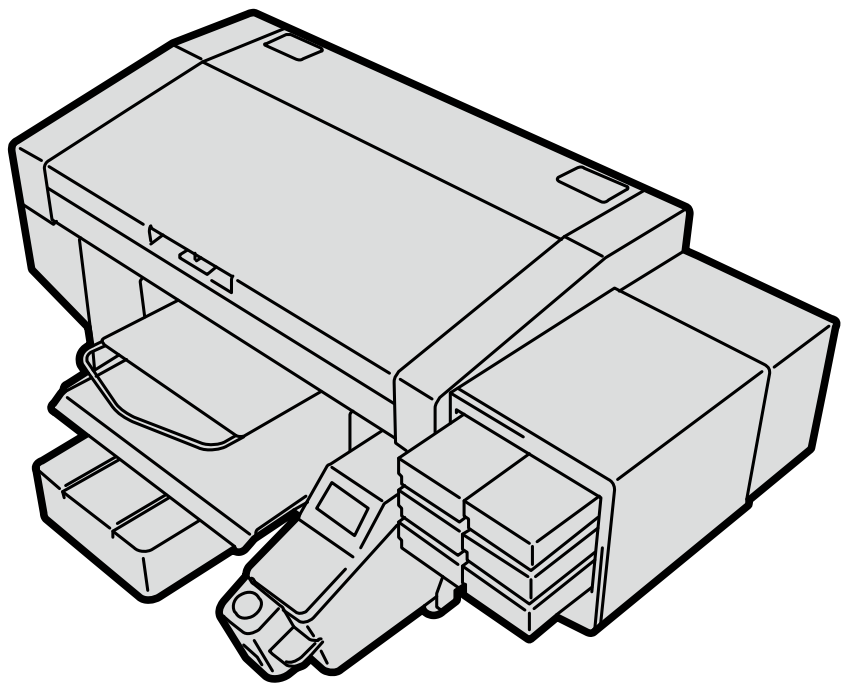


GTX-4

GARMENT PRINTER

Instruction Manual



Please be sure to read this manual before using this product.
Keep this manual in a safe place for future use.

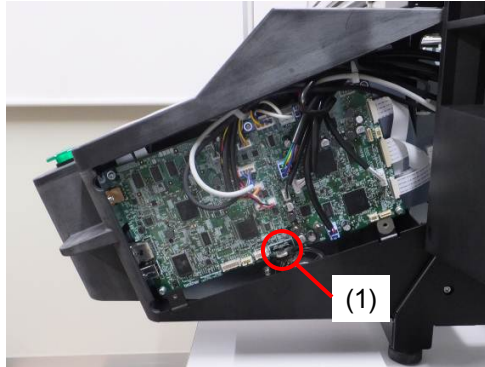
When you dispose of the machine

Required Tools

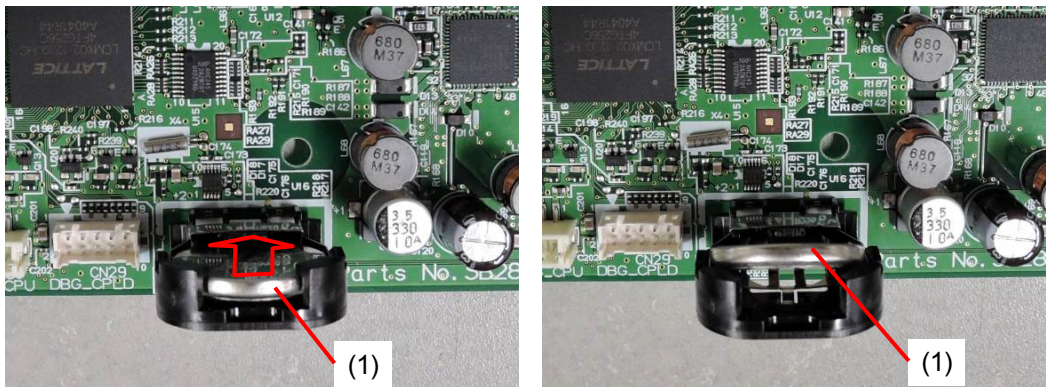
Phillips screwdriver: M3 to M5

Disassembling

- (1) Remove the Cover PANEL SIDE.



- (2) Remove the Lithium Battery (1) by pulling out the holder in the direction of the arrow.



- (3) Pickup the Lithium Battery (1) to the direction of the arrow.



Note based on California law (USA) on the use and handling of Perchlorate

This product contains a CR Coin Lithium Battery which contains Perchlorate Material – special handling may apply.

See <http://www.dtsc.ca.gov/hazardouswaste/perchlorate>.

SAFETY INSTRUCTIONS

Thank you very much for buying a BROTHER printer.




Before using your new printer, please read the "SAFETY INSTRUCTIONS" and handling instructions carefully.

1. Safety indications and their meanings




This instruction manual and the indications and symbols that are used on the printer itself are provided in order to ensure safe operation of this printer and to prevent accidents and injury to yourself or other people.

The meanings of these indications and symbols are given below.

Indications

 DANGER	The instructions which follow this term indicate situations where failure to follow the instructions will result in death or serious injury.
 WARNING	The instructions which follow this term indicate situations where failure to follow the instructions could result in death or serious injury.
 CAUTION	The instructions which follow this term indicate situations where failure to follow the instructions may result in minor or moderate injury.
((!))IMPORTANT	The instructions which follow this term indicate situations where failure to follow the instructions may result in damage to property.
((!))NOTE	The instructions which follow this term indicate precautions and restrictions for use.

Symbols

-  This symbol (\triangle) indicates something that you should be careful of.
The picture inside the triangle indicates the nature of the caution that must be taken. (For example, the symbol at left means "beware of injury".)
-  This symbol (\circ) indicates something that you must not do.
-  This symbol (\bullet) indicates something that you must do.
The picture inside the circle indicates the nature of the thing that must be done. (For example, the symbol at left means "you must make a ground connection".)

2. Notes on safety

DANGER



Contact with high voltage sections may lead to a serious injury. Turn off the power, and remove the cover 5 minutes later.

WARNING

Basic precautions



To prevent accidents and problems, do not modify the machine yourself. Brother will not be held responsible for any accidents or problems resulting from modifications made to the machine.



Do not handle the power cord with wet hands. Otherwise, it may cause electric shocks.

Installation



Do not set up the printer in a dusty environment. If dust collects inside the printer, it may cause fire or electric shocks or problems with correct operation.



Be sure to connect the ground. If the ground connection is not secure, you run a high risk of receiving a serious electric shock, and problems with correct operation may also occur.



Do not bend the cords excessively or fasten them too hard with staples or anything similar to secure cords. Otherwise it may cause fire or electric shocks.



Printing



If a foreign object gets inside the printer, immediately turn off the power, disconnect the power cord, and contact the place of purchase or a qualified technician. If you continue to use the printer while there is a foreign object inside, it may result in fire or electric shocks or problems with correct operation.



Do not allow the printer to come into contact with liquids. Otherwise it may cause fire or electric shocks or problems with correct operation.



If any liquid gets inside the printer, immediately turn off the power, disconnect the power cord, and contact the place of purchase or a qualified technician.



Do not use the printer when smoke or a bad odor is coming from the printer. Otherwise it may cause fire or electric shocks or problems with correct operation. Immediately turn off the power, disconnect the power cord, and contact the place of purchase or a qualified technician.




Keep your finger or any body part away from the rotating fan. Otherwise it will be caught up, which results in injuries.










Turn off the power when you approach the fan.

CAUTION







Environmental requirements

-  Use the printer in a place which is adequately ventilated. A slight odor is generated when the printed articles are being fixed by heat.

Installation

-  Setting up and moving of the printer should only be carried out by a qualified technician.
-  The printer machine weighs 120 kg (265 lb). Transporting and setting up of the printer should be held in the proper way. Otherwise it may fall down and cause injury.
-   When the printer falls down, disconnect the power cord and contact the place of purchase or a qualified technician. If you continue to use it, it may result in fire or electric shocks or poor printing quality.
-  Do not place the printer on a shaky table or high shelf or other unstable location. Otherwise it may tip over or fall down and cause injury. Furthermore, the table that supports the printer should be at least 35.4 in. (90 cm) in width and 23.6 in. (60 cm) in depth, and should be able to bear a weight of 150 kg (330 lb) or more.
-  Do not set up the printer in a place where it will be affected by vibration. Otherwise the printing quality may be degraded or the printer may fall down, which causes injury or results in failure of the printer.
-  Do not connect the power cord until installation is complete. The printer may operate if the power is turned on by mistake, which could result in injury.
-  Do not climb onto the printer or place heavy objects on top of it. Otherwise it may become unbalanced and tip over or fall down and cause injury.
-  Be careful not to touch the claws of the mounting portion on the upper side of the rear cover. Otherwise you may be injured.

Printing

-  This printer should only be used by operators who are appropriately trained in its safe operation.
-  Ensure there is adequate space left in front of the printer and avoid placing any objects. Otherwise your hand may get caught between the platen and an object, which may result in injury.
-  Do not handle the platen while printing. If your hand gets caught between the platen or the T-shirt tray and the covers, it may be injured.
-  Do not put your hands inside the covers while the printer's power is turned on. Otherwise your hands may touch against moving parts and this may result in injury.
-  When the pretreatment is applied to printed objects (like a T-shirt) with a spray or pretreatment applicator, sprayed mist is generated. So wear a pair of plastic gloves, a mask and protective glasses (or goggles) designed to shield against liquid splash, and fully take care of the air ventilation when you are working with it.
-  When a problem occurs with the operation of the printer, contact the place of purchase or a qualified technician.

CAUTION

Maintenance



Be careful not to get your fingers caught when closing the front cover, otherwise it may result in injury to your fingers.



When you mount or replace the head, be careful not to get your hands or fingers caught. Otherwise you may be injured.



Do not disassemble the ink pouch. If the ink gets into your eyes or onto your skin, it may cause inflammation. In case of contact with eyes, do not rub but immediately rinse the eyes with water.



Do not drink liquids such as the ink, maintenance solution, cleaning solution, pretreatment, or waste. They may cause diarrhea or vomiting.

Avoid causing your eyes or skin to make contact with the ink, maintenance solution, cleaning solution, pretreatment or waste. It may cause inflammation. In case of contact with eyes, do not rub but immediately rinse the eyes with water.

Keep the liquids out of the reach of children.



Be sure to wear protective goggles and gloves when handling the grease, so that it does not get into your eyes or onto your skin.

It can cause inflammation. Do not drink or eat the grease. It may cause diarrhea or vomiting.

Keep the liquids out of the reach of children.



When replacing parts and installing optional accessories, be sure to use only genuine Brother parts. Brother will not be held responsible for any accidents or problems resulting from the use of non-genuine parts.



When replacing parts or installing optional accessories, be sure to follow the procedures described in the Instruction Manual. Incorrect procedures could cause injuries or problems.

((!))IMPORTANT

Printing







Do not move the platen by hand. Otherwise the printer may be mechanically and electrically damaged.

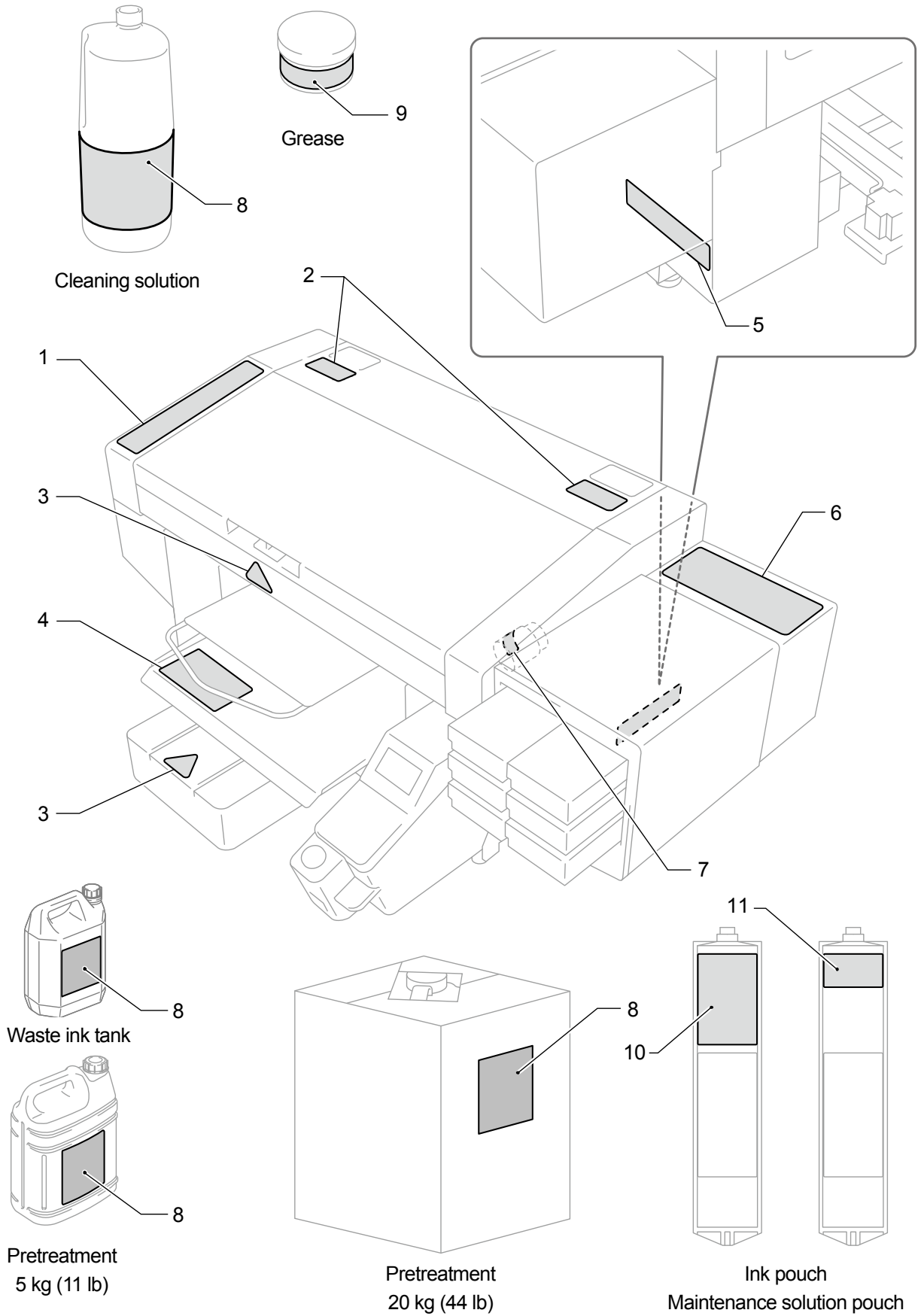


Ensure there is adequate space left in front of the printer and avoid placing any objects. The platen may be hit and damaged.

((!))NOTE

-  Use the printer in an area which is free from sources of strong electrical noise such as electrical line noise or static electric noise. Sources of strong electrical noise may cause problems with correct operation.
-  Any fluctuations in the power supply voltage should be within $\pm 10\%$ of the rated voltage for the printer. Voltage fluctuations which are greater than this may cause problems with correct operation.
-  The power supply capacity should be greater than the requirements for the printer's power consumption. Insufficient power supply capacity may cause problems with correct operation.
-  In the event of an electrical storm, turn off the power and disconnect the power cord from the wall outlet. Lightning may cause problems with correct operation.

3. Warning labels




This printer has the following warning labels displayed on it.
Follow the precautions given on each warning label for your work.
When the label is peeled off or illegible, contact the place of purchase.


1

▲ 注意
下痢・おう吐する可能性がある。 インクなどの液体類を飲まないこと。 炎症を起こす可能性がある。 インクなどの液体類が目や皮膚に付かないようにすること。
▲ 注意
有可能导致腹泻、呕吐。请勿饮用油墨等液体类。 有可能引发炎症。 注意油墨等液体类不要飞溅到眼中或皮肤上。
▲ CAUTION
Do not drink the liquids under any circumstances, as they can cause vomiting and diarrhea. Take care not to let the liquids come into contact with your eyes or onto your skin, otherwise inflammation can result.
▲ ACHTUNG
Bitte trinken Sie nicht die Flüssigkeiten, da die Gefahr von Erbrechen und Durchfall besteht. Vermeiden Sie den Kontakt der Flüssigkeiten mit Augen und Haut, sonst können diese gereizt werden.
▲ ATTENTION
Ne pas avaler les liquides d'aucune manière, car ceci pourrait entraîner vomissements et diarrhée. Veuillez à ne pas laisser ces liquides être en contact avec les yeux ou la peau, car ceci pourrait entraîner une inflammation.
▲ ATENCION
No tome los líquidos en cualquier caso, como pueden causar vomitar y diarrea. Tome el cuidado para no permitir que los líquidos toquen los ojos ni en la piel, de otro modo inflamación puede resultar.
▲ ATTENZIONE
Non bere per nessun motivo i liquidi poiché possono causare vomito e diarrea. Evitare il contatto di questi liquidi con gli occhi e con la pelle poiché potrebbero creare infiammazioni.

2

	▲ WARNING
	Hazardous moving parts. Keep fingers and other body parts away.

3

	Watch your fingers, or you may be injured.
---	--


4

	▲ 注意
	プラテンやシャツトレイとカバーとの間に手を挟み、けがをする。印刷中はプラテンから手を離すこと。
	▲ 注意
	手袋を圧破、指挫傷や指切断の危険がある。印刷中は手袋を外す。
	▲ CAUTION
	Moving platen, T-shirt tray and covers can cause bodily injury. Keep hands off platen while printing.
	▲ ACHTUNG
	Druckplatte, T-Shirt-Ablage und Abdeckungen können körperliche Verletzungen verursachen. Halten Sie die Hände von der Auflage während des Druckvorganges fern.
	▲ ATTENTION
	Déplacement du plateau, chargeur T-shirt et couvercle peut blesser le corps. Garder les mains éloignées lors de l'impression.
	▲ ATENCION
	Moviendo la placa, la bandeja de camiseta y las cubiertas pueden causar una herida personal. Retire las manos de la placa durante la impresión.
	▲ ATTENZIONE
	Tavoletta mobile, il ripiano per la T-shirt ed il coperchio possono causare infortuni. Tenere le mani lontane dalla tavoletta durante la stampa.

5

	▲ 危険	▲ 危険
	高電圧部分にふれて、大けがをすることがある。 電源を切り、5分たってからカバーを開くこと。	接触高電圧部分、会导致受伤。 在切断电源5分钟后、再开启盖罩。
▲ DANGER	▲ GEFAHR	▲ DANGER
Hazardous voltage will cause injury. Turn off main switch and wait 5 minutes before opening this cover.	Hochspannung verletzungsgefahr! Bitte schalten sie den hauptschalter aus und warten sie 5 minuten, bevor sie diese abdeckung öffnen.	Un voltage inadecuado provoque des blessures. Eteindre l'interrupteur et attendre 5 minutes avant d'ouvrir le capot.
▲ PELIGRO		▲ PELIGRO
		Un voltaje inadecuado puede provocar las heridas. Apagar el interruptor principal y esperar 5 minutos antes de abrir esta cubierta.

