75

Replace the tube at the back with a new tube and connect it to the damper.



Step 45 / 75

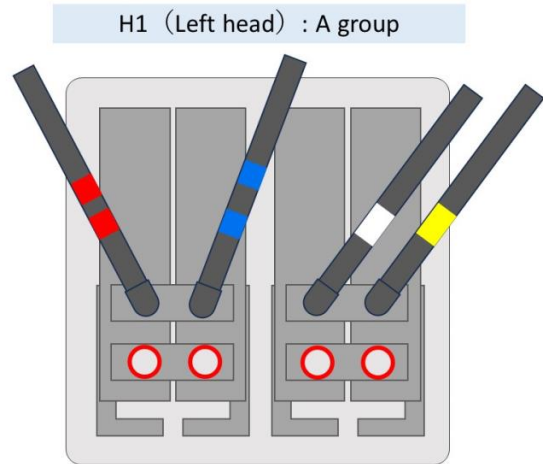
Detail1: Attach the 30 mm tube that was cut during the print head tube assembly procedure, pull out the old tube from the L-joint, attach the new tube into the L-joint, and then connect it to the damper.





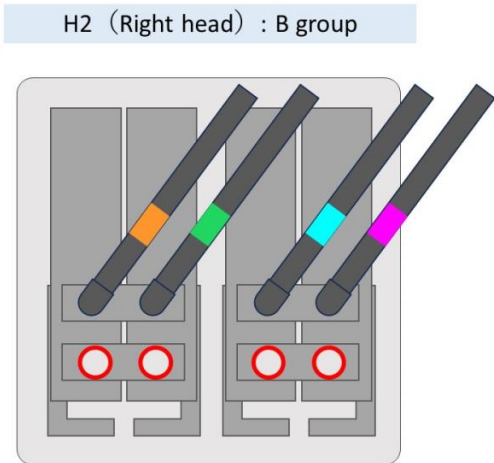
Step 46 / 75

### Detail2: H1 Tube routing



Step 47 / 75

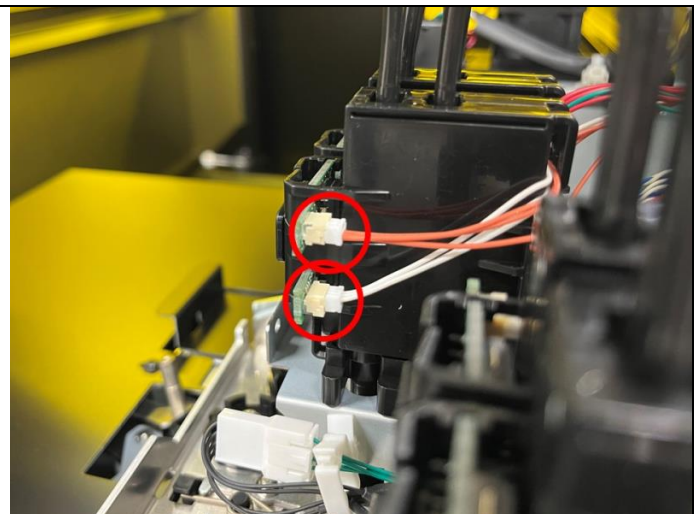
### Detail3: H2 Tube routing



Step 48 / 75

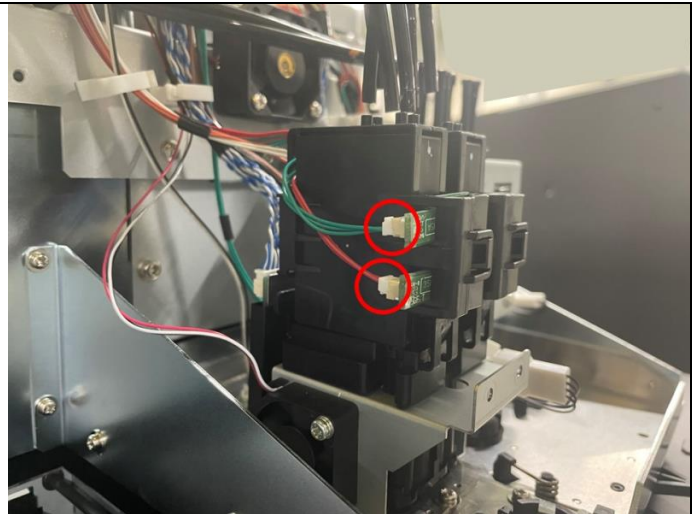
Connect the connector of the pressure sensor that was removed, being careful not to make a cable insertion mistake.

Right side



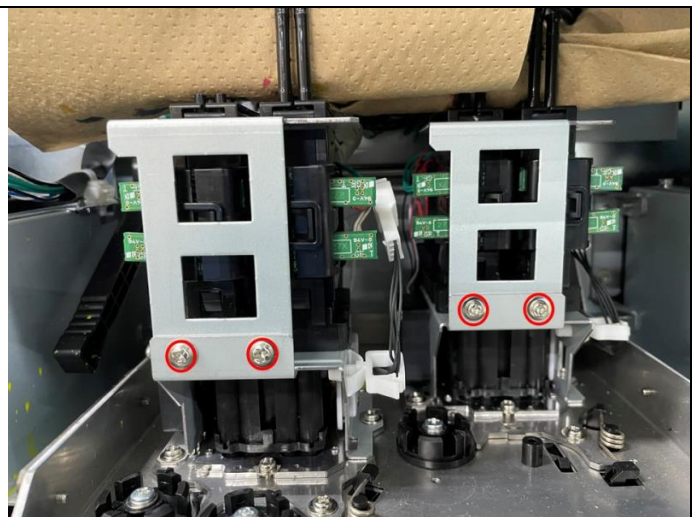
Step 49 / 75

Detail1: Left side



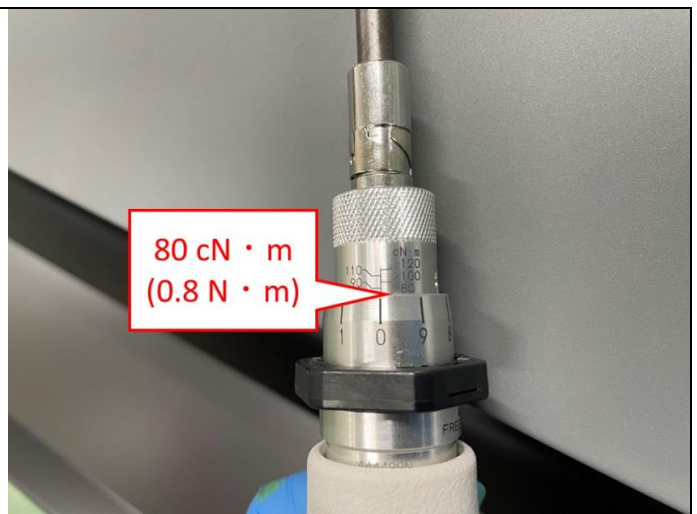
Step 50 / 75

Attach the damper fixing metal plate using a non-idling type torque screwdriver set to 0.8 N·m.



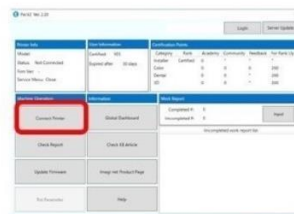
Step 51 / 75

Detail1: Set the torque screwdriver to 0.8 N·m.



Step 52 / 75

Turn on the power to the machine and start it in service mode.



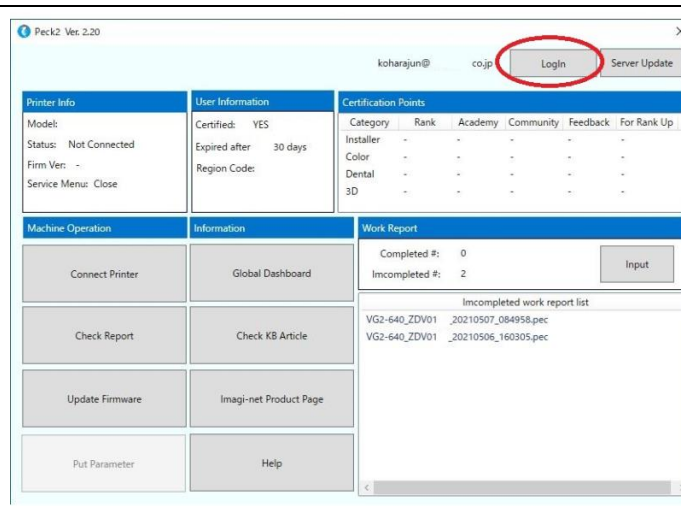
Step 53 / 75

Detail1: Start Peck2.



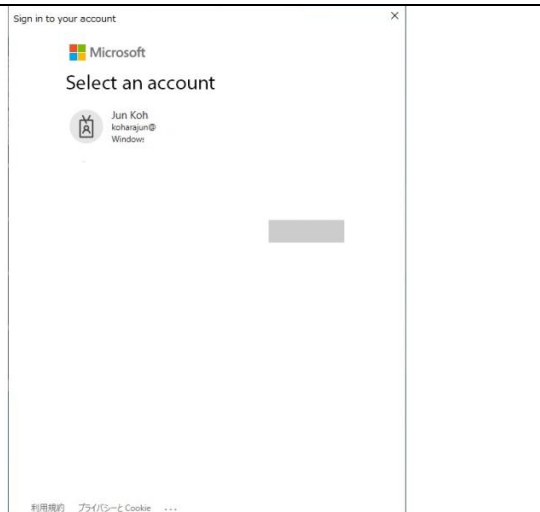
Step 54 / 75

Detail2: Click the [Login] button.



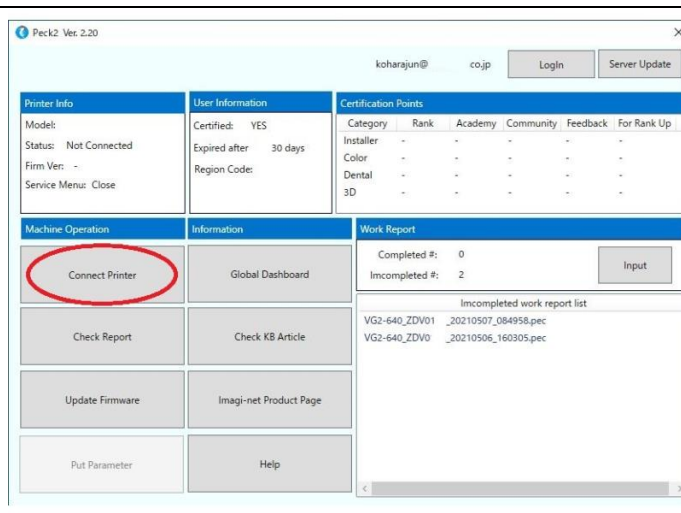
Step 55 / 75

Detail3: Login with your Imag-net ID.



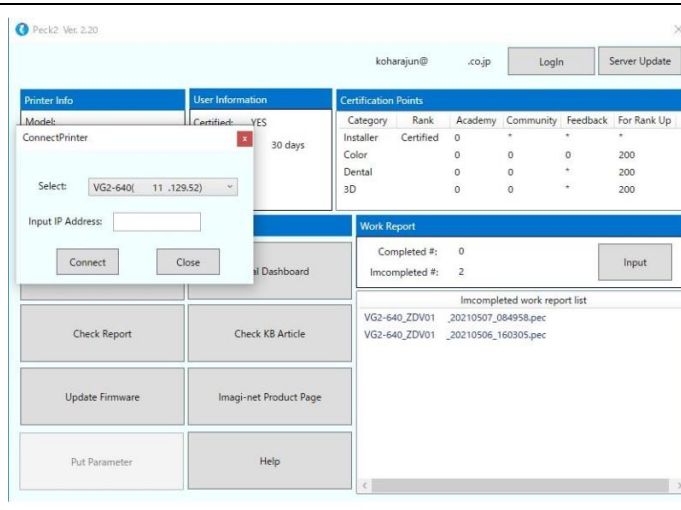
Step 56 / 75

Detail4: Click the [Connect Printer] button.



Step 57 / 75

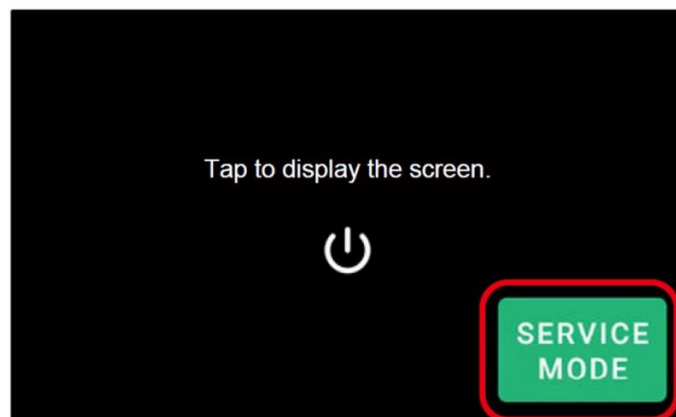
Detail5: Enter the IP address of the printer you wish to connect to.





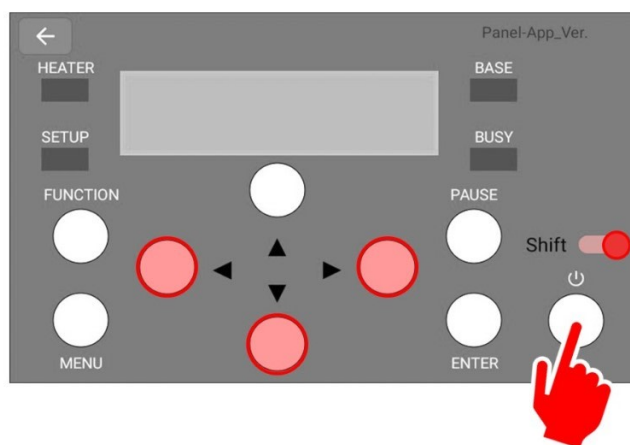
Step 58 / 75

Detail6: Select the service mode in the panel.



Step 59 / 75

Detail7: 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 60 / 75

Select the group of the replaced damper by pressing [SERVICE MENU] > [SUB MENU] > [REPLACE H&D] > [FINALIZE] > [AB].



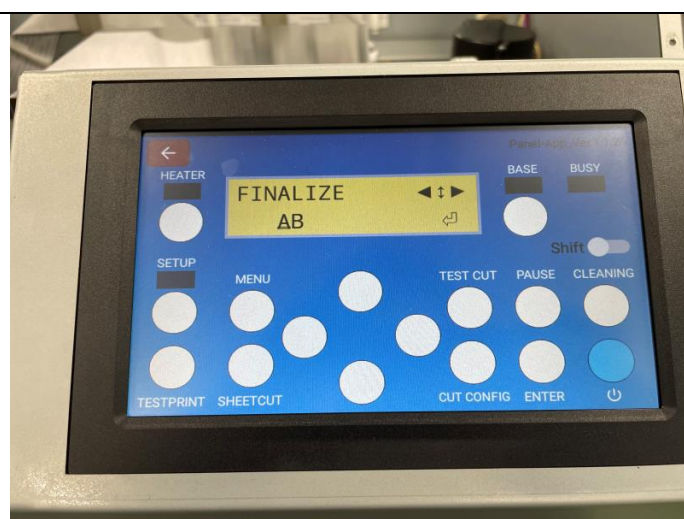
Step 61 / 75

Detail1: Press [ ] from [PREPARE] performed at the time of ink discharge and select [FINALIZE].



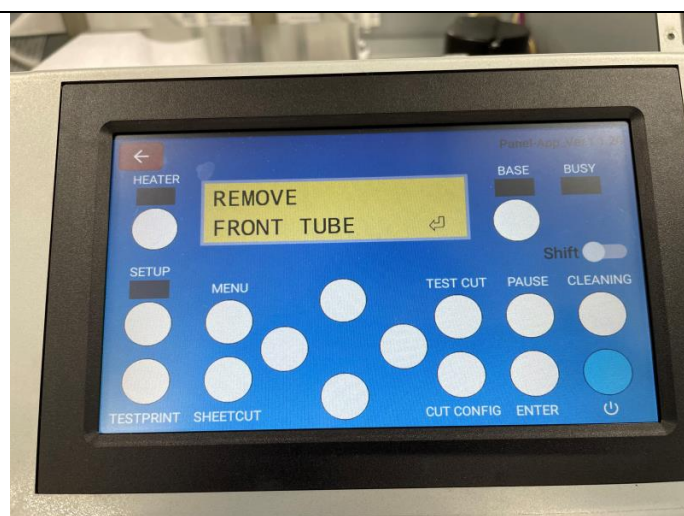
Step 62 / 75

Detail2: Select the group corresponding to the damper that was replaced. \*A: Left damper B: Right damper



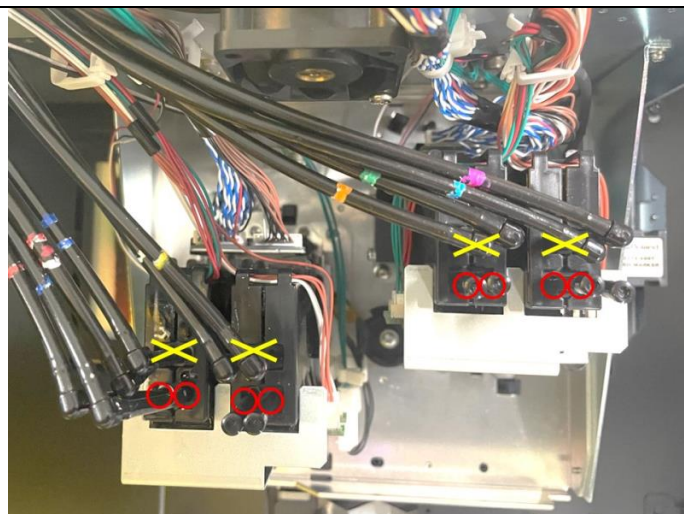
Step 63 / 75

Remove the tube on the front side and press [ENTER] to initialize the pressure sensor.



Step 64 / 75

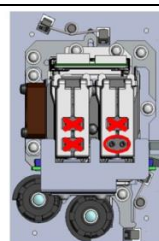
### Detail1: Target tube



Step 65 / 75

Connect the tube assembled in the print head tube assembly procedure to the front side. Except for the tube for circulation on the left side of the left damper, connect the each 30 mm tube with the stopper attached.

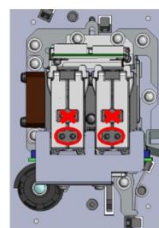
左ヘッド  
Left head



30mmチューブ+ストッパー×2  
30mm tube + Stopper\*2



右ヘッド  
Right head

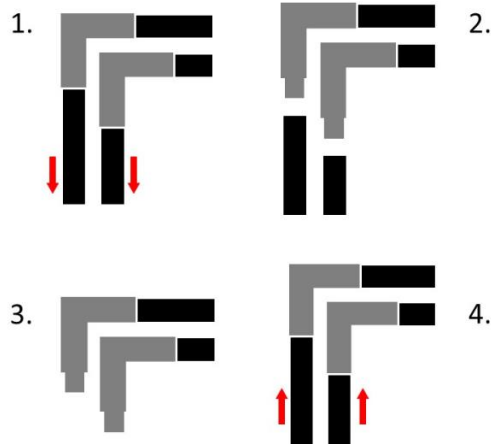


30mmチューブ+ストッパー×4  
30mm tube + Stopper\*4



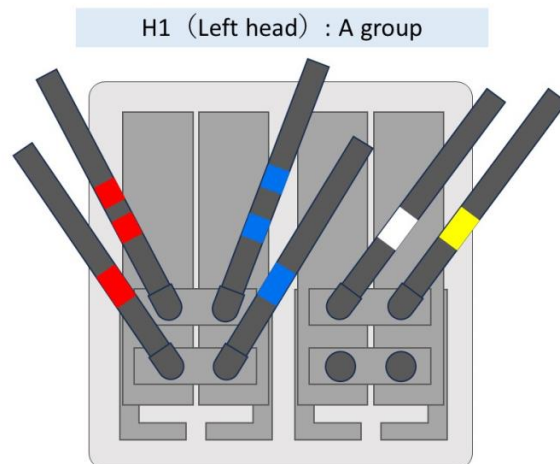
Step 66 / 75

Detail1: If the left damper is replaced, replace the old tube from the L-joint on the left side and attach a new tube in the same way as the tube on the back side.



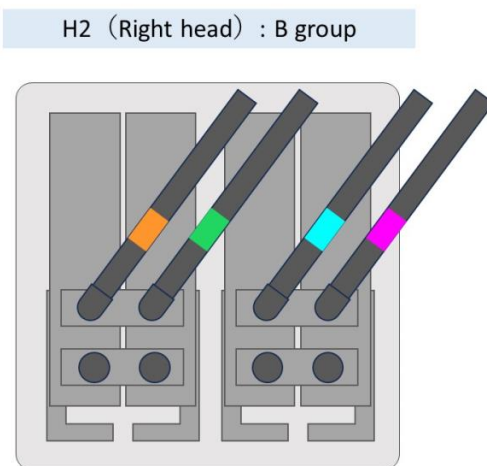
Step 67 / 75

## Detail2: H1 Tube routing



Step 68 / 75

## Detail3: H2 Tube routing



Step 69 / 75

Press [ENTER] when [FINISHED?] is displayed. \*This message is displayed because the same sequence is used when replacing the print head. Manual cleaning is not required when replacing the damper, so press [ENTER].





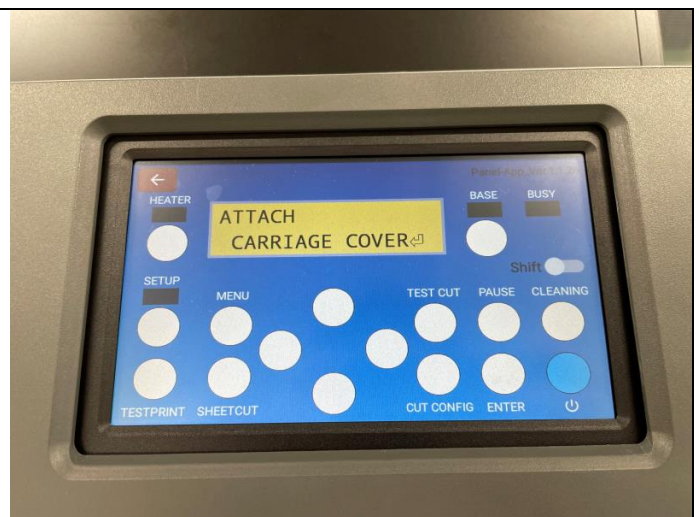
Step 70 / 75

Press [ENTER] to move the carriage to the capping position and start ink filling.



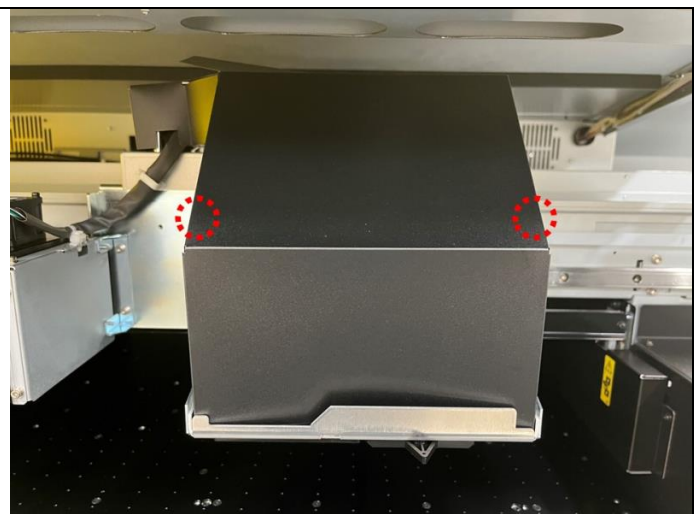
Step 71 / 75

When ink filling is complete, [ATTACH CARRIAGE COVER] will be displayed. The carriage will move to the center of the table again. After attaching the carriage cover, press [ENTER].



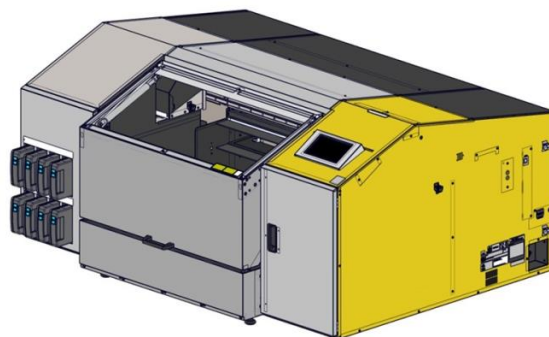
Step 72 / 75

Detail1: The carriage cover has one screw on each side.



Step 73 / 75

Attach the removed covers.



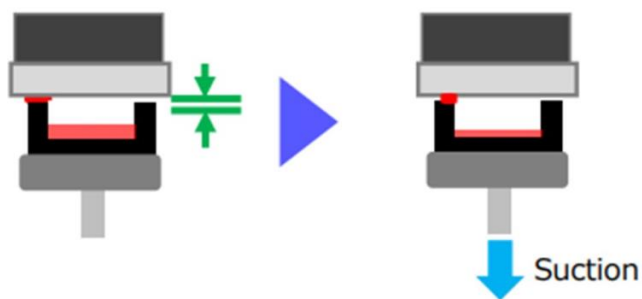
Step 74 / 75

After the replacement work is completed, perform [I/S MENU] > [M-OPEN ADJUST].



Step 75 / 75

Detail1: [M-OPEN ADJUST] performs the micro-opening ink suction performed by [CAP CHECK] on the existing model.



## MO-180 Mainboard replacement

# MO-180 Mainboard replacement

## Information

Step 1 / 5

If the parameters cannot be obtained from the machine, the parameters must be reset.



Step 2 / 5

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 / 5

Typical work time

### 作業時間/Typical work time

| 作業内容/Contents of work                                                                                              | 時間/Time |
|--------------------------------------------------------------------------------------------------------------------|---------|
| メインボード交換<br>(Peck2でのパラメータの転送が不可能な場合)<br>Main board replacement<br>(When parameters cannot be transferred by Peck2) | 40 min. |
| メインボード交換<br>(Peck2でのパラメータの転送が可能な場合)<br>Main board replacement<br>(When parameters can be transferred by Peck2)     | 20 min. |

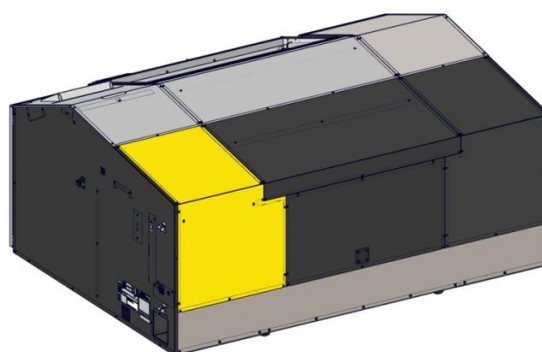
Step 4 / 5

Before starting replacement work, touch an unpainted metal surface to release static electricity.



Step 5 / 5

Cover that needs to be removed





# MO-180 Mainboard replacement

## MO-180 Mainboard replacement Procedure

Step 1 / 44

Connect Peck2 to the machine to obtain parameters.

The screenshot shows the Peck2 Ver. 2.20 software window. At the top, there's a header with the user 'koharajun@co.jp' and buttons for 'Login' and 'Server Update'. Below this are three main sections: 'Printer Info', 'User Information', and 'Certification Points'. The 'Printer Info' section shows 'Model: ', 'Status: Not Connected', 'Firm Ver: -', and 'Service Menu: Close'. The 'User Information' section shows 'Certified: YES', 'Expired after: 30 days', and 'Region Code: '. The 'Certification Points' section has a table with columns: Category, Rank, Academy, Community, Feedback, For Rank Up. Below these are 'Machine Operation' and 'Information' sections. The 'Machine Operation' section has buttons for 'Connect Printer' (circled in red), 'Check Report', 'Update Firmware', and 'Put Parameter'. The 'Information' section has buttons for 'Global Dashboard', 'Check KB Article', 'Imagi-net Product Page', and 'Help'. To the right is a 'Work Report' section showing 'Completed #: 0' and 'Incompleted #: 2', with an 'Input' button. Below that is a table for 'Incompleted work report list' with two rows of data.

Step 2 / 44

Detail1: Start Peck2.

The image shows the Peck2 logo, which is a stylized white bird with a red crest inside a blue circle. To the right of the logo, the text 'Peck2' is written in a large, bold, blue font, followed by 'Ver. X.XX' in a smaller blue font. At the bottom right, the 'Imagine Roland' logo is visible.

Step 3 / 44

Detail2: Click the [Login] button.

This screenshot is similar to the one in Step 1, but the 'Login' button in the top right corner of the header is circled in red. The rest of the interface elements are the same.

Step 4 / 44

Detail3: Login with your Imag-net ID.

Sign in to your account

Microsoft

Select an account

 Jun Koh  
koharajun@  
Window

利用規約

プライバシーとCookie

...

Step 5 / 44

Detail4: Click the [Connect Printer] button.

Peck2 Ver. 2.20

koharajun@ .co.jp Login Server Update

Printer Info

Model:

Status: Not Connected

Firm Ver: -

Service Menu: Close

User Information

Certified: YES

Expired after: 30 days

Region Code:

Certification Points

| Category  | Rank | Academy | Community | Feedback | For Rank Up |
|-----------|------|---------|-----------|----------|-------------|
| Installer | -    | -       | -         | -        | -           |
| Color     | -    | -       | -         | -        | -           |
| Dental    | -    | -       | -         | -        | -           |
| 3D        | -    | -       | -         | -        | -           |

Machine Operation

Connect Printer

Check Report

Update Firmware

Put Parameter

Information

Global Dashboard

Check KB Article

Imagi-net Product Page

Help

Work Report

Completed #: 0

Imcompleted #: 2

Input

Imcompleted work report list

VG2-640\_ZDV01 \_20210507\_084958.pec

VG2-640\_ZDV01 \_20210506\_160305.pec

Step 6 / 44

Detail5: Enter the IP address of the printer you wish to connect to.

Peck2 Ver. 2.20

koharajun@ .co.jp Login Server Update

Printer Info

Model:

ConnectPrinter

Select: VG2-640( 11 .129.52)

Input IP Address:

Connect

Close

User Information

Certified: YES

Expired after: 30 days

Certification Points

| Category  | Rank      | Academy | Community | Feedback | For Rank Up |
|-----------|-----------|---------|-----------|----------|-------------|
| Installer | Certified | 0       | *         | *        | *           |
| Color     | 0         | 0       | 0         | 200      |             |
| Dental    | 0         | 0       | *         | 200      |             |
| 3D        | 0         | 0       | *         | 200      |             |

Machine Operation

Global Dashboard

Check Report

Check KB Article

Update Firmware

Imagi-net Product Page

Put Parameter

Help

Work Report

Completed #: 0

Imcompleted #: 2

Input

Imcompleted work report list

VG2-640\_ZDV01 \_20210507\_084958.pec

VG2-640\_ZDV01 \_20210506\_160305.pec

Step 7 / 44

Detail6: If the printer is connected, the printer information will be displayed in [Printer Info].

| Printer Info  |               |
|---------------|---------------|
| Model:        | VG2-640_ZDV01 |
| Status:       | UnSetup       |
| Firm Ver:     | 2.00          |
| Service Menu: | Open          |

| User Information |         |
|------------------|---------|
| Certified:       | YES     |
| Expired after:   | 30 days |

| Certification Points |           |         |           |          |             |  |
|----------------------|-----------|---------|-----------|----------|-------------|--|
| Category             | Rank      | Academy | Community | Feedback | For Rank Up |  |
| Installer            | Certified | 0       | *         | *        | *           |  |
| Color                |           | 0       | 0         | 0        | 200         |  |
| Dental               |           | 0       | 0         | *        | 200         |  |
| 3D                   |           | 0       | 0         | *        | 200         |  |

| Machine-Operation |                        |
|-------------------|------------------------|
| Connect Printer   | Global Dashboard       |
| Check Report      | Check KB Article       |
| Update Firmware   | Imagi-net Product Page |
| Put Parameter     | Help                   |

| Work Report    |   |
|----------------|---|
| Completed #:   | 0 |
| Incompleted #: | 2 |

Input

Incompleted work report list

VG2-640\_ZDV01 \_20210507\_084958.pec  
VG2-640\_ZDV01 \_20210506\_160305.pec

Step 8 / 44

Detail7: If the printer is connected, the parameters can be automatically retrieved. Click [Put Parameter] button.

| Printer Info  |               |
|---------------|---------------|
| Model:        | VG2-640_ZDV01 |
| Status:       | UnSetup       |
| Firm Ver:     | 2.00          |
| Service Menu: | Open          |

| User Information |         |
|------------------|---------|
| Certified:       | YES     |
| Expired after:   | 30 days |

| Certification Points |           |         |           |          |             |  |
|----------------------|-----------|---------|-----------|----------|-------------|--|
| Category             | Rank      | Academy | Community | Feedback | For Rank Up |  |
| Installer            | Certified | 0       | *         | *        | *           |  |
| Color                |           | 0       | 0         | 0        | 200         |  |
| Dental               |           | 0       | 0         | *        | 200         |  |
| 3D                   |           | 0       | 0         | *        | 200         |  |

| Machine-Operation |                        |
|-------------------|------------------------|
| Connect Printer   | Global Dashboard       |
| Check Report      | Check KB Article       |
| Update Firmware   | Imagi-net Product Page |
| Put Parameter     | Help                   |

| Work Report    |   |
|----------------|---|
| Completed #:   | 0 |
| Incompleted #: | 2 |

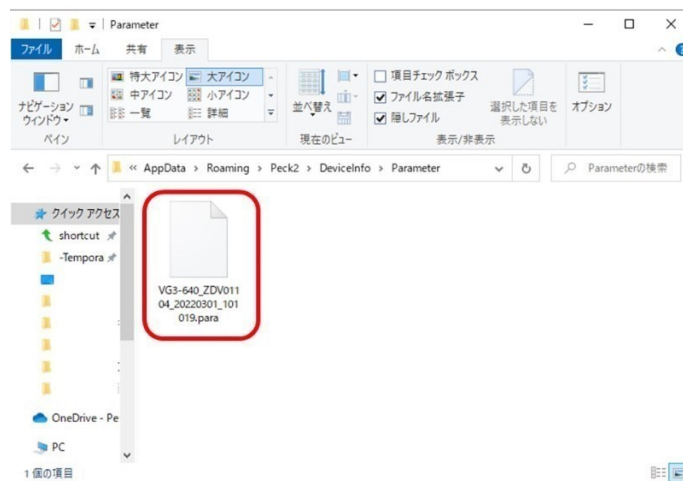
Input

Incompleted work report list

VG2-640\_ZDV01 \_20210507\_084958.pec  
VG2-640\_ZDV01 \_20210506\_160305.pec

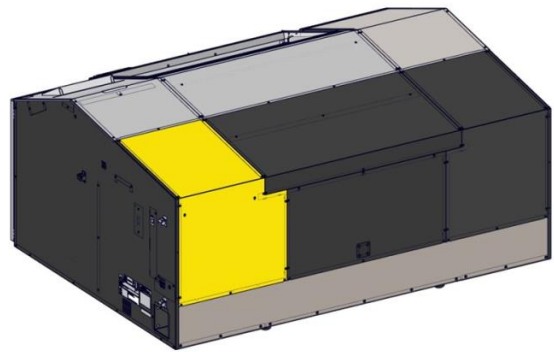
Step 9 / 44

Detail8: Confirm the obtained file.



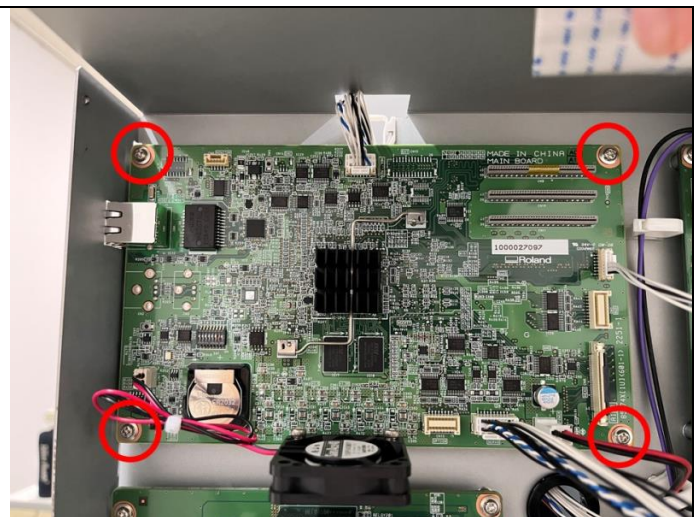
Step 10 / 44

Turn off the main power and remove the cover.



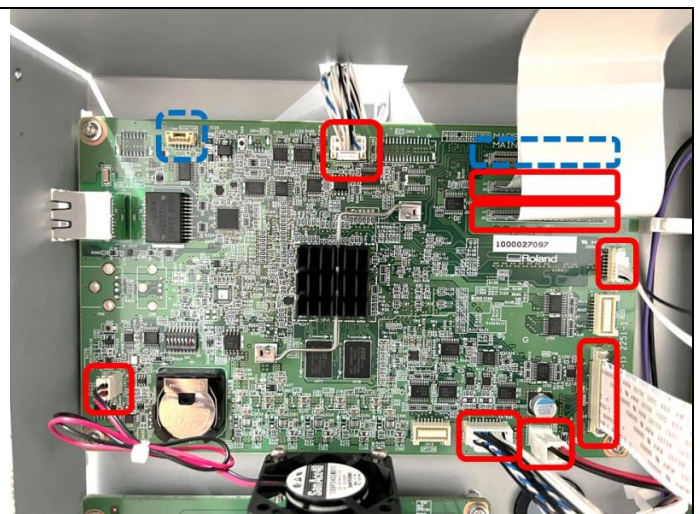
Step 11 / 44

Disconnect the connectors and remove the main board.



Step 12 / 44

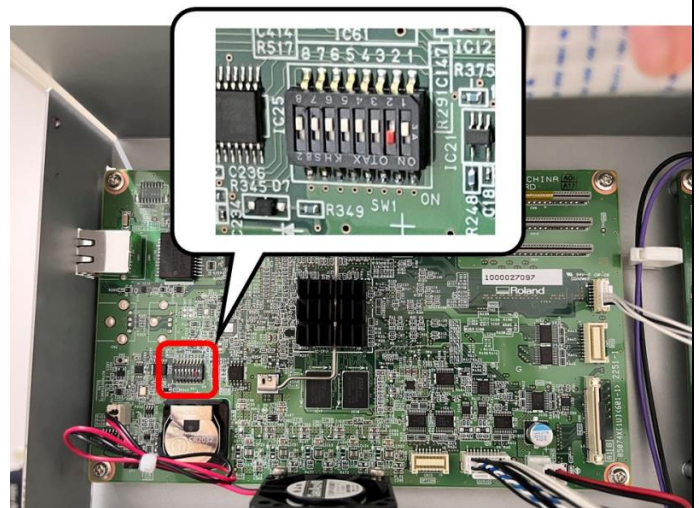
Detail1: Connectors to be removed





Step 13 / 44

Change the DIP SW of the new mainboard.



Step 14 / 44

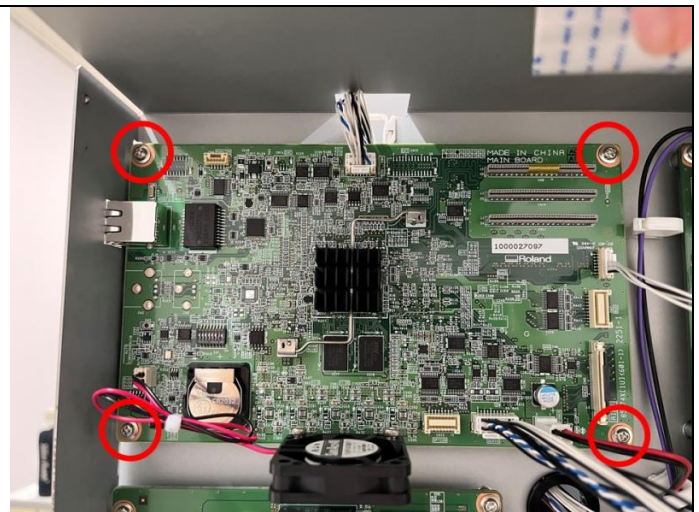
Detail1: Set DIP SW [2] to ON.



| 1   | 2  | 3   | 4   | 5   | 6   | 7   | 8   |
|-----|----|-----|-----|-----|-----|-----|-----|
| OFF | ON | OFF | OFF | OFF | OFF | OFF | OFF |

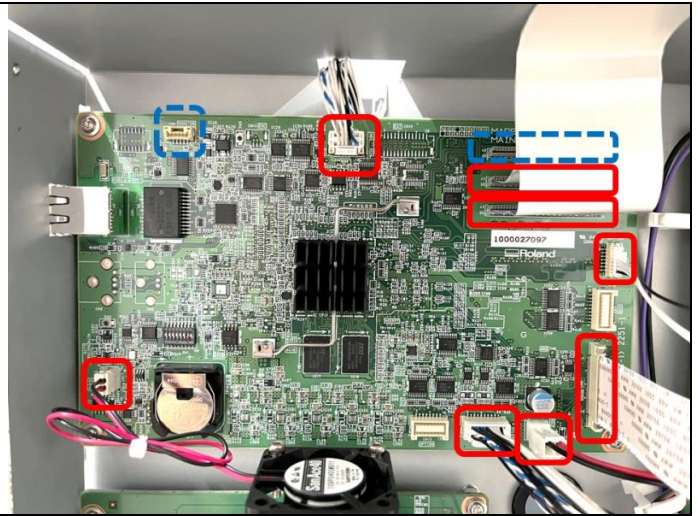
Step 15 / 44

Install the new main board and connect the connectors.



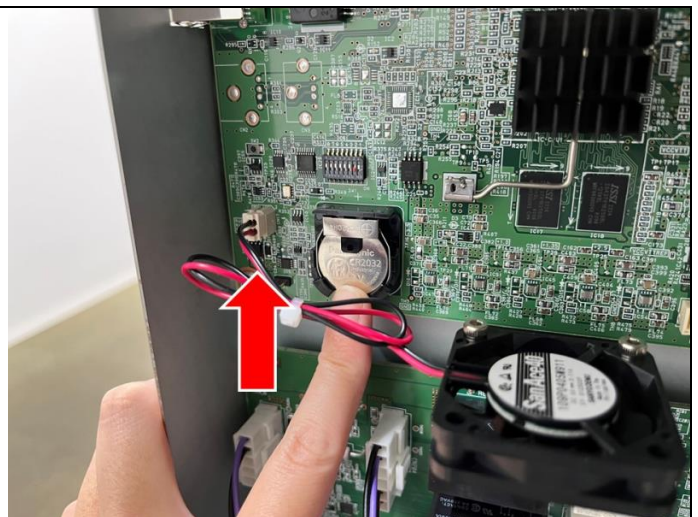
Step 16 / 44

Detail1: There are no connectors in blue parts.



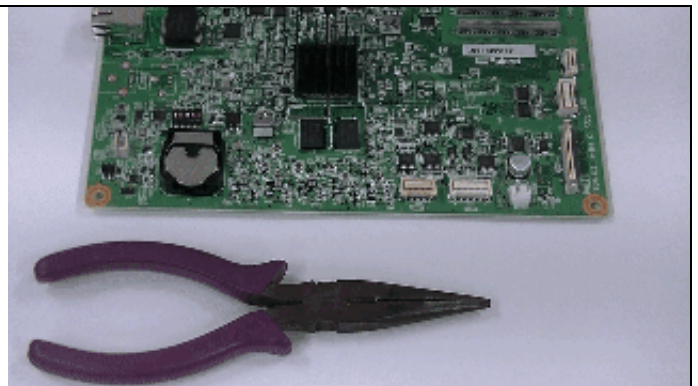
Step 17 / 44

Install the removed battery into the new main board.



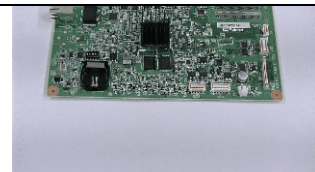
Step 18 / 44

Detail1: Video: How to remove the battery



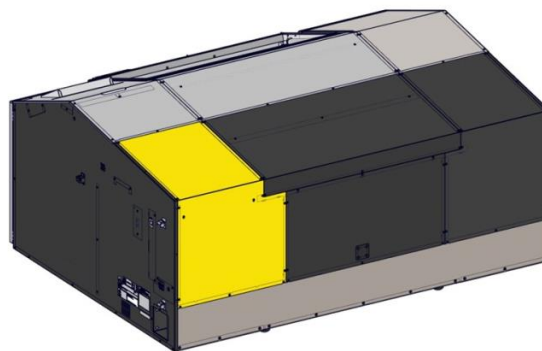
Step 19 / 44

Detail2: Video: How to attach the battery



Step 20 / 44

Attach the cover.



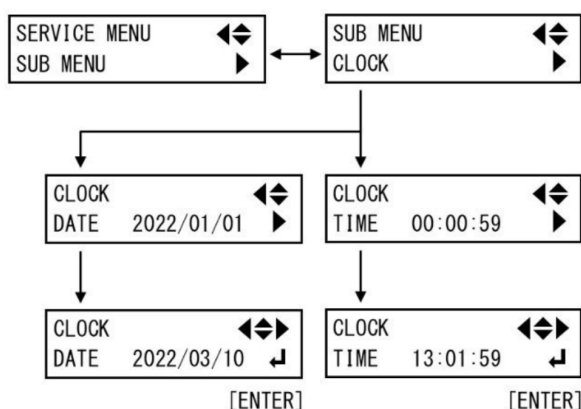
Step 21 / 44

The following procedure is for the case where the parameters could be obtained using Peck2. If you do not have the parameters, please go to the "When parameters cannot be obtained by Peck2" procedure.



Step 22 / 44

□□□□□□□□□□□□□□ [□□]□[  
YYYYY/MM/DD]□□□□□□□□□□

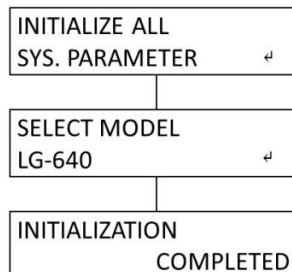


Step 23 / 44

Perform system parameter initialization.



OR



Step 24 / 44

Install the firmware. [See Firmware Installation].



次の手順

ファームウェアインストール

Next Step

Firmware Installation

Step 25 / 44

Transfer the obtained parameters to the printer.

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               |
| Check Report      | Check KB Article       | Imcompleted #: 2             |
| Update Firmware   | Imagi-net Product Page | Input                        |
| Put Parameter     | Help                   | Imcompleted work report list |

VG2-640\_ZDV01 \_20210507\_084958.pec  
VG2-640\_ZDV01 \_20210506\_160305.pec



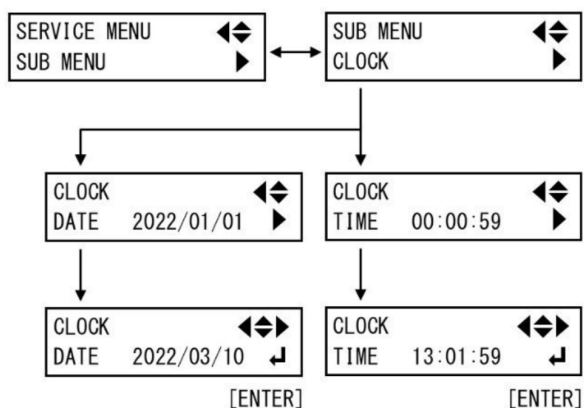
Step 26 / 44

The following procedure is for the case where the parameters cannot be obtained by Peck2. If the parameters could be transferred, the procedure is complete.



Step 27 / 44

□□□□□□□□□□□□□□ [□□]□[  
YYYYY/MM/DD]□□□□□□□□□□



Step 28 / 44

Install the firmware. [See Firmware Installation Procedure].



次の手順

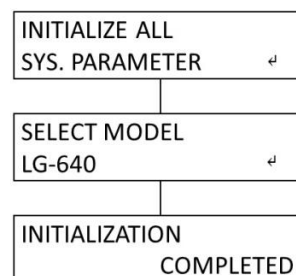
ファームウェアインストール

**Next Step**

Firmware Installation

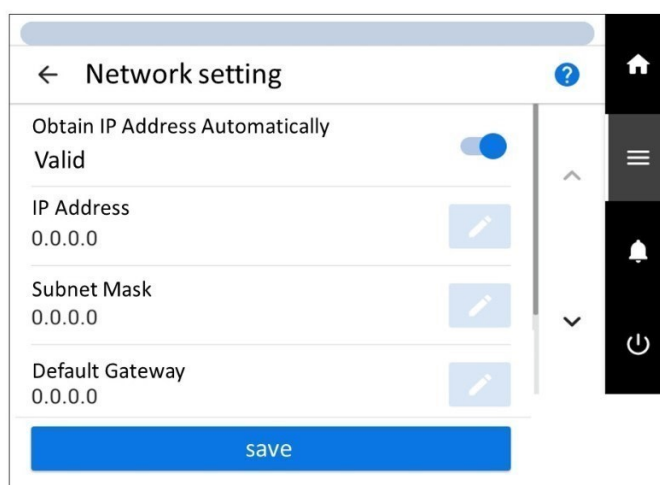
Step 29 / 44

Perform system parameter initialization.



Step 30 / 44

Go to the User menu and set the IP address.



Step 31 / 44

Detail1: Enter temporary IP address mode.



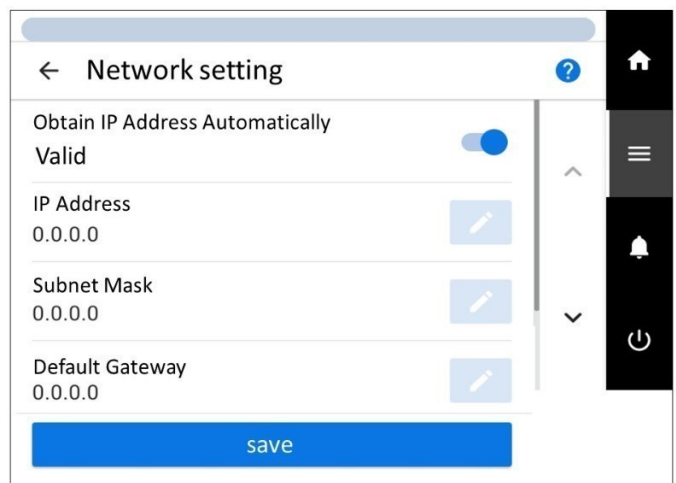
Step 32 / 44

Detail2: Connect Peck2.



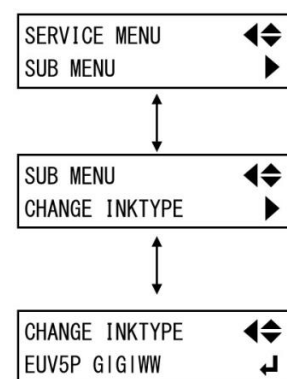
Step 33 / 44

Detail3: Go to the User Menu and set the IP address.



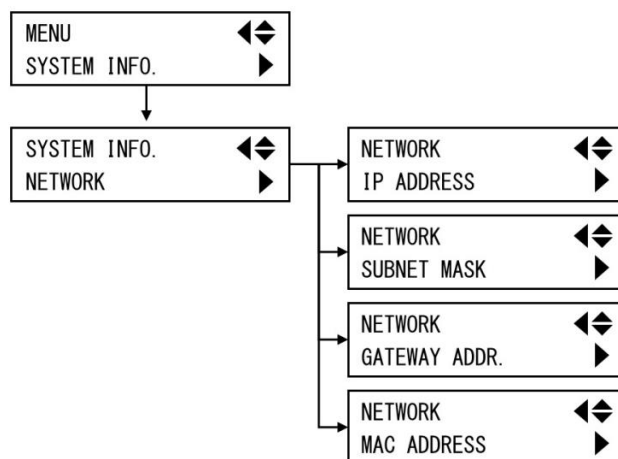
Step 34 / 44

Set the ink type.



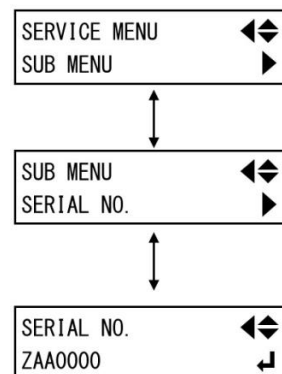
Step 35 / 44

Set the IP address.



Step 36 / 44

Enter the serial number.



Step 37 / 44

Perform the limit position initialization.  
Refer to [Limit Position Initialization].



次の手順

リミット位置調整

**Next Step**

Limit position initialization



Step 38 / 44

Perform wiper position adjustment.  
Refer to [Wiper position adjustment].



**次の手順**

ワイパー位置調整

**Next Step**

Wiper position adjustment

Step 39 / 44

Perform cap height adjustment. Refer  
to [Cap height adjustment].



**次の手順**

キャップ高さ調整

**Next Step**

Cap height adjustment

Step 40 / 44

Perform print head alignment. Refer to [  
Print head alignment].



**次の手順**

プリントヘッド位置調整

**Next Step**

Print head alignment

Step 41 / 44

Perform feed calibration. Refer to [Feed Calibration].



次の手順

距離補正

Next Step

Feed calibration

Step 42 / 44

LED pointer adjustment is performed.  
Refer to [LED pointer adjustment].



次の手順

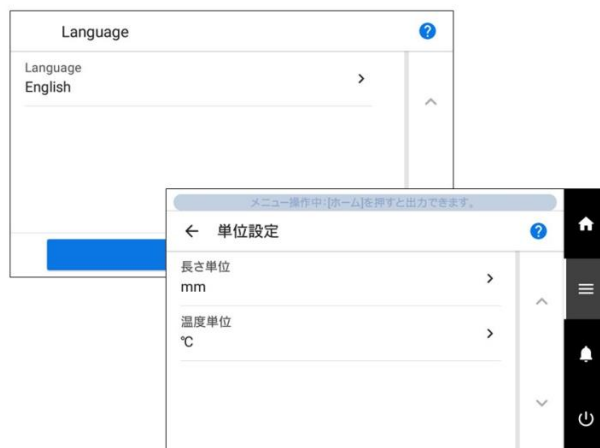
LEDポインター調整

Next Step

LED Pointer Adjustment

Step 43 / 44

Start up the machine again in user mode and set the language and units.



Step 44 / 44

The user setting information is also initialized. Enter user settings whenever possible.



## MO-180 Battery replacement

# MO-180 Battery replacement Information

Step 1 / 4

Parts to be replaced□Batteries



Step 2 / 4

Tools required for replacement

### 一般ツール/General Tool

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



### 特殊治具/Special Tools

無し  
None

Step 3 / 4

Standard working time

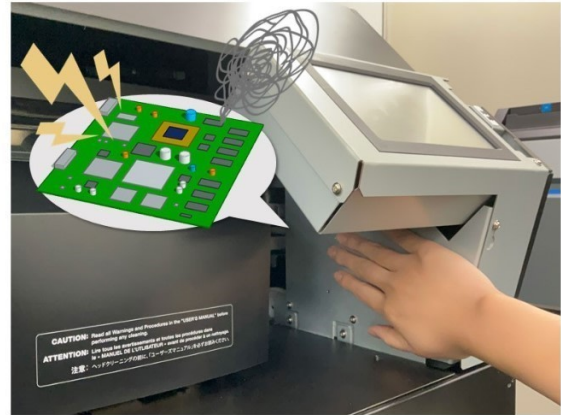
### 作業時間/Typical work time

| 作業内容/Contents of work          | 時間/Time |
|--------------------------------|---------|
| 電池交換<br>Battery Replacement    | 7 min.  |
| 日時の設定<br>Time and date setting | 2 min.  |

Step 4 / 4

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

**CAUTION !**





## MO-180 Battery replacement

# MO-180 Battery replacement Procedure

Step 1 / 17

Caution Lithium batteries may explode if not replaced properly. Replace the battery with one of the same type (or its equivalent) as the battery installed. Dispose of used batteries according to the manufacturer's instructions. Lithium battery: CR2032.



Step 2 / 17

Detail1: Prohibited: Do not charge, short-circuit, disassemble, or throw into fire lithium batteries. Doing so may cause overheating, rupture, or ignition.



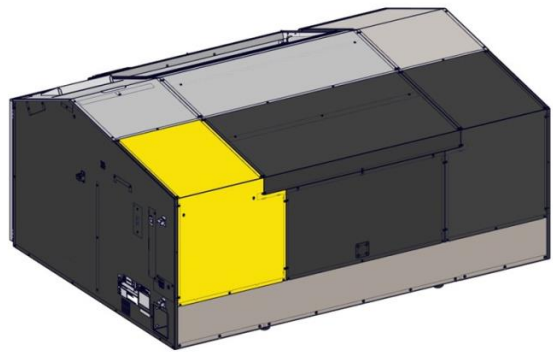
Step 3 / 17

Detail2: Disposal: When disposing of or storing lithium batteries, insulate them by wrapping tape around them. Doing so may cause heat generation, rupture, or ignition.



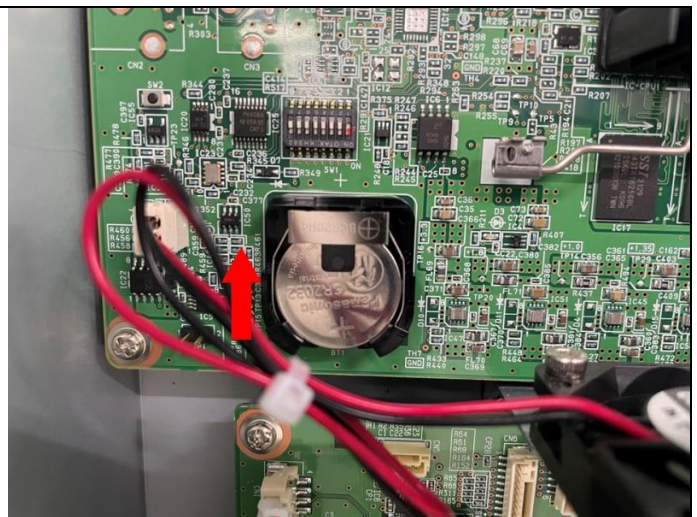
Step 4 / 17

Remove the cover.



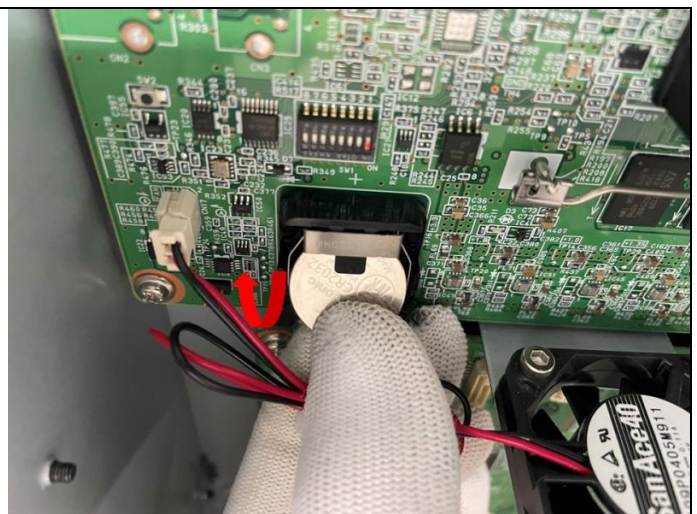
Step 5 / 17

Remove the battery on the main board by tilting it upward while pushing it toward the back.



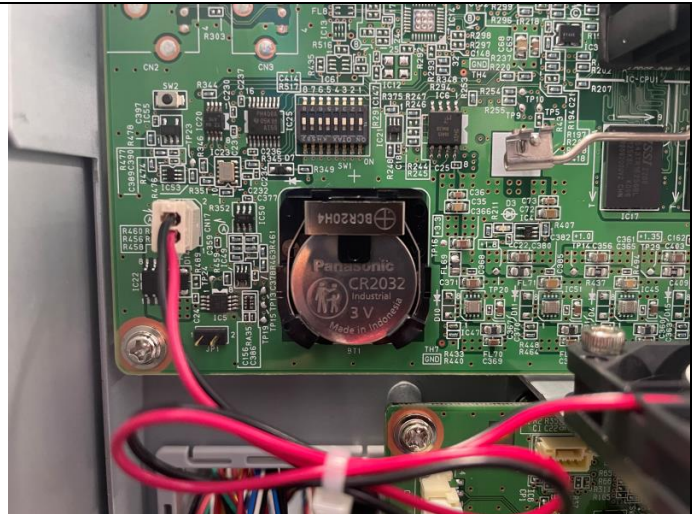
Step 6 / 17

Detail1: Remove the battery by tilting it toward the front.



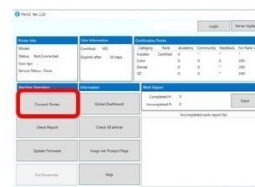
Step 7 / 17

Replace the battery with a new one. Be sure to install the battery in the correct orientation.



Step 8 / 17

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



Step 9 / 17

Detail1: Connect the power cable and turn on the power.



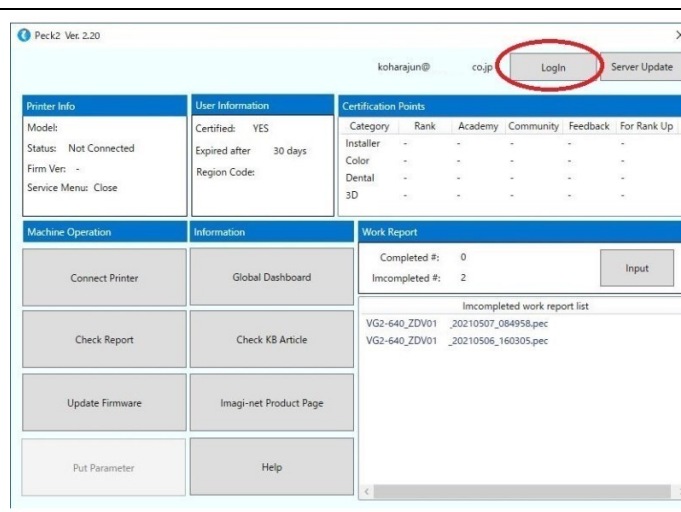
Step 10 / 17

Detail2: Start Peck2.



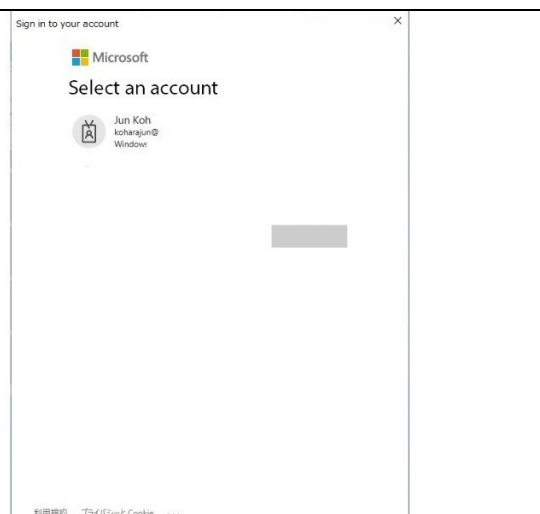
Step 11 / 17

Detail3: Click the Login button.



Step 12 / 17

Detail4: Login with your Imagi-net ID.





Step 13 / 17

Detail5: 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 | 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 14 / 17

Detail6: Enter the IP address of the printer you wish 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         | 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 15 / 17

Detail7: When the printer is connected, the printer information will be displayed in Printer Info.

Peck2 Ver 2.20

koharjun@ .co.jp Login Server Update

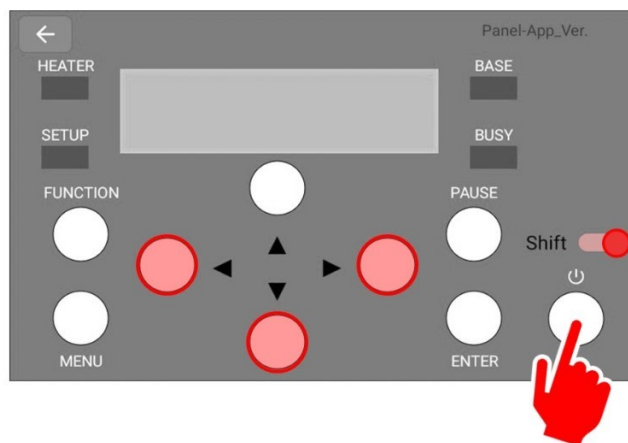
| Printer Info  |               | User Information |         | Certification Points |           |         |           |          |             |
|---------------|---------------|------------------|---------|----------------------|-----------|---------|-----------|----------|-------------|
| Model:        | 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          |                  |         | Color                | 0         | 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 |   |             |  |



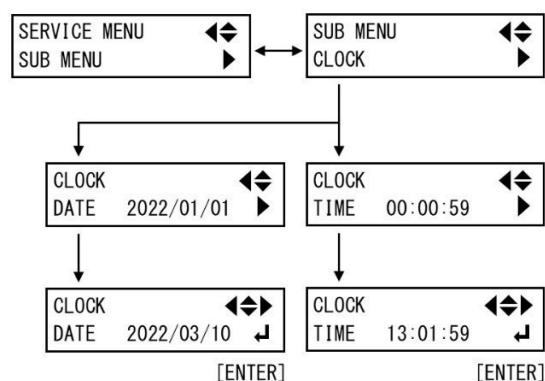
Step 16 / 17

**Detail8:** Press the aircraft panel [Shift]> [□]+[□]+[□]+[Sub Power] to enter the service mode. Turn on the [Shift] button to enable simultaneous button presses.



Step 17 / 17

Refer to the date/time adjustment procedure to perform date/time adjustment.



## MO-180 EX MTR 8CH board replacement

# MO-180 EX MTR 8CH board replacement Information

Step 1 / 8

Necessary tools

### 一般ツール/General Tool

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



Step 2 / 8

Typical work time

### 作業時間/Typical work time

| 作業内容/Contents of work                           | 時間/Time |
|-------------------------------------------------|---------|
| EX MTR 8CHボード交換<br>EX MTR 8CH board replacement | 20 min. |

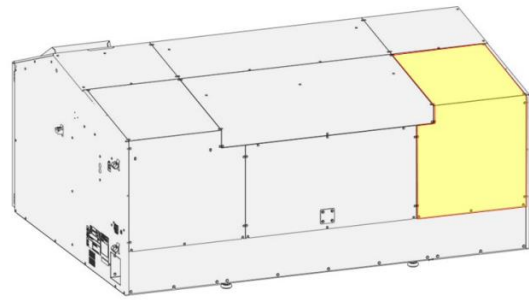
Step 3 / 8

Before starting replacement work, touch an unpainted metal surface to release static electricity.



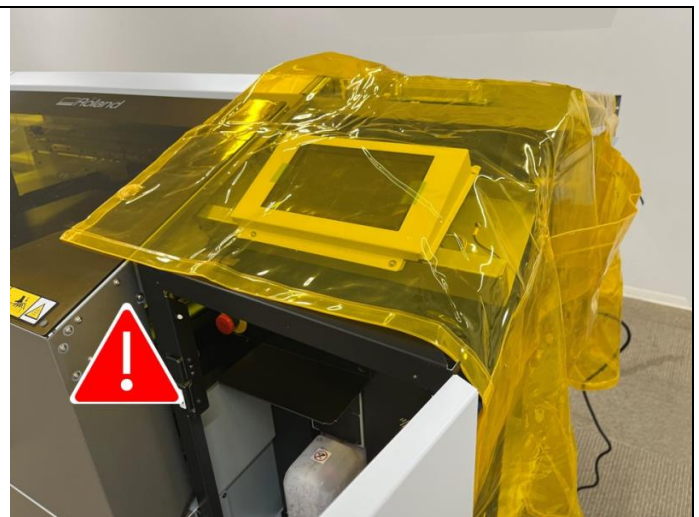
Step 4 / 8

Cover that to be removed



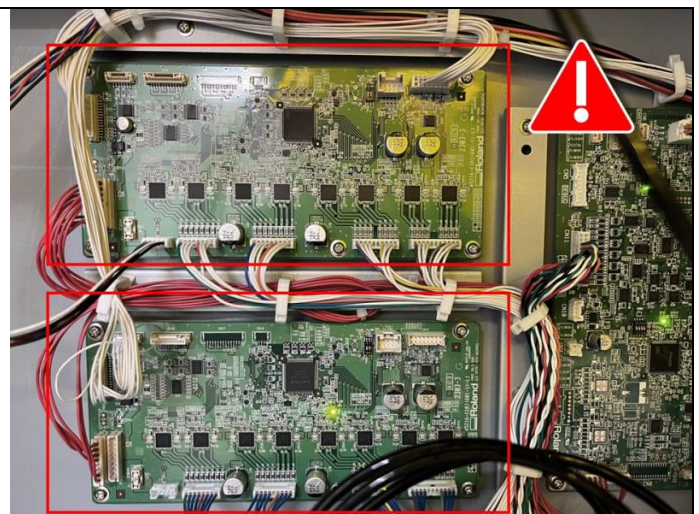
Step 5 / 8

When the cover is removed, use a light-shielding sheet to prevent the ink from curing.



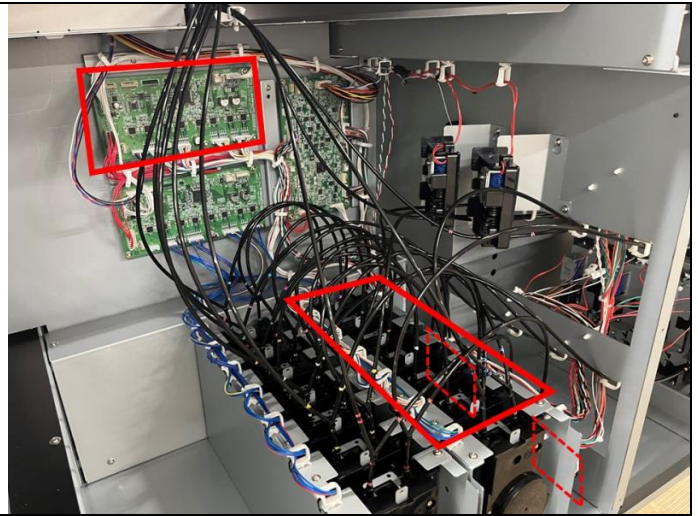
Step 6 / 8

The EX MTR 8CH board comes with two boards, one on the top and one on the bottom. When replacing both boards, be sure to replace one board at a time and be careful not to mistake the cables that were connected.



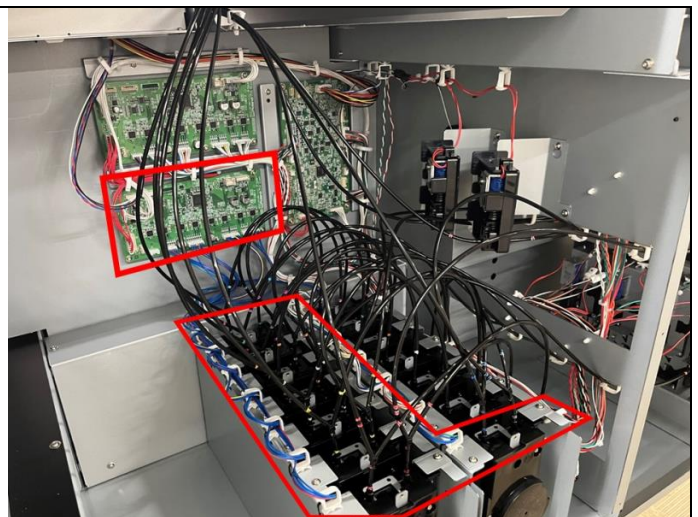
Step 7 / 8

Detail1: Upper board: for pressure pump and circulation pump



Step 8 / 8

Detail2: Lower board: for decompression pump





## MO-180 EX MTR 8CH board replacement

# MO-180 EX MTR 8CH board replacement

## Procedure

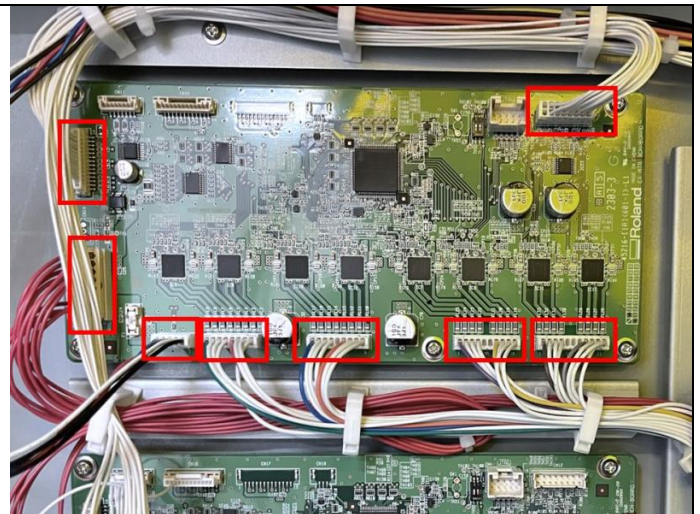
Step 1 / 10

Turn off the main power.



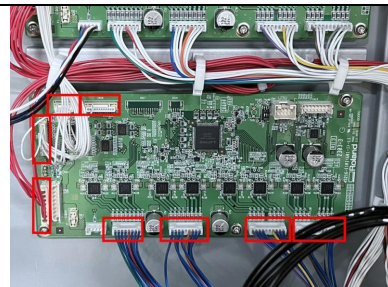
Step 2 / 10

Disconnect the connectors and remove the board to be replaced. (Upper board)



Step 3 / 10

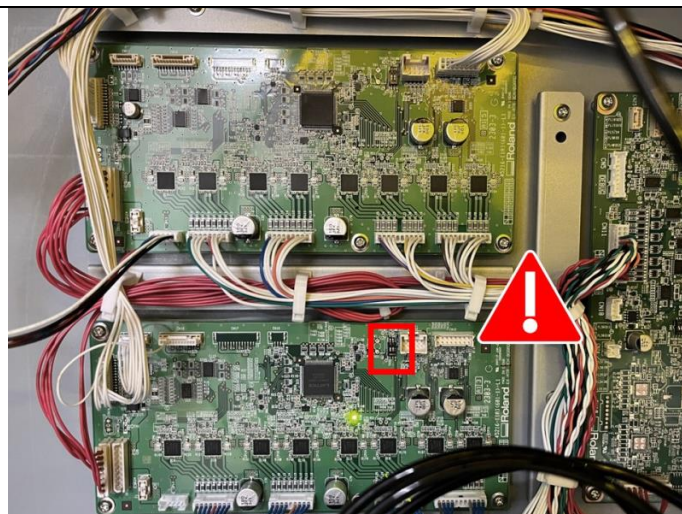
Detail1: Lower board





Step 4 / 10

To replace the lower board, change the DIP SW to 1: ON, 2: OFF.



Step 5 / 10

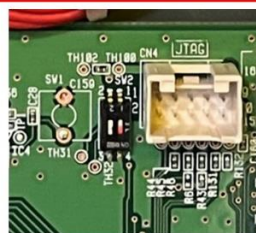
Detail1: Set 1: OFF and 2: OFF for the upper board and 1: ON and 2: OFF for the lower board.

