

SHARP

MODEL: BP-PM22

Specialty Toner Exchange Kit

Specialty Toner Exchange Kit Manual



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1 Before Starting Work Procedures

New Installations

New installation of the new specialty color toner marking module kit [BP-PM14/15] (kit containing marking module assembly, dispenser, etc.) and the enabling kit [BP-PM16/17/18/19/20/21] (kit containing dispenser inner cover, toner cartridge, etc.) for each color is performed by the CE or Customer Engineer.

The specialty color toner replacement procedure can be performed by the customer after new installation has been performed by a CE after the customer has purchased the above specialty color toner-related kits.

Swapping Specialty Color Toner

When the same color of specialty color toner (e.g. R=Silver, L-Silver) is loaded on both stations L and R, changing (swapping) the station positions once the specialty color toner has been installed is prohibited.

The "L" and "R" labels are attached to the marking module assembly and dispenser cover to distinguish the positions.

When the customer owns two or more BP-1200S, swapping marking module assemblies and dispenser covers between installed presses also is prohibited.

Floor Protection

When performing work with work objects placed on the floor, the floor surface might get damaged or dirty. So, before starting work, lay paper, vinyl sheet or similar material on the floor to protect its surface.

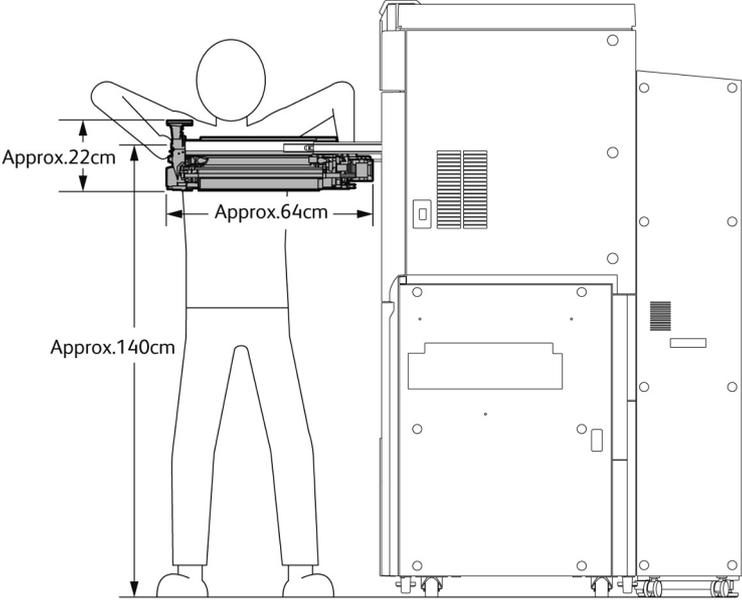
Prevention of Contamination by Foreign Bodies

Do not place work objects directly on the floor. Be sure to use the storage boxes.

Also, adopt measures such as performing procedures with all opening blocked since dust or other contamination getting inside the printer from openings, etc. results in poor image quality.

Procedure for Swapping Specialty Color Toner

- To perform this swapping procedure safely, prepare goggles, mask, gloves, safety shoes, and other protective apparatus, as necessary.
- In this replacement procedure, the worker must be able to handle a heavy object of approximately 64 cm x 22 cm in size weighing approximately 9 kg at a height of approximately 140 cm.



Storing Toner

1. Environment for storing color toner cartridges

- Avoid high temperature, high humidity locations.
Recommended storage environment
Temperature: within 0 to 35°C, humidity: within 15% to 80%.
- Do not lay storage boxes down on their sides or drop them. Doing so might damage them or cause toner to leak.

2. Storage period

- Use toner cartridges within two years of their date of manufacture.
The date of manufacture is stamped on the side of the individual packing box.
(Toner cartridges made on Dec 01, 2023 are indicated as "20231201".)

3. Toner consumption after long-term storage

- When swapping toner on consumables that have been stored for a long time, a considerable amount of toner might be consumed since more than the regular number of paper sheets might have to be fed through the printer to check operation and make adjustments.

2 Tools Used

- Spanner for drum flange
- Torque screwdriver (180 cN·m)



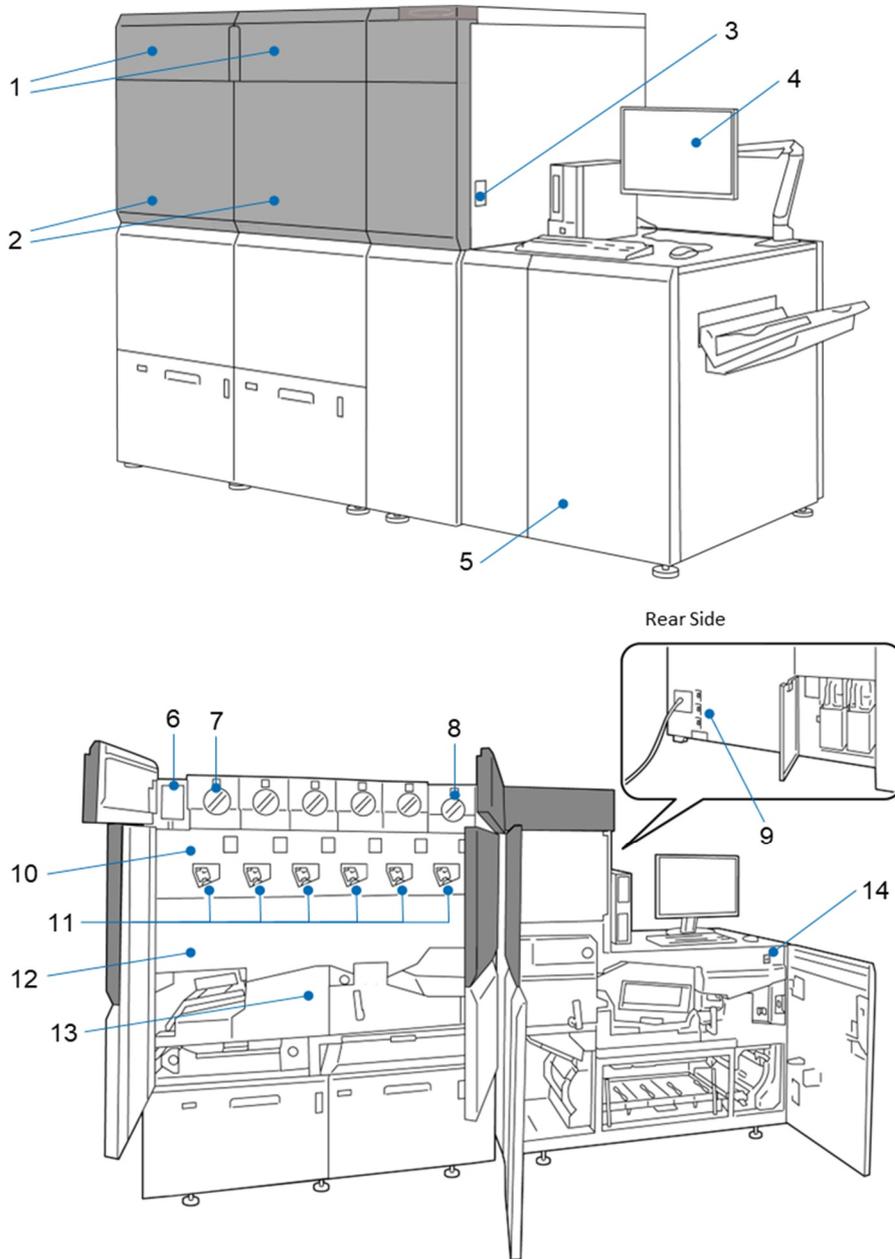
Make sure that the torque setting of the torque screwdriver is set to "180 cN·m" as shown in the figure below.



When using the torque screwdriver to tighten screws, be sure to turn the screwdriver until you hear the screwdriver click.

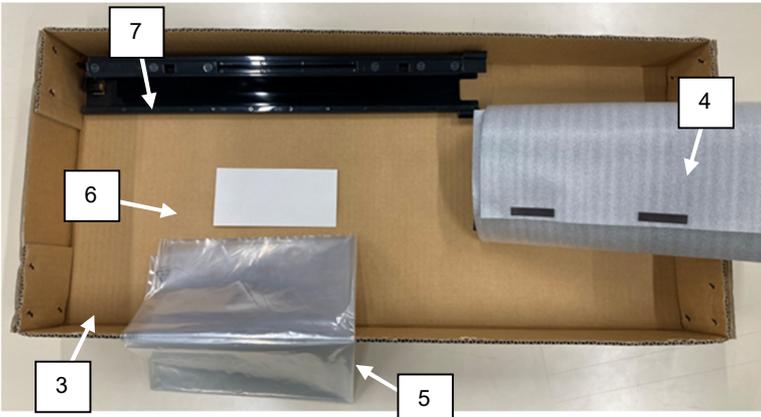
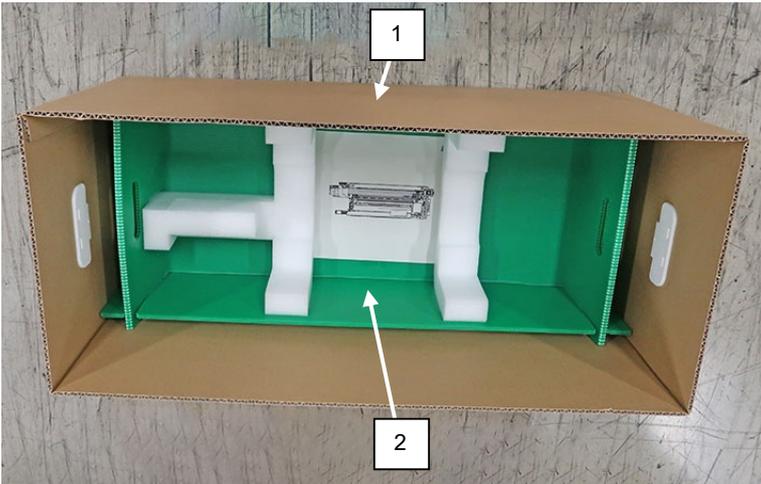
3 Names of Parts