6

	▲ ACHTUNG
	Niemals auf den Drucker steigen.
▲ 注意	▲ ATTENTION
本体の上に乗らないこと。	Ne montez pas sur l'imprimante.
▲ 注意	▲ ATENCION
请勿放在主体上面。	No se suba encima de la impresora.
▲ CAUTION	▲ ATTENZIONE
Do not climb onto the printer.	Non salire sulla stampante.

7

	High temperature warning display
---	----------------------------------

8

▲ 注意
下痢・おう吐する可能性がある。インクなどの液体類を飲まないこと。 炎症を起こす可能性がある。インクなどの液体類が目や皮膚に付かないようにすること。 子供の手の届かないところに置くこと。
▲ 注意
有可能导致腹泻、呕吐。请勿饮用油墨等液体类。 有可能引发炎症。注意油墨等液体类不要飞溅到眼中或皮肤上。请放置在儿童无法触及的地方。
▲ CAUTION
Do not drink the liquids under any circumstances, as they can cause vomiting and diarrhea. Take care not to let the liquids come into contact with your eyes or onto your skin, otherwise inflammation can result. Keep the liquids out of the reach of children.
▲ ACHTUNG
Bitte trinken Sie nicht die Flüssigkeiten, da die Gefahr von Erbrechen und Durchfall besteht. Vermeiden Sie den Kontakt der Flüssigkeiten mit Augen und Haut, sonst können diese gereizt werden. Halten Sie die Flüssigkeiten von Kindern fern.
▲ ATTENTION
Ne pas avaler les liquides d'aucune manière, car ceci pourrait entraîner vomissements et diarrhée. Veuillez à ne pas laisser ces liquides être en contact avec les yeux ou la peau, car ceci pourrait entraîner une inflammation. Maintenez les liquides hors de portée des enfants.
▲ ATENCION
No tome los líquidos en cualquier caso, como pueden causar vomitar y diarrea. Tome el cuidado para no permitir que los líquidos toquen los ojos ni en la piel, de otro modo inflamación puede resultar. Mantenga los líquidos fuera del alcance de niños.
▲ ATTENZIONE
Non bere per nessun motivo i liquidi poiché possono causare vomito e diarrea. Evitare il contatto di questi liquidi con gli occhi e con la pelle poiché potrebbero creare infiammazioni. Conservare i liquidi lontano dalla portata dei bambini.
<ul style="list-style-type: none"> ■ 地域の法令に従って廃棄してください。 ■ 应按照当地法律废弃。 ■ Deposit in compliance with your local regulations. ■ Gebrauchte es gemäß örtlichen Richtlinien entsorgen. ■ Jetez conformément à la réglementation locale en vigueur. ■ Deseche siguiendo la normativa local. ■ Smaltire in conformità alle normative local.

9

▲ 注意	▲ 注意	▲ CAUTION
brother グリース 油脂 GREASE	目に入り皮膚につくと、炎症を起こす可能性があります。保護メガネ、手袋を着用すること。食べると、下痢、嘔吐する。食べないこと。	Lubricating grease may cause inflammation to eye and skin. Wear protective glasses and gloves. Swallowing grease can cause diarrhoea and vomiting. Do not swallow.
	如果进入眼睛或接触到皮肤上，有可能引发炎症。应使用护目镜、手套。食べると、下痢、嘔吐する。请勿食用。	

10

▲ CAUTION
Do not drink the liquids under any circumstances, as they can cause vomiting and diarrhea. Take care not to let the liquids come into contact with your eyes or onto your skin, otherwise inflammation can result. Keep the liquids out of the reach of children.
▲ ACHTUNG
Bitte trinken Sie nicht die Flüssigkeiten, da die Gefahr von Erbrechen und Durchfall besteht. Vermeiden Sie den Kontakt der Flüssigkeiten mit Augen und Haut, sonst können diese gereizt werden. Halten Sie die Flüssigkeiten von Kindern fern.
▲ ATTENTION
Ne pas avaler les liquides d'aucune manière, car ceci pourrait entraîner vomissements et diarrhée. Veuillez à ne pas laisser ces liquides être en contact avec les yeux ou la peau, car ceci pourrait entraîner une inflammation. Maintenez les liquides hors de portée des enfants.
▲ ATENCION
No tome los líquidos en cualquier caso, como pueden causar vomitar y diarrea. Tome el cuidado para no permitir que los líquidos toquen los ojos ni en la piel, de otro modo inflamación puede resultar. Mantenga los líquidos fuera del alcance de niños.
▲ ATTENZIONE
Non bere per nessun motivo i liquidi poiché possono causare vomito e diarrea. Evitare il contatto di questi liquidi con gli occhi e con la pelle poiché potrebbero creare infiammazioni. Conservare i liquidi lontano dalla portata dei bambini.

11

▲ 注意
有可能导致腹泻、呕吐。请勿饮用油墨等液体类。 有可能引发炎症。注意油墨等液体类不要飞溅到眼中或皮肤上。 请放置在儿童无法触及的地方。
▲ 注意
下痢・おう吐する可能性がある。インクなどの液体類を飲まないこと。 炎症を起こす可能性がある。インクなどの液体類が目や皮膚に付かないようにすること。 子供の手の届かないところに置くこと。

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1-1. Be sure to read the following notes before using the printer

Keep in mind the following points before using the printer:

Precautions for proper use

- Please keep the printer powered on the printer for 24 hours a day. Even when the printer is placed in standby mode, it performs such maintenance as white ink circulation inside the main unit automatically to prevent sedimentation of the white ink. (For details, refer to "4-2. Power supply of printer >>P.41".)
- Please use the printer within the scope covered by its warranty for the best print result (temperature: 18 to 30°C (64.4 to 86°F) and humidity: 35 to 85%). Otherwise, the print heads may be clogged with ink and ink may splash. (For details of the usage environment, refer to "10-1. Apparatus >>P.356".)
- Adjust the height of the platen corresponding to the print medium before using it. You can use the platen height adjustment lever to adjust the height of platen. As a rough indication, adjust the height so that it is lowered by one step from the limit height detected by the obstacle sensor, and check that the platen is not detected by the sensor. In the event that the platen's height is lowered excessively, ink mist will be scattered inside the printer, which may result in staining of the printing surface, blurring of the printed image, and malfunction of the sensor and the main unit. (For details, please refer to "6-4-2. Platen height adjustment >>P.169".)
- Never power off the printer while it is in operation. Otherwise, the printer may break down or a print job may end up in failure. Also, as the power will be turned off if you open the front cover, avoid opening the cover while the printer is operating.
- Until the ink is firmly fixed on the surface of a T-shirt, handle the T-shirt with care. If a T-shirt is soiled with such ink that has not been firmly fixed on its surface, such ink stain cannot be removed even by washing.

About ink cartridge

- Insert each of the cartridges into its correct position. Make certain that a seal color of the printer corresponds with a corresponding color of cartridge to it.
- The white ink precipitates downward when its cartridge is put in position. For this reason, shake it well once a day immediately before use. (Shake each cartridge approximately 100 times.) For details, refer to "6-2-3. Daily agitation of the white ink >>P.150".
- Never pull out any cartridges while the printer is operating. Otherwise, the print quality may deteriorate or the printer may break down.
- Store consumable goods in a place where they are not exposed to direct sunlight. Use up the ink pouch, pretreatment and maintenance solution before their shelf life. Also, use up each color ink within six months after opening their sealed packages.
- No cartridges can be refilled with any ink. Do not disassemble the ink pouch. In order to use the printer for a long period and to take full advantage of its capabilities, we recommend to use the ink pouches that are specified by us.
- Always keep on putting each ink cartridge in its correct position; do not leave a ink cartridge slot empty. Otherwise, the inner needle may clog because ink dries up, or the printer may be damaged.
- Handle the ink pouch with care. It could be damaged when bent, snagged by sharp surfaces, or dropped.

About pretreatment

- If a T-shirt to which the pretreatment is applied is coated with only color inks, its stains tend to be wiped off by washing. Avoid application of the pretreatment when no white ink is used.
- When a white or light-colored T-shirt is coated with the pretreatment, the coated surface color may change, and cannot be restored to the original color even if the T-shirt is washed. After a T-shirt is coated with the pretreatment, store it in a place where it is not exposed to direct sunlight, and wash it with clean water at an early stage after ink is applied to it.
- Wash away any imprint of the pretreatment with water. Also, some T-shirts may be discolored by the pretreatment and cannot be restored to the original color even if they are washed. When performing printing for the first time, try it in an unnoticeable area.
- Please ensure to inform the customer about the following precautions in regards to buying/selling printed materials:
 - If a printed material is rubbed with vinyl-chloride-based white or light-colored synthetic leather, color transfer may occur. Also, when a color-printed surface is rubbed strongly against a printed surface with only white ink, color transfer may occur in the same fashion. When a color transfer occurs, wipe the color-transferred area clean of dirt with a soft and clean cloth or a toothbrush that is moistened with a small amount of mild detergent for home use or alcohol.
 - Wash away any imprint of the pretreatment by washing (with water).

About maintenance

- In order to keep good printing quality, perform maintenance on a regular basis. For details, please refer to "7. Precautions to keep good printing quality/use printer over the long term >>P.203".
- In order to take full advantage of the printer's intrinsic capabilities and use it for a long period, we recommend to use the genuine cleaning solution that is specified by us when cleaning the head section, cap or wiper. Using commercially available alcohol or cleaning solution could cause damage to the print heads.
- Never remove the print heads except when they are replaced with new ones, because they are precision components. Otherwise, the print heads may be damaged.


What to do when not using printer

- When not using the printer for a long period of time, please refer to "7-5. When Not Using for a Long Period of Time >>P.257".

About waste handling

- Dispose of the residual wastes and waste ink properly as water-based waste fluid in accordance with applicable laws and ordinances. If you are uncertain about their disposal, consult with your retailer first and discard them accordingly.

Others

- In the event that the printer is relocated elsewhere for layout change, etc., place a level gauge on the top surface of the cover and the top surface of the platen to make such an adjustment that the printer will be placed horizontally level.
- : Standby symbol

<NOTE> *Only for the use in the United States*

- This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

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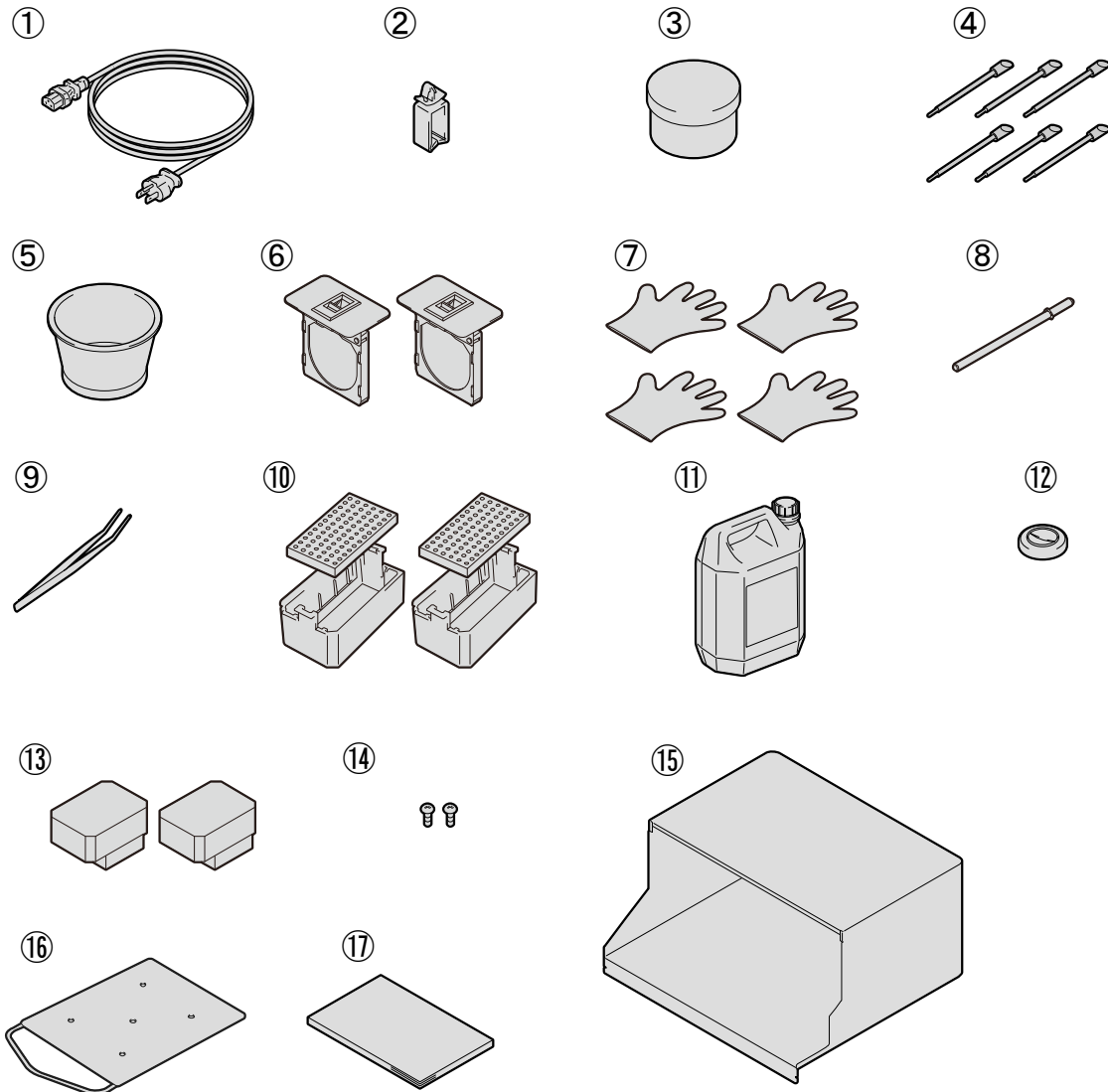
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1-2. Components included with printer

The components included with the printer are shown below. However, in the event that there is any missing component(s), please contact your dealer.



X0126

No.	Name	Quantity	No.	Name	Quantity
1	AC power cord	1	10	Flushing receiver	2
2	Cable clamp	1		Flushing foam	2
3	Grease	1	11	Waste ink tank	1
4	Clean stick R	6	12	Waste ink tube fixing rubber ^{*1}	1
5	Cleaning cup	1	13	Print head	2
6	Filter cover and Fan filter	2	14	Rear cover installation screws ^{*2}	2
7	Gloves (for changing the wiper cleaner / for cleaning the maintenance unit)	4	15	Rear cover	1
			16	Adult platen	1
8	Carriage fixing pin	1	17	Setup Manual	1
9	Tweezers	1	-	-	-

^{*1}: The rubber is already attached to the waste ink tube of the main unit.

^{*2}: Screws are already fixed with the machine.

1-3. Other items you must make available for use

What you buy from our distributors

<TIPS>

- For details of the optional items, refer to "10-4. About consumable supplies, optional items and replacement parts >>P.360".
 - Ink pouch
 - Maintenance solution pouch
 - Cleaning solution
 - Pretreatment
 - Wiper cleaner

Others

- USB cable
USB 2.0-compliant device cable (A/B)

<NOTE>

- Using other cables than the specified one may cause the printer to be rendered inoperative. Do not use any extension cable.
- LAN cable
LAN cable (10BASE-T/100BASE-TX)
- USB flash memory
Please use a FAT32-formatted USB flash memory of which storage capacity is 2 GB to 32 GB in total. You cannot use a USB memory with security functions such as password lock function.
- Pure water
It refers to such water as distilled water and purified water, which is used to dilute the pretreatment with it.

<NOTE>

- Avoid using such water as tap water in which impurities are contained.
- Heat press
It must deliver the performance through which the print range of the size of a platen to be used can be covered and 180°C (356°F) can be kept for 35 seconds or more. At a fixing stage of the pretreatment, be sure to use the heat press, but not an oven, to smoothen the surface.
- Peel-off sheet
Always use this sheet to flatten the fixed surface and enhance the peel property when fixating the pretreatment and ink by means of the heat press. For details, refer to "6-3-1. Provisions for pretreatment >>P.153".
- Silicone foam (of open-cell structure)
It is the foamed mattress which resists heat. Use this at a fixing stage through the use of the heat press.
- Adhesive roller
Use these to remove lint from a T-shirt or debris from its surface.

- T-shirt (printing medium)
 - 100% cotton
 - Polyester blended yarn fabric

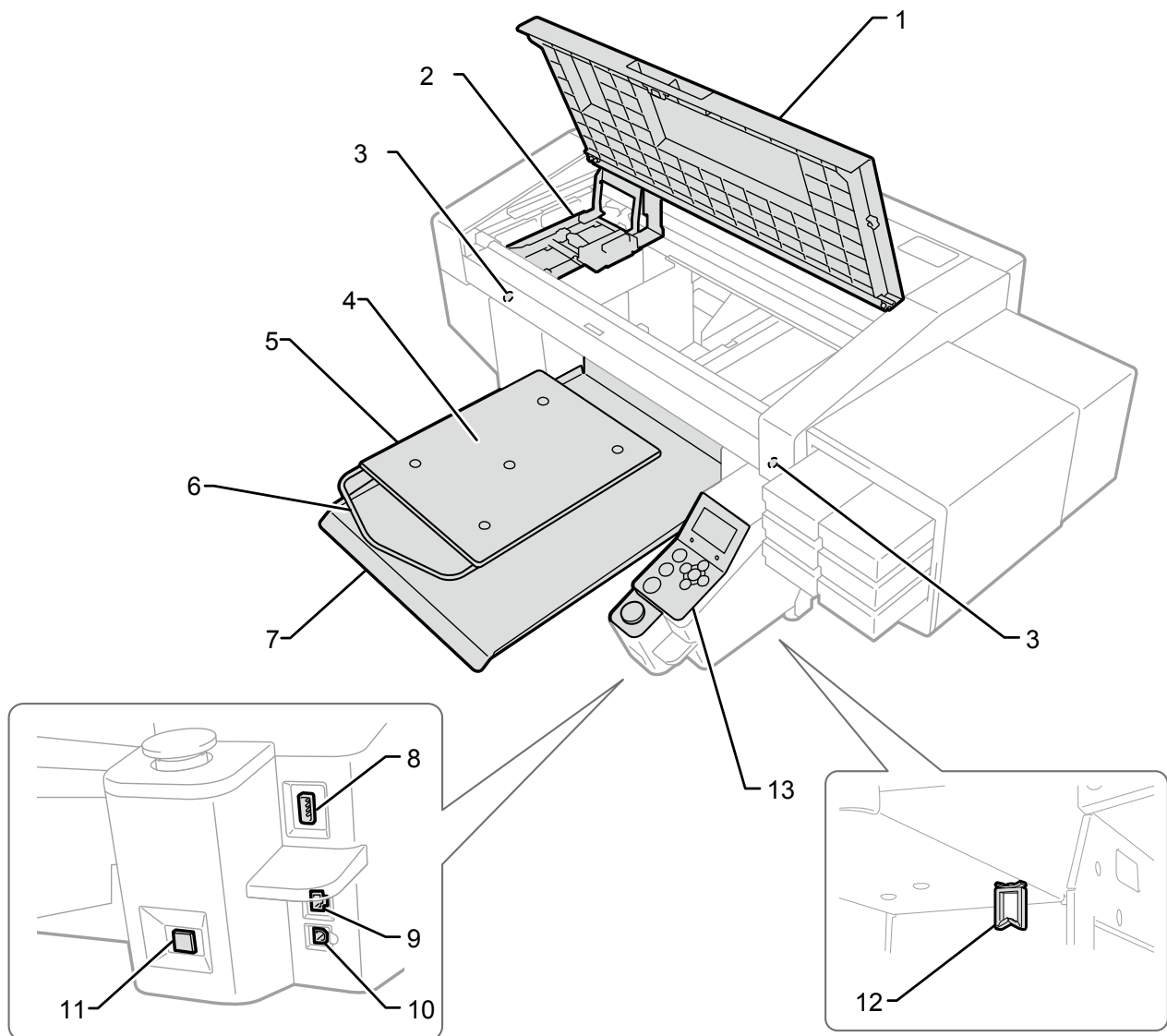
<TIPS>

- Although it is advisable to use a 100% cotton T-shirt, some textiles cannot necessarily guarantee good printing quality even if they are made of 100% cotton or blended yarn. In particular, for a T-shirt made of new material, perform a printing test on it beforehand.
- Some textiles may leave noticeable imprints of the pretreatment after it is fixated. In that case, wash them away with water.
- Perform a printing test beforehand. Then, the following phenomena may occur:
 - The textiles may be discolored by the pretreatment and cannot be restored to the original color even if they are washed.
 - A deep-colored polyester blended yarn fabric dissolves dye, which may cause the white ink to change to a slightly different color.
 - Fabric material may turn yellow after the pretreatment is fixed.