Upper board



| 1   | 2   |
|-----|-----|
| OFF | OFF |

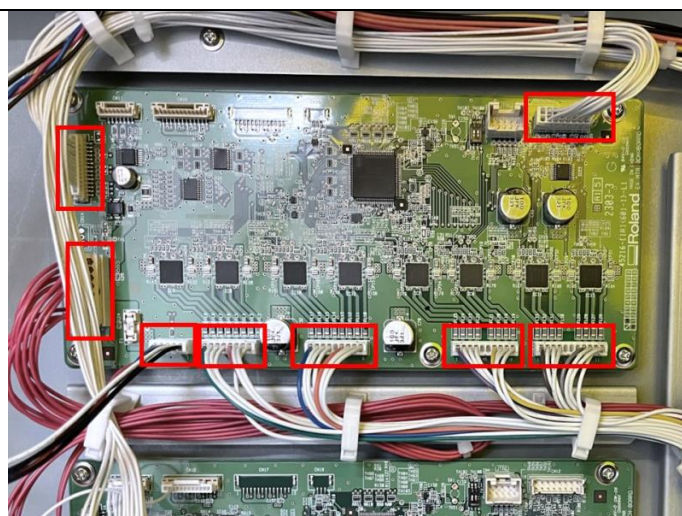
Lower board



| 1  | 2   |
|----|-----|
| ON | OFF |

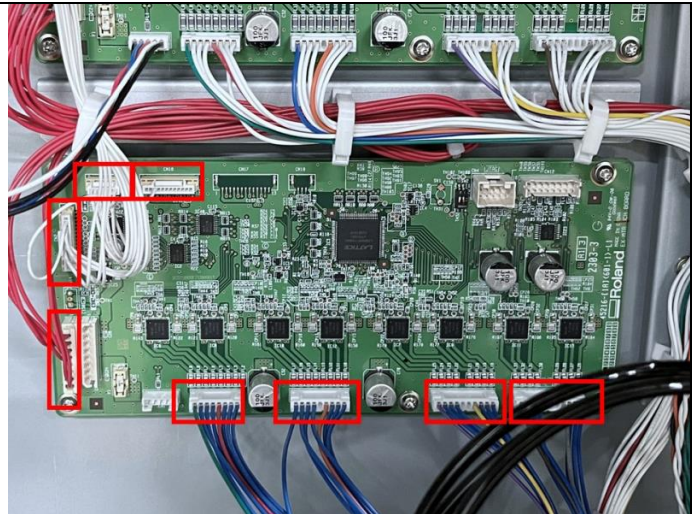
Step 6 / 10

Install the new board and connect the connectors. (Upper board)



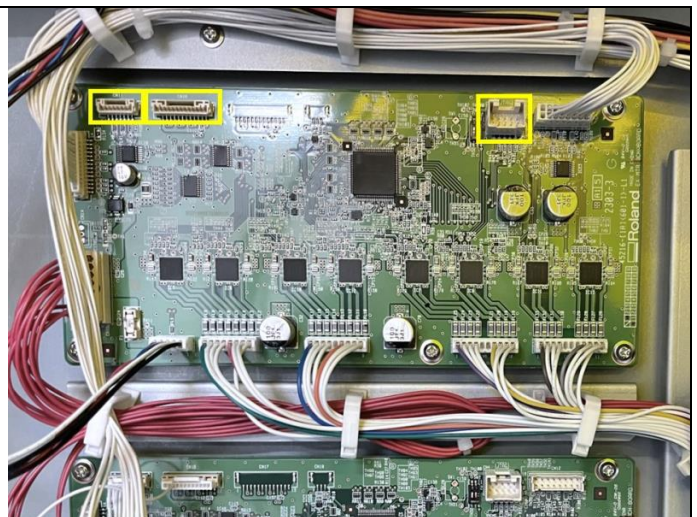
Step 7 / 10

Detail1: Connect the connectors. (Lower board)



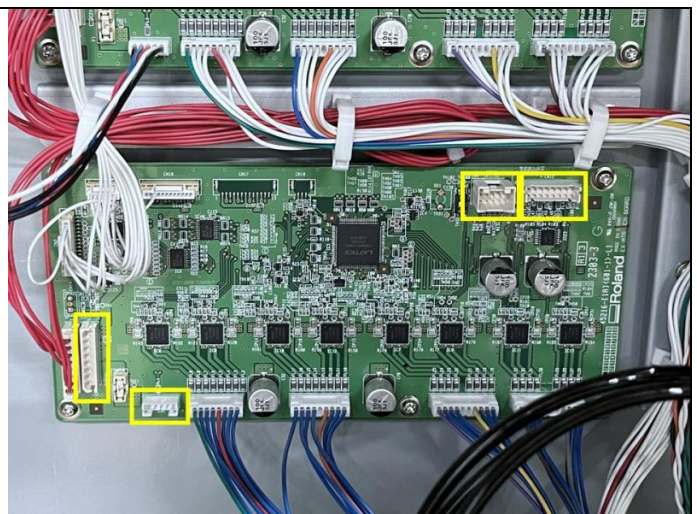
Step 8 / 10

Detail2: There are no connectors to be connected to the places indicated in yellow. (Upper board)



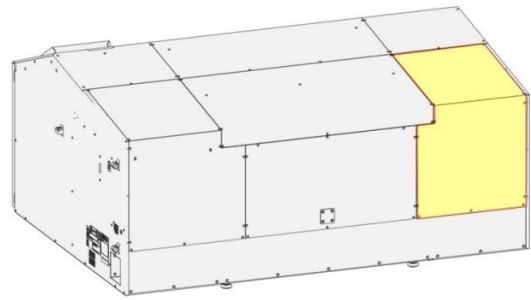
Step 9 / 10

Detail3: There are no connectors to be connected to the places indicated in yellow. (Lower board)



Step 10 / 10

Attach the cover.





# MO-180 Switching Power Supply Replacement

## MO-180 Switching Power Supply Replacement Information

Step 1 / 6

Tools needed for replacement

### 一般ツール/General Tool

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

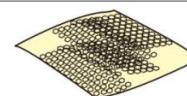


Step 2 / 6

special jig

### 特殊治具/Special Tools

1000005829  
TOOL,VINYL YE UV RESISTANT ST-113



Step 3 / 6

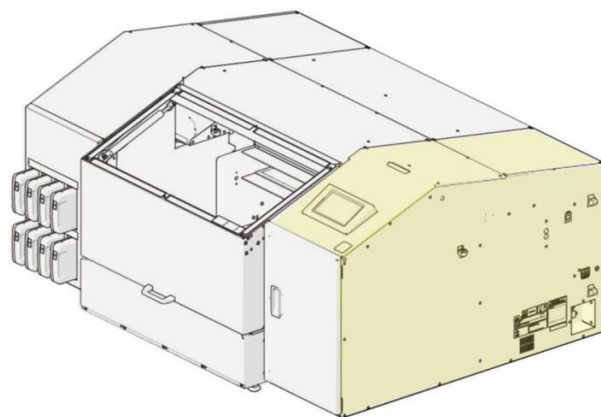
standard working hours

### 作業時間/Typical work time

| 作業内容/Contents of work                     | 時間/Time |
|-------------------------------------------|---------|
| スイッチング電源交換<br>SW Power Supply Replacement | 30 min. |

Step 4 / 6

cover to remove



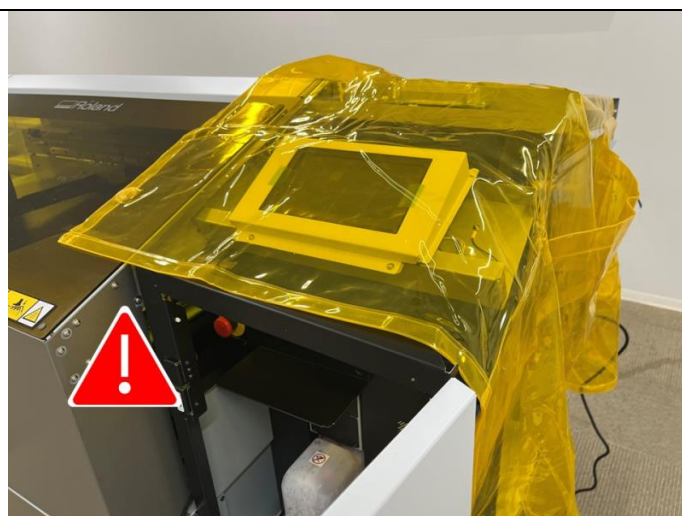
Step 5 / 6

To prevent static electricity damage, discharge static electricity from your body before touching any electronic components. You can dissipate static electricity by touching an unpainted metal surface.



Step 6 / 6

When removing the cover, use a light-blocking sheet to prevent the ink from curing.





# MO-180 Switching Power Supply Replacement

## MO-180 Switching Power Supply Replacement Procedure

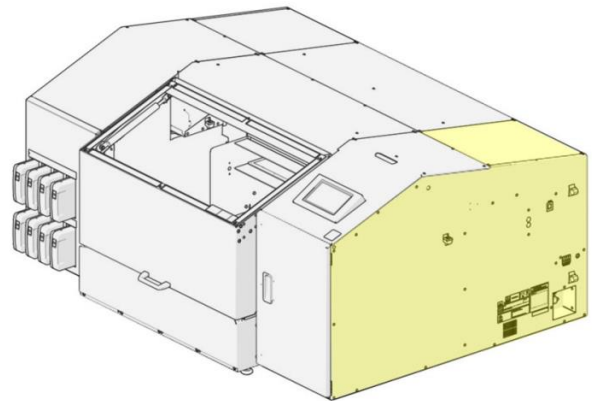
Step 1 / 26

Turn off the main power and remove the power cable.



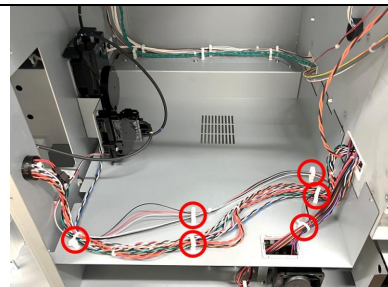
Step 2 / 26

Remove the cover.



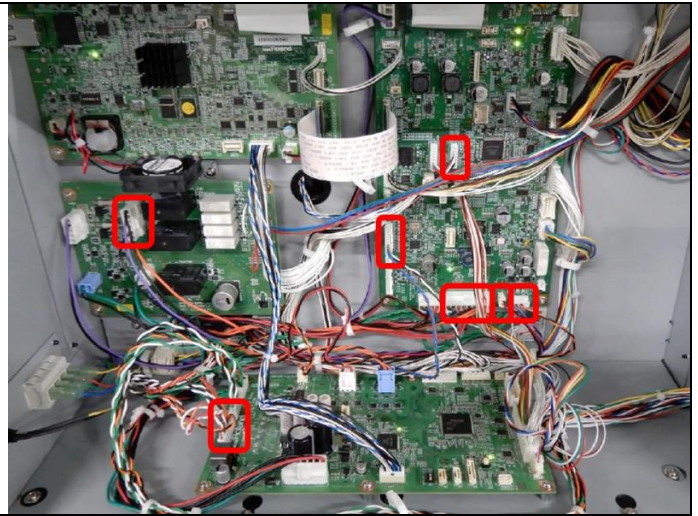
Step 3 / 26

Remove any cables attached to cable ties or mounts.



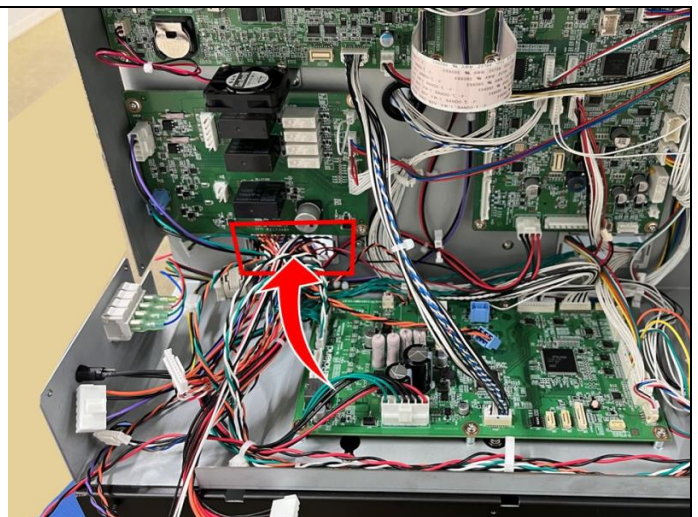
Step 4 / 26

Remove the connector attached to the board and send it to the space at the back.



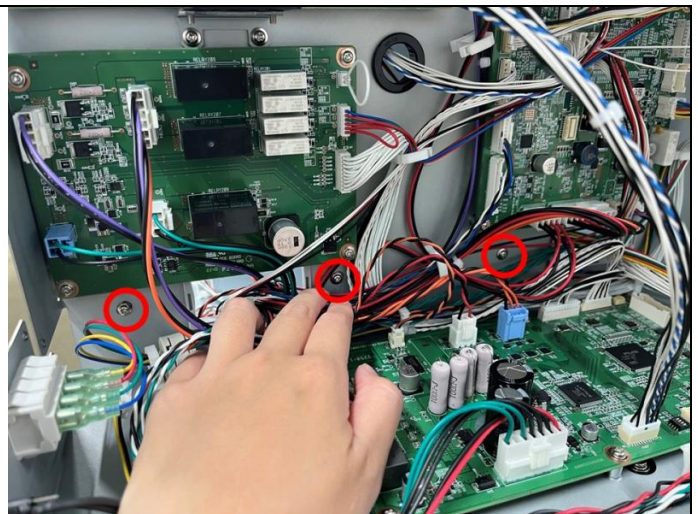
Step 5 / 26

Detail1: Pass the removed connector through the back of the chassis.



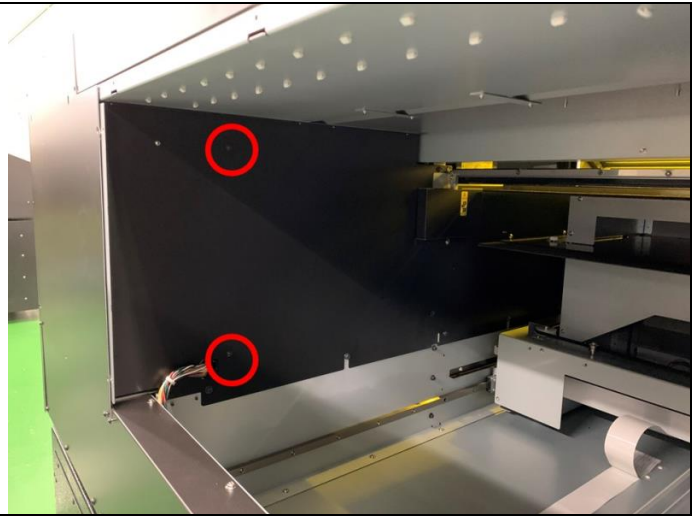
Step 6 / 26

Remove the three screws from the chassis side.



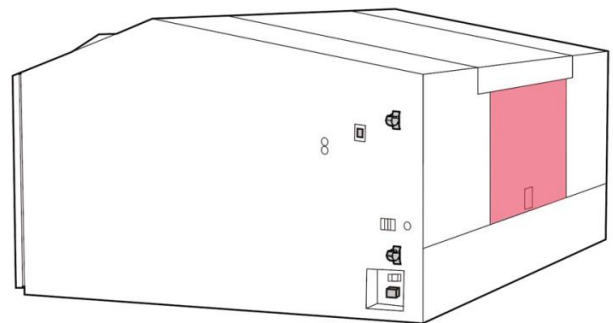
Step 7 / 26

Remove the back cover and remove the screws that secure the chassis from the print table side.



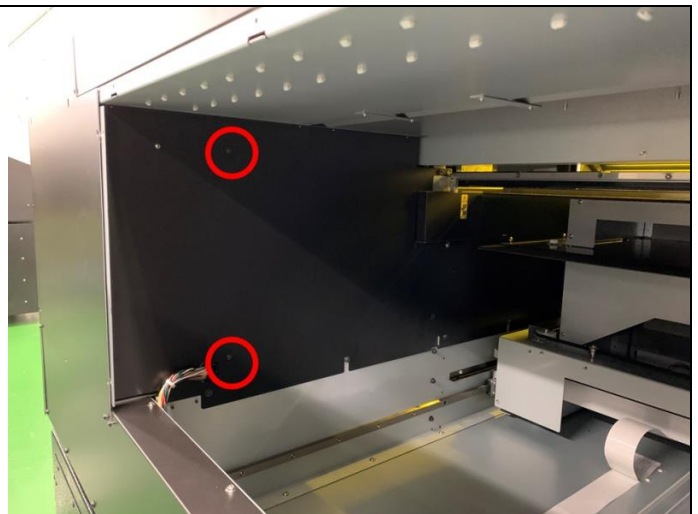
Step 8 / 26

Detail1: Remove the back cover.



Step 9 / 26

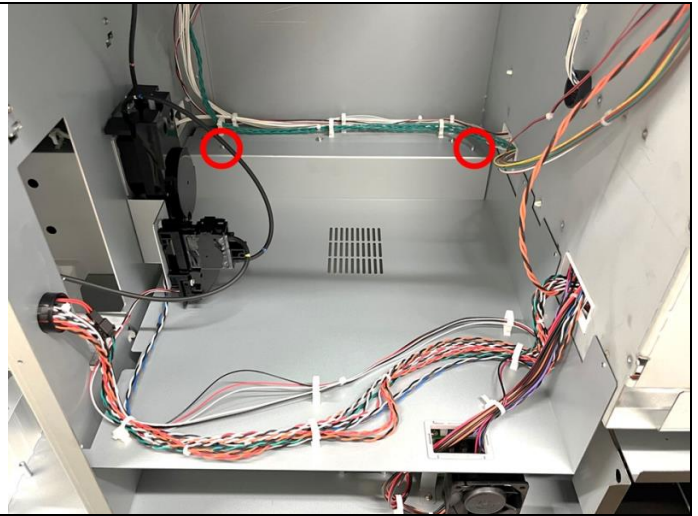
Detail2: Chassis fixing screw





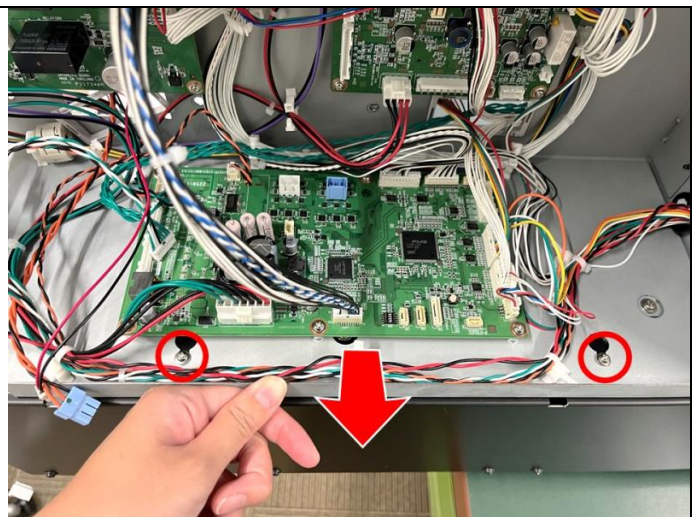
Step 10 / 26

Remove the screws from the sheet metal.



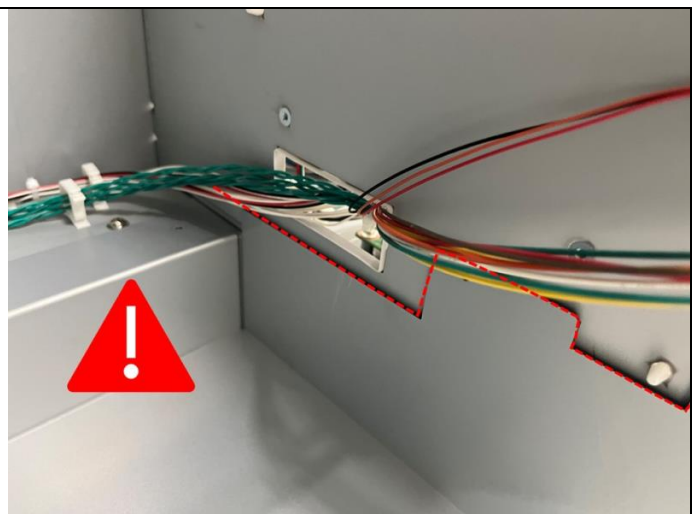
Step 11 / 26

Remove the screws from the chassis and gently pull it out toward you.



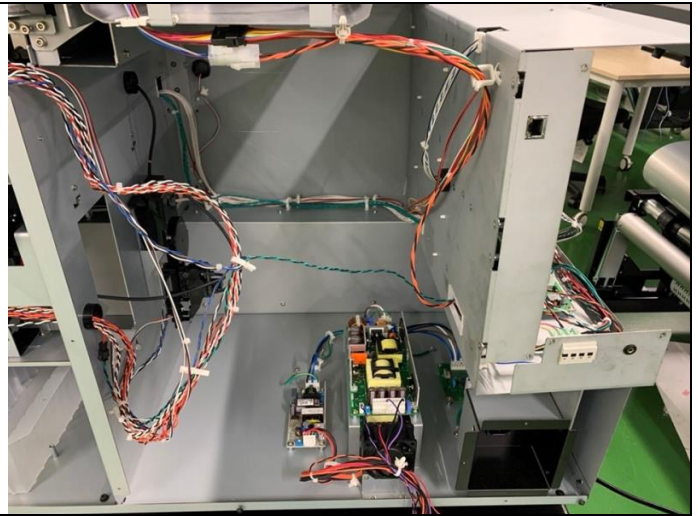
Step 12 / 26

Be careful not to damage the cables when moving the sheet metal.



Step 13 / 26

Remove the sheet metal.



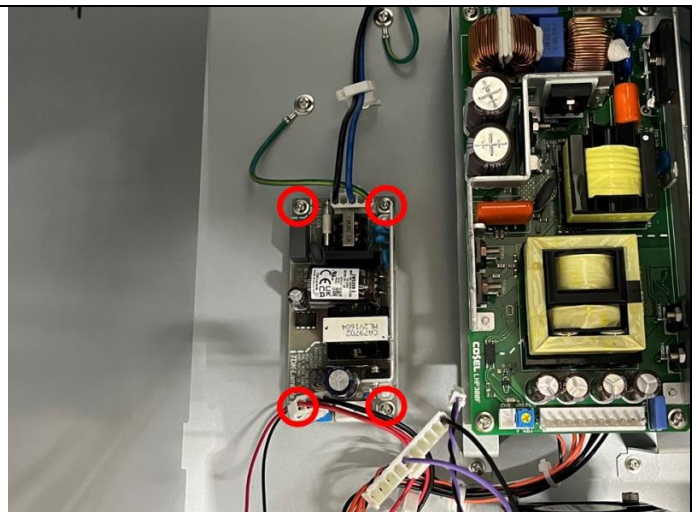
Step 14 / 26

The following steps are how to replace the 5V power board. If you are replacing the 41V power board, proceed to "41V Power Board Replacement."



Step 15 / 26

Remove the connector and screws and replace with the new power board.





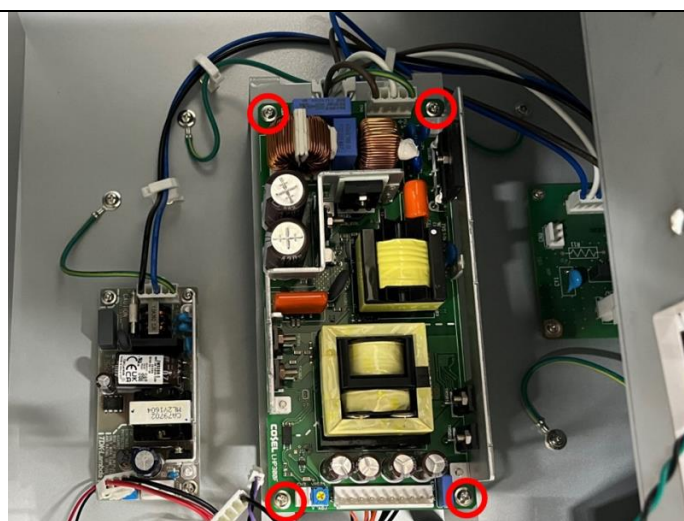
Step 16 / 26

If you need to replace the 41V power supply board, please proceed to the next step. When the replacement is complete, proceed to "Post-replacement work."



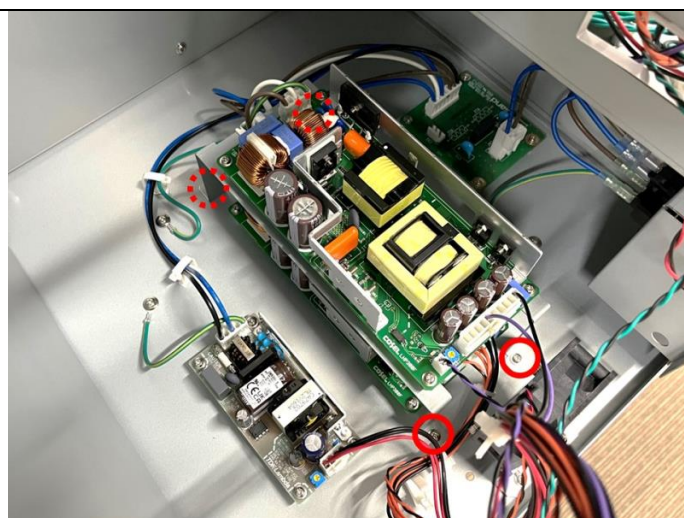
Step 17 / 26

After removing the connector and screws, replace the power board.



Step 18 / 26

Detail1: When replacing the lower power supply board, remove the upper power supply board together with the stay before replacing it.



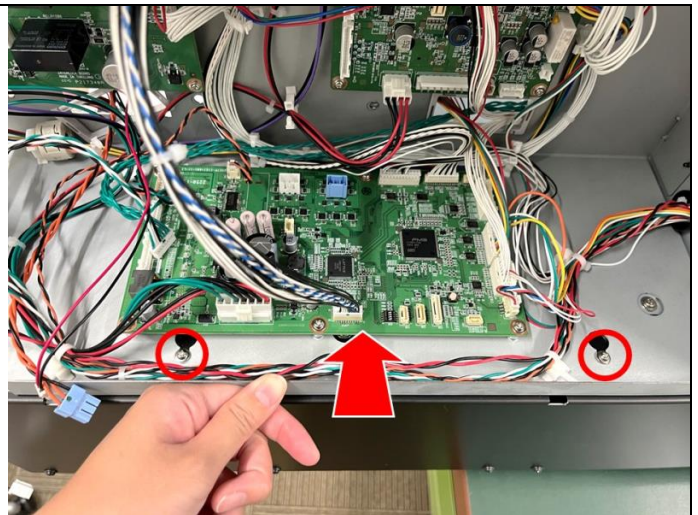
Step 19 / 26

Replace the sheet metal, reposition the chassis, and secure with the screws.



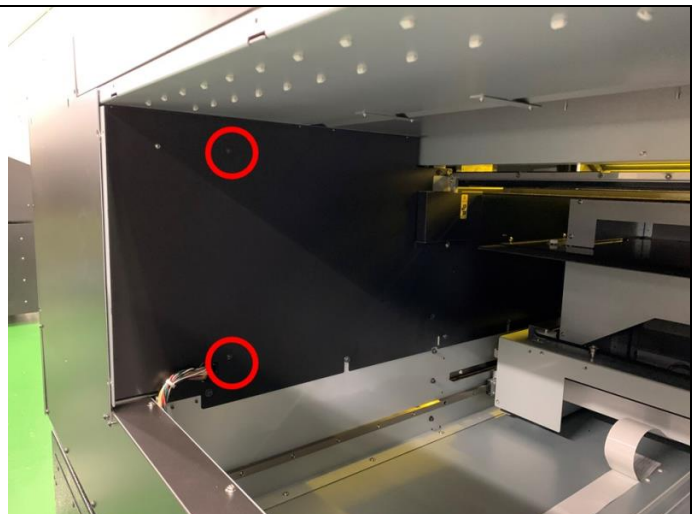
Step 20 / 26

Detail1: Tighten the screws until the chassis is in its original position, butting against the screws.



Step 21 / 26

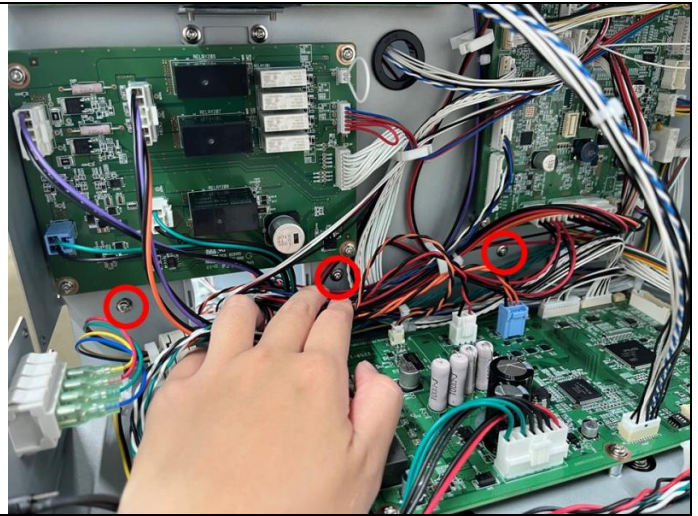
Detail2: Secure the chassis from the print table side.





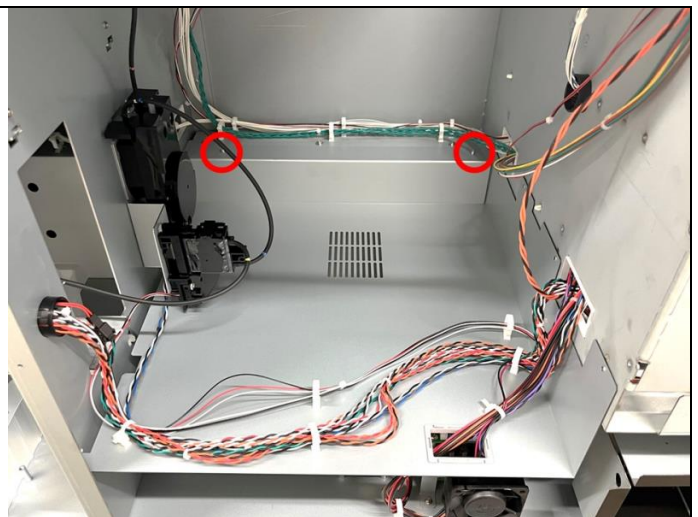
Step 22 / 26

Detail3: Tighten the screws on the chassis side to secure the sheet metal.



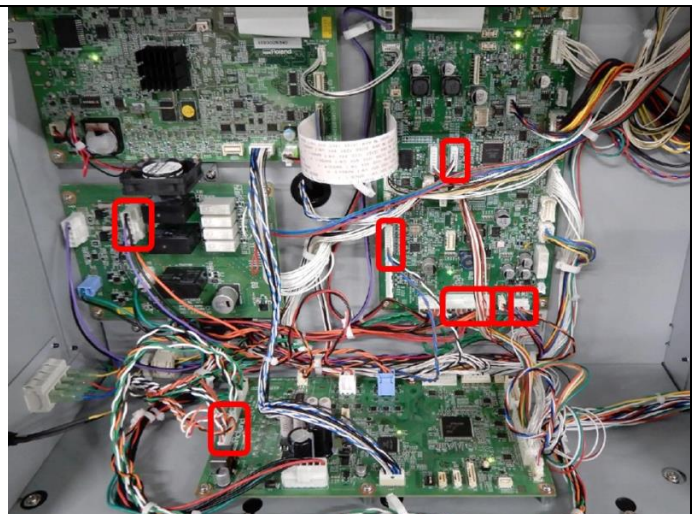
Step 23 / 26

Detail4: Tighten the screws on the sheet metal.



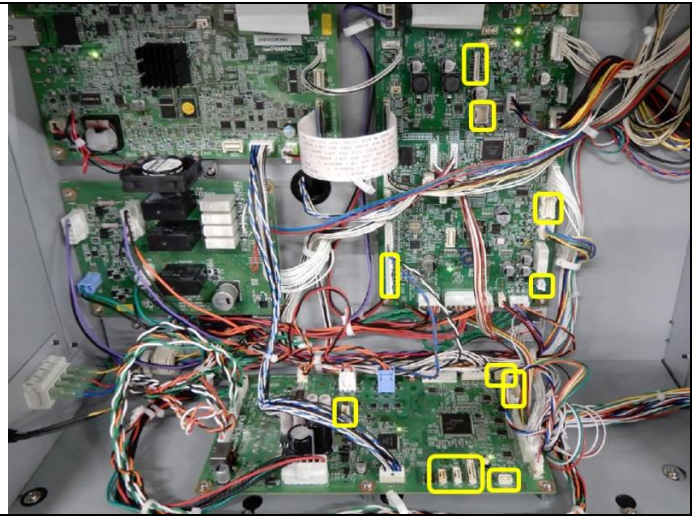
Step 24 / 26

Replace the removed connector as shown.



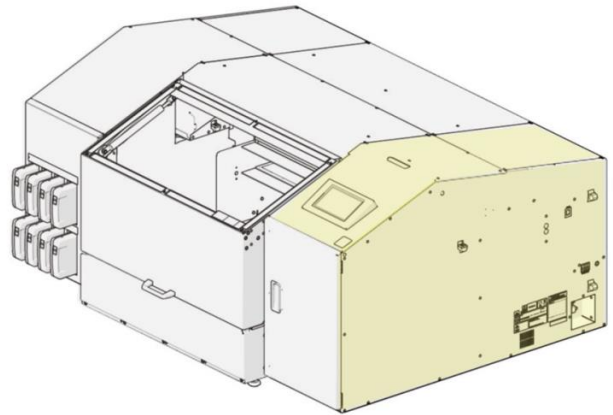
Step 25 / 26

**Detail1:** There are no connectors that can be installed in the locations shown.



Step 26 / 26

**Attach the removed cover.**



## MO-180 Scan motor replacement

# MO-180 Scan motor replacement Information

Step 1 / 6

### Necessary tools

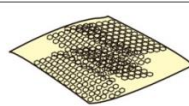
### 一般ツール/General Tool

|                                                    |                                                                                     |
|----------------------------------------------------|-------------------------------------------------------------------------------------|
| プラスドライバー No.2<br>No.2 Phillips screwdriver         |  |
| 六角レンチ 2.0 & 2.5mm<br>2.0 & 2.5 mm hexagonal wrench |  |
| ニッパー<br>Nippers                                    |  |
| サブタイ<br>Cable tie                                  |  |

Step 2 / 6

### Special tools

### 特殊治具/Special Tools

|                                                  |                                                                                       |
|--------------------------------------------------|---------------------------------------------------------------------------------------|
| 6000004129<br>GREASE, FLOIL G-902 10ML_02        |  |
| 1000005829<br>TOOL, VINYL YE UV RESISTANT ST-113 |  |

Step 3 / 6

### Typical work time

### 作業時間/Typical work time

| 作業内容/Contents of work                                | 時間/Time |
|------------------------------------------------------|---------|
| スキャンモーター交換<br>Scan motor replacement                 | 15 min. |
| スキャンモーター偏心補正<br>Scan motor eccentricity compensation | 2 min.  |
| サーボロック確認<br>Servo lock check                         | 1 min.  |
| エージング確認<br>Aging check                               | 5 min.  |
| モーター時間クリア<br>Motor time clear                        | 1 min.  |

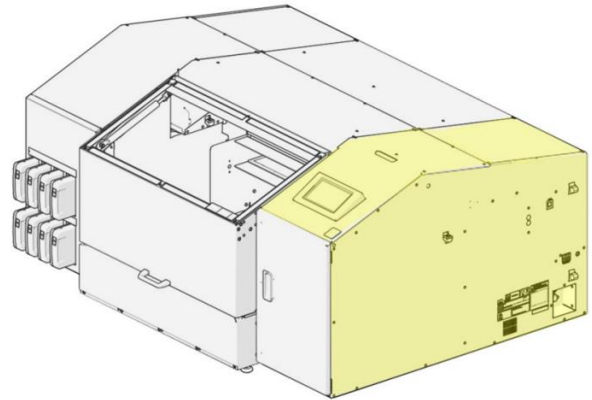
Thursday, May 22, 2025 9:09 AM

Language: en



Step 4 / 6

## Covers that need to be removed



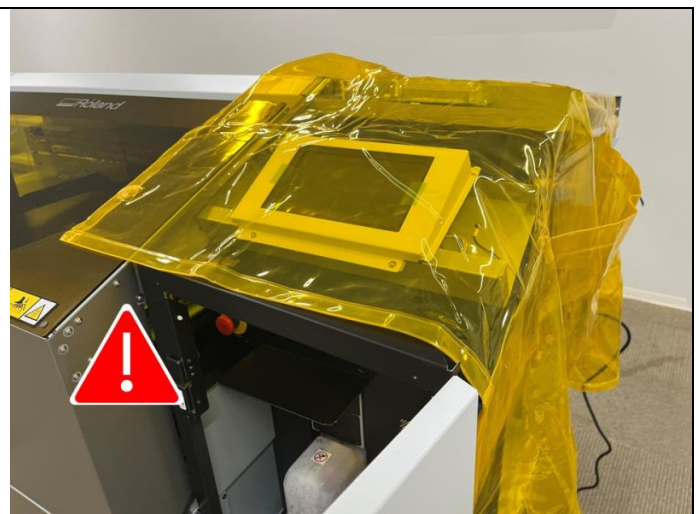
Step 5 / 6

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



Step 6 / 6

If the cover is removed, use a light-shielding sheet to prevent ink from curing.



## MO-180 Scan motor replacement

# MO-180 Scan motor replacement Procedure

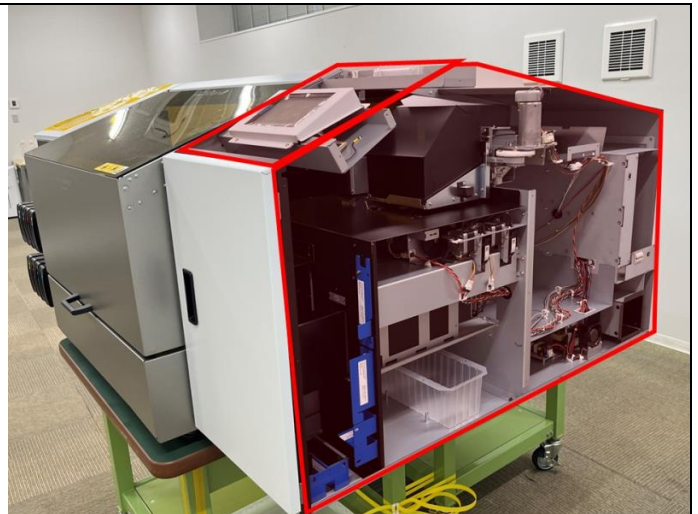
Step 1 / 29

Turn off the main power and unplug the power cable.



Step 2 / 29

Remove the cover on the top of the print head and the cover on the right side. For subsequent replacement work, it is recommended to work from the right side of the machine.



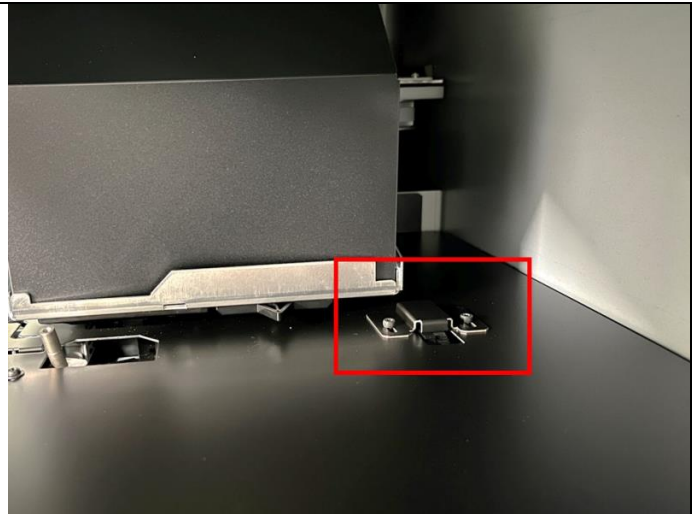
Step 3 / 29

Be careful not to bend the frame.



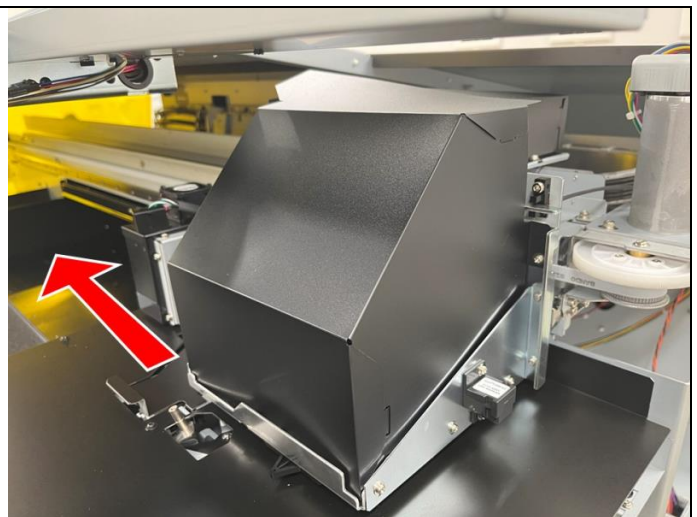
Step 4 / 29

Remove the cap up/down gear cover.



Step 5 / 29

Rotate the cap up/down gear toward the back about 5 times to remove the capping, and then move the print head carriage onto the bed.



Step 6 / 29

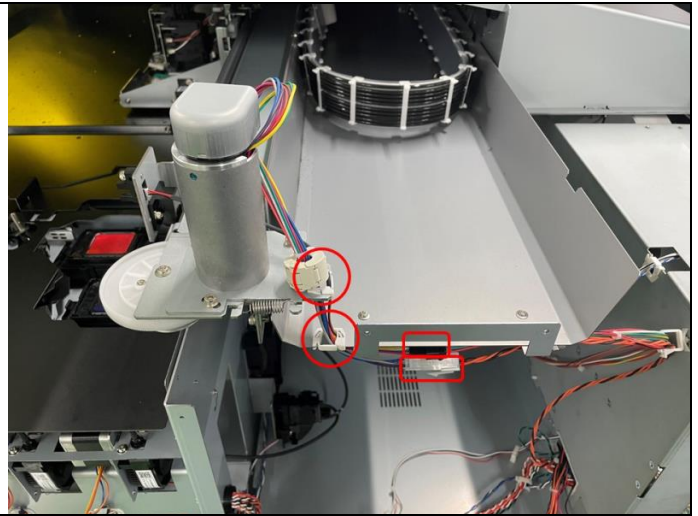
Detail1: Rotate the cap up/down gear backward about 5 times to remove the capping.





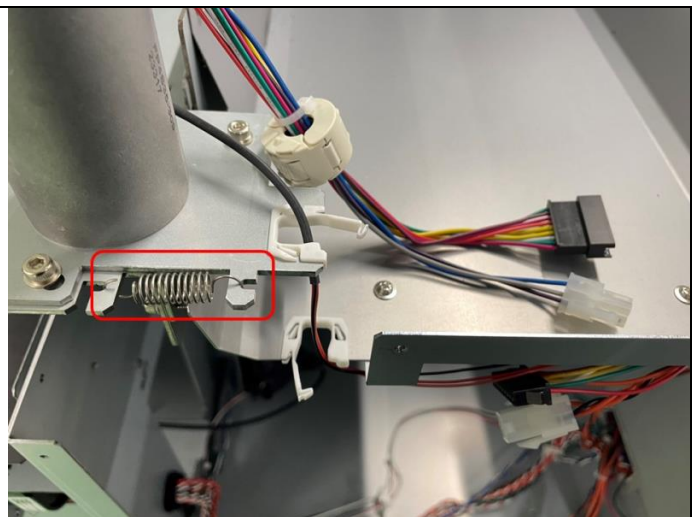
Step 7 / 29

Disconnect the motor connector cables from the cable saddle and remove the connector.



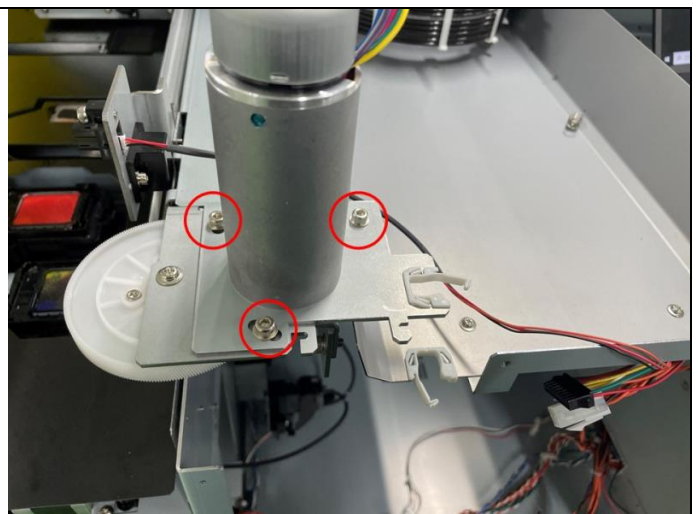
Step 8 / 29

Remove the spring.



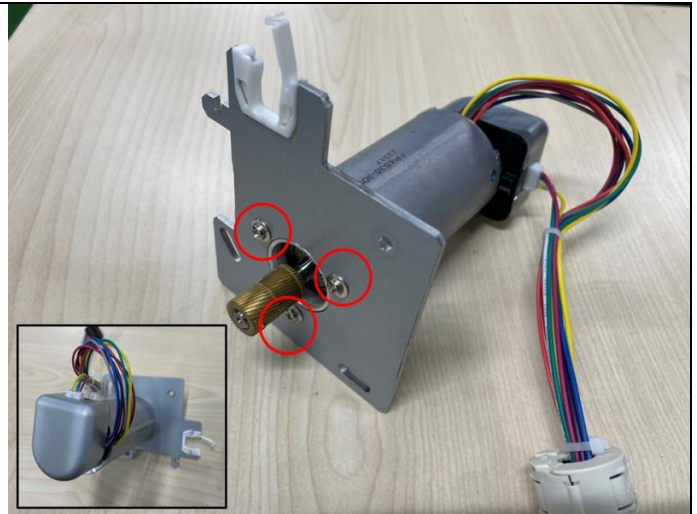
Step 9 / 29

Remove the screws and remove the motor together with the flange.



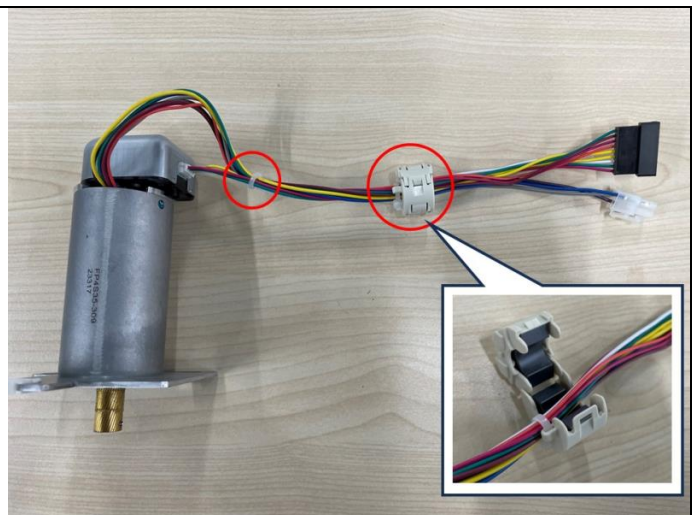
Step 10 / 29

Remove the screws and replace the motor with a new one. Attach the motor and flange, paying attention to the orientation of the motor and flange.



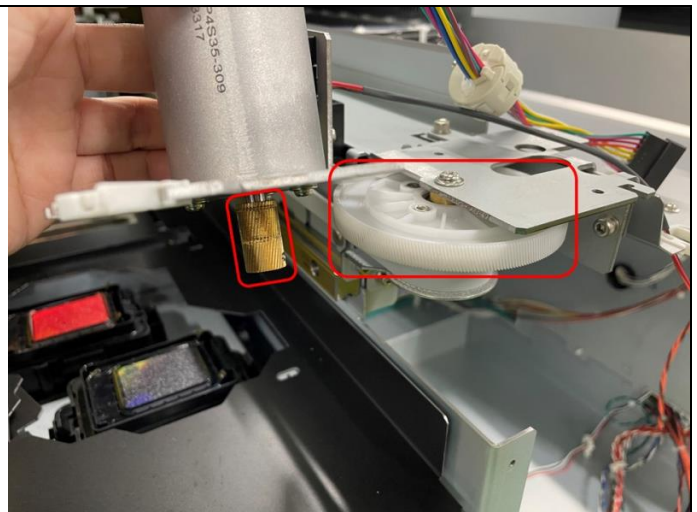
Step 11 / 29

Remove the ferrite core from the removed motor and attach it to the new motor using new cable tie. Also, attach a new cable tie to the cable between the ferrite core and the motor. Cut off the unnecessary part of the cable tie with nippers.



Step 12 / 29

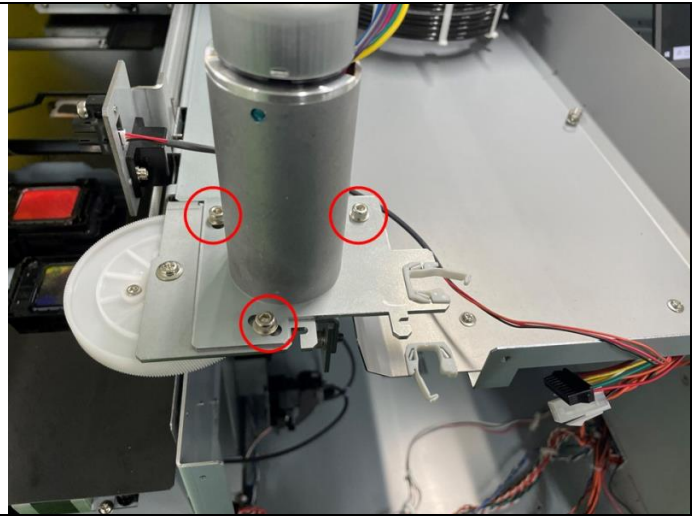
Apply an appropriate amount of grease to the drive gear and motor.





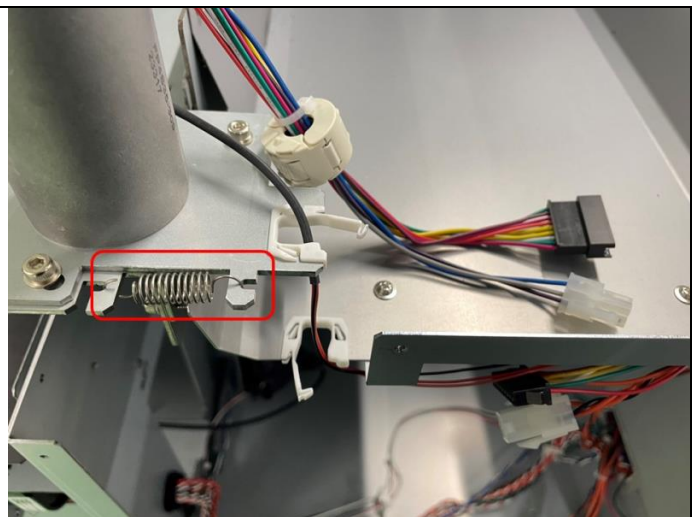
Step 13 / 29

Temporarily fasten the flange.



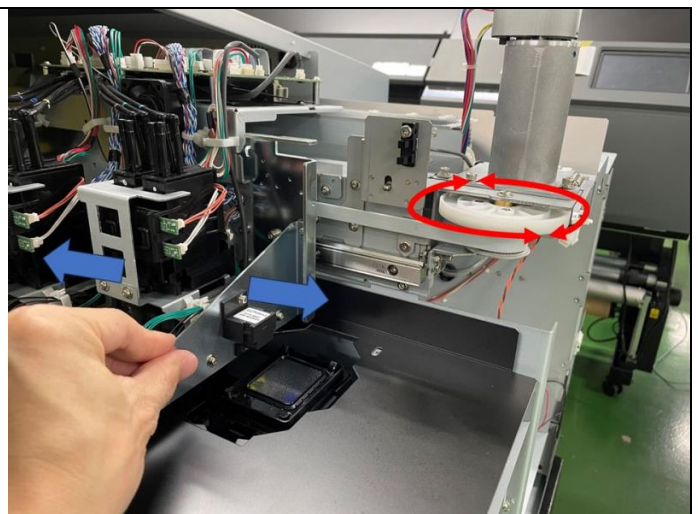
Step 14 / 29

Attach the spring.



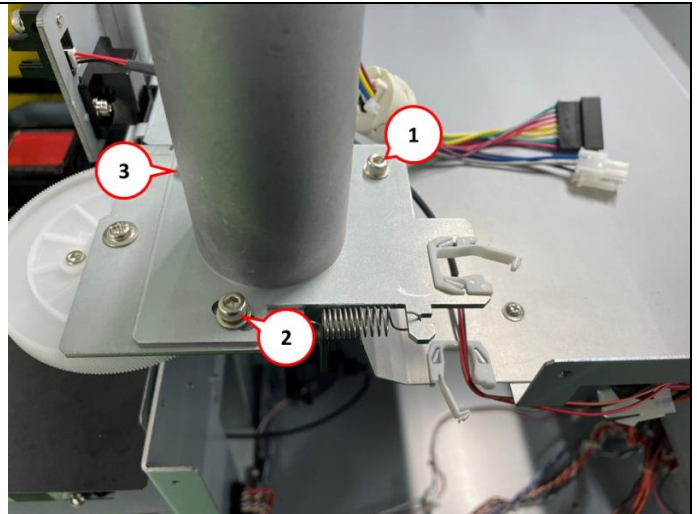
Step 15 / 29

Move the carriage by hand and check that the motor and gear are engaged and turning together.



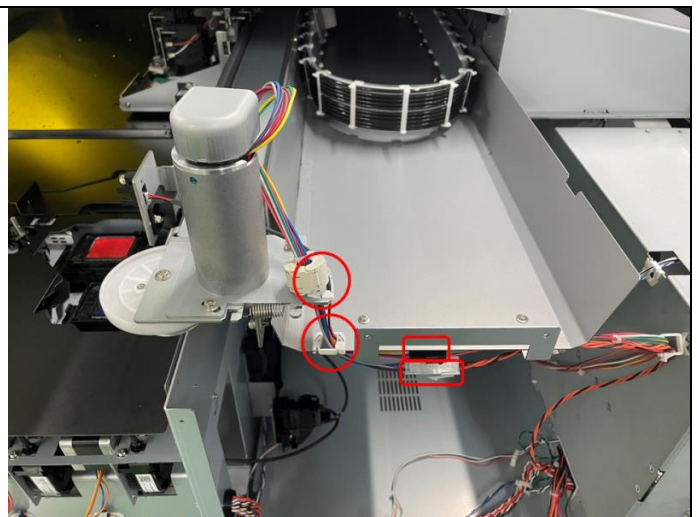
Step 16 / 29

Tighten the flange screws in the order shown.



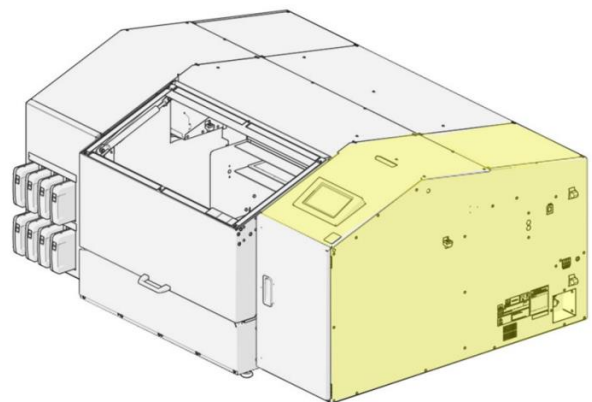
Step 17 / 29

Install the connector and bundle the cable to the cable saddle.



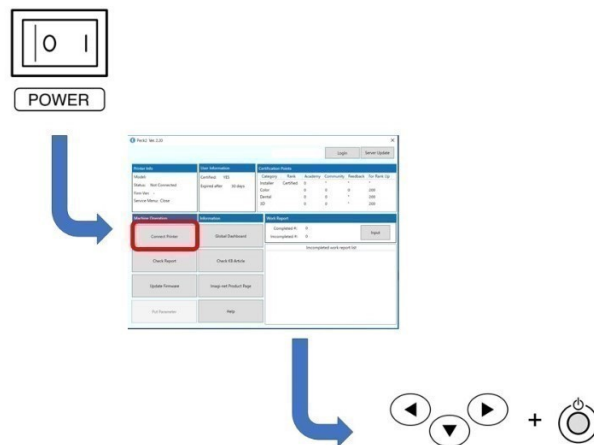
Step 18 / 29

Attach the removed covers.



Step 19 / 29

Turn on the power and enter the service mode with Peck2.



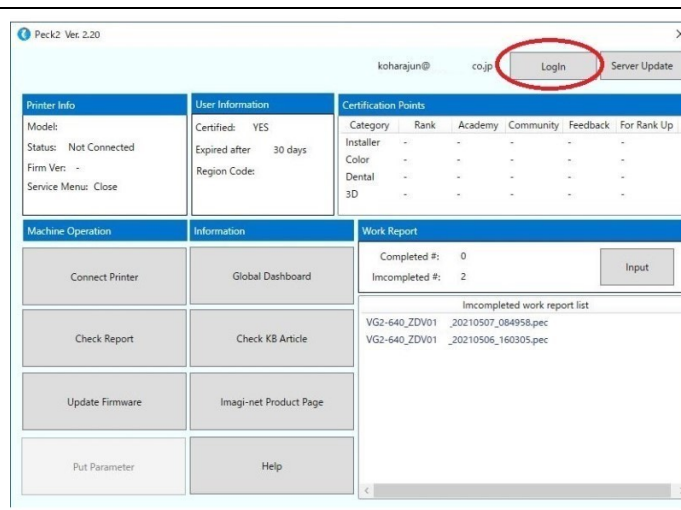
Step 20 / 29

Detail1: Start Peck2.



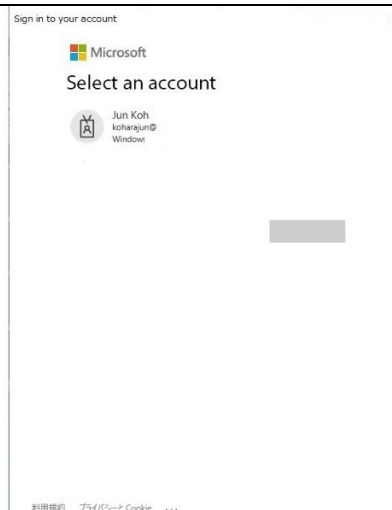
Step 21 / 29

Detail2: Click on the [Login] button.



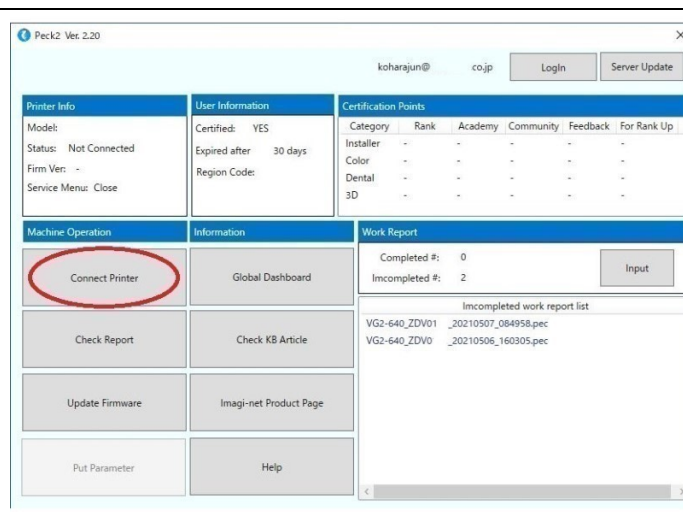
Step 22 / 29

Detail3: Login with your Imagi-net ID.



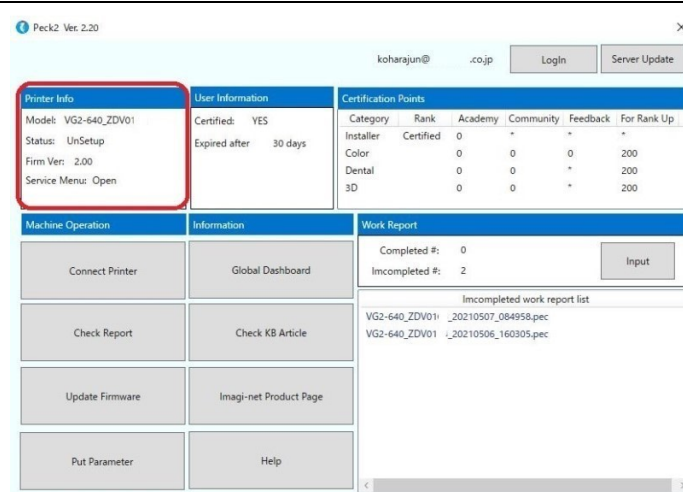
Step 23 / 29

Detail4: Click the [Connect Printer] button and enter the IP address of the machine you wish to connect to.



Step 24 / 29

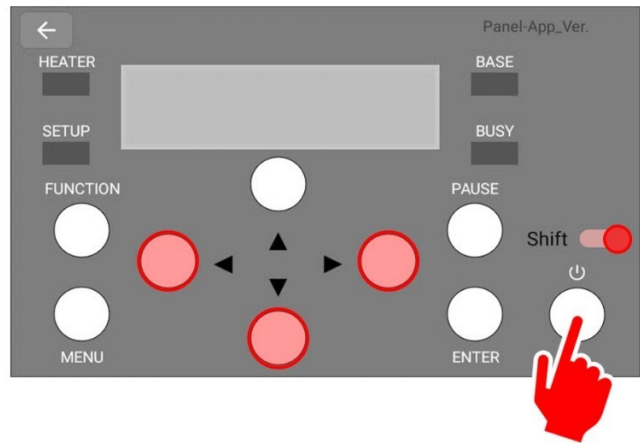
Detail5: When the printer is connected, printer information will be displayed in [Printer Info].





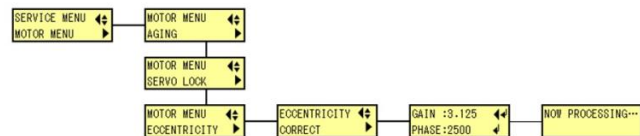
Step 25 / 29

Detail6: Press [Shift]> [□]+[□]+[□]+[Sub Power] to enter the service mode. By turning on the [Shift] button, the multiple buttons can be pressed simultaneously.



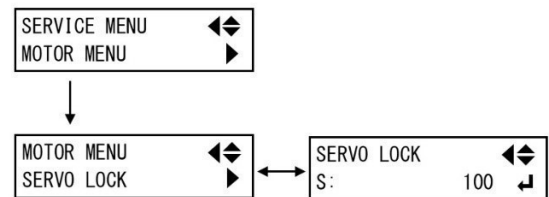
Step 26 / 29

Press [ENTER] in the menu [MOTOR MENU] >> [ECCENTRICITY] >> [CORRECT] to correct the eccentricity of the scan motor. The eccentricity will be updated automatically after the work is completed. Make sure that the value of "GAIN" is 4.000 or less. Note: This value may vary depending on the model.



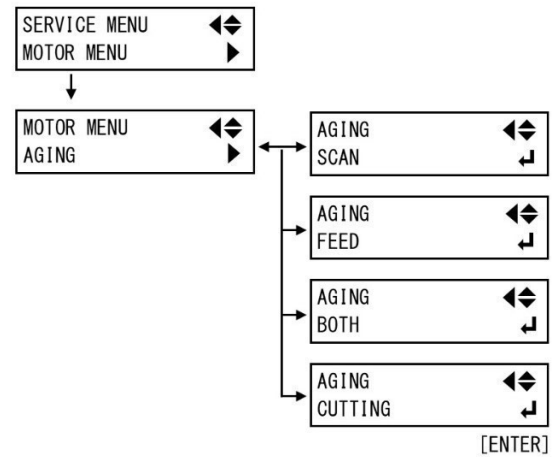
Step 27 / 29

Check the servo lock. Confirm that the value changes as the carriage moves and that pressing [ENTER] locks the carriage movement.



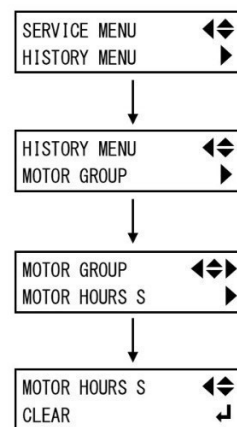
Step 28 / 29

Perform aging check [AGING] > [SCAN].  
Check for any abnormalities or  
abnormal noise in the operation.



Step 29 / 29

Clear the history [MOTOR GROUP] > [  
MOTOR HOURS S].



## MO-180 Feed motor replacement

# MO-180 Feed motor replacement

## Information

Step 1 / 4

Tools required for replacement

### 一般ツール/General Tool

|                                            |                                                                                     |
|--------------------------------------------|-------------------------------------------------------------------------------------|
| プラスドライバー No.2<br>No.2 Phillips screwdriver |  |
| ケーブルタイ<br>Cable tie                        |  |

Step 2 / 4

Special jig

### 特殊治具/Special Tools

|                                           |                                                                                       |
|-------------------------------------------|---------------------------------------------------------------------------------------|
| 6000004129<br>GREASE, FLOIL G-902 10ML_02 |  |
|-------------------------------------------|---------------------------------------------------------------------------------------|

Step 3 / 4

Standard working time

### 作業時間/Typical work time

| 作業内容/Contents of work                | 時間/Time |
|--------------------------------------|---------|
| フィードモーター交換<br>Feed motor replacement | 20 min. |

Step 4 / 4

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





## MO-180 Feed motor replacement

# MO-180 Feed motor replacement Procedure

Step 1 / 28

Turn off the power and unplug the power cable.



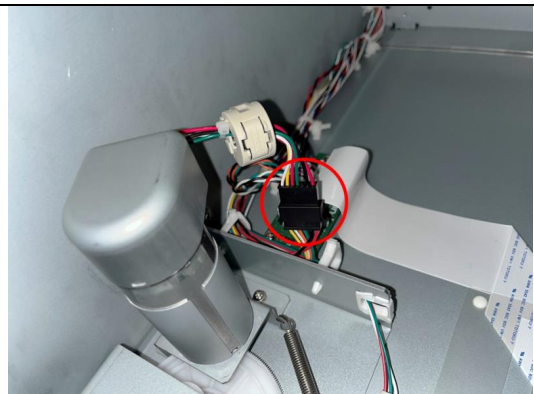
Step 2 / 28

Remove the cover.



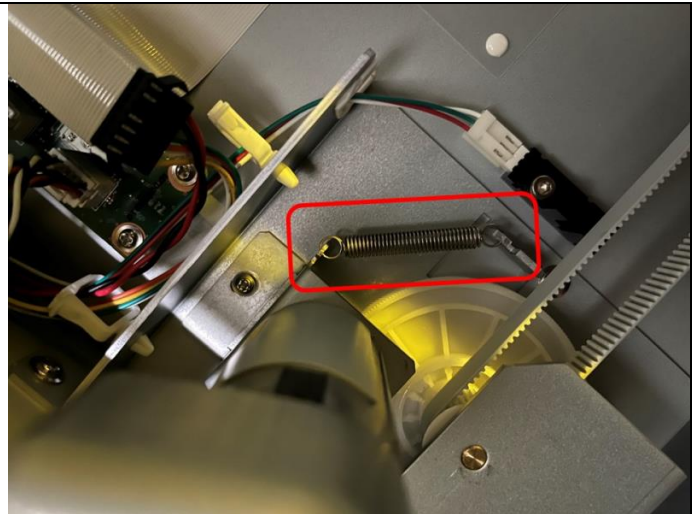
Step 3 / 28

Remove the connector attached to the motor.



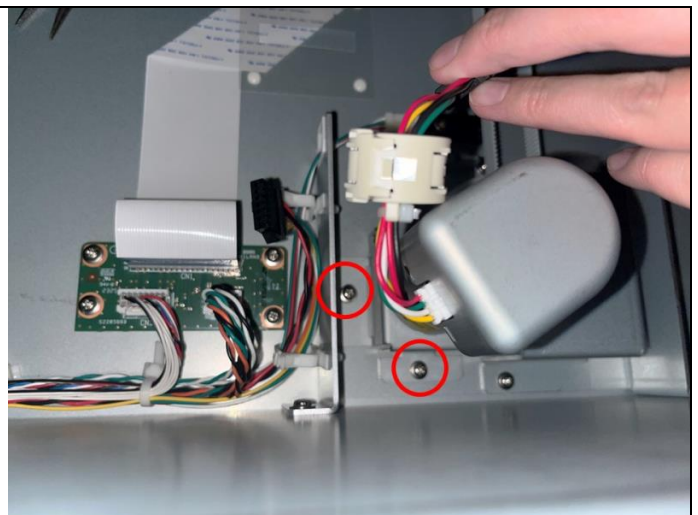
Step 4 / 28

Remove the spring.



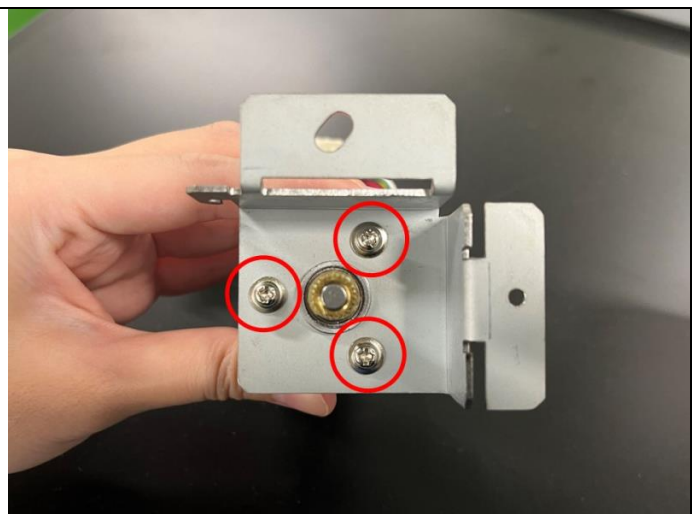
Step 5 / 28

Remove the screws and remove the motor by the flange.



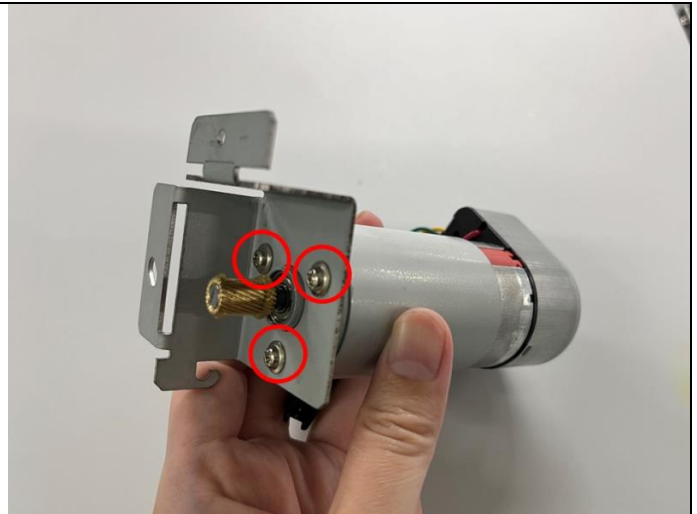
Step 6 / 28

Remove the screws and remove the motor from the flange.



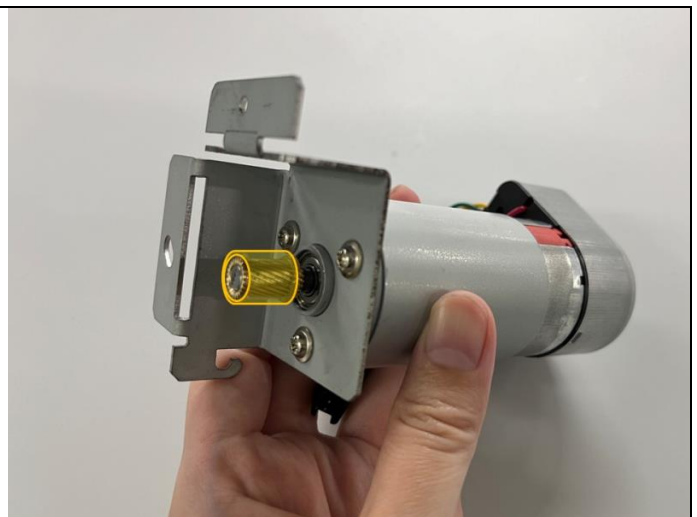
Step 7 / 28

Install the new motor on the flange, taking care to orient the flange.



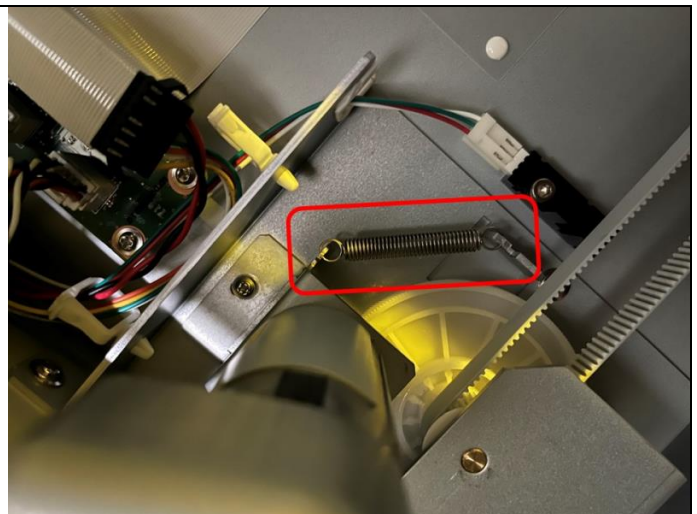
Step 8 / 28

Apply grease to the drive side gear and motor gear. - Grease: GREASE,FLOIL G-902 10ML\_02- Application amount: proper amount



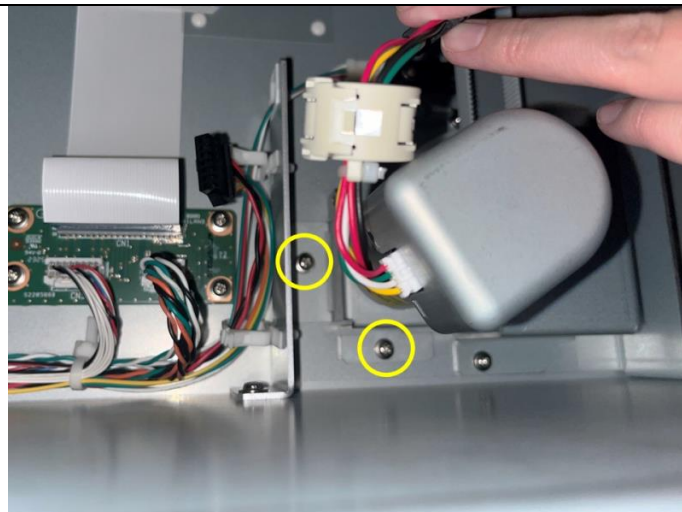
Step 9 / 28

Install the spring.



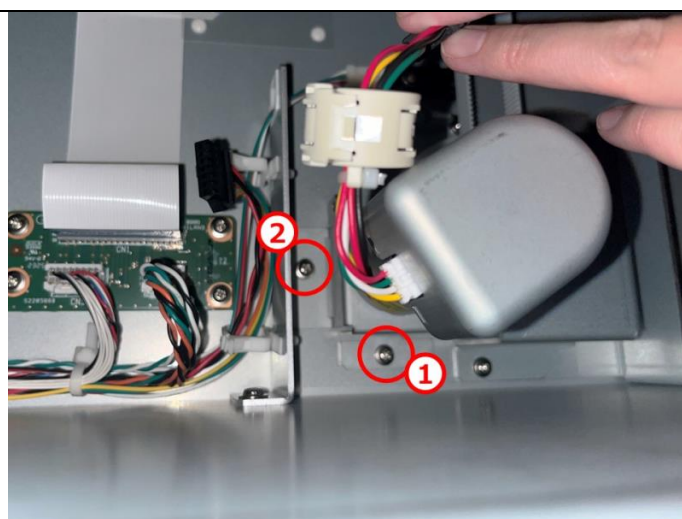
Step 10 / 28

Temporarily fasten the two screws.



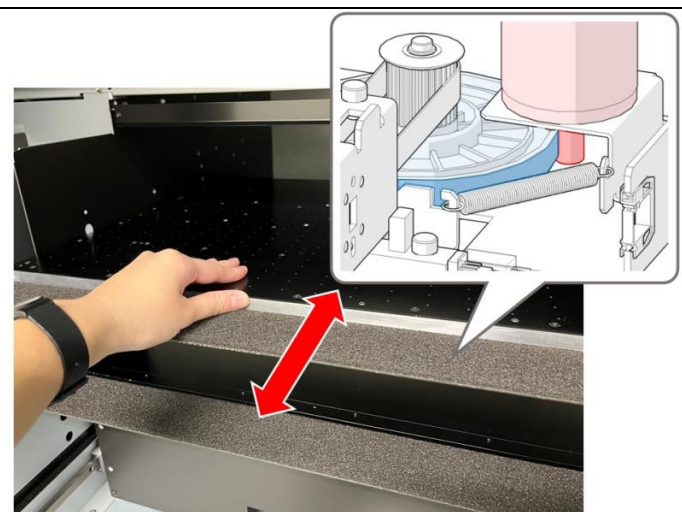
Step 11 / 28

Tighten the screws in the order shown in the figure.



Step 12 / 28

Turn the drive gear at least 3 revolutions by moving the table back and forth by hand and confirm that the motor gears are engaged and turning together.





Step 13 / 28

Install the connector.



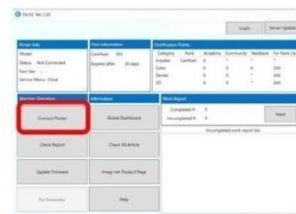
Step 14 / 28

Install the cover and turn on primary power.



Step 15 / 28

Connect the Peck2 to the airframe and enter service mode.





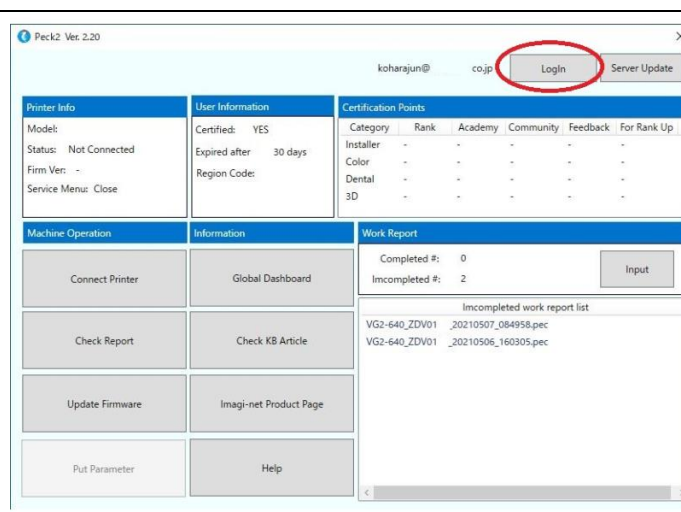
Step 16 / 28

Detail1: Launch Peck2.