Printer



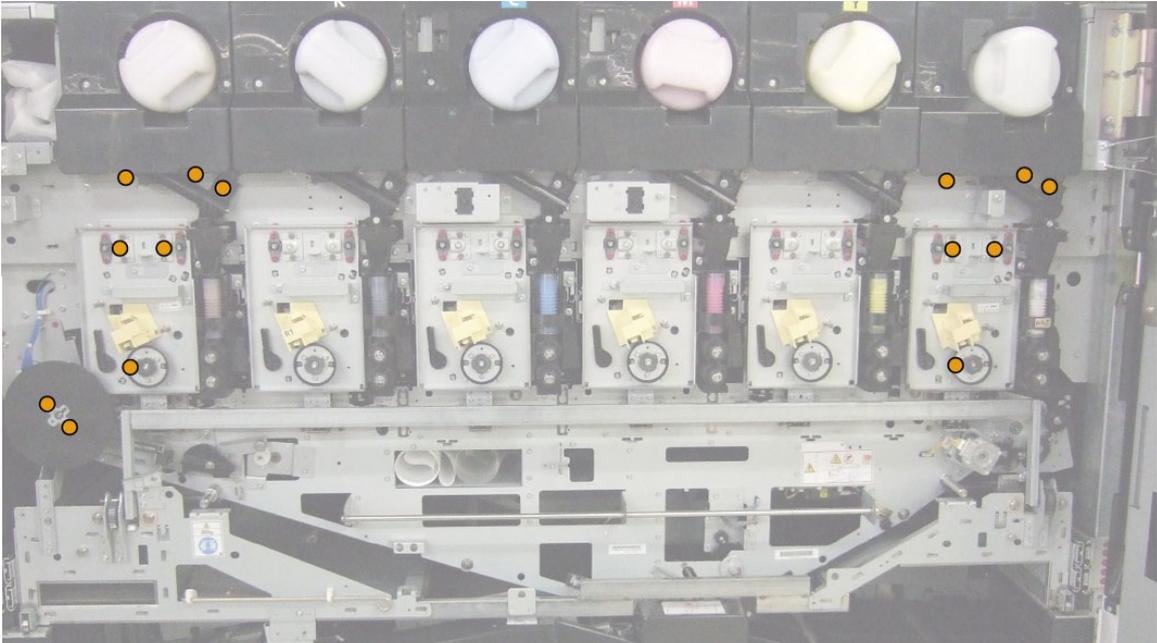
| | | | | | |
|----|----------------------------------|----|--|----|------------------|
| 1 | Toner cover (left and right) | 2 | Cover (left and right) of the printer tower unit | 3 | Power switch |
| 4 | PC monitor for printer operation | 5 | Cover (right) of the printer output unit | 6 | Pocket |
| 7 | Station L | 8 | Station R | 9 | Breaker switch |
| 10 | Marking module cover | 11 | Corotron | 12 | IBT module cover |
| 13 | Transfer unit 2nd | 14 | Main power switch | - | - |

Content of Storage Box for Specialty Color Toner Exchange



| | | | |
|---|---------------------------|---|-------------------------------|
| 1 | Outer box | 2 | Marking module assembly stand |
| 3 | Upper lid | 4 | Drum light shielding sheet |
| 5 | PE sheet (1200 x 1000) | 6 | Card holder |
| 7 | Corotron protective cover | - | - |

4 Positions of Screw That Are Accessed During the Replacement Procedure

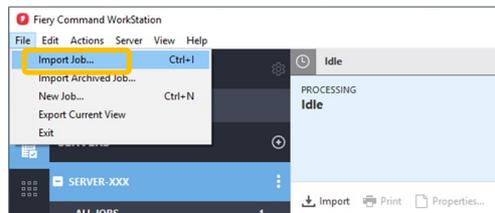


5 Specialty Color Toner Replacement Procedure

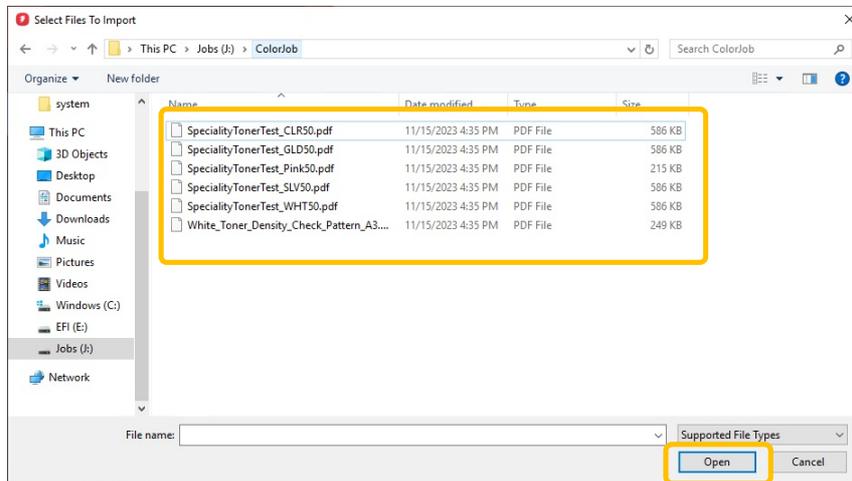
Checking image quality

1. Make a print using the following settings in Print Server to check image quality.

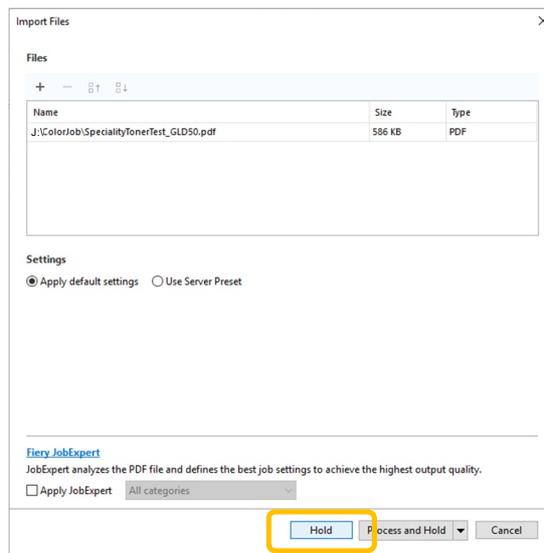
(1) Select Import Job from the File menu in Command Work Station.



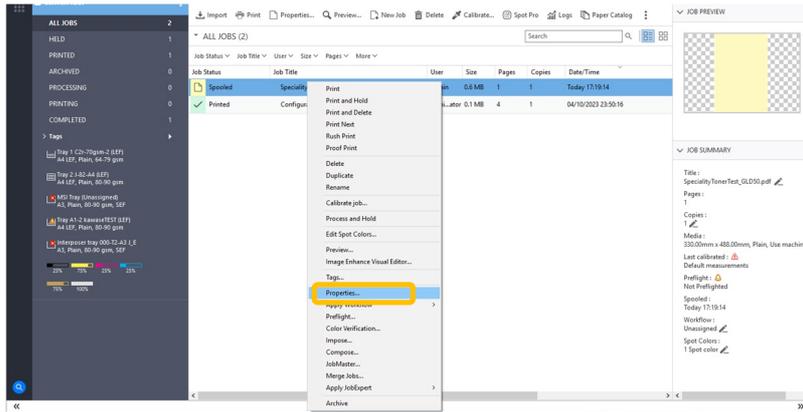
(2) Select the target PDF file in the "J:\ColorJob", and click "Open".



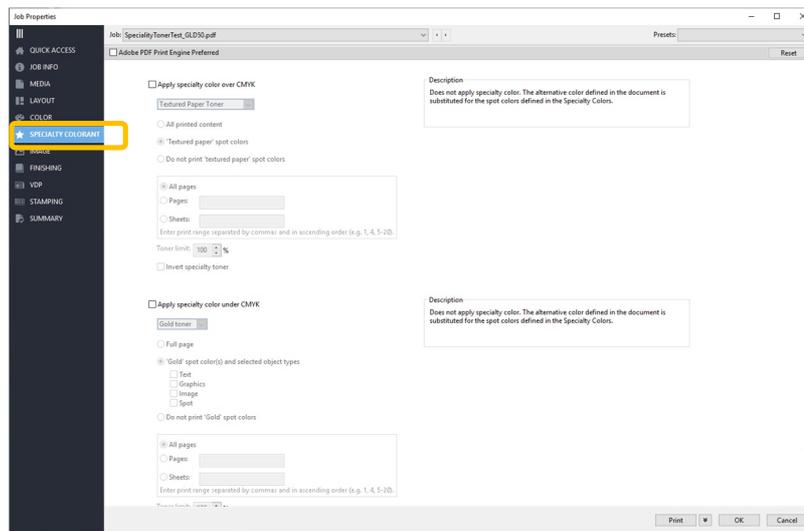
(3) Click "Hold" in the Import Files window



(4) In Command Work Station, right-click on the target Job, and click “Properties”.

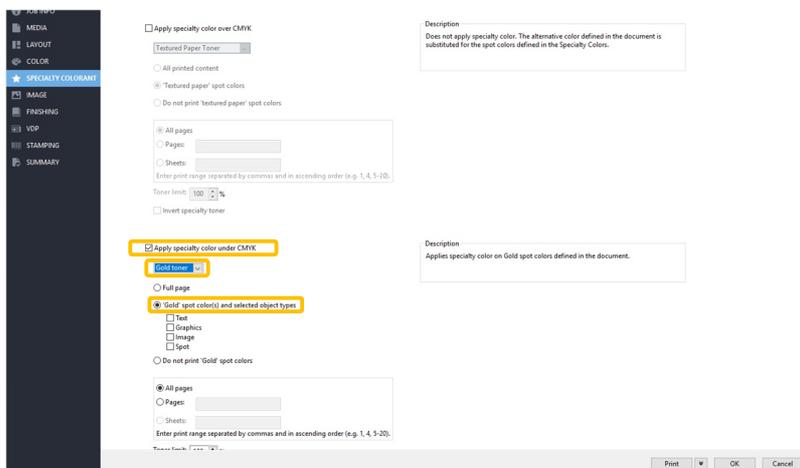


(5) On the left side of Job Properties windows, Click “SPECIALTY COLORANT”.