2

Name and function of each component

2-1. Front part

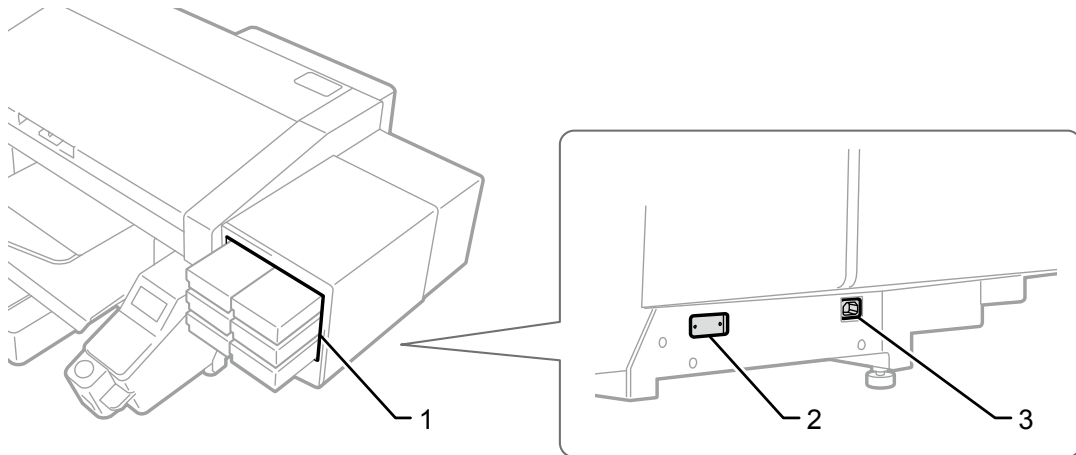


X0031

No.	Name	Function
1	Front cover	Open this cover when cleaning the internal area of the printer.
2	Carriage	Holds the print head.
3	Obstacle sensor	Checks the presence of any obstacles by their height (such as wrinkled T-shirt) that are within range to collide with the print head.
4	Platen sheet	It helps to keep the T-shirt from moving/shifting during printing so that an image can be clearly printed.
5	Platen	It secures a T-shirt in place, which is to be printed.
6	Shoulder bar	Align the position of a T-shirt with this bar.
7	T-shirt tray	This T-shirt tray holds such portions of T-shirt that droop down on it and feeds the entire T-shirt into the printer.
8	USB flash insertion slot	Insert a USB flash memory into this slot.
9	LAN port	Into this port, insert the LAN cable which is to be connected with a PC.
10	USB port	Into this port, insert the USB cable which is to be connected with a PC.

No.	Name	Function
11	Power button	Use this button to turn the power on/off to the printer. The power-off operation should be performed after completing any required operation. The standby power cannot be turned off.
12	Cable clamp	With this clamp, the LAN and USB cables can be securely fixed to the lower part of the main unit of printer.
13	Operation panel	Operate the printer using this panel.

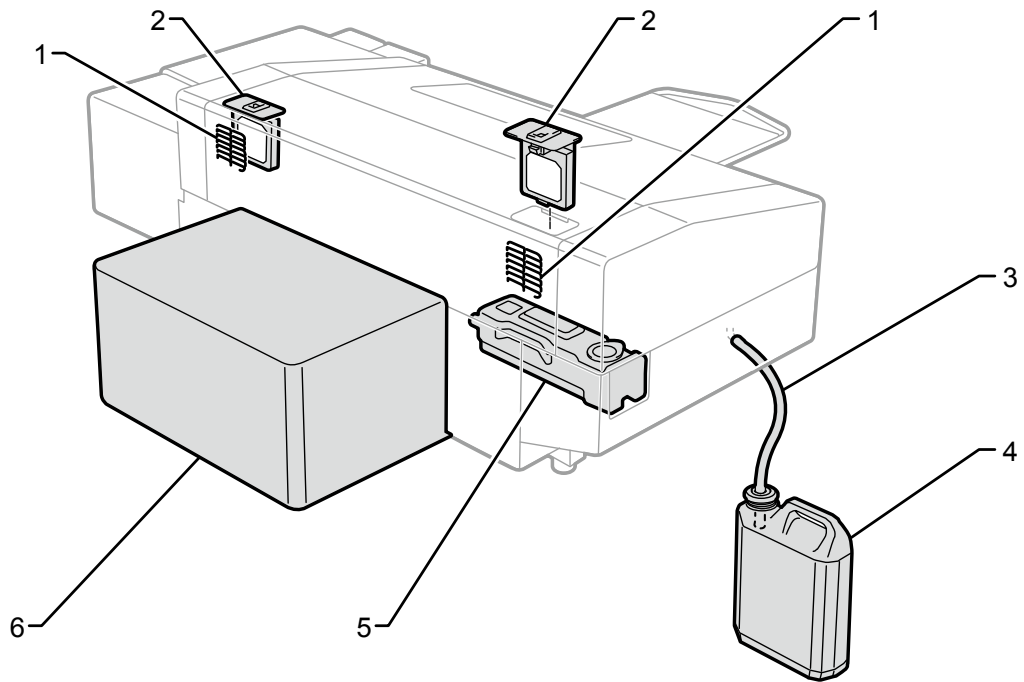
2-2. Right side view



X0032

No.	Name	Function
1	Ink cartridge slot	Ink cartridges placed here are, from the left in the top row, black (K) and yellow (Y), from the left in the middle row, cyan (C) and magenta (M), and from the left in the bottom row, white (W12) and white (W34). Be sure to put each of the ink cartridges in their correct places.
2	Model plate	On this plate, a product serial number is inscribed.
3	Power cord insertion port	Insert the power cord into this port.

2-3. Left side view/Rear side view



X0033

No.	Name	Function
1	Exhaust opening	This is the exhaust outlet for fan exhaust air. For proper use, keep this opening apart from the nearest wall by 7.9 in. (20 cm) or more.
2	Fan filter	It absorbs ink mist which is generated inside the printer on its surface.
3	Waste ink tube	This tube is used to direct the flow of waste ink down into the waste ink tank.
4	Waste ink tank	This tank collects waste ink.
5	Cleaning liquid tank	It is the tank that reserves the cleaning solution used for maintenance.
6	Rear cover	It protects the platen's working range.

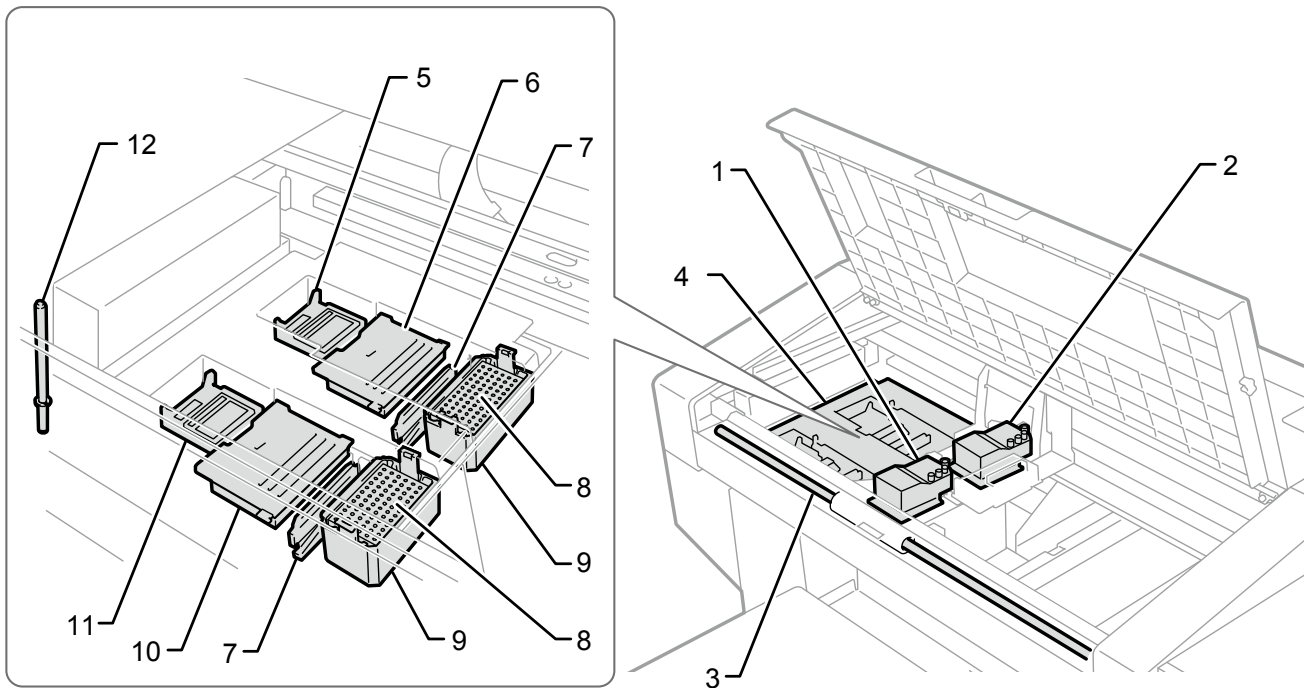
2-4. Inner-side view of front cover

Before opening the front cover, be sure to stop all operations, then house the platen in place, and finally turn off the power.

To open the front cover, raise it while holding the center grip and open it until it is oriented almost vertically.

<IMPORTANT>

- Do not press and hold the power button for a while. Otherwise, note that no cleaning will be performed at the end of a print job to keep the print heads in good condition.

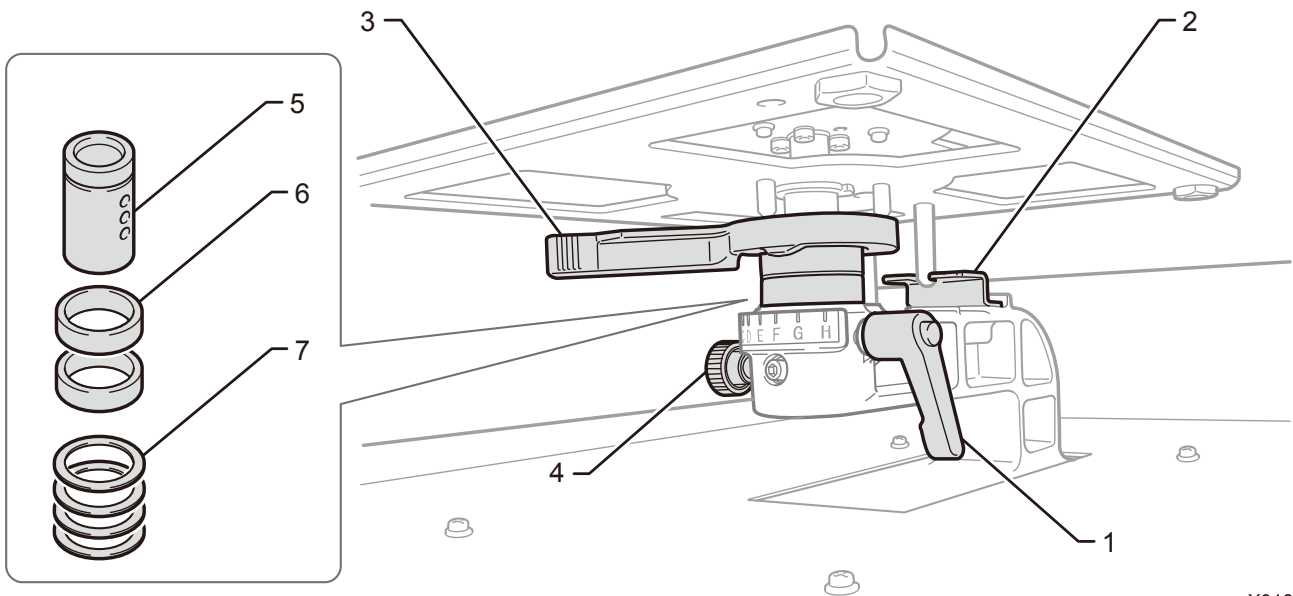


X0034

No.	Name	Function
1	Print head (front: on the color side)	It ejects the color ink.
2	Print head (rear: on the white side)	It ejects the white ink.
3	Carriage guide shaft	This shaft supports the carriage.
4	Maintenance unit	In order to keep good printing quality, this unit performs maintenance functions to the print heads on a regular basis. (Example: Auto-Cleaning Function)
5	Cap (rear: on the white side)	It protects the surface of heads on the white side, and sucks ink during head cleaning.
6	Wiper cleaner (rear: on the white side)	It removes waste ink attached to the wiper surface.
7	Wiper (for CMYK and white)	It wipes away ink from the head surface.
8	Flushing foam	To keep good printing quality the foam absorbs the ink-jet droplets ejected from the print head.
9	Flushing receiver	To keep good printing quality, the foam receives the ink-jet droplets ejected from the print head.
10	Wiper cleaner (front: on the color side)	It removes waste ink attached to the wiper surface.
11	Cap (front: on the color side)	It protects the surface of heads on the color side, and sucks ink during head cleaning.

No.	Name	Function
12	Carriage fixing pin	To prevent drying of print heads in an emergency such as a blackout, it fixes the carriage to the cap position of the maintenance unit. Refer to "4-2-3. When there is no prospect of electric power recovery for a while due to power outage >>P.43".

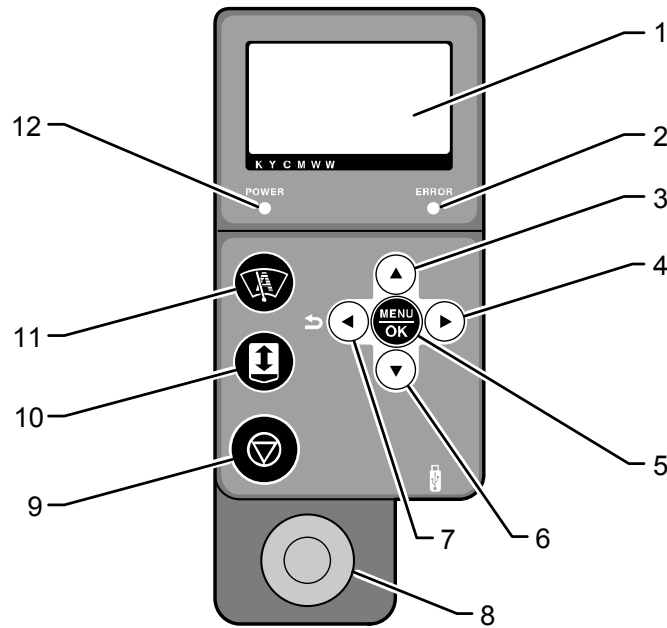
2-5. Bottom view of platen





X0189




No.	Name	Function
1	Platen fixing lever	Use this lever to secure the platen in place. Tighten or loosen it to adjust the height of the platen when attaching/removing the platen. Keep it tightened when printing.
2	Platen positioning plate	This is used to secure the platen at the fixed direction and hold it in place.
3	Platen height adjustment lever	This lever should be used to adjust the platen's height.
4	Knob	Use this knob to secure the platen bearing in place. This lever should be used to change the platen's height. Keep it tightened when printing. For details, please refer to "6-4-2. Platen height adjustment >>P.169".
5	Platen bearing	This is used to secure and hold the platen in place.
6	Collars	Used to change the platen's height by changing the number. For details, please refer to "6-4-2. Platen height adjustment >>P.169".
7	Spacer	Platen height of each machine is finely adjusted by the number of the spacer. Never tamper with or remove these spacers even if adjusting the collars or it will affect print output.

2-6. Operation panel



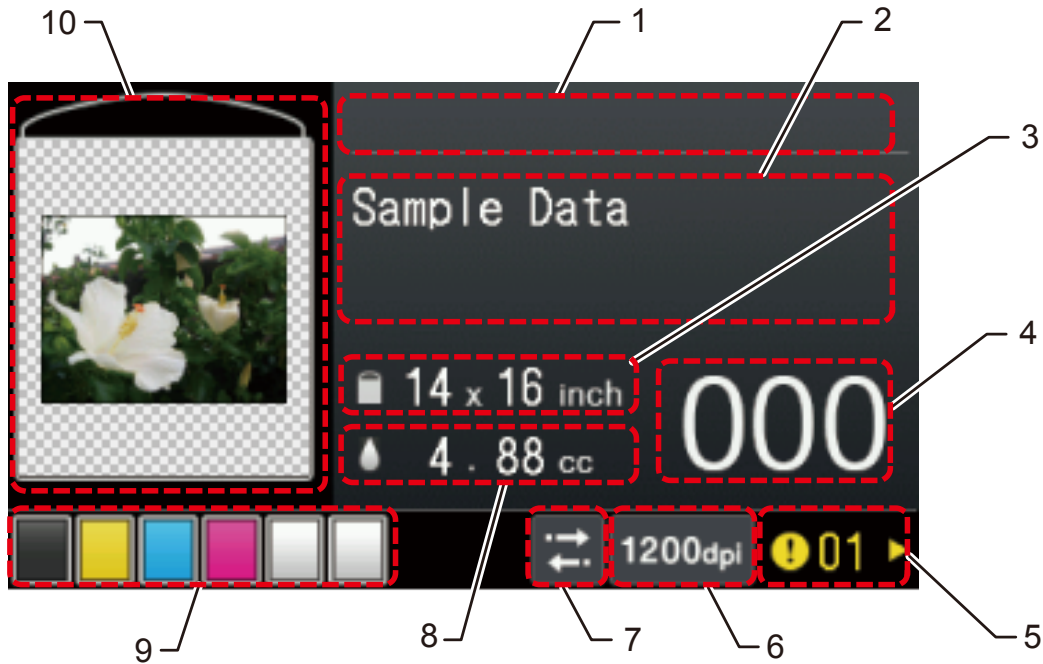
X0036

No.	Name	Function
1	Liquid crystal panel	It indicates the job name or file name of print data, the active status of the printer, and the menu for various settings.
2	Error LED	When it remains off: No error has occurred. When it remains on: One or more errors have been detected. For content of errors and their details, refer to "9-3. Error message >>P.329".
3	Up-arrow button ▲	While the menu screen is being displayed, use this button to select your desired menu item. In the numeric value setting menu, use this button to increase the target value.
4	Right-arrow button ►	While the menu screen is being displayed, use this button to select your desired lower-level (right) menu item. While the standby mode screen is being displayed, use this button to display a warning when any warning message appears.
5	MENU/OK button 	If this button is pressed when the printer is placed in the standby state, the menu screen will appear. While the menu screen or the error screen is being displayed, use this button to finalize and accept the currently displayed content.
6	Down-arrow button ▼	While the menu screen is being displayed, use this button to select your desired menu item. In the numeric value setting menu, use this button to decrease the target value.
7	Back button / Left-arrow button 	While the menu screen is being displayed, use this button to return to only one upper-level (left) menu screen.
8	Print button	There is no print data when this button remains off. This button blinks during reception of print data, and it illuminates when such reception is completed. Printing will begin if you press this button when it is illuminated.