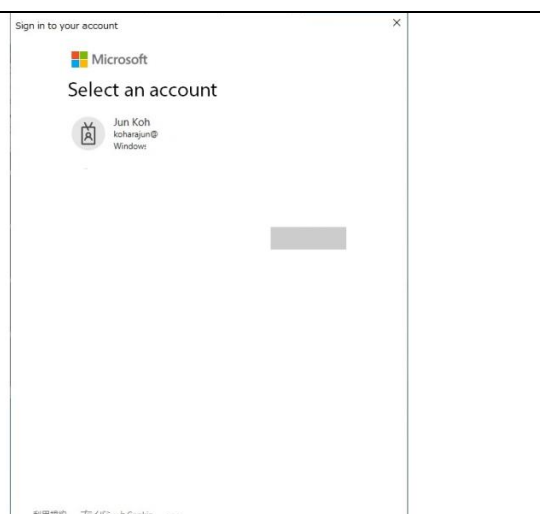
Step 17 / 28

Detail2: Click the Login button.



Step 18 / 28

Detail3: Login with your Imagi-net ID.



Step 19 / 28

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            | -    | -       | -         | -        | -           |
| Firm Ver:     | -             | Region Code:     |         | Color                | -    | -       | -         | -        | -           |
| Service Menu: | Close         |                  |         | Dental               | -    | -       | -         | -        | -           |
|               |               |                  |         | 3D                   | -    | -       | -         | -        | -           |

| 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 20 / 28

Detail5: Enter the IP address of the printer you wish to connect.

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      |             |
|                   |                      |                  |         | 3D                   | 0         | 0       | *         | 200      |             |

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

Step 21 / 28

Detail6: When the printer is connected, the printer information will be displayed in Printer Info.

Peck2 Ver. 2.20

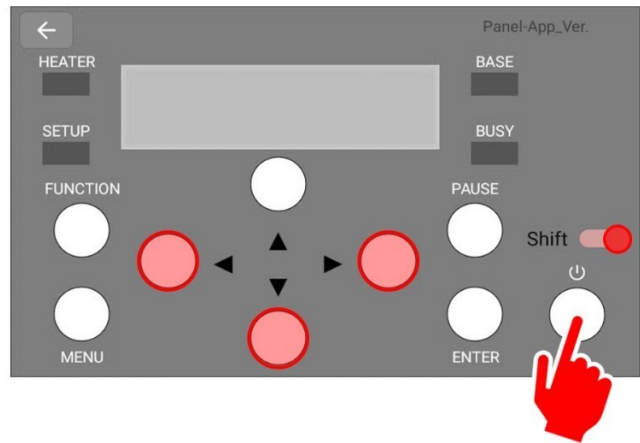
koharjun@ .co.jp Login Server Update

| 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          |                  |         | 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 |   |             |  |

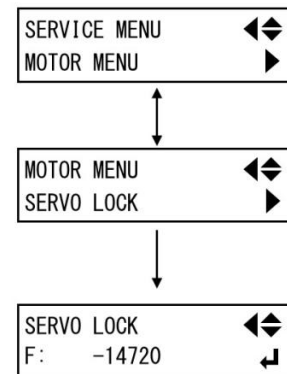
Step 22 / 28

**Detail7:** Press the aircraft panel [Shift]> [□]+[□]+[□]+[Sub Power] to enter the service mode. Turn on the [Shift] button to enable simultaneous button presses.



Step 23 / 28

**Perform servo lock check.**



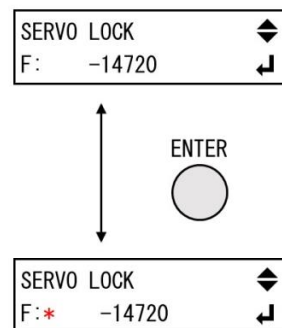
Step 24 / 28

Move the table by hand and confirm that the displayed value changes with the movement. Press the [ENTER] key to excite the motor and check that the table does not move easily and that the displayed values return to their original values.



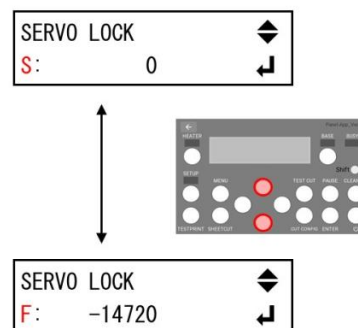
Step 25 / 28

**Detail1:** Press the [ENTER] key to toggle between servo-locked and servo-free states.



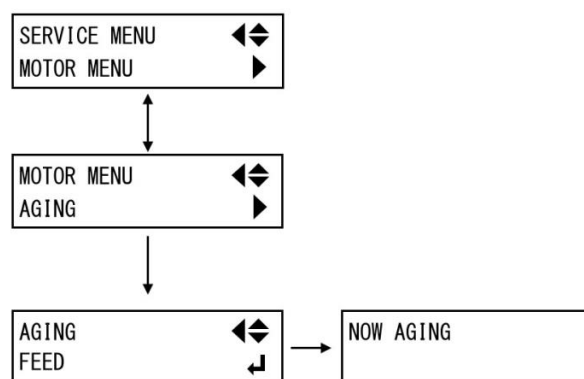
Step 26 / 28

**Detail2:** The scan direction and feed direction can be switched by pressing the  or  key.



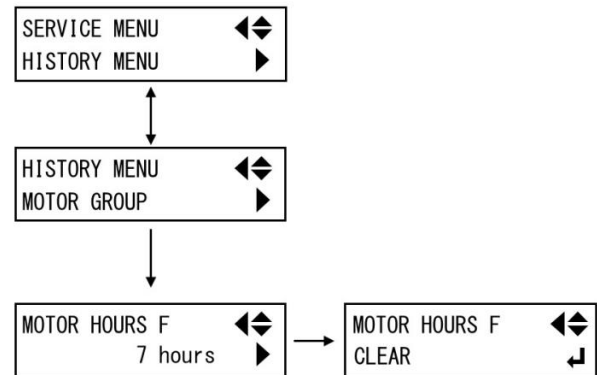
Step 27 / 28

Confirm aging [AGING] > [FEED]. Confirm that aging operation is performed, and press [ENTER] key again to exit. Remove the media when executing aging.



Step 28 / 28

Perform history clear [MOTOR GROUP]  
> [MOTOR HOURS F] > [CLEAR].





## MO-180 Encoder scale replacement

# MO-180 Encoder scale replacement

## Information

Step 1 / 5

Replacement parts□Encoder scale



Step 2 / 5

Tools needed for replacement

### 一般ツール/General Tool

|                                            |                                                                                       |
|--------------------------------------------|---------------------------------------------------------------------------------------|
| プラスドライバー No.2<br>No.2 Phillips screwdriver |  |
| 六角レンチ2.5mm<br>2.5 mm hexagonal wrench      |  |

Step 3 / 5

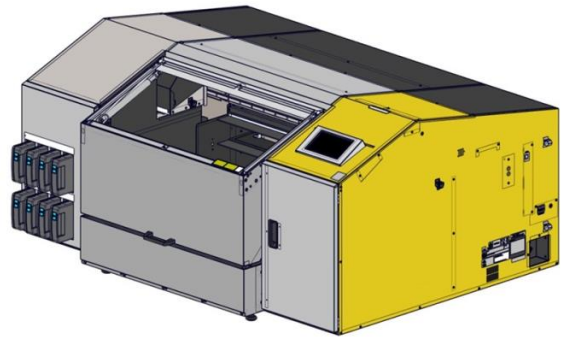
standard working hours

### 作業時間/Typical work time

| 作業内容/Contents of work                    | 時間/Time |
|------------------------------------------|---------|
| エンコーダスケール交換<br>Encoder scale replacement | 15 min. |
| リアエンコーダ位置設定<br>Linear encoder setup      | 5 min.  |

Step 4 / 5

cover to remove



Step 5 / 5

To prevent static electricity damage, discharge static electricity from your body before touching any electronic components. You can dissipate static electricity by touching an unpainted metal surface.



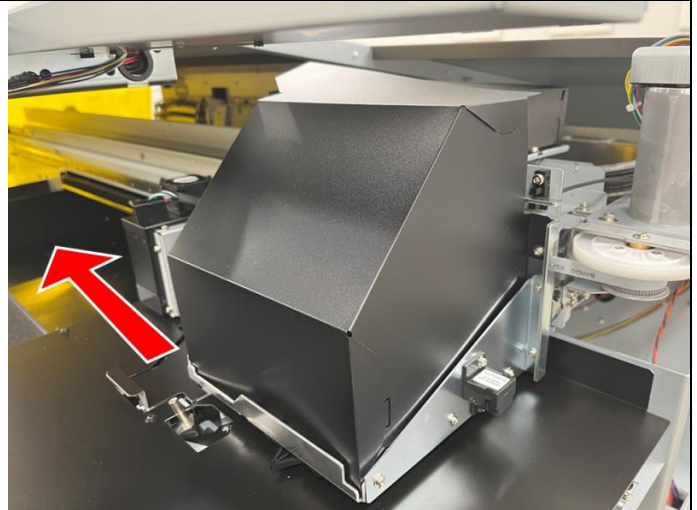
## MO-180 Encoder scale replacement

# MO-180 Encoder scale replacement

## Procedure

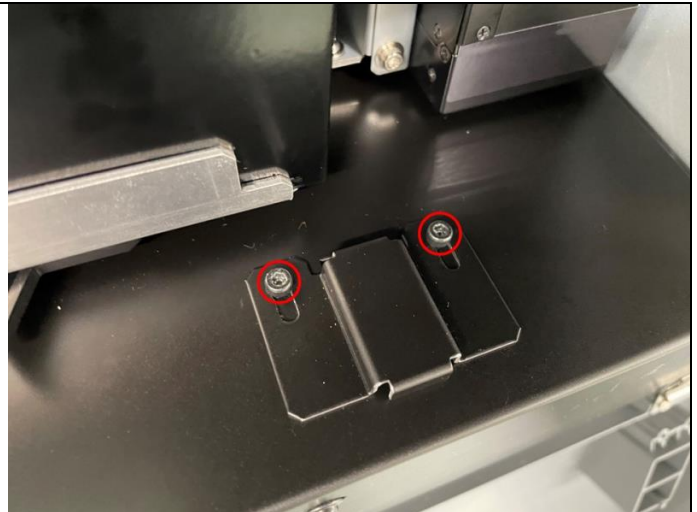
Step 1 / 16

Move the carriage.



Step 2 / 16

Detail1: Remove the cap lifting gear cover with a hex wrench.



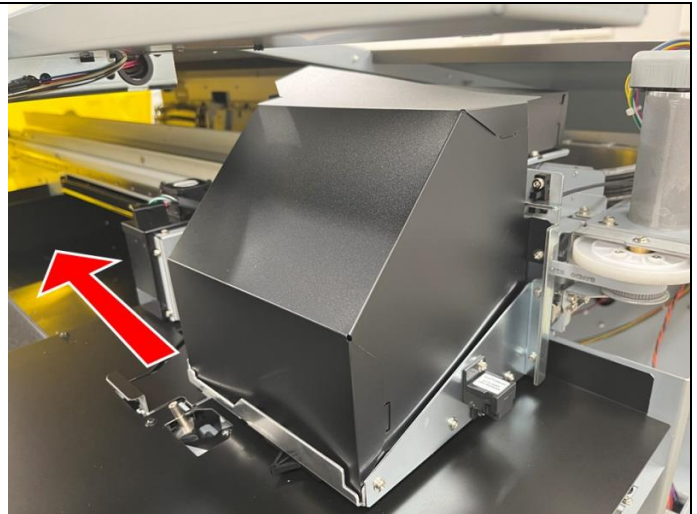
Step 3 / 16

Detail2: Rotate the cap lifting gear toward the back about 5 times to remove the capping.



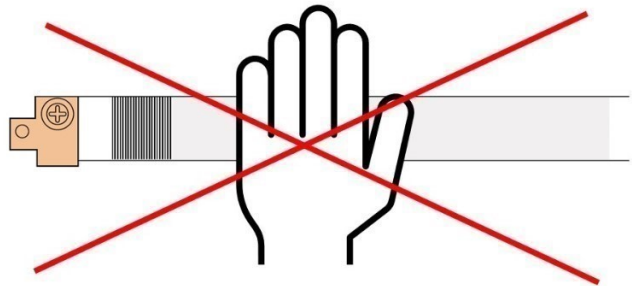
Step 4 / 16

Detail3: Move the print head carriage to the center part of the printer.



Step 5 / 16

Be careful not to touch, scratch or stain the encoder scale surface during installation.



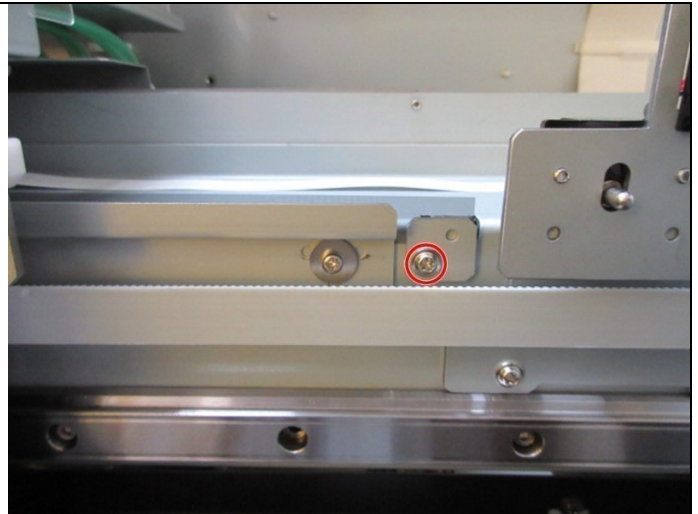
Step 6 / 16

Remove the left spring.



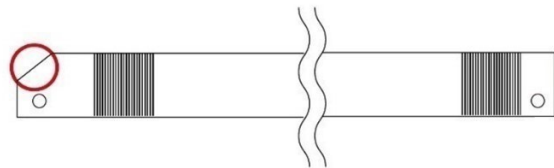
Step 7 / 16

Remove the plate securing the right side of the encoder scale and remove the encoder scale.



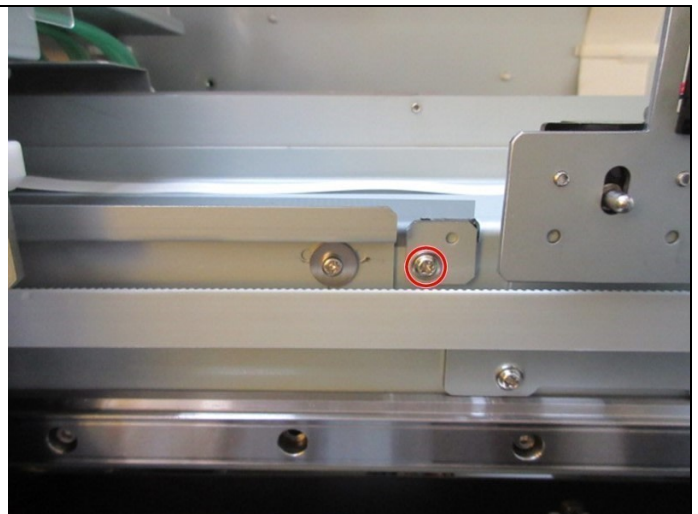
Step 8 / 16

Detail1: Install the left spring.



Step 9 / 16

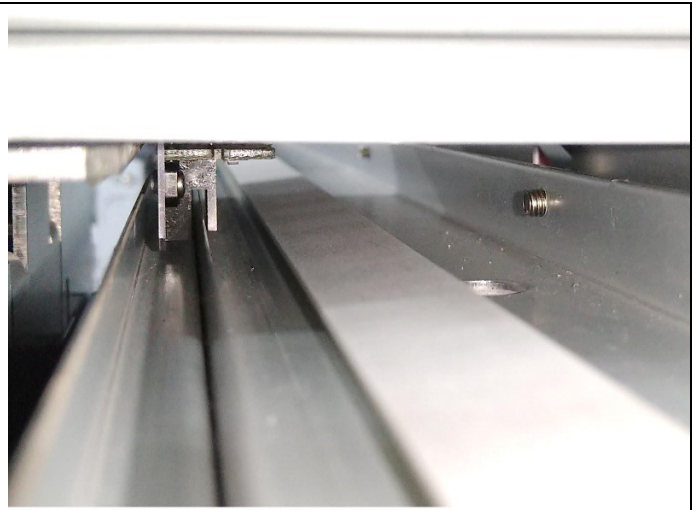
Install the encoder scale.





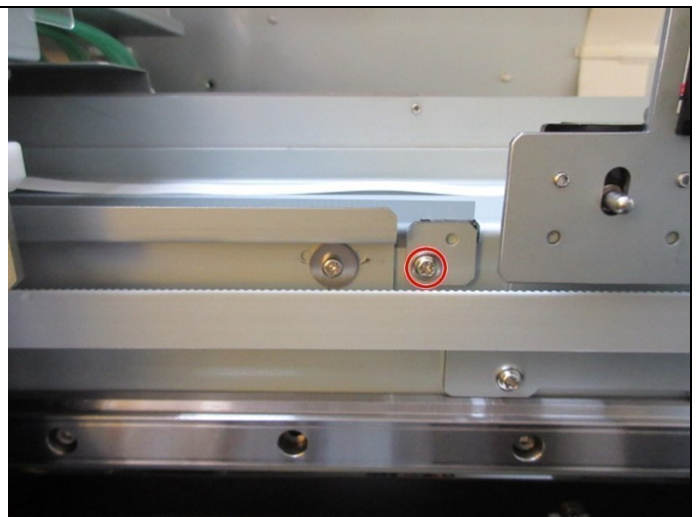
Step 10 / 16

**Detail1:** Insert the encoder scale into the gap between the encoder plate and guide rail.



Step 11 / 16

**Detail2:** Temporarily secure the right side of the encoder scale with a plate.



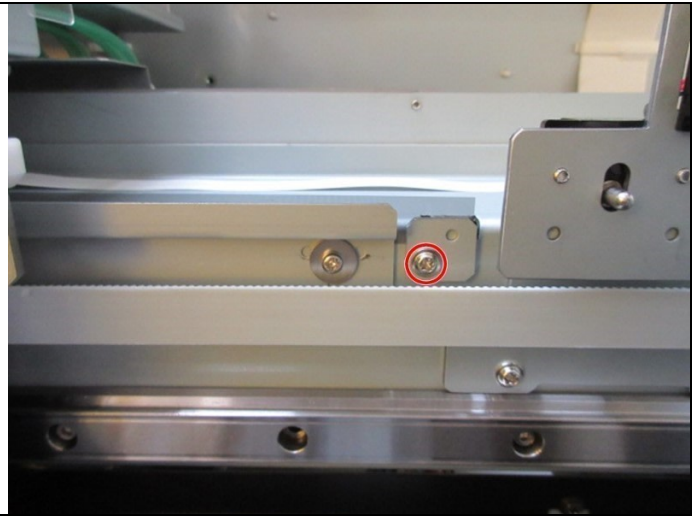
Step 12 / 16

**Detail3:** Attach the spring to the left side of the encoder scale and hook it to the hook part.



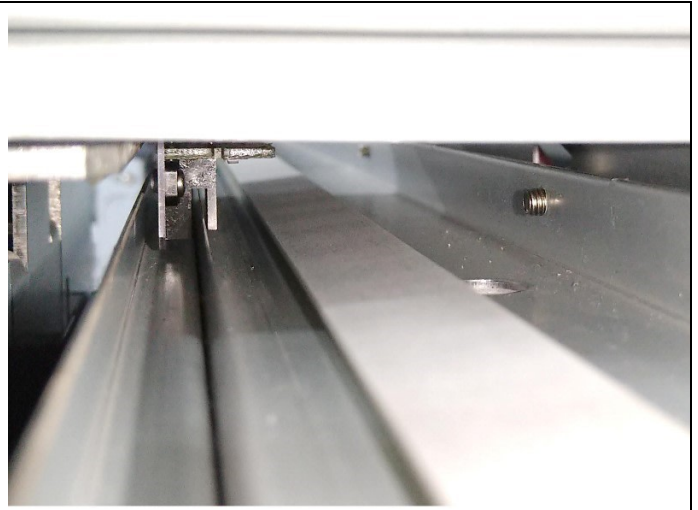
Step 13 / 16

**Detail4:** Tighten the screw on the right side.



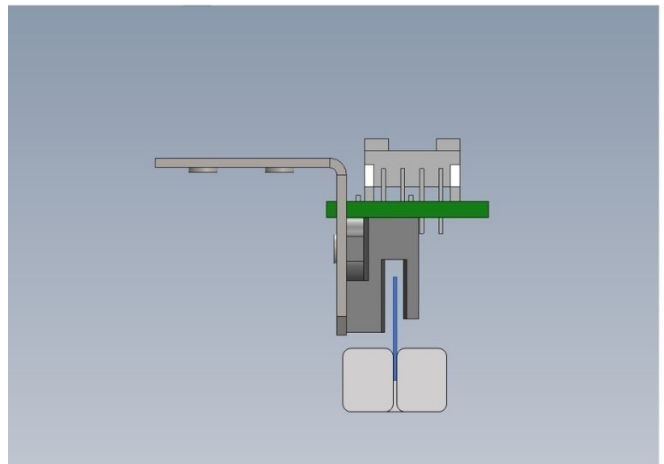
Step 14 / 16

Visually check that there is no floating on the encoder scale.



Step 15 / 16

Move the print carriage across the entire area and make sure that the encoder scale and encoder sensor are not touching and that the encoder sensor is over the encoder scale.



Step 16 / 16

Perform the next step [Linear encoder set up].



次の手順

リニアエンコーダー位置設定

**Next Step**

Linear encoder set up

## MO-180 Carriage Belt Replacement

# MO-180 Carriage Belt Replacement Information

Step 1 / 4

Parts to be replaced □ Carriage belt



Step 2 / 4

General Tools

### 一般ツール/General Tool

|                                            |                                                                                       |
|--------------------------------------------|---------------------------------------------------------------------------------------|
| プラスドライバー No.2<br>No.2 Phillips screwdriver |  |
| 六角レンチ 3.0mm<br>3.0mm hexagonal wrench      |  |
| テープ<br>Tape                                |  |

Step 3 / 4

Special Jigs

### 特殊治具/Special Tools

|      |                                                                                       |
|------|---------------------------------------------------------------------------------------|
| None |  |
|------|---------------------------------------------------------------------------------------|

Step 4 / 4

## Standard working time

## 作業時間/Typical work time

| 作業内容/Contents of work                   | 時間/Time |
|-----------------------------------------|---------|
| キャリッジベルト交換<br>Carriage belt Replacement | 30 min. |



## MO-180 Carriage Belt Replacement

# MO-180 Carriage Belt Replacement Procedure

Step 1 / 36

Turn off the primary power supply and unplug the power cable.



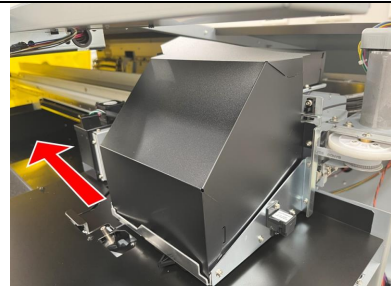
Step 2 / 36

Remove the cap elevation gear cover.

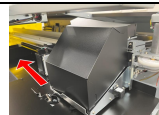


Step 3 / 36

Rotate the cap elevation gear toward the back about 5 times to remove the capping, and then move the carriage



onto the bed.



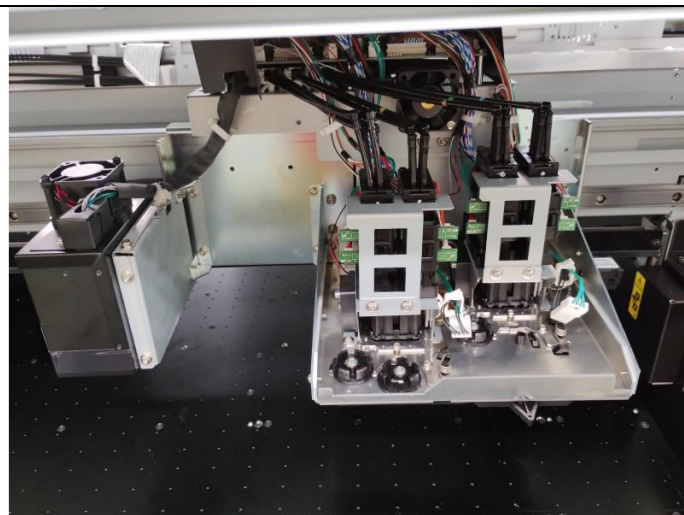
Step 4 / 36

Detail1: Rotate the cap elevation gear backward about 5 times to remove the capping.



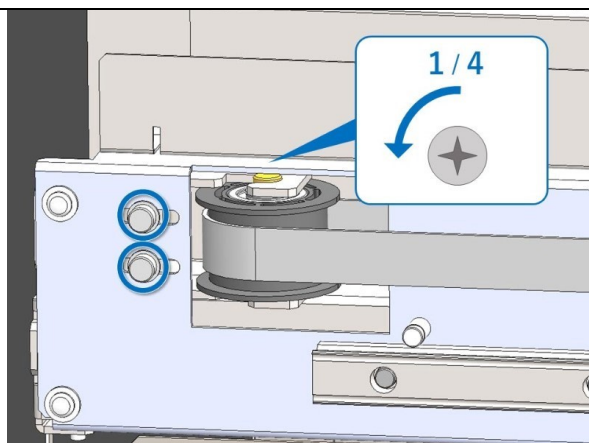
Step 5 / 36

Move the print head carriage to the center of the table and remove the carriage cover. b11



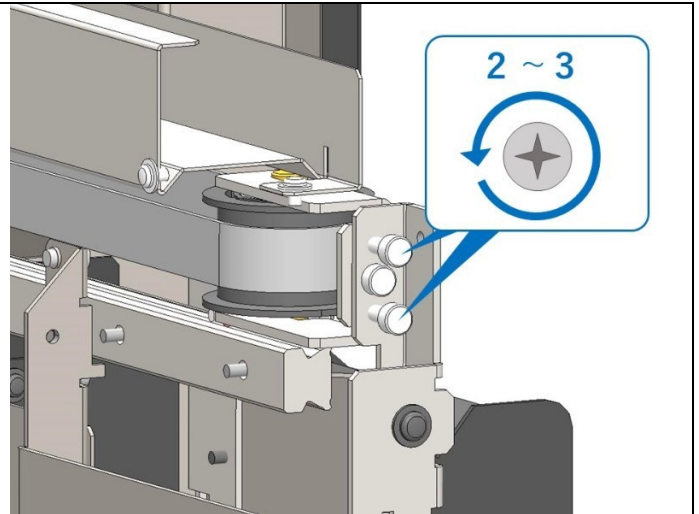
Step 6 / 36

Loosen the idle side fixing screw at the left end of the belt about 1/4 of the way.



Step 7 / 36

Loosen the adjustment screw 2 turns.



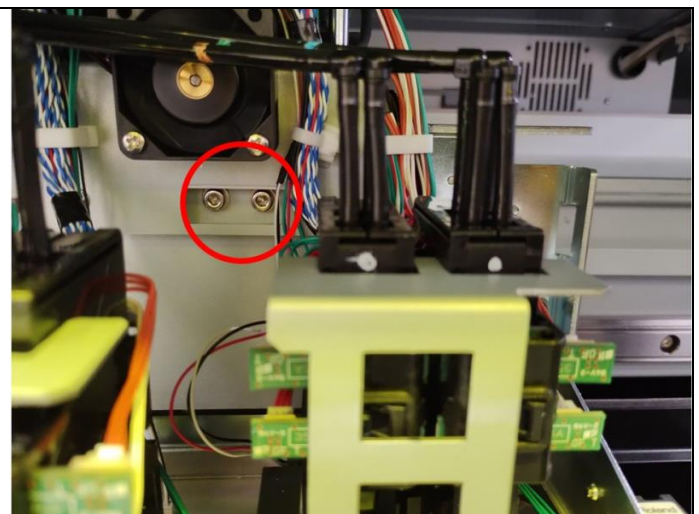
Step 8 / 36

Detail1: The adjustment screws are accessible from outside the cover.



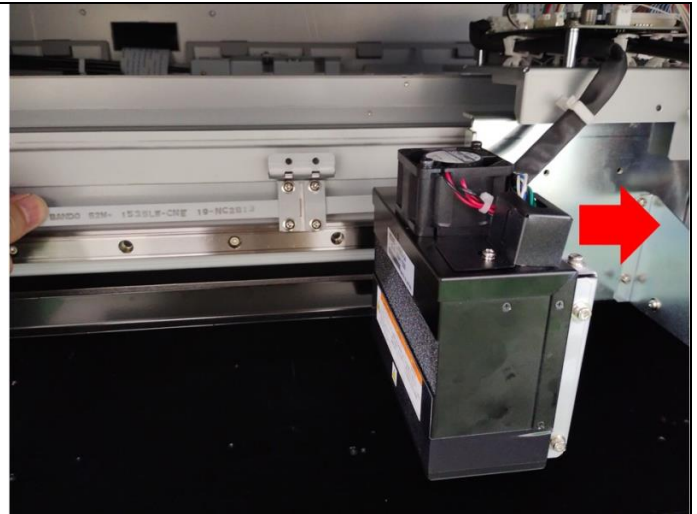
Step 9 / 36

Remove the two screws.



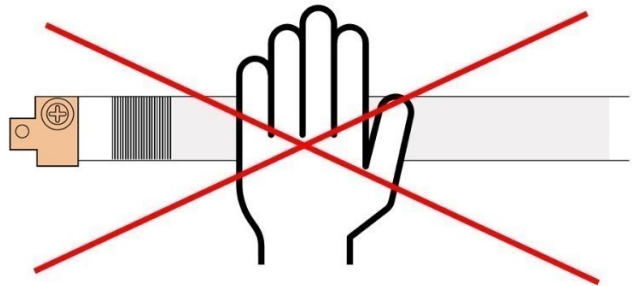
Step 10 / 36

Slide the print carriage to the right.



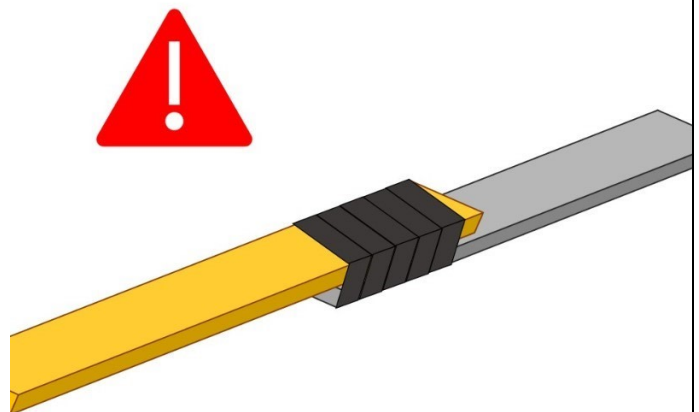
Step 11 / 36

Remove the carriage belt without touching the encoder scale. If grease coated on the belt adheres to the encoder scale, print defects may occur.



Step 12 / 36

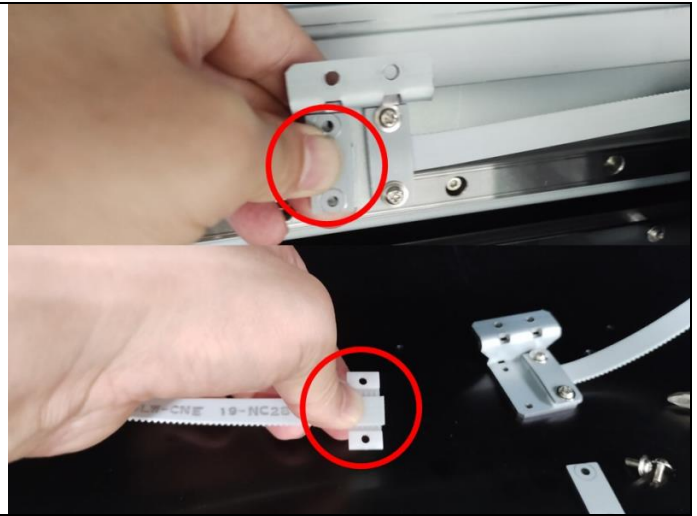
When replacing the carriage belt, be sure to put the new belt on the old belt, and then remove the old belt and put the new belt through at the same time. (If the belt is not replaced in this manner, the new belt may not be able to be installed.)





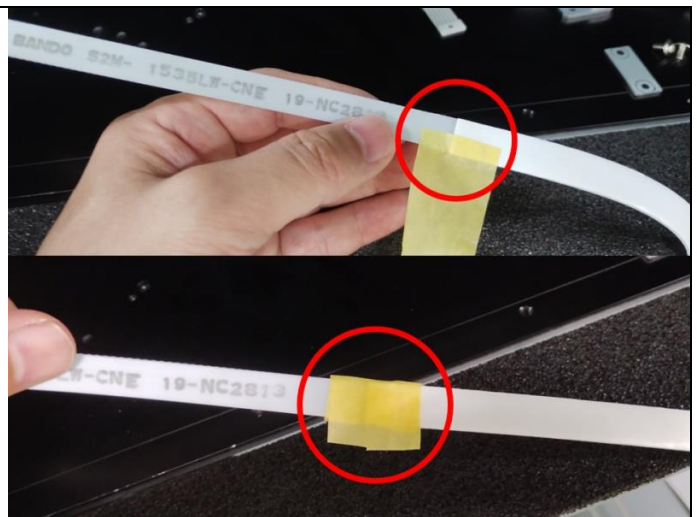
Step 13 / 36

Remove the left side carriage belt from the belt holder stay.



Step 14 / 36

Tape the new belt to the old belt.



Step 15 / 36

Pull the old belt from the right side and the new belt from the right side.





Step 16 / 36

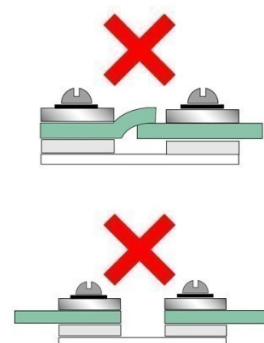
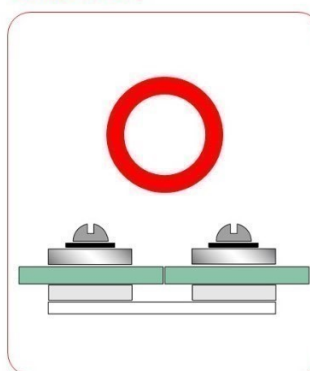
Remove the old belt.



Step 17 / 36

When installing the carriage belt, make sure that the two ends of the belt do not overlap. Also, be careful about the orientation of the belt holder and the order in which the cover belt holders are secured.

**CAUTION**



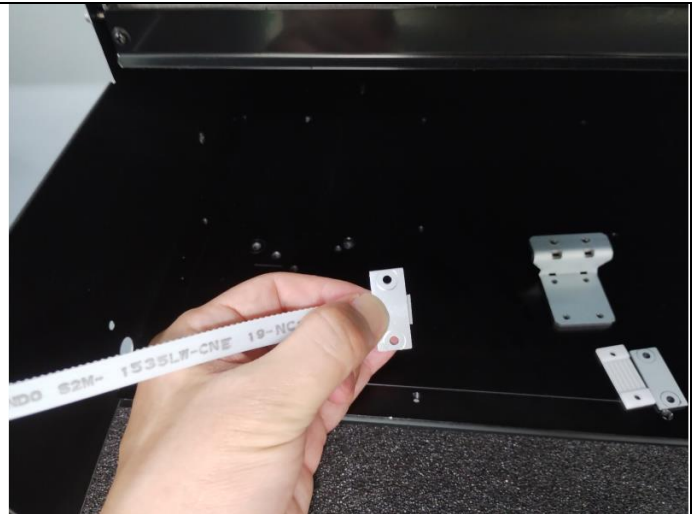
Step 18 / 36

Attach the left side carriage belt to the belt holder stay.



Step 19 / 36

**Detail1:** Attach the carriage belt to the belt holder.



Step 20 / 36

**Detail2:** Place the cover belt holder on top of the belt holder.



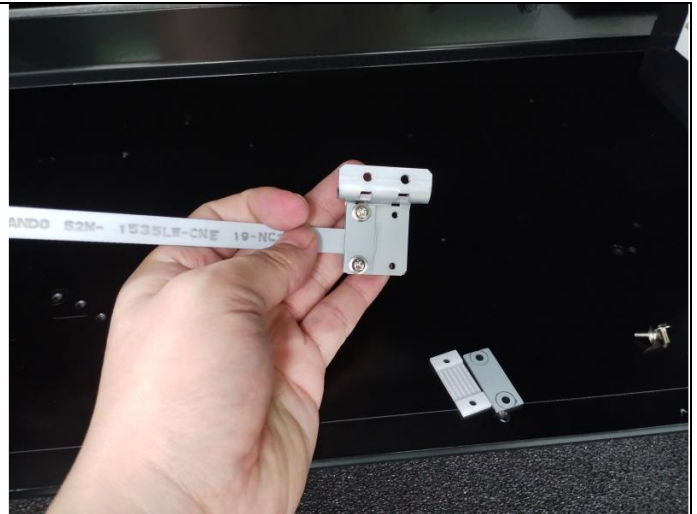
Step 21 / 36

**Detail3:** Attach the carriage belt to the stay with the first screw while holding the carriage belt, holder and holder plate so that they do not shift.



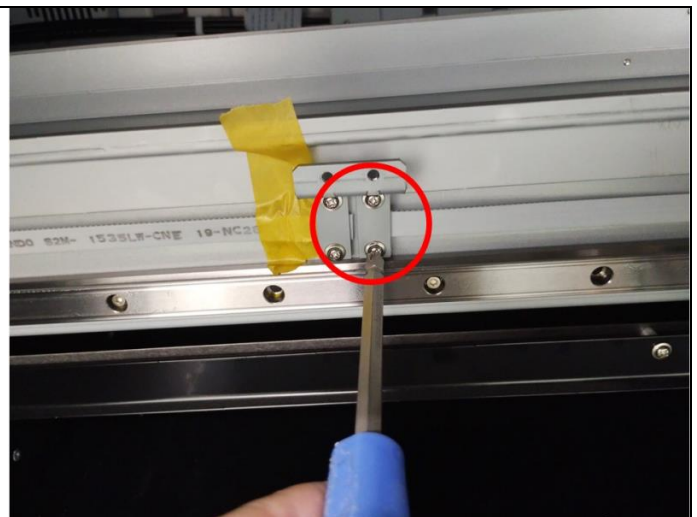
Step 22 / 36

Detail4: Secure the carriage belt with the two screws.



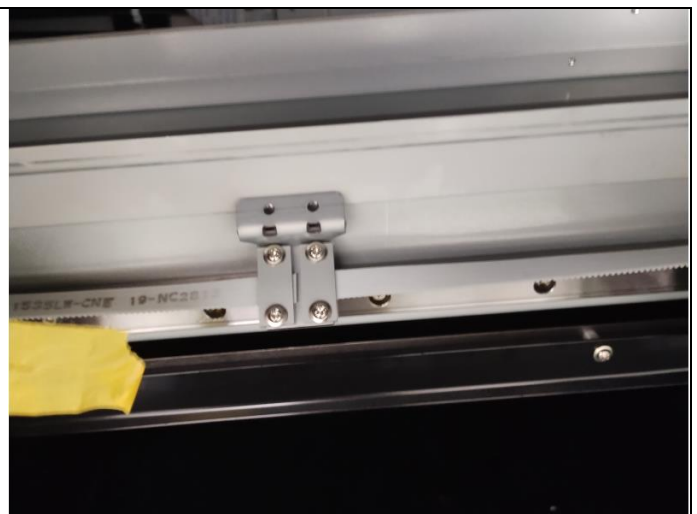
Step 23 / 36

Tape the belt holder stay near the center and attach the right side belt in the same manner as the left side.



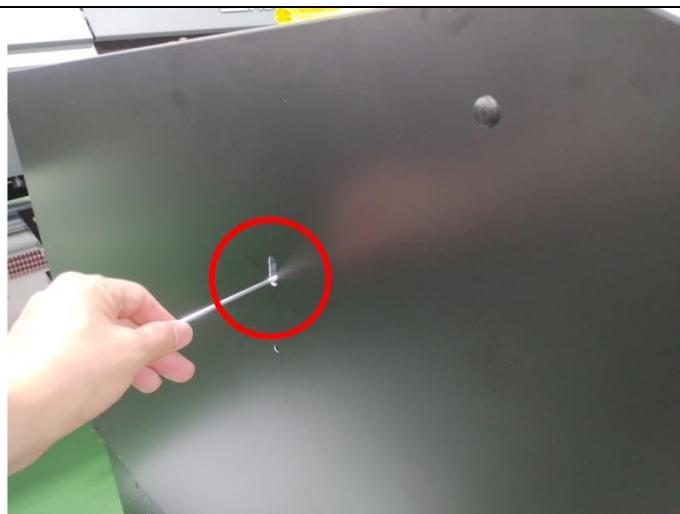
Step 24 / 36

Remove the tape.



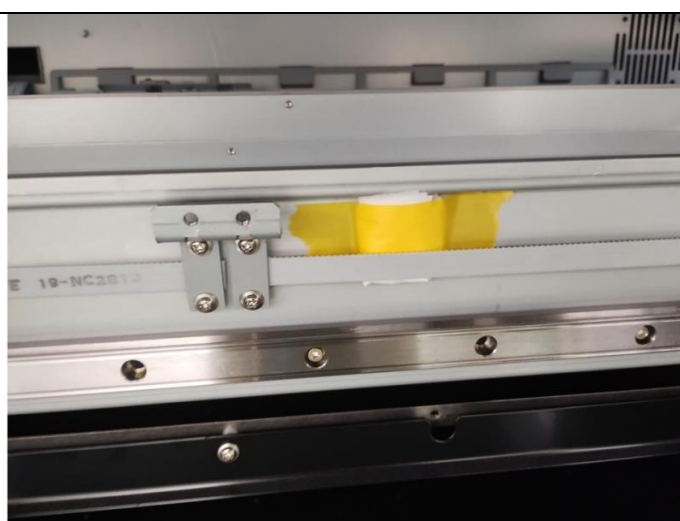
Step 25 / 36

Tighten the adjustment screw on the left end of the belt by the same amount as you loosened it.



Step 26 / 36

This later step is necessary to prevent the belt holder stay from moving backward and preventing the screws from being installed.



Step 27 / 36

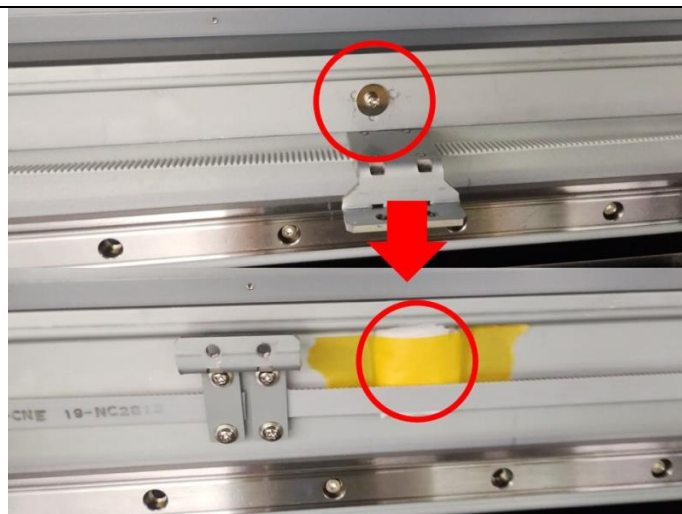
Fold a piece of paper such as Kimwipe into a 1 cm square and tape it in place.





Step 28 / 36

Attach the folded paper to the screw in the center of the rail guide.



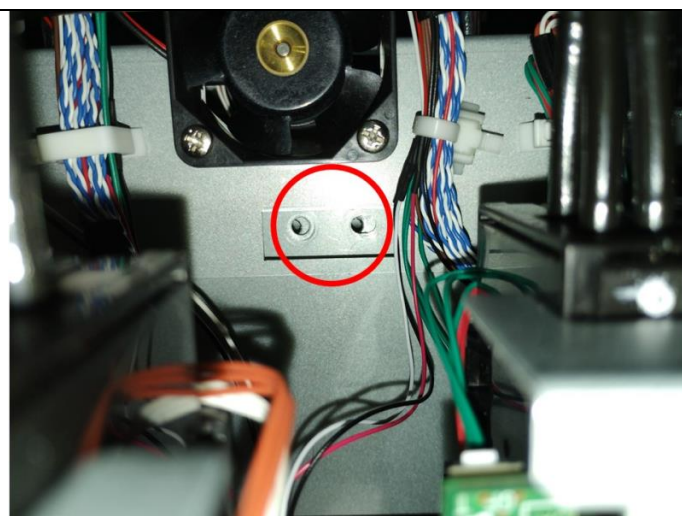
Step 29 / 36

Move the belt holder stay to a position where it overlaps the paper.



Step 30 / 36

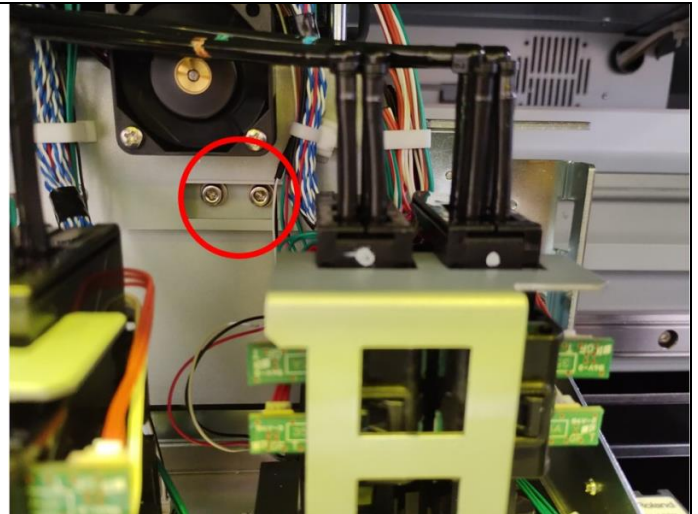
Move the print carriage to align the screw holes in the belt holder stay with the holes in the print carriage.





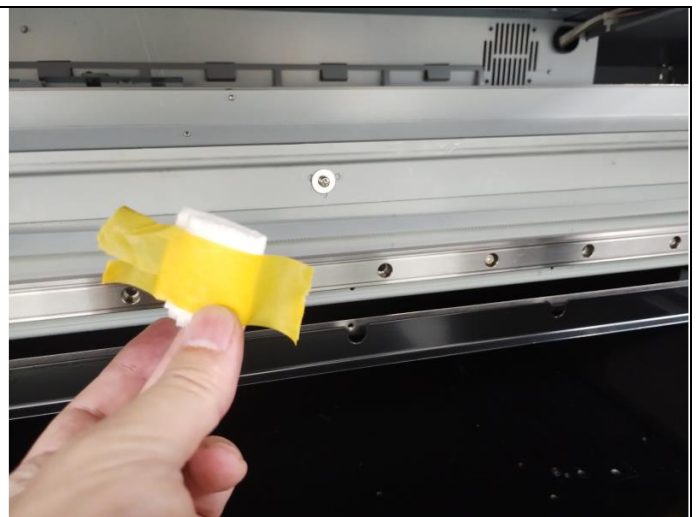
Step 31 / 36

Fasten the screws.



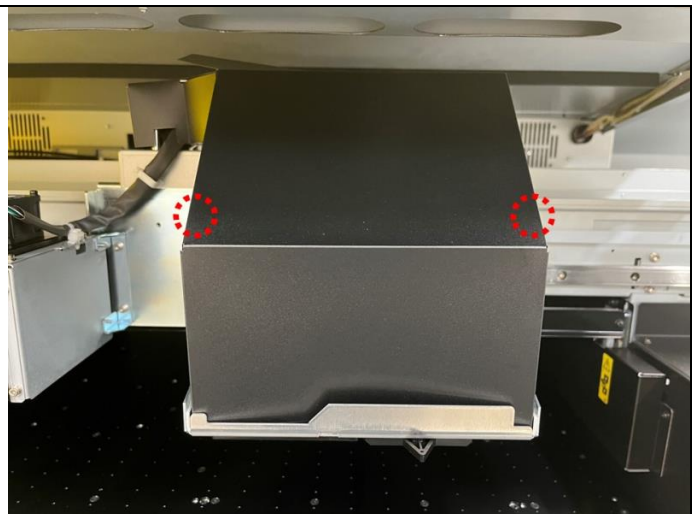
Step 32 / 36

Move the print carriage to remove the paper.



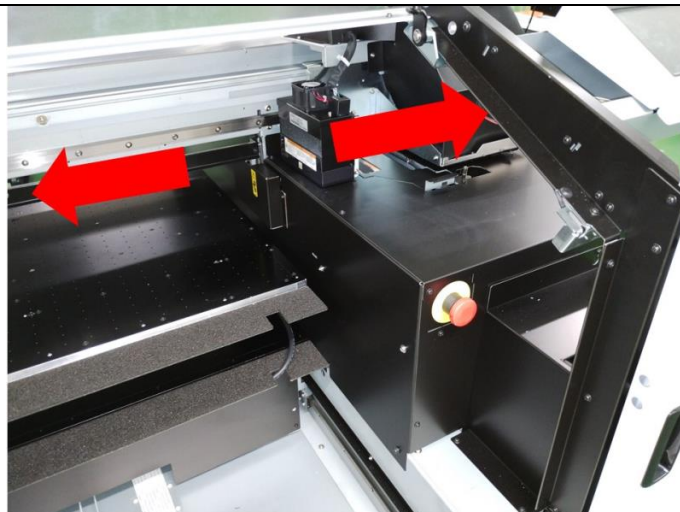
Step 33 / 36

Install the print carriage cover.



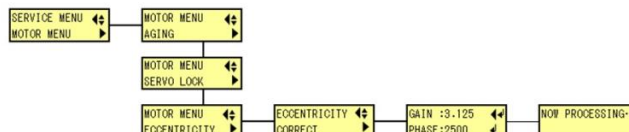
Step 34 / 36

Run the print carriage back and forth across the entire area several times to eliminate slack in the carriage belt.



Step 35 / 36

[MOTOR MENU] [ECCENTRICITY] >> [CORRECT] [ENTER] [GAIN] 4.000



Step 36 / 36

Perform belt tension adjustment, belt position adjustment, limit position adjustment, and eccentricity correction.



次の手順

ベルトテンション調整  
ベルト位置調整  
リミット位置調整  
偏心補正

Next Step

Belt Tension Adjustment  
Belt Position Adjustment  
limit position Initialization  
Eccentricity Correction

## MO-180 Shutter unit replacement

# MO-180 Shutter unit replacement

## Information

Step 1 / 6

Part to be replaced: Shutter unit



Step 2 / 6

General tool 1

### 一般ツール/General Tool

|                                                                                     |                                                                                       |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| プラスドライバー No.2<br>(長さ200mm以下)<br>No.2 Phillips screwdriver<br>(Length 200mm or less) |  |
| プラスドライバー No.2 (80mm以下)<br>No.2 Phillips screwdriver<br>(80mm or less)               |  |
| 六角レンチ 3.0mm<br>3.0mm hexagonal wrench                                               |  |
| 六角レンチ 2.0mm<br>2.0mm hexagonal wrench                                               |  |

Step 3 / 6

General tool 2

### 一般ツール/General Tool

|                    |                                                                                       |
|--------------------|---------------------------------------------------------------------------------------|
| ペンチ<br>Pliers      |  |
| ニッパー<br>Nippers    |  |
| スケール (定規)<br>Ruler |  |

Step 4 / 6

## Special jig

## 特殊治具/Special Tools

|                                      |                                                                                     |
|--------------------------------------|-------------------------------------------------------------------------------------|
| ST-056 TORQUE DRIVER N6              |  |
| 1000015274 BIT, PHILLIPS NO.2 L200MM |  |

Step 5 / 6

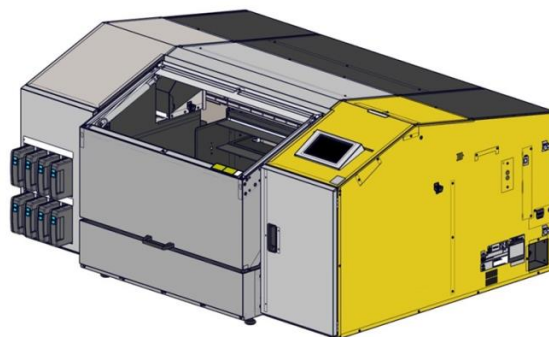
## Typical work time

## 作業時間/Typical work time

| 作業内容/Contents of work                   | 時間/Time |
|-----------------------------------------|---------|
| シャッターユニット交換<br>Shutter Unit replacement | 60 min. |

Step 6 / 6

## Covers that need to be removed



## MO-180 Shutter unit replacement

# MO-180 Shutter unit replacement Procedure

Step 1 / 55

If the covers are removed, use a light-shielding sheet to prevent ink from curing.



Step 2 / 55

Be careful not to bend the maintenance cover.



Step 3 / 55

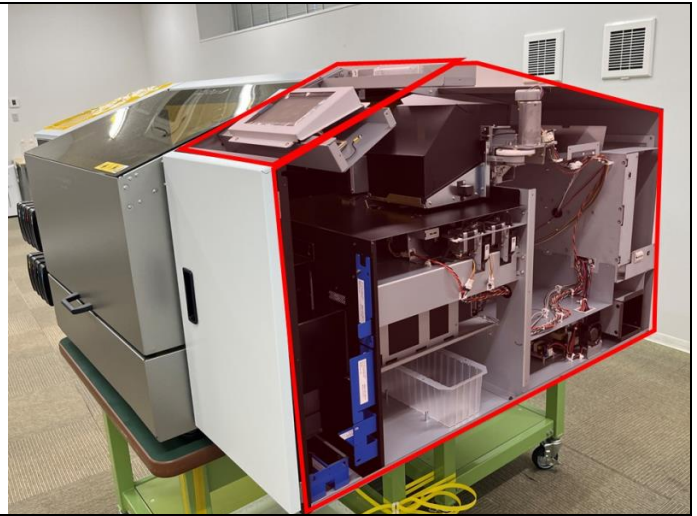
Turn off the main power supply and unplug the power cable.





Step 4 / 55

Remove the cover on the top of the print head and the cover on the right side. For subsequent replacement work, it is recommended to work from the right side of the machine.



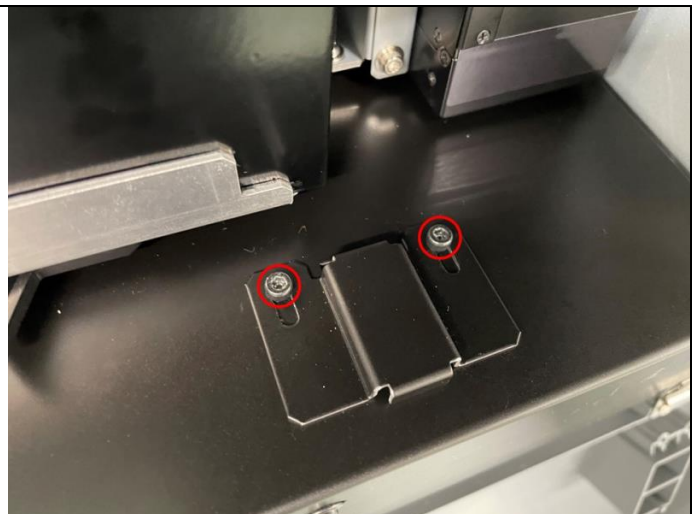
Step 5 / 55

Rotate the cap up/down gear to the rear about 5 times to remove the capping.



Step 6 / 55

Detail1: Remove the cap up/down gear cover.



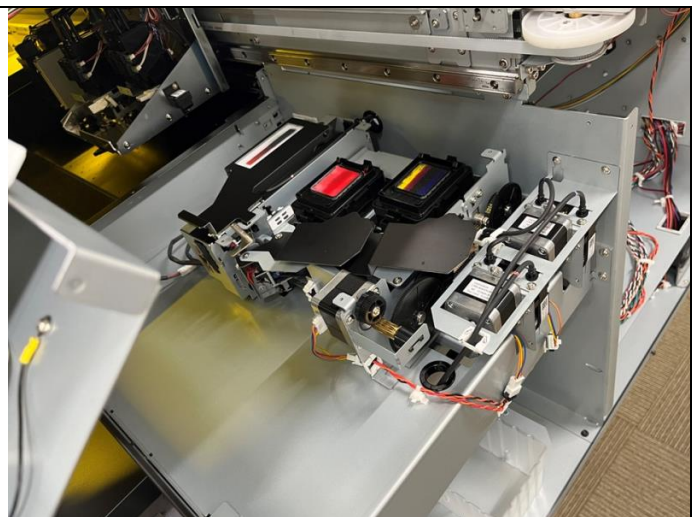
Step 7 / 55

**Detail2:** Rotate the cap up/down gear to the rear about five times to remove the capping.



Step 8 / 55

Move the carriage to the bed and remove the maintenance cover.



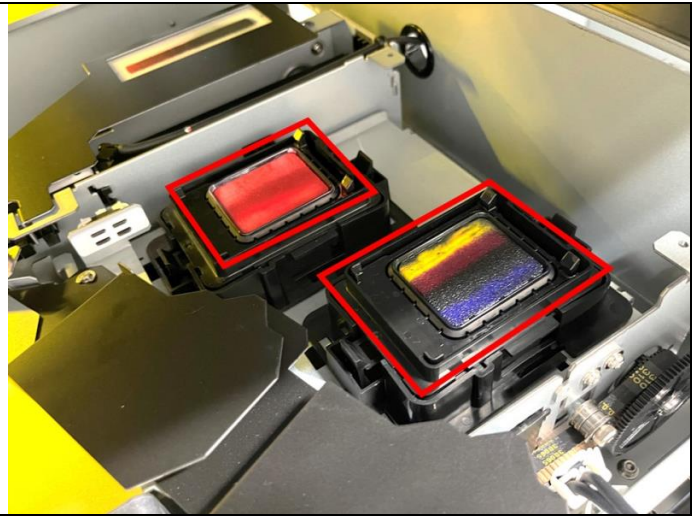
Step 9 / 55

**Detail1:** Remove the seven screws.



Step 10 / 55

Remove the two print head caps.



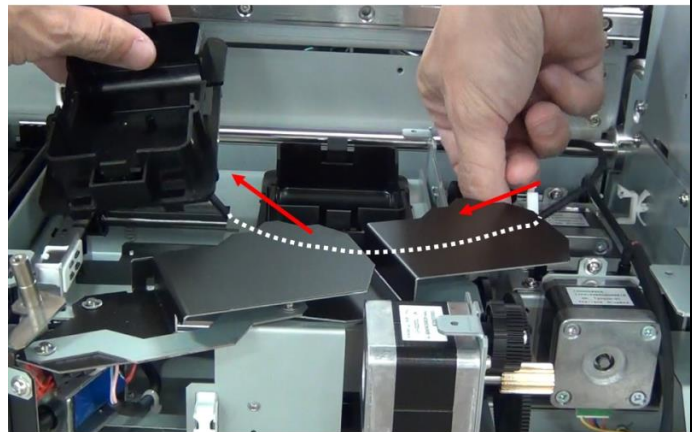
Step 11 / 55

Open the cable saddle and remove the tube.



Step 12 / 55

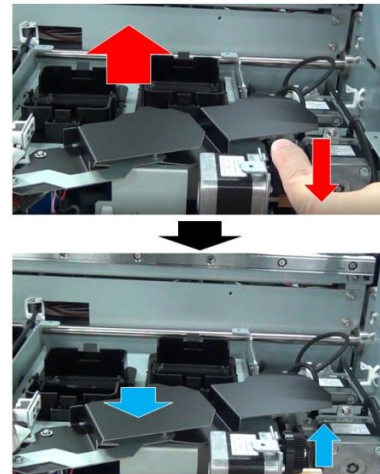
Remove the cap base on the left side. To prevent the tube under the base from coming off, pass the tube marked in red to the base side.





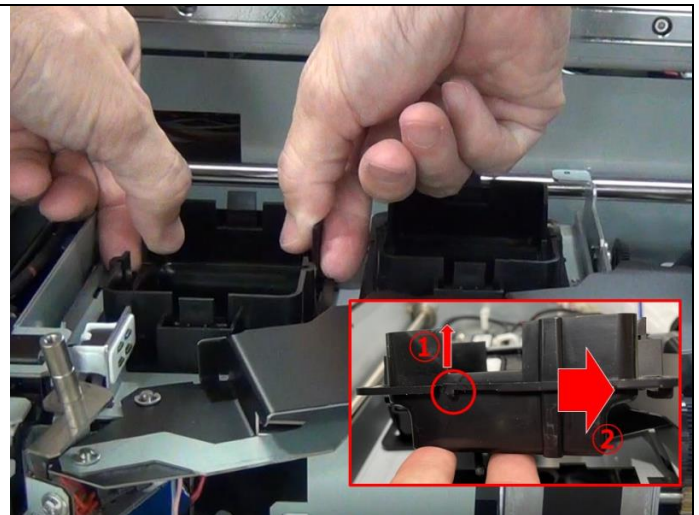
Step 13 / 55

**Detail1:** To prevent the cap base from interfering with the shaft and making it difficult to remove, adjust the height of the base. Turn the cap up/down gear toward you until the cap is fully raised. Then turn the gear backward about one turn to slightly lower the cap.



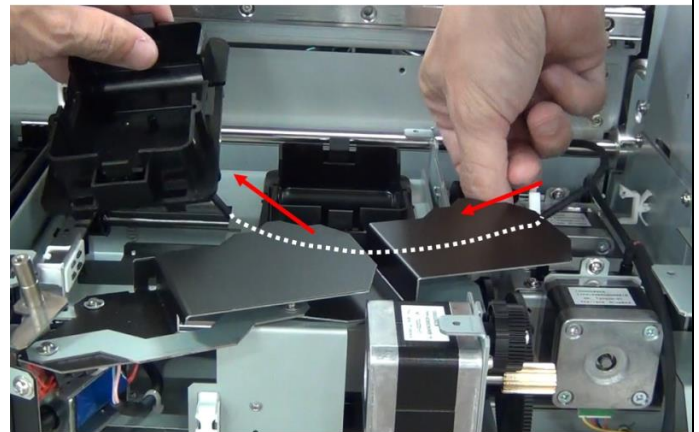
Step 14 / 55

**Detail2:** 1. Lift up the left and right locks on the cap base. 2. With the locks lifted, slide the cap base toward you and remove the cap base.\*If it is difficult to remove, adjust the height with the gear.



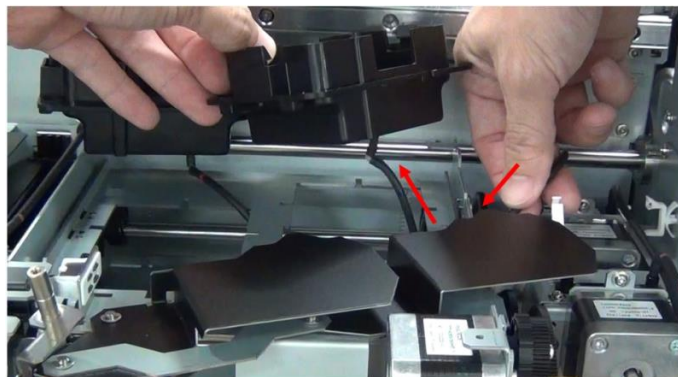
Step 15 / 55

**Detail3:** Pull up the cap base while feeding the tube marked in red toward the base.



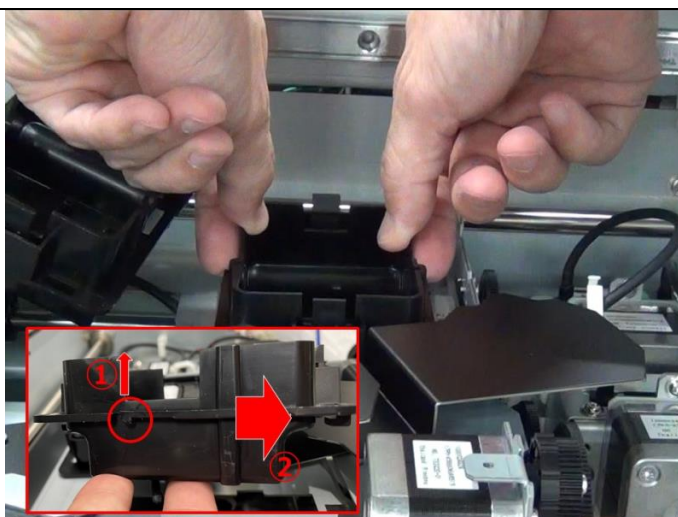
Step 16 / 55

Remove the cap base on the right side.  
Feed the tube marked blue to the base side to prevent the tube under the base from coming off.



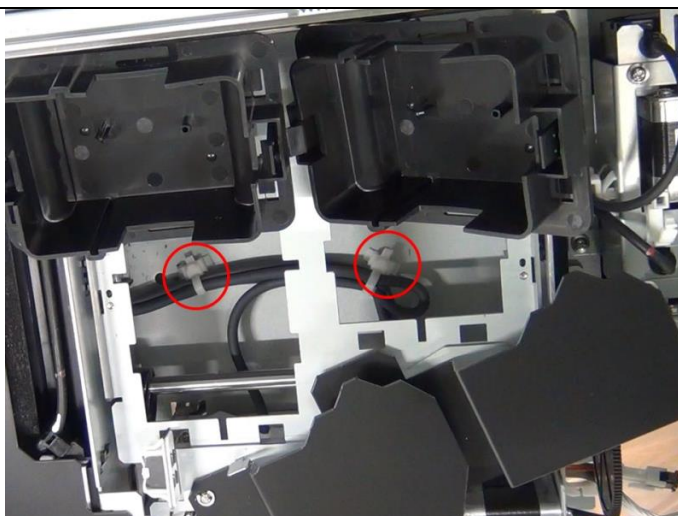
Step 17 / 55

Detail1: 1. lift up the left and right locks of the cap base 2. while lifting up the locks, slide the cap base toward you and remove the cap base. \*If it is difficult to remove, adjust the height with the gear.



Step 18 / 55

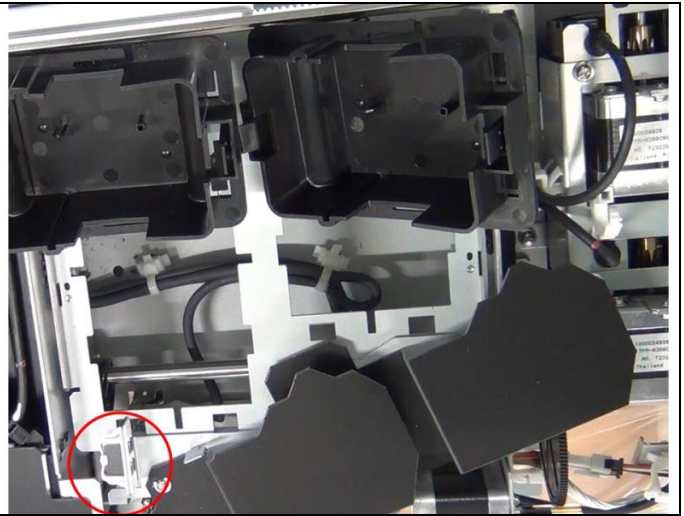
Remove the cable ties.





Step 19 / 55

Remove the magnet.



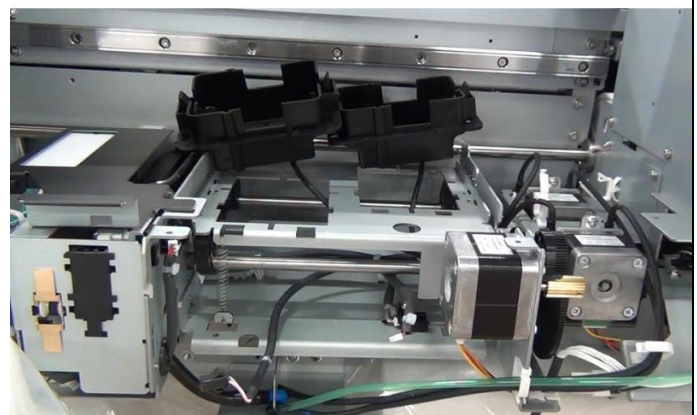
Step 20 / 55

Remove the three fixing screws of the shutter unit.



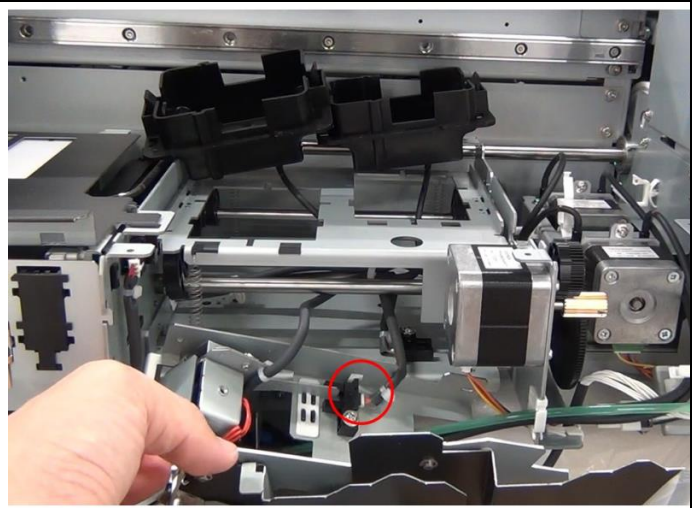
Step 21 / 55

Remove the shutter unit.



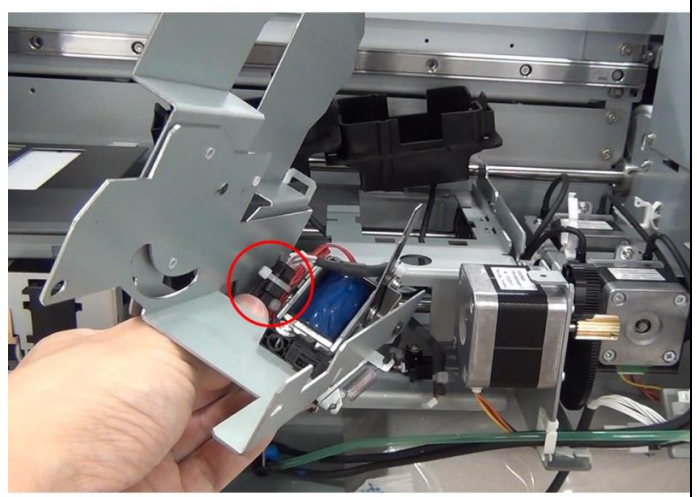
Step 22 / 55

**Detail1:** Remove the connector.



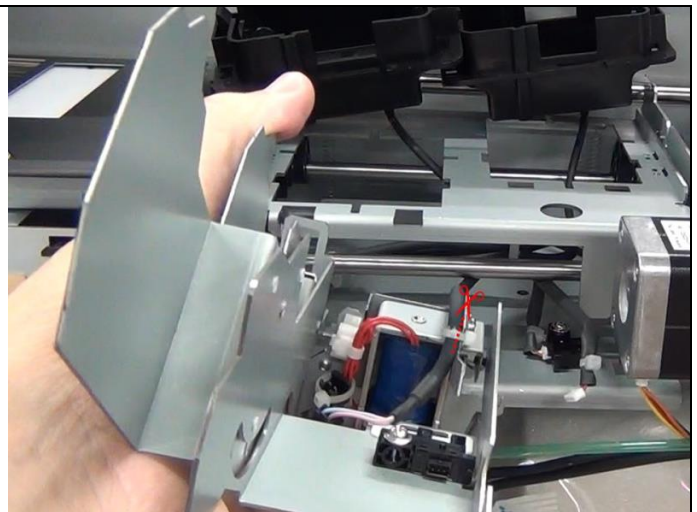
Step 23 / 55

**Detail2:** Remove the connector without removing the cable tie.



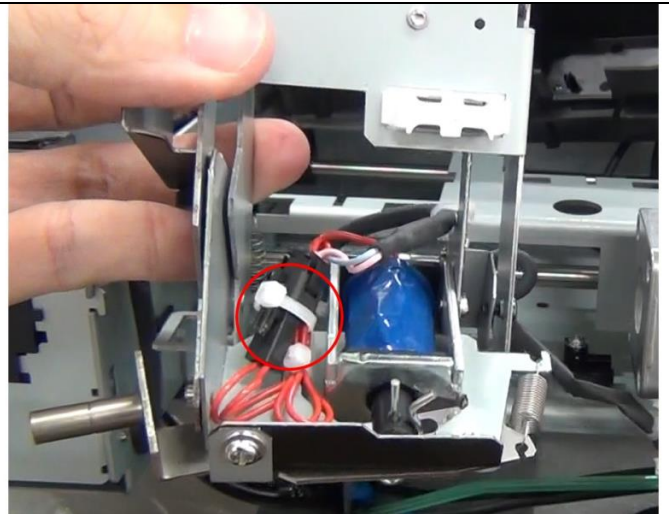
Step 24 / 55

**Detail3:** Cut off the cable tie.



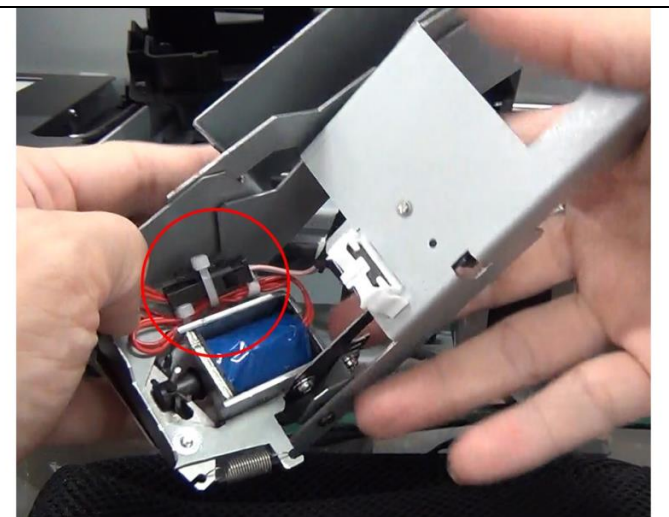
Step 25 / 55

When attaching the connector, set it so that the cable tie is in the same position as in the photo.



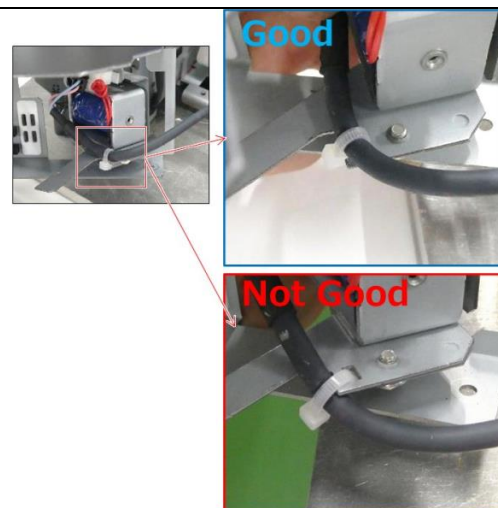
Step 26 / 55

Attach the connector to the new shutter unit. Pay attention to the cable routing.



Step 27 / 55

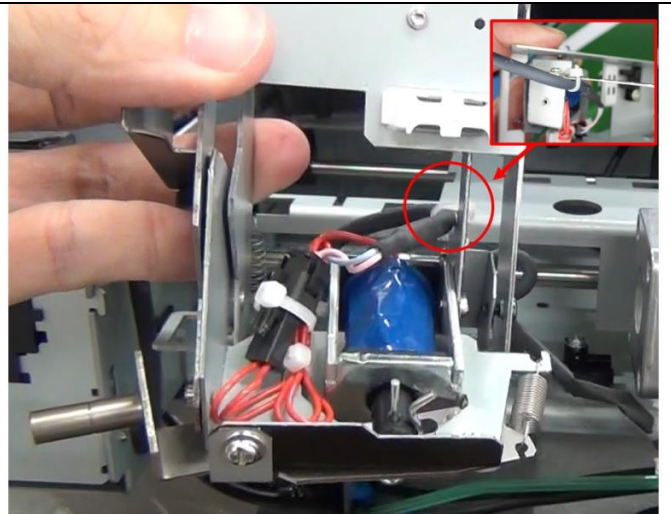
When attaching the cable tie, install it so that the cable is on the metal plate as shown in the figure.





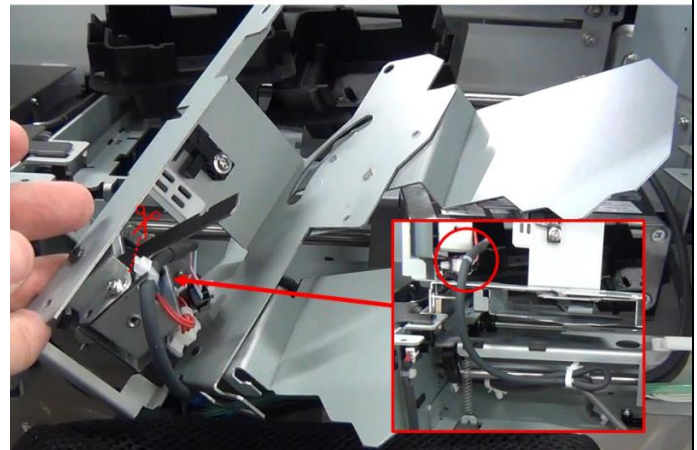
Step 28 / 55

Attach the cable tie so that the stop of the cable tie is aligned with the position shown in the photo. If it is not in the correct position, it may interfere with the metal plate.