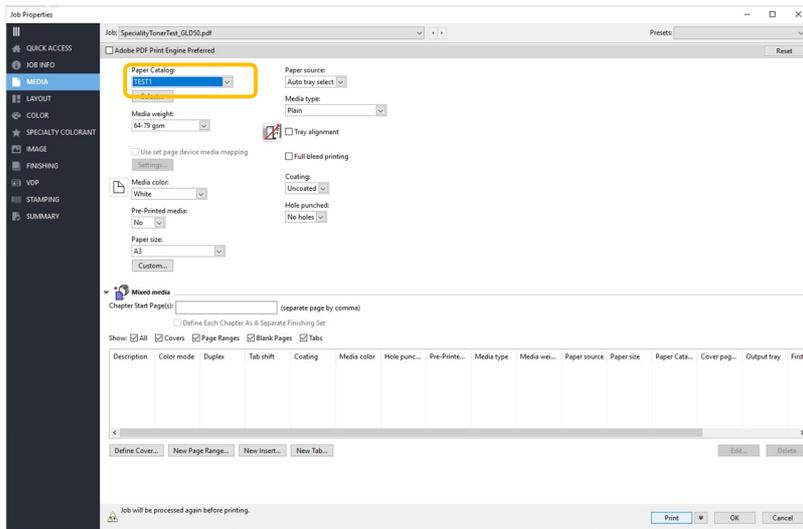


(6) Check “Apply specialty color over or under CMYK”, select "target toner" from the pull-down menu, and select "target spot colors".

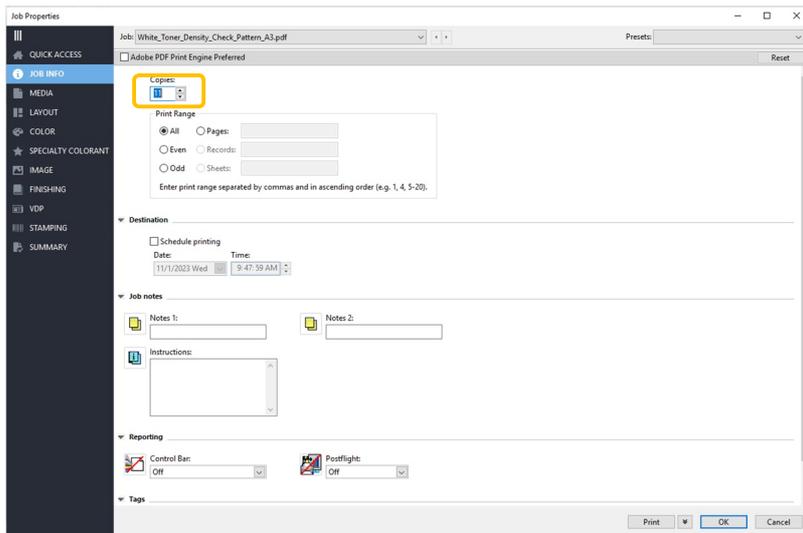
- For Station R : Check “Apply specialty color over CMYK”.
- For Station L : Check “Apply specialty color under CMYK”.



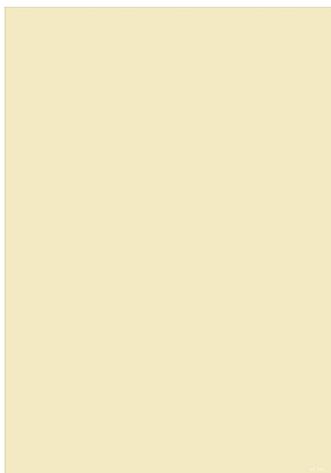
- (7) On the left side of Job Properties windows, click “MEDIA”, and then select media with paper size A3 from Paper Catalog.



- (8) On the left side of Job Properties windows, click “JOB INFO”, and set the number of “Copies” to 11pieces, and print.



2. Make sure that the specialty color toner is printed out normally one color at a time. The figure below shows a printout sample made using gold toner.



Procedure for Removing Already Installed Specialty Color Toner

1. Turn the power OFF.

- (1) Turn the power switch on the machine OFF, open the cover (right) of the printer output unit and turn the main power switch OFF. During this operation, the power of the PC for printer operation need not be turned OFF.



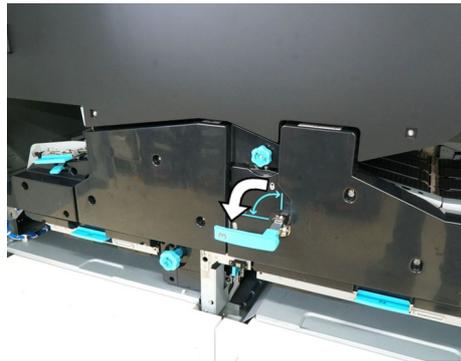
- (2) Turn the three breaker switches on the rear of the machine OFF.



2. Open the covers (left and right) of the printer tower unit.



3. Rotate the handle of the transfer unit 2nd counterclockwise to unlock the unit. This sets the transfer unit 2nd to a lowered state.



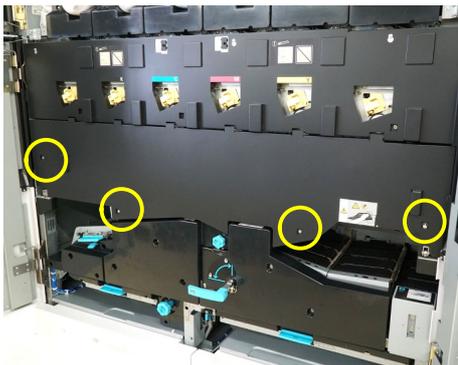
4. Remove the IBT module cover.



Caution

When performing work with work objects placed on the floor, the floor surface might get damaged or dirty. So, before starting work, lay paper, vinyl sheet or similar material on the floor to protect its surface.

- (1) Loosen the four screws on the IBT module cover, and lift the cover up to remove. (Do not remove the screws.)



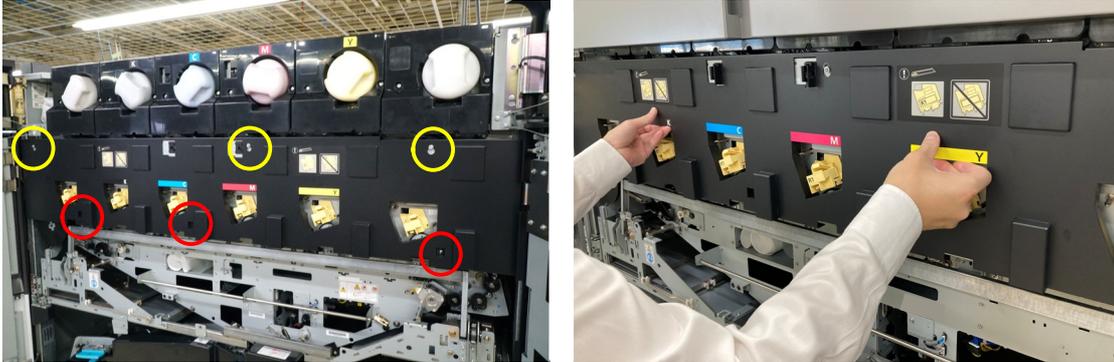
- (2) After the IBT module cover is removed, place it flat on the floor to the right of the machine with its top surface facing up.



5. Remove the marking module cover.

- (1) Loosen the three screws marked in yellow on the marking module cover. During this operation, take care to prevent the screws from coming loose. Loosen the three screws marked in red, and lift the cover up by holding the square holes "Y" and "K" to remove the marking module cover. (Do not remove the screws.)

 **Caution** Take care not to excessively loosen the screws marked in yellow. The screws will fall down if loosened excessively.



- (2) After the marking module cover is removed, place it flat on the floor to the right of the machine with its top surface facing up.



6. Prepare the storage box containing the dispenser and marking module assembly. (*A set of boxes comprises two storage boxes.)

For replacing one unit's worth of a specific ink color, one set of storage boxes is required. (Use one box for storing the marking module assembly, and the other box for storing the toner cartridge and dispenser unit.)



- (1) Place the storage box containing the dispenser with its upper lid turned upside down.
- (2) Place the storage box containing the marking module assembly with its upper lid turned upside down.
- (3) Remove the marking module assembly stand from the upper lid of the storage box.
- (4) Place the marking module assembly stand as shown in the figure below on the upper lid of the marking module assembly storage box that was placed in step (2).



Do not place work objects directly on the floor. Be sure to use the storage boxes.

Contamination on the marking module assembly, for example, leads to poor image quality.



Caution

In work from here on, access only screws indicated in "Positions of Screws That Are Accessed During the Replacement Procedure" (P.10). Do not access other screws.

To replace station L, proceed to step 7.
To replace station R, proceed to step 8.

7. Remove the flywheel.

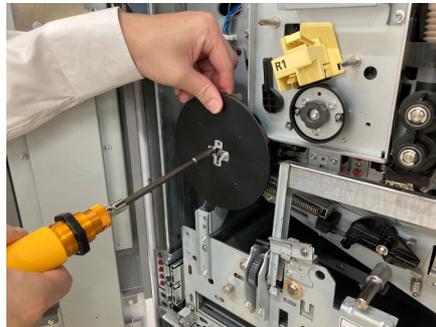
*This step is required only when replacing station L. (It is not required when replacing station R.)

- (1) Restrain the periphery of the flywheel by hand to prevent it from rotating, and remove the two screws and the flywheel.



Caution

Note that the flywheel easily falls after the screws have been removed.



- (2) After removing the flywheel and the screws, place them on the upper lid of the storage box.