No.	Name	Function
9	Stop button 	<p>With this button, such actions as printing and platen movement can be canceled.</p> <p>Printer will come to a stop after necessary actions for keeping the printer's good quality, such as retracting operation of print heads and capping operation, are completed.</p> <p>While the menu screen is being displayed, the screen will exit and return to the standby mode screen.</p>
10	Platen button 	<p>It is used to move the platen toward the rear or front of the printer. Use this button to ascertain whether the platen is set to a proper height after the platen's height is adjusted. For details, refer to "6-5. Placing print medium in position >>P.180".</p>
11	Head cleaning button 	<p>Perform a normal cleaning for the selected heads.</p>
12	Power LED	<p>When it remains off: The power of the printer is turned off.</p> <p>When it remains on: The printer remains turned on (powered on).</p>



2-6-1. Liquid crystal panel

The picture shown below indicates a state under which the printer has received print data. On this screen, the printer's current state and necessary information for printing are displayed.



X0190









No.	Indications	Function
1	Progress bar display area	It displays a state of progress during the process of printing and/or print-data reception.
2	Text string display area on basic display screen	In this area, the print job name or file name, auto cleaning, receiving state, standby state, etc. are shown.
3	Platen Size	Platen size that is specified by the print driver during file creation is indicated here.
4	Number of printed sheets	The total number of printed sheets of which printing operation is completed in response to the received print data is displayed here. (0 to 999)
5	Warning mark 	This mark appears when any warning is issued. Pressing  causes the current screen to move to the warning screen where the applicable warning message is indicated.
6	Resolution icon	The printing resolution of received print data is displayed here.
7	Print direction icon	The print direction is displayed here in the form of either bi-directional or uni-directional icon.
8	Ink volume to be used	The required ink volume (cc) for printing out one sheet of the received print data is displayed here. (CMYK + White)

No.	Indications	Function
9	Remaining ink volume indication area	<p>In this area, current remaining ink volume of each cartridge is displayed. In the left-to-right order, the remaining ink volume in the black (K), yellow (Y), cyan (C), magenta (M) and two white (W12 and W34) ink cartridges are shown here.</p> <p> : The remaining ink volume is running low. Make an ink pouch available for use in the next printing session. *1</p> <p> : Ink has been depleted. Replace the old ink pouch with a new one.</p>
10	Preview image	<p>The preview display screen of received print data is shown in this window. The preview display screen shown here is indicated upside down as opposed to the page orientation (the upper side of the preview image is oriented toward the front of the printer main unit).</p> <p>Furthermore, it is possible to change the direction of the preview display screen as well. For the change method, refer to "8-14. Preview display settings >>P.269".</p>

<IMPORTANT>

*1: If you perform printing that requires a large volume of ink when the remaining ink level is low, the ink may be depleted during the printing process. As a rough indication, replace the ink pouch before you perform printing that requires 20cc or more ink.

On-screen menu manipulation

What to do	How to operate
Start	Pressing  in the wait state causes the current screen to move to the menu selection screen.
Select / Acknowledge	<p>By means of  / , change a menu item to another menu item to be displayed.</p> <p>Pressing  causes the current menu to change to another menu item which is one level lower in the menu layer.</p> <p>Pressing  causes the currently displayed menu to be acknowledged.</p>
Return to previous menu in upper menu layer	Pressing  causes the current menu to change to another menu item which is one level higher in the menu layer.
Exit	<ul style="list-style-type: none"> • If you press  when a menu in the uppermost menu layer remains displayed, the menu will exit and the system will return to the standby state. • If you press  when an optional menu remains displayed, the menu will exit and the system will return to standby state.

Menu list

1st layer	2nd layer	3rd layer	Description
[Head Cleaning]	[Normal Cleaning]	[All Colors]	In the event that no ink-jet droplets are ejected, this menu item enables you to perform cleaning of all the nozzles of the color heads.
		[All Whites]	In the event that no ink-jet droplets are ejected, this menu item enables you to perform cleaning of all the nozzles of the white heads.
		[All Print Heads]	In the event that no ink-jet droplets are ejected, this menu item enables you to perform cleaning of the nozzles of all the print heads.
		[Black]	In the event that no ink-jet droplets are ejected, this menu item enables you to perform cleaning of only the black nozzles of the color heads.
		[Yellow Cyan Magenta]	In the event that no ink-jet droplets are ejected, this menu item enables you to perform cleaning of only the yellow, cyan, and magenta nozzles of the color heads.
	[Powerful Cleaning]	[All Colors]	Perform one of the powerful cleaning operations when poor ejection of ink-jet droplets is not improved by means of the normal cleaning.
		[All Whites]	
		[All Print Heads]	
		[Black]	
		[Yellow Cyan Magenta]	
	[Super Cleaning]	[All Colors]	Perform one of the super cleaning operations when poor ejection of ink-jet droplets is not improved by means of the powerful cleaning.
		[All Whites]	
		[All Print Heads]	
		[Black]	
		[Yellow Cyan Magenta]	

1st layer	2nd layer	Description
[Test Print]	[Nozzle Check CMYK]	This is the test pattern to check to see if ink-jet droplets are ejected from the color heads properly or not.
	[Nozzle Check White]	This is the test pattern to check to see if ink-jet droplets are ejected from the white head(s) properly or not.
[Print Data Load]		With this menu item, any print data stored in a USB flash memory (ARX4 file) is loaded into the system.
[Receiving History]		By selecting this menu item, you can display any print data received in the order in which they are sorted from the newest to the oldest ones, and you can select any one of them.
[Maintenance]	[White Ink Circulation]	For details, please refer to "6. Basic printing procedures >>P.145", "7. Precautions to keep good printing quality/use printer over the long term >>P.203", or "9. Troubleshooting >>P.275".
	[White Ink Refilling]	
	[Maintenance Part Clean/Replace]	
	[White Head Cleaning]	
	[Install White Ink After Cleaning]	
	[Head Replacement]	
	[Install Ink after Replacing Head]	
	[Initial Ink Installation]	
	[White Ink Pause Mode]	
	[Exchange Filter]	
[Log copy to USB]		
[Printer Setting]	[Print Direction]	For details, please refer to "7. Precautions to keep good printing quality/use printer over the long term >>P.203" or "8. What to do when needed >>P.260".
	[Back Light]	
	[Auto Screen Erase Time]	
	[Menu TimeOut Setting]	
	[Speaker Volume]	
	[Temperature]	
	[Preview display settings]	
	[File name display setting]	
	[Low Temperature Mode]	
	[Auto Cleaning Setting]	
	[Auto Cleaning Start Timing]	
	[CR Speed Adjustment]	
	[Flushing Interval Setting]	
	[Flushing Volume Setting]	
[Auto Job Delete]		
[Rcvng Prnt Setting]		
[IP Address Set]		

1st layer	2nd layer	Description
[Total Print]		Refer to "8. What to do when needed >>P.260".
[Temperature/Humidity Info]		
[Confirm network setting]	[IP Address]	
	[Subnet Mask]	
	[Default Gateway]	
	[Host name]	
	[MAC address]	
[Language]	[English]	
	[Español]	
	[Français]	
	[Deutsch]	
	[Italiano]	
	[日本語]	
	[中文]	
[Version]	[Firm Version]	
	[Data Info]	
	[Serial No.]	

Be sure to use the printer after making correct setting in accordance with the instructions described in this chapter.

WARNING



Do not set up the printer in a dusty environment. If dust collects inside the printer, it may cause fire or electric shocks or problems with correct operation.



Be sure to connect the ground. If the ground connection is not secure, you run a high risk of receiving a serious electric shock, and problems with correct operation may also occur.



Do not bend the cords excessively or fasten them too hard with staples or anything similar to secure cords. Otherwise it may cause fire or electric shocks.



CAUTION



Setting up and moving of the printer should only be carried out by a qualified technician.



The printer machine weighs 120 kg (265 lb).



Transporting and setting up of the printer should be held in the proper way. The machine may fall down and cause injury.



When the printer falls down, disconnect the power cord and contact the place of purchase or a qualified technician. If you continue to use it, it may result in fire or electric shocks or poor printing quality.



Do not place the printer on a shaky table or high shelf or other unstable location. Otherwise it may tip over or fall down and cause injury. Furthermore, the table that supports the printer should be at least 35.4 in. (90 cm) in width and 23.6 in. (60 cm) in depth, and should be able to bear a weight of 150 kg (330 lb) or more.



Do not set up the printer in a place where it will be affected by vibration. Otherwise the printing quality may be degraded or the printer may fall down, which causes injury or results in failure of the printer.



Do not connect the power cord until installation is complete. The printer may operate if the power switch is turned on by mistake, which could result in injury.



Do not climb onto the printer or place heavy objects on top of it. Otherwise it may become unbalanced and tip over or fall down and cause injury.



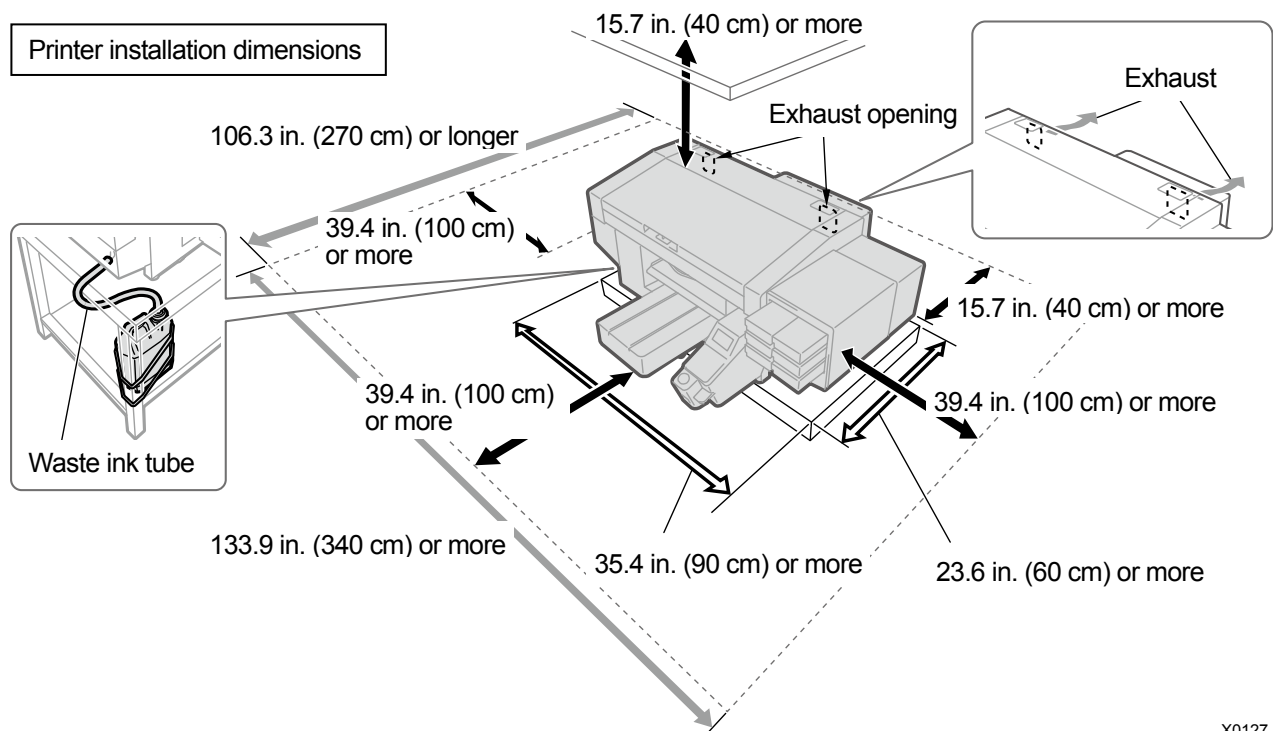
Be careful not to touch the claws of the mounting portion on the upper side of the rear cover. Otherwise you may be injured.

4-1. Installation of printer

Please refer to the Setup Manual included with the printer, for details of unpacking procedures and installation procedures of accessories.

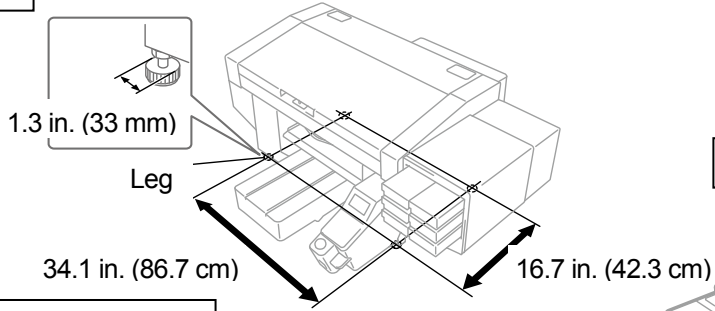
For an installation site of the printer, please bear the following points in mind:

- When installing the printer, avoid any place that presents direct sunlight or a large amount of dust.
- The body size is 55.1 in. (width) x 51.2 in. (depth) x 21.7 in. (height) (140 cm (width) x 130 cm (depth) x 55 cm (height)). The main unit weighs 120 kg (264 lb).
- The right-and-left width of the legs is 34.1 in. (86.7 cm) while the front-to-rear width is 16.7 in. (42.3 cm). The diameter of the legs is 1.3 in. (33 mm).
- The height from the table to the top surface of the platen is 12.5 in. (31.8 cm).
- Do not use any extension cable.
- As workspace in front of and on both sides of the printer, always keep 39.4 in. (100 cm) or wider space around it from obstruction. Also, as a space to install the rear cover, keep 15.7 in. (40 cm) or wider clearance at the back of the printer. Keep 15.7 in. (40 cm) or wider space free above the unit as well. As the air is exhausted toward the rear side, keep 7.9 in. (20 cm) or more space open behind the exhaust opening.
- In order for the waste ink tube not to be placed horizontally, be sure to install the main unit in such a manner that it is inclined toward the left anterior side of its table.
- Be sure to use a table that supports the printer should be at least 35.4 in. (90 cm) in width and 23.6 in. (60 cm) in depth, and its top plate should be level and should be able to bear a weight of 150 kg (330 lb) or more without rattling the printer when in operation.
- When installing the printer, place a level gauge on the top surface of the cover and the top surface of the platen to make adjustments so that the main unit is set horizontally level.
- In preparation for a major earthquake or other natural disasters, fix the table and the main unit with a tool like a fixing band to prevent the main unit from falling from the table.

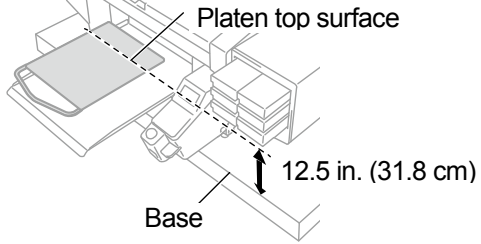


X0127

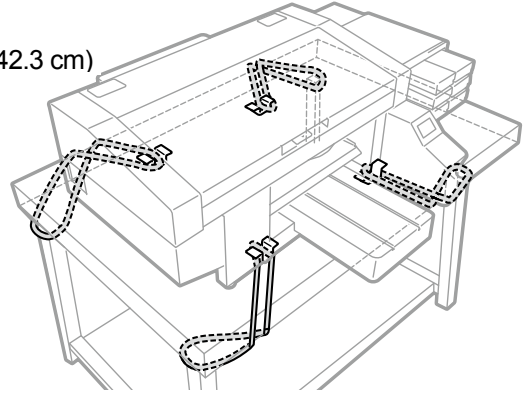
Leg dimension



Platen height dimension surface



Seismic protection example



X0161

4-2. Power supply of printer

Even when the printer is placed in standby mode, such maintenance as white ink circulation is performed automatically.
PLEASE LEAVE THE PRINTER POWERED ON 24 HOURS A DAY.

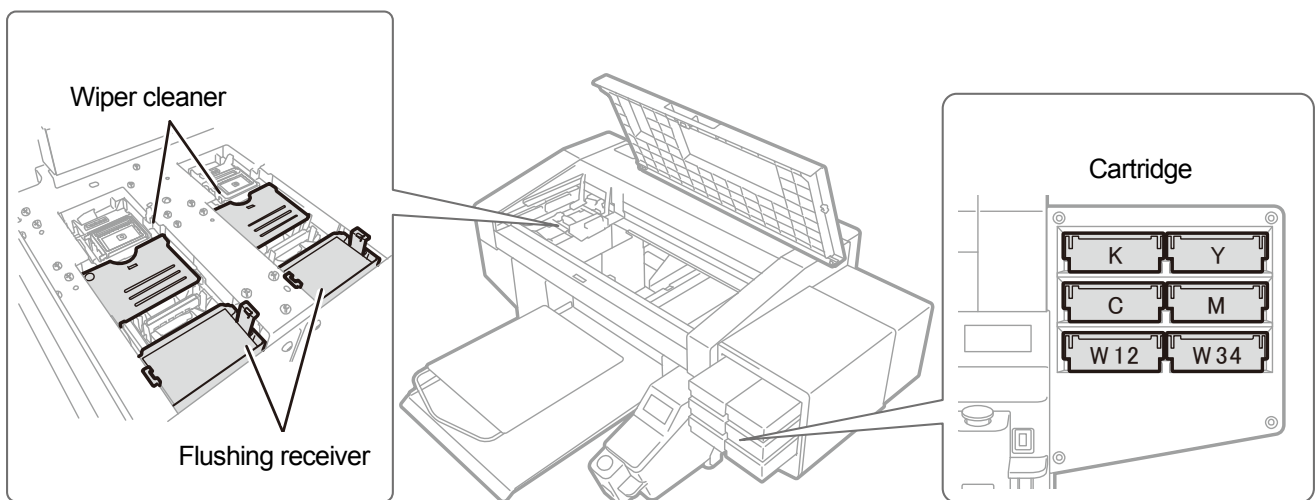
<TIPS>

- Every time this printer is powered on or off, maintenance operations are performed to keep its print heads in good condition. Turning on and off the power frequently causes more ink to be consumed because of the maintenance operations. In order to reduce the ink consumption, it is advisable to keep the power turned on for proper use of the printer.