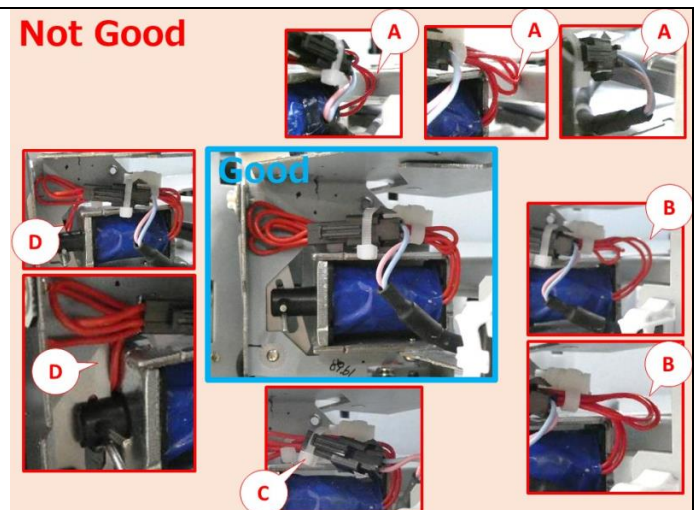
Step 29 / 55

Attach the cable tie by aligning it with the white marked part of the cable, paying attention to the direction of the cable. Cut the unnecessary part of the cable tie with nippers.



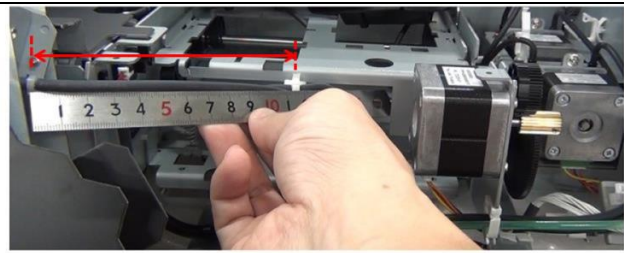
Step 30 / 55

Check that there is no abnormality in the position of the cables and connectors. [A: Cable contact][B: Excessive cable sticking out][C: Abnormal connector fixing position][D: Cable pinched in].



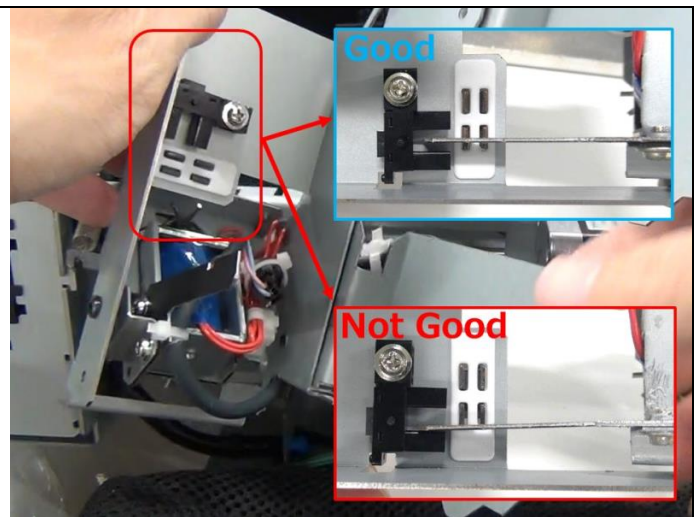
Step 31 / 55

Confirm that the fixing length of the cable tie is  $120 \pm 5$  mm.



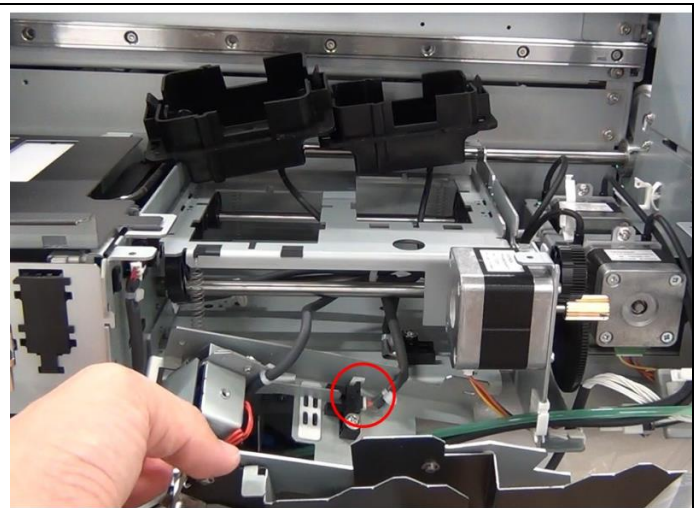
Step 32 / 55

Make sure that the sheet metal does not contact the sensor.



Step 33 / 55

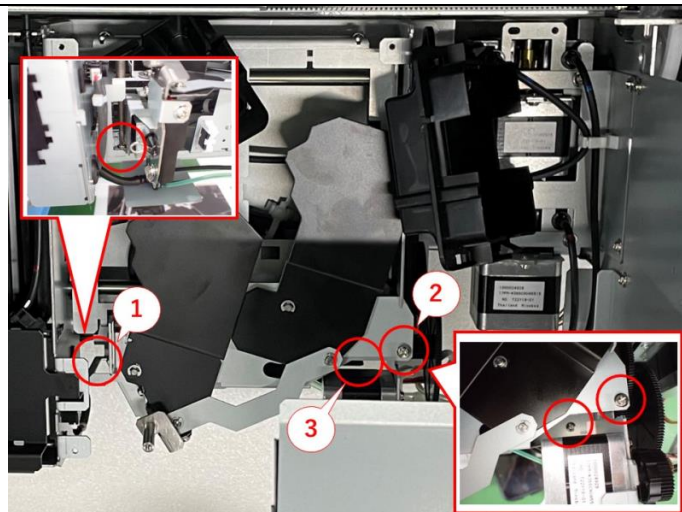
Attach the connector.





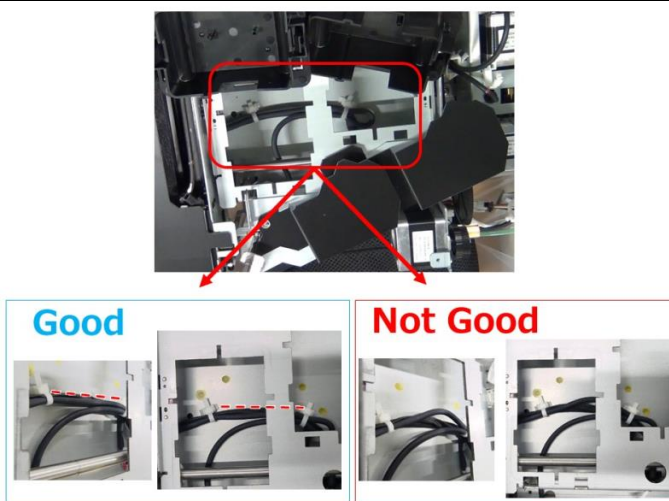
Step 34 / 55

Using a torque wrench (60cN-m), install the three screws in sequence.



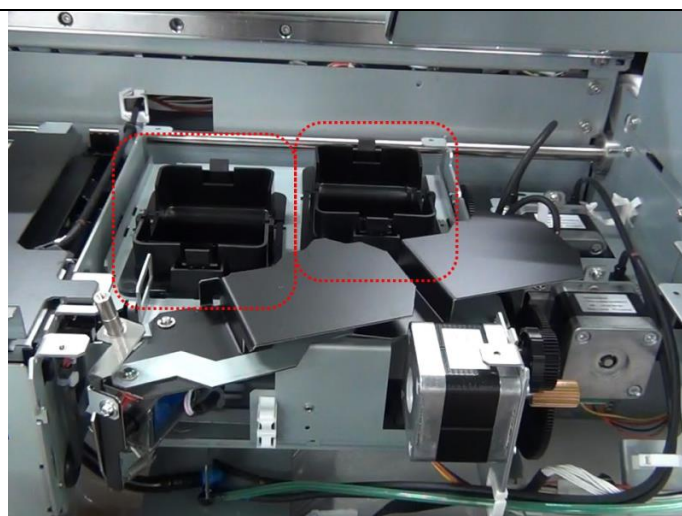
Step 35 / 55

Attach the cable tie so that there is no sagging in the cable under the cap base.



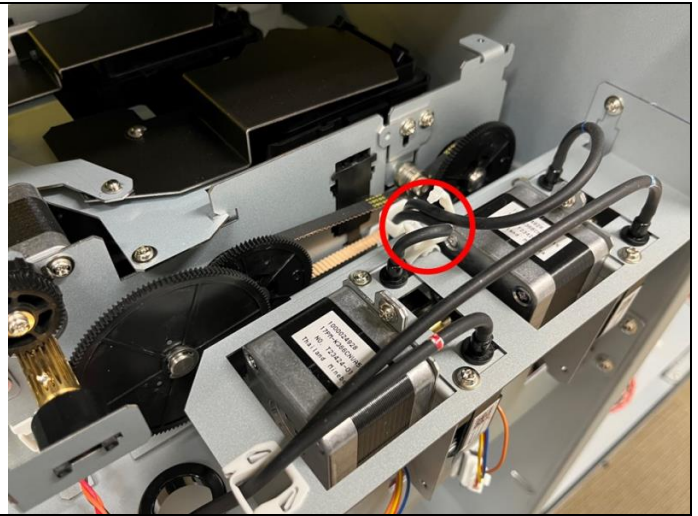
Step 36 / 55

Install the left and right cap bases while feeding the tube to the right side to prevent the tube from bending. \*If installation is difficult, turn the gear and move the base to an easier position for installation.



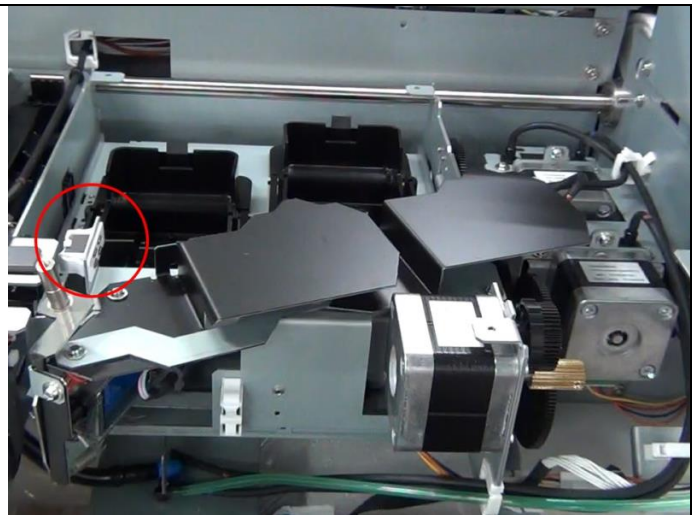
Step 37 / 55

Attach the tube to the cable saddle.



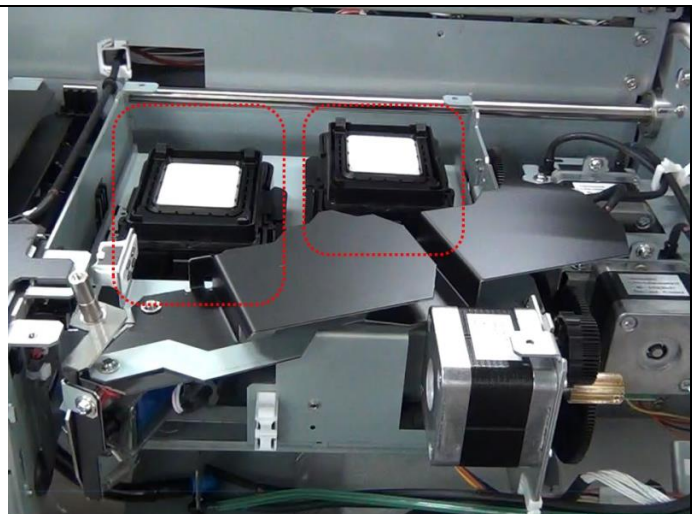
Step 38 / 55

Attach the magnet.



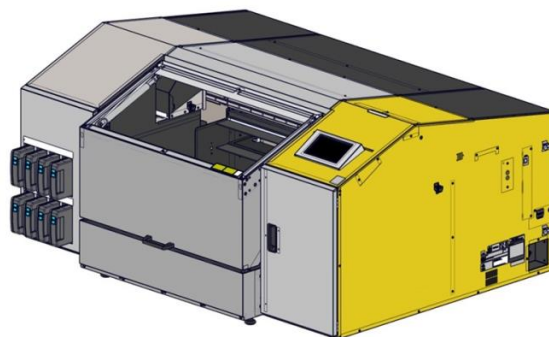
Step 39 / 55

Install the two print head caps. If it is difficult to insert the caps, apply a small amount of alcohol to the inserts.



Step 40 / 55

Attach all the removed covers.



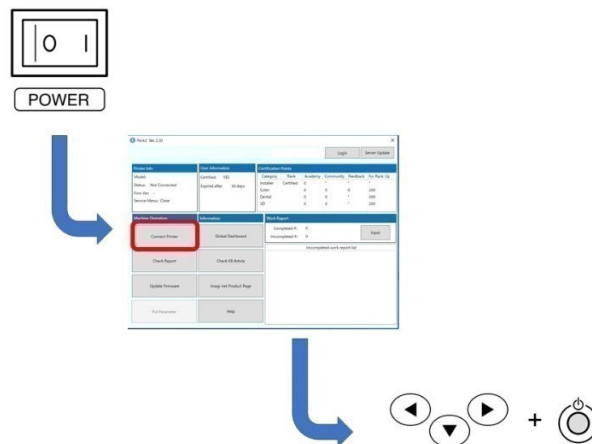
Step 41 / 55

Attach the power cable and turn on the main power.



Step 42 / 55

Turn on the power and enter service mode with Peck2.



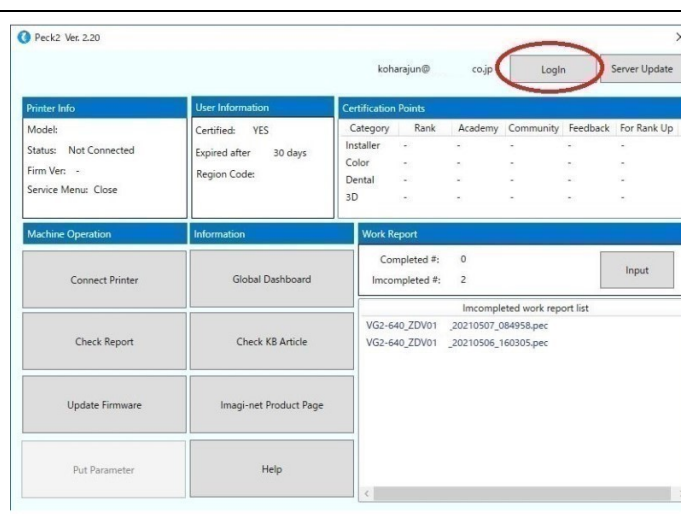
Step 43 / 55

Detail1: Start Peck2.



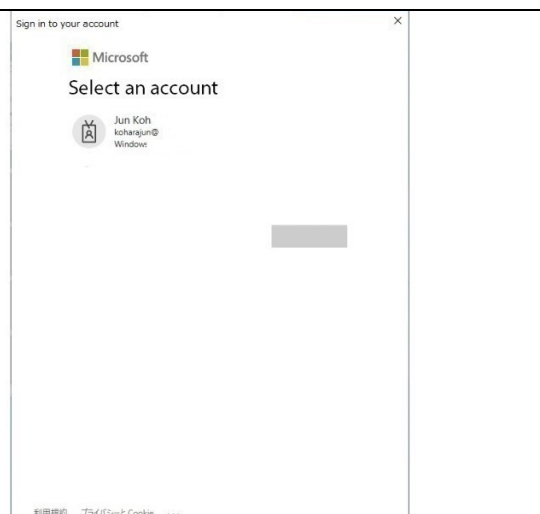
Step 44 / 55

Detail2: Click on the [Login] button.



Step 45 / 55

Detail3: Login with your Imagi-net ID.





Step 46 / 55

Detail4: Click the [Connect Printer] button.

Peck2 Ver. 2.20

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| 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: -           | 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       | Incompleted #: 2 |
| Update Firmware   | Imagi-net Product Page | Input            |
| Put Parameter     | Help                   |                  |

Imcompleted work report list

VG2-640\_ZDV01 \_20210507\_084958.pec

VG2-640\_ZDV01 \_20210506\_160305.pec

Step 47 / 55

Detail5: Enter the IP address of the printer you wish 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: -           | 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       | Incompleted #: 2 |
| Update Firmware   | Imagi-net Product Page | Input            |
| Put Parameter     | Help                   |                  |

Imcompleted work report list

VG2-640\_ZDV01 \_20210507\_084958.pec

VG2-640\_ZDV01 \_20210506\_160305.pec

Step 48 / 55

Detail6: 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       | Incompleted #: 2 |
| Update Firmware   | Imagi-net Product Page | Input            |
| Put Parameter     | Help                   |                  |

Imcompleted work report list

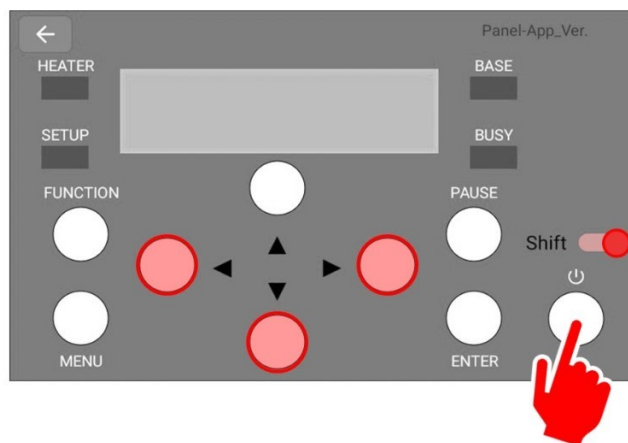
VG2-640\_ZDV01 \_20210507\_084958.pec

VG2-640\_ZDV01 \_20210506\_160305.pec



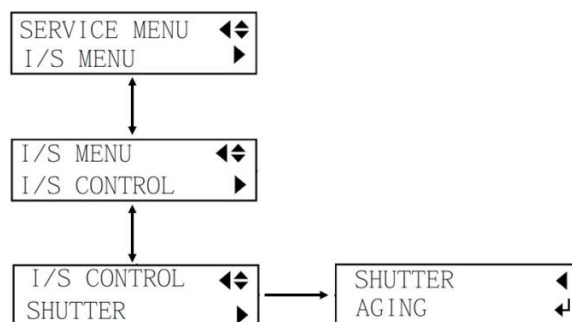
Step 49 / 55

**Detail7:** 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.



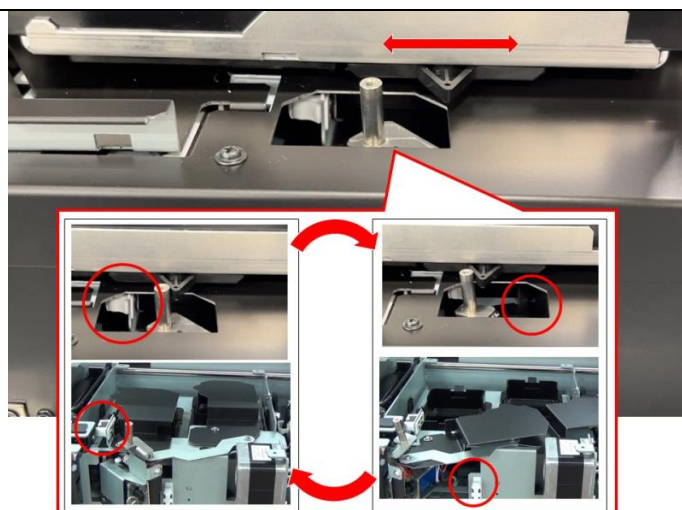
Step 50 / 55

**Perform Shutter aging.** [SERVICE MENU]  
> [I/S-MENU] > [I/S CONTROL] > [SHUTTER] > [AGING].



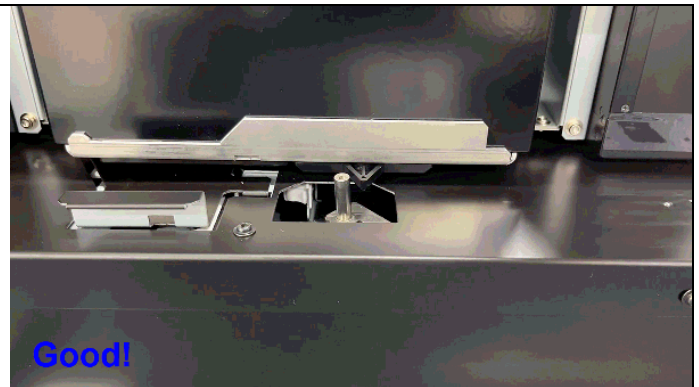
Step 51 / 55

**Detail1:** Operate the shutter about 20 times to make sure that there is no abnormality in the shutter movement and that the magnet and the sheet metal are in contact securely. For the magnet part that cannot be seen by the cover, check the shutter operation when the magnet leaves the cover.



Step 52 / 55

Detail2: Are the magnet and metal plate firmly adhered to each other?



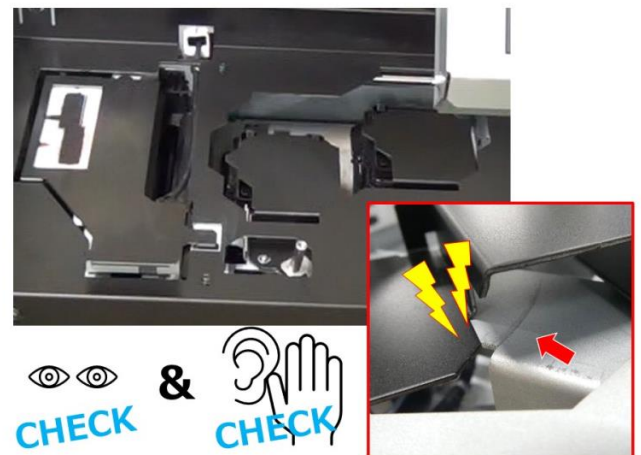
Step 53 / 55

Detail3: Are there any abnormalities such as service call 0500?



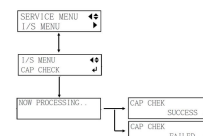
Step 54 / 55

Check for any unusual noise or shutter rubbing.

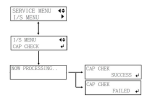


Step 55 / 55

Perform cap check. [SERVICE MENU] > [



I/S-MENU] > [CAP CHECK ]



## MO-180 UV lamp replacement

# MO-180 UV lamp replacement Information

Step 1 / 3

Parts to be replaced □ UV Lamp



Step 2 / 3

Tools required for replacement

### 一般ツール/General Tool

|                                                                                     |  |
|-------------------------------------------------------------------------------------|--|
| プラスドライバー No.2<br>(長さ200mm以下)<br>No.2 Phillips screwdriver<br>(Length 200mm or less) |  |
| プラスドライバー No.2 (80mm以下)<br>No.2 Phillips screwdriver<br>(80mm or less)               |  |
| 六角レンチ2.0mm<br>2.0 mm hexagonal wrench                                               |  |

Step 3 / 3

Standard working time

### 作業時間/Typical work time

| 作業内容/Contents of work          | 時間/Time |
|--------------------------------|---------|
| UVランプ交換<br>UV lamp replacement | 20 min. |

## MO-180 UV lamp replacement

# MO-180 UV lamp replacement Procedure

Step 1 / 24

Turn off the primary power supply.



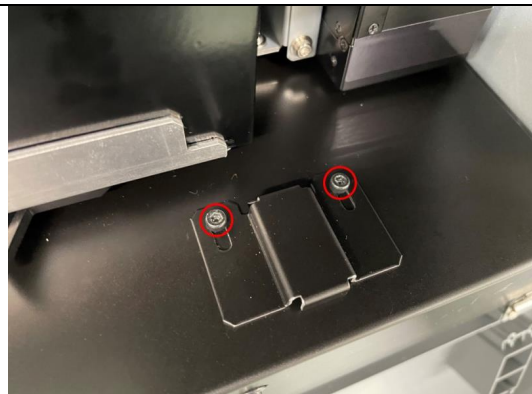
Step 2 / 24

Rotate the cap elevation gear to the rear about 5 times to remove the capping.



Step 3 / 24

**Detail1:** Remove the cap elevation gear cover.





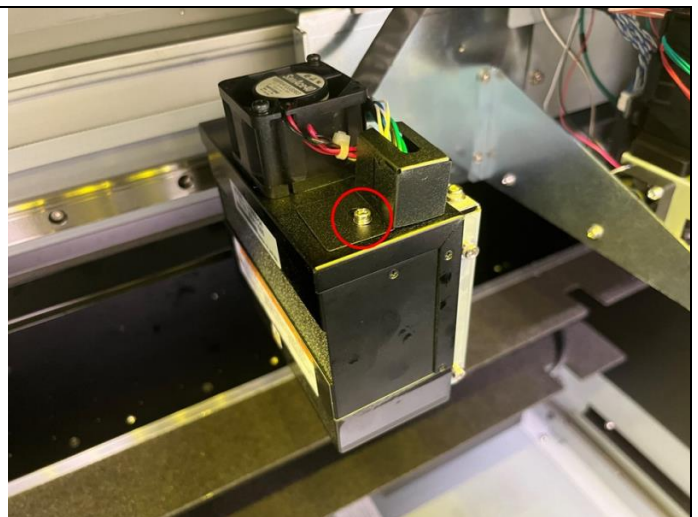
Step 4 / 24

Detail2: Rotate the cap elevation gear toward the back about 5 times to remove the capping.



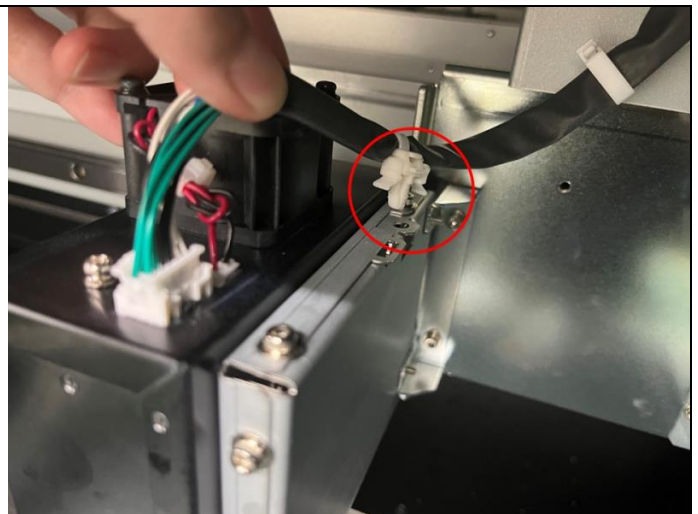
Step 5 / 24

Loosen the screws on the UV lamp connector cover and slide it off.



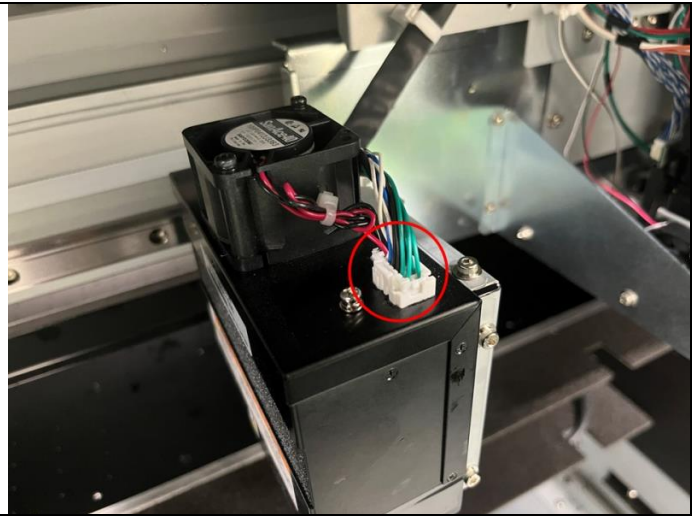
Step 6 / 24

Remove the cable tie.



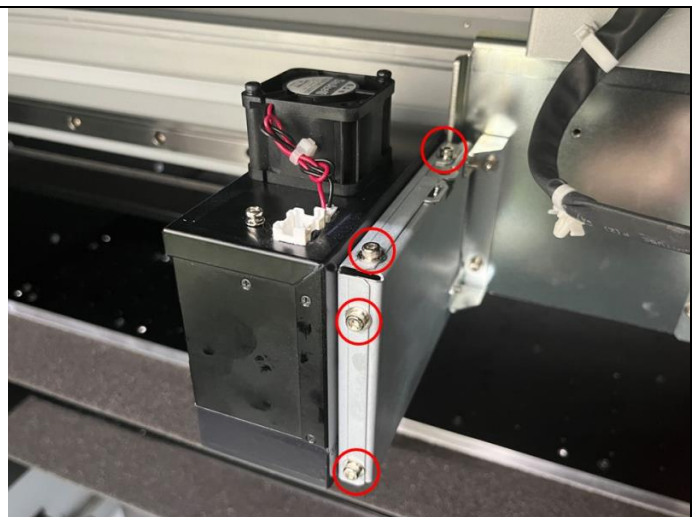
Step 7 / 24

Remove the connector.



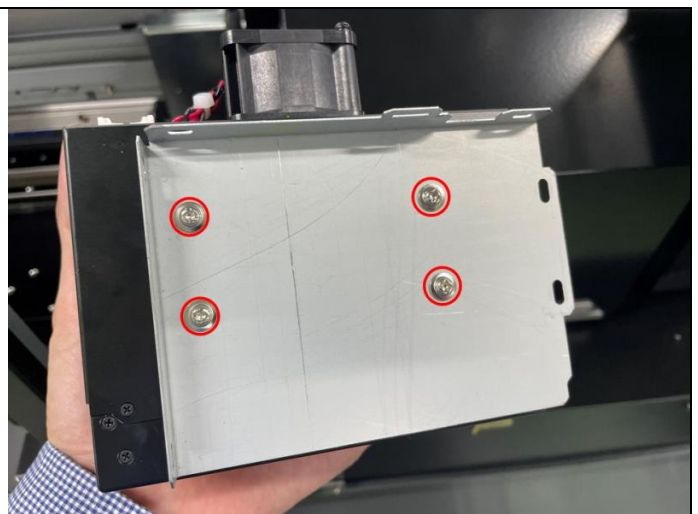
Step 8 / 24

Remove the four screws and remove the UV lamp.



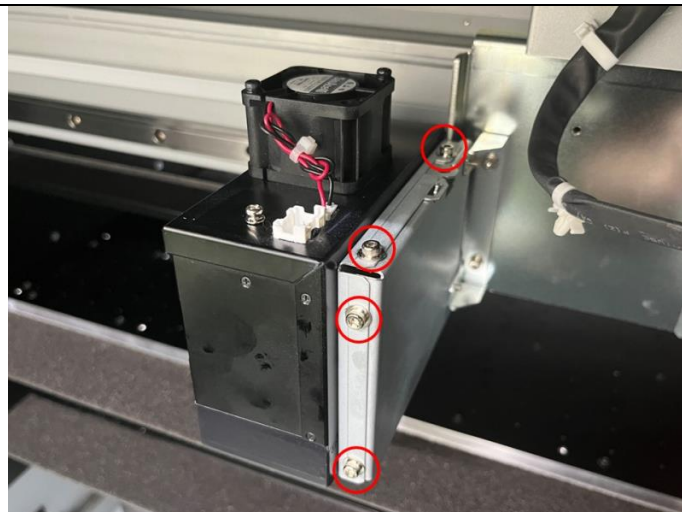
Step 9 / 24

Remove the four screws and remove the plate. Replace the UV lamp with a new one.



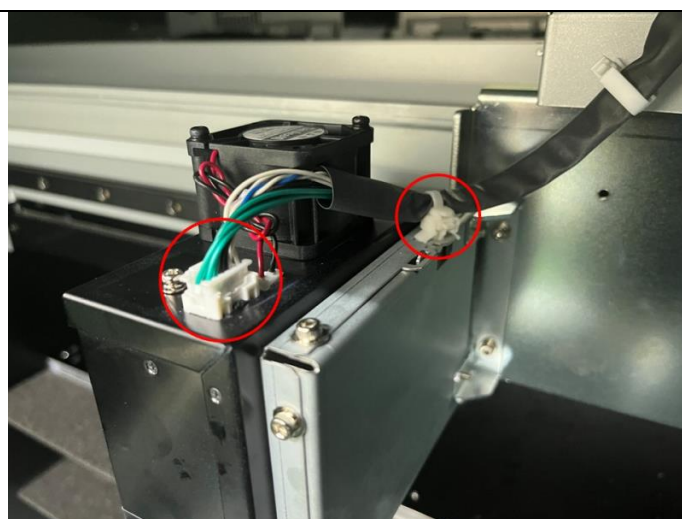
Step 10 / 24

Install the UV lamp and tighten the screws.



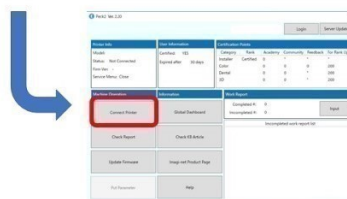
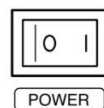
Step 11 / 24

Install the removed connector and connector cover.



Step 12 / 24

Turn on primary power and enter service mode with Peck2.



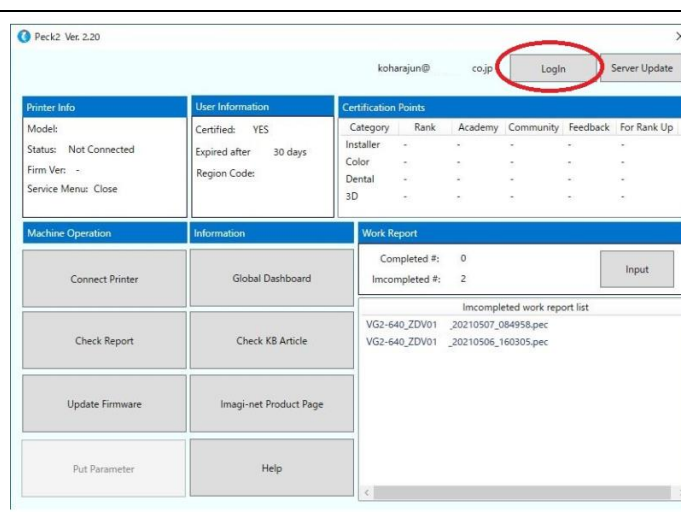
Step 13 / 24

Detail1: Start Peck2.



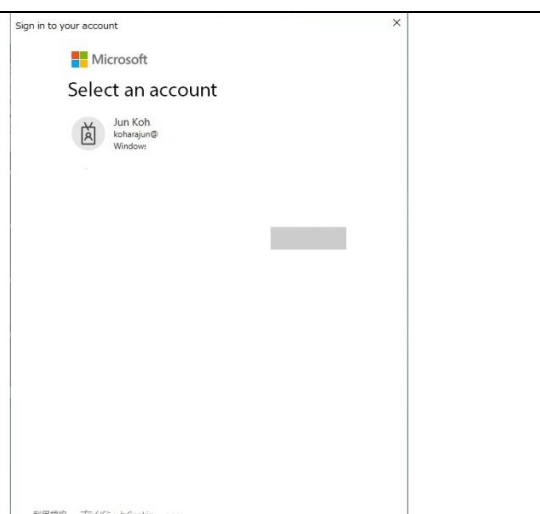
Step 14 / 24

Detail2: Click on the Login button.



Step 15 / 24

Detail3: Login with your Imagi-net ID.



Step 16 / 24

Detail4: Click the Connect Printer button.

Peck2 Ver. 2.20

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| 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                  |   |
|------------------------|--|------------------------|--|------------------------------|---|
| <b>Connect Printer</b> |  | Global Dashboard       |  | Completed #:                 | 0 |
| Check Report           |  | Check KB Article       |  | Incompleted #:               | 2 |
| Update Firmware        |  | Imagi-net Product Page |  | Input                        |   |
| Put Parameter          |  | Help                   |  | Incompleted work report list |   |

VG2-640\_ZDV01 \_20210507\_084958.pec  
VG2-640\_ZDV01 \_20210506\_160305.pec

Step 17 / 24

Detail5: Enter the IP address of the printer you wish to connect to.

Peck2 Ver. 2.20

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| 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      |             |
|                   |                      |                  |         | 3D                   | 0         | 0       | *         | 200      |             |

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

Step 18 / 24

Detail6: When the printer is connected, the printer information will be displayed in Printer Info.

Peck2 Ver. 2.20

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| 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      |             |

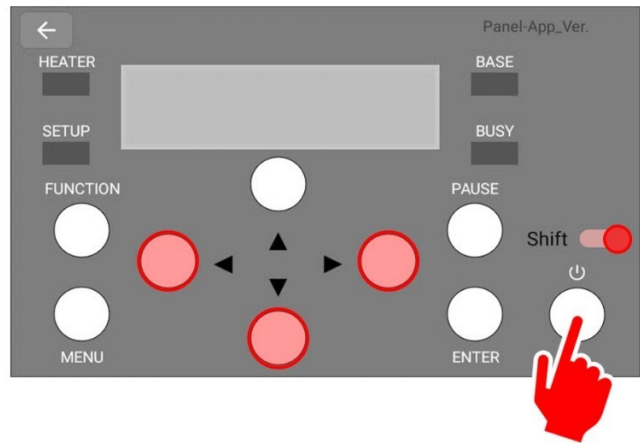
| Machine Operation |  | Information            |  | Work Report                  |   |
|-------------------|--|------------------------|--|------------------------------|---|
| Connect Printer   |  | Global Dashboard       |  | Completed #:                 | 0 |
| Check Report      |  | Check KB Article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

VG2-640\_ZDV01 \_20210507\_084958.pec  
VG2-640\_ZDV01 \_20210506\_160305.pec



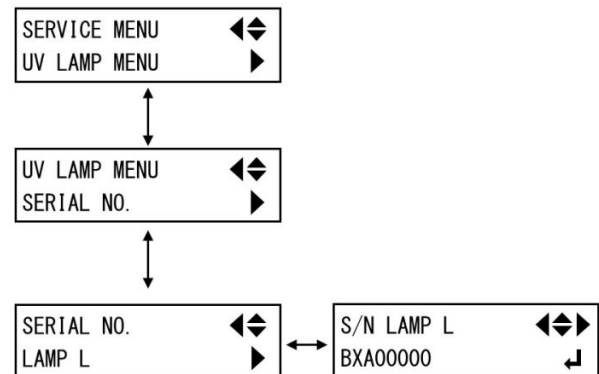
Step 19 / 24

**Detail7:** Press the aircraft panel [Shift]> [□]+[□]+[□]+[Sub Power] to enter the service mode. By turning on the [Shift] button, the buttons can be pressed simultaneously.



Step 20 / 24

Select [SERVICE MENU] > [UV LAMP MENU] > [SERIAL NO.] > [LAMP L] and enter the serial number. If not entered or entered incorrectly, a connection error will occur.



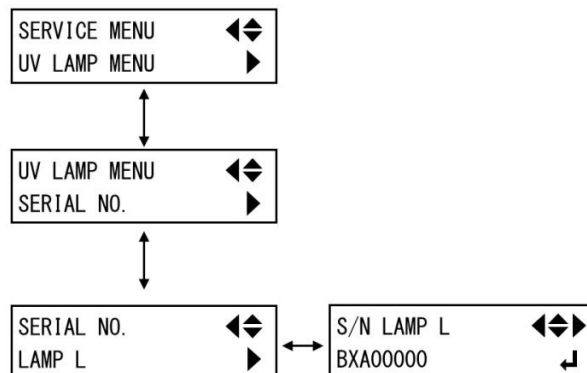
Step 21 / 24

**Detail1:** Serial No.



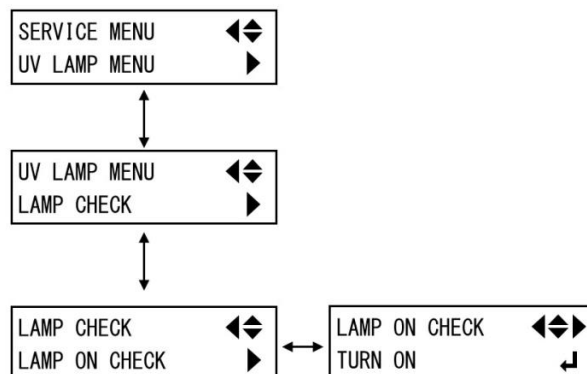
Step 22 / 24

Detail2: Use [←][→] keys to move digits, [↑][↓] keys to change values, and press ENTER after setting the serial number on the UV lamp.



Step 23 / 24

Select [SERVICE MENU] > [UV LAMP MENU] > [LAMP CHECK] > [LAMP ON CHECK] and press ENTER to confirm that the replaced UV lamp emits light.



Step 24 / 24

Adjust the UV lamp height.



次の手順

UVランプ高さ調整

Next Step

UV lamp height adjustment

## MO-180 UV lamp lens replacement

# MO-180 UV lamp lens replacement

## Information

Step 1 / 3

Tools required for replacement

### 一般ツール/General Tool

|                                                                                     |                                                                                     |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| プラスドライバー No.2<br>(長さ200mm以下)<br>No.2 Phillips screwdriver<br>(Length 200mm or less) |  |
| プラスドライバー No.2 (80mm以下)<br>No.2 Phillips screwdriver<br>(80mm or less)               |  |
| 六角レンチ2.0mm<br>2.0 mm hexagonal wrench                                               |  |

Step 2 / 3

Special jig

### 特殊治具/Special Tools

|                                              |                                                                                       |
|----------------------------------------------|---------------------------------------------------------------------------------------|
| 精密プラスドライバー<br>Precision Phillips screwdriver |  |
|----------------------------------------------|---------------------------------------------------------------------------------------|

Step 3 / 3

Standard working time

### 作業時間/Typical work time

| 作業内容/Contents of work                  | 時間/Time |
|----------------------------------------|---------|
| UVランプレンズ交換<br>UV lamp lens replacement | 20 min. |

## MO-180 UV lamp lens replacement

# MO-180 UV lamp lens replacement

## Procedure

Step 1 / 28

Turn off the primary power supply.



Step 2 / 28

Rotate the cap elevation gear to the rear about 5 times to remove the capping.



Step 3 / 28

Detail1: Remove the cap elevation gear cover.



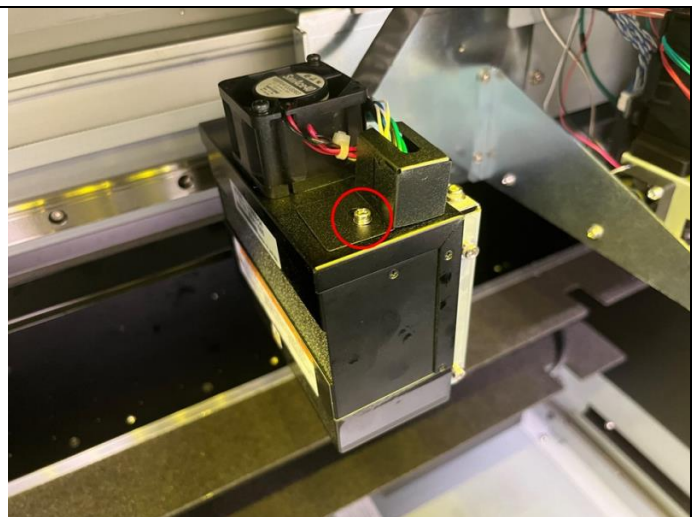
Step 4 / 28

Detail2: Rotate the cap elevation gear toward the back about 5 times to remove the capping.



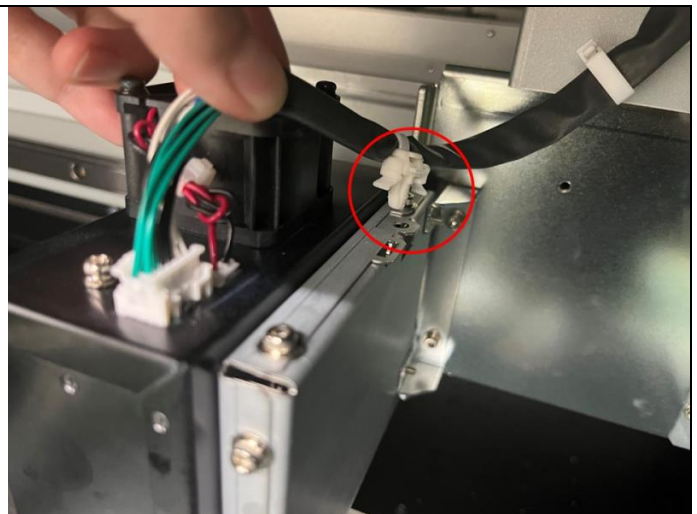
Step 5 / 28

Loosen the screws on the UV lamp connector cover and slide it off.



Step 6 / 28

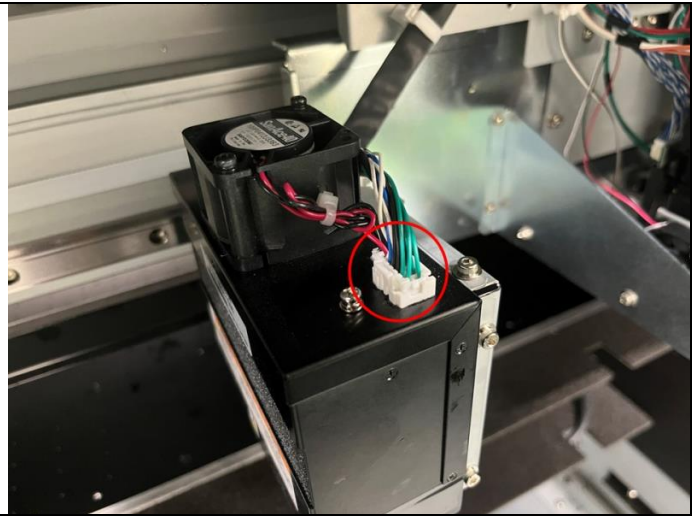
Remove the cable tie.





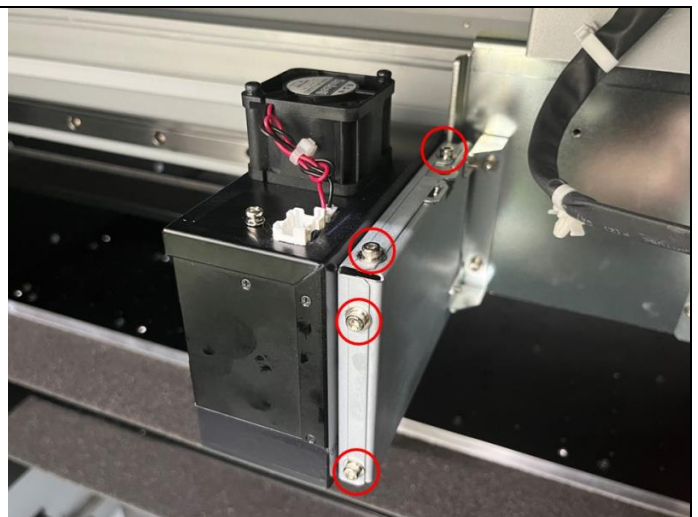
Step 7 / 28

Remove the connector.



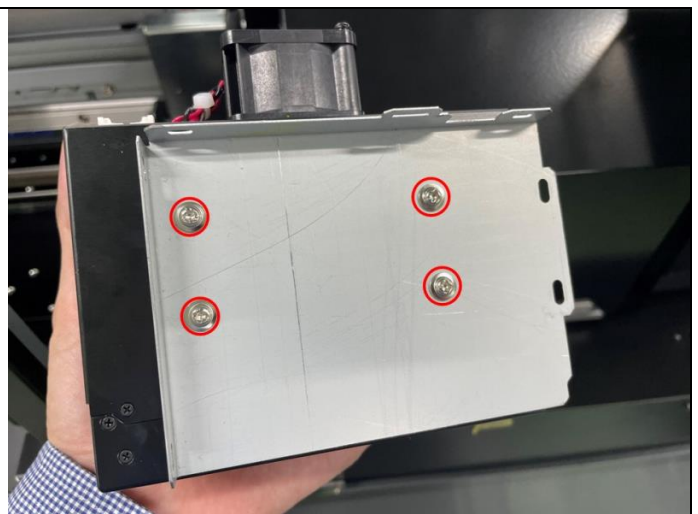
Step 8 / 28

Remove the four screws and remove the UV lamp.



Step 9 / 28

Remove the four screws and remove the plate.



Step 10 / 28

Remove the warning label on the UV lamp.



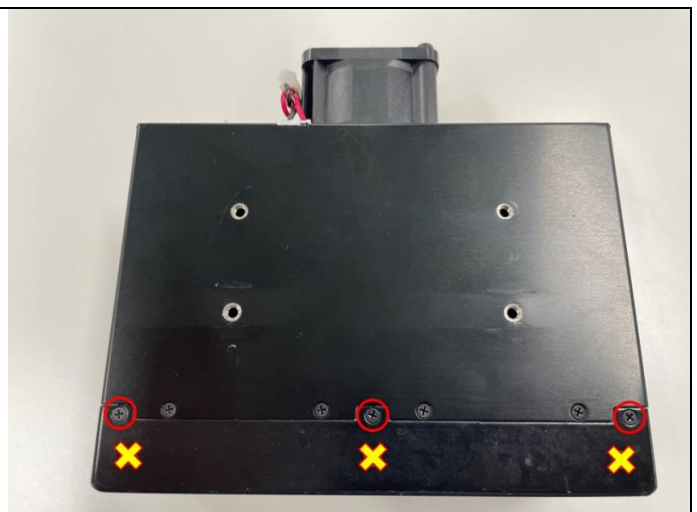
Step 11 / 28

Using a precision screwdriver, remove the 8 screws on 4 sides and replace with new lens.



Step 12 / 28

Detail1: Screws to be removed\*Do not remove the screws on the lower side of the lens.



Step 13 / 28

Detail2: Screws to be removed\*Do not remove the screws on the underside of the lens.



Step 14 / 28

Detail3: Screw to remove



Step 15 / 28

Detail4: Screws to attach and detach



Step 16 / 28

After attaching the lens, attach the warning label included with the lens so that it covers the gap between the lens and the main unit. \*If an old label is attached to the lens, dust and other debris may enter through the gap and cause malfunction.



Step 17 / 28

Detail1: Attachment position



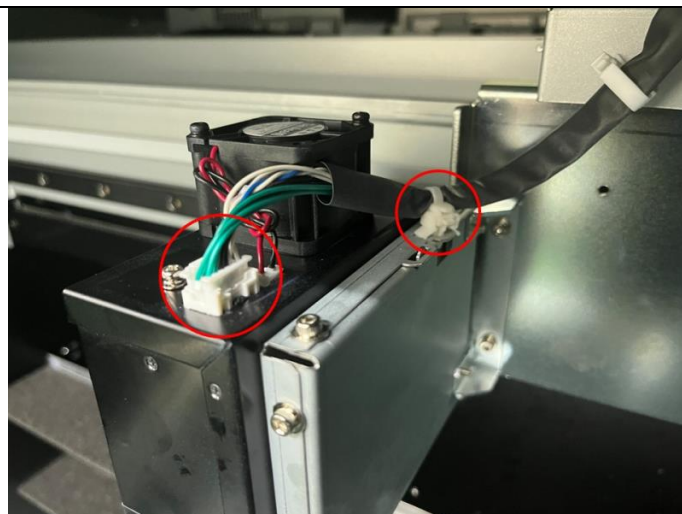
Step 18 / 28

Detail2: Paste position



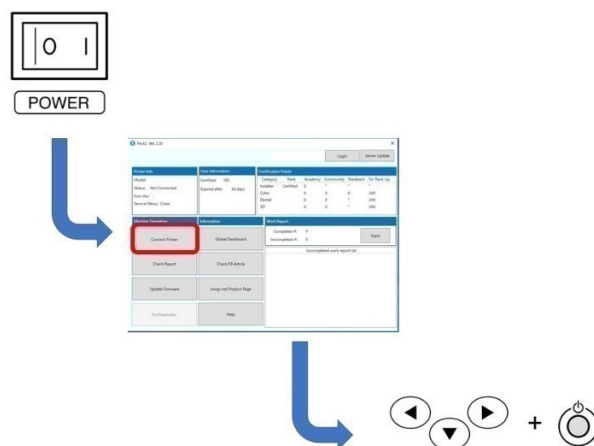
Step 19 / 28

Install the UV lamp and attach the connector and connector cover.



Step 20 / 28

Turn on primary power and enter service mode with Peck2.



Step 21 / 28

Detail1: Start Peck2.





Step 22 / 28

Detail2: Click the Login button.

The screenshot shows the Peck2 Ver 2.20 software interface. At the top right, there is a 'Login' button circled in red. The interface is divided into several sections: 'Printer Info', 'User Information', 'Certification Points', 'Machine Operation', 'Information', and 'Work Report'. The 'Login' button is located in the top right corner, next to the 'Server Update' button.

Step 23 / 28

Detail3: Click the Connect Printer button.

The screenshot shows the Peck2 Ver 2.20 software interface. The 'Connect Printer' button in the 'Machine Operation' section is circled in red. The interface is divided into several sections: 'Printer Info', 'User Information', 'Certification Points', 'Machine Operation', 'Information', and 'Work Report'. The 'Connect Printer' button is located in the 'Machine Operation' section.

Step 24 / 28

Detail4: Enter the IP address of the machine you wish to connect to.

The screenshot shows the Peck2 Ver 2.20 software interface with the 'ConnectPrinter' dialog box open. The dialog box has a 'Select' dropdown menu showing 'VG2-640( 11 .129.52)' and an 'Input IP Address' text field. There are 'Connect' and 'Close' buttons at the bottom of the dialog box. The background interface is the same as the previous screenshots.

Step 25 / 28

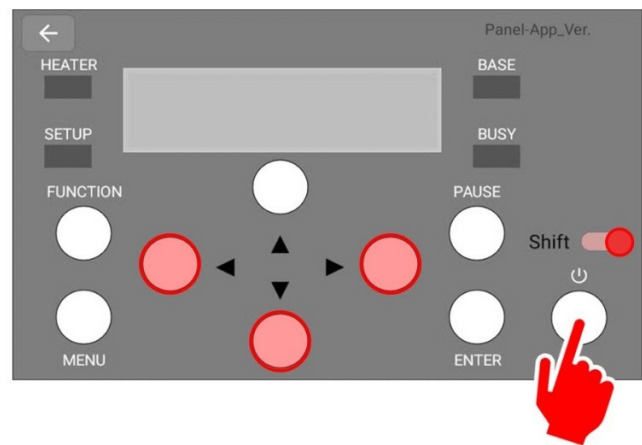
Detail5: If you are able to connect to a printer, the printer information will be displayed in the Printer Info section.

| 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 | 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 |   |             |  |

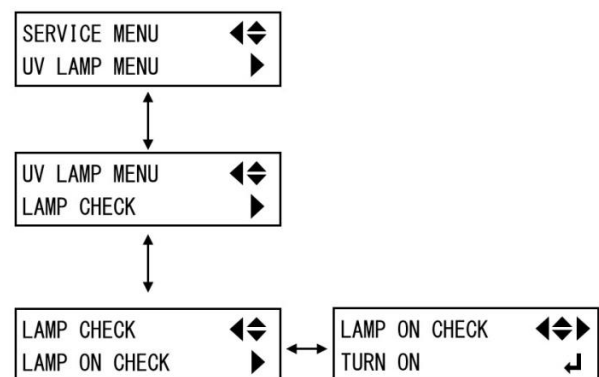
Step 26 / 28

Detail6: Press the aircraft panel [Shift]> [□]+[□]+[□]+[Sub Power] to enter the service mode. By turning on the [Shift] button, the buttons can be pressed simultaneously.



Step 27 / 28

Select [SERVICE MENU] > [UV LAMP MENU] > [LAMP CHECK] > [LAMP ON CHECK] and press ENTER to confirm that the UV lamp fires.



Step 28 / 28

Adjust the UV lamp height.



**次の手順**

UVランプ高さ調整

**Next Step**

UV lamp height adjustment

## MO-180 Print head alignment

# MO-180 Print head alignment Information

Step 1 / 5

General tool 1

### 一般ツール/General Tool

|                                                           |                                                                                     |
|-----------------------------------------------------------|-------------------------------------------------------------------------------------|
| プラスドライバー No.2<br>No.2 Phillips screwdriver                |  |
| 塩ビ/銀メディアまたはSOL-PET<br>vinyl media/Silver media or SOL-PET |                                                                                     |
| 拡大鏡<br>Magnifying lens                                    |  |
| ライト<br>Flashlight                                         |  |
| 六角レンチ (2.0mm)<br>Hexagonal wrench(2.0mm)                  |  |

Step 2 / 5

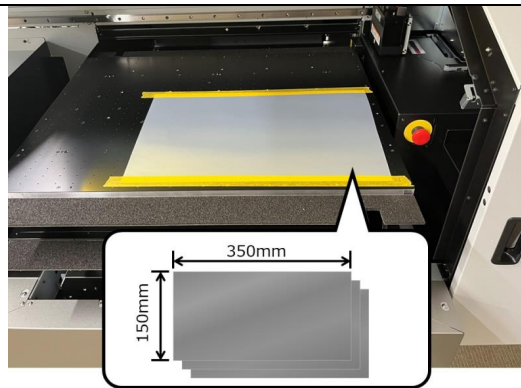
General tool 2

### 一般ツール/General Tool

|               |                                                                                       |
|---------------|---------------------------------------------------------------------------------------|
| メディア<br>Media |  |
|---------------|---------------------------------------------------------------------------------------|

Step 3 / 5

**Detail1:** To reduce the time and effort required for media setup, it is convenient to have multiple sheets of media of about 150 x 350 mm.



Step 4 / 5

## Special jig

### 特殊治具/Special Tools

TORQUE DRIVER,LTD120CN



Step 5 / 5

## Typical work time

### 作業時間/Typical work time

| 作業内容/Contents of work                        | 時間/Time |
|----------------------------------------------|---------|
| BIAS/VERTICAL 調整<br>BIAS/VERTICAL adjustment | 6 min.  |
| M-Gap DEFAULT 調整<br>M-Gap DEFAULT adjustment | 5 min.  |
| HORIZONTAL 調整<br>HORIZONTAL adjustment       | 4 min.  |

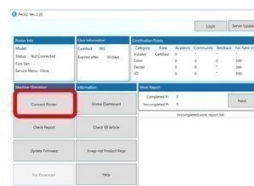


## MO-180 Print head alignment

# MO-180 Print head alignment Procedure

Step 1 / 42

Connect Peck2 to the machine and enter the service mode.



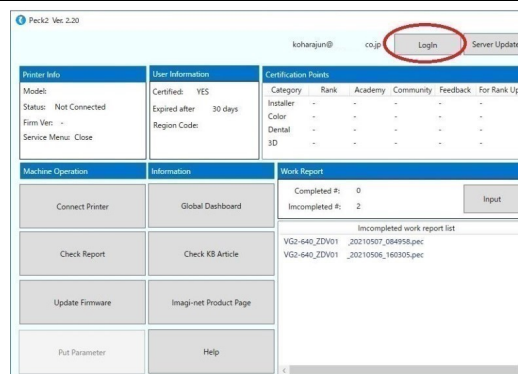
Step 2 / 42

Detail1: Start Peck2.



Step 3 / 42

Detail2: Click the [Login] button.



Thursday, May 22, 2025 9:09 AM

Language: en

Step 4 / 42

Detail3: Login with your Imag-net ID.

Sign in to your account

Microsoft

Select an account

 Jun Koh  
koharajun@  
Window

利用規約

プライバシーとCookie

Step 5 / 42

Detail4: Click the [Connect Printer] button.

Peck2 Ver. 2.20

koharajun@

.co.jp

Login

Server Update

Printer Info

Model:

Status: Not Connected

Firm Ver: -

Service Menu: Close

User Information

Certified: YES

Expired after: 30 days

Region Code:

Certification Points

| Category  | Rank | Academy | Community | Feedback | For Rank Up |
|-----------|------|---------|-----------|----------|-------------|
| Installer | -    | -       | -         | -        | -           |
| Color     | -    | -       | -         | -        | -           |
| Dental    | -    | -       | -         | -        | -           |
| 3D        | -    | -       | -         | -        | -           |

Machine Operation

Connect Printer

Check Report

Update Firmware

Put Parameter

Information

Global Dashboard

Check KB Article

Imagi-net Product Page

Help

Work Report

Completed #: 0

Imcompleted #: 2

Input

Imcompleted work report list

VG2-640\_ZDV01\_20210507\_084958.pec

VG2-640\_ZDV01\_20210506\_160305.pec

Step 6 / 42

Detail5: Enter the IP address of the device you wish to connect to.

Peck2 Ver. 2.20

koharajun@

.co.jp

Login

Server Update

Printer Info

Model:

ConnectPrinter

Select: VG2-640( 11 .129.52)

Input IP Address:

Connect

Close

User Information

Certified: YES

Expired after: 30 days

Certification Points

| Category  | Rank      | Academy | Community | Feedback | For Rank Up |
|-----------|-----------|---------|-----------|----------|-------------|
| Installer | Certified | 0       | *         | *        | *           |
| Color     | 0         | 0       | 0         | 200      |             |
| Dental    | 0         | 0       | *         | 200      |             |
| 3D        | 0         | 0       | *         | 200      |             |

Machine Operation

Global Dashboard

Check Report

Check KB Article

Update Firmware

Imagi-net Product Page

Put Parameter

Help

Work Report

Completed #: 0

Imcompleted #: 2

Input

Imcompleted work report list

VG2-640\_ZDV01\_20210507\_084958.pec

VG2-640\_ZDV01\_20210506\_160305.pec

Step 7 / 42

Detail6: If you are able to connect to a printer, printer information will be displayed in [Printer Info].

Peck2 Ver. 2.20

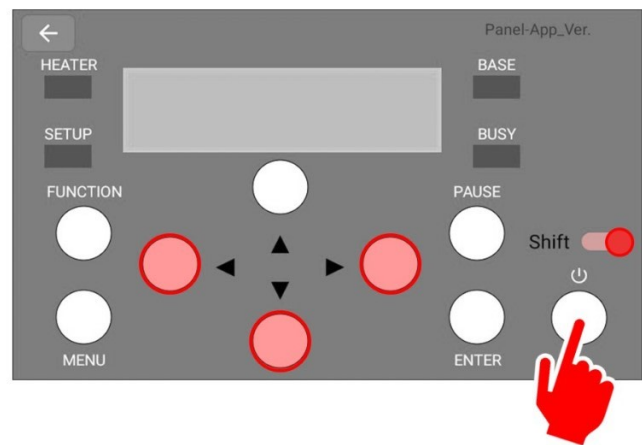
koharjun@ .co.jp Login Server Update

| 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 |             |  |
| 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 |   |             |  |

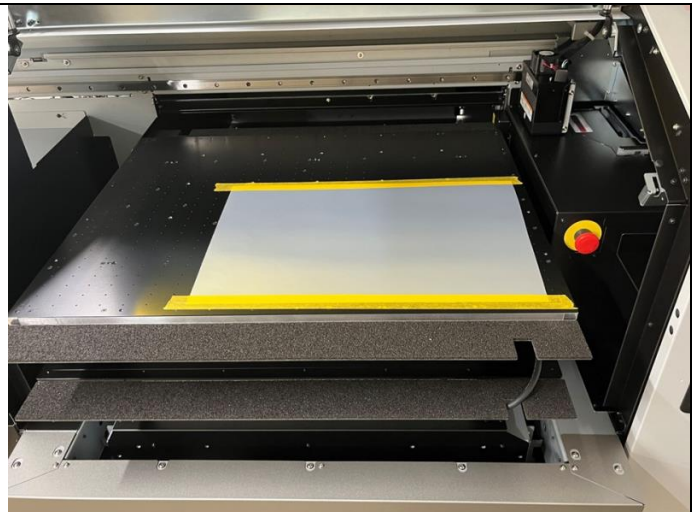
Step 8 / 42

Detail7: 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.



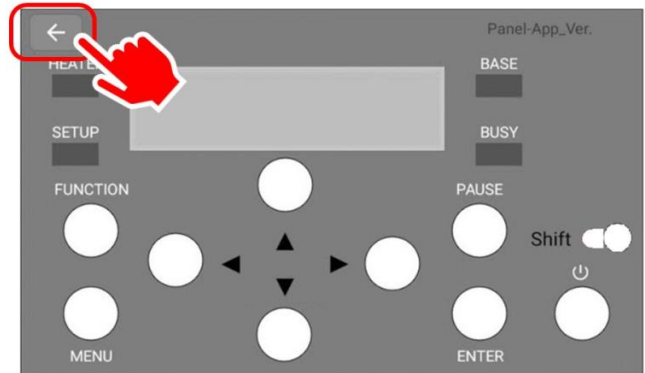
Step 9 / 42

Set up the media. Since test prints are printed from the origin position, it is recommended to replace the media for each test print in subsequent operations.



Step 10 / 42

Detail1: Press [←] and set up the media in the user menu.



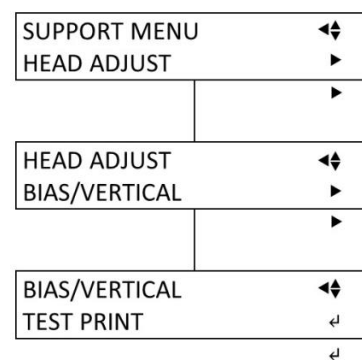
Step 11 / 42

Use a magnifying lens or flashlight when checking the test pattern.



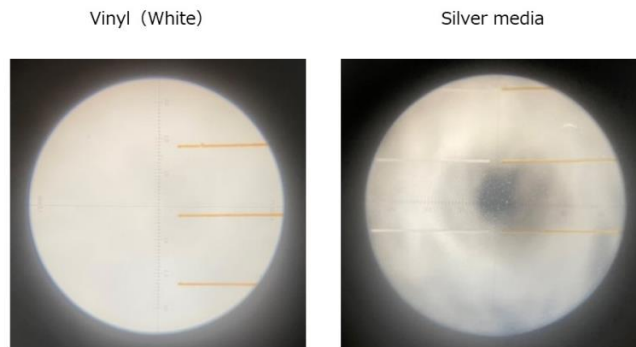
Step 12 / 42

Print the BIAS/VERTICAL test pattern from within the service menu.



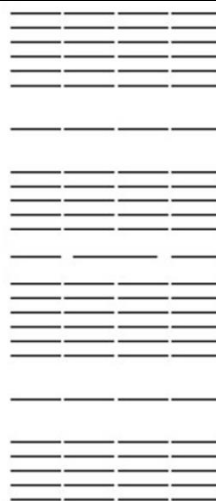
Step 13 / 42

**Detail1:** The BIAS/VERTICAL test pattern is most easily seen on silver media. Depending on the ink type, the test pattern may be difficult to see.



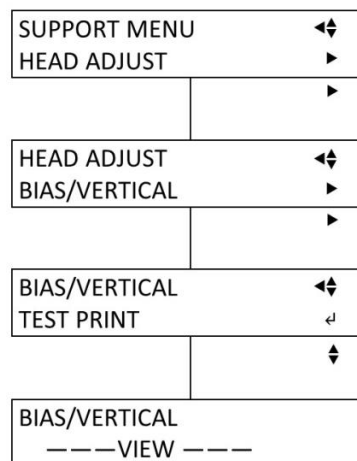
Step 14 / 42

Once the pattern is printed, use a magnifying lens or flashlight to check the pattern.



Step 15 / 42

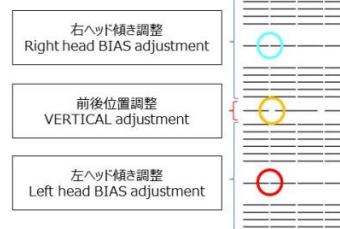
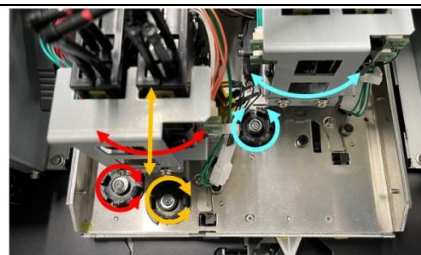
**Detail1:** Pressing either the up or down button from the test pattern output menu will put the printer in VIEW mode and the media will be fed.





Step 16 / 42

Detail2: There are three areas that need to be checked when making adjustments. Check the line on the left side of each pattern, and use the line on the right side as a guide. The allowable misalignment is within 0.5 dots.



Step 17 / 42

After confirming that the amount of misalignment is within 0.5 dots, perform the M-GAP DEFAULT adjustment. If the misalignment is not within 0.5 dots, continue with the adjustment.



仕様外の場合は調整を行ってください。

If you get the out of range,  
please adjustment.



次の手順

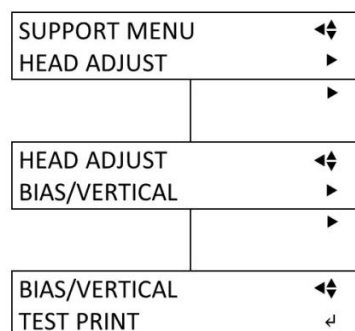
M-GAP DEFAULT調整

**Next Step**

M-GAP DEFAULT ADJUSTMENT

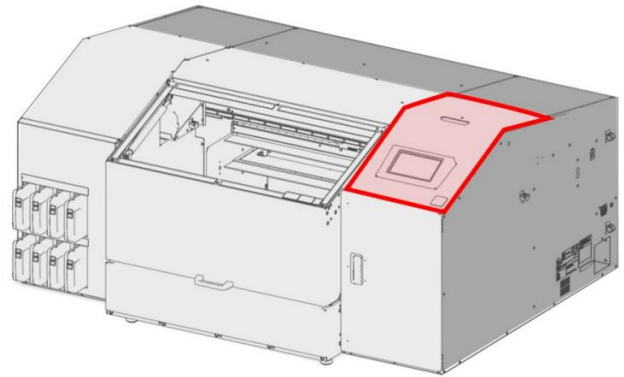
Step 18 / 42

This adjustment can be made while the test pattern output menu is displayed.



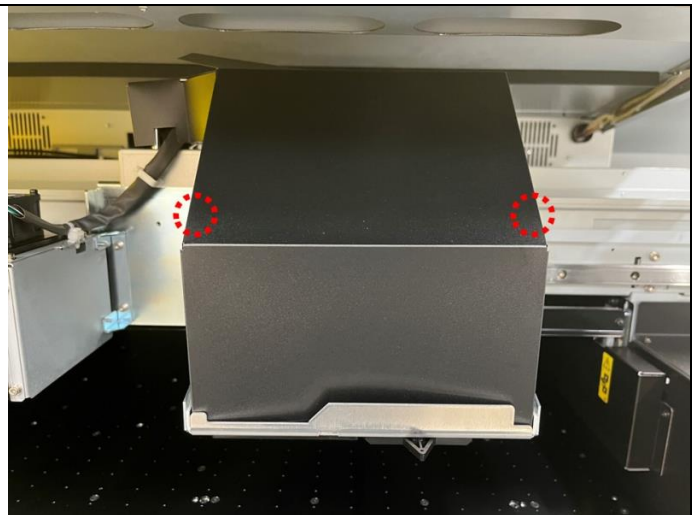
Step 19 / 42

Remove the cover on the top of the print head.



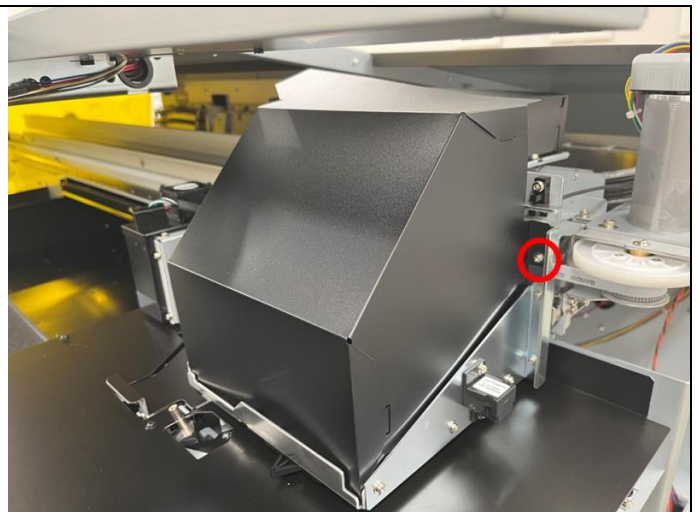
Step 20 / 42

Remove the two screws and remove the carriage cover.



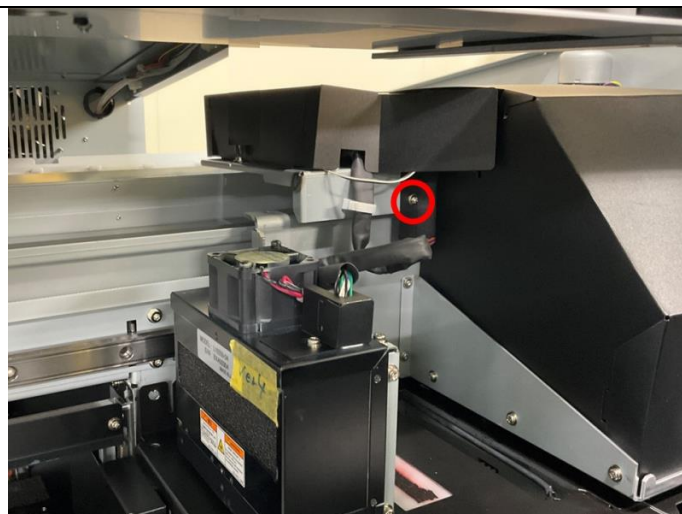
Step 21 / 42

Detail1: Right side



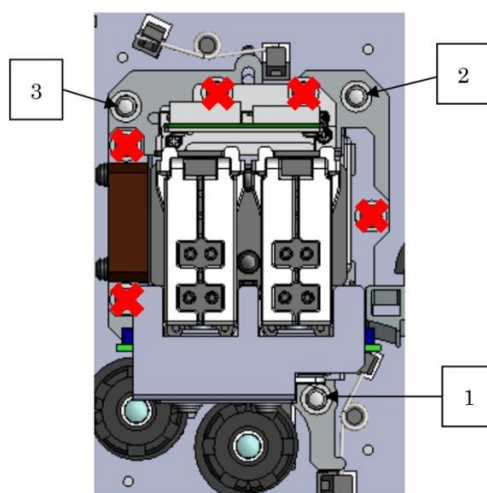
Step 22 / 42

2: Left side



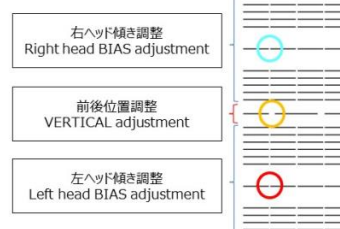
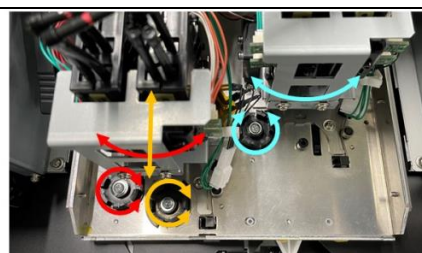
Step 23 / 42

Loosen the screws on the side of the print head to be adjusted by half a turn in the order marked in the image.



Step 24 / 42

Turn the adjustment gear according to the amount of displacement of the test pattern line.



Step 25 / 42

**Detail1:** The adjustment value for one click differs between BIAS and VERTICAL, so adjust carefully using the values in the image as a guide.

傾き調整/BIAS ADJUSTMENT

24Clicks=1Dot      12Clicks=0.5Dot

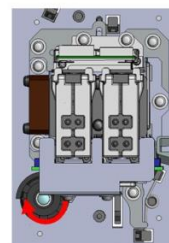
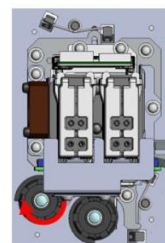
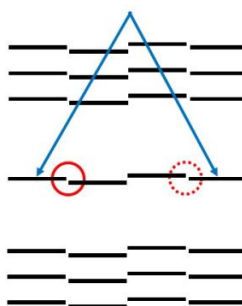
前後位置調整/VERTICAL ADJUSTMENT

6Clicks=1Dot      3Clicks=0.5Dot

Step 26 / 42

**Detail2:** Tilt adjustment dial adjustment direction

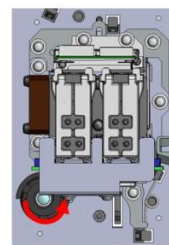
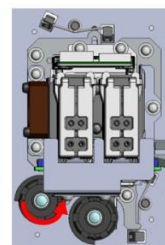
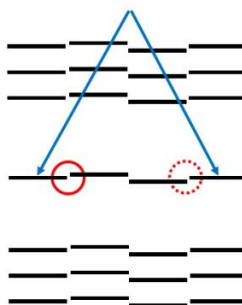
基準線/Reference line



Step 27 / 42

**Detail3:** Tilt adjustment dial adjustment direction

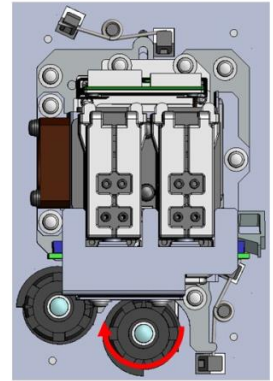
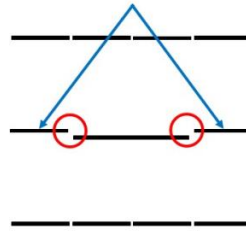
基準線/Reference line



Step 28 / 42

Detail4: Forward/backward adjustment  
dial Adjustment direction

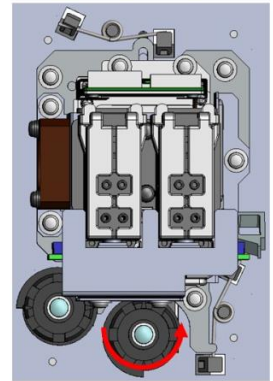
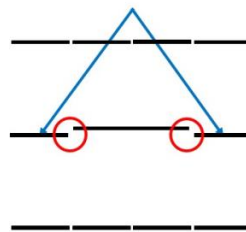
基準線/Reference line



Step 29 / 42

Detail5: Forward/backward adjustment  
dial adjustment direction

基準線/Reference line



Step 30 / 42

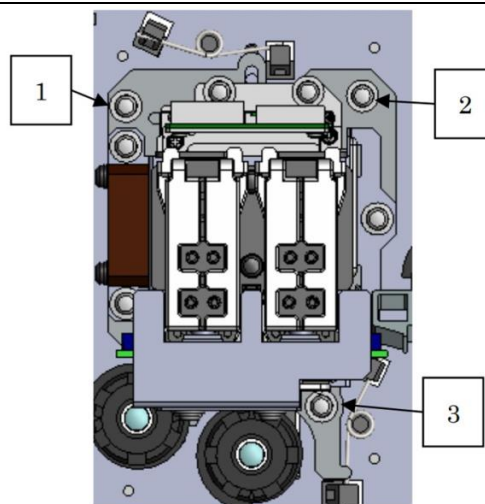
Set the non-idling type torque  
screwdriver to 0.6 N-m.