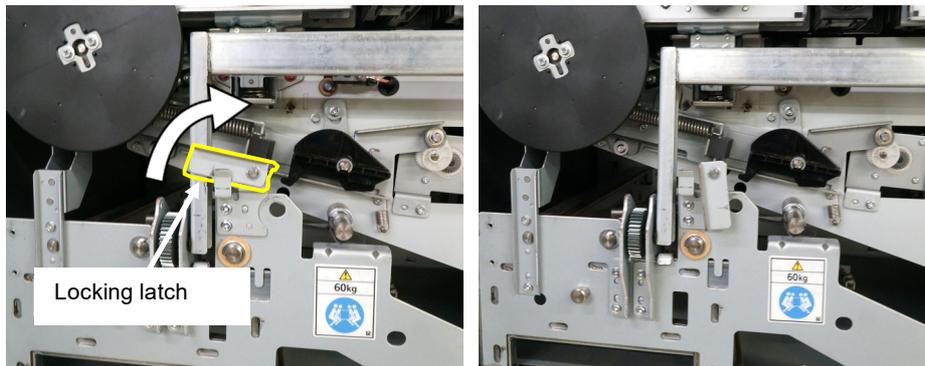


Caution

If the screws fall inside the machine, contact your dealer or nearest SHARP Service Department.

8. Release the IBT module.

- (1) Rotate the raise/lower handle locking latch of the IBT module clockwise to release the IBT module.



- (2) Lower the raise/lower handle of the IBT module.



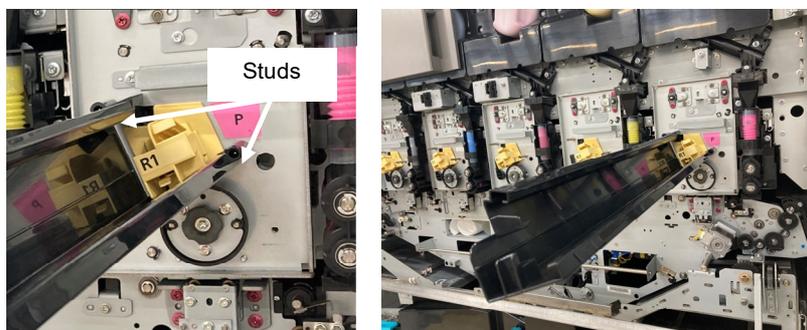
Caution

When lowering the IBT module, it starts to drop suddenly mid way down. For this reason, fully support the raise/lower handle with your hand.



9. Remove the corotron.

- (1) Remove the corotron protective cover from the storage box.
- (2) To attach the corotron protective cover, insert it into the studs of the marking module assembly.



(3) Unlock and draw out the corotron.

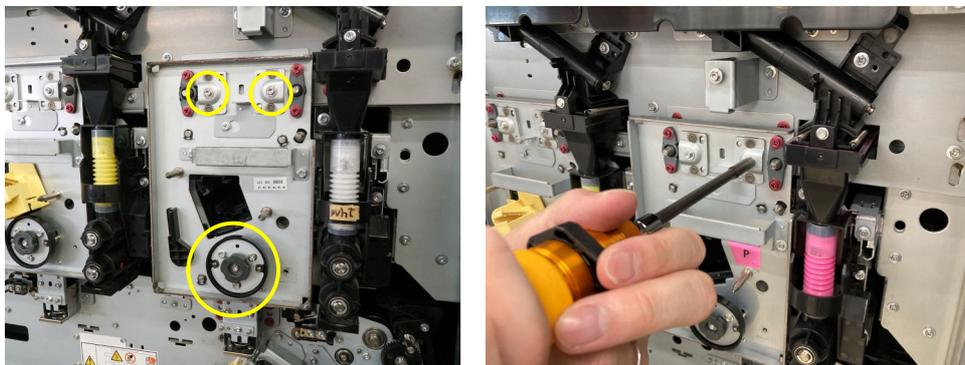


(4) Remove the corotron together with its protective cover, and place them on the upper lid of the storage box.



10. Unlock the marking module assembly.

(1) Loosen the three screws that fasten the marking module assembly.



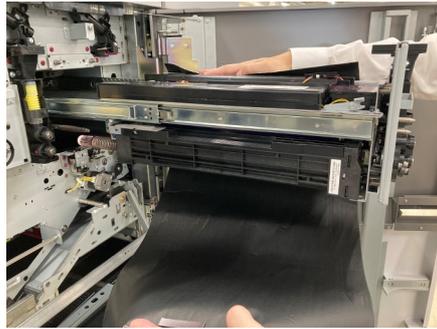
(2) When removing the screw at the bottom, loosen the screw by using the flange restrainer.



11. Draw out the marking module assembly and wind the drum light shielding sheet around the drum.

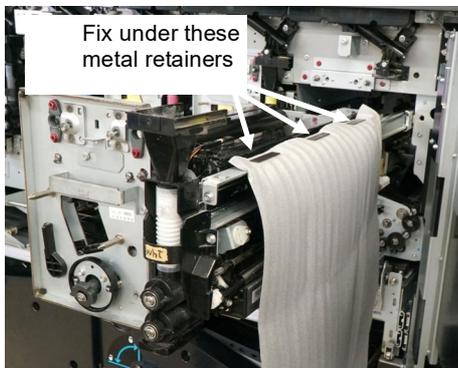
 **Caution** The drum of the marking module assembly deteriorates when exposed to light. Wind the drum light shielding sheet around the drum quickly (within 10 seconds).

- (1) Ready the drum light shielding sheet provided in the storage box as shown in the figure below.



- (2) Draw out the marking module assembly as far as the position where the rail lock is applied, and fix the drum light shielding sheet to the metal retainers on the marking module assembly with magnets.

 **Caution** When winding the drum light shielding sheet around the drum, make sure that the black side of the sheet is on the inside.



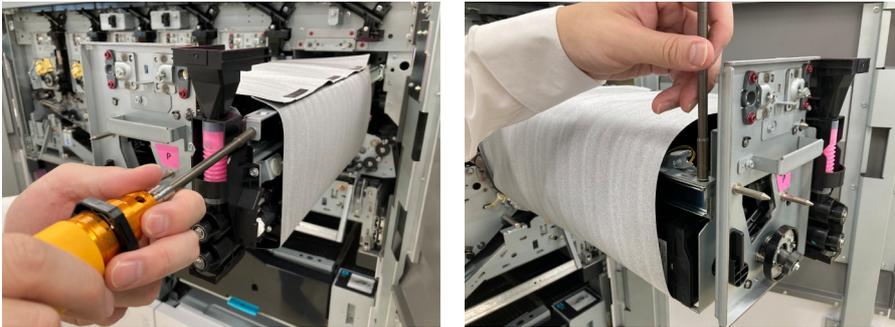
- (3) Wind the drum light shielding sheet around the marking module assembly quickly (within 10 seconds), and attach the magnets on both ends of the drum light shielding sheet.

 **Caution** To prevent the drum light shielding sheet from coming loose during work from here on, firmly fix in place with the magnets.



12. Remove the marking module assembly.

- (1) Remove the two stepped screws that fasten the marking module assembly and the slide rails.



- (2) Place the stepped screws on the upper lid of the storage box.



 **Caution** If the screws fall inside the machine, contact your dealer or nearest SHARP Service Department.

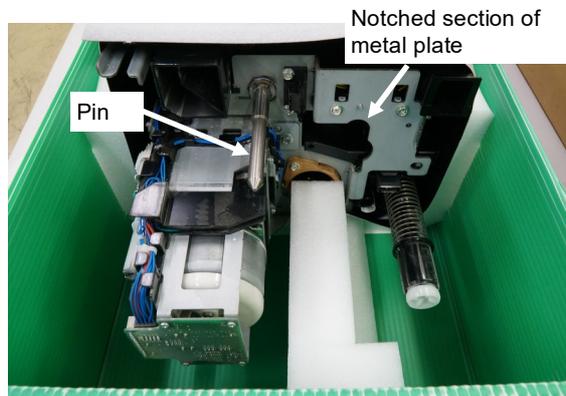
- (3) Press the marking module assembly lock brackets to unlock the assembly, slightly lift up the handle at the front of the assembly, and draw out the assembly 10 cm to the front.

 **Caution** Take care not to draw out the marking module assembly too far as it might fall.



- (4) When removing the marking module assembly, stand on the left side of the assembly, hold the handle at the front (shown above) with your right hand and the notched section of the metal plate at the rear with your left hand, slide the assembly to the right, and remove the assembly from the printer.

 **WARNING** When holding the marking module assembly, do not hold it by the pin at its rear.
The pin might break and the marking module assembly might fall.

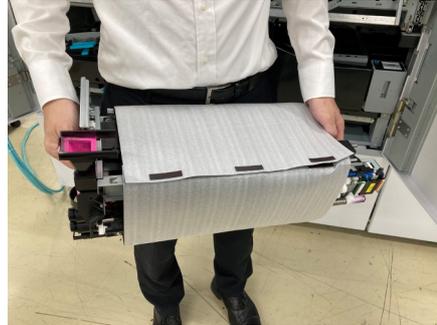
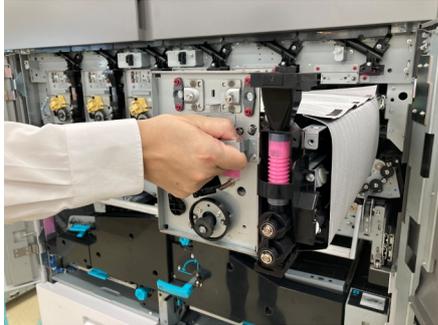


When removing or attaching the marking module assembly, always stand on its left side.



Caution

Also, pay attention to the posture of the marking module assembly and it falling off as it is heavy at approximately 9 kg.

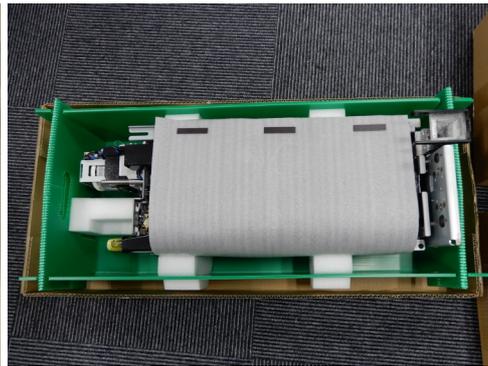


13. After the marking module assembly is removed, place it on the marking module assembly stand that was prepared in step 6.