4-2-1. Turning on the power

Please refer to the Setup Manual, after the unpacking procedures and installation procedures are completed.
 Please check the following points, before connecting the power cord to the printer:

- Ascertain whether the cartridges, wiper cleaner, flushing receiver, etc. are mounted correctly in place.
- Ascertain whether the ink tube is connected to the print head correctly.



X0191

- Ascertain whether the waste ink tube is inserted into the waste ink tank which has been made available.
- Ascertain whether the rear cover is put in position.
- Ascertain whether there is enough cleaning solvent in the cleaning liquid tank and the tank is mounted correctly in place.
- Ascertain whether the required space (at least approx. 11.8 in. (30 cm)) for the platen to be moved forward is kept and the min. clearance (7.9 in. (20 cm)) is maintained at the back side of the printer for exhausting air from the exhaust opening.

- (1) Connect the power cord included with the printer to the power cord insertion port.
- (2) Insert the power plug into an electric outlet.
- (3) Make sure that the printer's earth terminal is properly grounded.
- (4) With the main unit's cover being closed, turn on the power to the printer.

<IMPORTANT>

- Never power off the printer while it is in operation. Otherwise, the printer may be damaged.
- Do not activate the printer with the ink tube not connected to the print head. Otherwise, the printer may be damaged.
- Make sure that no flushing foam extends off the outboard end portions of the flushing receiver. If it sticks out of the end portions, it may interfere with any nozzles and may result in non-ejection of ink-jet droplets.

<TIPS>

- If the printer is activated after having been off for a long time, the maintenance operation including white ink circulation will be performed for up to 40 minutes.

4-2-2. Turning off the power

You can turn off the power in two ways; normal mode and emergency mode, depending on how you press the power button.

- Normal mode
The power is turned off after cleaning is performed at the end of a print job to keep the print heads in good conditions.
- Emergency mode
If you press and hold the button for 3 seconds or more, the power is turned off in emergency mode. In emergency mode, the power is turned off without cleaning performed at the end of a print job to keep the print heads in good conditions.

Turning off the power in normal mode

In the following cases, the power should be turned off in normal mode.

- When the front cover needs to be opened for maintenance of the printer, etc.
- When moving the printer elsewhere.
- In the event that the power supply interruption is anticipated in advance, including the case where a planned power outage is scheduled.

(1) Press the power button.

After the shutting down cleaning cycle is performed, the power will be turned off.

<IMPORTANT>

- Do not press and hold the power button for 3 seconds or more. If you press and hold the button for 3 seconds or more, the power is turned off urgently, and no cleaning will be performed at the end of a print job to keep the print heads in good conditions.

Turning off the power in emergency mode

(1) Press and hold the power button for about 3 seconds.

Then the power will be turned off.

<IMPORTANT>

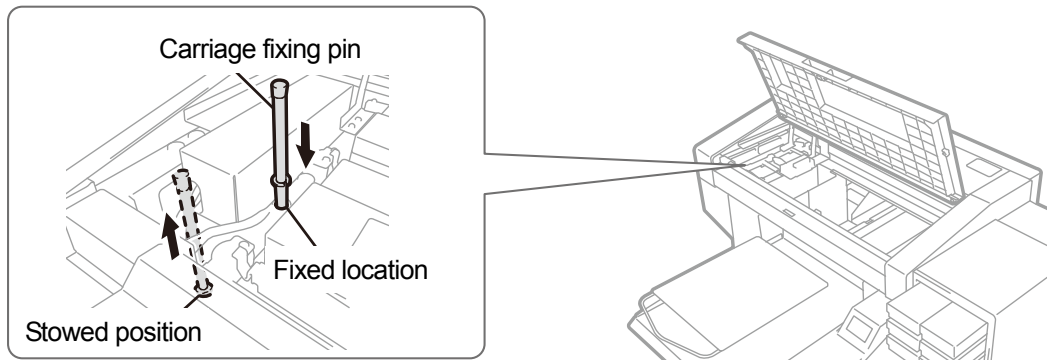
- Note that no cleaning will be performed at the end of a print job to keep the print heads in good conditions. For this reason, be sure to activate the printer once again and perform the head cleaning after activation.

4-2-3. When there is no prospect of electric power recovery for a while due to power outage

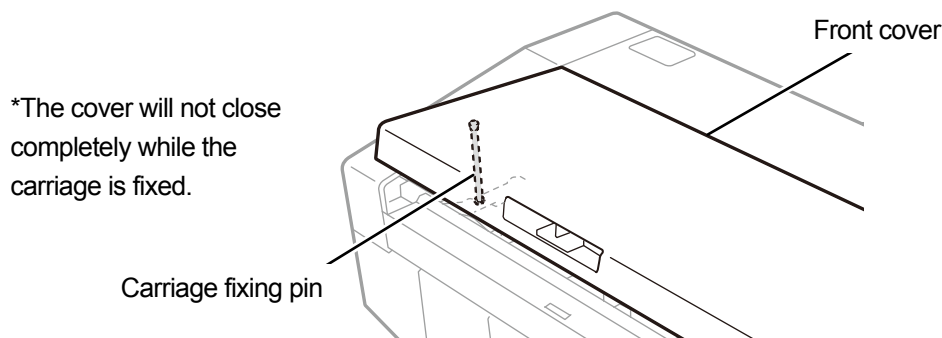
- (1) Open the front cover and move the carriage to the left, and stop it at the position where the left side of the carriage reaches the end. The position of the print head and the cap should match.
Returning the print heads to the cap position prevents them from drying up.
- (2) Insert the carriage fixing pin into its specified hole, and fix the carriage to the cap position.

<TIPS>

- Note that the carriage fixing pin is housed in the area on the left side of maintenance unit.
- The front cover will not close completely if the carriage is fixed with the carriage fixing pin.



X0192



X0200

- (3) When the current state is brought to an available condition to turn on the power, pull out the carriage fixing pin, return it to its stowed position and reactivate the printer.

<IMPORTANT>

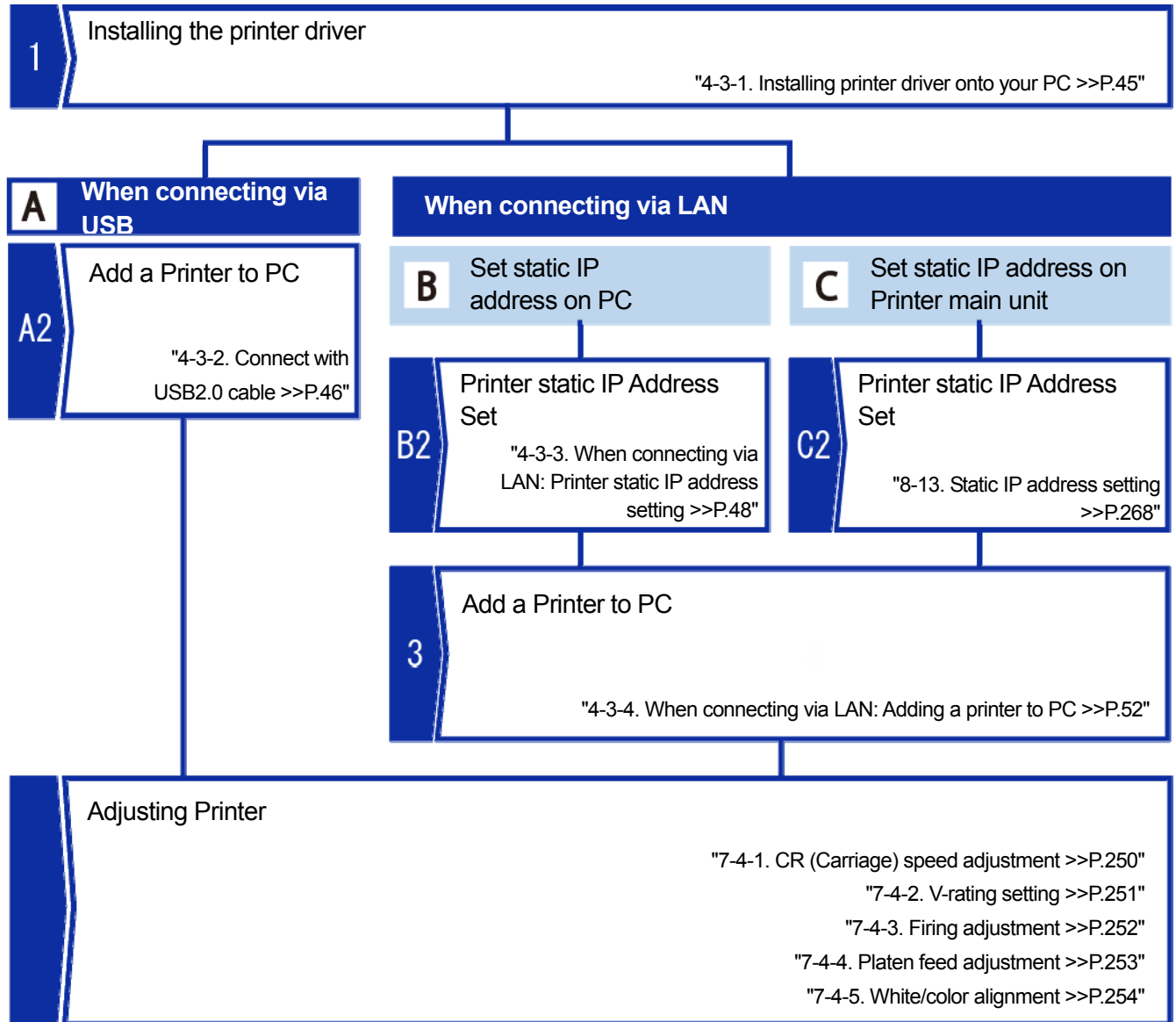
- For this reason, be sure to activate the printer once again and perform the head cleaning after activation.

4-3. Connection between Printer and PC

This chapter provides information about the procedures to install the GTX-4 printer driver onto your PC and connection method of the printer to PC.

For Windows 7, 8.1, and 10, different dialog boxes may be displayed. Proceed with the next step while checking each procedural step.

This printer can also be installed on Macintosh. For details, please refer to "For Macintosh Instruction Manual".



4-3-1. Installing printer driver onto your PC

To begin with, on your PC, install the printer driver for file output, "Brother GTX-4 FileOutput".
At this stage, do not connect the printer to your PC yet.

<TIPS>

- You must log into your PC with administrator privileges.

- (1) Activate the PC.
- (2) Complete all of the current sessions.
- (3) Double-click on the "setup.exe" to execute the installer.
- (4) Then, the installation procedures will begin. Follow the on-screen instructions to complete the installation.
- (5) When the dialog box shown below appears, click [Install].



- (6) After the installation is completed, reactivate the PC.

4-3-2. Connect with USB2.0 cable

- (1) After installation of the printer driver is completed as explained in "4-3-1. Installing printer driver onto your PC >>P.45", connect the PC and the printer via a USB 2.0 cable with the printer power on.

<TIPS>

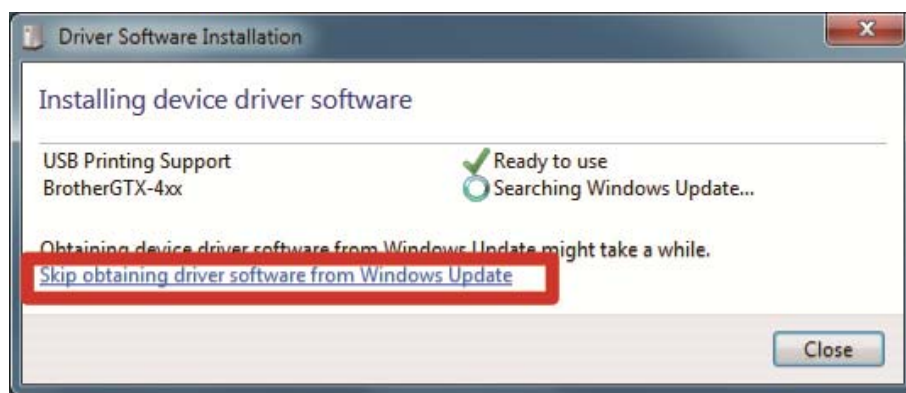
- For this connection of the USB cable, secure it in place by means of the cable clamp as required.

- (2) When the driver software installation window is displayed, click [Skip obtaining driver software from Windows Update], and select [Yes] on the next screen.

The installation procedures will be automatically performed, and the relevant information is displayed on the lower right area of the PC screen.

<TIPS>

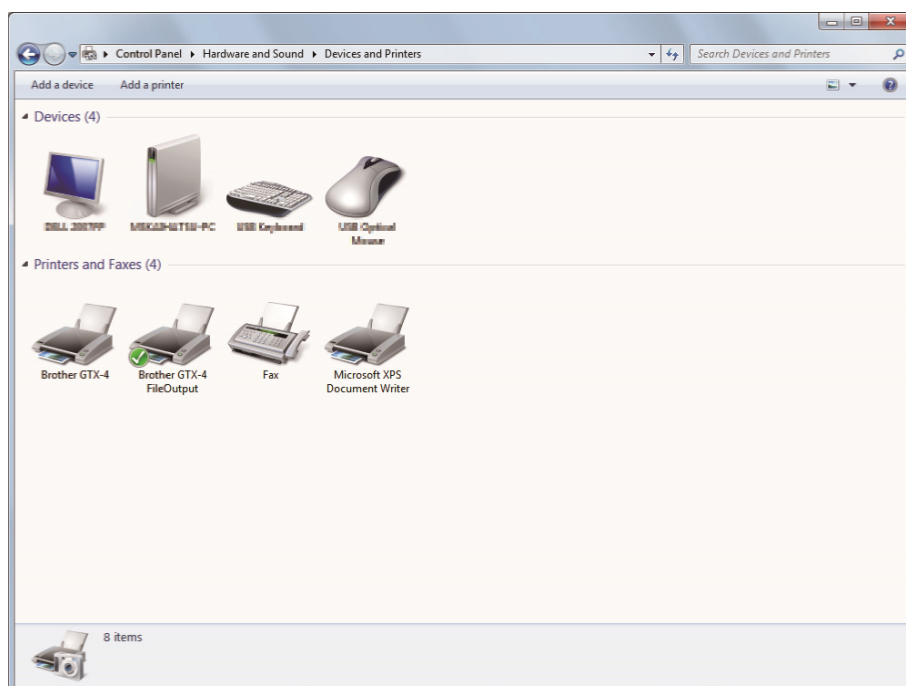
- This screen may prompt more than once.
- And this also may require several minutes to complete.



- (3) After the installation is completed, open the [Devices and Printers] from [Control Panel].

<TIPS>

- In the case of Windows 8.1, select the [View devices and printers] from [Control Panel].
- In the case of Windows 10, select [Settings] -> [Device] -> [Devices and Printers].



- (4) Right-click the "Brother GTX-4" icon or the "Brother GTX-4 FileOutput" icon for file output, and select the [Set as default printer].
- (5) If LAN connection is required, perform static IP address setting on the printer and add the printer to the PC.
If connecting only via USB and LAN connection is not required, configuration task on the PC is now completed.
- (6) Adjust the carriage speed. Then adjust the printer using "GTX-4 Installation".

<TIPS>

- In [Setting the V-Rating] and subsequent steps, you can use "GTX-4 Installation" to adjust the printer.

	Menu name	Things to prepare	See the operating procedure with GTX-4 Maintenance
1	[CR Speed Adjustment]	—	"7-4-1. CR (Carriage) speed adjustment >>P.250"
2	[V-rating's settings:]	—	"7-4-2. V-rating setting >>P.251"
3	[Firing Adjustment]	Black paper or transparent sheet (such as OHP sheet) White paper	"7-4-3. Firing adjustment >>P.252"
4	[Platen-Rolling Adjustment]	White paper	"7-4-4. Platen feed adjustment >>P.253"
5	[White/Color Alignment]	Pretreated black or dark color T-shirt	"7-4-5. White/color alignment >>P.254"

What to do in the White Ink Pause Mode

For the White ink pause mode, perform the following steps using the maintenance tool.

	Menu name	When in White Ink Pause Mode
1	[CR Speed Adjustment]	Performed
2	[Setting the V-Rating]	Performed for color head only Upon completion of color head setting, click [Cancel] to close the maintenance tool once and then start it. Then proceed to the following steps.
3	[Firing Adjustment]	Performed for color head only Upon completion of color head setting, click [Cancel] to close the maintenance tool once and then start it. Then proceed to the following steps.
4	[Platen-rolling adjustment]	Performed
5	[White/Color Alignment]	Not required
6	[Setting of the time displayed on the nozzle check pattern]	Performed

4-3-3. When connecting via LAN: Printer static IP address setting

There are two ways to set a static IP address for the printer; the setting procedures from the Start menu on the PC side, and other setting procedures from menu manipulation on the printer side. When you set this through menu manipulation on the printer side, refer to "8-13. Static IP address setting >>P.268".

<TIPS>

- When connecting via LAN, Printer static IP address needs to be obtained beforehand.
In addition, if the PC cannot recognize the Printer even after performing "4-3-4. When connecting via LAN: Adding a printer to PC >>P.52", correct static IP address might not be assigned. Consult your administrator.

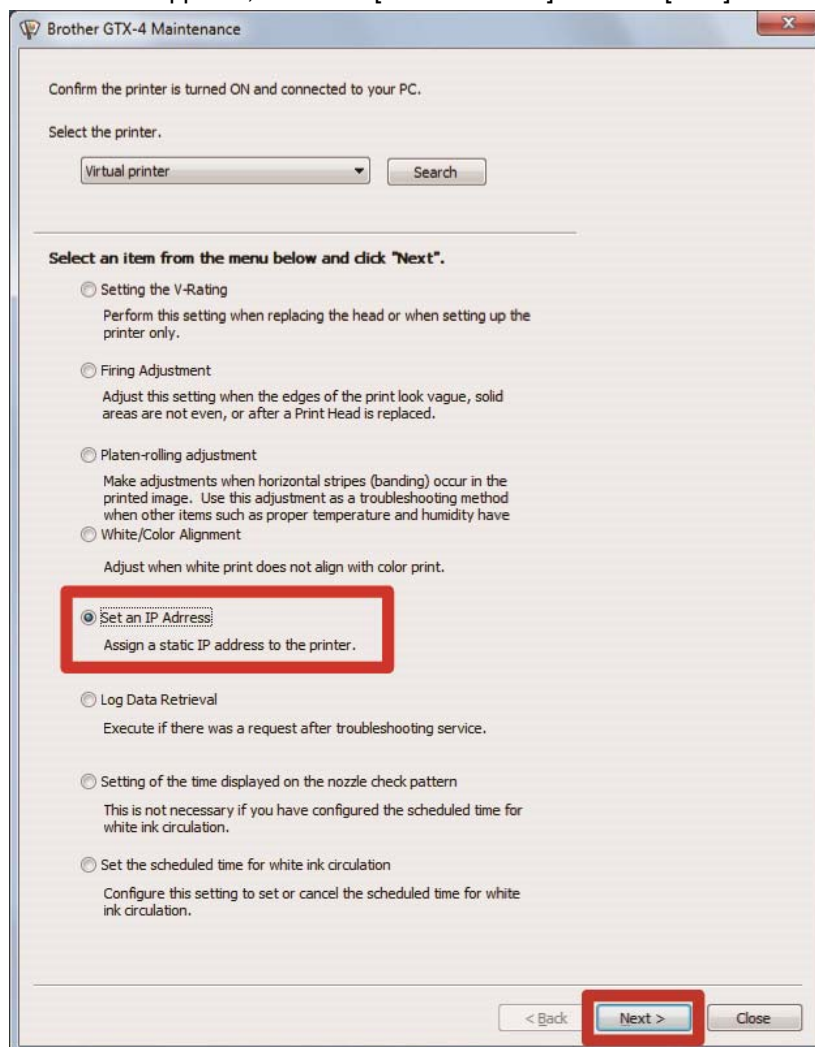
- With the printer powered on, make a connection with a USB 2.0 cable between the printer and your PC.