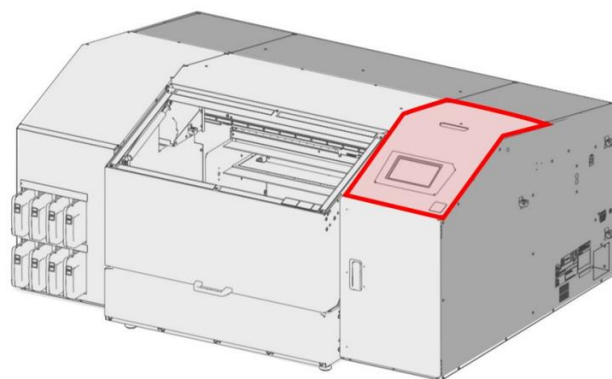
Step 31 / 42

Fasten the screws using the torque screwdriver in the reverse order of the screws loosened before adjustment.



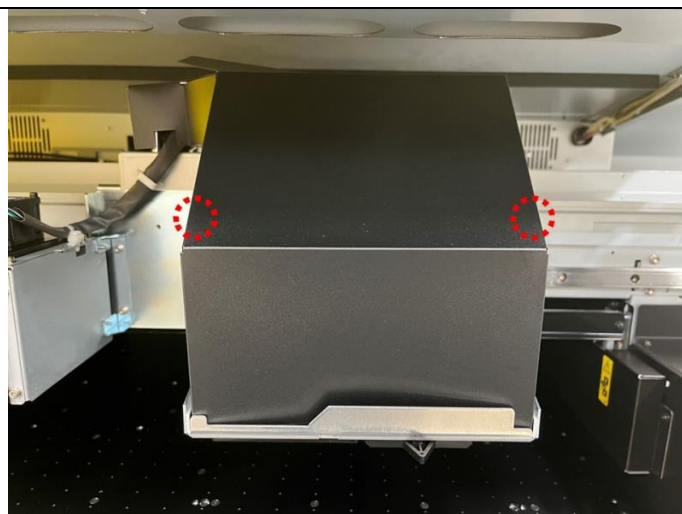
Step 32 / 42

Attach the cover that was removed for shading the UV lamp.



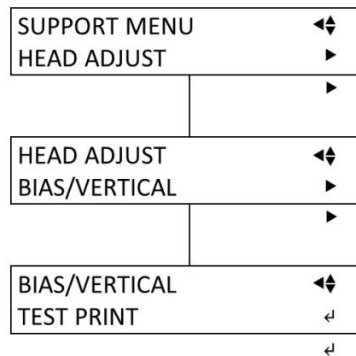
Step 33 / 42

Detail1: Cover to be attached



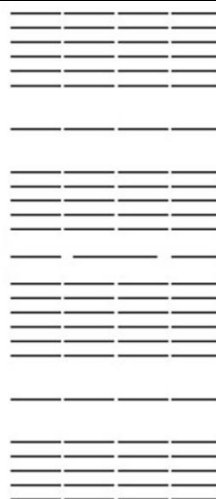
Step 34 / 42

Print the test pattern again.



Step 35 / 42

Check the adjustment pattern and confirm that it is within 0.5 dots.



Step 36 / 42

If it is within 0.5 dots, attach the cover and perform M-GAP DEFAULT adjustment. If it is out of specification, remove the cover and perform the adjustment procedure again.



仕様外の場合は再度調整を行ってください。

If you get the out of range, please adjustment again.



次の手順

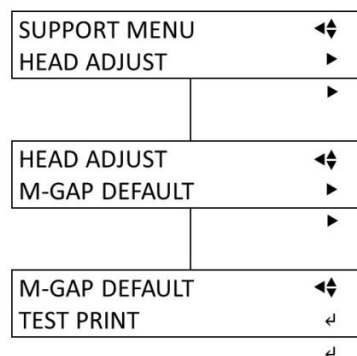
M-GAP DEFAULT調整

Next Step

M-GAP DEFAULT ADJUSTMENT

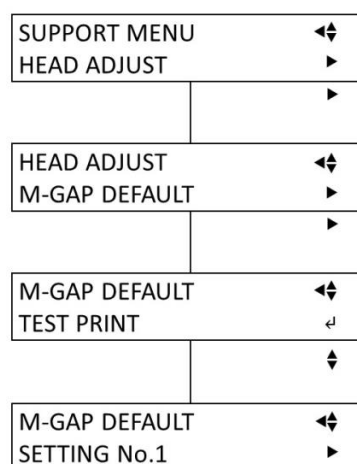
Step 37 / 42

Print a test pattern for M-GAP DEFAULT.



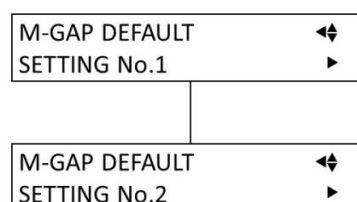
Step 38 / 42

After the test pattern is printed, press [ ] to go to the adjustment value input menu.



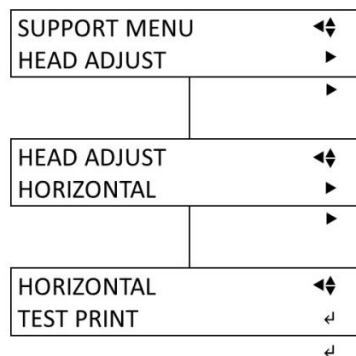
Step 39 / 42

Enter all appropriate adjustment values for both SETTING No.1/2 and press [ ENTER].



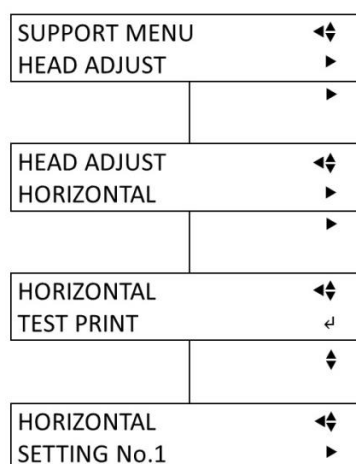
Step 40 / 42

Print the HORIZONTAL test pattern.



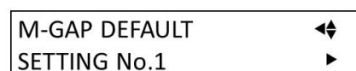
Step 41 / 42

When the test pattern is printed, press [ ] to go to the adjustment value input menu.



Step 42 / 42

Enter the adjustment value confirmed in SETTING No. 1 and press [ENTER].



## MO-180 Cap height adjustment

# MO-180 Cap height adjustment Information

Step 1 / 2

### Necessary Tools

#### 一般ツール/General Tool

|                                                                                     |                                                                                     |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| プラスドライバー No.2<br>(長さ200mm以下)<br>No.2 Phillips screwdriver<br>(Length 200mm or less) |  |
| プラスドライバー No.2 (80mm以下)<br>No.2 Phillips screwdriver<br>(80mm or less)               |  |
| 六角レンチ 3.0mm<br>3.0mm hexagonal wrench                                               |  |
| 六角レンチ 2.0mm<br>2.0mm hexagonal wrench                                               |  |

Step 2 / 2

### Typical work time

#### 作業時間/Typical work time

| 作業内容/Contents of work             | 時間/Time |
|-----------------------------------|---------|
| キャップ高さ調整<br>Cap height adjustment | 20 min. |



## MO-180 Cap height adjustment

# MO-180 Cap height adjustment Procedure

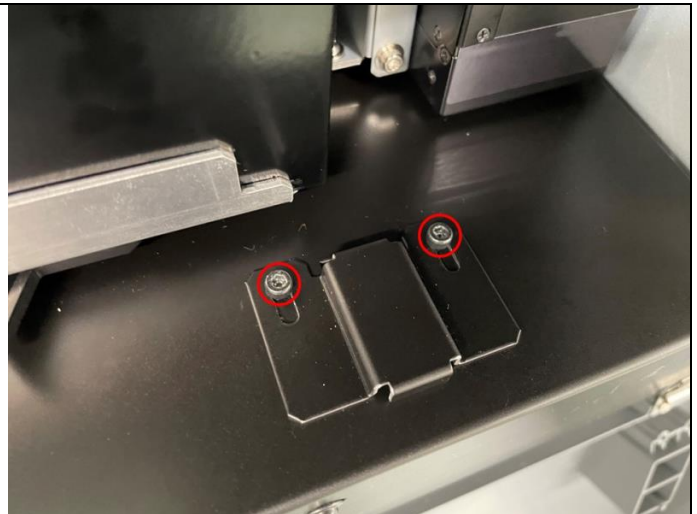
Step 1 / 23

Move the carriage onto the bed and remove the cover.



Step 2 / 23

Detail1: Remove the cap up/down gear cover.



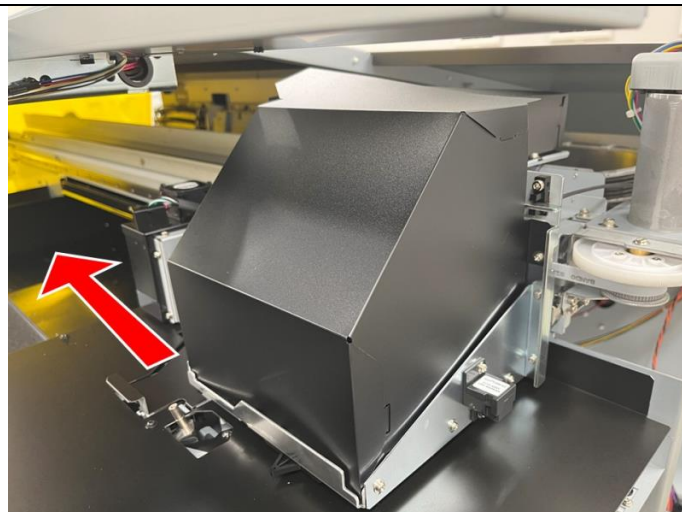
Step 3 / 23

Detail2: Rotate the cap up/down gear backward about 5 times to remove the capping.



Step 4 / 23

Detail3: Move the carriage onto the bed.



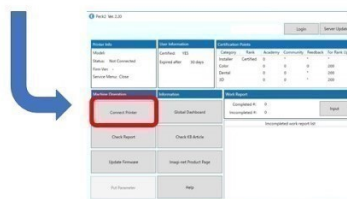
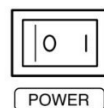
Step 5 / 23

Detail4: Remove the cover.



Step 6 / 23

Turn on the power and enter the service mode with Peck2.



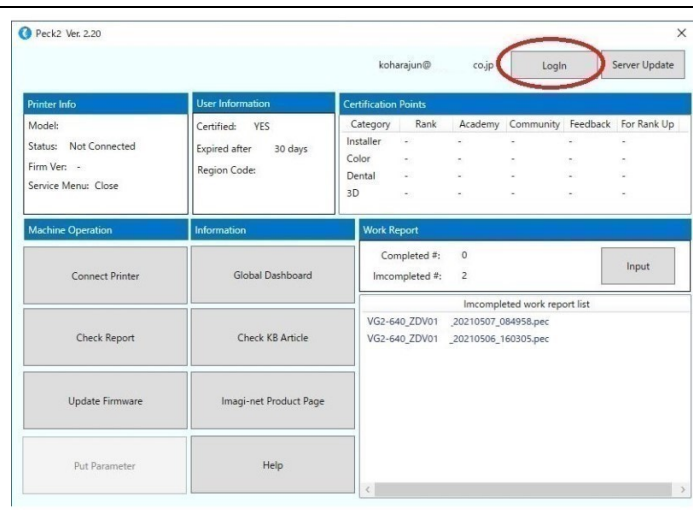
Step 7 / 23

Detail1: Start Peck2.



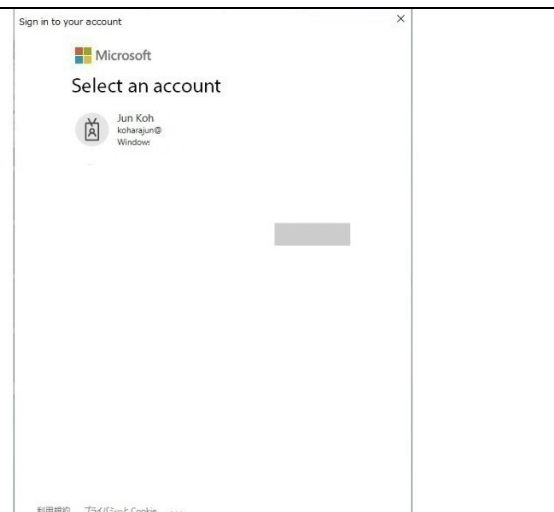
Step 8 / 23

Detail2: Click on the [Login] button.



Step 9 / 23

Detail3: Login with your Imagi-net ID.



Step 10 / 23

Detail4: 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: -           | 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       | Imcompleted #: 2 |
| Update Firmware   | Imagi-net Product Page | Input            |
| Put Parameter     | Help                   |                  |

Imcompleted work report list

VG2-640\_ZDV01 \_20210507\_084958.pec

VG2-640\_ZDV01 \_20210506\_160305.pec

Step 11 / 23

Detail5: Enter the IP address of the printer you wish to connect to.

Peck2 Ver. 2.20

koharjun@ .co.jp Login Server Update

ConnectPrinter

Select: VG2-640( 11 .129.52)

Input IP Address:

Connect Close

| 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: -           | 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       | Imcompleted #: 2 |
| Update Firmware   | Imagi-net Product Page | Input            |
| Put Parameter     | Help                   |                  |

Imcompleted work report list

VG2-640\_ZDV01 \_20210507\_084958.pec

VG2-640\_ZDV01 \_20210506\_160305.pec

Step 12 / 23

Detail6: 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       | Imcompleted #: 2 |
| Update Firmware   | Imagi-net Product Page | Input            |
| Put Parameter     | Help                   |                  |

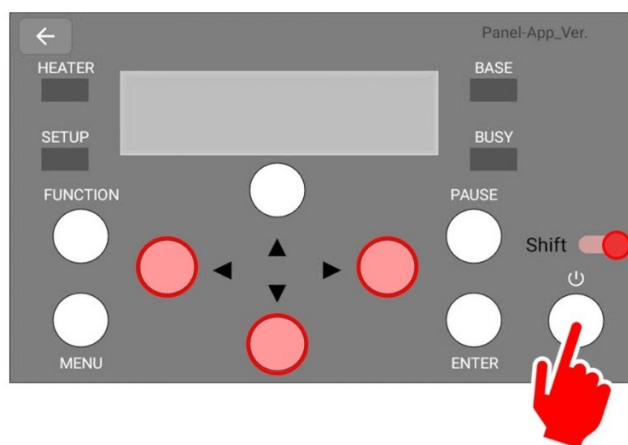
Imcompleted work report list

VG2-640\_ZDV01 \_20210507\_084958.pec

VG2-640\_ZDV01 \_20210506\_160305.pec

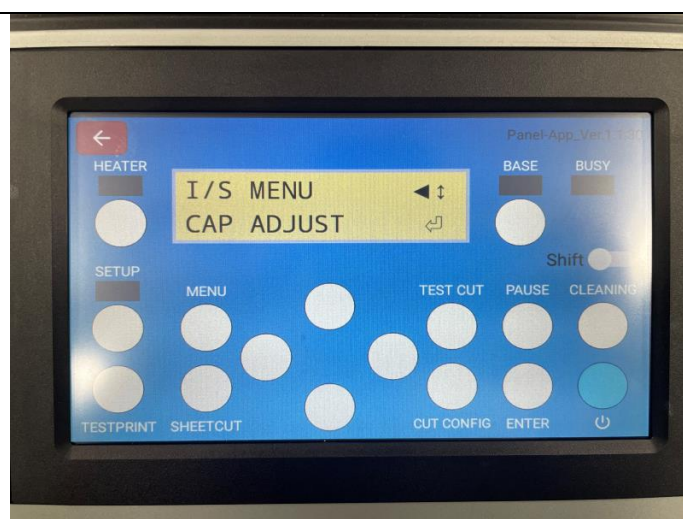
Step 13 / 23

Detail7: Press [Shift]> [□]+[□]+[□]+[Sub Power] on the panel to enter the service mode. By turning on the [Shift] button, the buttons can be pressed simultaneously.



Step 14 / 23

Select [SERVICE MENU] > [I/S MENU] > [CAP ADJUST].



Step 15 / 23

Detail1: Press [ENTER] to lower the print head cap to the cap height adjustment start position and the panel display will change.





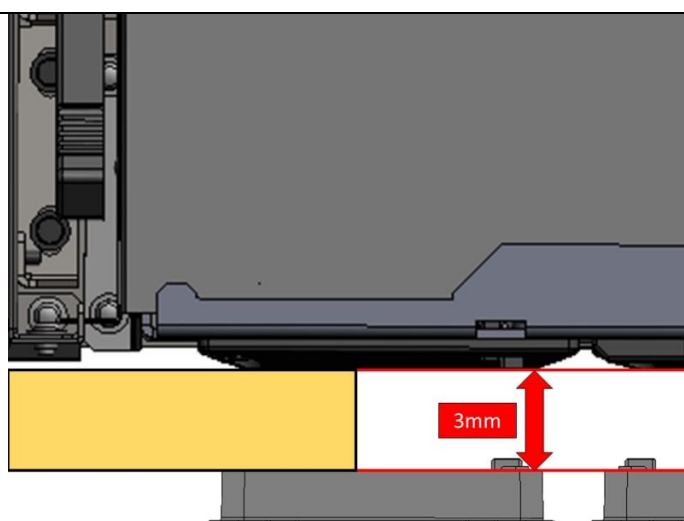
Step 16 / 23

Prepare a jig with a thickness of 3 mm.



Step 17 / 23

Press the [ ] key to raise the print head cap, insert the 3 mm jig and press [ENTER] when the jig is pinched. \*To avoid backlash, press the [ ] key to lower the print head cap to the adjustment start position.



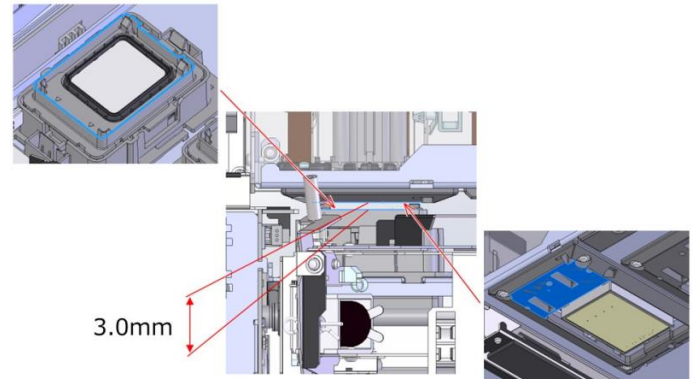
Step 18 / 23

Detail1: Pressing the [MENU] key in the [CAP ADJUST] menu allows you to return to the [CAP ADJUST] menu without saving the set value.



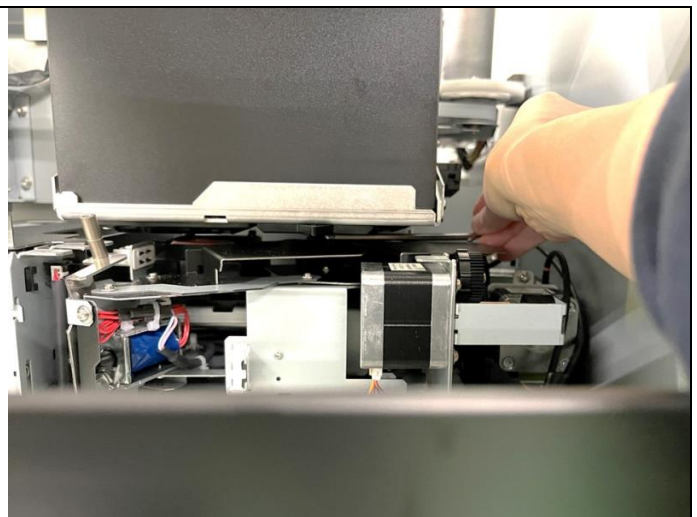
Step 19 / 23

## Detail2: Adjustment position



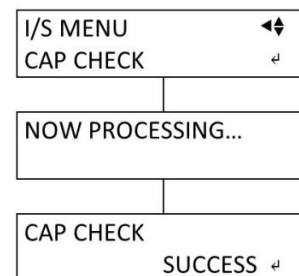
Step 20 / 23

Detail3: Work while checking the position from the front of the print head.



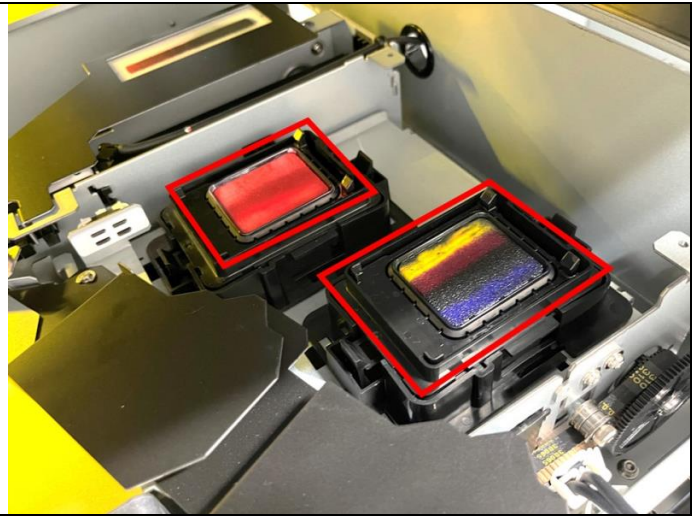
Step 21 / 23

After cap height adjustment is completed, perform [CAP CHECK]. If the adjustment fails, check the details until [SUCCESS] is displayed.



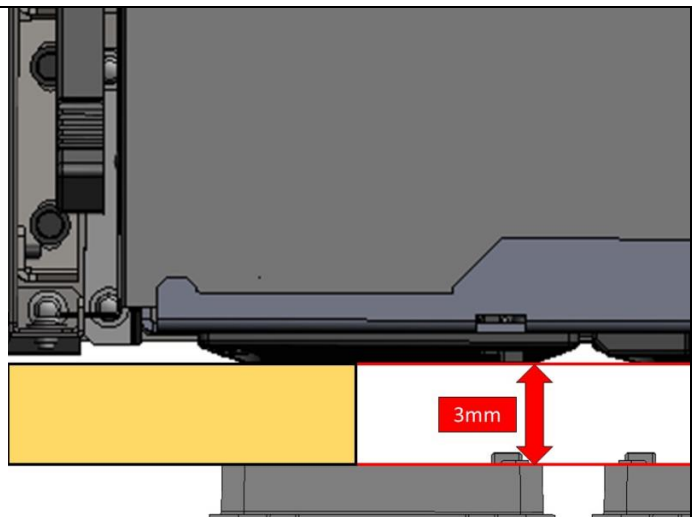
Step 22 / 23

Detail1: 1. Reinstall the print head cap



Step 23 / 23

Detail2: 2. Perform cap height adjustment



## MO-180 Firmware Installation

# MO-180 Firmware Installation Information

Step 1 / 2

Necessary tools

### 一般ツール/General Tool

|            |  |
|------------|--|
| 無し<br>None |  |
|------------|--|

### 特殊治具/Special Tools

|            |  |
|------------|--|
| 無し<br>None |  |
|------------|--|

Step 2 / 2

Typical work time. If the system parameters obtained by Peck2 at the time of mainboard replacement are not available, extra adjustment works will be necessary, so the working 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<br>Firmware file installation | 15 min. |

## MO-180 Firmware Installation

# MO-180 Firmware Installation Procedure

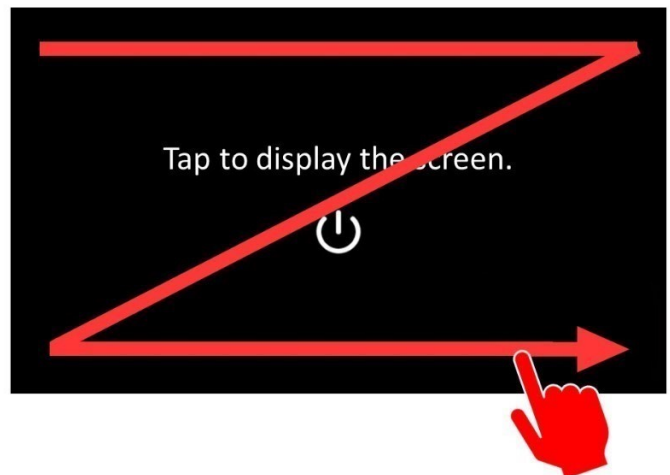
Step 1 / 35

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



Step 2 / 35

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



Step 3 / 35

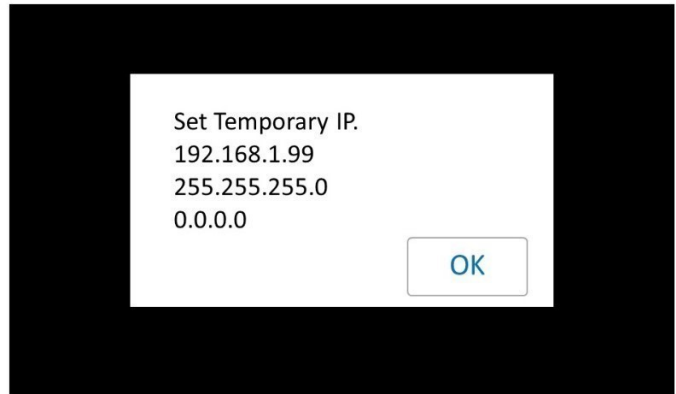
**Detail2:** Enter "3764892655" in the special number input screen and press [OK].





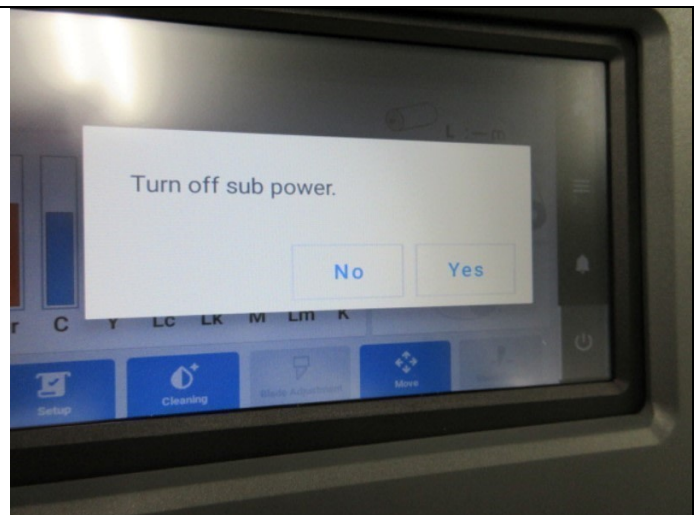
Step 4 / 35

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



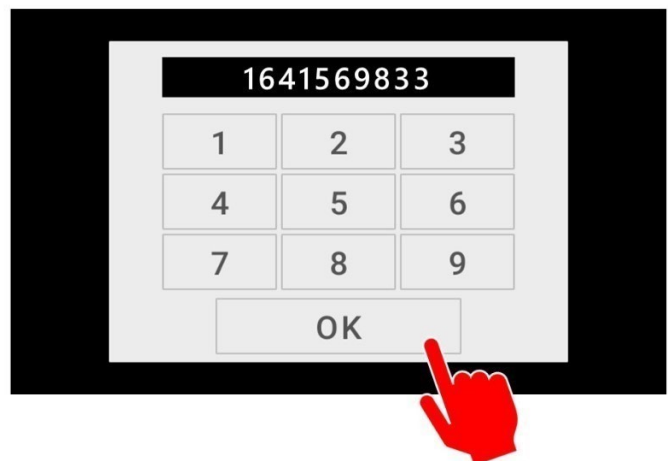
Step 5 / 35

Detail1: Temporary IP address mode is released by turning off the main power supply or rebooting the machine. (turning the sub power supply from ON to OFF).



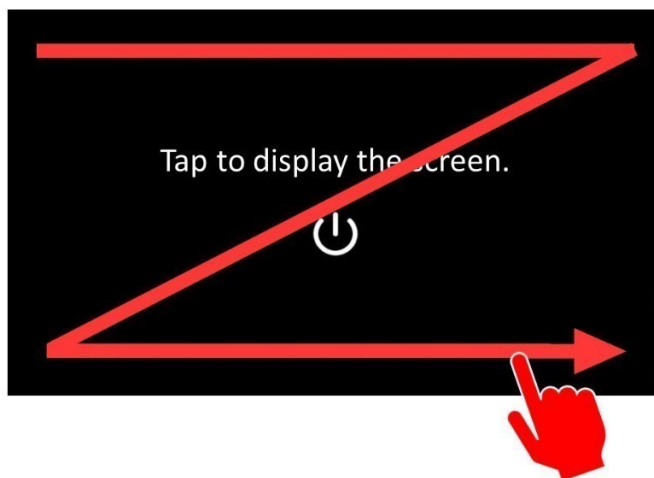
Step 6 / 35

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



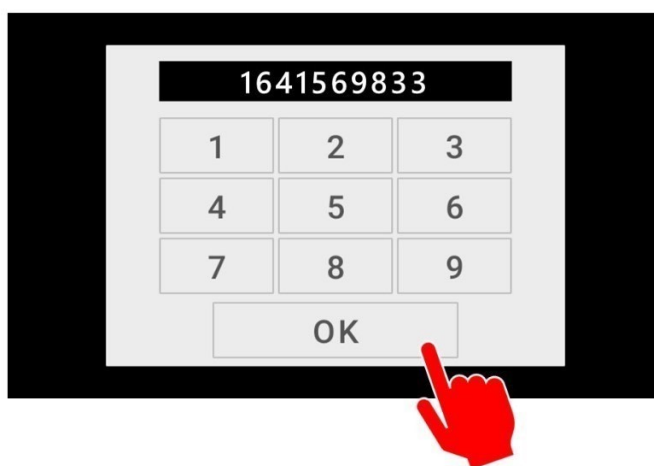
Step 7 / 35

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



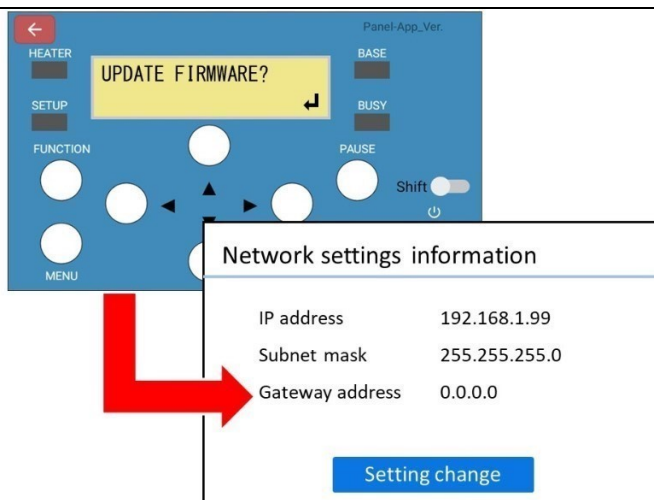
Step 8 / 35

Detail2: Enter "1641569833" at the special number input screen and press [OK].



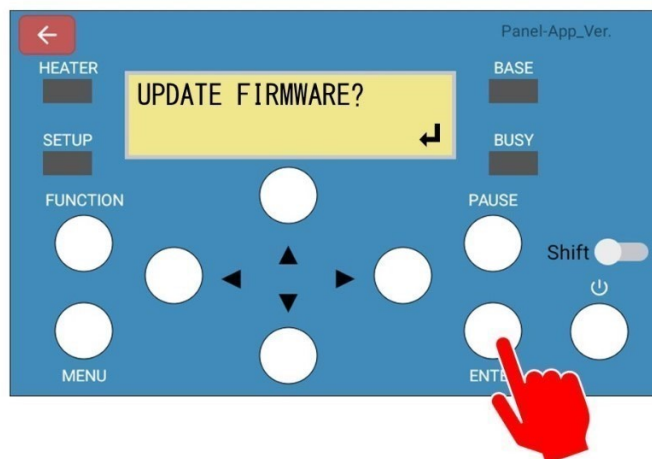
Step 9 / 35

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. Keep the machine in its current state and proceed to the next step.

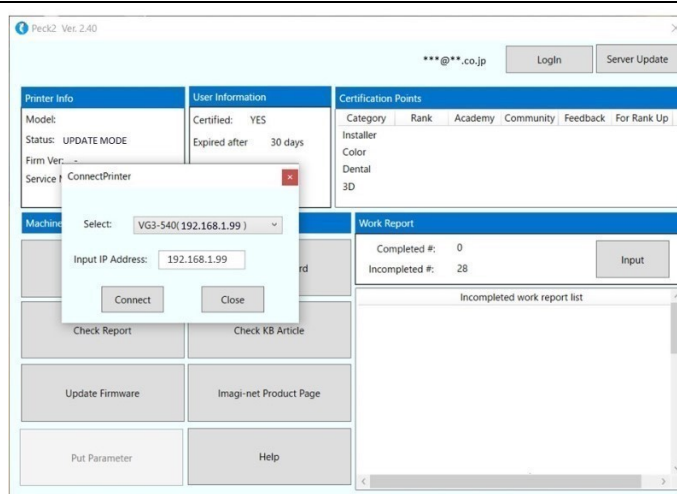
### Network settings information

|                 |               |
|-----------------|---------------|
| IP address      | 192.168.1.99  |
| Subnet mask     | 255.255.255.0 |
| Gateway address | 0.0.0.0       |

Setting change

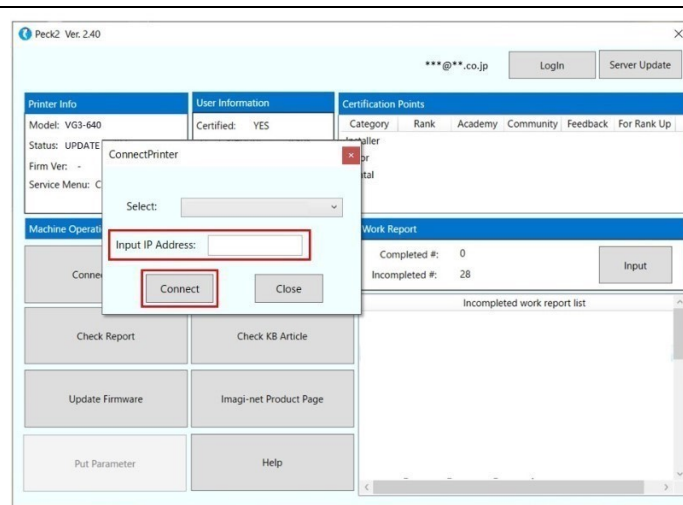
Step 12 / 35

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



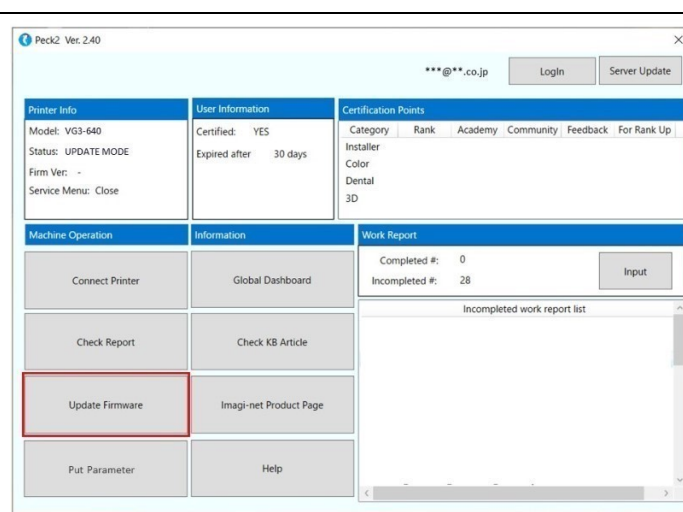
Step 13 / 35

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



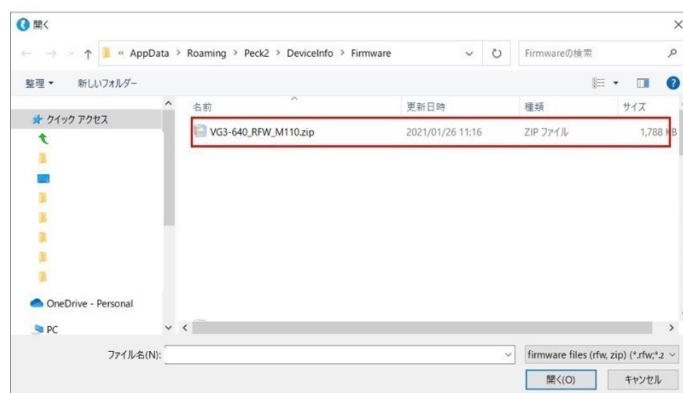
Step 14 / 35

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 about 5 minutes for the installation to complete.

### Software Update

Firmware version 1.10  
Application version 1.1.8



Now processing.  
Do not turn off the power.

Progress... 1/2 (6%)

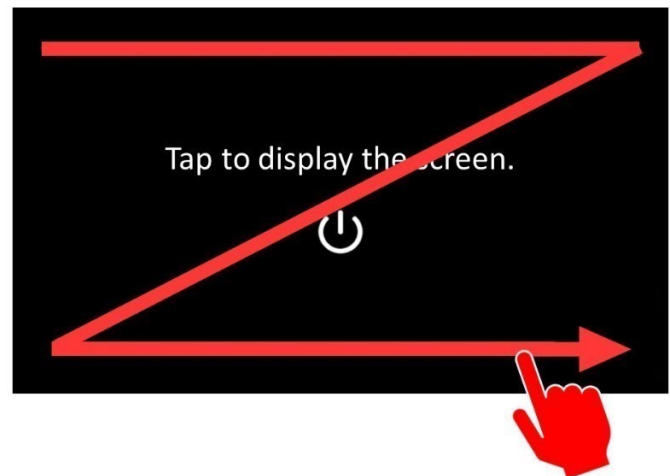
Step 17 / 35

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



Step 18 / 35

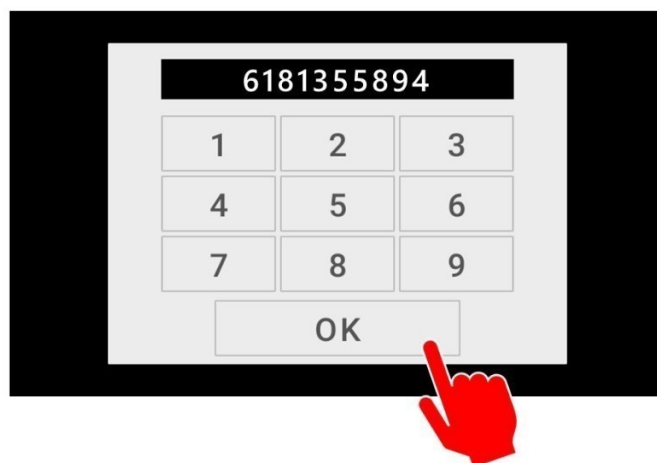
Detail1: Without releasing your hand, trace the screen in the order of upper left, upper right, lower left, and lower right.





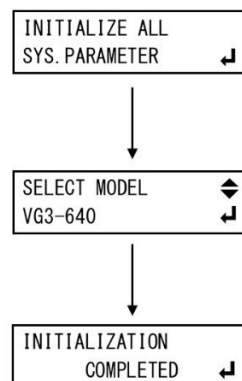
Step 19 / 35

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



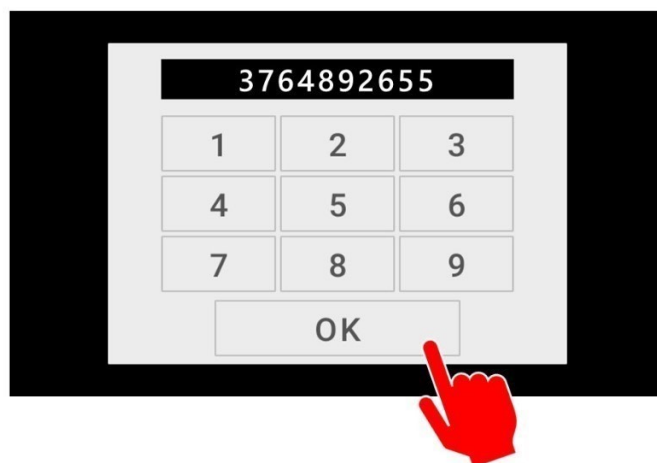
Step 20 / 35

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



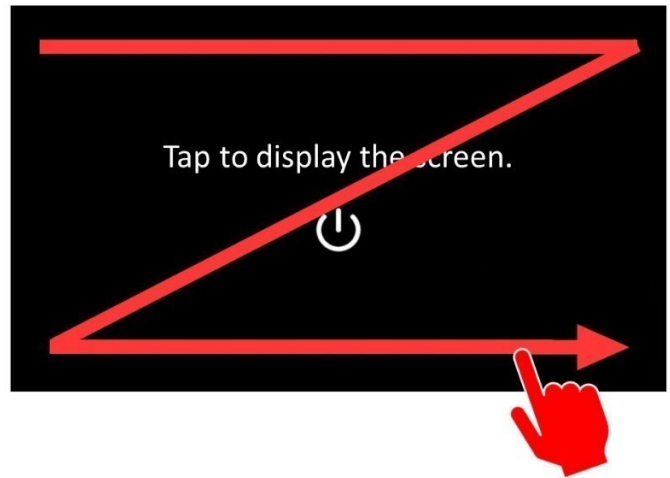
Step 21 / 35

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



Step 22 / 35

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



Step 23 / 35

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



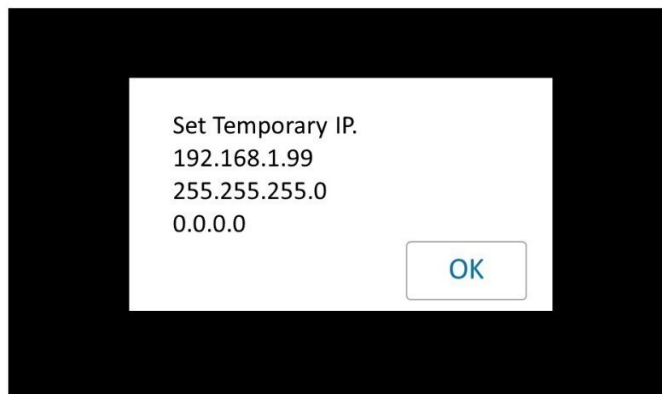
Step 24 / 35

**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 cause a buzzer sound and the network settings will be temporarily set to the 192.168.1.99/255.255.255.0/0.0.0.0.



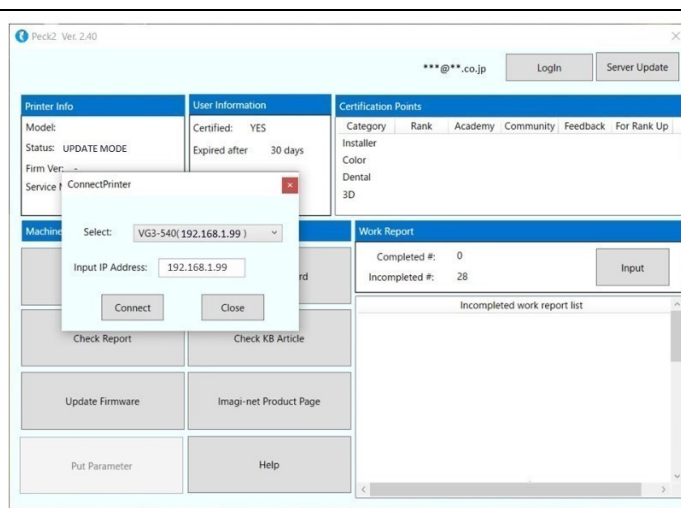
Step 26 / 35

Detail1: Temporary IP mode will be released by turning off the main power supply or by rebooting the machine (turning the sub power supply from ON to OFF).



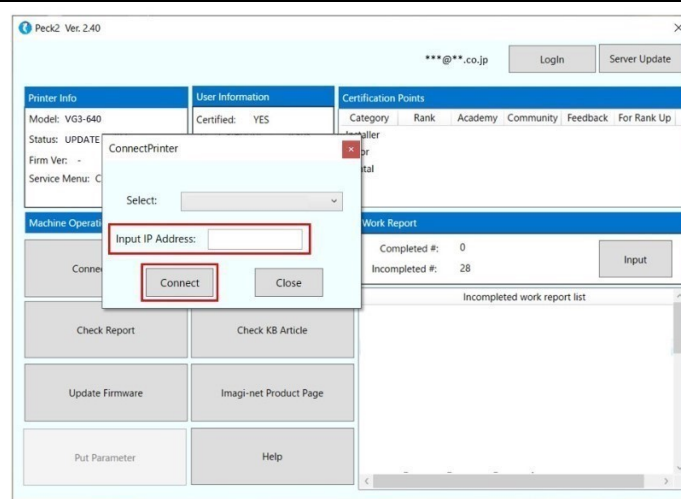
Step 27 / 35

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



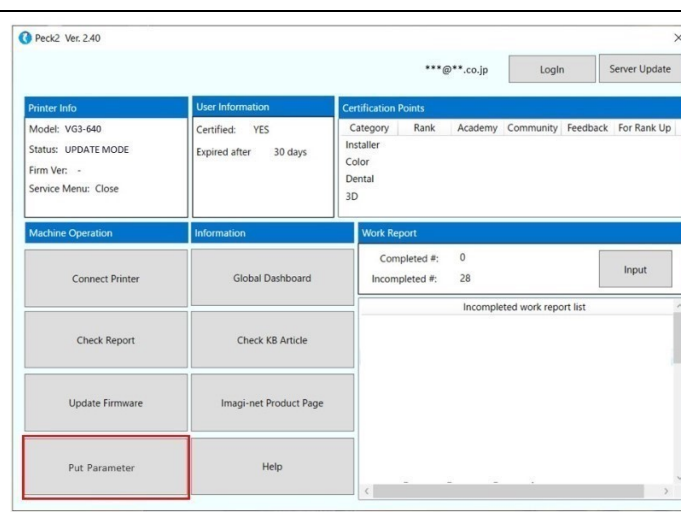
Step 28 / 35

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



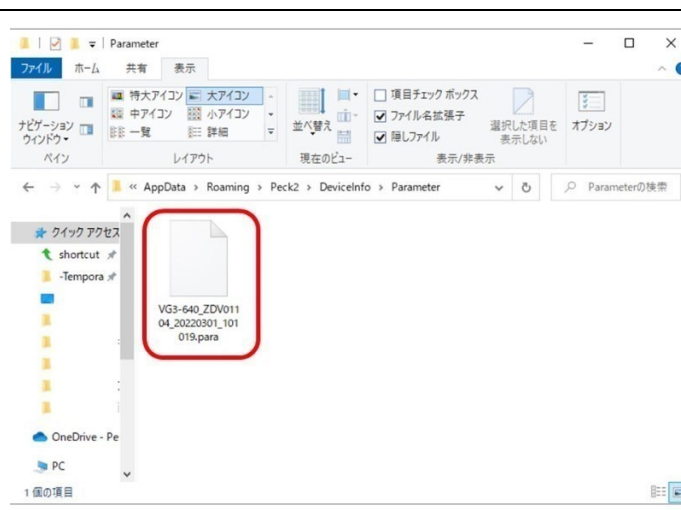
Step 29 / 35

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



Step 30 / 35

Detail1: Select the system parameter file that you obtained before replacing the main board, etc.



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. At the top, there's a header with 'Peck2 Ver. 2.40' and a user login field. Below this, there are three main sections: 'Printer Info', 'User Information', and 'Certification Points'. The 'Printer Info' section shows 'Model: VG3-640', 'Status: UPDATE MODE', 'Firm Ver: -', and 'Service Menu: Close'. The 'User Information' section shows 'Certified: YES' and 'Expired after: 30 days'. The 'Certification Points' section has tabs for 'Category', 'Rank', 'Academy', 'Community', 'Feedback', and 'For Rank Up'. Below these, there are 'Machine Operation' and 'Information' buttons. The 'Machine Operation' section has buttons for 'Connect Printer', 'Check Report' (highlighted with a red border), 'Update Firmware', and 'Put Parameter'. The 'Information' section has buttons for 'Global Dashboard', 'Check KB Article', 'Imagi-net Product Page', and 'Help'. On the right, there's a 'Work Report' section showing 'Completed #: 0' and 'Incompleted #: 28', with an 'Input' button. Below this is a list for 'Incompleted work report list'.

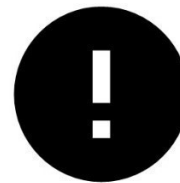
Step 32 / 35

Detail1: Confirm that the parameters have been written correctly.

The screenshot shows the Peck2 software interface. At the top, there's a header with 'Peck2 Ver. 2.40' and a user login field. Below this, there are three main sections: 'Printer Info', 'User Information', and 'Certification Points'. The 'Printer Info' section shows 'Model: VG3-640', 'Status: UPDATE MODE', 'Firm Ver: -', and 'Service Menu: Close'. The 'User Information' section shows 'Certified: YES' and 'Expired after: 30 days'. The 'Certification Points' section has tabs for 'Category', 'Rank', 'Academy', 'Community', 'Feedback', and 'For Rank Up'. Below these, there are 'Machine Operation' and 'Information' buttons. The 'Machine Operation' section has buttons for 'Connect Printer', 'Check Report' (highlighted with a red border), 'Update Firmware', and 'Put Parameter'. The 'Information' section has buttons for 'Global Dashboard', 'Check KB Article', 'Imagi-net Product Page', and 'Help'. On the right, there's a 'Work Report' section showing 'Completed #: 0' and 'Incompleted #: 28', with an 'Input' button. Below this is a list for 'Incompleted work report list'.

Step 33 / 35

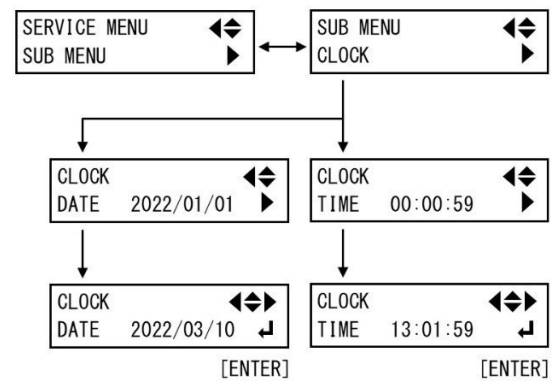
The configured network settings will be rewritten to the addresses stored in the system parameters when [Put Parameter] is executed. If necessary, re-configure the settings.





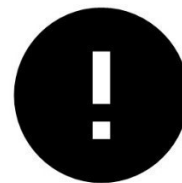
Step 34 / 35

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



Step 35 / 35

If you are unable to transfer the parameters in Peck2, refer to "When parameters cannot be transferred by Peck2" in the Main Board Replacement procedure.



## MO-180 Firmware Upgrade

# MO-180 Firmware Upgrade Information

Step 1 / 2

Necessary tools

### 一般ツール/General Tool

|            |  |
|------------|--|
| 無し<br>None |  |
|------------|--|

### 特殊治具/Special Tools

|            |  |
|------------|--|
| 無し<br>None |  |
|------------|--|

Step 2 / 2

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<br>Firmware Upgrade | 10 min. |

## MO-180 Firmware Upgrade

# MO-180 Firmware Upgrade Procedure

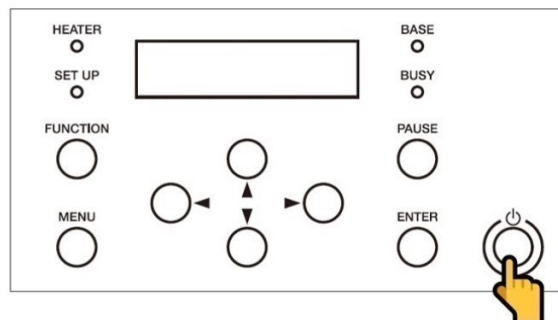
Step 1 / 13

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



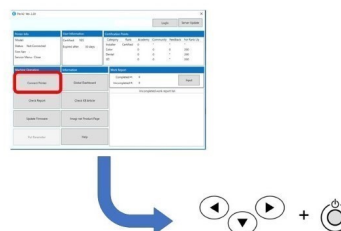
Step 2 / 13

Turn off the sub power.



Step 3 / 13

Connect Peck2 to the machine and enter Service Mode.



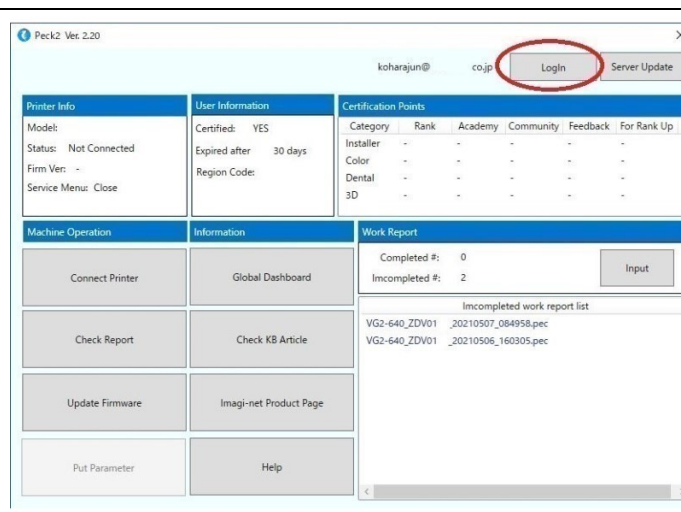
Step 4 / 13

Detail1: Start Peck2.



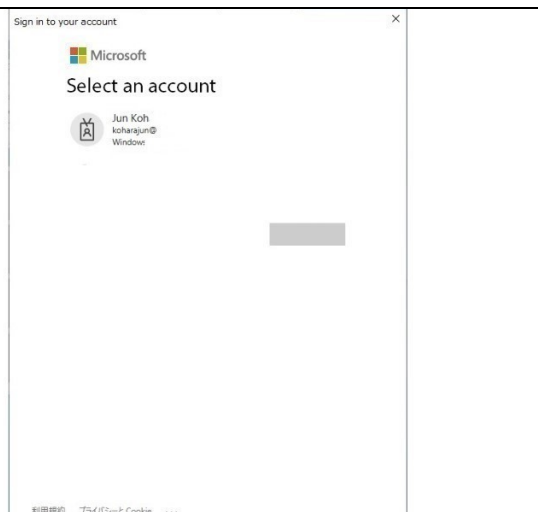
Step 5 / 13

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: 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: -           | 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       | Incompleted #: 2 |
| Update Firmware   | Imagi-net Product Page | Input            |
| Put Parameter     | Help                   |                  |

Incompleted work report list

VG2-640\_ZDV01 \_20210507\_084958.pec

VG2-640\_ZDV01 \_20210506\_160305.pec

Step 8 / 13

Detail5: Enter the IP address of the machine you wish 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: -           | 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       | Incompleted #: 2 |
| Update Firmware   | Imagi-net Product Page | Input            |
| Put Parameter     | Help                   |                  |

Incompleted work report list

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       | 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       | Incompleted #: 2 |
| Update Firmware   | Imagi-net Product Page | Input            |
| Put Parameter     | Help                   |                  |

Incompleted work report list

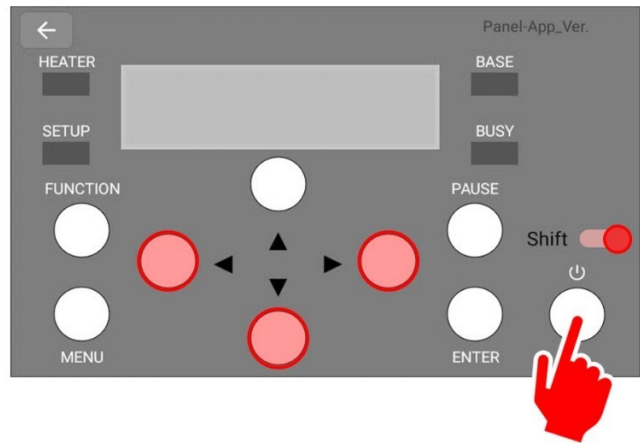
VG2-640\_ZDV01 \_20210507\_084958.pec

VG2-640\_ZDV01 \_20210506\_160305.pec



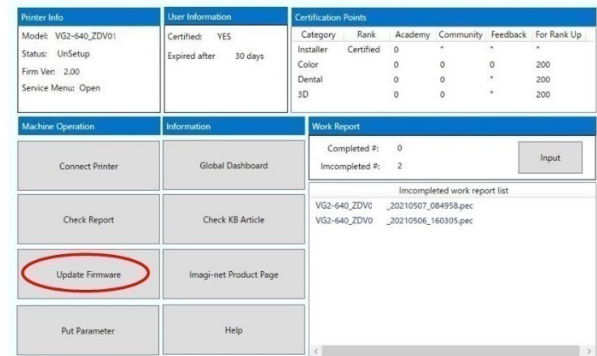
Step 10 / 13

**Detail7:** Press [Shift]> [□]+[□]+[□]+[Sub Power] on the panel to enter Service Mode. By turning on the [Shift] button multiple buttons can be pressed at the same time.



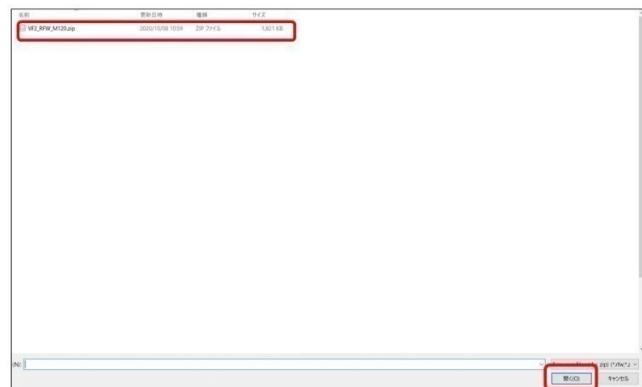
Step 11 / 13

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%)



## MO-180 Limit position initialization

# MO-180 Limit position initialization

## Information

Step 1 / 2

Necessary Tools

一般ツール/General Tool

|            |  |
|------------|--|
| 無し<br>None |  |
|------------|--|

特殊治具/Special Tools

|            |  |
|------------|--|
| 無し<br>None |  |
|------------|--|

Step 2 / 2

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<br>Limit position initialization | 15 min. |

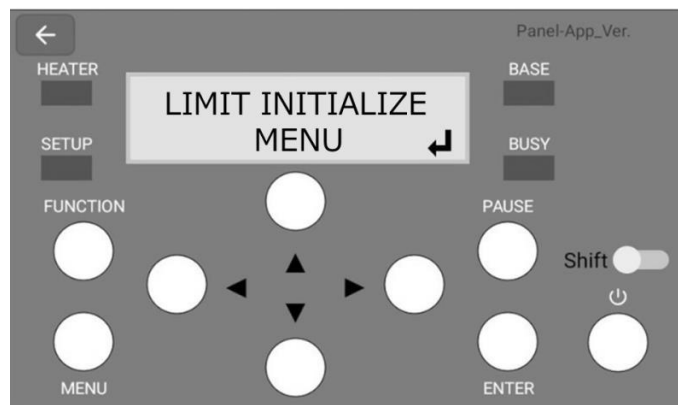
## MO-180 Limit position initialization

# MO-180 Limit position initialization

## Procedure

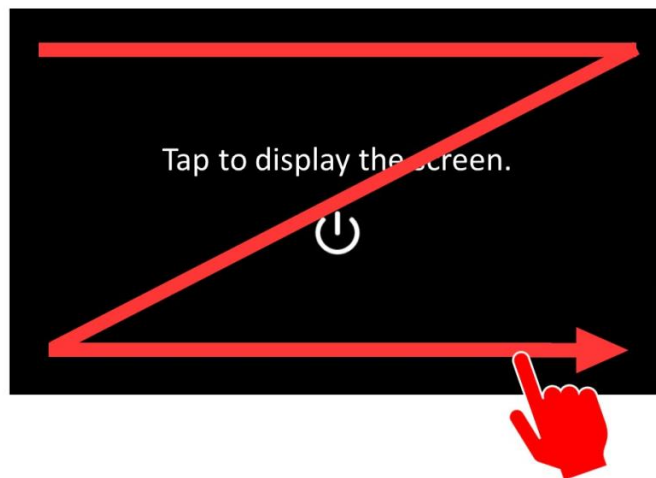
Step 1 / 5

Enter limit position initialization mode.



Step 2 / 5

Detail1: Enter the special number input display.



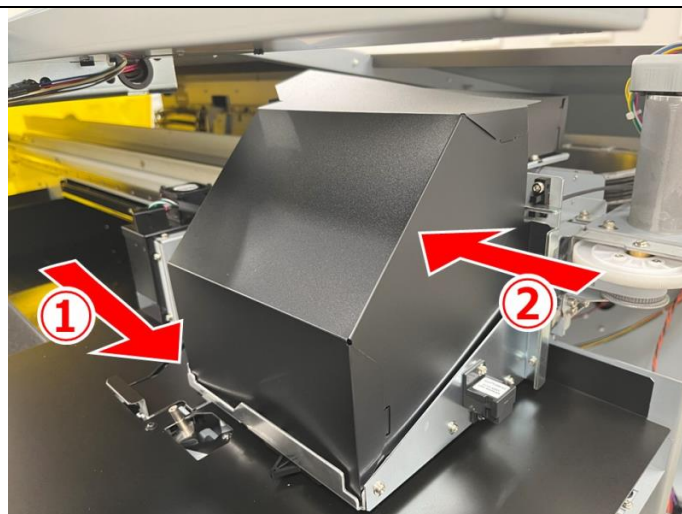
Step 3 / 5

Detail2: Enter "2939659949" to enter the limit position initialization mode.



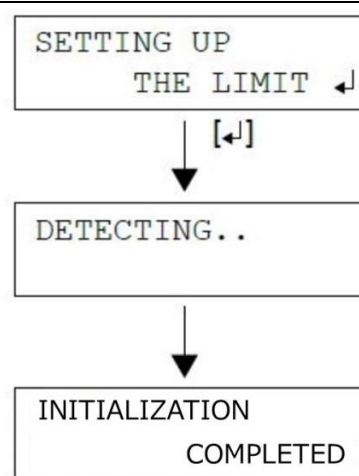
Step 4 / 5

Lock the print carriage. After locking the carriage, press the carriage against the left side to confirm the lock and at the same time to eliminate looseness.



Step 5 / 5

Confirm that it is capped in the correct position and press [ENTER]. Limit position initialization starts. After initialization is completed, a message is displayed.





## MO-180 Belt tension adjustment

# MO-180 Belt tension adjustment Information

Step 1 / 5

Tools required for replacement

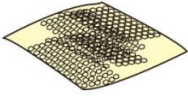
### 一般ツール/General Tool

|                                            |                                                                                     |
|--------------------------------------------|-------------------------------------------------------------------------------------|
| プラスドライバー No.2<br>No.2 Phillips screwdriver |  |
| 六角レンチ3.0mm<br>3.0 mm hexagonal wrench      |  |
| 六角レンチ2.5mm<br>2.5 mm hexagonal wrench      |  |
| スケール (定規)<br>Ruler                         |  |

Step 2 / 5

Special jig

### 特殊治具/Special Tools

|                                                 |                                                                                       |
|-------------------------------------------------|---------------------------------------------------------------------------------------|
| ST-001<br>TENSION GAUGE 2000GF/2000CN           |  |
| 1000005829<br>TOOL,VINYL YE UV RESISTANT ST-113 |  |

Step 3 / 5

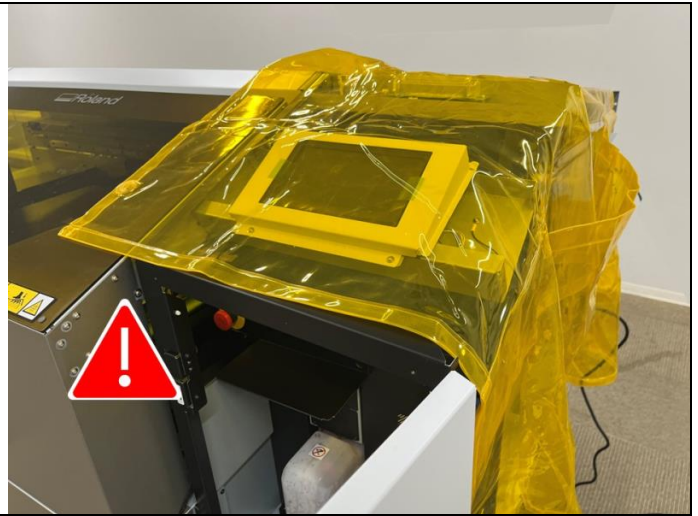
Standard working time

### 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<br>Belt Tension Adjustment | 40 min. |

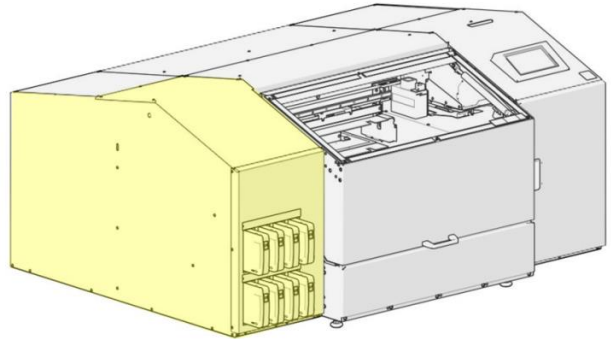
Step 4 / 5

Use a light-shielding sheet when removing the cover to prevent ink from curing.



Step 5 / 5

Cover to be removed



## MO-180 Belt tension adjustment

# MO-180 Belt tension adjustment Procedure

Step 1 / 23

Turn off the primary power supply and unplug the power cable.



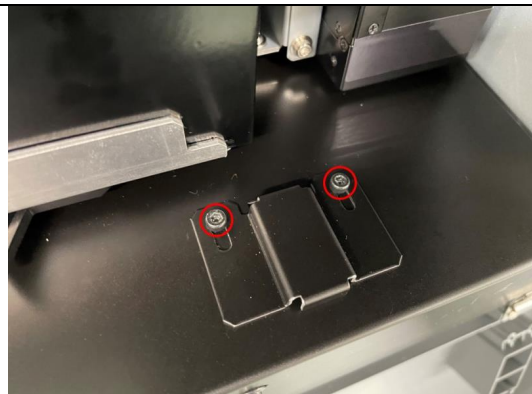
Step 2 / 23

Rotate the cap elevation gear toward the back about 5 times to remove the capping.



Step 3 / 23

**Detail1:** Remove the cap elevation gear cover.



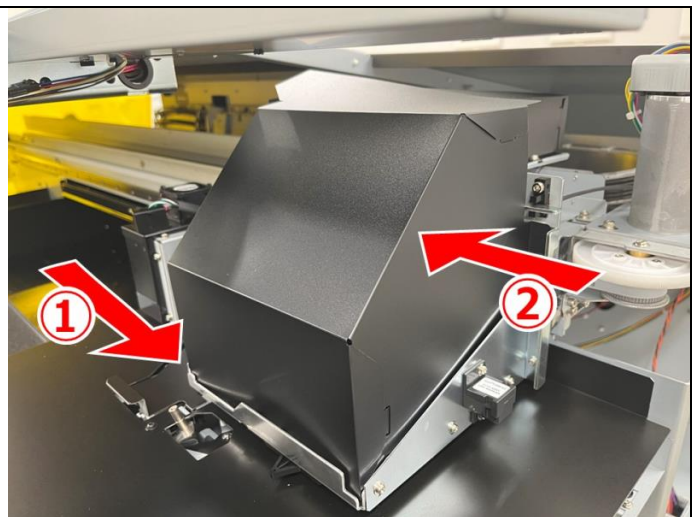
Step 4 / 23

Detail2: Rotate the cap elevation gear backward about 5 times to remove the capping.



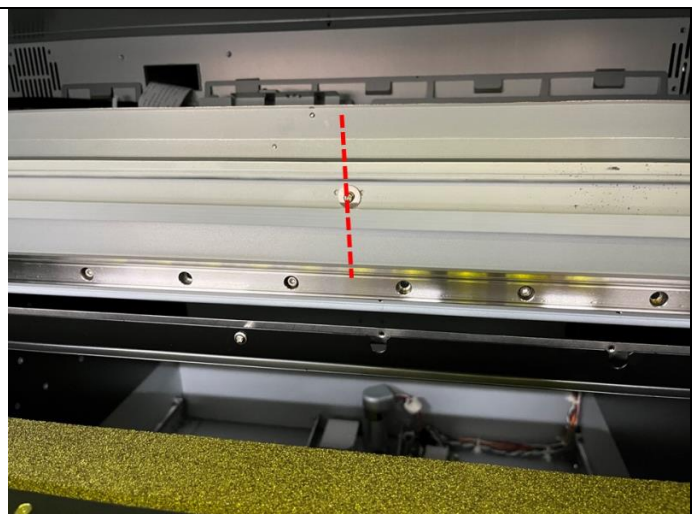
Step 5 / 23

After locking the print carriage, press the carriage to the left side to confirm the lock as well as to eliminate play.



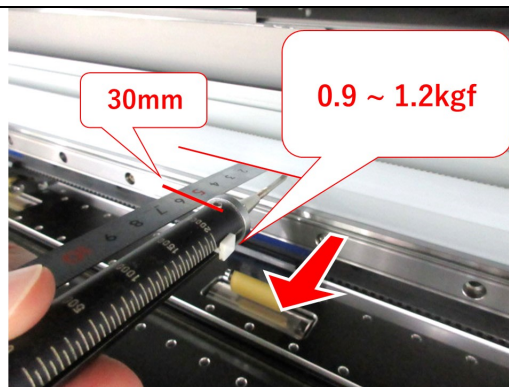
Step 6 / 23

Using a tension gauge, measure the belt tension at the screw position in the center of the rail.



Step 7 / 23

Measure the tension when the underside of the belt is pulled up to a position 30 mm from the rail mounting sheet metal. If the measured value is within the range, it is considered to be the correct tension.



Step 8 / 23

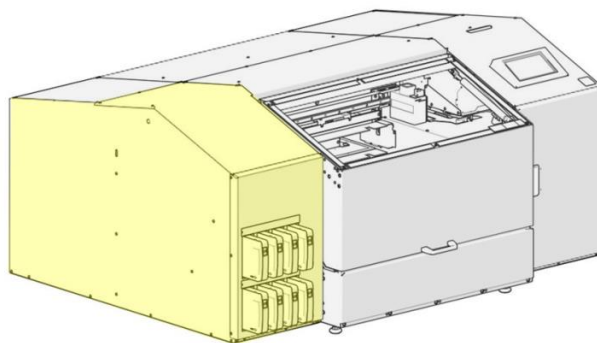
If the measured value is out of range, proceed to the next step. If the measured value is within the range, the operation is complete. Perform belt position adjustment.

#### 測定結果/Measurement Result

| 測定値<br>/Measurement Result | 判定<br>/Judge | 次の作業<br>/Next step                               |
|----------------------------|--------------|--------------------------------------------------|
| ~ 0.89 kgf                 | Not Good     | Not appropriate value<br>To the next step        |
| 0.9 kgf ~ 1.2 kgf          | OK           | Appropriate value<br>To Belt Position Adjustment |
| 1.21kgf ~                  | Not Good     | Not appropriate value<br>To the next step        |

Step 9 / 23

Remove the cover.



Step 10 / 23

Detail1: Remove all ink cartridges. Open the front door and remove the screws.





Step 11 / 23

**Detail2: Remove the screws.**



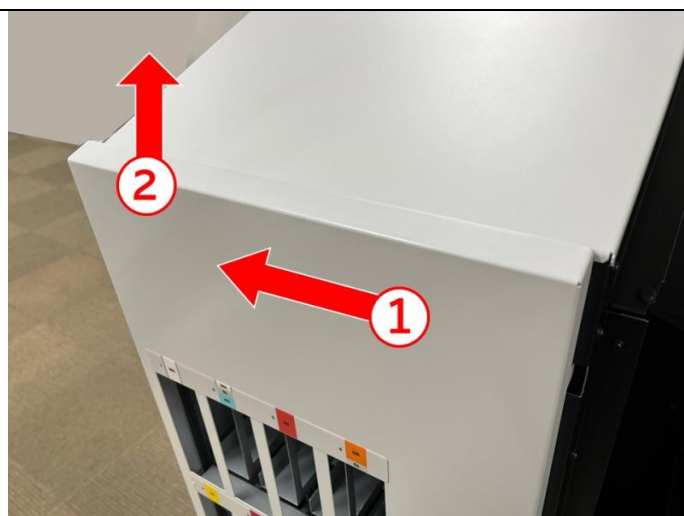
Step 12 / 23

**Detail3: Remove the screws.**



Step 13 / 23

**Detail4: Remove the cover by pushing and shifting it toward the left, then pulling it up vertically.**



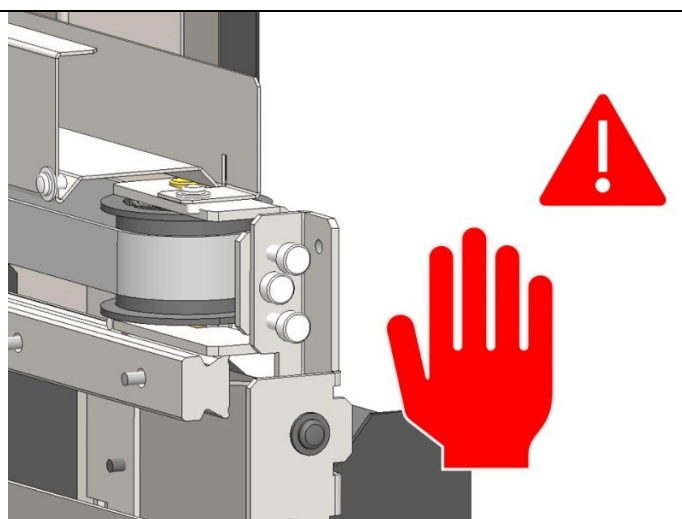
Step 14 / 23

Detail5: Remove the screws.



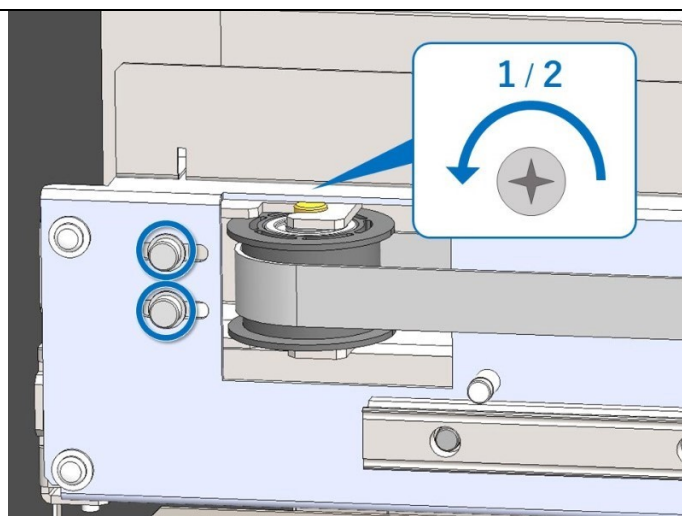
Step 15 / 23

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



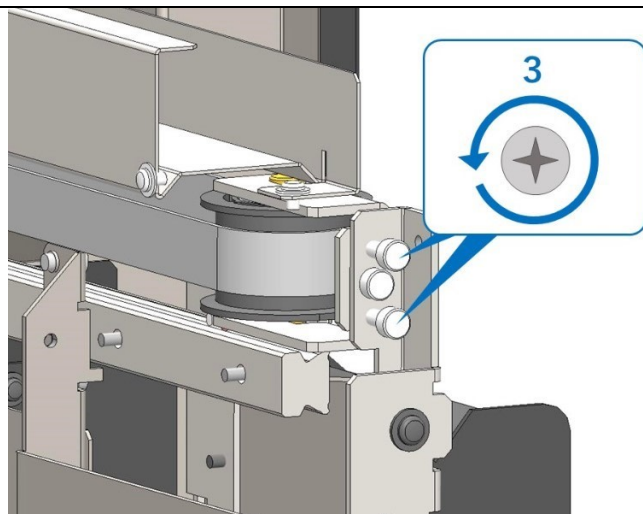
Step 16 / 23

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



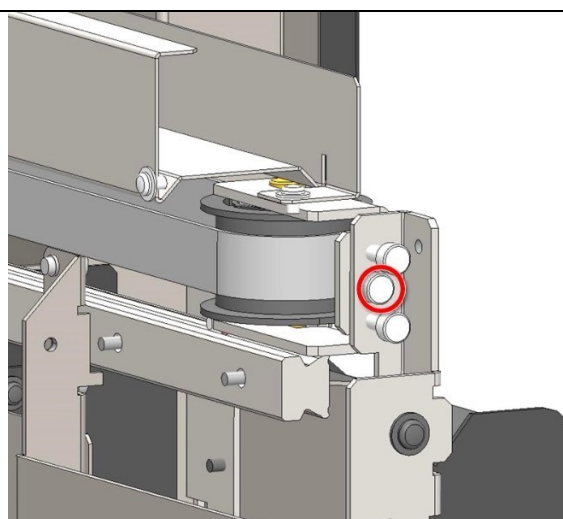
Step 17 / 23

Loosen the adjusting screws (2 locations) about 3 times to create 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.