Caution

Align the orientation of the marking module assembly when it is placed on the stand with the orientation marked inside the stand.



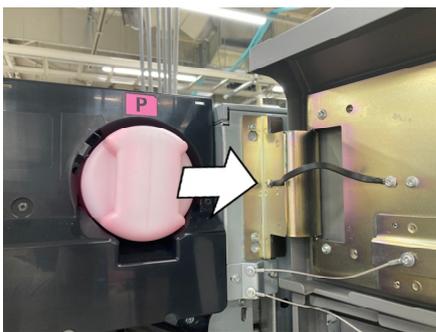
14. Unlock the sides of the slide rails after the marking module assembly has been drawn out, and house the slide rails inside the printer.



 **Caution** Performing work with the slide rails protruding outside the printer might cause an injury.



15. Open the toner cover on the side where it is to be replaced.
16. Draw out the toner cartridge and place it on the upper lid of the storage box.



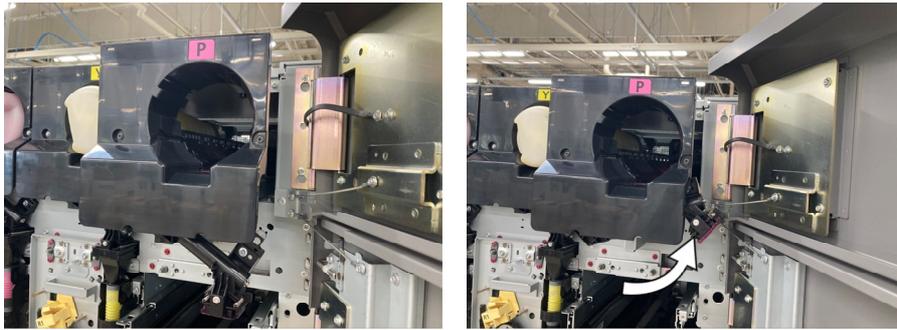
17. Remove the dispenser.

- (1) Remove the two dispenser fixing screws marked in yellow, and loosen the joint pipe section screw marked in red. After removing the two screws, place them on the upper lid of the storage box.



Caution If the screws fall inside the machine, contact your dealer or nearest SHARP Service Department.

- (2) Draw out the dispenser to the front by 10 cm while slightly lifting up its front section, and turn the joint pipe counterclockwise to fix it in place.



- (3) Draw out the dispenser while taking care to prevent it from tilting, and place it on the upper lid of the storage box.

Caution When holding the dispenser, take care not to touch the motor or connectors at its rear. Take care when handling the dispenser as toner might spill out if the dispenser is tilted or put on its side.



New Specialty Color Toner Installation Procedure

1. Install the dispenser.

- (1) Remove the new dispenser from the storage box.

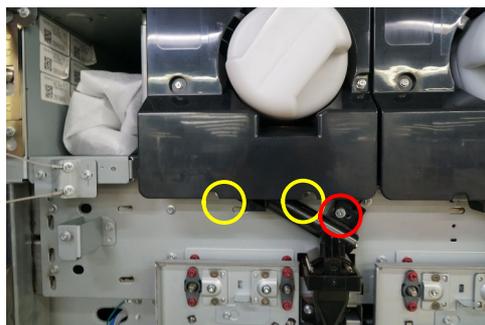
 **Caution** When holding the dispenser, take care not to touch the motor or connectors at its rear.



- (2) Install the dispenser on the printer. During this step, 10 cm before the dispenser is completely pushed in, detach the joint pipe fixture and lower it downwards.



- (3) Insert the dispenser as far as it can go and fix it in place. Fix the upper section with the two screws that were placed on the upper lid of the storage box, and tighten the loose screws of the joint pipe section to fix the section in place.

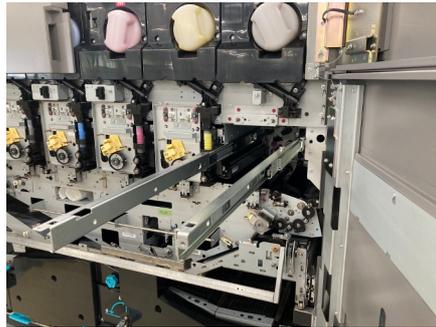


 **Caution** If the screws fall inside the machine, contact your dealer or nearest SHARP Service Department.

2. Remove the new toner cartridge from the storage box, and install the cartridge on the printer.



3. Close the toner cover.
4. Draw out the slide rails for the marking module assembly that was housed inside the printer.



 **Caution** The slide rails protrude outside the printer. So, perform work with care.

5. Install the marking module assembly.
 - (1) Remove the new marking module assembly from the storage box. During this step, make sure that the drum light shielding sheet is correctly attached.



 Make sure that the magnets of the drum light shielding sheet are correctly attached as described earlier on.

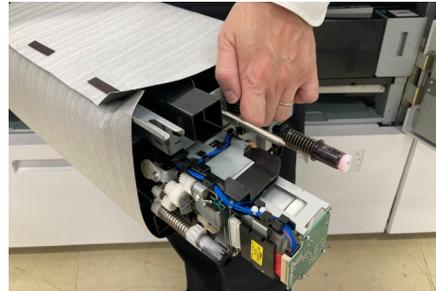
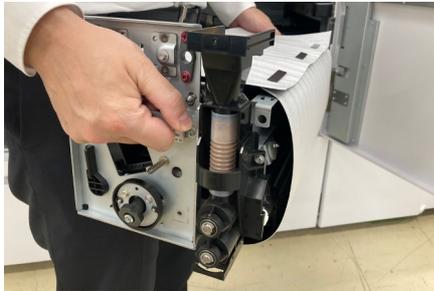
- (2) Hold the new marking module assembly by holding the handle at the front with your right hand and the notched section of metal plate at the rear with your left hand.



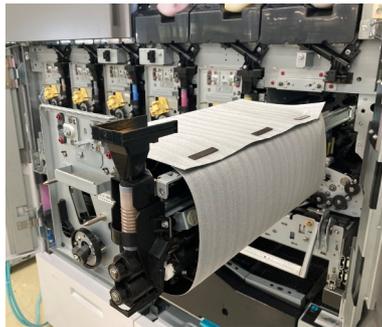
WARNING

When holding the marking module assembly, do not hold it by the pin at its rear.

The pin might break and the marking module assembly might fall.



- (3) Place the marking module assembly on the slide rails beginning with the left side of the slide rails in the printer. Insert the marking module assembly into the inside of the slide rails until the assembly is locked by the lock brackets.

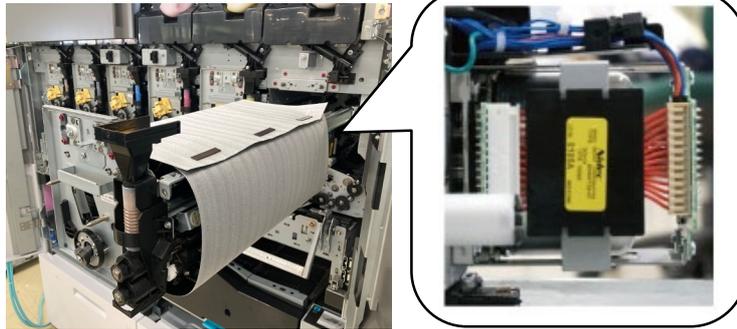


Make sure that the marking module assembly is properly fitted on the slide rails.

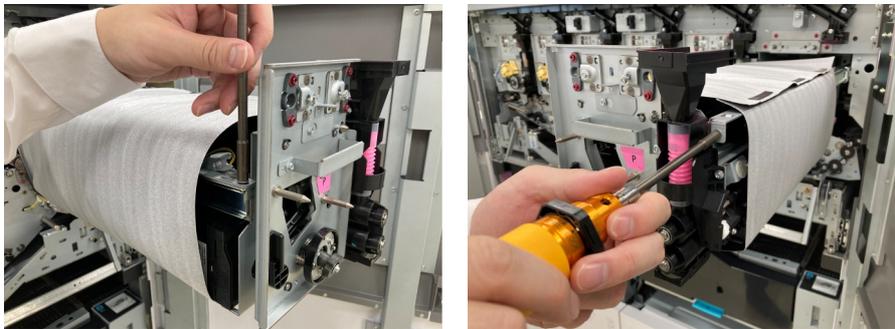




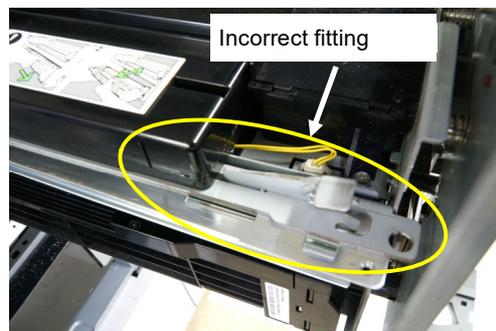
Make sure that the connectors located at the rear of the marking module assembly have not come loose.



- (4) Using the two stepped screws that were placed on the upper lid of the storage box, fix the marking module assembly and slide rails in place.



Caution Before tightening the screws, make sure that the marking module assembly is properly fitted on the slide rails.



 **Caution** Pay attention to the screw types.
Tighten the screws if the stepped section of the screws is loose.



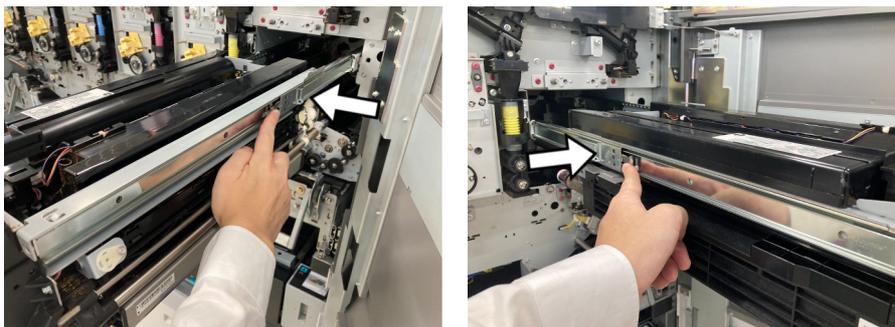
 **Caution** If the screws fall inside the machine, contact your dealer or nearest SHARP Service Department.