<TIPS>

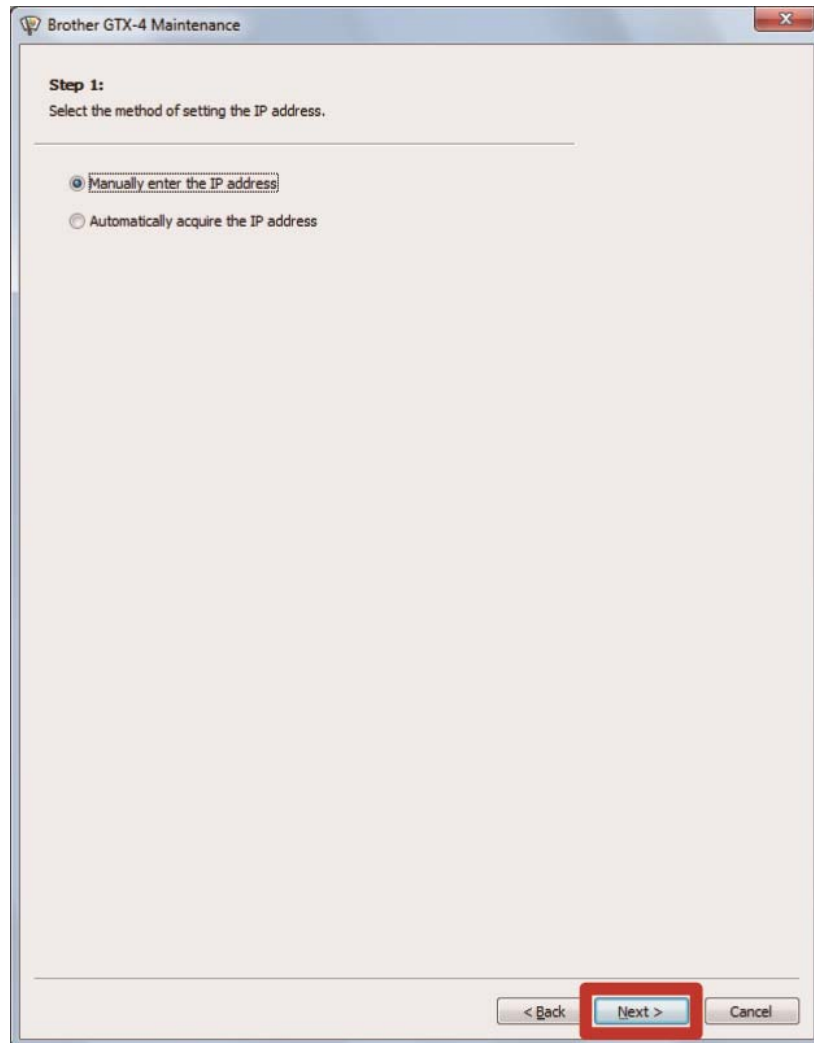
- For this connection of the USB cable, secure it in place by means of the cable clamp as required.

- From [All Programs] in the Start menu, select the "GTX-4 Maintenance" from "Brother GTX-4 Tools".

- After the window shown below appears, select the [IP Address Set] and click [Next].



- (4) Select the desired IP address setting method and click [Next].



If you selected "Manually enter the IP address"

- (5) Enter each of the pre-determined values of the printer for [IP Address], [Subnet Mask] and [Default Gateway], and click [Next]. (One instance of each value is cited as shown in the window below.)

Brother GTX-4 Maintenance

Step 1:
Input IP address.

Input IP address, Subnet Mask and the default Gateway to the printer.

IP Address	192 . 168 . 0 . 2
Subnet Mask	255 . 255 . 255 . 0
Default Gateway	0 . 0 . 0 . 0

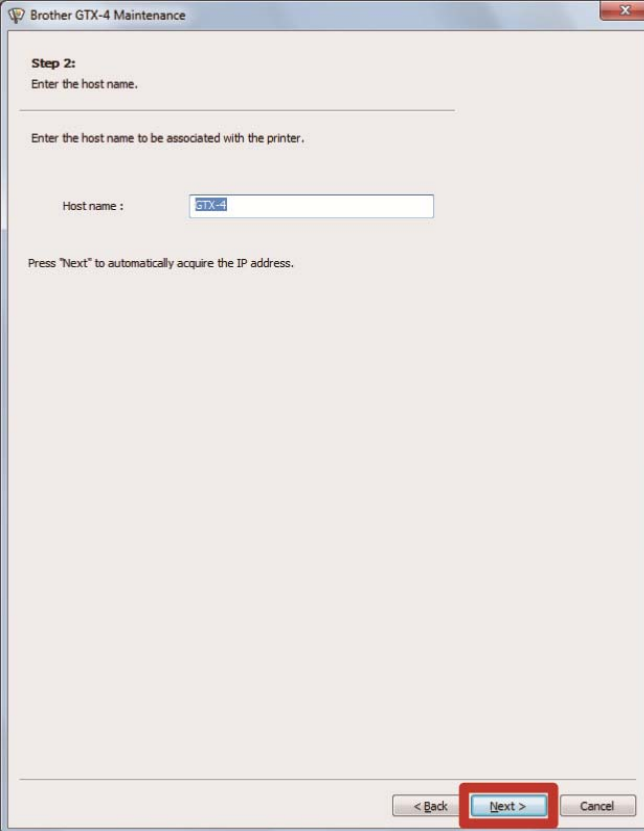
< Back **Next >** Cancel

If you selected "Automatically acquire the IP address"

- (5) Enter the host name to be set for the printer and click [Next].

<TIPS>

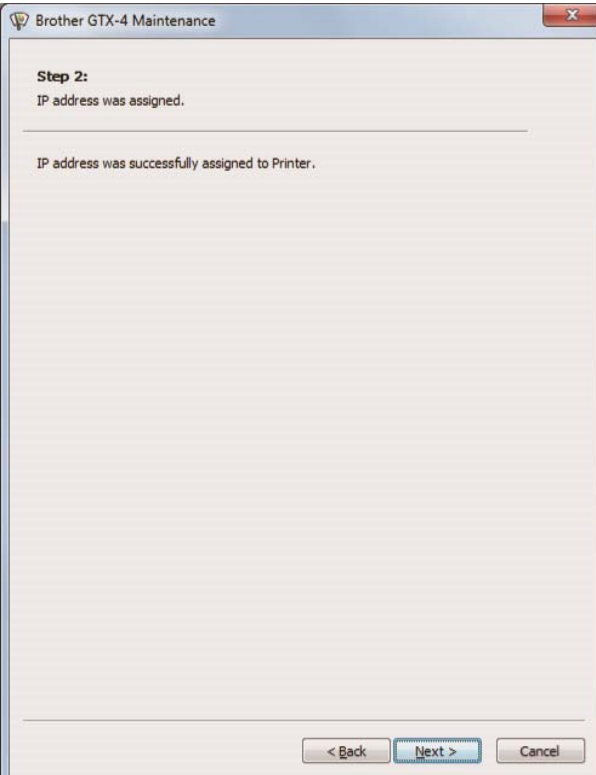
- The host name can contain up to 31 characters.



The screenshot shows the 'Brother GTX-4 Maintenance' dialog box. The title bar includes a close button (X). The main content area is titled 'Step 2: Enter the host name.' Below this, there is a horizontal line and the instruction 'Enter the host name to be associated with the printer.' A text input field is labeled 'Host name:' and contains the text 'STX123'. Below the input field, it says 'Press "Next" to automatically acquire the IP address.' At the bottom of the dialog, there are three buttons: '< Back', 'Next >', and 'Cancel'. The 'Next >' button is highlighted with a red rectangular box.

- (6) When [IP address was successfully assigned to Printer.] is displayed, the process is complete.

If there is any error in each of the values you have entered for the static IP Address, Subnet Mask and Default Gateway, an error message to inform you thereof accordingly will appear. In this case, correct the error and attempt the process again.



The screenshot shows the 'Brother GTX-4 Maintenance' dialog box. The title bar includes a close button (X). The main content area is titled 'Step 2: IP address was assigned.' Below this, there is a horizontal line and the message 'IP address was successfully assigned to Printer.' At the bottom of the dialog, there are three buttons: '< Back', 'Next >', and 'Cancel'.

4-3-4. When connecting via LAN: Adding a printer to PC

- (1) Connect your PC with the printer by means of the LAN cable to make a network connection, and power on the printer.

<TIPS>

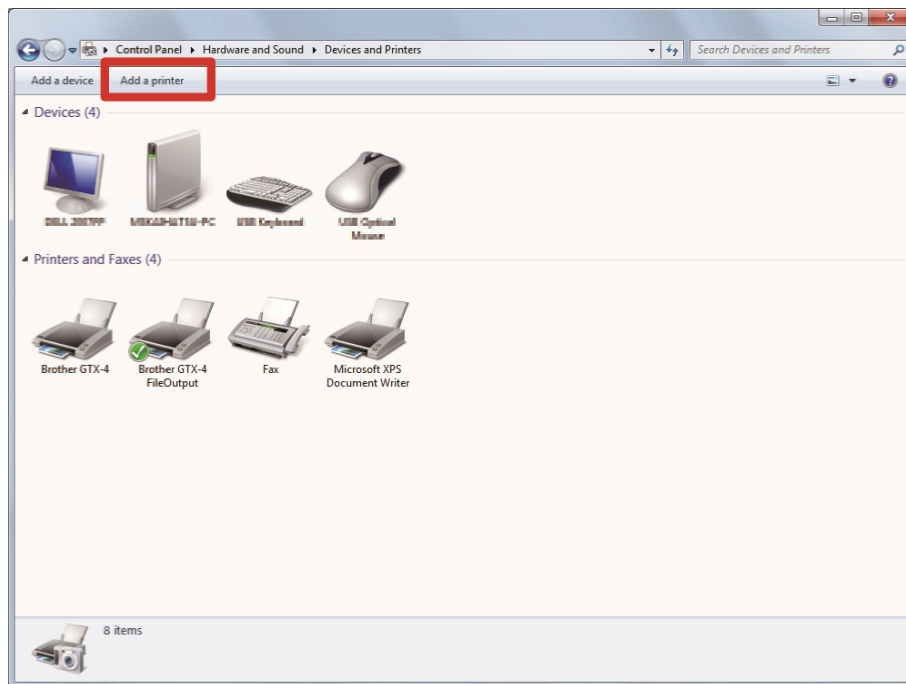
- For this connection of the LAN cable, secure it in place by means of the cable clamp as required.

- (2) Select the [Devices and Printers] from [Control Panel].

<TIPS>

- In the case of Windows 8.1, select the [View devices and printers] from [Control Panel].
- In the case of Windows 10, select [Settings] -> [Device] -> [Devices and Printers].

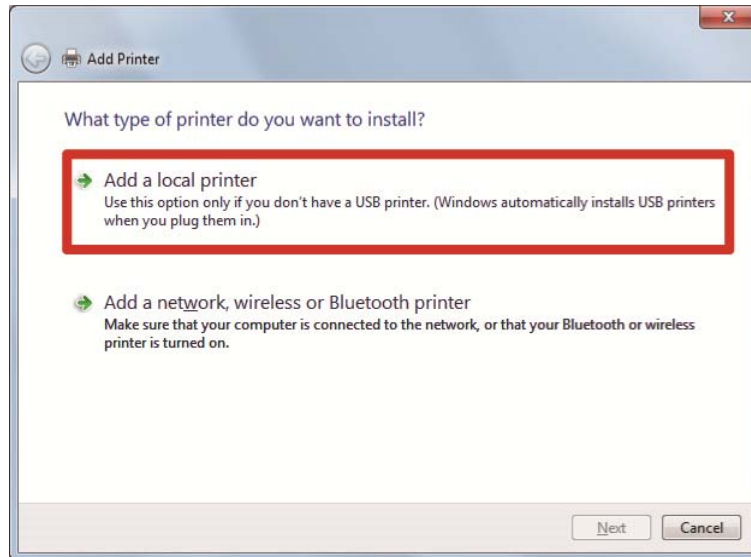
- (3) Click the [Add a printer].



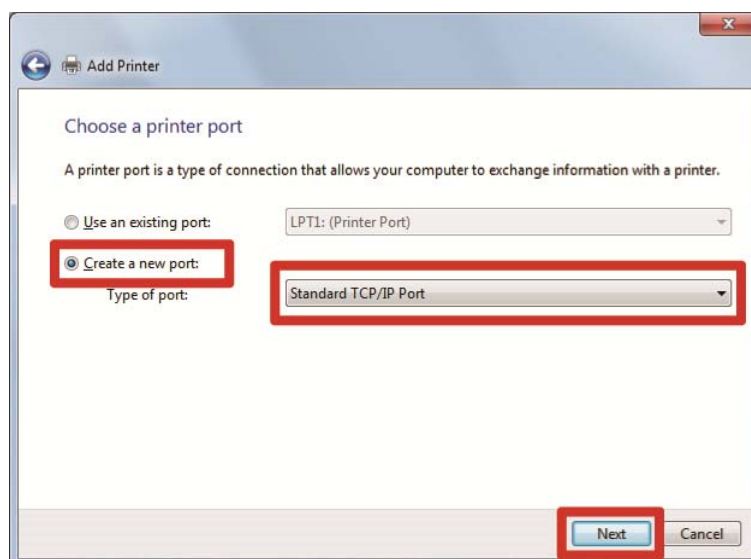
- (4) In the window for selection of type of printer to be installed, select the [Add a local printer].

<TIPS>

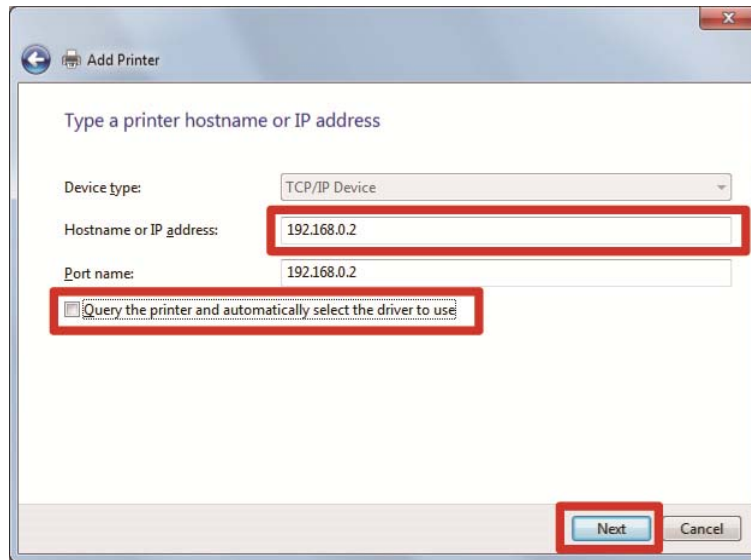
- In the case of Windows 8.1, select [The printer that I want isn't listed] -> [Add a local printer or network printer with manual settings], then click [Next].
- In the case of Windows 10, select [The printer that I want isn't listed] -> [Add a local printer or network printer with manual settings], then click [Next].



- (5) Select the [Create a new port], then select [Standard TCP/IP Port] for [Type of port], and finally click [Next].



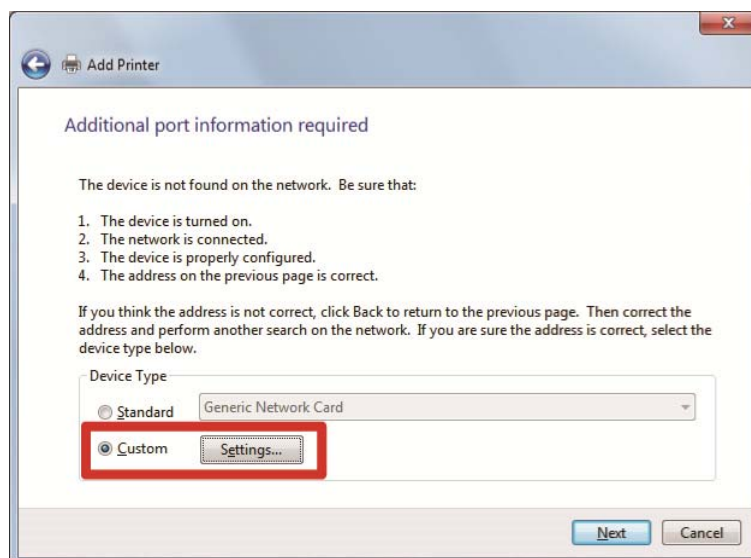
- (6) In the [Hostname or IP address] field, enter the already-setup static IP address of the printer, uncheck the [Query the printer and automatically select the driver to use], and click [Next]. (One instance of each value is cited as shown in the window below.)



<TIPS>

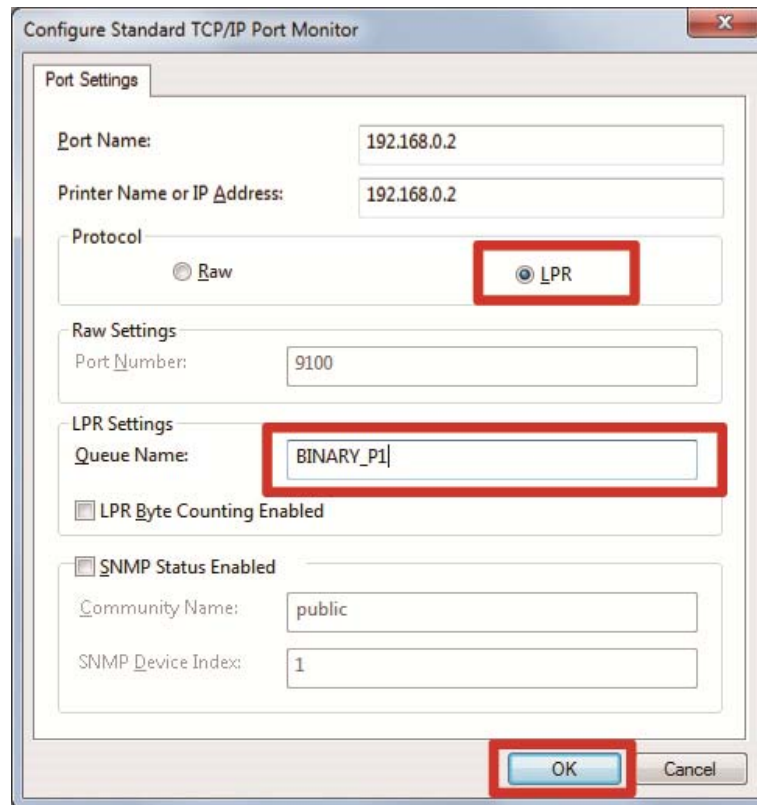
- If you set the printer's IP address by automatic acquisition, you must check the IP address of the printer in advance. You can confirm the IP address by selecting [Confirm network setting] -> [IP Address] from the menu. For details, refer to "8-18. Confirm network setting >>P.271".
- If you are using a DNS server, you can use a host name and domain name instead of the IP address. In that case, enter the host name that has been set for "4-3-3. When connecting via LAN: Printer static IP address setting >>P.48". As for the domain name, check with your network administrator.