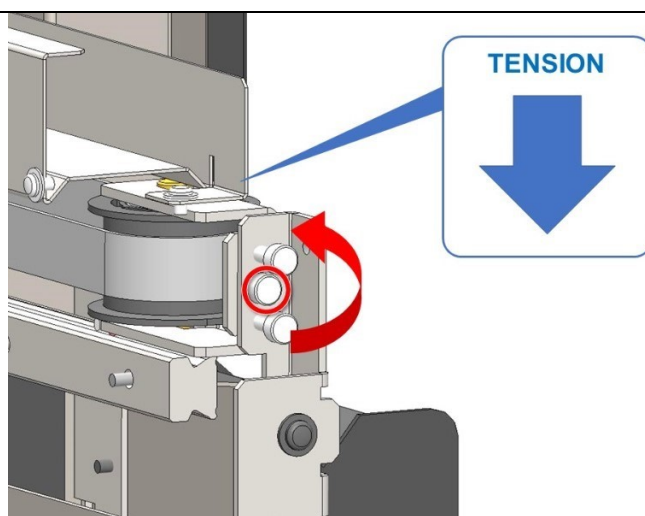
Step 18 / 23

Turn the adjustment screw and adjust the tension gauge value so that the value of the tension gauge falls within the proper range according to the measurement method.



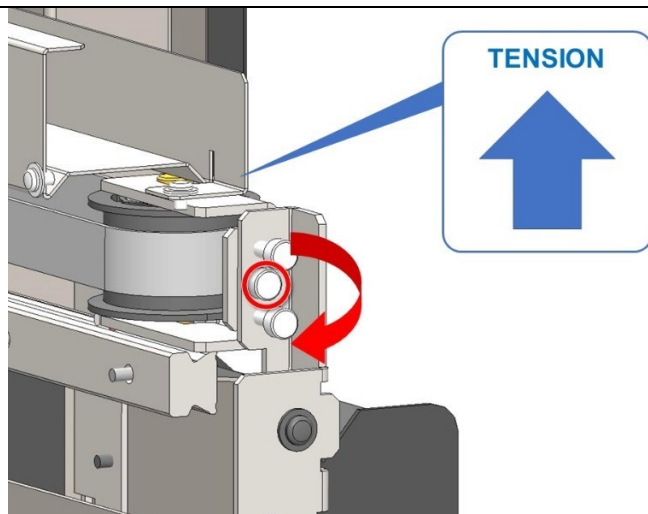
Step 19 / 23

Detail1: Turn the screw to the left: decrease the tension



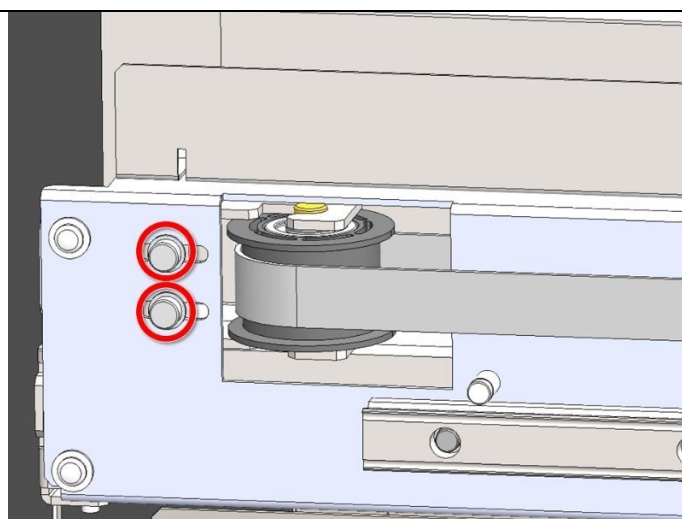
Step 20 / 23

Detail2: Turn the screw to the right:  
Increase the tension



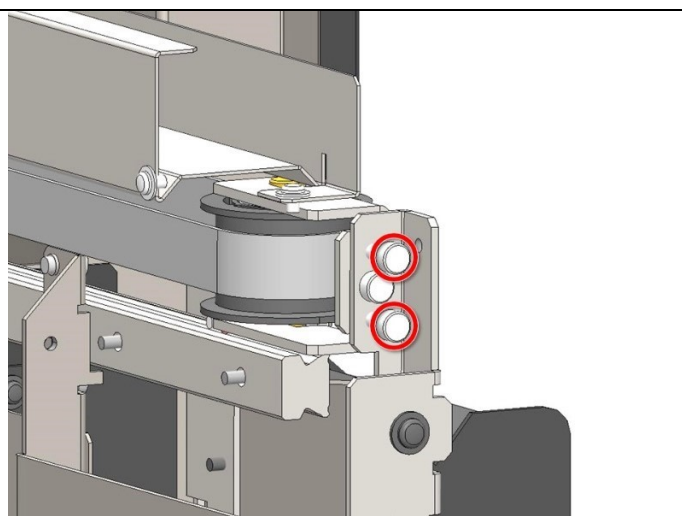
Step 21 / 23

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



Step 22 / 23

Tighten the adjusting screws (2  
positions) 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 23 / 23

The work is complete. Next, adjust the belt position.



次の手順

ベルト位置調整

**Next Step**

Belt Position Adjustment



## MO-180 Belt position adjustment

# MO-180 Belt position adjustment

## Information

Step 1 / 11

### General Tools

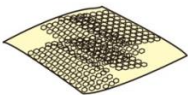
### 一般ツール/General Tool

|                                            |                                                                                     |
|--------------------------------------------|-------------------------------------------------------------------------------------|
| プラスドライバー No.2<br>No.2 Phillips screwdriver |  |
| 六角レンチ3.0mm<br>3.0 mm hexagonal wrench      |  |
| 六角レンチ2.5mm<br>2.5 mm hexagonal wrench      |  |

Step 2 / 11

### Special Jigs

### 特殊治具/Special Tools

|                                                 |                                                                                       |
|-------------------------------------------------|---------------------------------------------------------------------------------------|
| 1000005829<br>TOOL,VINYL YE UV RESISTANT ST-113 |  |
|-------------------------------------------------|---------------------------------------------------------------------------------------|

Step 3 / 11

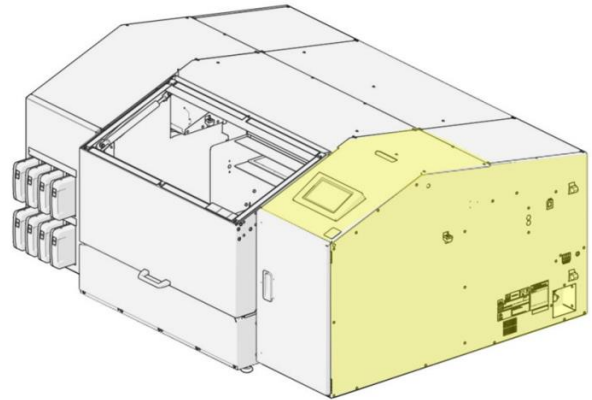
### Standard working time

### 作業時間/Typical work time

| 作業内容/Contents of work                             | 時間/Time |
|---------------------------------------------------|---------|
| キヤリッジベルト位置調整<br>Carriage Belt Position Adjustment | 50 min. |

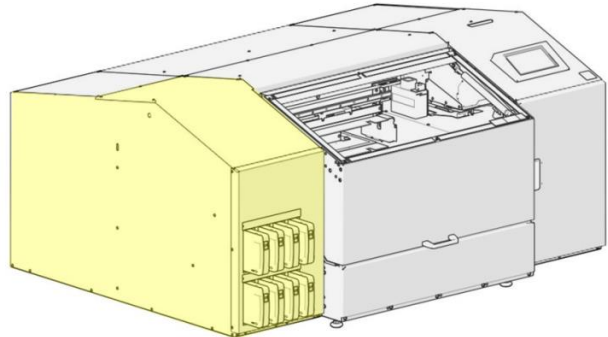
Step 4 / 11

Cover to be removed (right side)



Step 5 / 11

Removable cover (left side)



Step 6 / 11

Detail1: Remove all ink cartridges. Open the front cover and remove the screws.



Step 7 / 11

**Detail2: Remove the screws.**



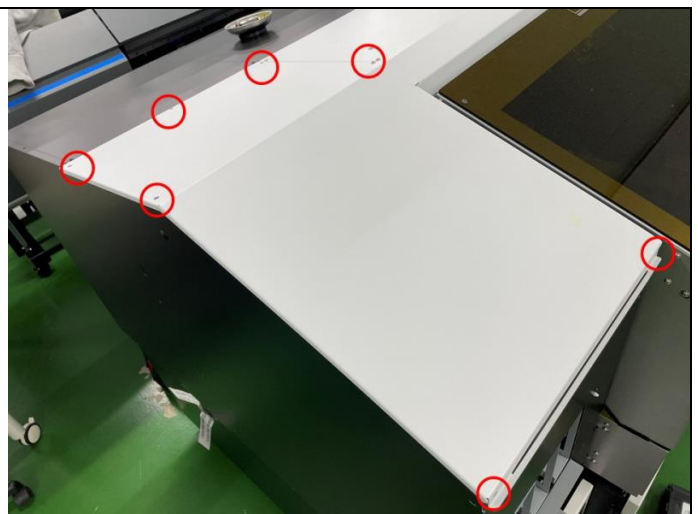
Step 8 / 11

**Detail3: Remove the screws.**



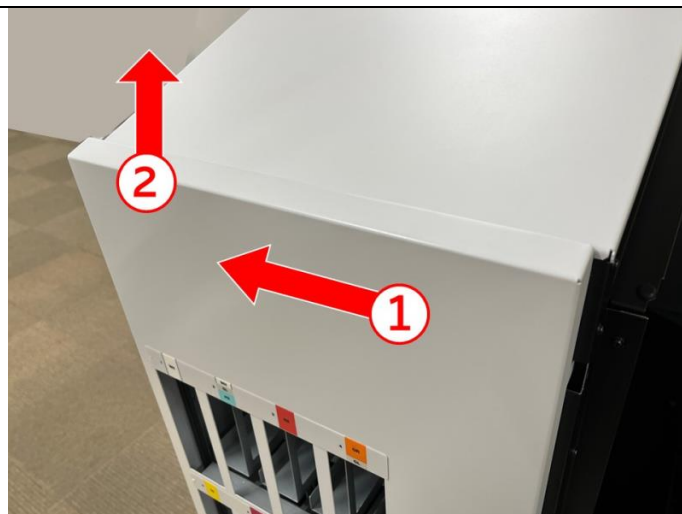
Step 9 / 11

**Detail4: Remove the screws.**



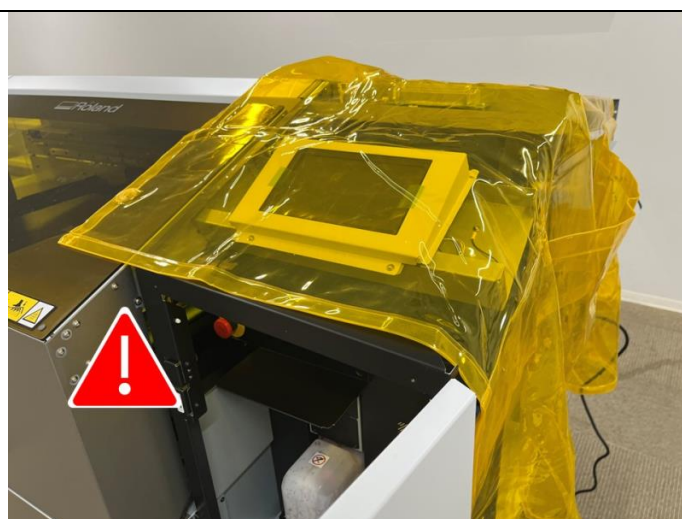
Step 10 / 11

Detail5: Remove the cover by pushing and shifting it toward the left, then pulling it up vertically.



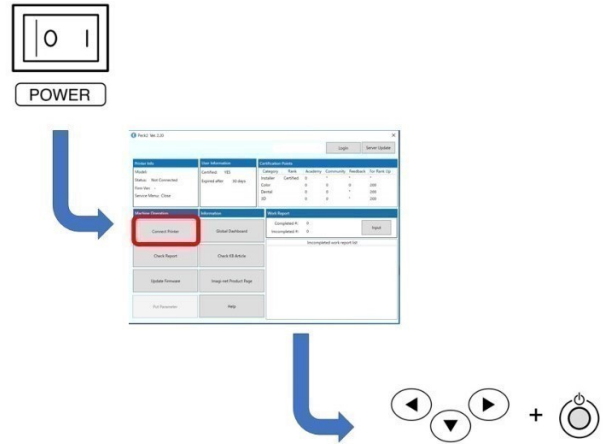
Step 11 / 11

Use a light-shielding sheet when removing the cover to prevent ink from curing.



# MO-180 Belt position adjustment Procedure

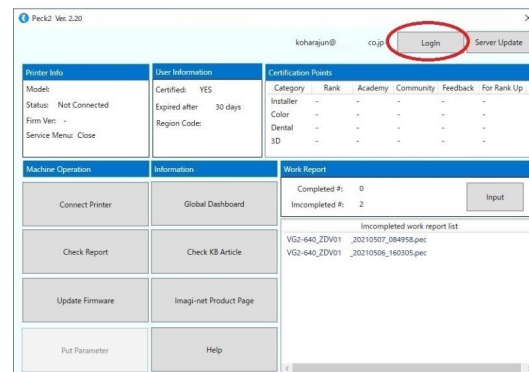
Turn on primary power and connect Peck2 to the aircraft to enter service mode.



Detail1: Start Peck2.



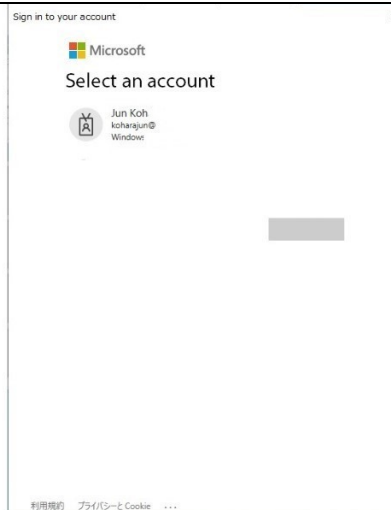
Detail2: Click the Login button.





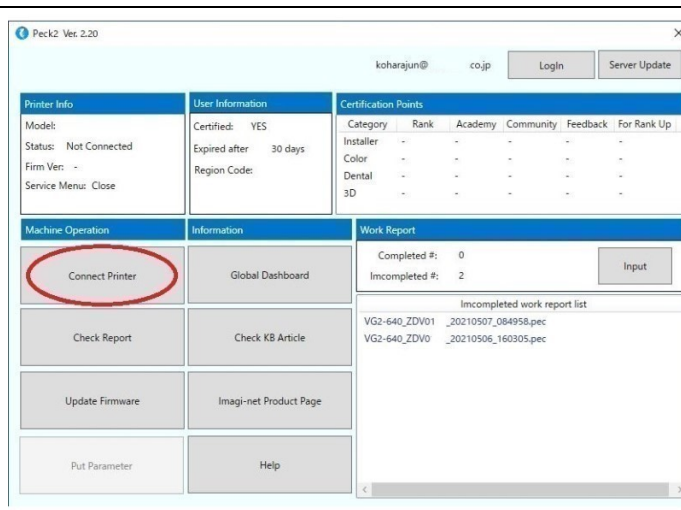
Step 4 / 46

Detail3: Log in with your Imagi-net ID.



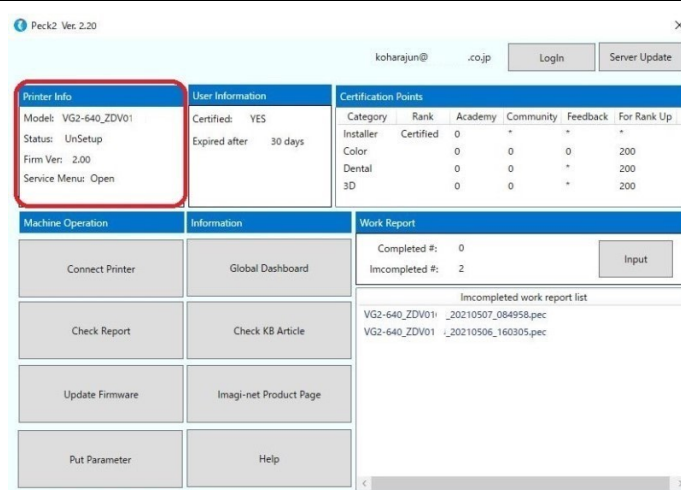
Step 5 / 46

Detail4: Click Connect Printer.



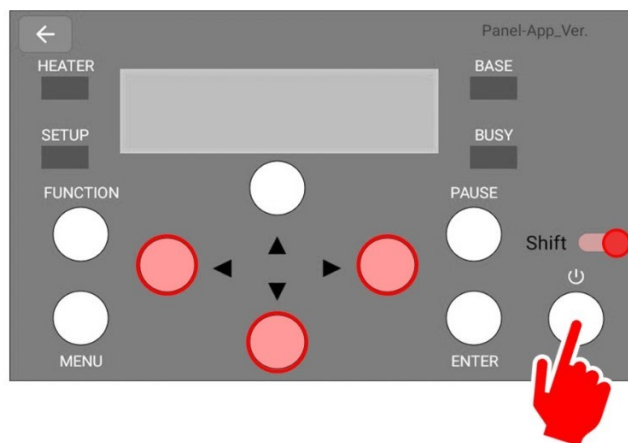
Step 6 / 46

Detail5: Printer information will be displayed.



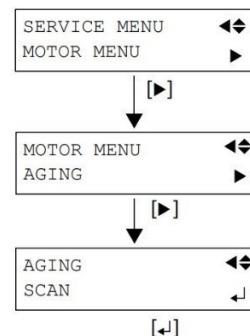
Step 7 / 46

Detail6: Activate Service Mode.



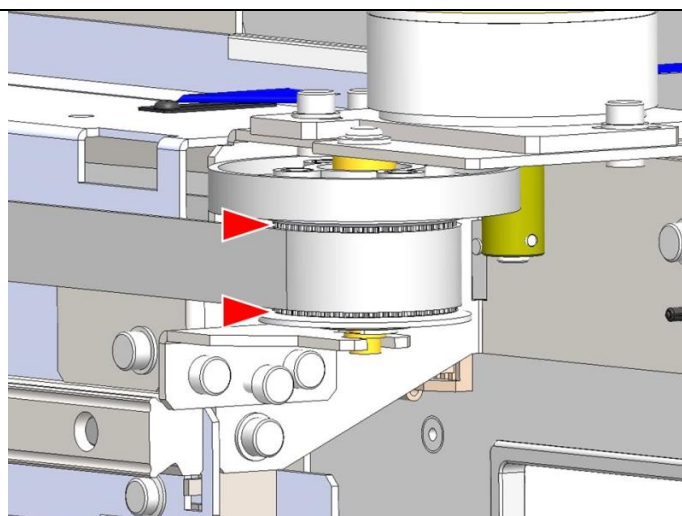
Step 8 / 46

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



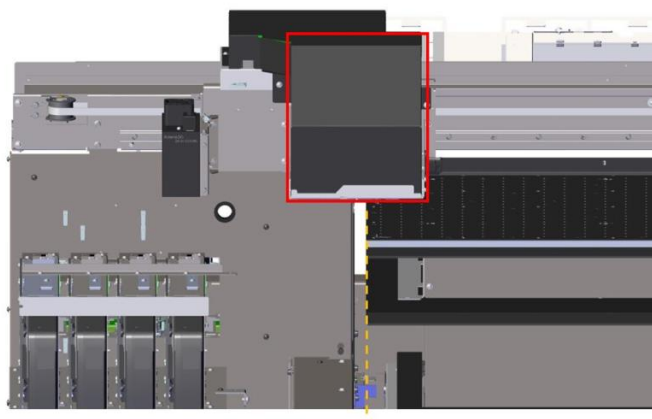
Step 9 / 46

Check the belt position. It is proper if the belt is not in constant contact with the flange of the drive pulley when the print carriage is over the table area.



Step 10 / 46

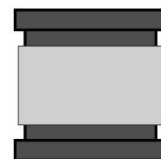
**Detail1:** If the belt is not in contact with the flange of the pulley at any point when the print carriage is on the table, it is proper. (It is not necessary that the belt is always away from the flange.)



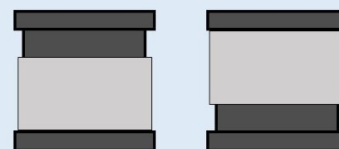
Step 11 / 46

If it is correct, no adjustment is necessary and proceed to check the idle pulley side without aging. If not, proceed to the next step for adjustment.

**OK**

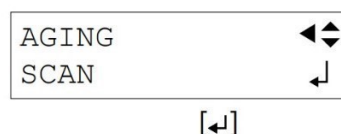


**No good**



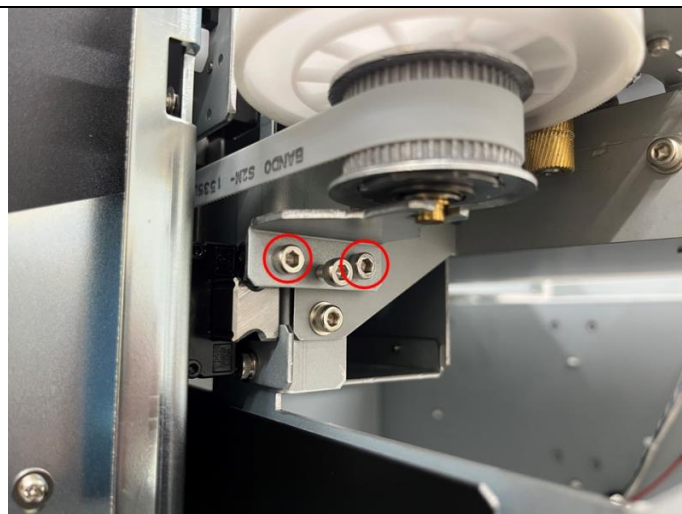
Step 12 / 46

Press the [ENTER] key to exit aging once.



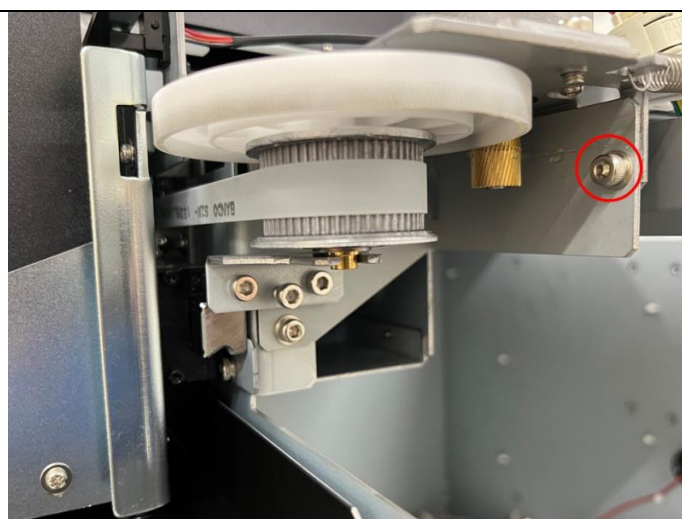
Step 13 / 46

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



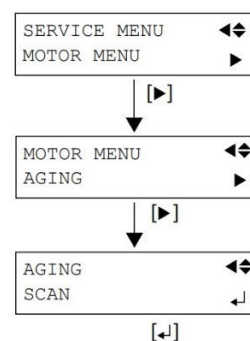
Step 14 / 46

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



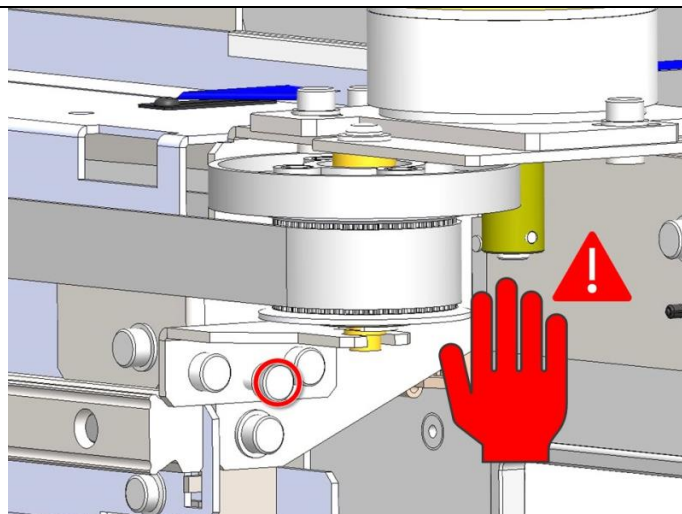
Step 15 / 46

Select [MOTOR MENU]>[AGING]>[SCAN] and press [ENTER] key to age the scan motor again.



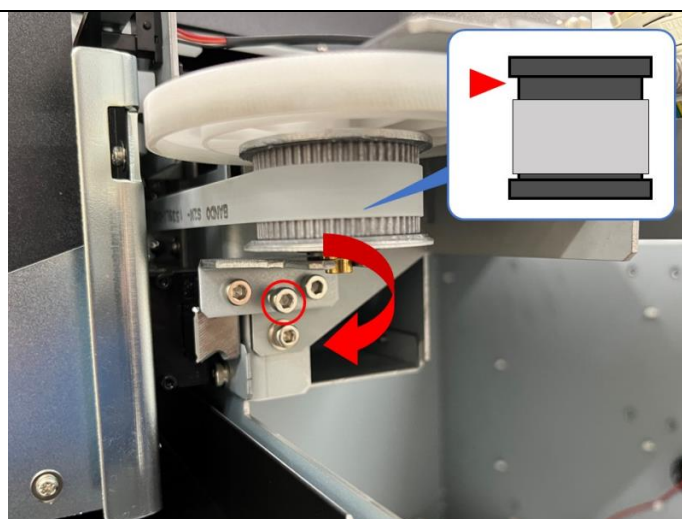
Step 16 / 46

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



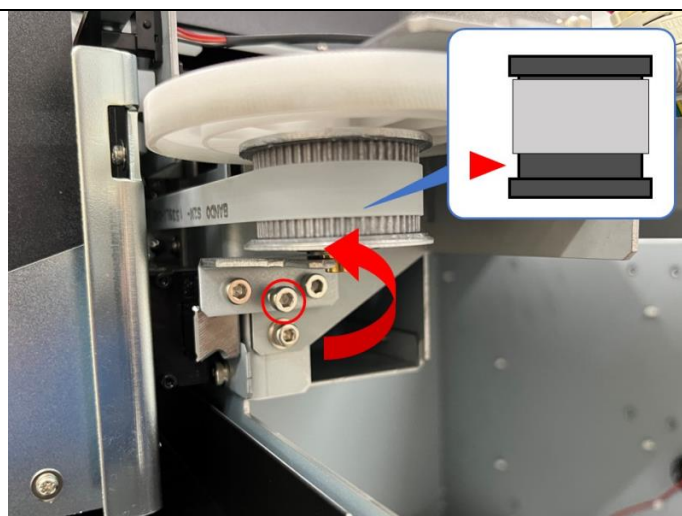
Step 17 / 46

**Detail1:** If the belt is positioned toward the bottom of the main unit, turn the adjustment screw clockwise (in the direction of tightening) a little at a time.



Step 18 / 46

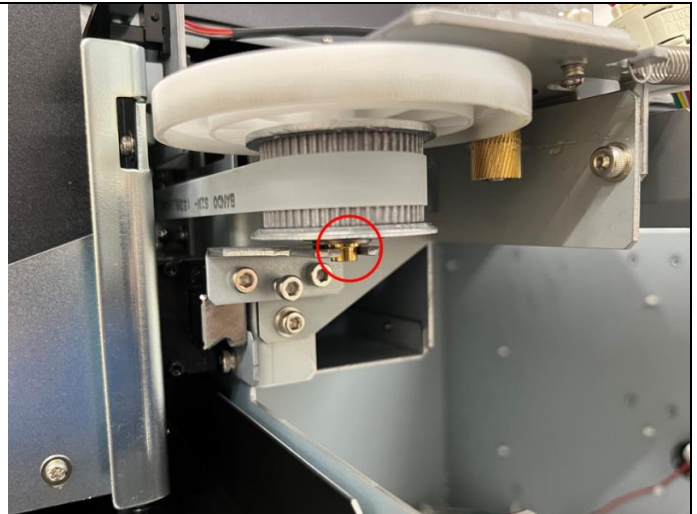
**Detail1:** If the belt is on the upper side of the main unit, turn the adjusting screw counterclockwise (in the direction of loosening) a little at a time.





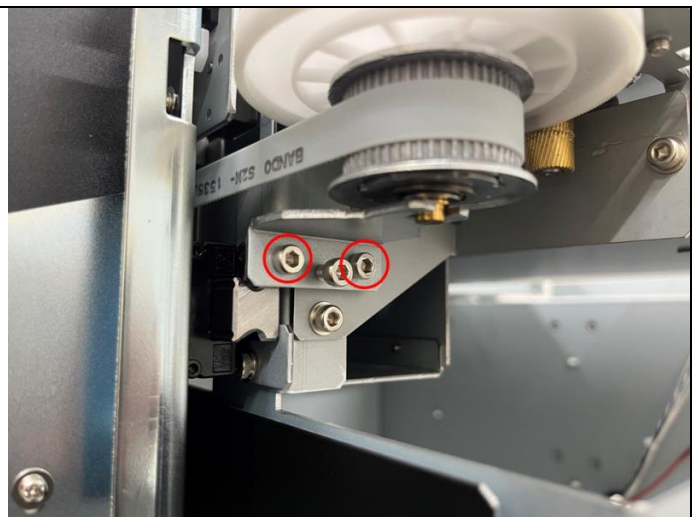
Step 19 / 46

Detail2: Make sure that the shaft is not detached from the stay.



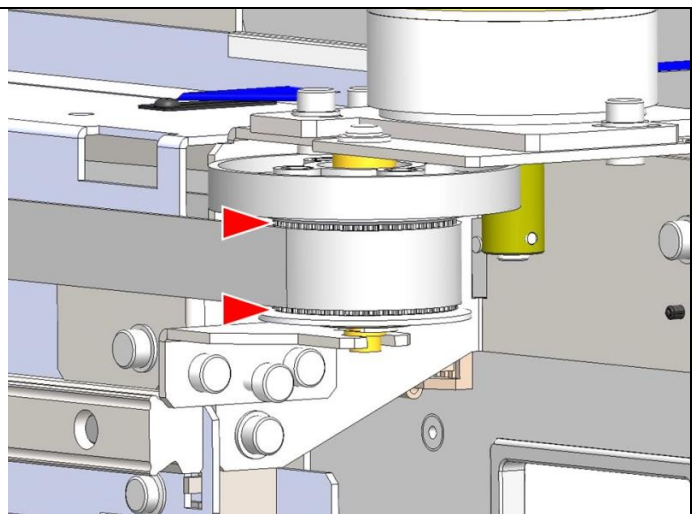
Step 20 / 46

Tighten the two fixing screws. Be careful not to tighten too hard, as this may cause the adjusted pulley to move.



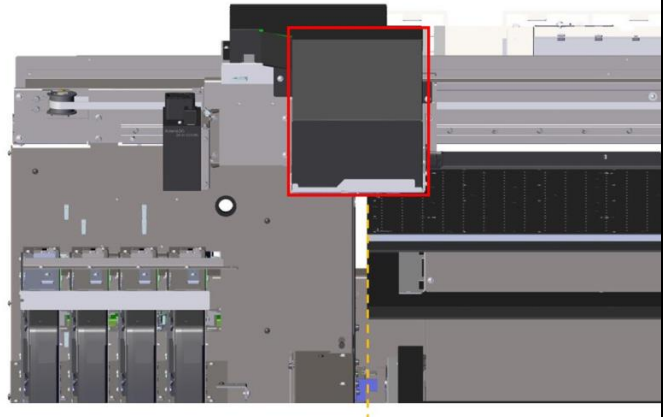
Step 21 / 46

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



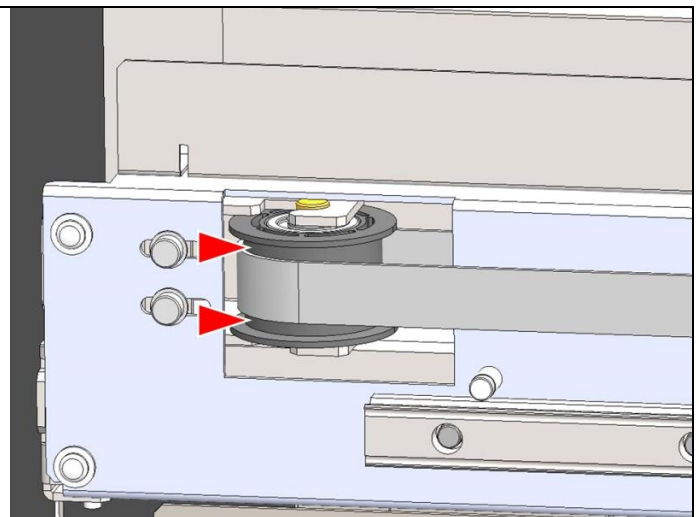
Step 22 / 46

Detail1: If there is a point where the belt does not make contact with the pulley flange with the print carriage resting on the table, it is correct. (It is not necessary that the belt is always away from the flange.)



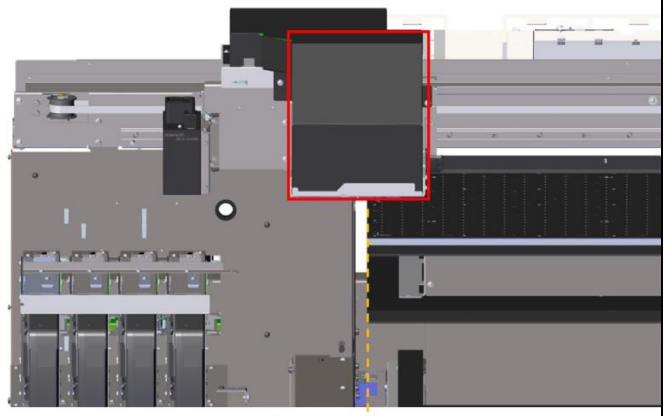
Step 23 / 46

Check idle pulley belt position. Check the position of the belt. If the belt is not in constant contact with the idle pulley flange when the print carriage is on the table area, it is correct.



Step 24 / 46

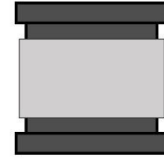
Detail1: If the belt is not in contact with the flange of the pulley at any point when the print carriage rests on the table, it is correct. (It is not necessary that the belt is always away from the flange.)



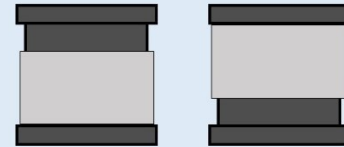
Step 25 / 46

If appropriate, this adjustment is terminated. If not appropriate, perform subsequent adjustments.

OK



No good



Step 26 / 46

Press the [ENTER] key to exit aging once.

SCAN

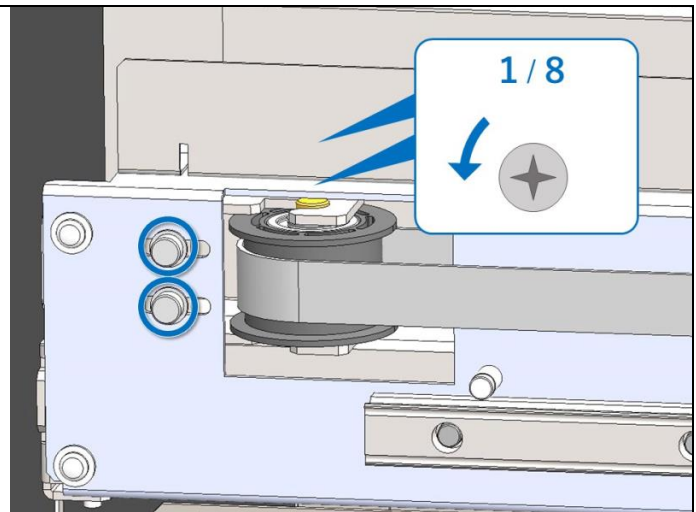
NOW AGING



[↵]

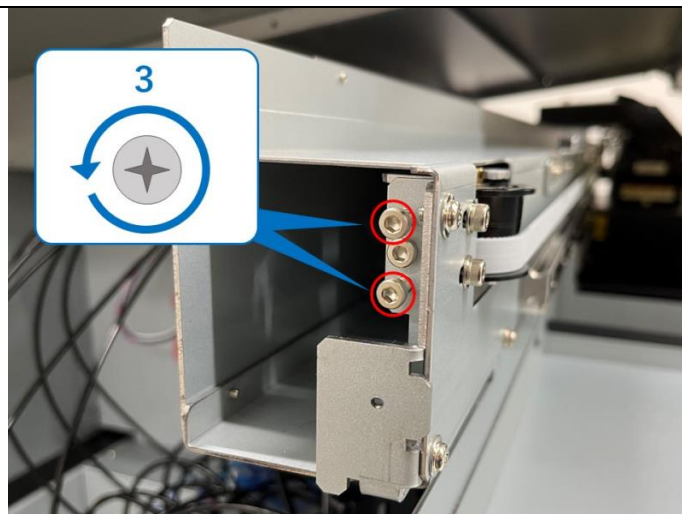
Step 27 / 46

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.



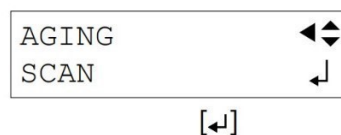
Step 28 / 46

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



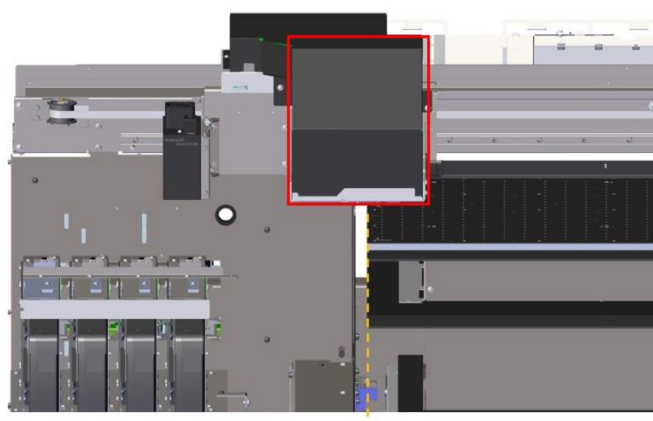
Step 29 / 46

Press the [ENTER] key to age the scan motor again.



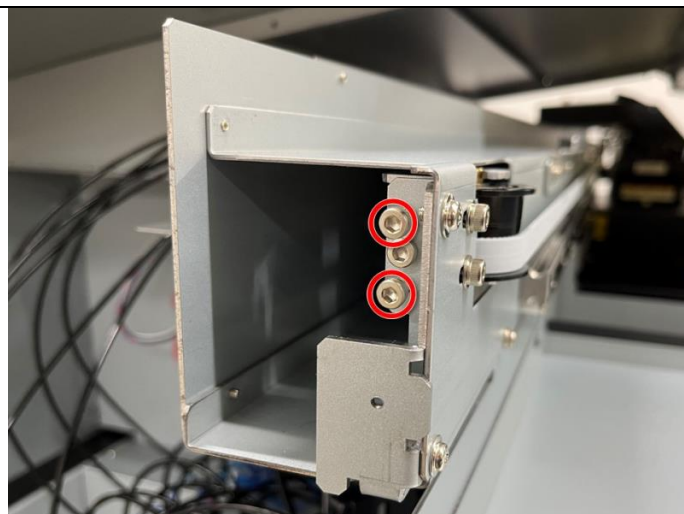
Step 30 / 46

With the print carriage resting on the table, if there is a point where the belt does not make contact from the pulley flange, the adjustment is complete. Finish the work. (It is not necessary that the belt is always away from the flange.)



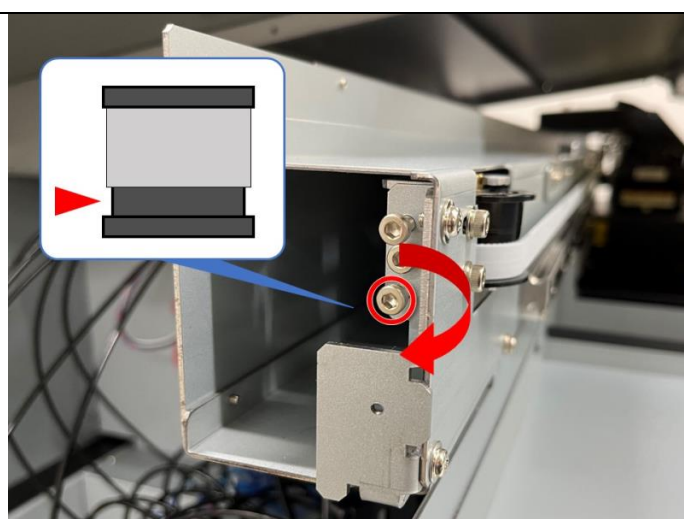
Step 31 / 46

Turn the adjustment screw to adjust the belt position. Since there are no grooves on the pulleys, the belt tends to slide up and down, so adjust slowly.



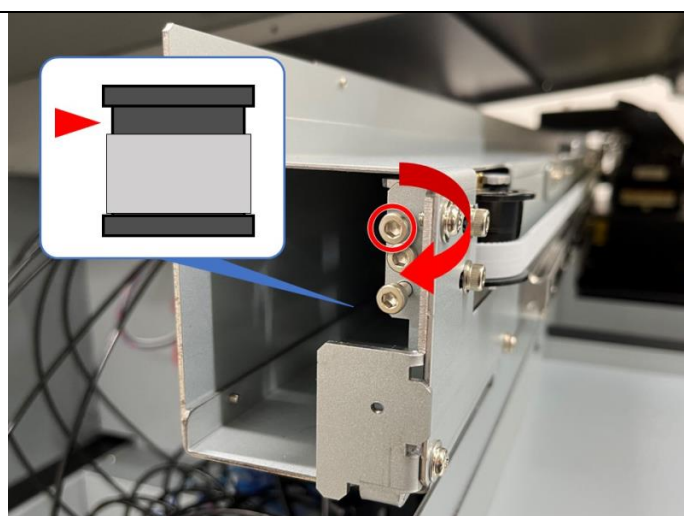
Step 32 / 46

**Detail1:** If the belt is close to the upper side of the main unit, turn the adjusting screw (bottom) clockwise a little and press it against the idle pulley holder.



Step 33 / 46

**Detail2:** If the belt is on the lower side of the main unit, turn the adjusting screw (upper) clockwise a little and press it against the idler pulley holder.





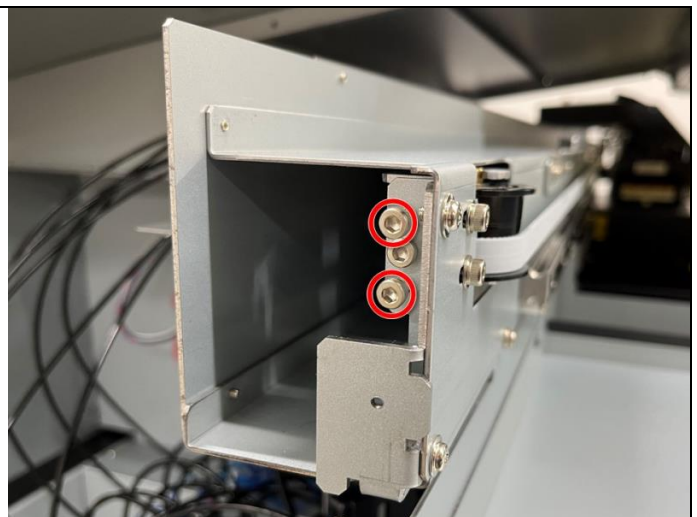
Step 34 / 46

Tighten the two fixing screws.



Step 35 / 46

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 36 / 46

Press the [ENTER] key to end aging.



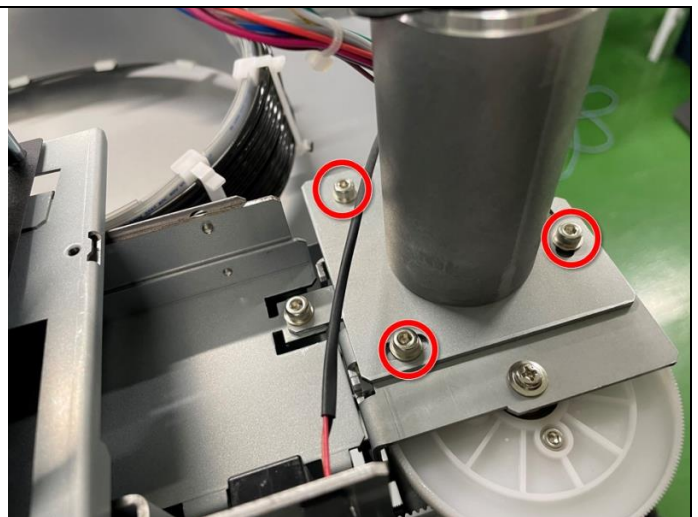
Step 37 / 46

Turn off the secondary and primary power supplies and unplug the power cable.



Step 38 / 46

Loosen the three screws on the scan motor mounting plate.



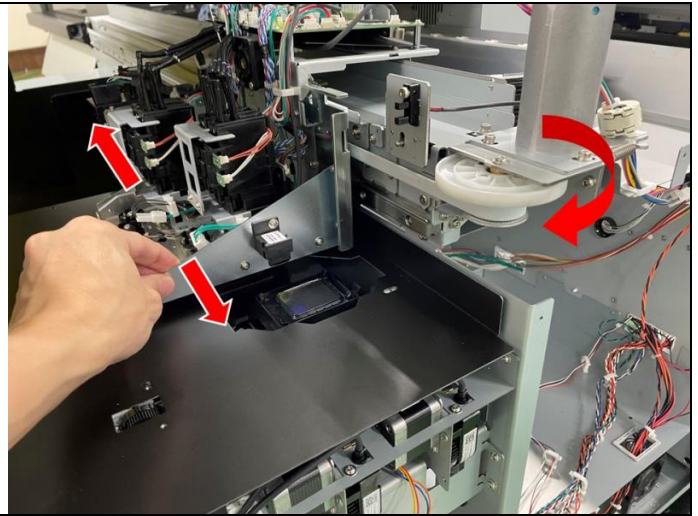
Step 39 / 46

Rotate the cap elevation gear to the rear about 5 times to remove the capping.



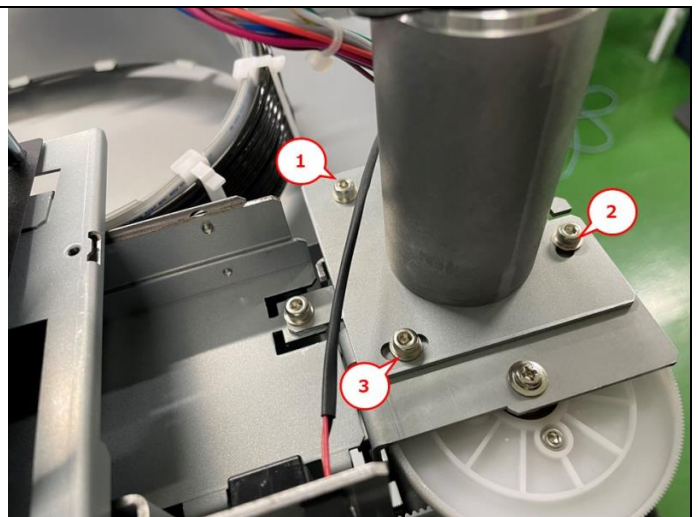
Step 40 / 46

Move the print carriage left and right to make sure the gears are engaged.



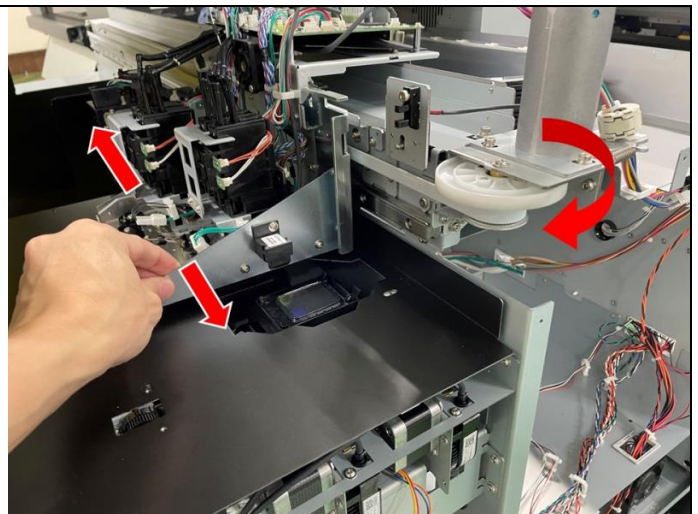
Step 41 / 46

Tighten the screws in the order of the numbers in the figure.



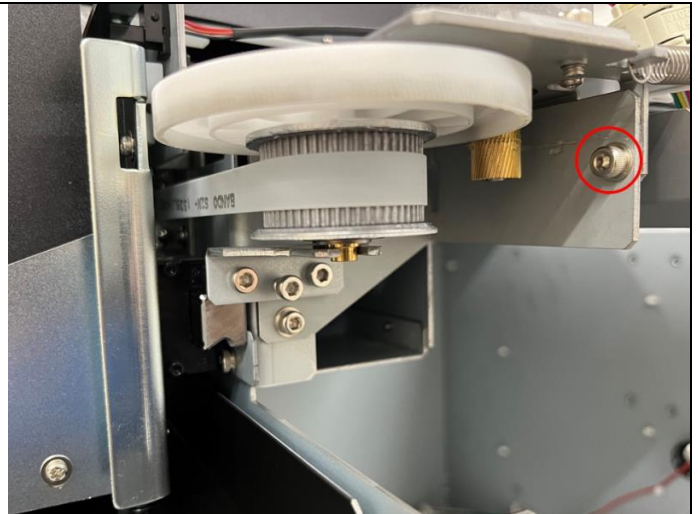
Step 42 / 46

Move the print carriage left and right to confirm that the gears are engaged and that there is no backlash.



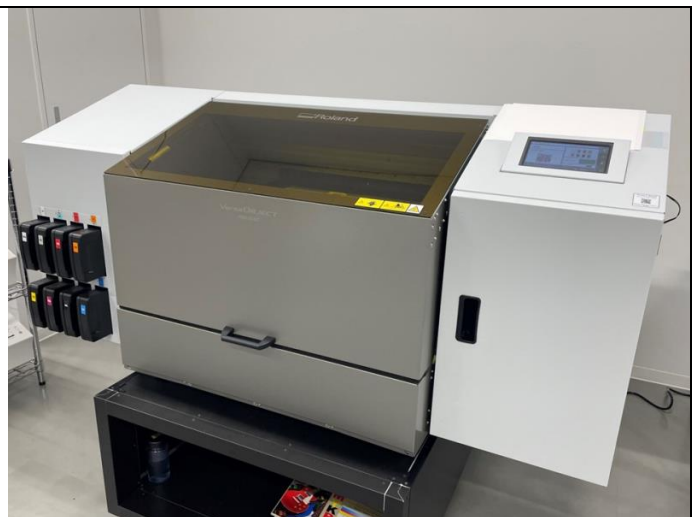
Step 43 / 46

Tighten the screws.



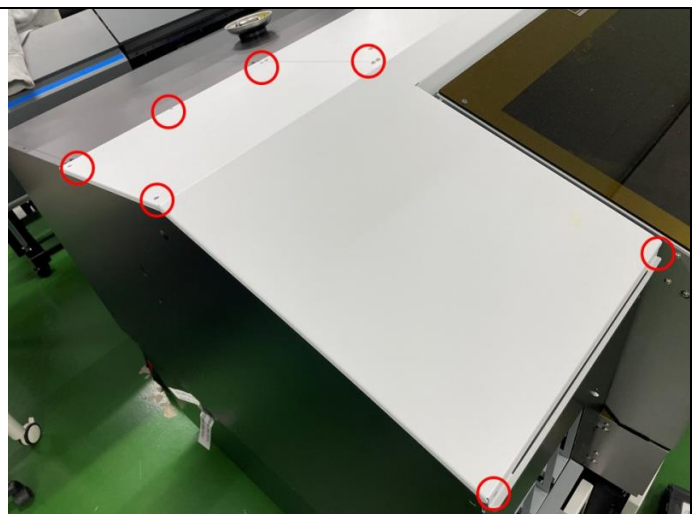
Step 44 / 46

Install all removed covers.



Step 45 / 46

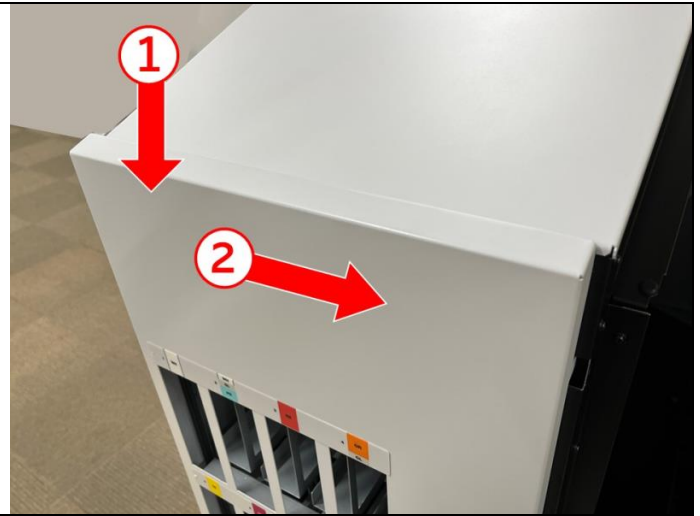
Detail1: When installing the left side cover, install the top cover first.





Step 46 / 46

Detail2: After inserting the tabs on the front cover, slide it to the right for installation. Install the remaining screws.





## MO-180 Linear encoder set up

# MO-180 Linear encoder set up Information

Step 1 / 2

Tools needed for adjustment

### 一般ツール/General Tool

|            |  |
|------------|--|
| 無し<br>None |  |
|------------|--|

### 特殊治具/Special Tools

|            |  |
|------------|--|
| 無し<br>None |  |
|------------|--|

Step 2 / 2

standard working hours

### 作業時間/Typical work time

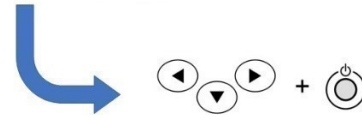
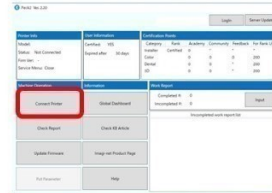
| 作業内容/Contents of work                 | 時間/Time |
|---------------------------------------|---------|
| リニアエンコーダー位置設定<br>Linear encoder setup | 5 min.  |

## MO-180 Linear encoder set up

# MO-180 Linear encoder set up Procedure

Step 1 / 11

Connect Peck2 to the aircraft and enter service mode.



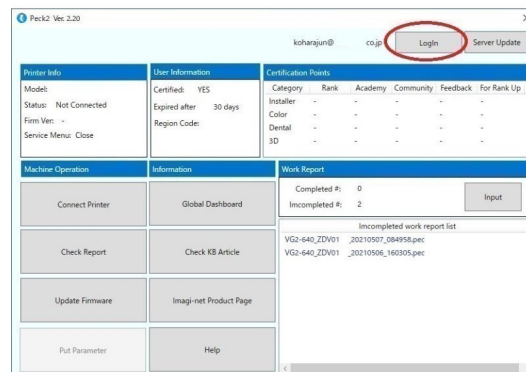
Step 2 / 11

Detail1: Start Peck2.



Step 3 / 11

Detail2: Click the "Login" button.

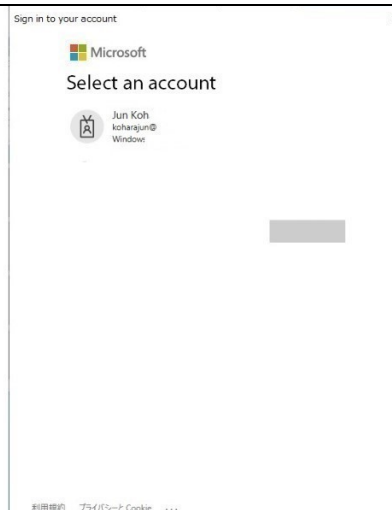


Thursday, May 22, 2025 9:09 AM

Language: en

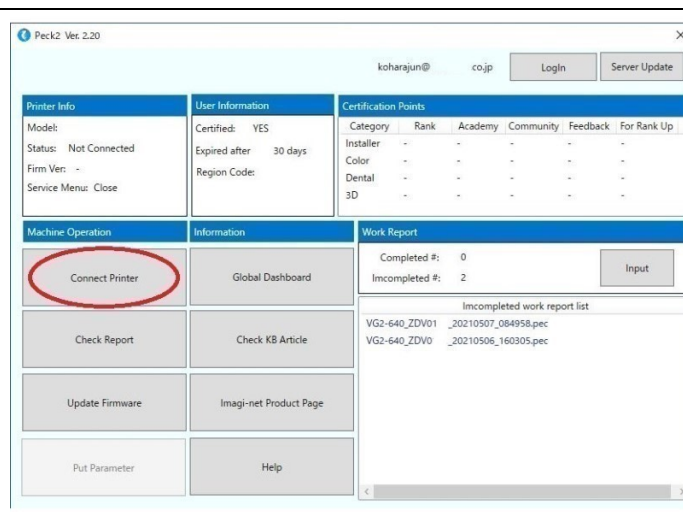
Step 4 / 11

Detail3: Log in with your Imagi-net ID.



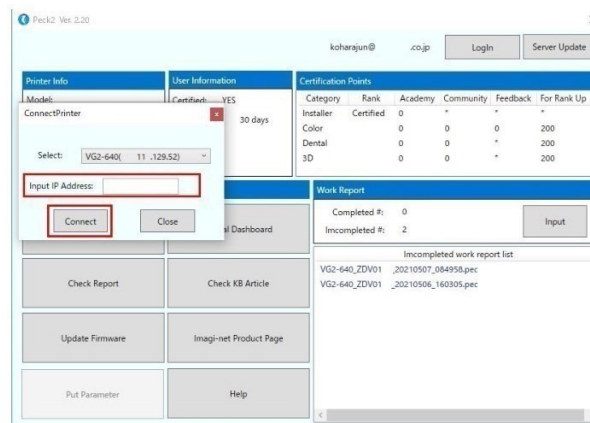
Step 5 / 11

Detail4: Click the Connect Printer button.



Step 6 / 11

Detail5: Enter the IP address of the aircraft to connect.



Step 7 / 11

Detail6: Once connected to the printer, printer information will be displayed in Printer Info.

Peck2 Ver. 2.20

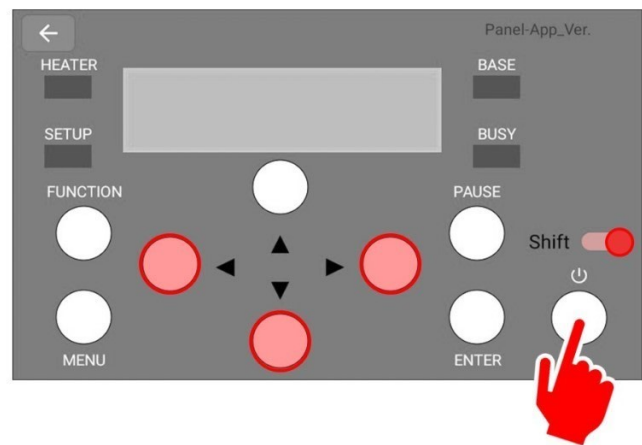
koharjun@ .co.jp Login Server Update

| 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 |   |             |  |

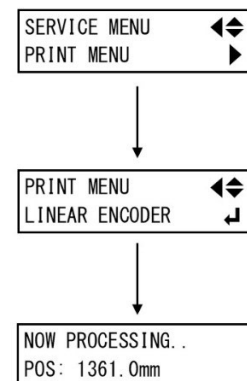
Step 8 / 11

Detail7: Press [Shift] > [□] + [□] + [□] + [Sub power] on the aircraft panel to enter service mode. By turning on the [Shift] button, you can press the buttons at the same time.



Step 9 / 11

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



Step 10 / 11

When finished, one of the messages will be displayed. □If [SETUP COMPLETED], the process ended normally.□If [NG:EXTEND] [NG:SHLINK] [NG:GO BACK] [NG:BLANK \*\*\*\*.\*mm], identify the cause of the occurrence and take corrective action. Please readjust after taking the necessary steps.

### 確認/confirm

|                                                                                    |                     |
|------------------------------------------------------------------------------------|---------------------|
|  | 作業終了<br>Work done   |
|  | 再調整<br>Readjustment |

Step 11 / 11

Detail1: Things to check when messages other than [SETUP FAILED] occur

### 確認/Confirm

|                                                                                                |
|------------------------------------------------------------------------------------------------|
| エンコーダスケールの汚れ、傷<br>Dirt/scratches on the encoder scale                                          |
| エンコーダセンサーの汚れ、傷<br>Dirt/scratches on the encoder sensor                                         |
| リミット位置異常や、スケールとセンサーの位置関係異常<br>Limit position error or Abnormal positioning of scale and sensor |
| 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<br>Backlash of the can motor gear and the drive gear                |
| キャリッジとベルトとの固定<br>Fastening of the carriage and the carriage belt                               |
| ケーブルの接続不良<br>Bad cable connection                                                              |



MO-180 Feed Calibration

MO-180 Feed Calibration Information

Step 1 / 2

Necessary tools. A minimum setup width of 510 mm x 410 mm is required for 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 2 / 2

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)<br>Feed calibration | 15 min. |

# MO-180 Feed Calibration

## MO-180 Feed Calibration Procedure

Step 1 / 14

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



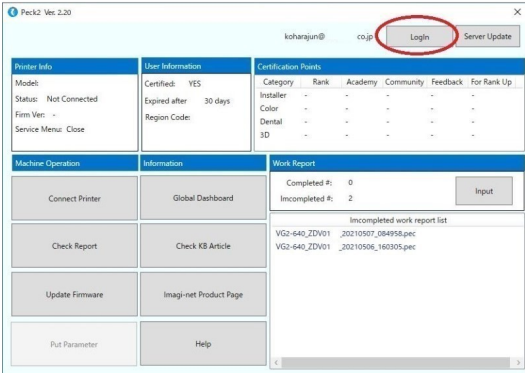
Step 2 / 14

Detail1: Start Peck2.



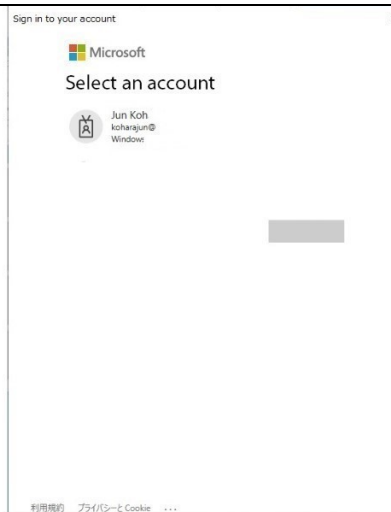
Step 3 / 14

Detail2: Click the [Login] button.



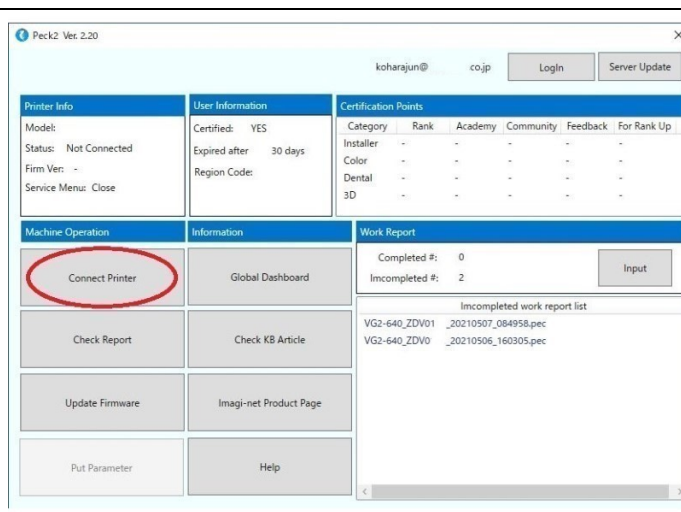
Step 4 / 14

Detail3: Login with your Imagi-net ID.



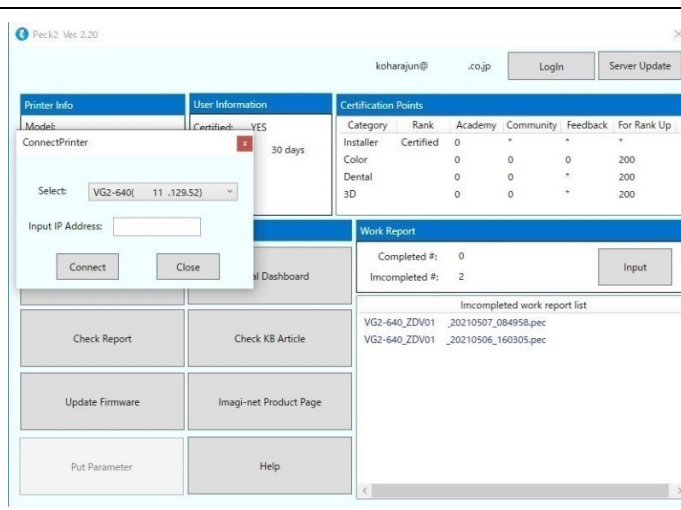
Step 5 / 14

Detail4: Click the [Connect Printer] button.



Step 6 / 14

Detail5: Enter the IP address of the printer you wish to connect.



Step 7 / 14

Detail6: 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   |
| Check Report      | Check KB Article       | Incompleted #: 2 |
| Update Firmware   | Imagi-net Product Page | Input            |
| Put Parameter     | Help                   |                  |

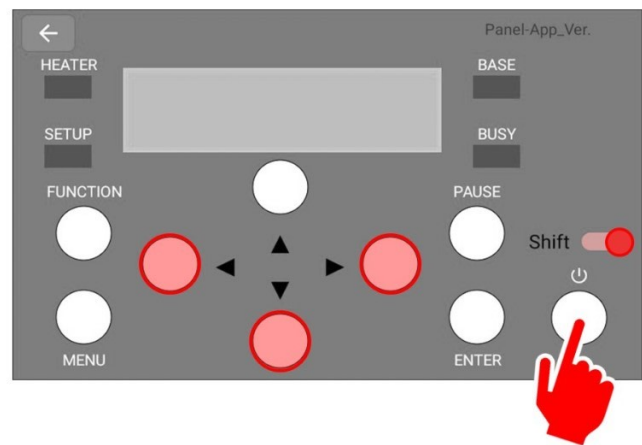
Incompleted work report list

VG2-640\_ZDV01 \_20210507\_084958.pcc

VG2-640\_ZDV01 \_20210506\_160305.pcc

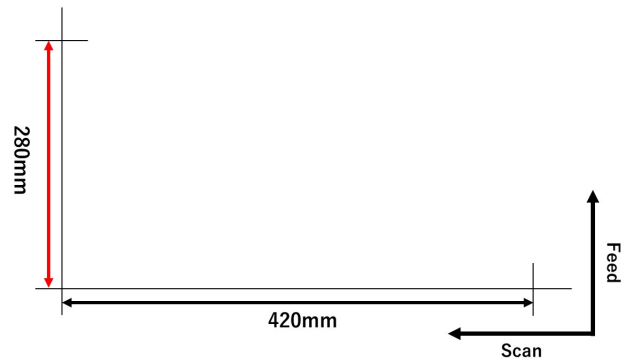
Step 8 / 14

Detail7: Press [Shift]> [ ]+[ ]+[ ]+[Sub Power] on the machine to enter the service mode. By turning on [Shift] button, multiple buttons can be pressed at the same time.



Step 9 / 14

Setup width must be at least 510 mm x 410 mm for performing test print.



Step 10 / 14

Select [PRINT MENU] > [

SERVICE MENU

PRINT MENU

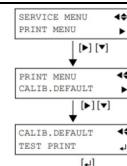
PRINT MENU

CALIB.DEFAULT

CALIB.DEFAULT

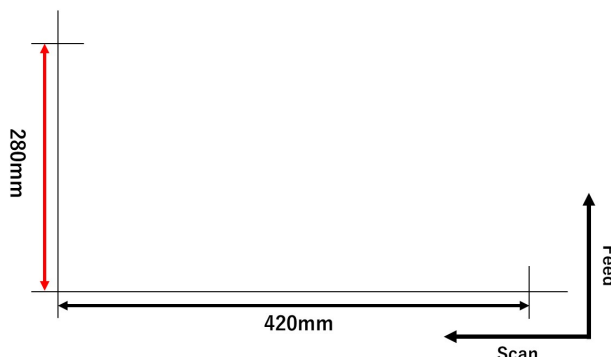
TEST PRINT

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



Step 11 / 14

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 / 14

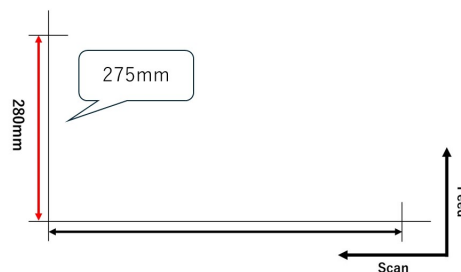
Calculate the correction value using the formula shown.

$$\text{補正值} = \frac{280 - \text{測定値}}{\text{測定値}} \times 100$$

$$\text{Correction value} = \frac{280 - \text{Measure value}}{\text{Measure value}} \times 100$$

Step 13 / 14

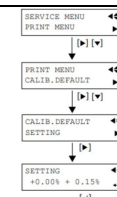
Detail1: Calculation example



$$1.81 = \frac{280 - 275}{275} \times 100$$

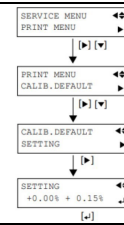
Step 14 / 14

Select [PRINT MENU] > [CALIB.DEFAULT]





> [SETTING], and press the [ ] [ ] keys to enter the correction value. Press the [ENTER] key to save the setting.



## MO-180 Feed belt adjustment

# MO-180 Feed belt adjustment Information

Step 1 / 3

Tools required for adjustment

### 一般ツール/General Tool

|                                            |                                                                                     |
|--------------------------------------------|-------------------------------------------------------------------------------------|
| プラスドライバー No.2<br>No.2 Phillips screwdriver |  |
| 六角レンチ2.5mm<br>2.5 mm hexagonal wrench      |  |

Step 2 / 3

Special jig

### 特殊治具/Special Tools

|                                       |                                                                                       |
|---------------------------------------|---------------------------------------------------------------------------------------|
| ST-001<br>TENSION GAUGE 2000GF/2000CN |  |
|---------------------------------------|---------------------------------------------------------------------------------------|

Step 3 / 3

Standard working time

### 作業時間/Typical work time

| 作業内容/Contents of work                          | 時間/Time |
|------------------------------------------------|---------|
| フィードベルトテンション調整<br>Feed Belt Tension Adjustment | 20 min. |

## MO-180 Feed belt adjustment

# MO-180 Feed belt adjustment Procedure

Step 1 / 22

Turn off the printer's primary power supply.



Step 2 / 22

Do not hold the extension plate when moving the table. The plate may come off or be bent.

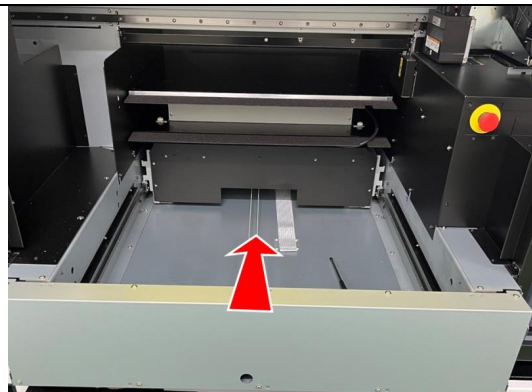
**Good**

**Not Good**



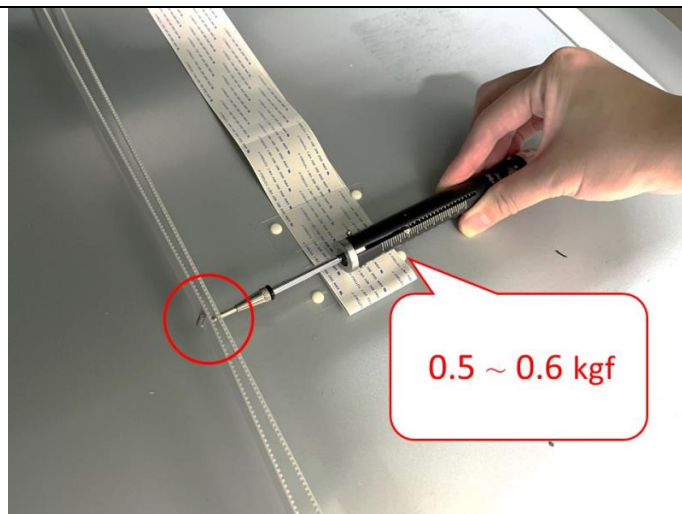
Step 3 / 22

Push the table by hand and move it to the farthest end.



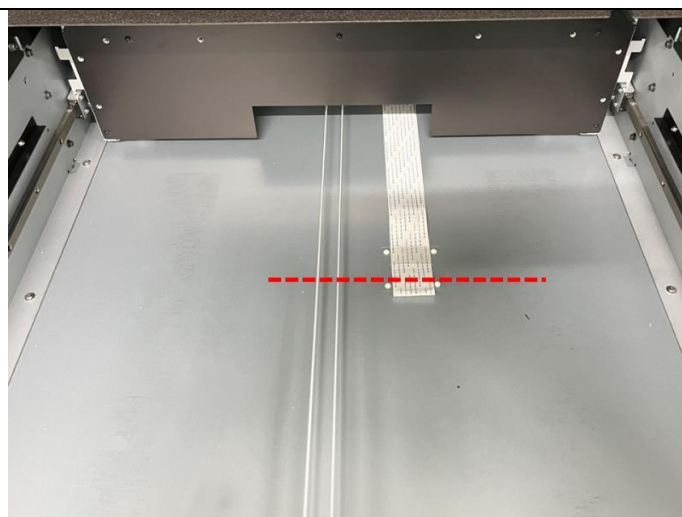
Step 4 / 22

Using a tension gauge, check the belt tension at the position shown in the figure.



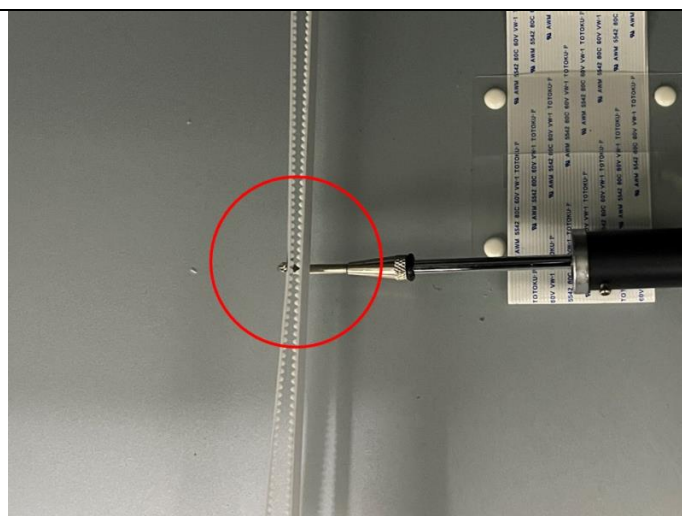
Step 5 / 22

Measure the belt tension at the position shown in the figure.



Step 6 / 22

Hook the left side of the belt to the tension gauge and pull in the right direction until the inner sides of the two belts are just about to touch.



Step 7 / 22

If the measurement is out of range, proceed to the next step. If the measured value is within the range, finish the operation.