6. House the marking module assembly inside the printer.

(1) Remove the drum light shielding sheet from the marking module assembly.



(2) Unlock the slide rails by pressing the lock, and house the marking module assembly inside the printer.

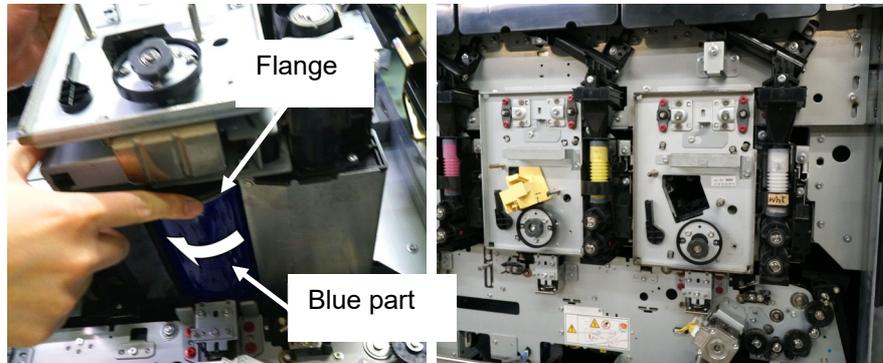


- (3) If the marking module assembly cannot go as far as it can when it is pushed into the printer, rotate the flange (black part) approximately 30° clockwise and push it in again. Repeat this step until the marking module assembly is properly loaded.

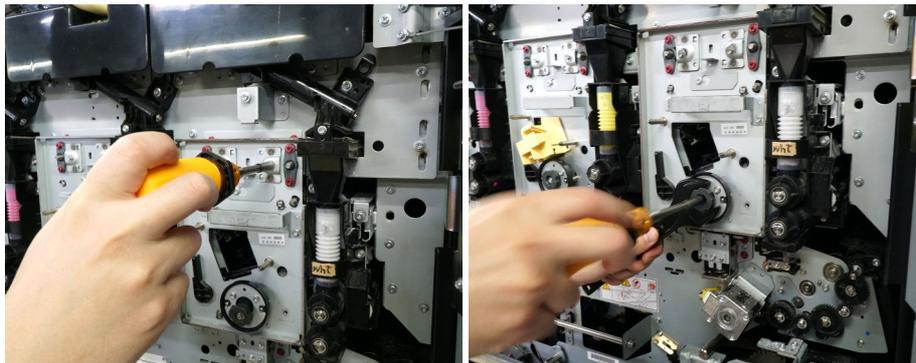


Caution

- Do not draw out the marking module assembly too far.
- Do not touch the blue part of the marking module assembly.
- Do not rotate the flange counterclockwise.

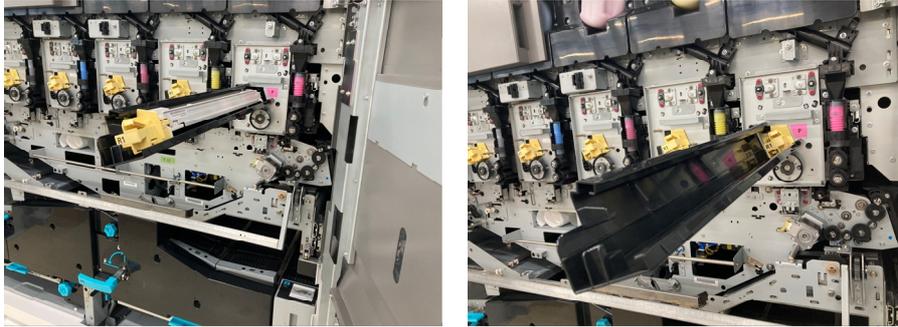


7. Fix the marking module assembly in place with screws. After tightening the two screws at the top, temporarily fasten the flange screw (screw at the bottom), and then tighten the screw by using the flange restrainer.



8. Install the corotron.

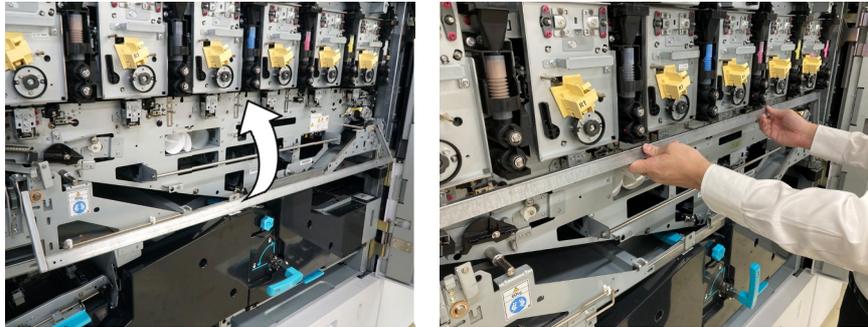
- (1) Install the corotron with protective cover, that was placed on the upper lid of the storage box, on the marking module assembly, insert only the corotron, and push it in until the lock at the front of the corotron clicks into place.



- (2) Remove the corotron protective cover, and return it to the storage box.

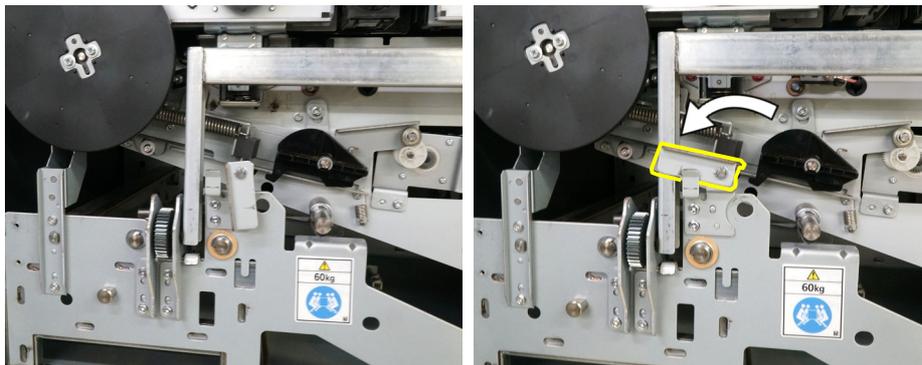
9. Load the IBT module.

- (1) Raise the raise/lower handle of the IBT module.



- (2) Set the raise/lower handle locking latch of the IBT module in place.

 **Caution** Set the latch so that it properly comes to the front of the raise/lower handle.



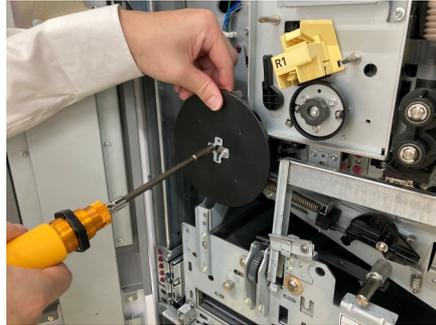
In the case of station L, proceed to step 10.
In the case of station R, proceed to step 11.

10. Install the flywheel.

*This step is required only when replacing station L. (It is not required when replacing station R.)

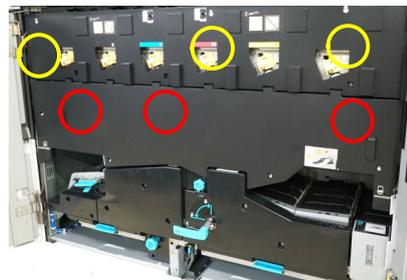
Securely install the flywheel, that was placed on the upper lid of the storage box, with the two screws while restraining the periphery of the flywheel to prevent it from rotating.

 **Caution** Using the specified torque screwdriver (180 cN·m), properly tighten the screws so that no screws are loose.

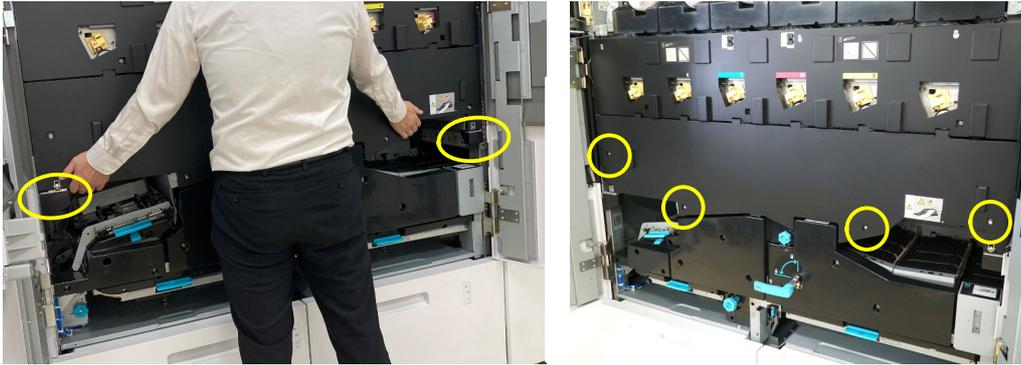


 **Caution** If the screws fall inside the machine, contact your dealer or nearest SHARP Service Department.

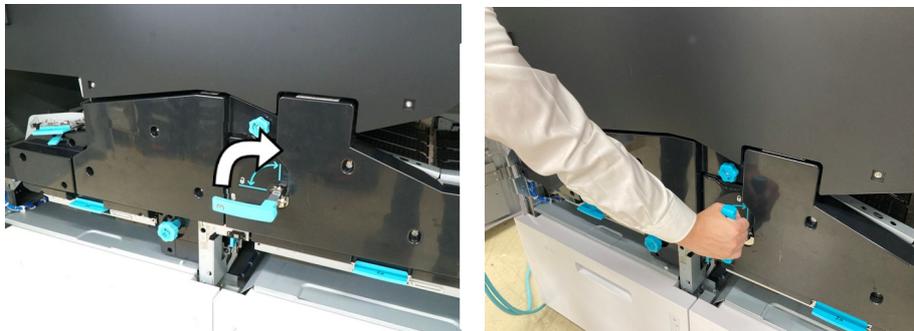
11. Put your hands in the square holes on the marking module cover, marked "Y" and "K", and fit the marking module cover onto the three loose screws marked in yellow on the printer. Then, tighten the three screws marked in red and tighten the three screws marked in yellow.