- (7) Then, the detection window of TCP/IP port appears, and the current window will automatically go to the additional port information window after the detection is completed.
- (8) After the window shown below appears, select the [Custom] in the [Device Type], and click [Settings].

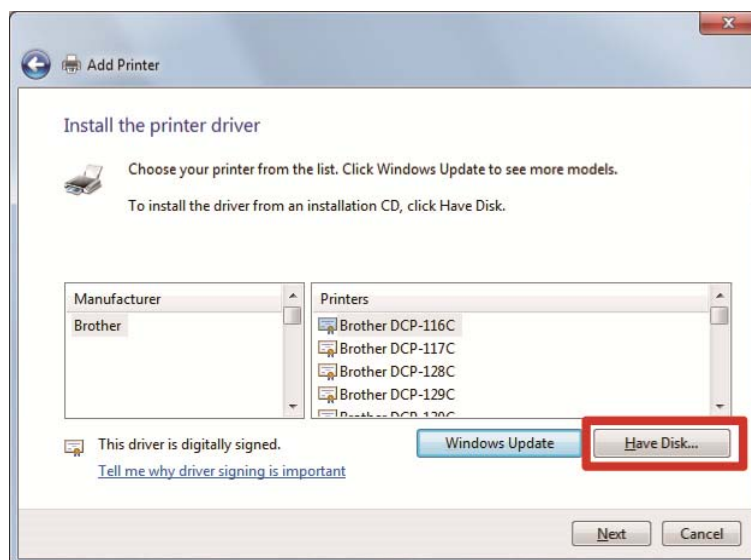


- (9) In the [Protocol], select the [LPR], enter "BINARY_P1" in [Queue Name] of the [LPR Settings], and click [OK].

When the current screen goes back to the previous screen, click [Next].

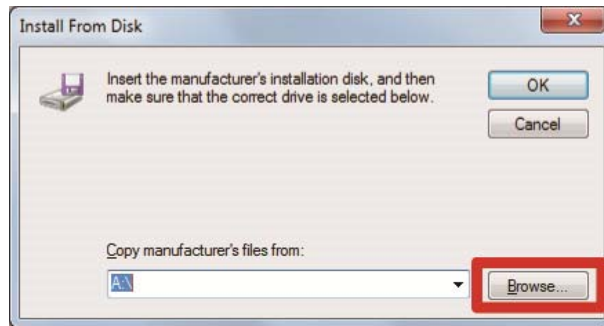


- (10) After the window shown below appears, click the [Have Disk].



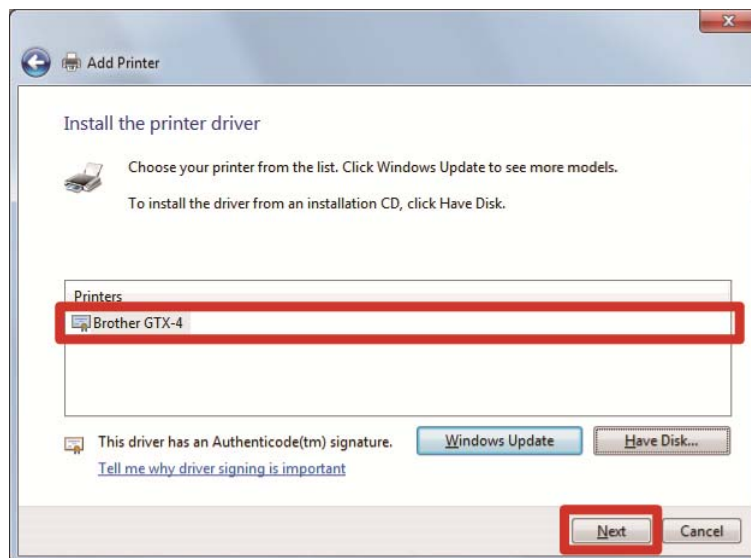
- (11) Click the [Browse], select the "32bit_OS" or "64bit_OS" folder in the installer according to the PC's OS (32 bit version/64 bit version).

After the file path appears, click [OK].

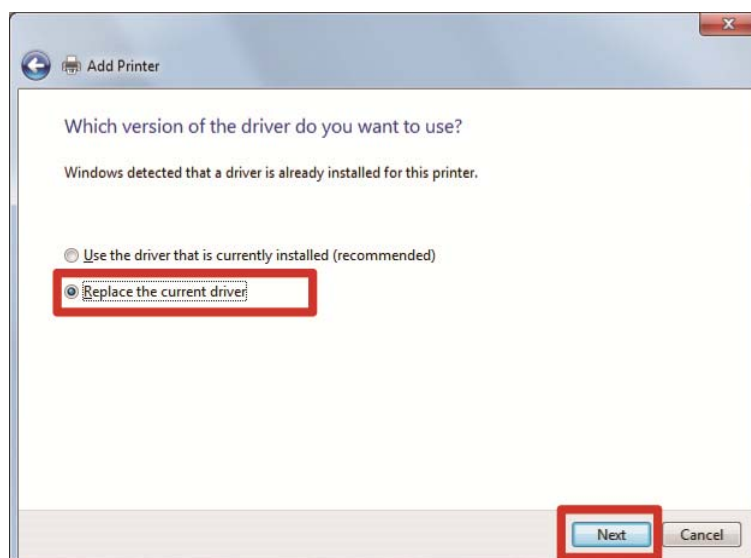


- (12) Make sure that a list of printer drivers is shown for the selected folder.

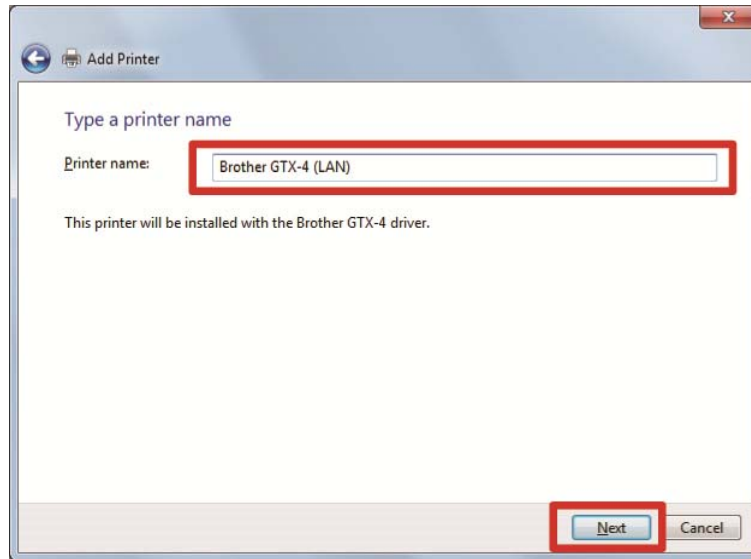
After that, click [Next].



- (13) After the window shown below appears, select the [Replace the current driver], and click [Next].

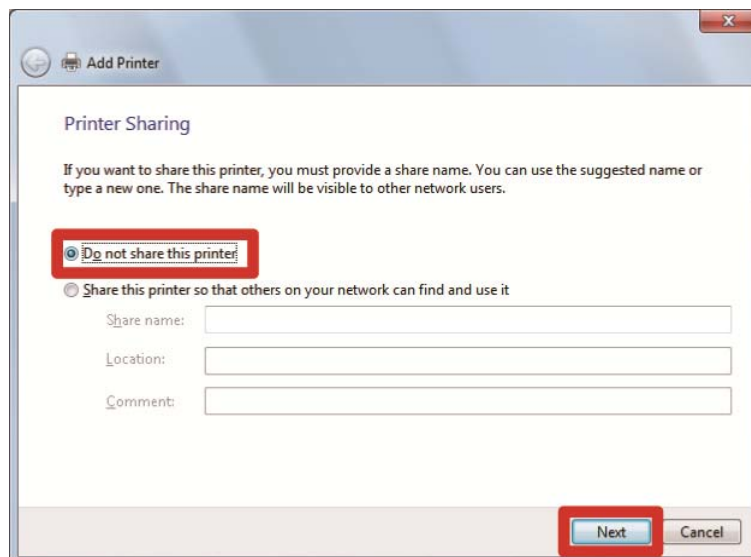


(14) Enter [Printer name], and click [Next].



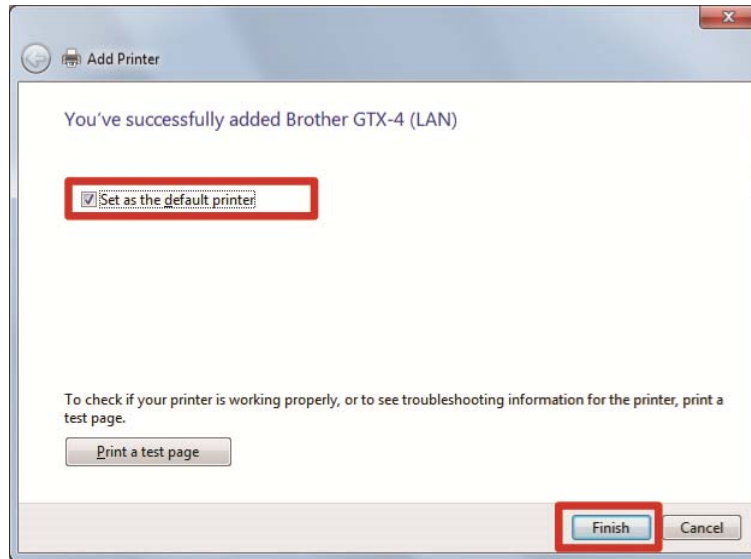
The screenshot shows the 'Add Printer' dialog box. The title bar reads 'Add Printer'. The main content area is titled 'Type a printer name'. Below this, there is a label 'Printer name:' followed by a text input field containing 'Brother GTX-4 (LAN)'. Below the input field, it says 'This printer will be installed with the Brother GTX-4 driver.' At the bottom right, there are two buttons: 'Next' and 'Cancel'. The 'Next' button is highlighted with a red box.

(15) Then, the specified printer will be added to the system, following which the window shown below appears, select the [Do not share this printer], and click [Next].



The screenshot shows the 'Add Printer' dialog box at the 'Printer Sharing' step. The title bar reads 'Add Printer'. The main content area is titled 'Printer Sharing'. Below this, there is a paragraph: 'If you want to share this printer, you must provide a share name. You can use the suggested name or type a new one. The share name will be visible to other network users.' There are two radio button options: 'Do not share this printer' (which is selected and highlighted with a red box) and 'Share this printer so that others on your network can find and use it'. Below the second option, there are three text input fields labeled 'Share name:', 'Location:', and 'Comment:'. At the bottom right, there are two buttons: 'Next' and 'Cancel'. The 'Next' button is highlighted with a red box.

(16) As required, select the [Set as the default printer], and click [Finish]. This exits the setting for the PC.



(17) Adjust the carriage speed. Then adjust the printer using "GTX-4 Installation".

<TIPS>

- In [Setting the V-Rating] and subsequent steps, you can use "GTX-4 Installation" to adjust the printer.

	Menu name	Things to prepare	See the operating procedure with GTX-4 Maintenance
1	[CR Speed Adjustment]	—	"7-4-1. CR (Carriage) speed adjustment >>P.250"
2	[V-rating's settings:]	—	"7-4-2. V-rating setting >>P.251"
3	[Firing Adjustment]	Black paper or transparent sheet (such as OHP sheet) White paper	"7-4-3. Firing adjustment >>P.252"
4	[Platen-Rolling Adjustment]	White paper	"7-4-4. Platen feed adjustment >>P.253"
5	[White/Color Alignment]	Pretreated black or dark color T-shirt	"7-4-5. White/color alignment >>P.254"
6	[Setting of the time displayed on the nozzle check pattern]	—	"7-4-6. Setting of the time displayed on the nozzle check pattern >>P.255"

What to do in the White Ink Pause Mode

For the White ink pause mode, perform the following steps using "GTX-4 Maintenance".

	Menu name	When in White Ink Pause Mode
1	[CR Speed Adjustment]	Performed
2	[Setting the V-Rating]	Performed for color head only Upon completion of color head setting, click [Cancel] to close the maintenance tool once and then start it. Then proceed to the following steps.
3	[Firing Adjustment]	Performed for color head only Upon completion of color head setting, click [Cancel] to close the maintenance tool once and then start it. Then proceed to the following steps.
4	[Platen-rolling adjustment]	Performed
5	[White/Color Alignment]	Not required
6	[Setting of the time displayed on the nozzle check pattern]	Performed

5-1. Common items that apply to all software applications

Using GTX Graphics Lab is recommended for creating print data.

GTX Graphics Lab is capable of creating print data through intuitive operation, and it is also able to create layout data that contains transparent information from the (α channel).

If another application than GTX Graphics Lab is used, although the GTX-4 printer driver enables the printing to be performed from any types of software applications, it is advisable to use one of the image editing software applications for obtaining a high-quality print result:

- CorelDRAW (X7/X8)
- Adobe Photoshop (CS6/CC)
- Adobe Illustrator (CS6/CC)
- Adobe Photoshop Elements (14/15)

- (1) Make proper settings, such as color settings and printing conditions, of each of the image editing software applications, in accordance with the setting contents of such applications.

<TIPS>

- For details of GTX Graphics Lab settings, refer to "5-2. Creating Print Data from GTX Graphics Lab >>P.62".
For details of GTX Graphics Lab Basic settings, refer to "5-4. Creating print data from GTX Graphics Lab Basic >>P.94".
For details of settings of other applications, refer to the applicable page(s) of each application in "5-5. Creating print data from other applications >>P.101".

- (2) By using an image editing software application, create an image data for printing.

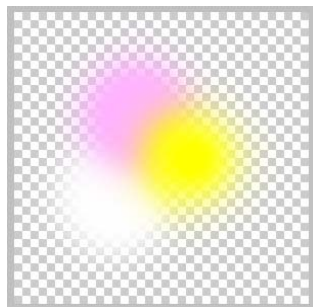
When creating print data with [Color Ink Only], RGB=(255,255,255) is treated as "Transparent color", ejecting no ink.

When creating print data with [Color+White Ink] or [White Ink Only], the treatment of RGB=(255,255,255) varies depending on the applications.

For GTX Graphics Lab	Both RGB=(255,255,255) and RGB=(254,254,254) are treated as "White", which executes printing in white with white ink.
For GTX Graphics Lab Basic	The setting of RGB=255 => 254 conversion button allows you to select "White" or "Transparent color" as color treated for RGB=(255,255,255).
For other applications	RGB=(255,255,255) is treated as "Transparent color" ejecting no ink. For such an image that you wish to print out in pure white color with white ink, make such a setting as RGB=(254,254,254).

<TIPS>

- When treating RGB=(255,255,255) as "Transparent color" in GTX Graphics Lab, using "GT Transparency" enables you to convert RGB=(255,255,255) of image file to transparent. For details, please refer to "5-2-3. Using GT Transparency to set RGB=255 to "Transparent color" >>P.64".
- For printing out image data that contains the transparent information (α channel), please use GTX Graphics Lab.
- Subsequently in this chapter, the value RGB=(254,254,254) is described as "RGB=254", and the value RGB=(255,255,255) is described as "RGB=255".



About color mode (color space)

The GTX-4 printer is a printer of RGB type.

Be sure to create image data in RGB mode, and always set the color space (input) you use for such data to sRGB (sRGB IEC61966-2.1).

<TIPS>

- When such application as Adobe and Corel is used, there are instances in which an image in CMYK mode cannot reproduce the color that is intended.
- Even for an image in RGB mode, a similar color reproduction failure occurs when other color space than the specified one, such as Adobe RGB, is used.

About print layout

When using an application other than GTX Graphics Lab, specify the platen size that uses the paper size specified in the Print menu, and confirm the print layout.

Moreover, use the "Brother GTX-4 FileOutput" printer driver for file output, then display and check the print preview.

<TIPS>

- In order for a print image to be oriented properly at all times, it is advisable to set the GTX-4 printer to the [Set as default printer].

How to create white data

When creating print data with [Color Ink Only], RGB=255 is treated as "Transparent color", ejecting no ink. For such an image that you wish to print out with ink, make such a setting as RGB=254.

When creating print data with [Color+White Ink] or [White Ink Only], the treatment of RGB=255 varies depending on the applications. Read the descriptions of respective applications mentioned below to make proper settings.

- For GTX Graphics Lab
Both RGB=255 and RGB=254 are treated as "White", which executes printing in white with white ink.
When treating RGB=255 as "Transparent color", using "GT Transparency" enables you to convert RGB=255 of image file to transparent. For details, please refer to "5-2-3. Using GT Transparency to set RGB=255 to "Transparent color" >>P.64".
- For GTX Graphics Lab Basic
The setting of RGB=255 => 254 conversion button allows you to select "White" or "Transparent color" as color treated for RGB=255.
When the checkbox is ON, the printer driver converts RGB=255 to 254 and then performs printing with white ink.
When the checkbox is OFF, the printer driver treats RGB=255 as "Transparent color" and does not eject the ink.
- For other applications
RGB=255 is treated as "Transparent color", ejecting no the ink.
For such an image that you wish to print out in pure white color with white ink, make such a setting as RGB=254.

About ARX4 file

Use the "Brother GTX-4 FileOutput" printer driver for file output in order to save your print data in the ARX4 format.

When your print data is saved in the ARX4 format, its information and the amount of used ink will be able to be reviewed.

<TIPS>

- When performing file output, be sure to use the printer driver, "Brother GTX-4 FileOutput". If file output is performed using [Print to file] command that is supplied with each application, there may be some cases where the file extension cannot be saved as .arx4, or the file destination cannot be specified.
- The GTX-4 printer cannot print out the print data that has been created for the GT-541/GT-782/ GT-3 series.
- If you make a printer driver setting from the Control Panel of your PC, such setting sometimes will not take effect in each application. For this reason, verify that your printer driver has been set up properly before you begin printing.

5-2. Creating Print Data from GTX Graphics Lab

5-2-1. What is GTX Graphics Lab?

GTX Graphics Lab is the software application for creating and saving layout data and print data of the GTX-4 printer. It is available on both Windows (64 bit) and Mac OS PCs. Its intuitive operation enables you to lay out images and text and create data. It is also able to create a layout data that contains the transparent information (α channel).

Layout data can be created and saved through the use of GTX Graphics Lab, and data files will be stored in ".gtpl" format.

In addition, the GTX-4 printer driver must be installed beforehand for creating and saving print data.