### 測定結果/Measurement Result

| 測定値/Measurement Value | 判定/Judge  | 次の作業/Next step   |
|-----------------------|-----------|------------------|
| ～ 0.49 kgf            | Not Good  | To the next step |
| 0.5 ～ 0.6 kgf         | <b>OK</b> | Work completed   |
| 0.61 kgf ～            | Not Good  | To the next step |

Step 8 / 22

Remove the left side cover.



Step 9 / 22

Remove the screws on the side.





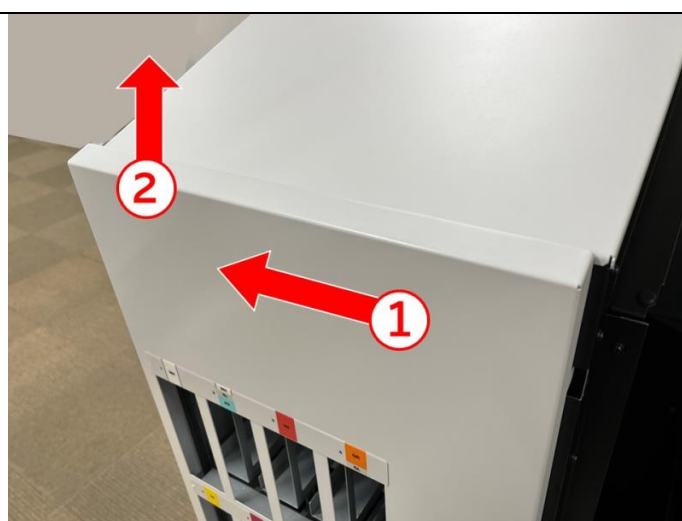
Step 10 / 22

Remove the screw under the cover.



Step 11 / 22

Remove the cover by sliding it to the left and then lifting it upward.



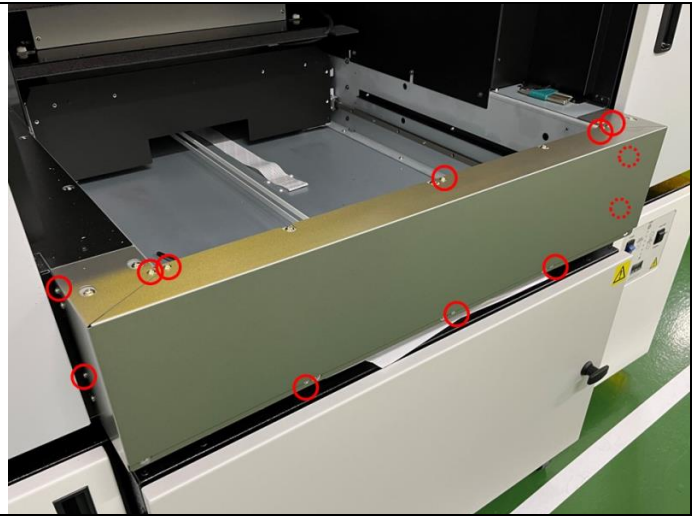
Step 12 / 22

Never remove the screws that make up the base. The base will be misaligned and the accuracy of the printer cannot be guaranteed.



Step 13 / 22

Remove the cover.



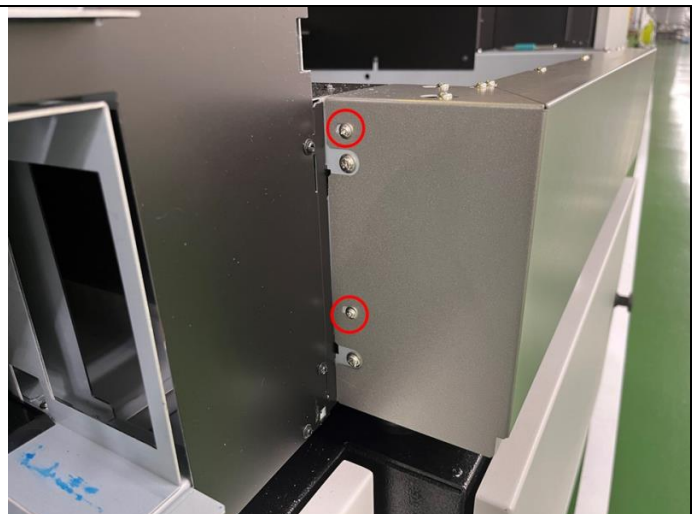
Step 14 / 22

Screws on the right side



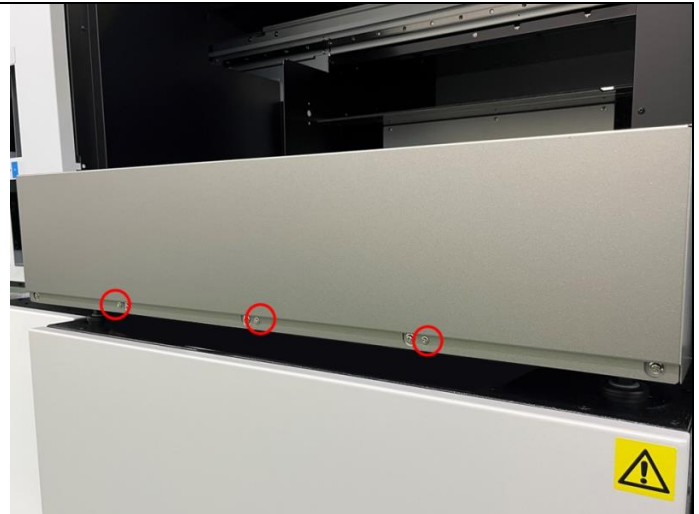
Step 15 / 22

Left side screw



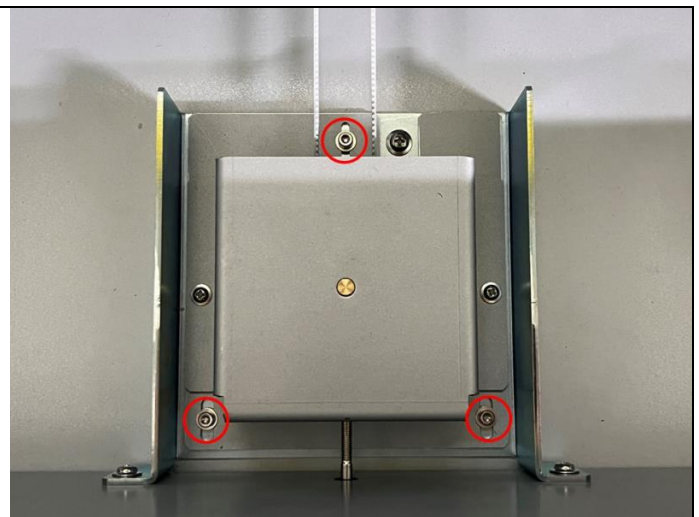
Step 16 / 22

Screws on the bottom



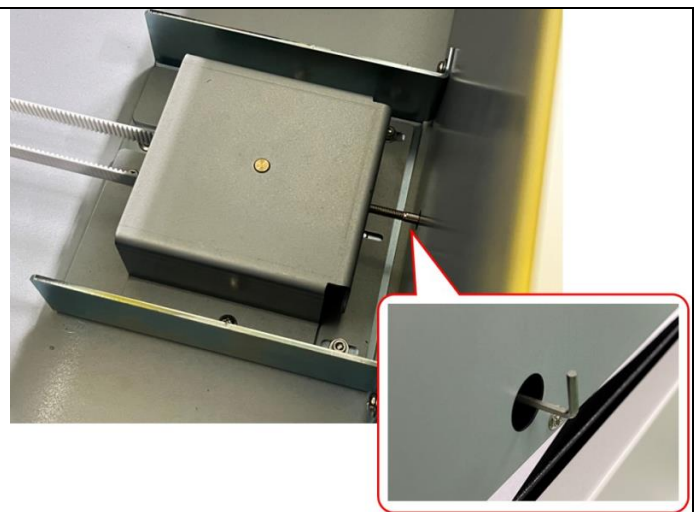
Step 17 / 22

Loosen the idle pulley fixing screws (3 places) about 1/2 turn.



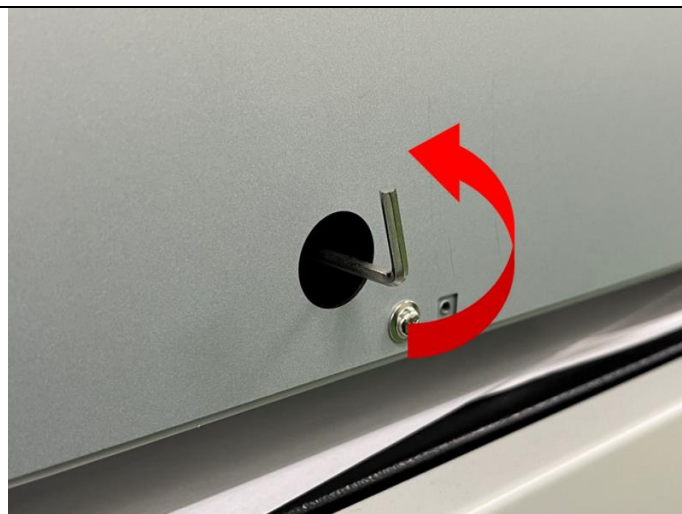
Step 18 / 22

Turn the tension screw and adjust the tension gauge value so that it is within the proper range according to the measurement method.



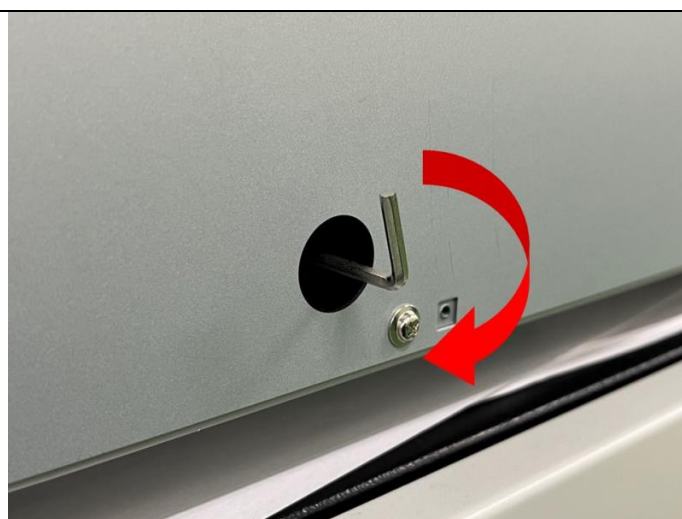
Step 19 / 22

Turn the screws to the left: Increase the tension



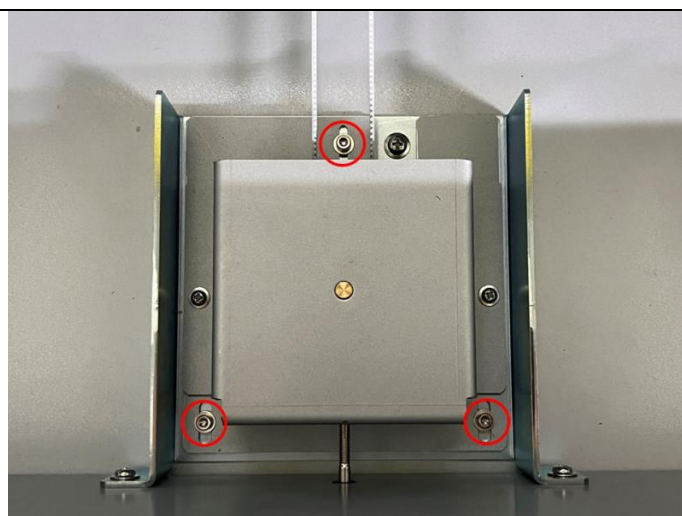
Step 20 / 22

Turn the screw to the right: decrease the tension



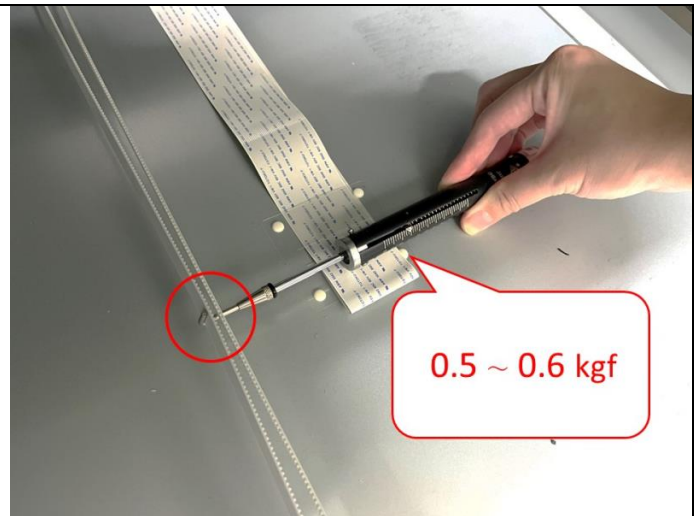
Step 21 / 22

Tighten the idle pulley fixing screws (3 places).



Step 22 / 22

Move the table back and forth several times by hand, and then check again that the tension is within the proper range.





## MO-180 Wiper position adjustment

# MO-180 Wiper position adjustment Information

Step 1 / 2

Necessary tools

### 一般ツール/General Tool

|            |  |
|------------|--|
| 無し<br>None |  |
|------------|--|

### 特殊治具/Special Tools

|            |  |
|------------|--|
| 無し<br>None |  |
|------------|--|

Step 2 / 2

Typical work time

### 作業時間/Typical work time

| 作業内容/Contents of work                 | 時間/Time |
|---------------------------------------|---------|
| ワイパー位置調整<br>Wiper Position Adjustment | 3 min.  |

# MO-180 Wiper position adjustment

## MO-180 Wiper position adjustment

### Procedure

Step 1 / 16

Connect Peck2 to the machine and enter service mode.



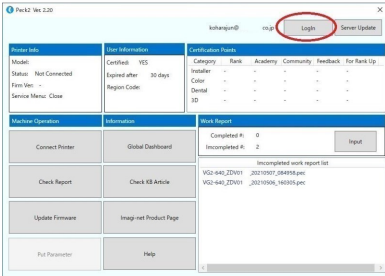
Step 2 / 16

Detail1: Start Peck2



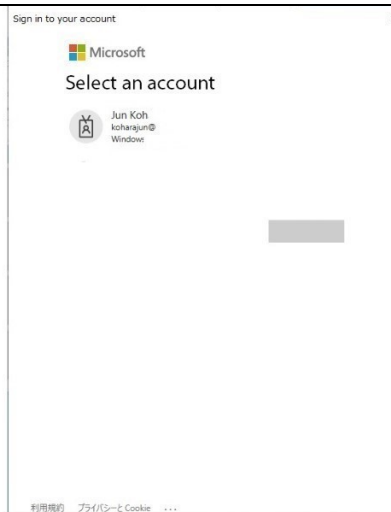
Step 3 / 16

Detail2: Click the [Login] butto



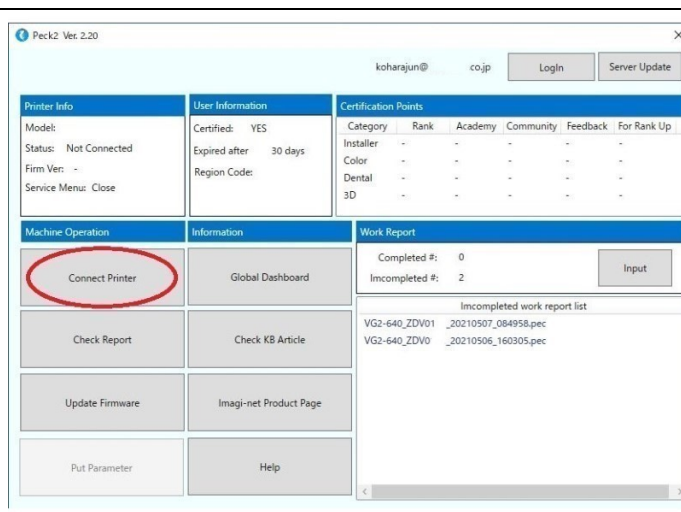
Step 4 / 16

Detail3: Log in with your Imagi-net ID



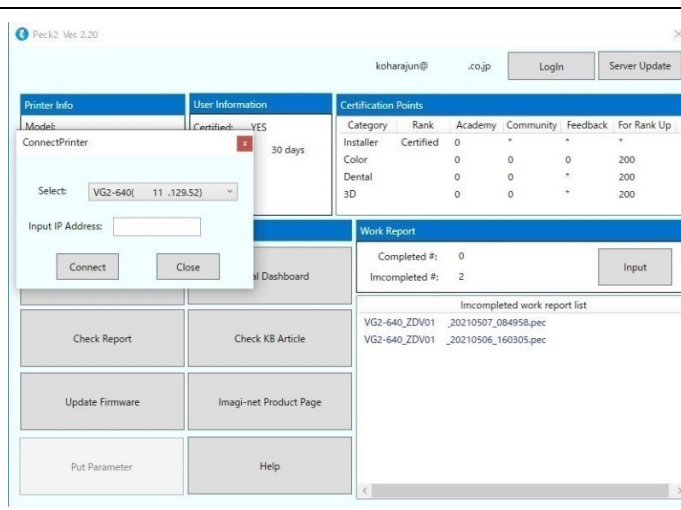
Step 5 / 16

Detail4: Click the [Connect Printer] button



Step 6 / 16

Detail5: Enter the IP address of the device you wish to connect to.



Step 7 / 16

Detail6: If you can connect to the printer, the printer information will be displayed in [Printer Info].

Peck2 Ver. 2.20

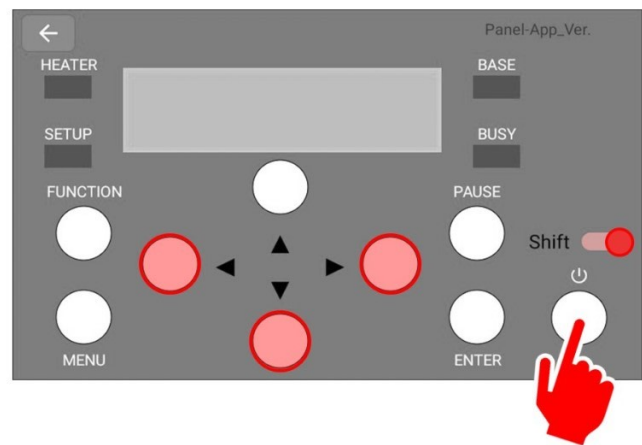
koharjun@ .co.jp Login Server Update

| 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          |                  |         | 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 / 16

Detail7: Press [Shift]> [□]+[□]+[□]+[Sub Power] on the panel to enter Service Mode. By turning on the [Shift] button, multipel buttons can be pressed at the same time.



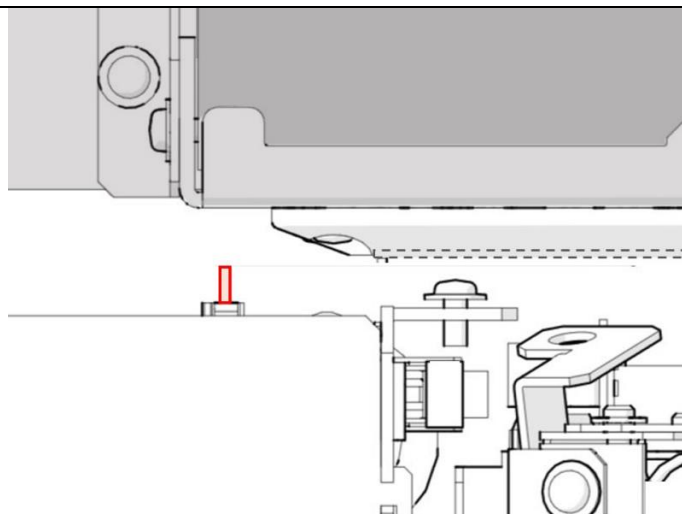
Step 9 / 16

Select [I/S MENU] > [WIPE ADJUST] > [WIPE HEIGHT].

|               |    |
|---------------|----|
| SERVICE MENU  | ◀▶ |
| I/S MENU      | ▶  |
| I/S MENU      | ◀▶ |
| WIPE ADJUST   | ▶  |
| WIPE ADJUST   | ◀▶ |
| WIPE HEIGHT   | ▶  |
| WIPE HEIGHT   | ◀▶ |
| Ostep ▶ Ostep | ◀▶ |

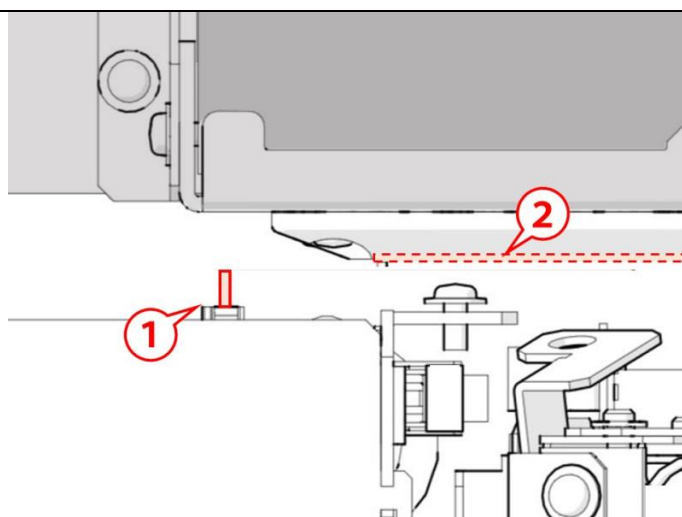
Step 10 / 16

Check the position of the wiper.



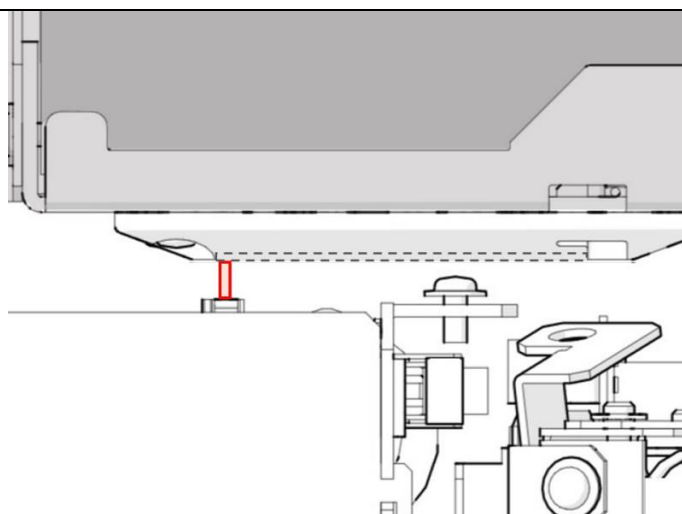
Step 11 / 16

Detail1: 1. Wiper 2. Print head



Step 12 / 16

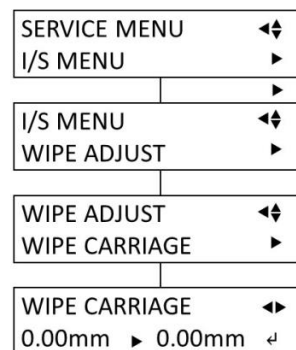
Press the [□] key to raise the wiper and press the [ENTER] key where the tip of the wiper touches the print head surface. Note: By press the [□] key, the wiper moves to the initial position.





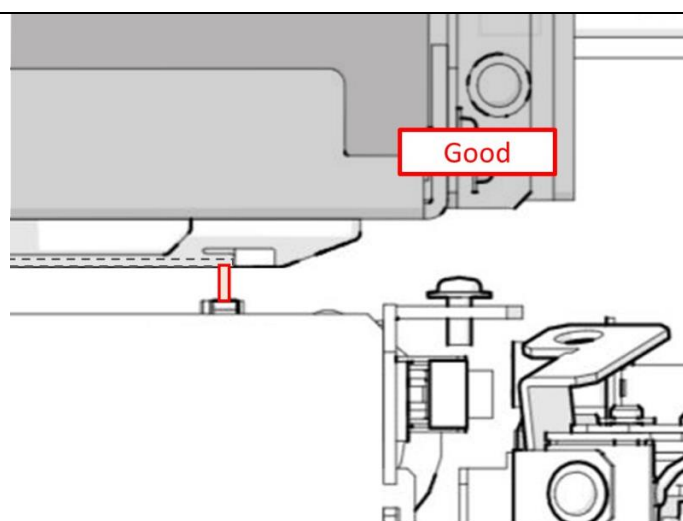
Step 13 / 16

Select [I/S MENU] > [WIPE ADJUST] > [WIPE CARRIAGE].



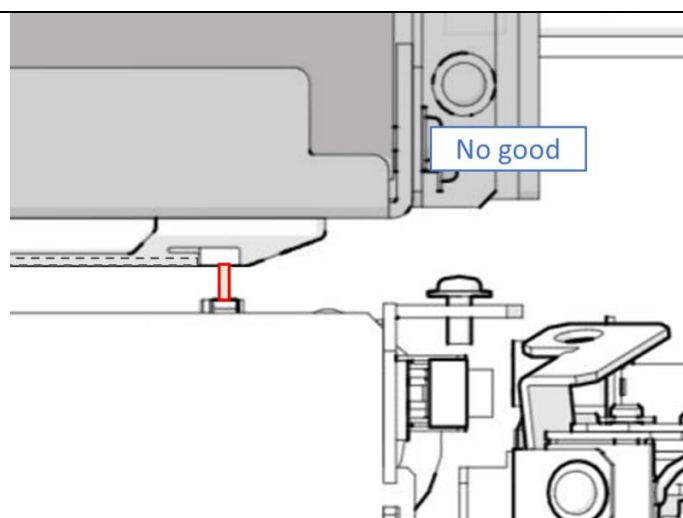
Step 14 / 16

Press the [□] [□] keys to move the print head carriage, and press the [ENTER] key where the right edge of the wiper is aligned with the left edge of the head guard notch.



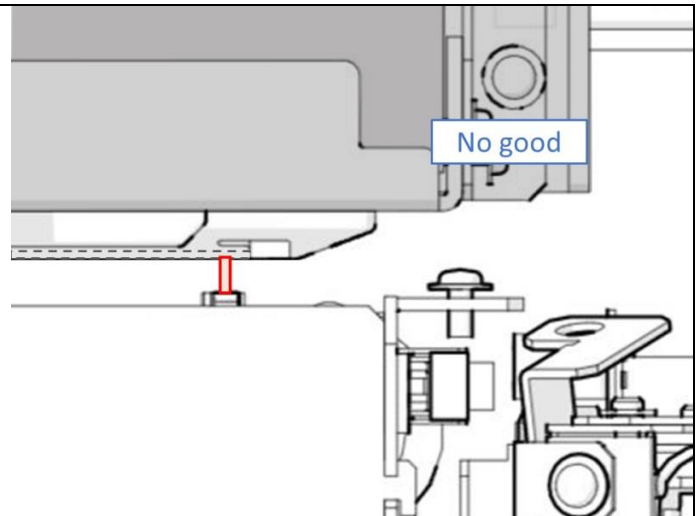
Step 15 / 16

Detail1: Incorrect position example 1



Step 16 / 16

Detail2: Incorrect position example 2



## MO-180 Print head gap sensor position adjustment

# MO-180 Print head gap sensor position adjustment Information

Step 1 / 2

Tools needed for adjustment

### 一般ツール/General Tool

|                                            |                                                                                     |
|--------------------------------------------|-------------------------------------------------------------------------------------|
| プラスドライバー No.2<br>No.2 Phillips screwdriver |  |
| 六角レンチ 2.5mm<br>2.5mm hexagonal wrench      |  |
| 六角レンチ 3.0mm<br>3.0mm hexagonal wrench      |  |

Step 2 / 2

standard working hours

### 作業時間/Typical work time

| 作業内容/Contents of work                                  | 時間/Time |
|--------------------------------------------------------|---------|
| ヘッドギャップセンサー位置調整<br>Head gap sensor position adjustment | 30 min. |

# MO-180 Print head gap sensor position adjustment

## MO-180 Print head gap sensor position adjustment Procedure

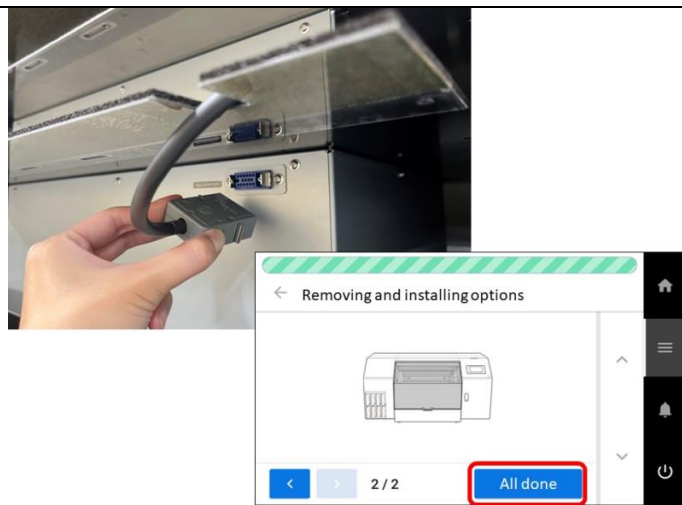
Step 1 / 35

If the vacuum table or rotary axis unit is on the table, remove it.



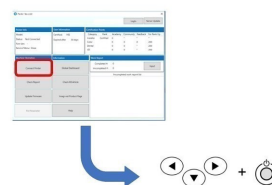
Step 2 / 35

Detail1: Return to user mode and select [Remove/install options] to remove optional items.



Step 3 / 35

Connect Peck2 to the aircraft and enter service mode.



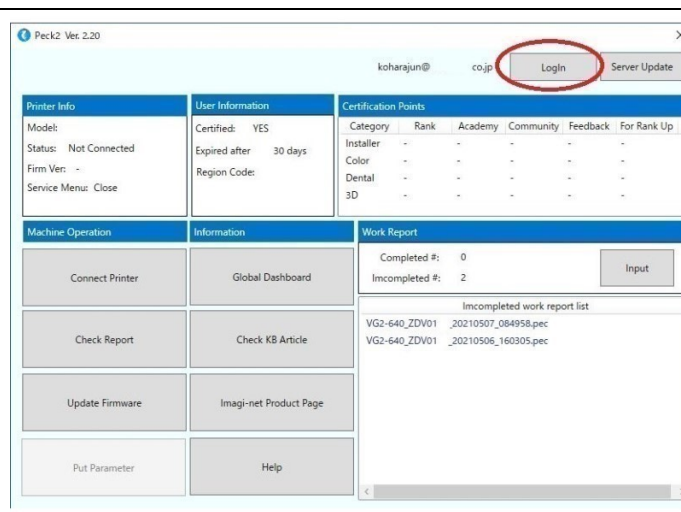
Step 4 / 35

Detail1: Start Peck2.



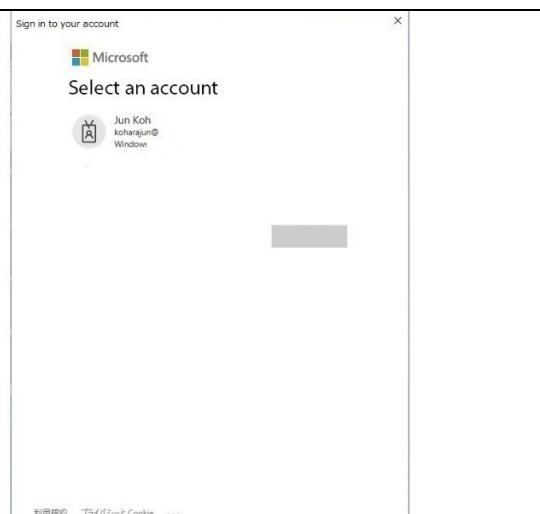
Step 5 / 35

Detail2: Click the "Login" button.



Step 6 / 35

Detail3: Log in with your Imagi-net ID.





Step 7 / 35

Detail4: 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: -           | 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       | Imcompleted #: 2 |
| Update Firmware   | Imagi-net Product Page | Input            |
| Put Parameter     | Help                   |                  |

Imcompleted work report list

VG2-640\_ZDV01 \_20210507\_084958.pec

VG2-640\_ZDV01 \_20210506\_160305.pec

Step 8 / 35

Detail5: Enter the IP address of the aircraft to connect.

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: -           | 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       | Imcompleted #: 2 |
| Update Firmware   | Imagi-net Product Page | Input            |
| Put Parameter     | Help                   |                  |

Imcompleted work report list

VG2-640\_ZDV01 \_20210507\_084958.pec

VG2-640\_ZDV01 \_20210506\_160305.pec

Step 9 / 35

Detail6: Once connected to the 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       | 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       | Imcompleted #: 2 |
| Update Firmware   | Imagi-net Product Page | Input            |
| Put Parameter     | Help                   |                  |

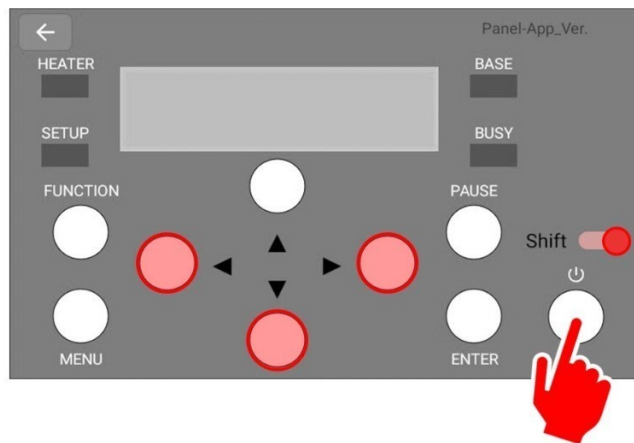
Imcompleted work report list

VG2-640\_ZDV01 \_20210507\_084958.pec

VG2-640\_ZDV01 \_20210506\_160305.pec

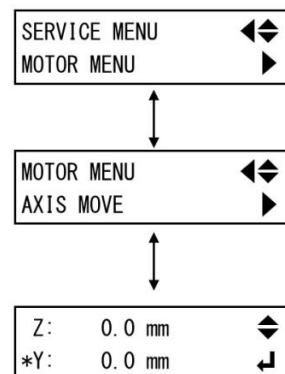
Step 10 / 35

Detail7: Press [Shift] > [□] + [□] + [□] + [Sub power] on the aircraft panel to enter service mode. By turning on the [Shift] button, you can press the buttons at the same time.



Step 11 / 35

Set [Y:0.0mm] in [SERVICE MENU] > [MOTOR MENU] > [AXIS MOVE] to move the table backwards.



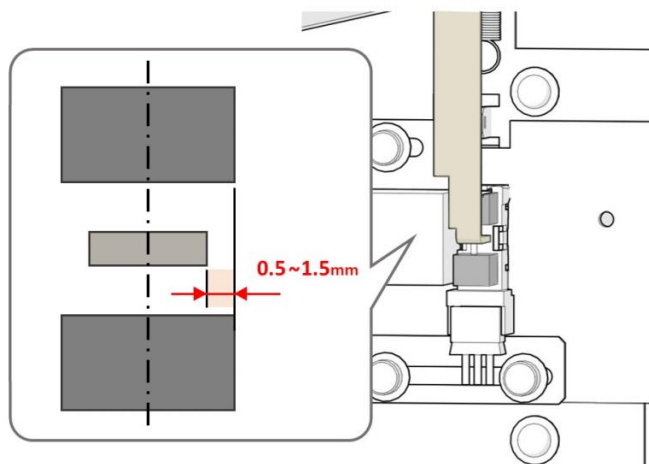
Step 12 / 35

Remove the cover.



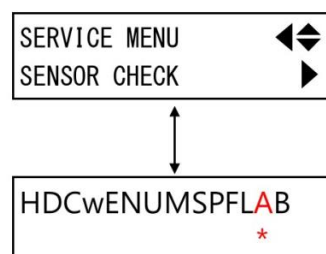
Step 13 / 35

Check the distance between the sensor plate and the side of the head gap sensor. If the distance is 0.5 to 1.5 mm, proceed to plate position adjustment. If the position is incorrect, follow the steps below to adjust the position.



Step 14 / 35

Check the sensor status. Open the [ SENSOR CHECK] screen.



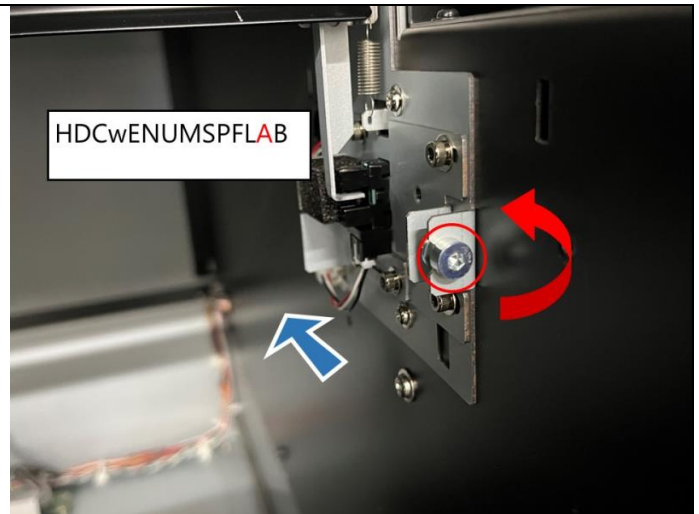
Step 15 / 35

Loosen the three screws by turning them counterclockwise about three turns.



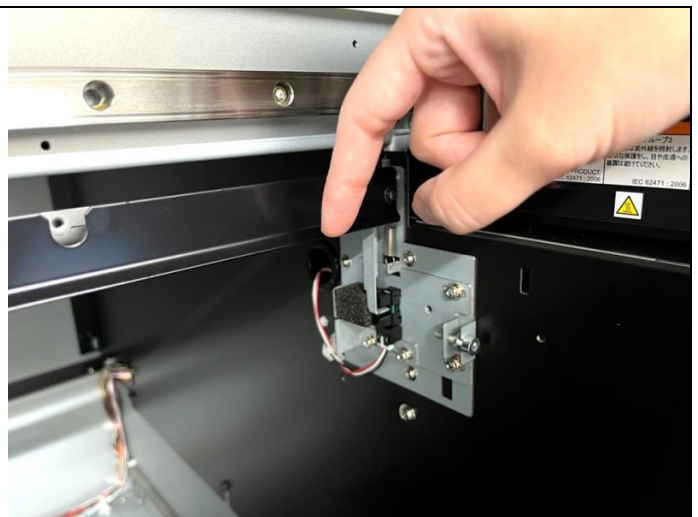
Step 16 / 35

Turn the adjustment screw to the left until the sensor is no longer hit.



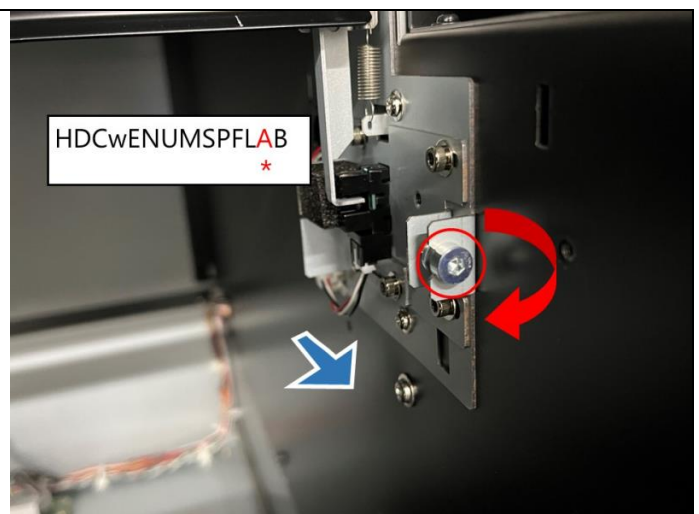
Step 17 / 35

Gently flick the sensor plate with your finger to return it to its initial position.



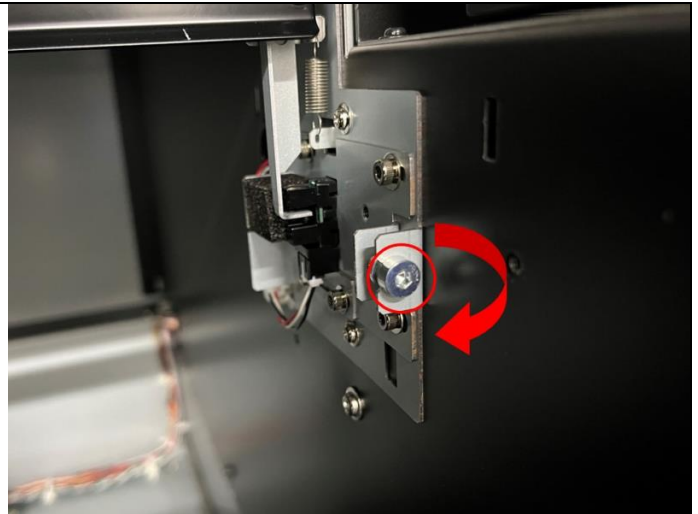
Step 18 / 35

Turn the adjustment screw to the right until the sensor hits.



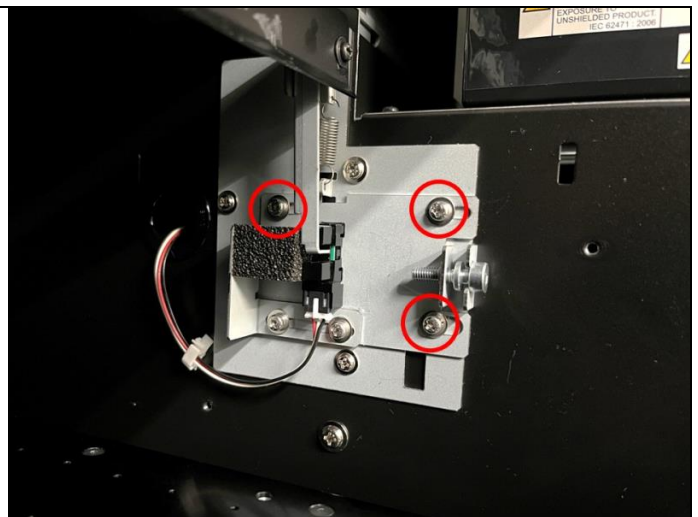
Step 19 / 35

From the position where the sensor hits, turn the adjustment screw three more times to the right.



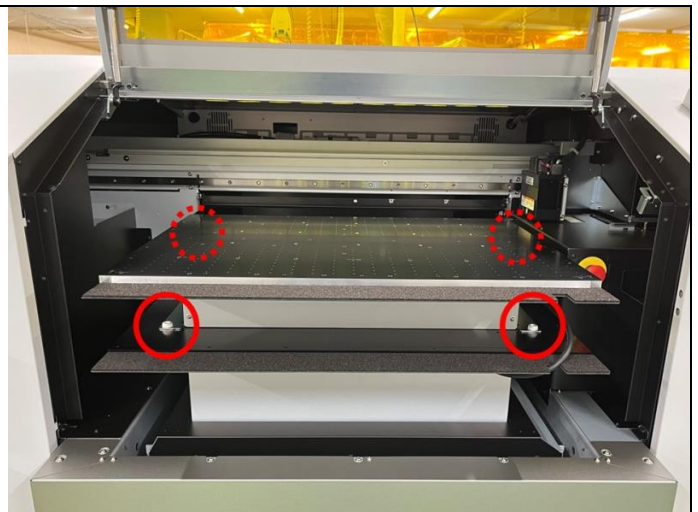
Step 20 / 35

Tighten and secure the three screws.



Step 21 / 35

Attach the vacuum table to the table. If a positioning jig is attached at this time, remove it.





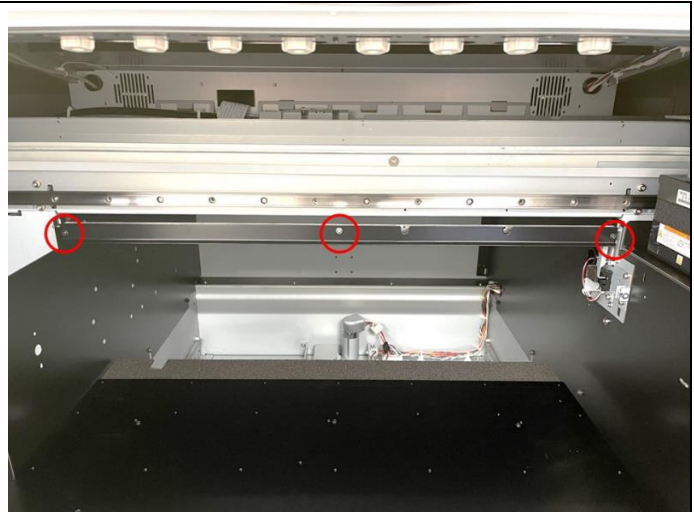
Step 22 / 35

Detail1: Return to user mode and select [ Optional installation/removal] to install the vacuum table.



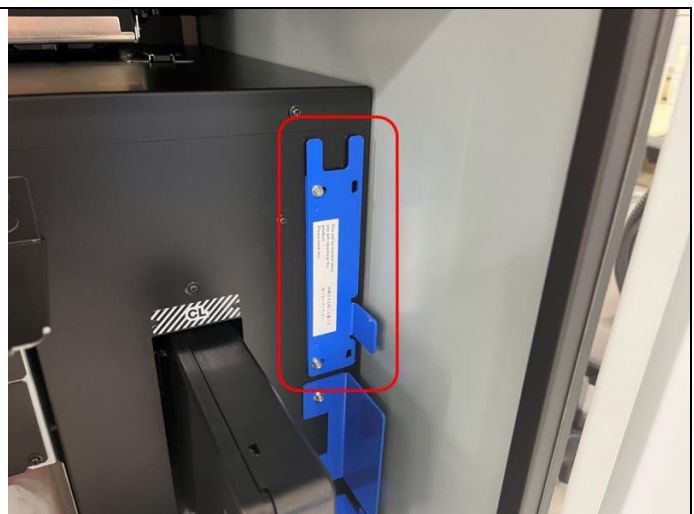
Step 23 / 35

Loosen the print head gap sensor plate screw.



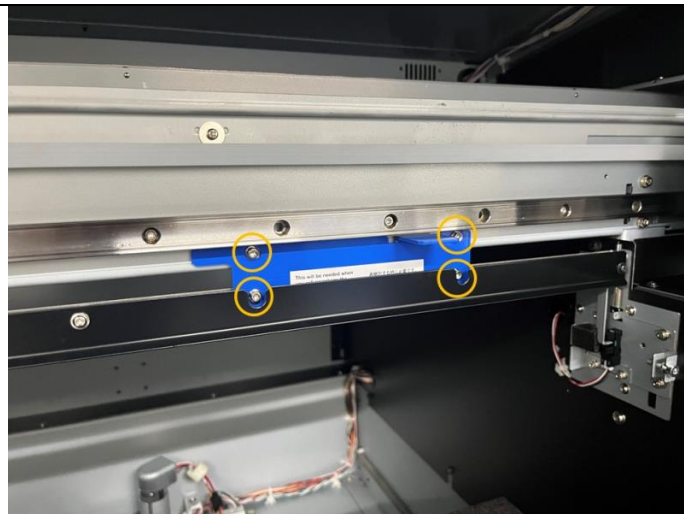
Step 24 / 35

In order to use the fixing device and four screws, remove the fixing device attached to the main body.



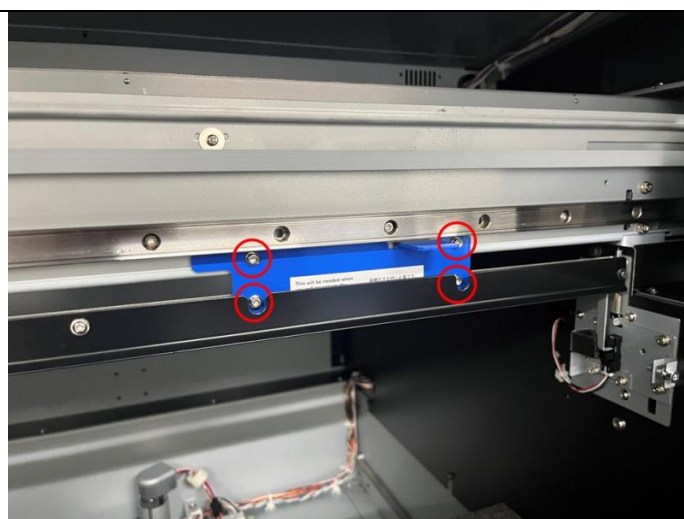
Step 25 / 35

Attach the fixture to the position where you want to fix it and temporarily secure it with the four screws.



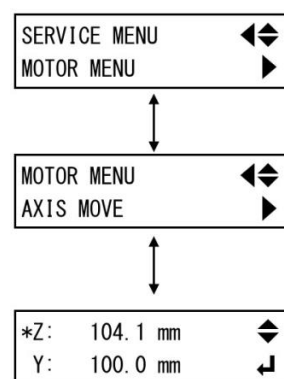
Step 26 / 35

Tighten the four screws. Be careful not to fix the plate in the lifted position.



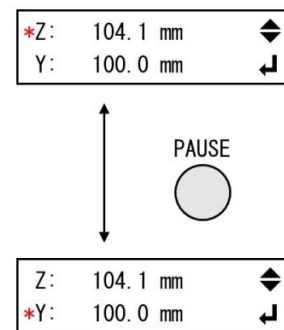
Step 27 / 35

Set [Y:100.0mm] in [SERVICE MENU] > [MOTOR MENU] > [AXIS MOVE], and then set it to [Z:104.1mm].



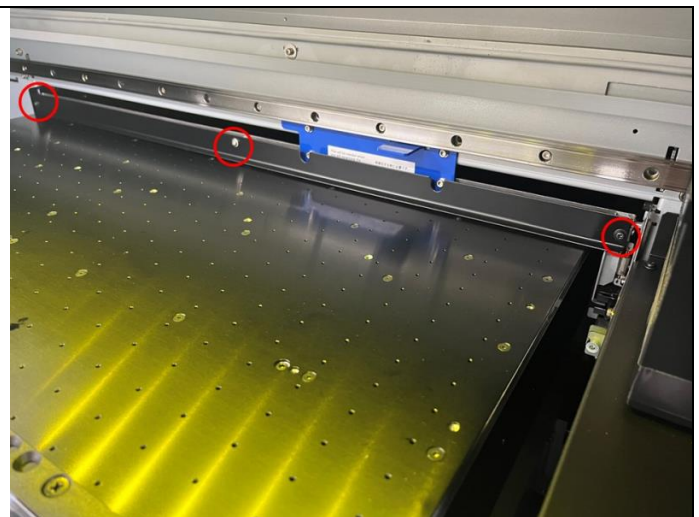
Step 28 / 35

**Detail1:** Press the PAUSE key to switch the movement direction between Z and Y.



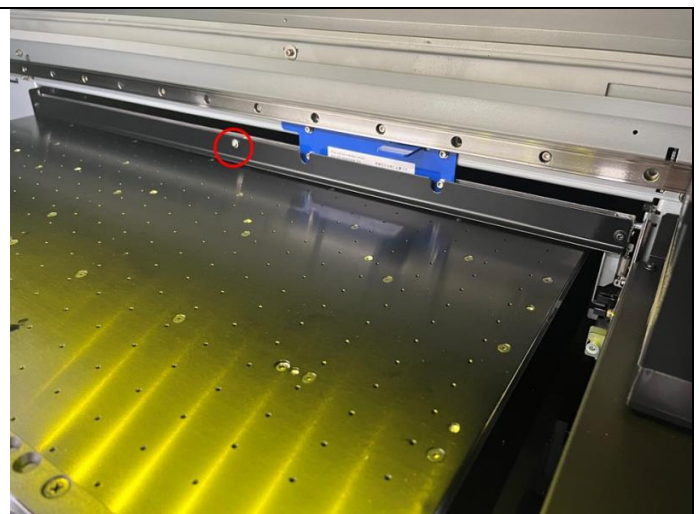
Step 29 / 35

With the head gap sensor plate placed against the top of the vacuum table, tighten the three screws.



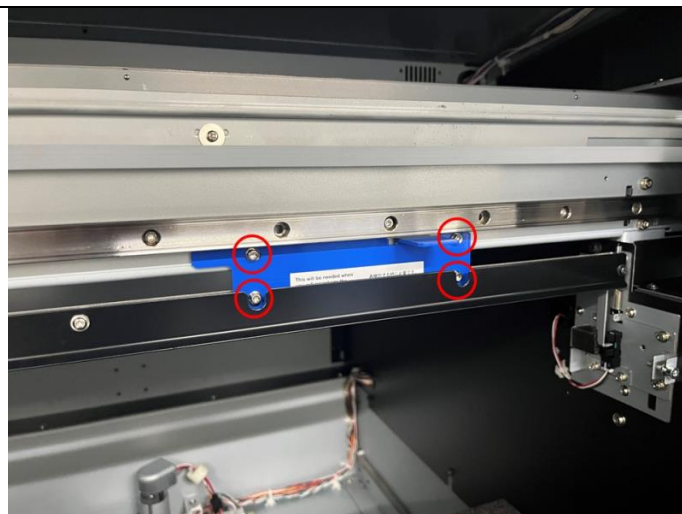
Step 30 / 35

Loosen the center screw by turning it halfway counterclockwise.



Step 31 / 35

Remove the fixture.



Step 32 / 35

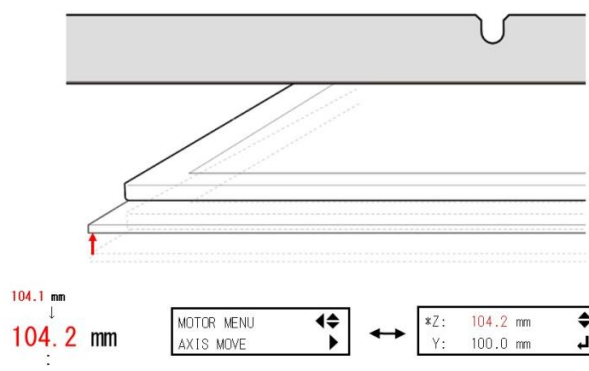
Raise the table using [SERVICE MENU] > [MOTOR MENU] > [AXIS MOVE] and check if the table stops between 104.4mm and 104.5mm. If not, please change the table height and readjust it.

|     |          |   |
|-----|----------|---|
| *Z: | 104.4 mm | ↕ |
| Y:  | 100.0 mm | ↩ |

Step 33 / 35

Detail1: If the height of the table after adjustment is less than 104.3mm, raise the height of the table to be reset to [Z:104.2mm] or more and adjust again.

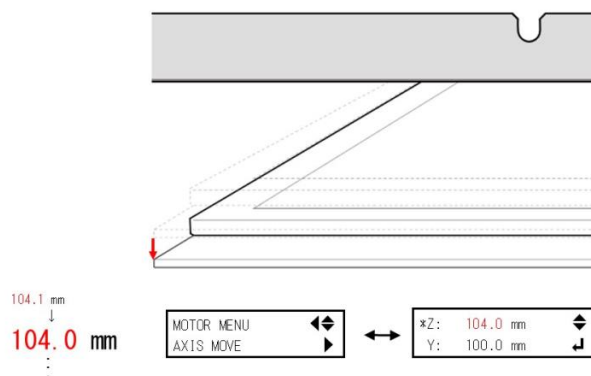
$Z \leq 104.3 \text{ mm}$



Step 34 / 35

Detail2: If the height of the table after adjustment is 104.6mm or more, lower the height of the table to be reset to [Z:104.0mm] or less and adjust again.

$Z \geq 104.6 \text{ mm}$



Step 35 / 35

Attach the cover and return the removed fixings and screws to their original positions to complete the work.





## MO-180 UV lamp height adjustment

# MO-180 UV lamp height adjustment

## Information

Step 1 / 3

Necessary tools

### 一般ツール/General Tool

六角レンチ2.5mm  
2.5 mm hexagonal wrench



Step 2 / 3

Special tools

### 特殊治具/Special Tools

シツクネスゲージ  
Thickness gauge



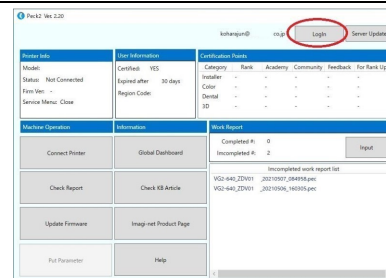
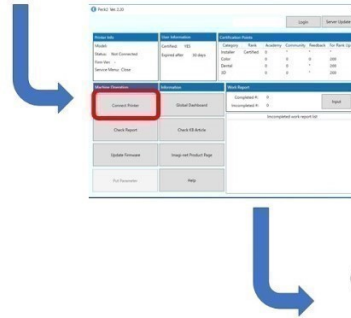
Step 3 / 3

Typical work time

### 作業時間/Typical work time

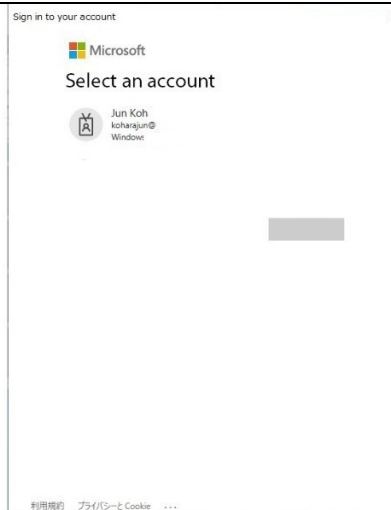
| 作業内容/Contents of work                  | 時間/Time |
|----------------------------------------|---------|
| UVランプ高の調整<br>UV lamp height adjustment | 10 min. |

## Procedure



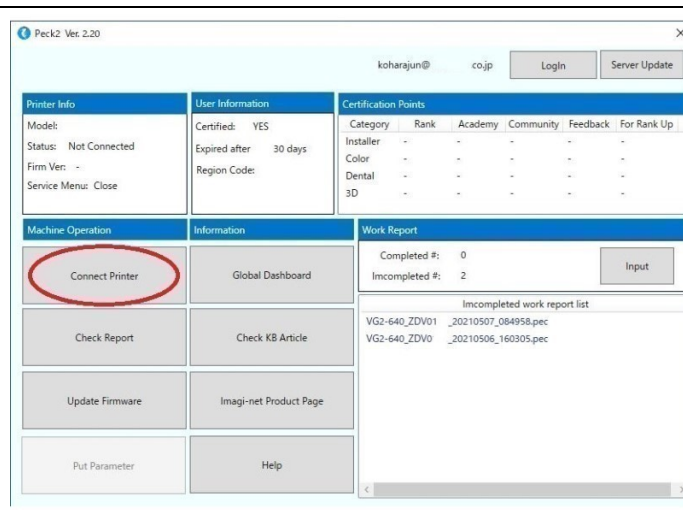
Step 4 / 20

Detail3: Log in with your Imagi-net ID.



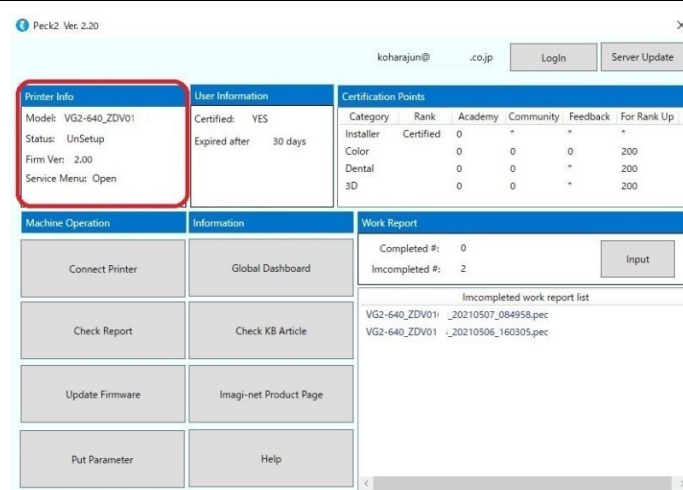
Step 5 / 20

Detail4: Click [Connect Printer].



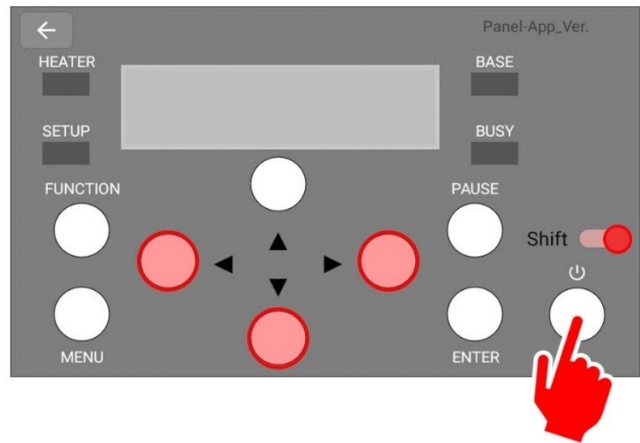
Step 6 / 20

Detail5: Printer information will be displayed.



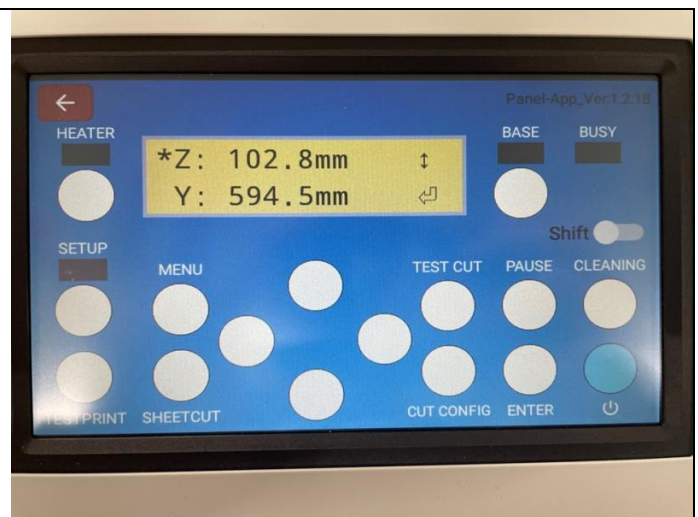
Step 7 / 20

Detail6: Start Service Mode.



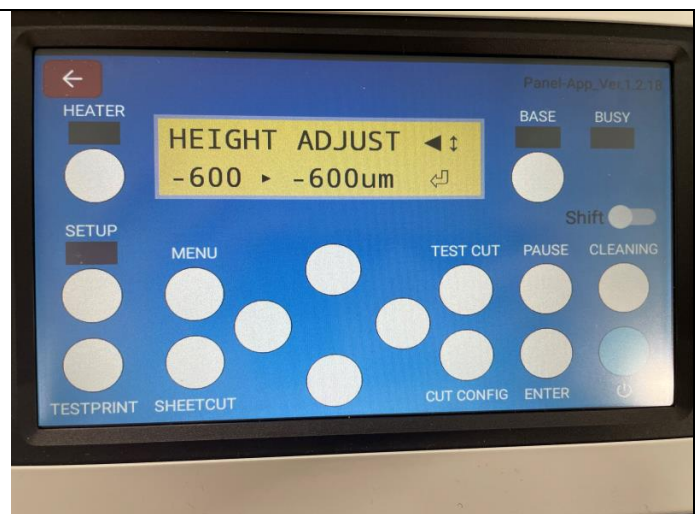
Step 8 / 20

Move Y to a position where you can work comfortably (approx. 594.5 mm) using [AXIS MOVE]. Set Z to (103.4 mm + "table height adjustment value"). (e.g.) 103.4 mm + "table height adjustment value - 0.6 mm" = 102.8 mm



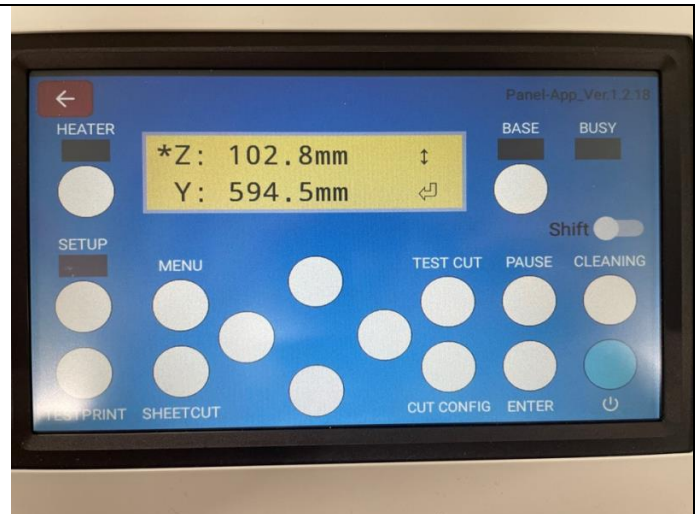
Step 9 / 20

Detail1: Check the table height adjustment value by selecting [SERVICE MENU] > [SUB MENU] > [HEIGHT ADJUST]. 100μm = 0.1 mm



Step 10 / 20

Detail2: Use the up/down keys to move the axis with \*. The axis can be switched by pressing the [Pause] key; pressing the [ENTER] key cancels the operation.



Step 11 / 20

Detail3: Example: 103.4 mm + "HEIGHT ADJUST: -600μm (-0.6 mm)" = 102.8 mm

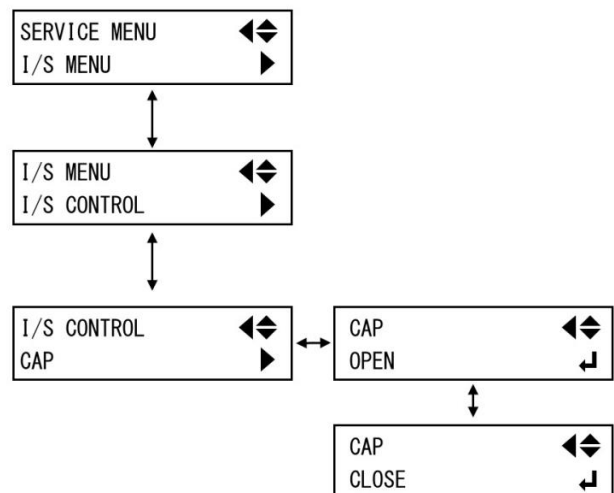
Example/例

$$103.4\text{mm} - (-600\mu\text{m}/0.6\text{mm}) = 102.8\text{mm}$$



Step 12 / 20

Select [OPEN] in [I/S MENU] > [I/S CONTROL] > [CAP] to lower the cap height.





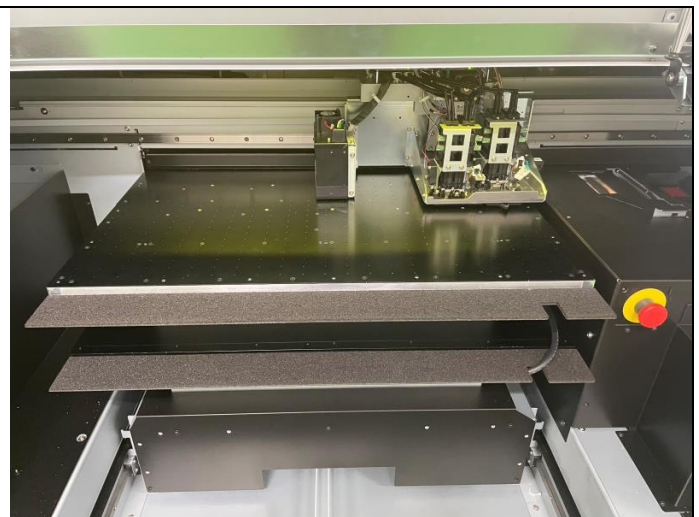
Step 13 / 20

Since the power is turned on, note that an alarm will sound if your hand or tools touch the ionizer.



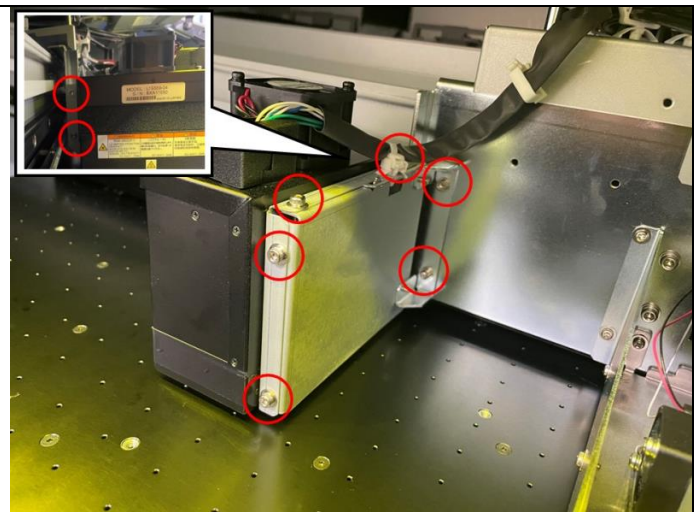
Step 14 / 20

Unlock the print head carriage and move it so that the UV lamp is in the center of the table.



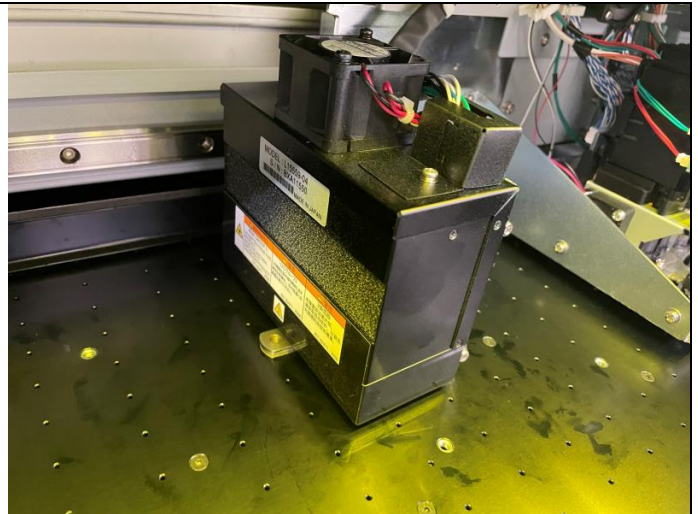
Step 15 / 20

Loosen the screws on the UV lamp stay.



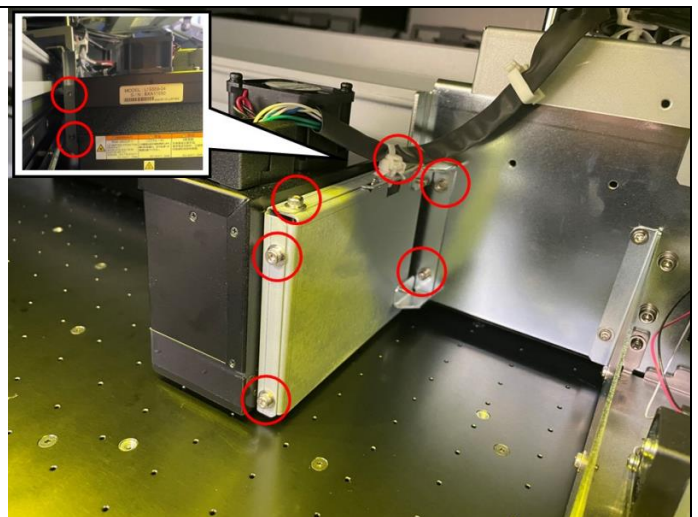
Step 16 / 20

With the 3.0 mm Thickness Gauge placed so that it is directly under the UV lamp stay, tighten the screws on the stay.



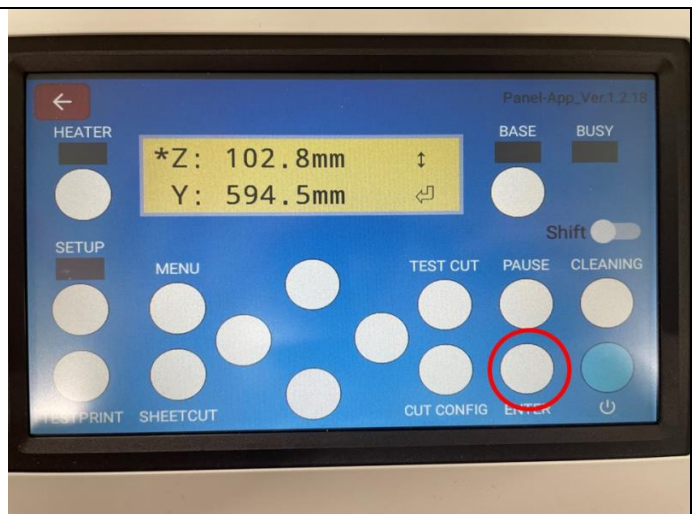
Step 17 / 20

Detail1: Tighten the screws.



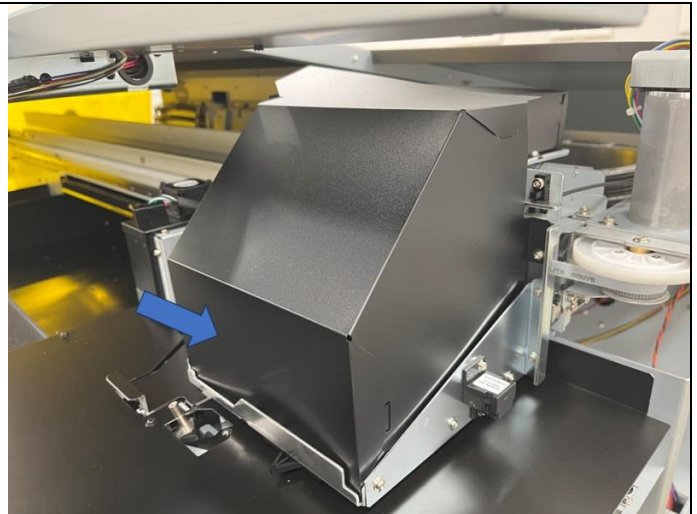
Step 18 / 20

When you have completed the work, press [Enter] to exit from [AXIS MOVE].



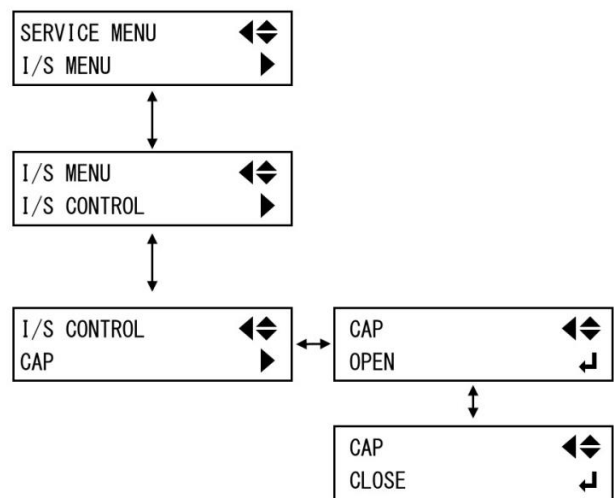
Step 19 / 20

Return the print head carriage to the origin position.



Step 20 / 20

Select [CLOSE] in [I/S MENU] > [I/S CONTROL] > [CAP] to restore the cap height.



## MO-180 Table height adjustment

# MO-180 Table height adjustment

## Information

Step 1 / 4

50 to 150 mm blocks with parallelism and 150 to 250 mm blocks are required for adjustment.



Step 2 / 4

Tools required for adjustment

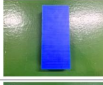
### 一般ツール/General Tool

|                                            |                                                                                       |
|--------------------------------------------|---------------------------------------------------------------------------------------|
| プラスドライバー No.2<br>No.2 Phillips screwdriver |  |
| 六角レンチ 2.0mm<br>2.0mm hexagonal wrench      |  |
| 六角レンチ 1.5mm<br>1.5mm hexagonal wrench      |  |
| 定規<br>Ruler                                |  |

Step 3 / 4

Special jig

### 特殊治具/Special Tool

|                                                               |                                                                                       |
|---------------------------------------------------------------|---------------------------------------------------------------------------------------|
| 平行度がとれているブロック (150~250mm)<br>Parallelepiped block (150~250mm) |  |
| 平行度がとれているブロック (50~150mm)<br>Parallelepiped block (50~150mm)   |  |

Step 4 / 4

## Standard working time

### 作業時間/Typical work time

| 作業内容/Contents of work               | 時間/Time |
|-------------------------------------|---------|
| テーブル高さ調整<br>Table height adjustment | 60 min. |



## MO-180 Table height adjustment

# MO-180 Table height adjustment Procedure

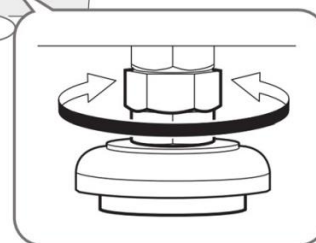
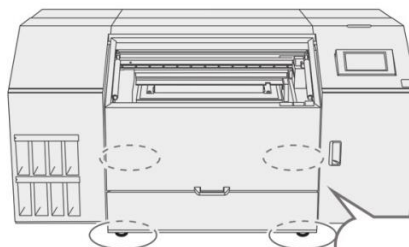
Step 1 / 77

The machine body must be level when adjusting the table. If the adjustment is not made in the condition indicated thereafter, accuracy cannot be guaranteed.



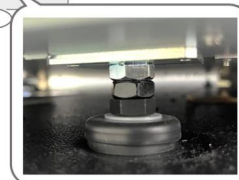
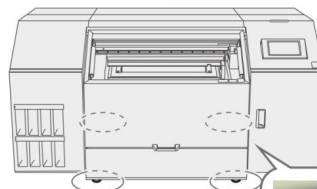
Step 2 / 77

Turn the nut on the base adjuster so that there is no gap between the nuts on all four legs.



Step 3 / 77

Ensure that all four legs are grounded.