12. Holding the IBT module cover at both ends under the cover, align and hook the lower surface of both ends onto the bearings, and tighten the four screws.



13. Rotate the handle of the transfer unit 2nd clockwise to lock the unit.



14. Close the covers (left and right) of the printer tower unit.

15. Store the marking module assembly in the storage box.

- (1) Remove the unused marking module assembly stand from the storage box, and spread the PE sheet again on top of the empty storage box.



- (2) After the marking module assembly is removed, transfer the assembly from the PE sheet to the storage box together with the stand on which the folded drum light shielding sheet is placed. Turn the unused marking module assembly stand upside down and put it into the storage box.



- (3) Put on the upper lid, and put the card, etc. marked with the color that was removed in the card holder to distinguish the color.



16. Store the dispenser in the storage box.

- (1) Spread the PE sheet in the empty storage box that contained the dispenser, and then put the dispenser and toner cartridge, that were removed from the printer and placed on the upper lid, into the storage box.



- (2) Wrap the dispenser and toner cartridge in the PE sheet, and put the two corotron protective covers into the storage box.



- (3) Put on the upper lid, and put the card, etc. marked with the color that was removed in the card holder to distinguish the color.



17. Turn the power ON.

(1) Turn the three breaker switches on the rear of the machine ON.

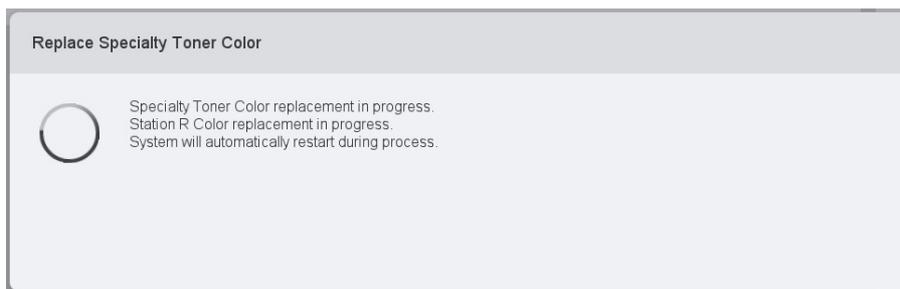


(2) Open the cover (right) of the printer output unit, turn the main power switch ON, and close the cover.

Wait approximately 15 seconds and then turn the power switch ON.

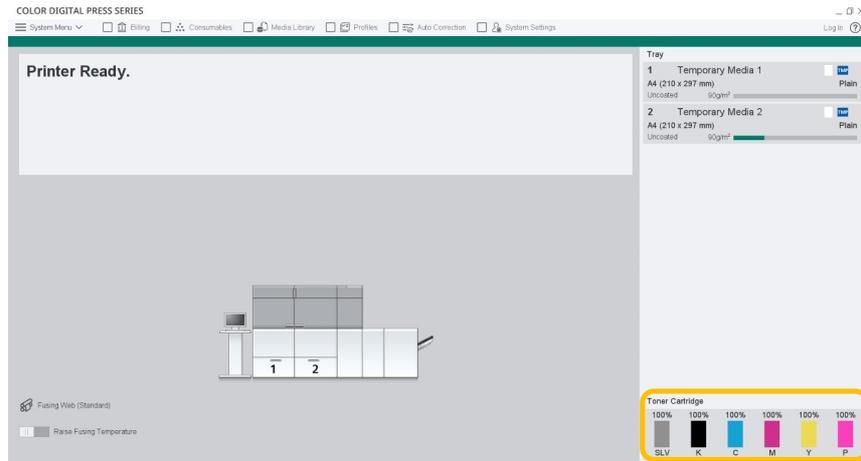


18. The message "Replace Specialty Color" is displayed on the screen of the PC monitor for printer operation. It takes approximately 2 minutes for this operation to complete in the case of one color, and approximately 4 minutes to complete in the case of two colors.



If an error is displayed on the screen of the PC monitor for printer operation, see "Error Display" (P.46).

19. After replacement is completed, the machine is automatically restarted. After the restart, on the screen of the PC monitor for printer operation make sure that the specialty color toner has been correctly replaced.



20. Perform the procedure in "Checking image quality" (P.11), and make sure that the specialty color toner is printed out normally one color at a time.

 **Caution** Compare the test prints with the printout made before replacement of the specialty color toner. If there are any problems, contact your dealer or nearest SHARP Service Department.

 **Caution** When the White toner has been replaced, proceed to step 21.

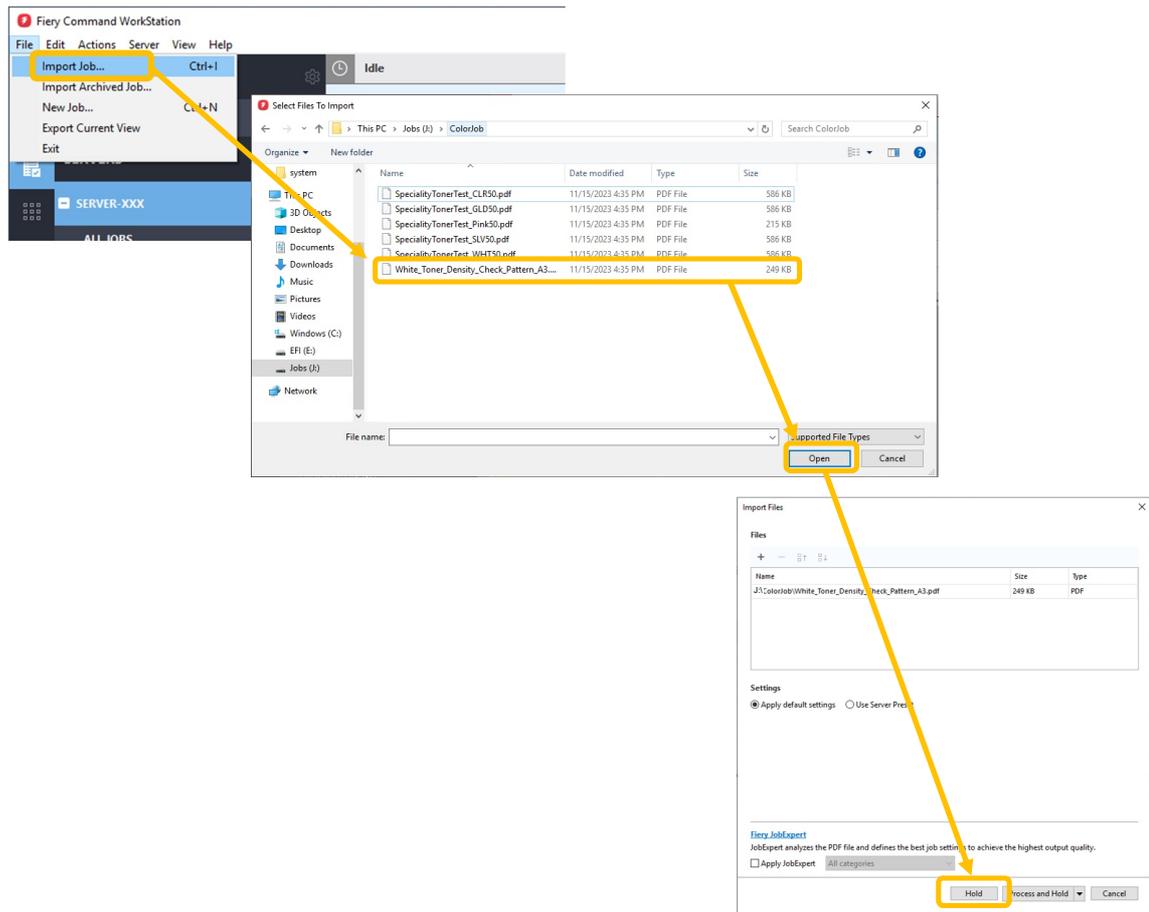
21. When loading White toner in the printer, performs steps (1) to (9) below and check the output density.

(1) Load the paper for outputting White toner in the paper tray.

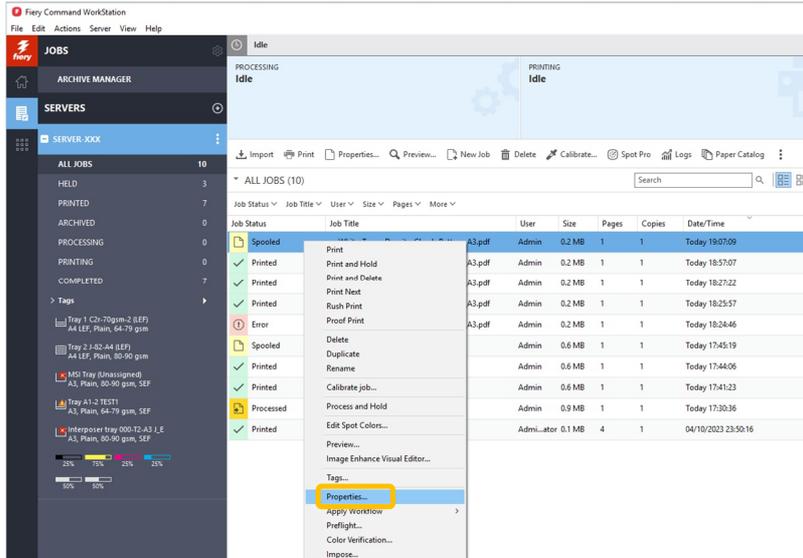
(2) Assign the media setting that is used for outputting White toner to the paper tray.

*White toner will not be output at the correct density if the media settings for white toner are not set correctly in the paper tray.