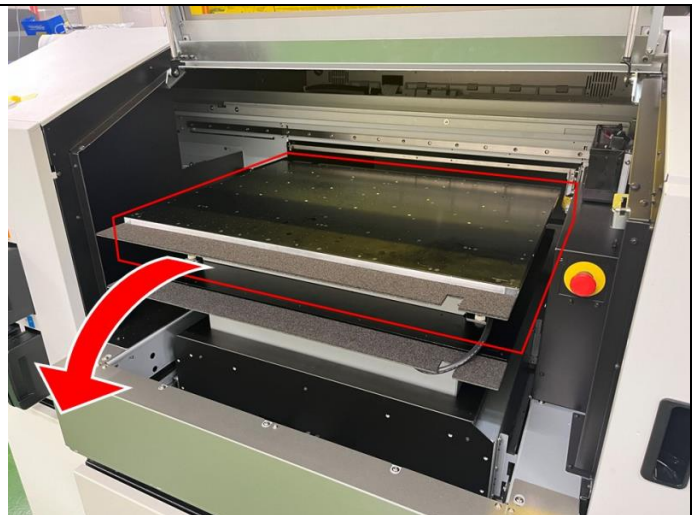
Step 4 / 77

Detail1: If all four legs are not grounded on the stand, move the printer from the stand to a grounded position.



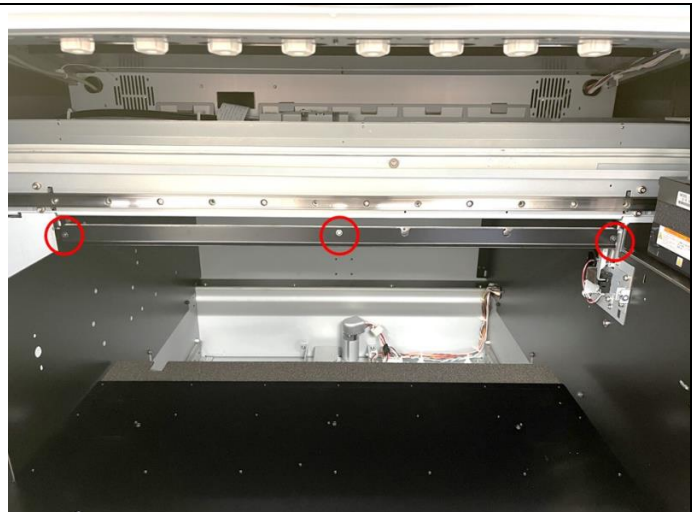
Step 5 / 77

Remove the vacuum table if it is attached.



Step 6 / 77

Remove the screws and remove the head gap sensor.



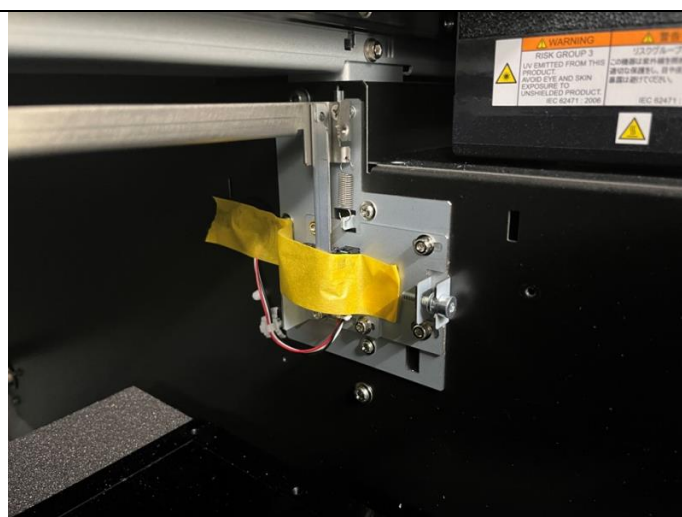
Step 7 / 77

Remove the screws and remove the sensor cover.



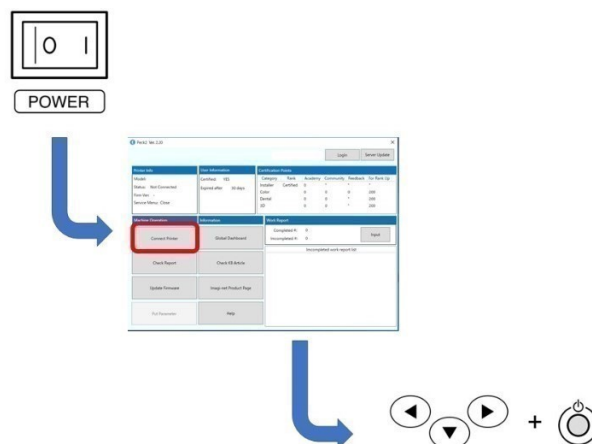
Step 8 / 77

Secure the sheet metal with tape and disable the head gap sensor.



Step 9 / 77

Connect the Peck2 to the printer and enter service mode.



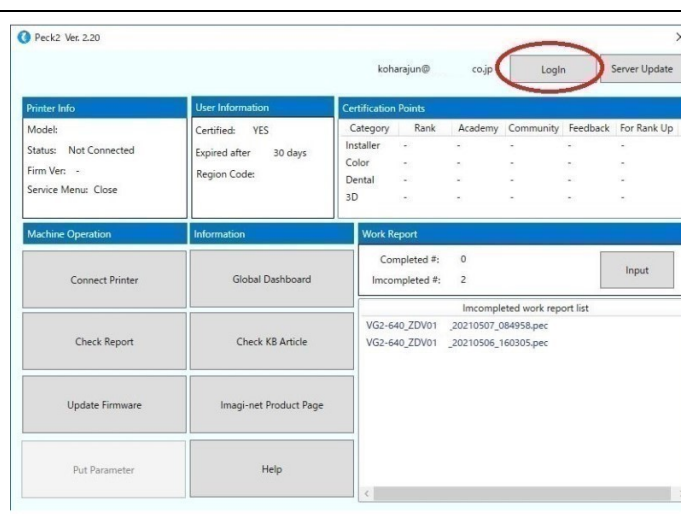
Step 10 / 77

Detail1: Start Peck2.



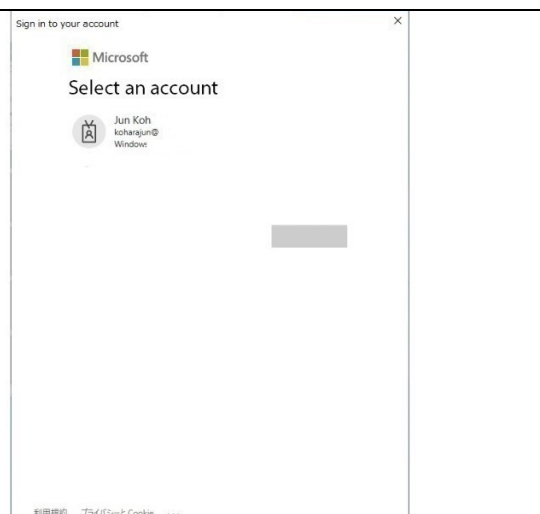
Step 11 / 77

Detail2: Click on the Login button.



Step 12 / 77

Detail3: Login with your Imagi-net ID.



Step 13 / 77

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            | -    | -       | -         | -        | -           |
| Firm Ver:     | -             | Region Code:     |         | Color                | -    | -       | -         | -        | -           |
| Service Menu: | Close         |                  |         | Dental               | -    | -       | -         | -        | -           |
|               |               |                  |         | 3D                   | -    | -       | -         | -        | -           |

| 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 14 / 77

Detail5: Enter the IP address of the printer you wish 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         | 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 15 / 77

Detail6: When the printer is connected, the printer information will be displayed in Printer Info.

Peck2 Ver 2.20

koharjun@ .co.jp Login Server Update

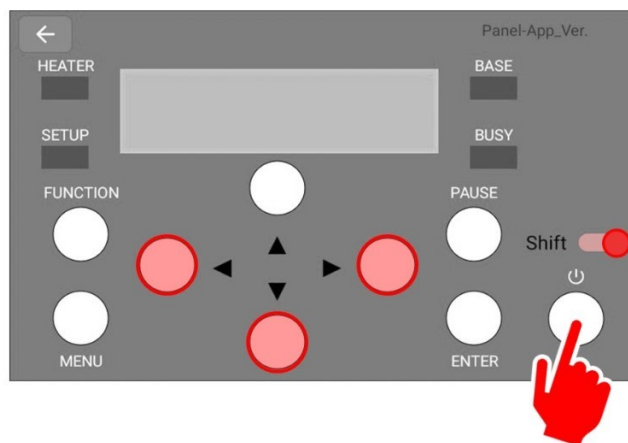
| Printer Info  |               | User Information |         | Certification Points |           |         |           |          |             |
|---------------|---------------|------------------|---------|----------------------|-----------|---------|-----------|----------|-------------|
| Model:        | 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          |                  |         | Color                | 0         | 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 |   |             |  |



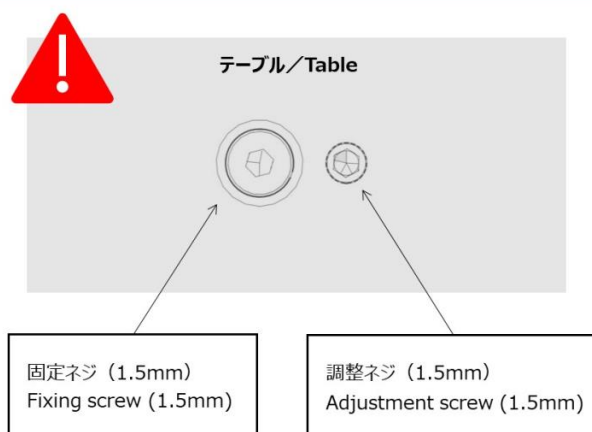
Step 16 / 77

Detail7: Press the printer panel [Shift]> [ ]+[ ]+[ ]+[Sub Power] to enter the service mode. Turning the [Shift] button ON enables simultaneous button presses.



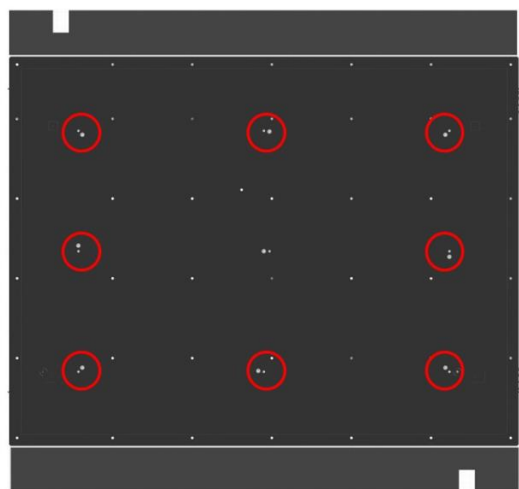
Step 17 / 77

The table has a fixing screw and an adjustment screw. Follow the instructions to adjust the table with the appropriate screws.



Step 18 / 77

Loosen the 8 fixing screws except the center screw by 1/2 turn.



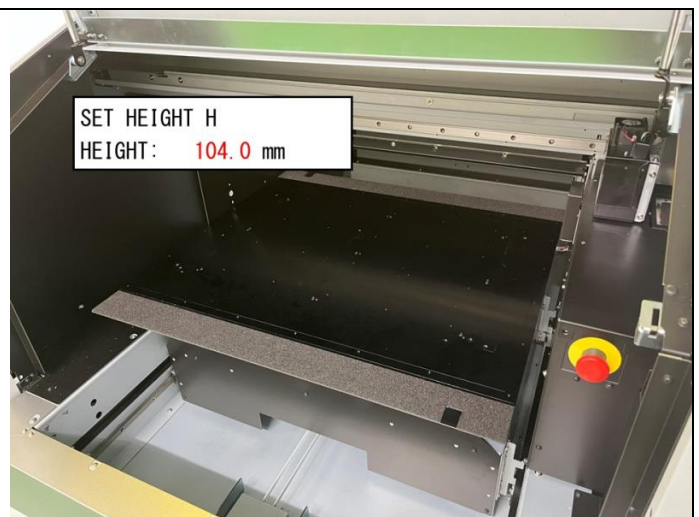
Step 19 / 77

### Detail1: Fixing Screws



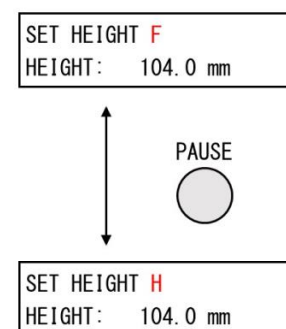
Step 20 / 77

In the state of [SETUP MEDIA], press the ☐☐ keys to set the table height to 104.0 mm and press the [Enter] key.



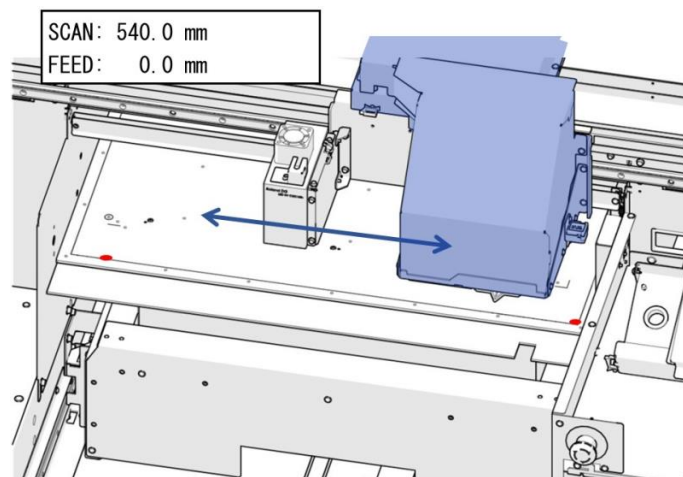
Step 21 / 77

Detail1: Press the PAUSE key to switch the operation between the height and feed directions.



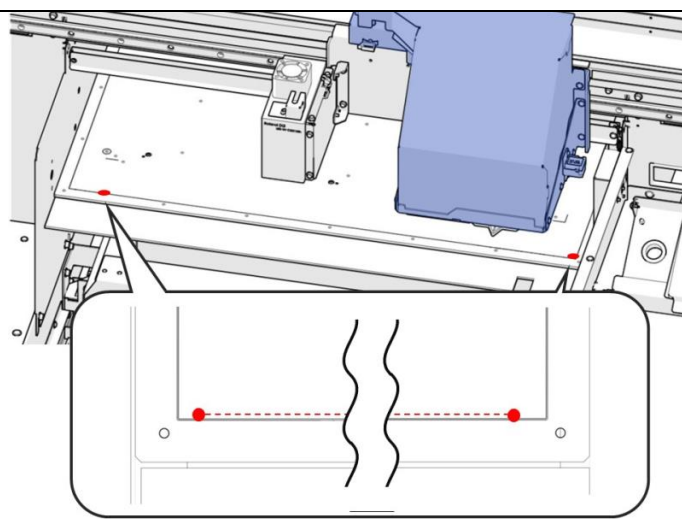
Step 22 / 77

In the state of [SETUP MEDIA], press the  keys to move the LED pointer position while adjusting the table position so that the table left/right displacement is within 0.3 mm.



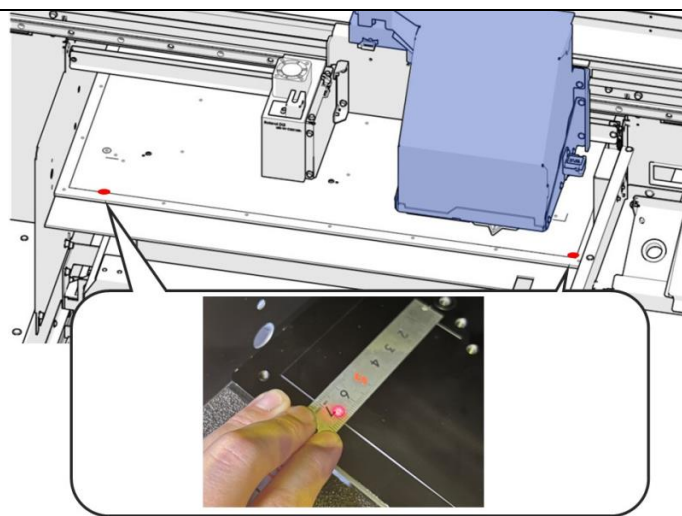
Step 23 / 77

Detail1: Adjust the table position so that the position of the LED marker is the same on both sides.



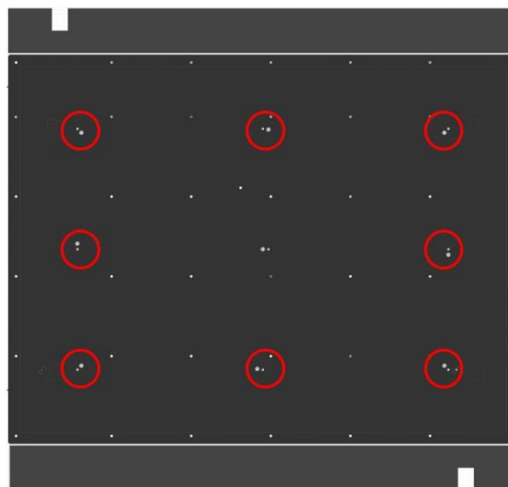
Step 24 / 77

2: Confirm that the table left/right misalignment is within 0.3mm. Using a ruler makes it easier to check the position.



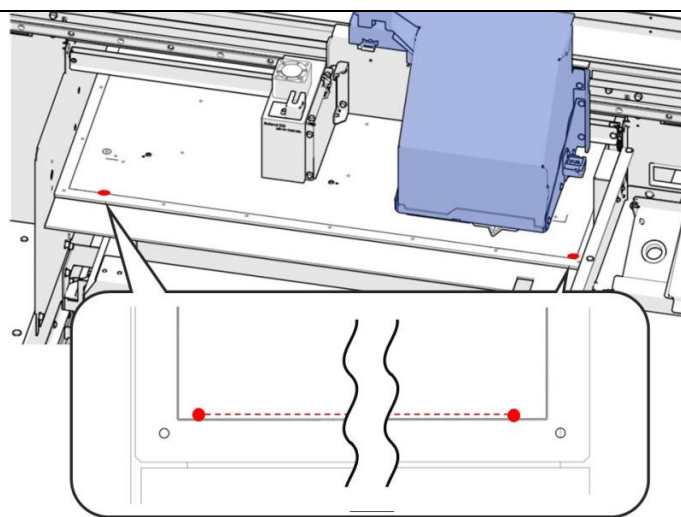
Step 25 / 77

Tighten the 8 fixing screws 1/2 turn.



Step 26 / 77

Move the position to the right end (SCAN: 0.0mm/FEED: 0.0mm) and to the left end (SCAN: 548.0mm/FEED: 0.0mm), and again check that the amount of left/right misalignment is within 0.3mm.



Step 27 / 77

Press the [ENTER] key to exit from the print area setting mode.

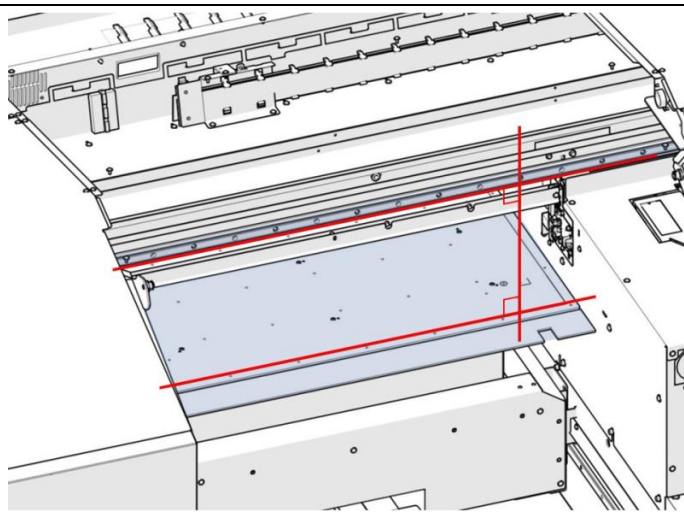
|                |
|----------------|
| SCAN: 540.0 mm |
| FEED: 0.0 mm   |

ENTER



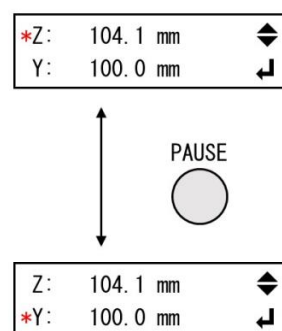
Step 28 / 77

Select [SERVICE MODE] > [MOTOR MENU] > [AXIS MOVE] and move the table to the position where the front edge of the print area line is under the LM guide.



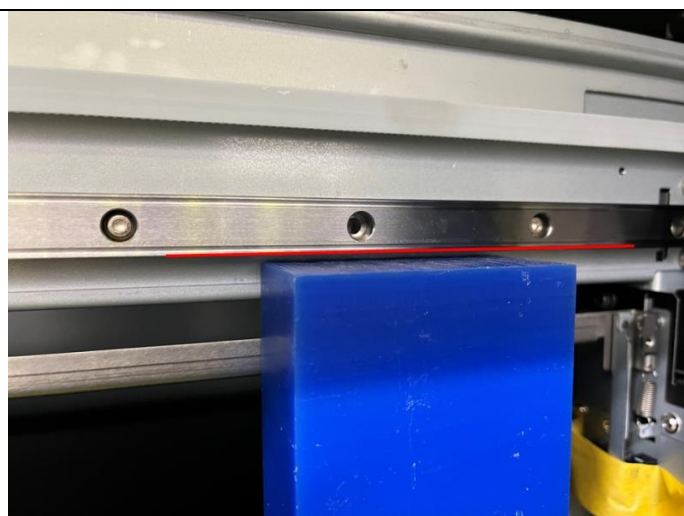
Step 29 / 77

Detail1: Press the PAUSE key to switch the movement direction to Z and Y.



Step 30 / 77

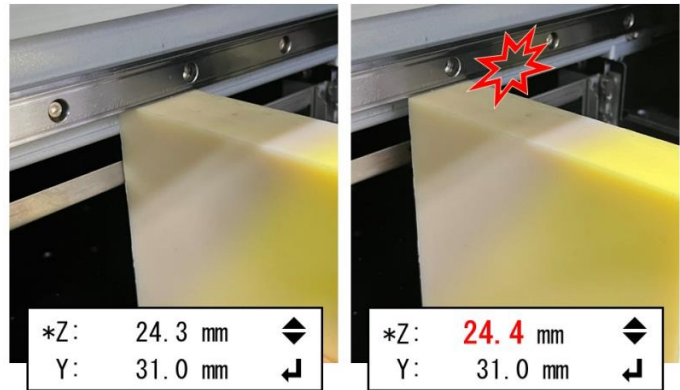
Place the block in the right corner of the print range line and use the height keys to increase the height of the table. Once the table is raised to a height where you can visually see the block hitting the LM guide, remove the block.





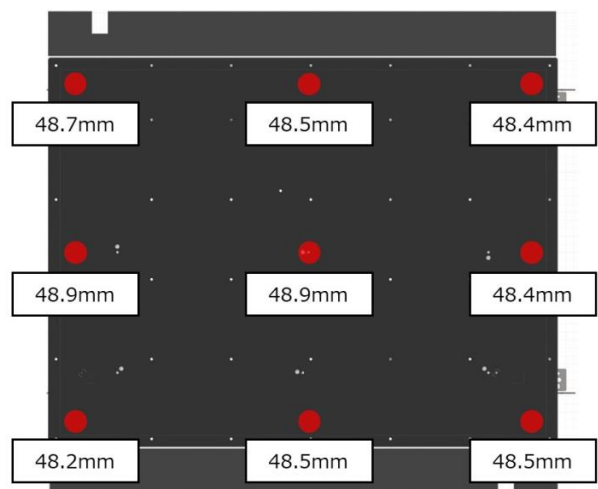
Step 31 / 77

Use the height key to increase the table height by 0.1 mm, and check each time to see if the block will fit. Record the height at which the block no longer fits.



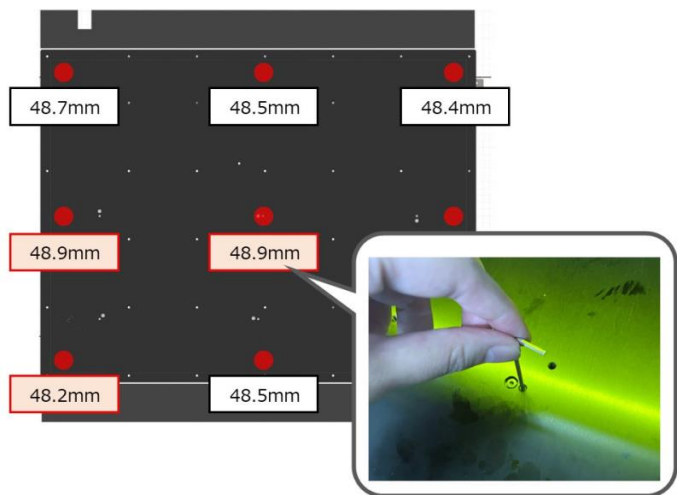
Step 32 / 77

Work in the same manner at the other 8 locations and record the height at which the block no longer fits.



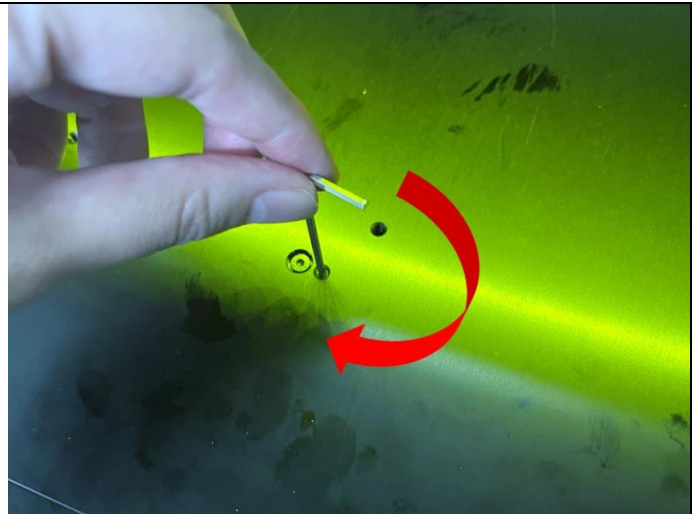
Step 33 / 77

Adjust the table height at locations where there is a difference of 0.3 mm or more. Adjust the height by turning the adjusting screw at the position to be adjusted.



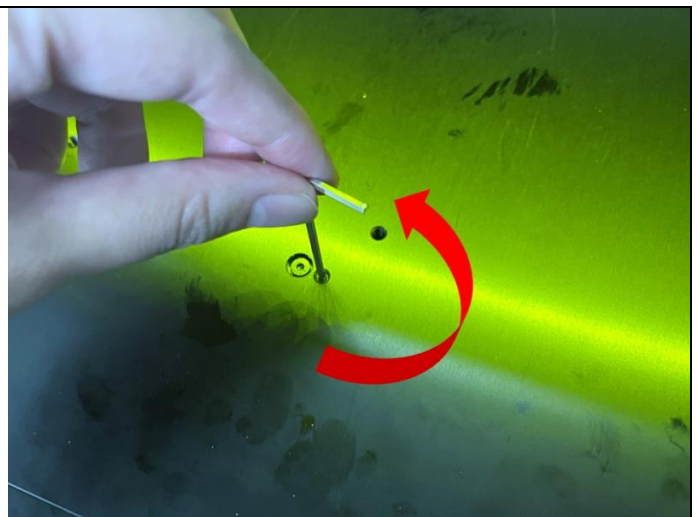
Step 34 / 77

Detail1: Lowering the height: Turn the adjustment screw to the right.



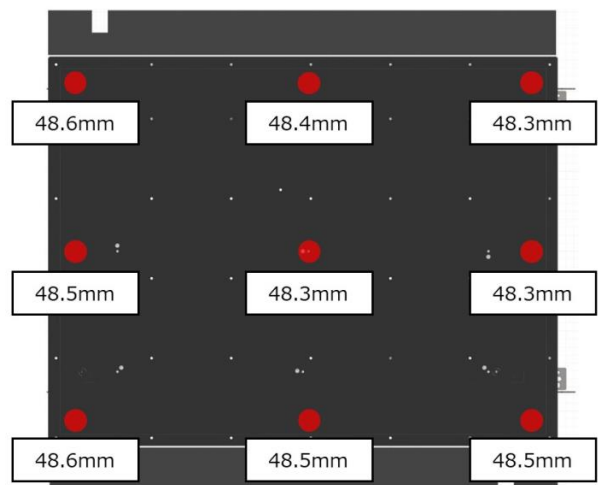
Step 35 / 77

Detail2: Raising the height: Turn the adjustment screw to the left.



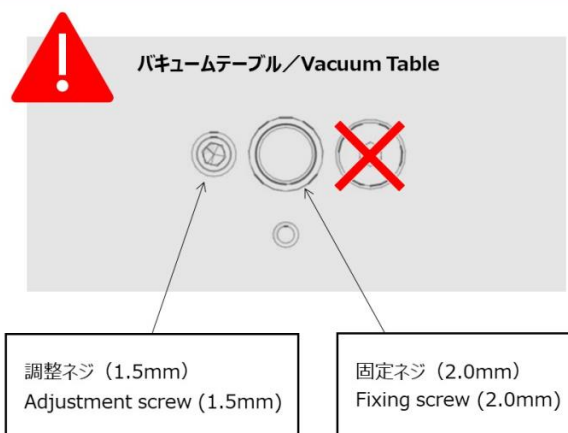
Step 36 / 77

After adjustment, check again the height at which the block is no longer inserted at the 9 positions, and confirm that all differences in table height are within 0.3 mm.



Step 37 / 77

The vacuum table has a fixing screw and an adjustment screw. Follow the instructions to adjust with the appropriate screws. Do not touch any screws other than the fixing and adjusting screws, as they will not be adjusted correctly.



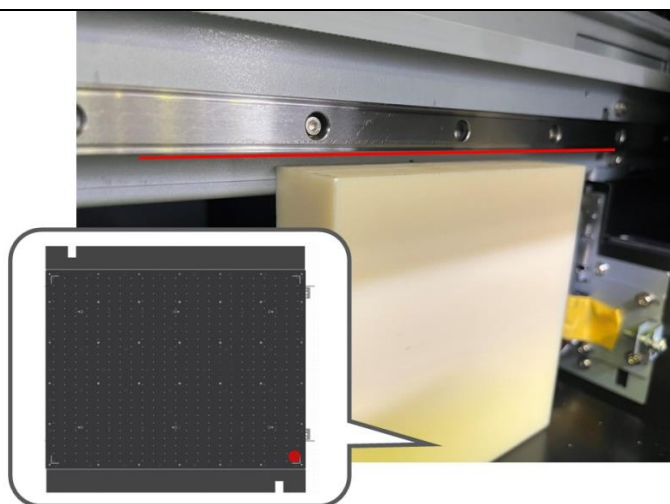
Step 38 / 77

Install the vacuum table.



Step 39 / 77

Select [SERVICE MODE] > [MOTOR MENU] > [AXIS MOVE] and place the block in the right corner of the print range line.



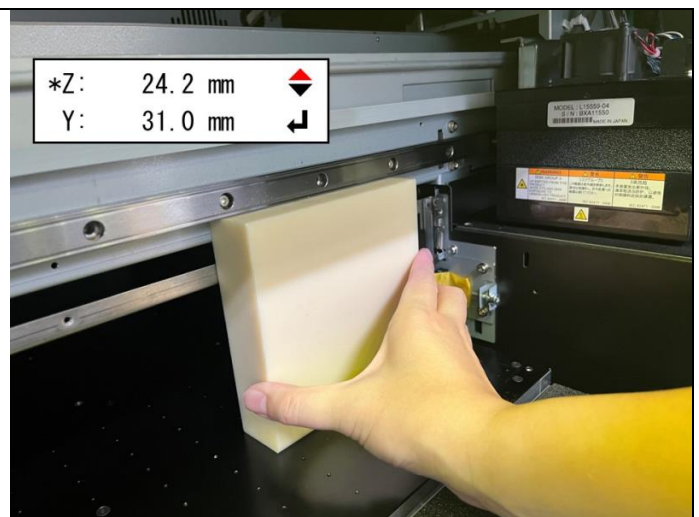
Step 40 / 77

Detail1: If the distance between the table and the LM guide is smaller than the block, lower the table.



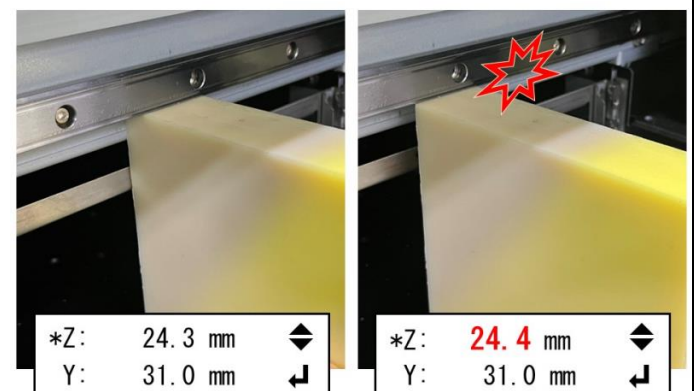
Step 41 / 77

Use the [↑] key to raise the table height. Once the table is raised to a height where you can visually see the block hitting the LM guide, remove the block once.



Step 42 / 77

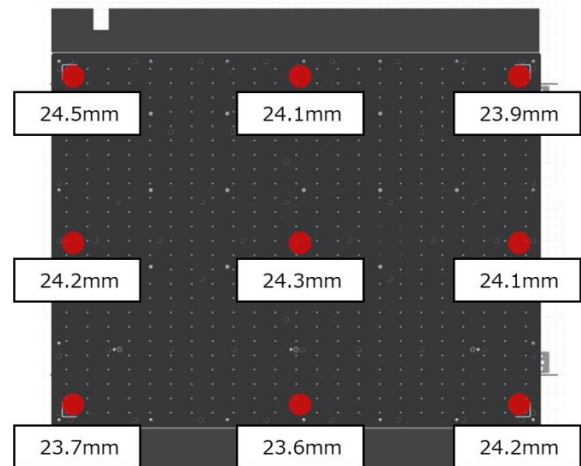
Use the [↑] key to raise the table height in 0.1 mm increments, checking each time that the block will fit. Record the height at which the block no longer fits.





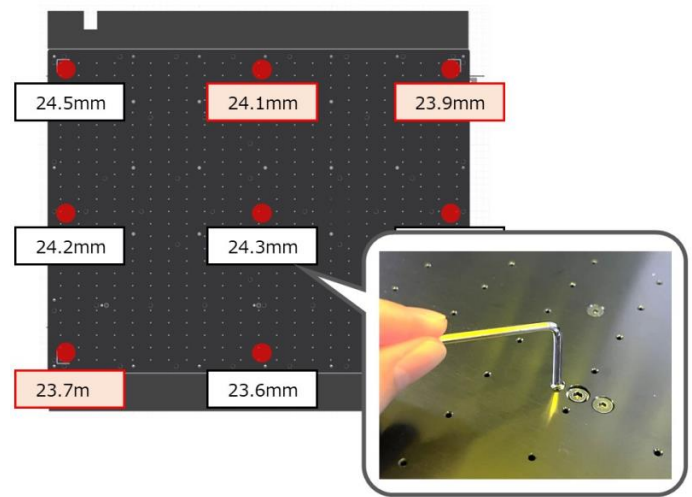
Step 43 / 77

Work in the same way at the other 8 locations and record the height at which the block no longer fits.



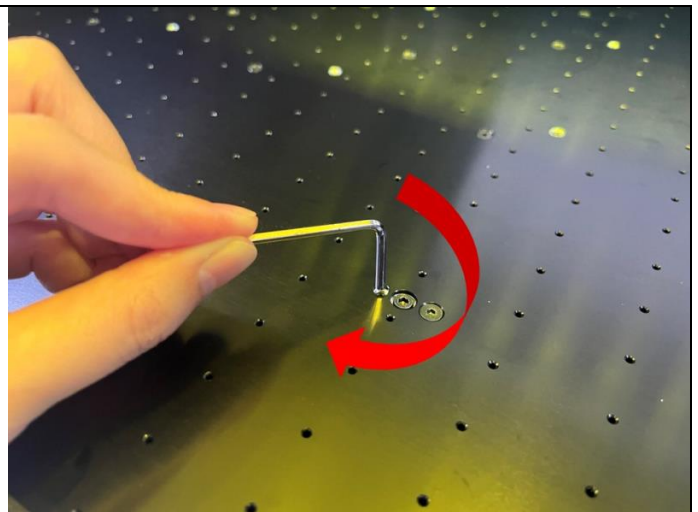
Step 44 / 77

Adjust the location where there is a difference of 0.3 mm or more from the standard at the front right. Adjust the height by turning the adjusting screw at the position to be adjusted.



Step 45 / 77

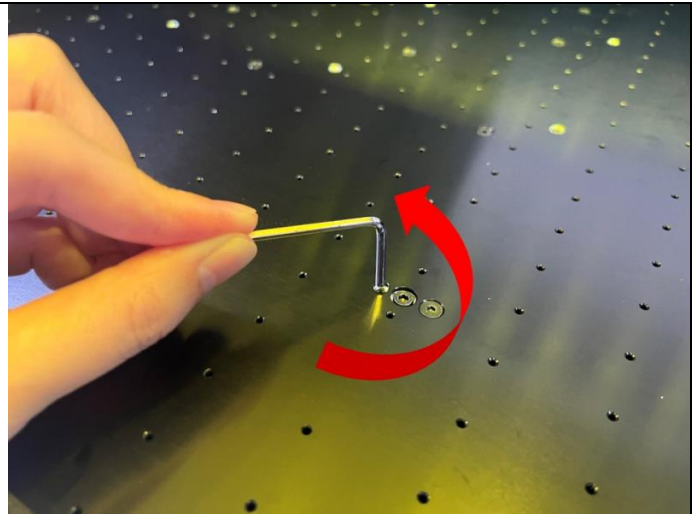
Detail1: Lowering the height: Turn the adjustment screw to the right.





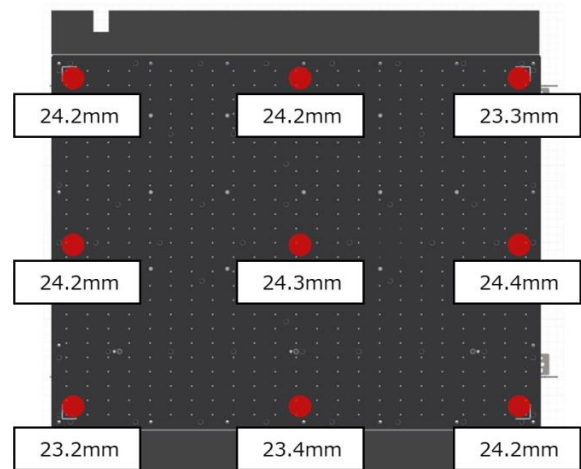
Step 46 / 77

Detail2: Raising the height: Turn the adjustment screw to the left.



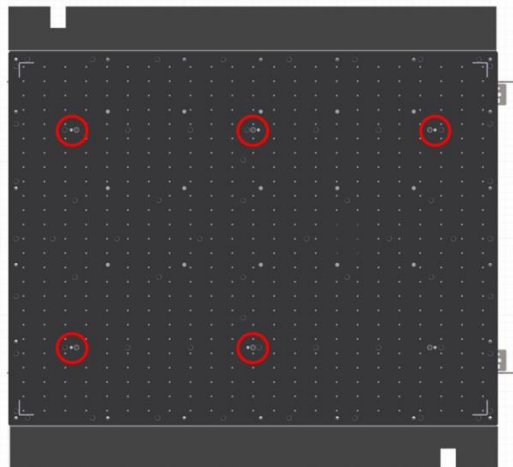
Step 47 / 77

After adjustment, check the table height at the 9 positions again to confirm that all differences in table height are within 0.3 mm.



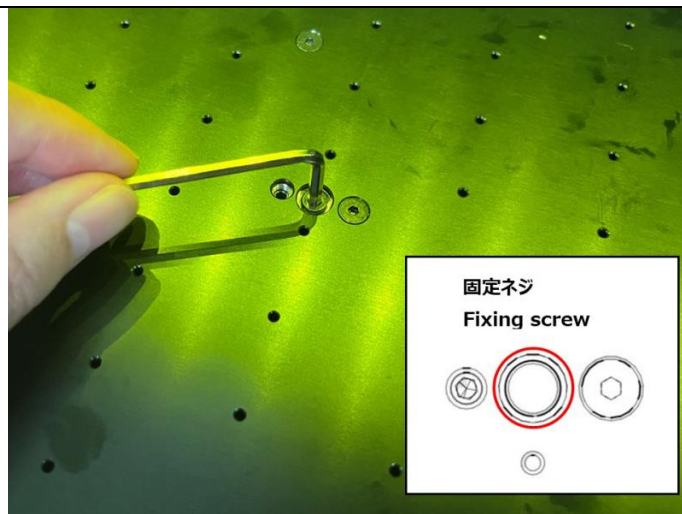
Step 48 / 77

Loosen the five fixing screws 1/2 turn, except for the front right screw.



Step 49 / 77

### Detail1: Fixing Screws



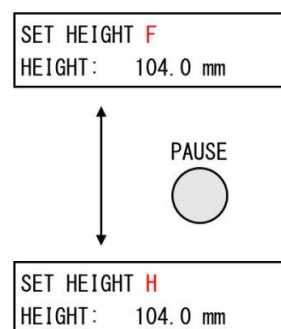
Step 50 / 77

In the state of [SETUP MEDIA], press the  $\square$ ][ $\square$ ] keys to set the table height to 104.0 mm and press the [Enter] key.



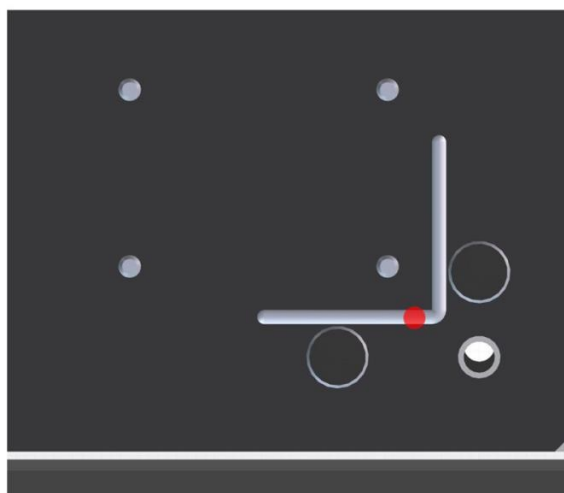
Step 51 / 77

Detail1: Press the PAUSE key to switch the operation between the height and feed directions.



Step 52 / 77

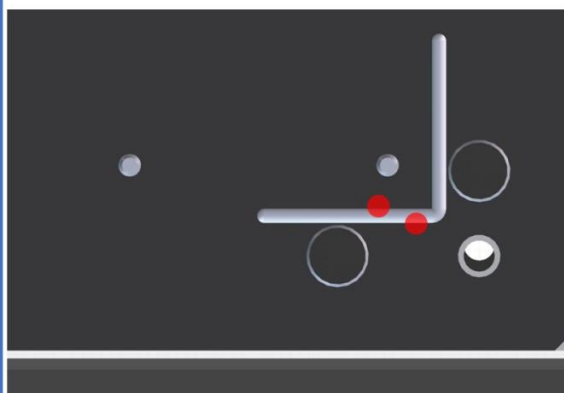
In the state of [SETUP MEDIA], press the  $\square$ ][ $\square$ ] keys to move the LED marker to the mark in the right front. Make sure that the marker touches the marker.



Step 53 / 77

Detail1: If the center of the LED marker is in the groove, there is no problem.

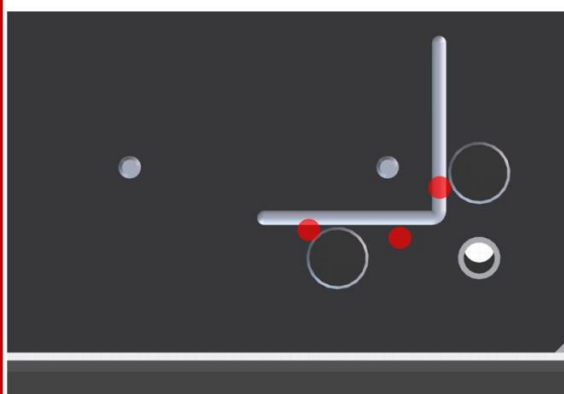
**Good**



Step 54 / 77

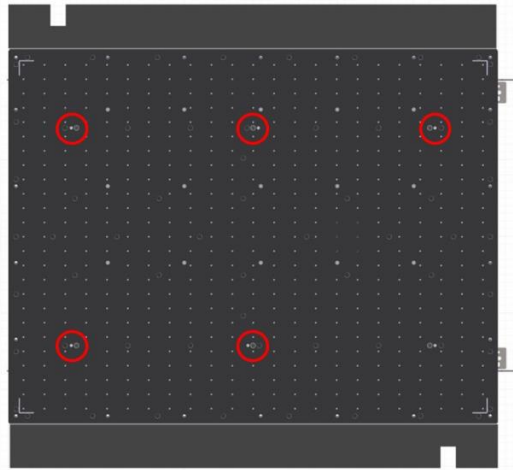
Detail2: If the center of the LED marker is out of alignment with the groove, or if the LED marker rests on the vertical groove, it needs to be adjusted.

**Not Good**



Step 55 / 77

Tighten the five loosened fixing screws  
1/2 turn around.



Step 56 / 77

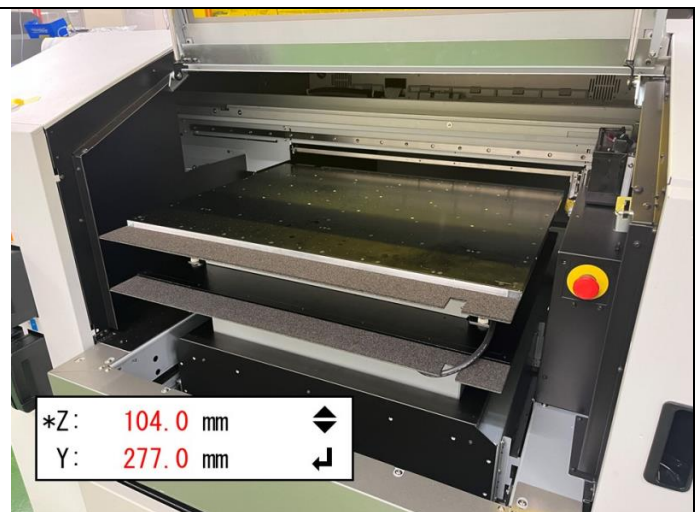
Press the [ENTER] key to exit from the  
print area setting mode.

|                |
|----------------|
| SCAN: 540.0 mm |
| FEED: 0.0 mm   |



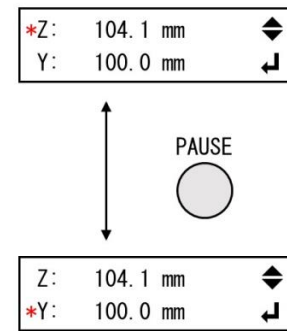
Step 57 / 77

Select [SERVICE MODE] > [MOTOR  
MENU] > [AXIS MOVE] and move the  
table to the position Y: 277.0 mm and Z:  
104.0 mm.



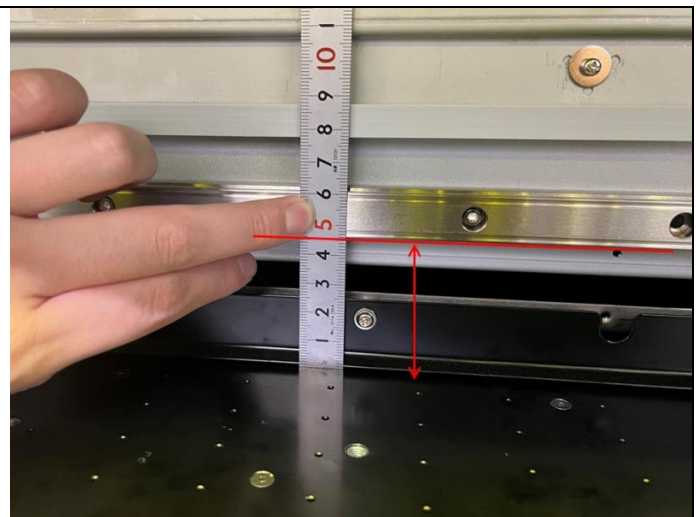
Step 58 / 77

**Detail1:** Press the PAUSE key to switch the movement direction between Z and Y.



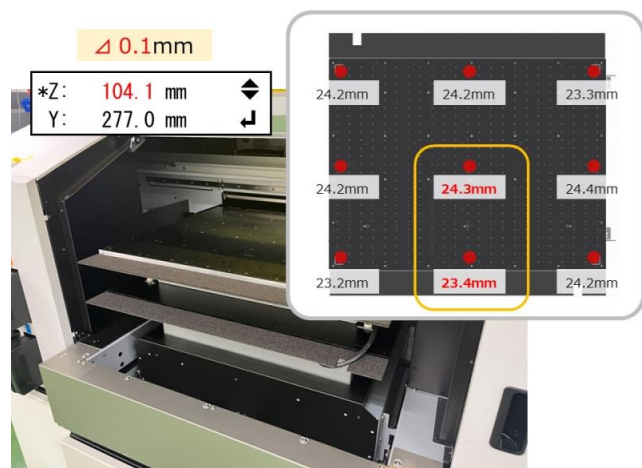
Step 59 / 77

Place the ruler against the LM guide at the table center position and measure the distance from the table top to the bottom edge of the LM guide. If the height of the center of the table is not the highest among the 9 positions, raise the table height by the difference of the height between the highest position and the center of the table and perform measurement.



Step 60 / 77

**Detail1:** If the highest position is not at the center of the table: Raise the table height by the difference between the center of the table and the highest position.





Step 61 / 77

Adjustment value is calculated from the measurement result. Adjustment value = 45.5mm - measured value

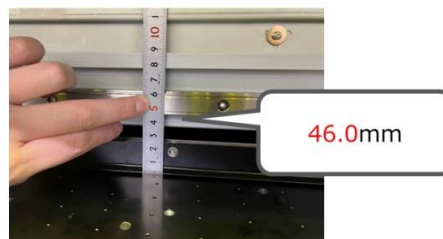
$$\text{調整値} = 45.5\text{mm} - \text{測定値}$$

$$\text{Adjusted value} = 45.5\text{mm} - \text{Measured value}$$

Step 62 / 77

Detail1: Calculation example

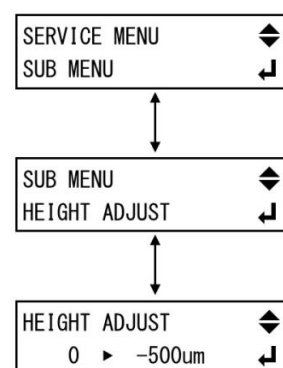
e.g.)



| Adjusted value |            | Measured value |
|----------------|------------|----------------|
| - 0.5mm        | = 45.5mm - | 46.0mm         |

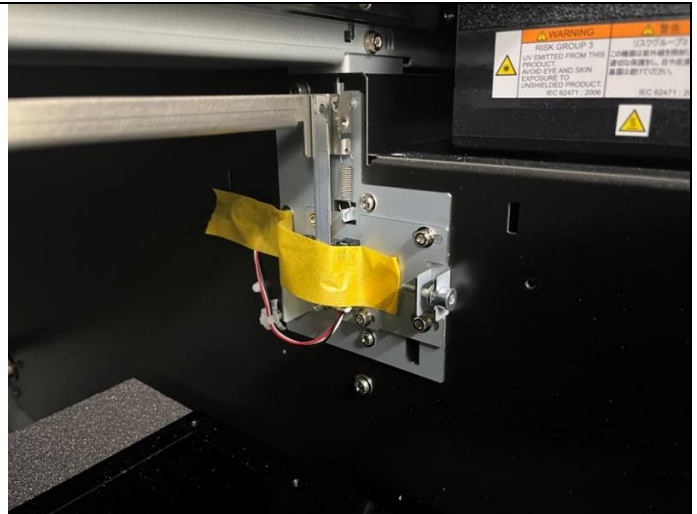
Step 63 / 77

Select [SERVICE MODE] > [SUB MENU] > [HEIGHT ADJUST] and press  $\square$  [ $\square$ ] keys to input the adjustment value. 100 $\mu$ m = 0.1mm



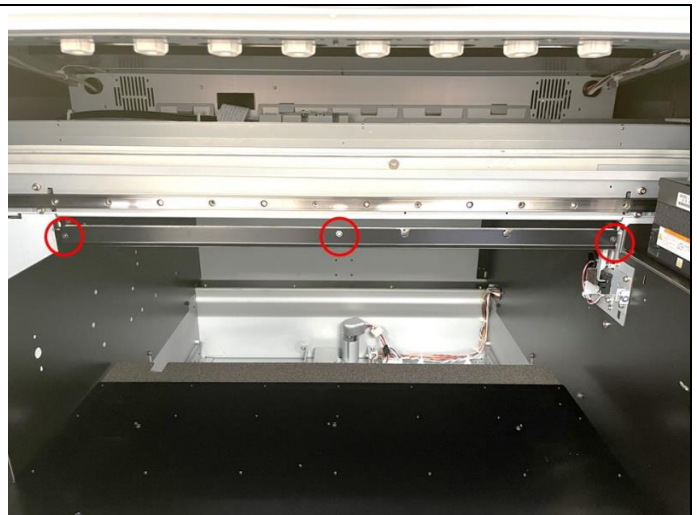
Step 64 / 77

Remove the tape that was fixing the head gap sensor.



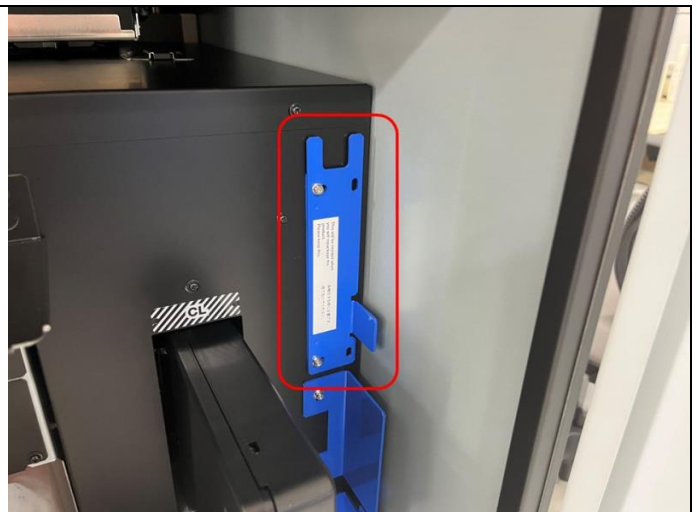
Step 65 / 77

Install the head gap sensor and temporarily fix it.



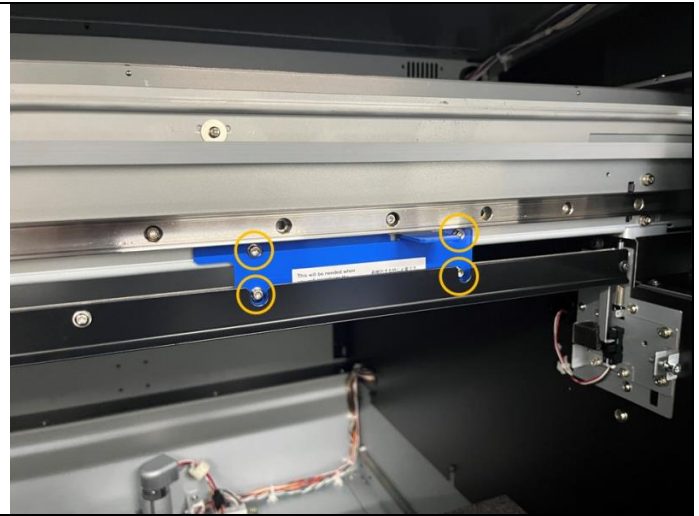
Step 66 / 77

Remove the fixture attached to the main unit in order to use the fixture and 4 screws.



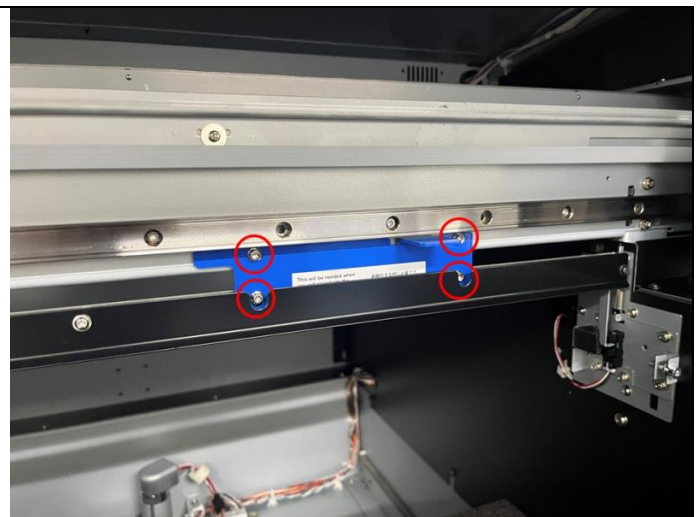
Step 67 / 77

Install the fixture at the position to be fixed and temporarily fix it with four screws.



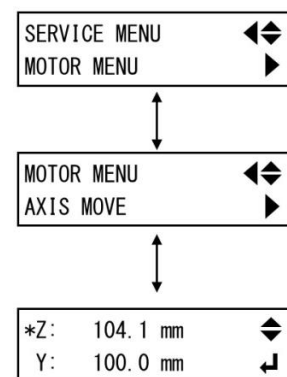
Step 68 / 77

Tighten the four screws.



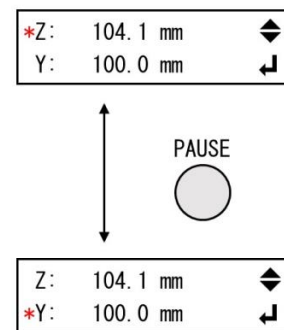
Step 69 / 77

In [SERVICE MENU] > [MOTOR MENU] > [AXIS MOVE], set [Y:100.0mm] and then [Z:104.1mm].



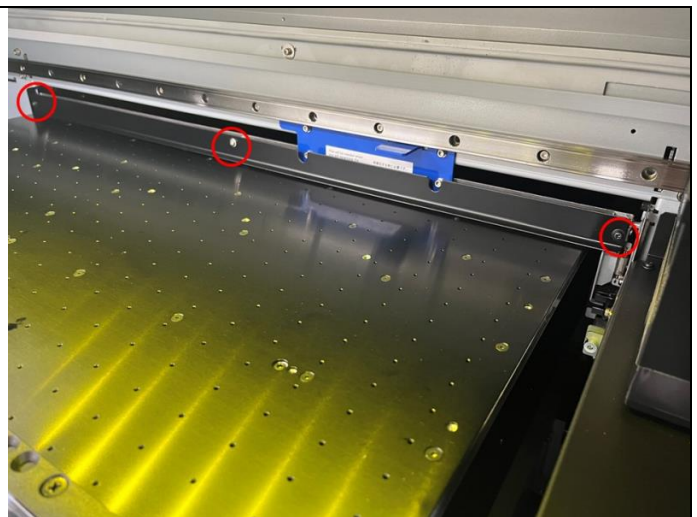
Step 70 / 77

**Detail1:** Press the PAUSE key to switch the movement direction between Z and Y.



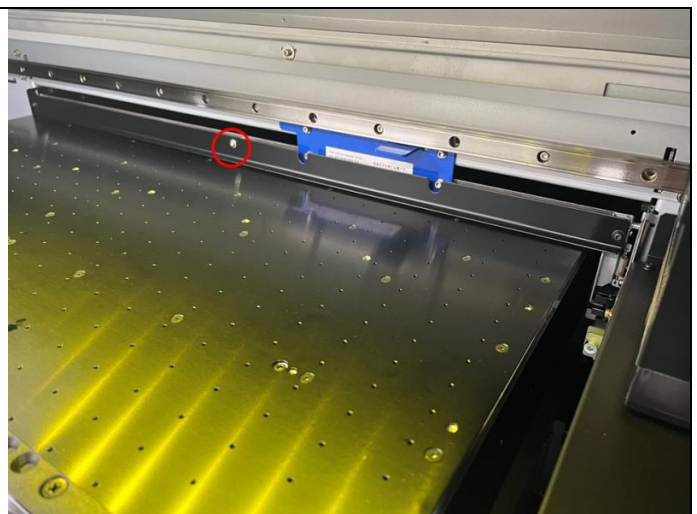
Step 71 / 77

With the head gap sensor plate against the top surface of the vacuum table, tighten the three screws.



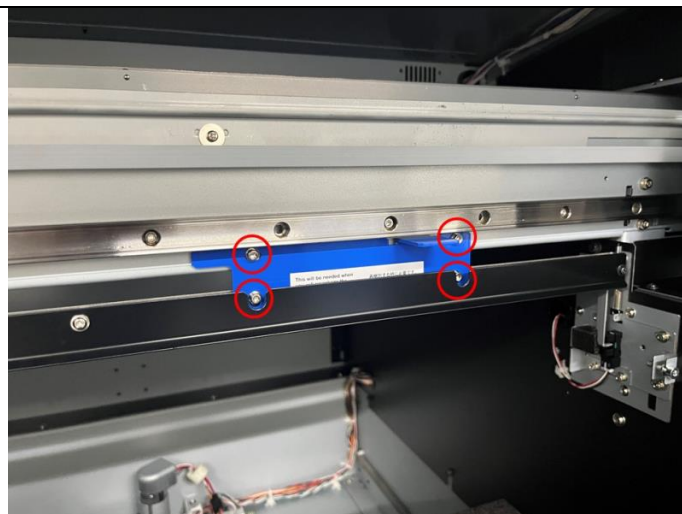
Step 72 / 77

Turn the center screw halfway to the left to loosen it.



Step 73 / 77

Remove the fixture.



Step 74 / 77

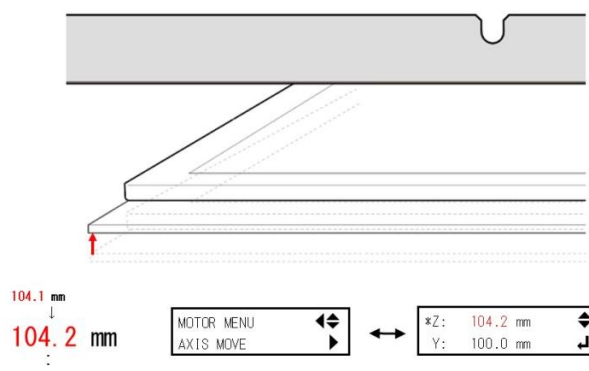
Raise the table by [SERVICE MENU] > [MOTOR MENU] > [AXIS MOVE] and check if the table stops at 104.4 mm to 104.5 mm. If not, change the table height and readjust.

|     |          |      |
|-----|----------|------|
| *Z: | 104.4 mm | ⬆️⬆️ |
| Y:  | 100.0 mm | ⬅️⬇️ |

Step 75 / 77

Detail1: If the table height after adjustment is 104.3 mm or less, raise the table height to [Z: 104.2 mm] or more and readjust again.

$Z \leq 104.3 \text{ mm}$

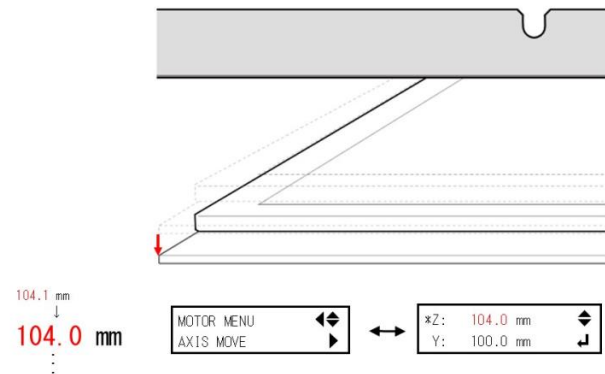




Step 76 / 77

Detail2: If the adjusted table height is 104.6 mm or higher, lower the table height to be reset to [Z: 104.0 mm] or lower and adjust again.

$Z \geq 104.6 \text{ mm}$



Step 77 / 77

Install the cover and return the removed fixtures and screws to their original positions to complete the work.



## MO-180 LED pointer adjustment

# MO-180 LED pointer adjustment

## Information

Step 1 / 2

Necessary Tools

### 一般ツール/General Tool

|               |                                                                                     |
|---------------|-------------------------------------------------------------------------------------|
| メディア<br>Media |  |
|---------------|-------------------------------------------------------------------------------------|

Step 2 / 2

Typical work time

### 作業時間/Typical work time

| 作業内容/Contents of work                | 時間/Time |
|--------------------------------------|---------|
| LEDポインター調整<br>LED Pointer adjustment | 5 min.  |

# MO-180 LED pointer adjustment

## MO-180 LED pointer adjustment Procedure

Step 1 / 13

Connect the Peck2 to the machine and enter Service Mode.

01

POWER

Step 2 / 13

Detail1: Start Peck2.

Peck2

Ver. X.XX

Imagine. Roland

Step 3 / 13

Detail2: Click on the [Login] button.

Peck2 Ver. 2.20

koharjun@co.jp

LoginServer Update

Printer Info

User Information

Certification Points

Model:

Status:

Firm Ver.:

Service Menu:

Certified:

Expired after:

Region Code:

Category

Rank

Academy

Community

Feedback

For Rank Up

Machine Operation

Information

Work Report

Connect Printer

Check Report

Update Firmware

Put Parameter

Global Dashboard

Check KB Article

Imagi-net Product Page

Help

Completed #:

Input

VG2-640\_ZDV01\_20210957\_084958.pec

VG2-640\_ZDV01\_20210956\_160305.pec

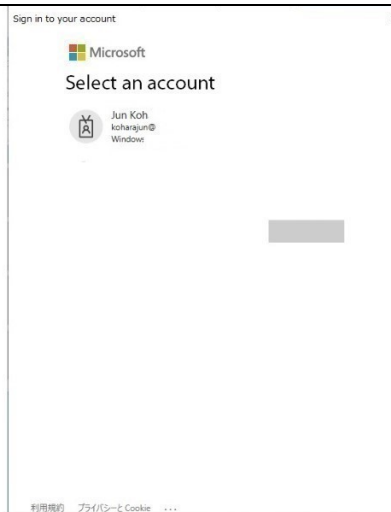
Thursday, May 22, 2025 9:09 AM

Language: en

Page 399 / 406

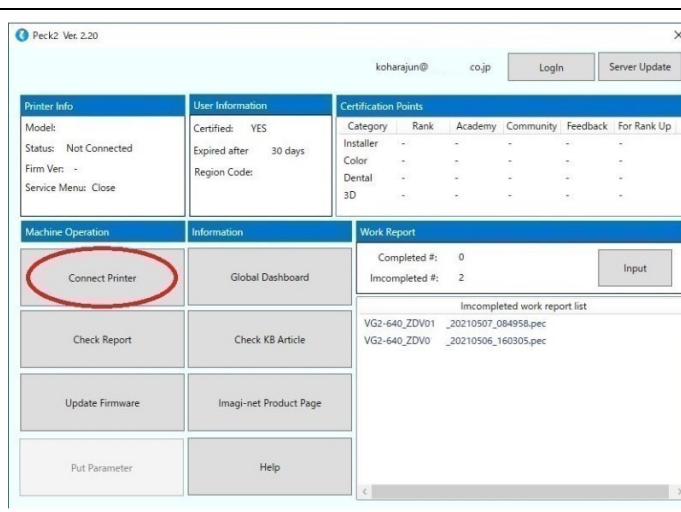
Step 4 / 13

Detail3: Login with your Imagi-net ID.



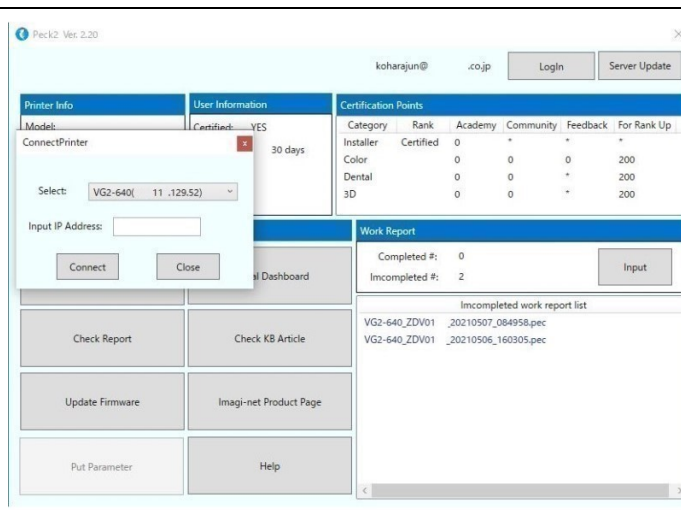
Step 5 / 13

Detail4: Click the [Connect Printer] button.



Step 6 / 13

Detail5: Enter the IP address of the device you wish to connect to



Step 7 / 13

Detail6: If you can connect to the printer, printer information will be displayed in [Printer Info].

Peck2 Ver. 2.20

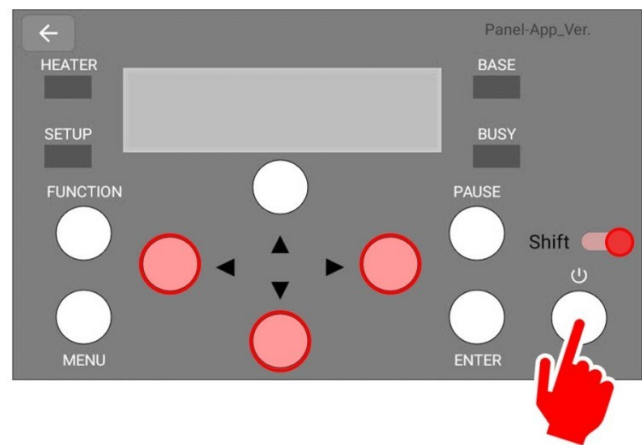
koharajun@ .co.jp Login Server Update

| 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 |   |             |  |

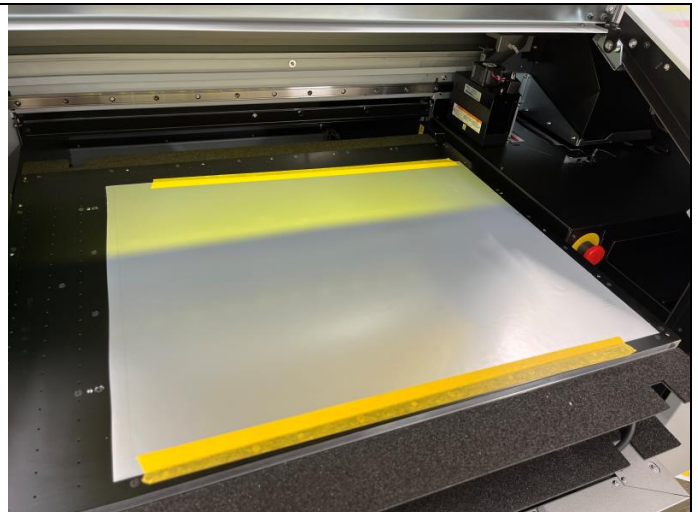
Step 8 / 13

Detail7: Press [Shift]> [Left]+[Left]+[Left]+[Sub Power] on the panel to enter the service mode. By turning on [Shift] button, multiple buttons can be pressed at the same time.



Step 9 / 13

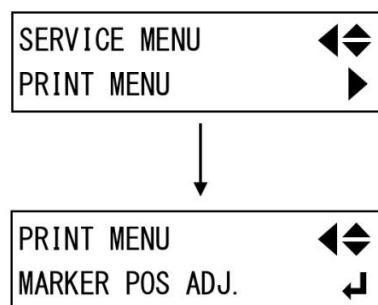
Set up the media.





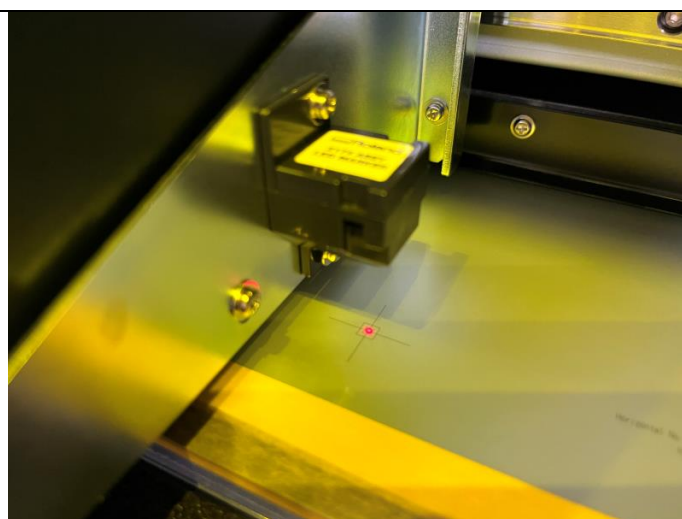
Step 10 / 13

Select [MAKER POS ADJ.] and perform a test print.



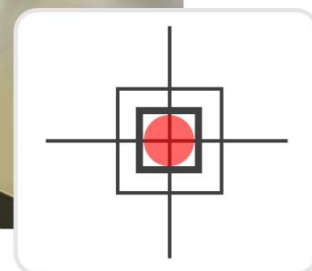
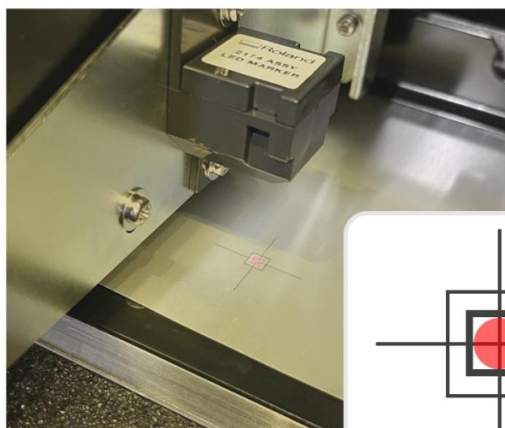
Step 11 / 13

After printing the test pattern, the print head carriage automatically moves over the test pattern.



Step 12 / 13

Use the [←] [→] [↑] [↓] keys to adjust the LED pointer so that it is centered on the test print pattern, and press the [ENTER] key to save the setting.



Step 13 / 13

Detail1: If the LED pointer position has not been adjusted, the menu setting value will be displayed as \*\*\*\*.

|        |   |        |    |
|--------|---|--------|----|
| S:**** | > | +0.1mm | ◀▶ |
| F:**** | > | -0.3mm | ↵  |

MO-180 Print range setting

MO-180 Print range setting information

Step 1 / 2

Tools needed for adjustment

一般ツール/General Tool

無し  
None

特殊治具/Special Tools

無し  
None

Step 2 / 2

standard working hours

作業時間/Typical work time

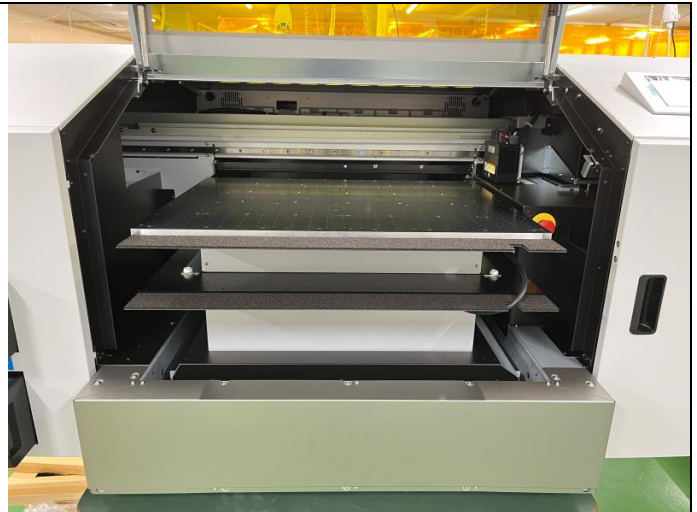
| 作業内容/Contents of work           | 時間/Time |
|---------------------------------|---------|
| 印刷範囲設定<br>Print Area Adjustment | 10 min. |

## MO-180 Print range setting

# MO-180 Print range setting procedure

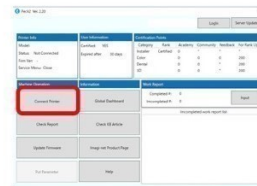
Step 1 / 5

Attach the vacuum table to the flat table.  
If a jig is attached, remove it.



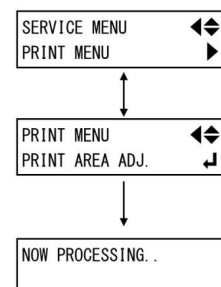
Step 2 / 5

Connect to Peck2 and enter service mode.



Step 3 / 5

Select [SERVICE MENU] > [PRINT MENU]  
> [PRINT AREA ADJ.] and press the [ENTER] key. The carriage moves onto the table.



Step 4 / 5

Use the [←] [→] [↑] [↓] keys to move the carriage and table, align the marker so that it overlaps the L-shaped corner area at the right front of the table, and press [ENTER] key.

|        |          |    |
|--------|----------|----|
| S:**** | > +0.1mm | ←→ |
| F:**** | > -0.3mm | ↙  |

Step 5 / 5

When you press [ENTER], the table moves to its closest position, the carriage automatically returns to the capping position, and then the sub power turns off.