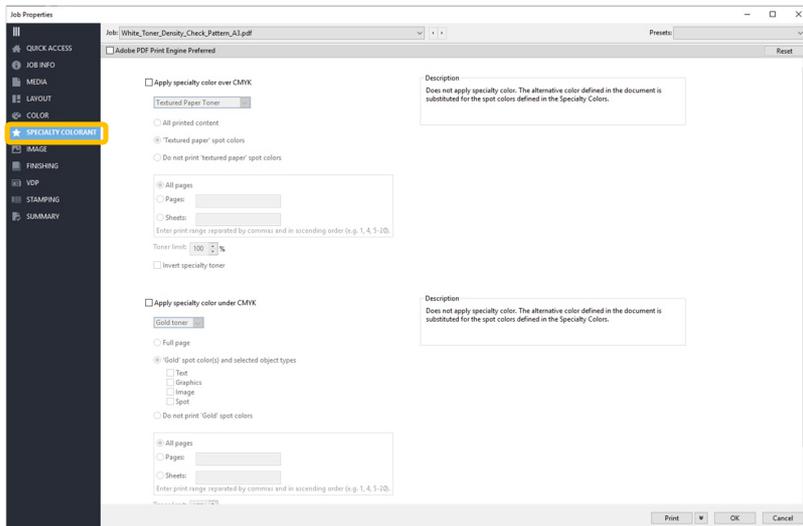
(3) Select Import Job from the File menu in Command Work Station, and read the "White_Toner_Density_Check_Pattern_A3.pdf" from "J:\ColorJob" in the "Print Server" list.



(4) In Command Work Station, right-click on the target Job, and click “Properties”.

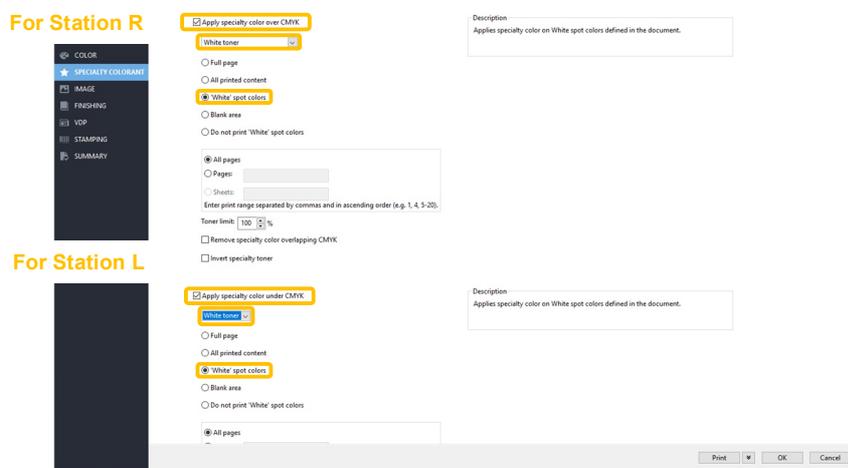


(5) On the left side of Job Properties windows, Click “SPECIALTY COLORANT”

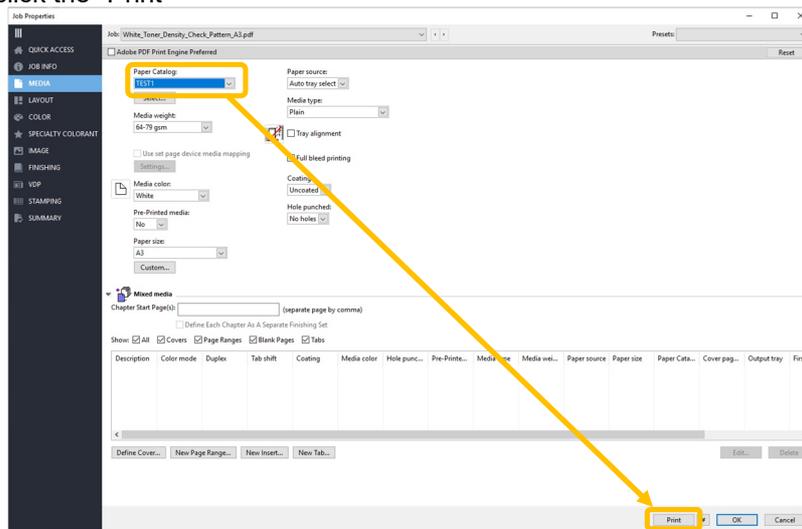


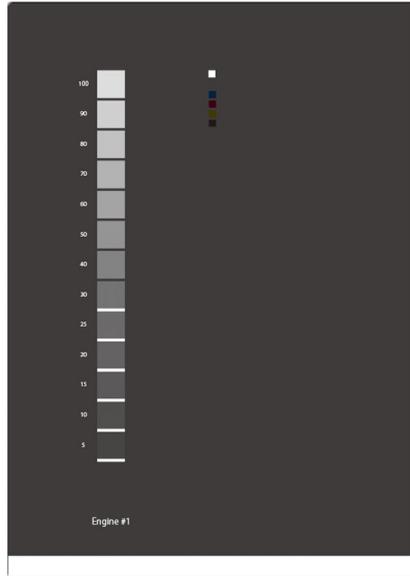
- (6) In the case of "Station R", click "Apply specialty color over CMYK", select "White toner" from the pull-down menu, and select "White spot colors".
In the case of "Station L", click "Apply specialty color under CMYK", select "White toner" from the pull-down menu, and select "White spot colors".

Next, click the "Print"



- (7) On the left side of Job Properties windows, click "MEDIA", and then select media with paper size A3 from Paper Catalog.
Next, click the "Print"

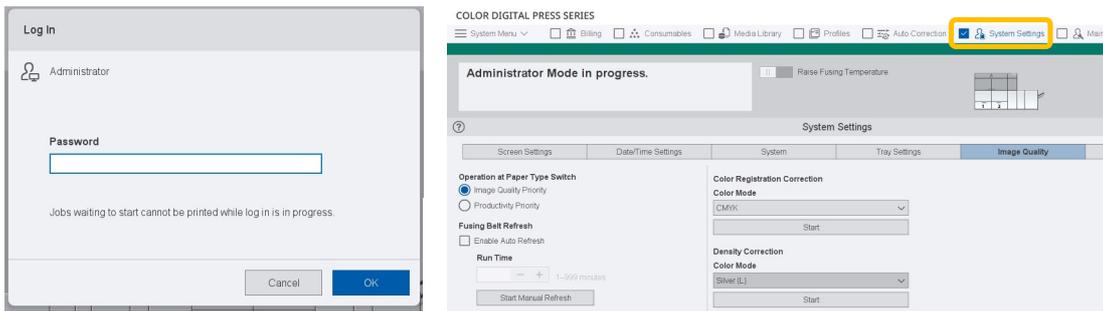




- (8) Write “machine serial No., date and output state and other information” on a piece of notepaper and keep it with the output paper, if necessary.
- (9) Check the output paper. If toner is being output at the desired density without any problem, this completes the replacement procedure.
If you feel that density is low, perform step 22 below.

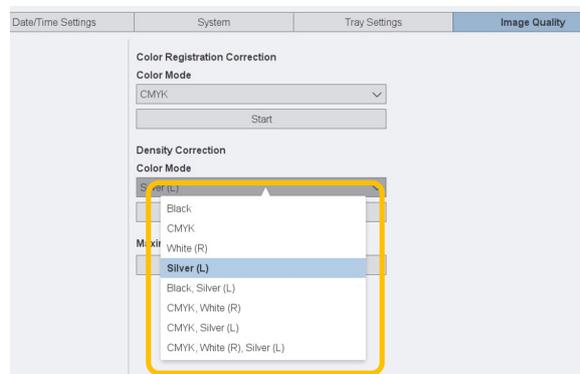
22. Correct ink density when White toner is loaded in the printer.

(1) Log in to PC-UI in the "Administrator" mode, and select "System Settings".



(2) Select "Image Quality".

(3) Select the color targeted for density correction, and click "Start".



(4) Density correction is started. When it ends normally, the following message will be displayed.



Caution If a problem occurs in density correction, contact your dealer or nearest SHARP Service Department.

Procedure for Swapping Specialty Color Toner Between Stations L and R

One set of storage boxes is required for performing this procedure.

1. Check image quality.
Make a printout by following the procedure in "Checking Image Quality" (P.11).
2. Remove the specialty color toner installed on station L.

For details on how to remove the specialty color toner, see "Procedure for Removing Already Installed Specialty Color toner" (P.14).

Using one storage box, place removed parts as shown in the figure below.



3. Remove the specialty color toner installed on station R.
The removal procedure is the same as step 2 described above.
Using the other storage box, place removed parts.
4. Install the specialty color toner that was removed in step 2 on station R.
For details on how to install the specialty color toner, see "New Specialty Color Toner Installation Procedure" (P.27).
5. Install the specialty color toner that was removed in step 3 on station L.
For details on how to install the specialty color toner, see "New Specialty Color Toner Installation Procedure" (P.27).
6. Check image quality.
Make a printout by following the procedure in "Checking Image Quality" (P.11), and compare the test prints made before and after the replacement.



Caution

Compare the test prints with the printout made before replacement of the specialty color toner. If there are any problems, contact your dealer or nearest SHARP Service Department.

Error Display

| Error Code | Error Screen | Cause | Remedy |
|--|--------------|--|---|
| 94-948 | | Clear [CLR] toner was loaded by mistake in station L. | Load the correct color of specialty color toner on station L. |
| 94-936 | | The toner cover is not closed. | Close the toner cover. |
| 94-944 94-947 | | <ul style="list-style-type: none"> The toner cover is not closed. The toner cartridge is not correctly loaded. | <ul style="list-style-type: none"> Close the toner cover. Load the toner cartridge correctly. |
| 024-310 to 024-317 024-320 to 024-327 | - | The write color information to machine error occurred. | Turn the machine power OFF and then back ON again. |

If this does not solve the problem, contact your dealer or nearest SHARP Service Department.

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Edition 1 -December 2023

DE6746E9-1