<TIPS>

- GTX Graphics Lab can also output print data for GT-3 (to AR3 file). When outputting data for GT-3, job comment can be entered by configuring it on the printer driver. Job comment cannot be specified when outputting data for GTX-4.
- When both PDIP and GTX Graphics Lab are available, GTX Graphics Lab only should be used. Operating both PDIP and GTX Graphics Lab at the same time may cause a functional error.
- There is "GTX Graphics Lab Basic" that can be used for 32-bit PC. For details, please refer to "5-4. Creating print data from GTX Graphics Lab Basic >>P.94".

5-2-2. Specifications

About operating environment

Compatible OS	Windows 7 (64 bit), Windows 8.1 (64 bit), Windows 10 (64 bit) and Mac OS X 10.12 Sierra, Mac OS X 10.13 High Sierra
Min. operating environment	CPU with 2 GHz or above RAM with 4 GB or above
Display resolution	XGA (1024 x 768) or higher

About computer-readable image file format

In cases where an image data does not contain some transparent information	PNG, JPEG, BMP and GIF
In cases where an image data contains some transparent information	PNG only

<TIPS>

- The display screen images indicated on this document are those images that are commonly seen in Windows 7 operating environment. Please note, however, that they may vary depending on OS and use environment.

About shortcut keys

	Command	Win	Mac
Edit	Copy	Ctrl+C	Command+C
	Paste	Ctrl+V	Command+V
	Cut	Ctrl+X	Command+X
	Undo	Ctrl+Z	Command+Z
	Redo	Ctrl+Y	Command+Shift+Z
	Select all	Ctrl+A	Command+A
	Deselect all	Ctrl+Shift+A	Command+Shift+A
	Move	↑ (↓→←)	↑ (↓→←)
	10× speed move	Shift +↑ (↓→←)	Shift +↑ (↓→←)
	Move upwards	Ctrl+]	Shift+Alt+Command+F
	Move downwards	Ctrl+[Shift+Alt+Command+B
	Move to the top	Shift+Ctrl+]	Shift+Command+F
	Move to the bottom	Shift+Ctrl+[Shift+Command+B
Delete	[Backspace] [Delete] key	[Delete] key	
File	New...	Ctrl+N	Command+N
	Open...	Ctrl+O	Command+O
	Save...	Ctrl+S	Command+S
	Save as...	Shift+Ctrl+S	Shift+Command+S
	Print...	Ctrl+P	Command+P
	Quit	Ctrl+Q	Command+Q

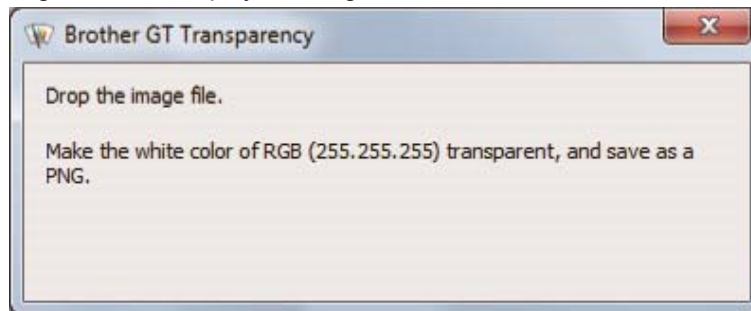
5-2-3. Using GT Transparency to set RGB=255 to "Transparent color"

"GT Transparency" is a tool used to treat RGB=255 as "Transparent color" when creating print data in GTX Graphics Lab.

In case of GTX Graphics Lab, RGB=255 is normally treated as "White", which executes printing in white with white ink. When treating RGB=255 as "Transparent color", using "GT Transparency" enables you to convert RGB=255 of image file to transparent and save as PNG file.

This application covers PNG, JPEG, BMP and GIF files.

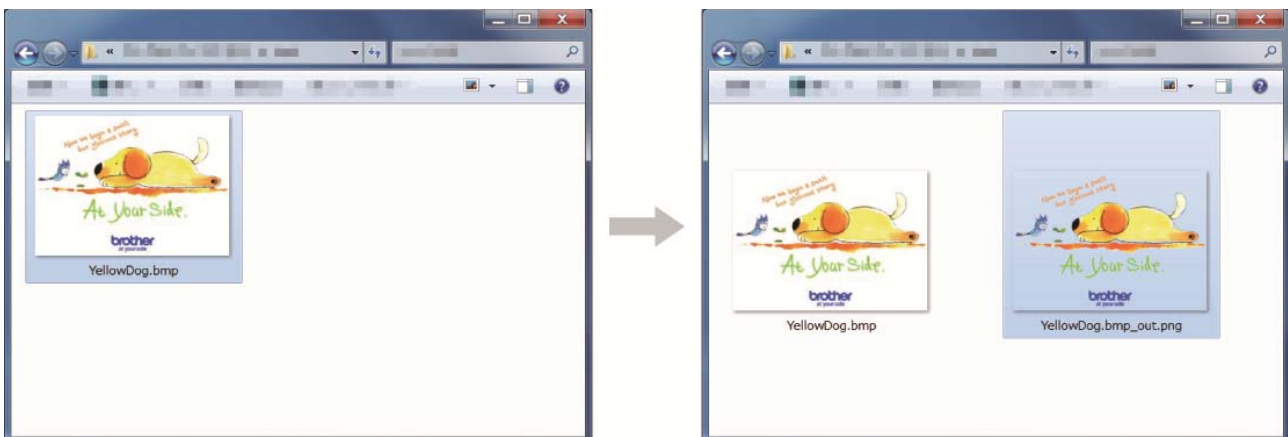
- (1) From [All Programs] in the Start menu, select the "GT Transparency" from "Brother GTX-4 Tools".
- (2) Drop your selected image file in the displayed dialog.



- (3) The PNG file of RGB=255 converted to transparent color is saved in the same layer as the folder where the image file was stored.

<TIPS>

- This application covers PNG, JPEG, BMP and GIF files.
Nothing happens even if files other than above-mentioned are dropped here.

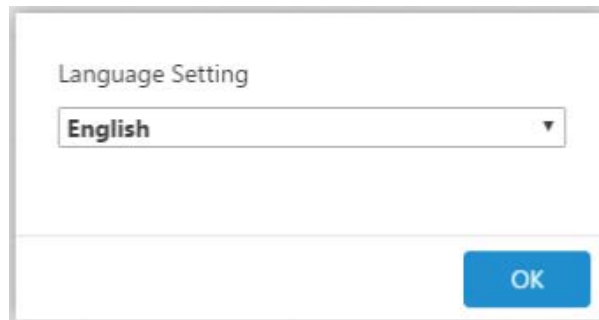


5-2-4. Activating GTX Graphics Lab

When activating the GTX Graphics Lab, from [All Programs] in the Start menu, select the "Brother GTX-4 Tools" and "GTX Graphics Lab".

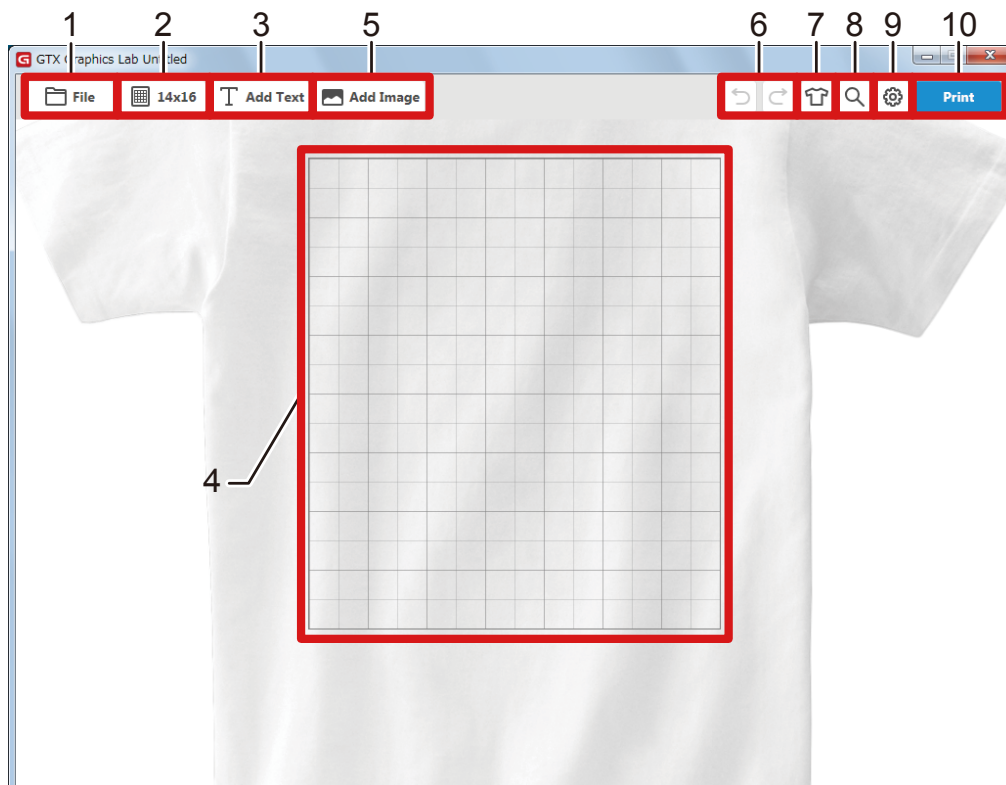
<TIPS>




- The language selection window appears only at the initial startup. Select your language. If you exit the application without selecting your desired language, the language selection window will appear again at the next startup stage.
- The display language at the initial startup is English.








To load a layout file, activate the GTX Graphics Lab first, then select the file to be loaded by clicking on [File] > [Open...]. Although it is possible to activate the GTX Graphics Lab when double-clicking a GTPL file, such file cannot be read out even if it is correlated to OS.

5-2-5. Structure of GTX Graphics Lab screen

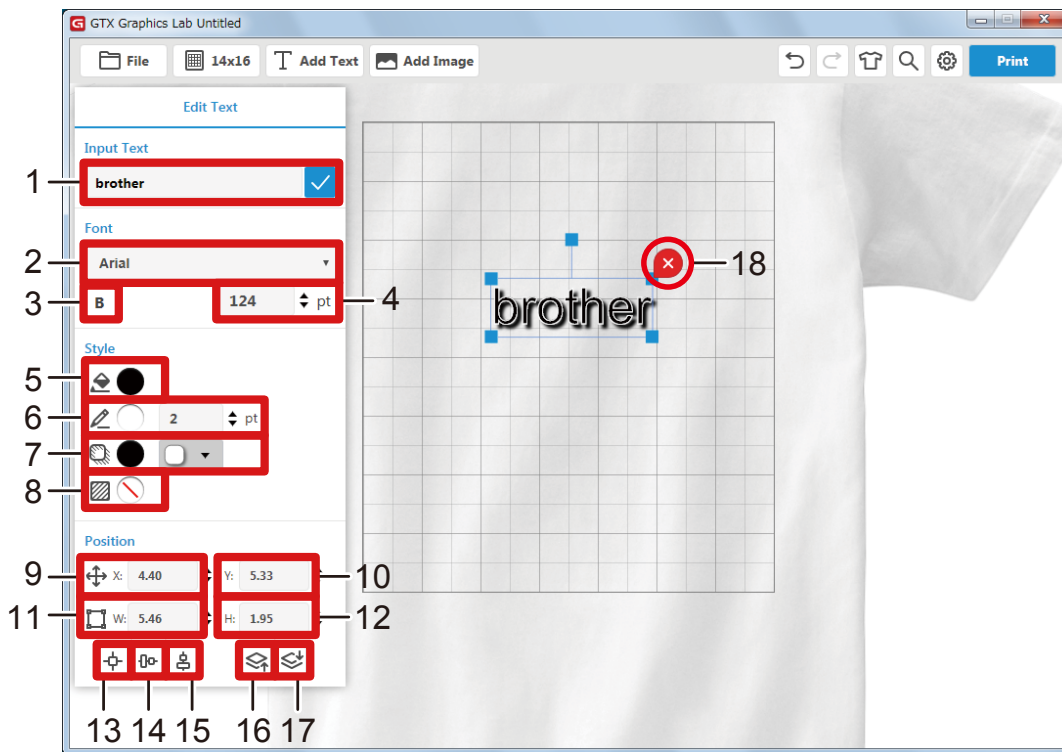


No.	Name	Function
1	[File] 	<p>New: With this function, a new layout can be created.</p> <p>Open: Clicking this causes a layout file which has already been saved to the system to be opened.</p> <p><TIPS></p> <ul style="list-style-type: none"> Even when you have opened a GTPL file as read-only, overwriting is possible. <p>Save...: Overwrites and saves layout data. (GTPL file)</p> <p>Save as ...: Saves layout data under a different name. (GTPL file)</p>
2	Change Platen Size button 	<p>Pressing this button enables you to change the current platen size.</p> <p><TIPS></p> <ul style="list-style-type: none"> When outputting data for GT-3, 16X18 platen and 16X21 platen cannot be selected.
3	[Add Text] 	<p>With this function, enter your desired text within 20 characters, and fix the text object in its desired placement.</p> <p>For details of the editing of a text object, refer to "5-2-6. Use GTX Graphics Lab to edit text >>P.68".</p>
4	Platen Frame	<p>This will change correspondingly to the Change Platen Size button.</p> <p>At the time of printing, only such range that is clipped out by means of Platen Frame will be printed out.</p>


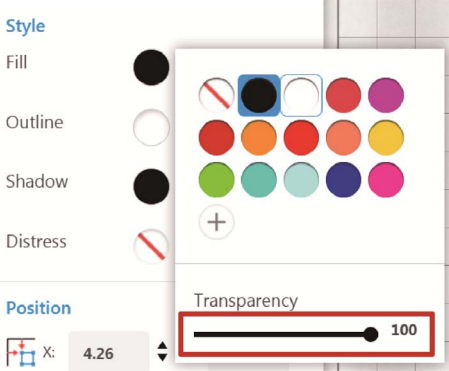


No.	Name	Function
5	[Add Image] 	<p>With this function, select an image file, and place an image object in place by means of the Open button.</p> <p>The image formats that GTX Graphics Lab can read out are as follows:</p> <ul style="list-style-type: none"> • For image data that does not contain any transparent information: PNG, JPEG, BMP and GIF • For image data that contains transparent information: PNG only <p>For details of the editing of an image object, refer to "5-2-7. Editing images in GTX Graphics Lab >>P.72".</p> <p><TIPS></p> <ul style="list-style-type: none"> • When you read BMP and GIF files, the maximum size is Width: 4800 px x Height: 5400 px. Images larger than this size cannot be read, and an error message will be displayed. • RGB=255 is treated as "White". When treating RGB=255 as "Transparent color", using "GT Transparency" enables you to convert RGB=255 of image file to transparent. For details, please refer to "5-2-3. Using GT Transparency to set RGB=255 to "Transparent color" >>P.64".
6	Undo/Redo button 	<p>Undo: Returns to the previous state. You can return to a maximum of nine states before the present state.</p> <p>Redo: You can redo within the range you returned with the Undo button.</p>
7	Change T-shirt Background Color button 	<p>Pressing this button enables you to change the background color of the T-shirt.</p> <p>By pressing the + button, you can add any optional colors and specify up to eight colors. When adding the 9th color, the leftmost color is deleted.</p>
8	Print Preview 	<p>The layout is shown under the conditions that the platen grid does not exist and the entire T-shirt view remains visible. The preview screen will be closed if you click on a place on the screen.</p>
9	Details button 	<p>You can confirm the units, grid display, grid spacing, preset import and export, language setting change, and version information.</p>
10	[Print]	<p>With this function, you can make your settings when creating print data.</p> <p>For details, refer to "5-2-8. Creating print data (ARX4 file) from GTX Graphics Lab >>P.75".</p>


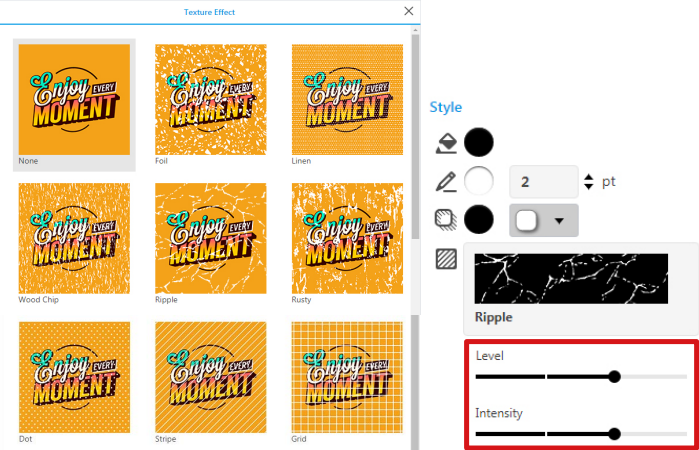






5-2-6. Use GTX Graphics Lab to edit text





When you select an already placed text object, the text properties appear. Changing any item inside the properties enables you to edit the text object.



No.	Name	Function
1	Input Text	With this function, you can change content of the text. With this function, enter your desired text within 20 characters, and reflect the entry in the applicable text object by pressing the Enter key or the Accept button.
2	Font	Using this function, you can change a font type. Those fonts that have been installed on the PC will appear in the drop-down listbox. <TIPS> <ul style="list-style-type: none"> Only fonts that are confirmed to be normally usable are displayed. Therefore, some fonts may not appear in the drop-down listbox even when they are installed on the PC.
3	Boldface B	This function makes the specified font boldface.
4	Font Size	Using this function, you can change a font size. When you drag one of the four corners of a text object to zoom it in/out, or when you change the font width or the font height, the corresponding value changes accordingly. The maximum value is 1,300 pt, and the minimum value is 10pt.

No.	Name	Function
5	Fill 	<p>This function enables you to change the fill color for text and the solid filled transparency.</p> <p>The transparency can be changed by moving the [Transparency] bar. The transparency will increase or decrease, as the value increases or decreases. By pressing the "+" button, you can add any optional colors.</p> 
6	Line 	<p>With this function, color, transparency and thickness of the outline of text can be changed.</p> <p><TIPS></p> <ul style="list-style-type: none"> If the outline thickness value is too large, the outline may not be arranged along the font shape, resulting in the collapsing of the shape.
7	Shadow 	<p>This function gives a drop-shadow to text. Using this function, you can specify a shadow color, transparency, position, distance and blurring.</p> <p>Color: Using this function enables you to change a shadow color.</p> <p>Transparency: This function changes a shadow transparency.</p> <p>Position: With this function, you can change a position to which the shadow is applied. By default, it is set to the lower-right corner.</p> <p>Distance: With this function, you can change a distance over which the shadow is applied. As the value increases or decreases, the distance increases or the object comes nearer to the center.</p> <p>Blur: As the value increases, the level of blurring increases.</p> <p><TIPS></p> <ul style="list-style-type: none"> When text with a shadow is moved, part of the shadow may seem to disappear from the screen. However, such shadows appear when the text is printed out. When shadow is applied to a text placed over an object with RGB=255, the area around the blurring section of the shadow may become white.

No.	Name	Function
8	Texture Effect 	<p>Applies a texture effect to the object.</p> <p><TIPS></p> <ul style="list-style-type: none"> The texture effect is used to apply an effect to an object in order not to print the part that looks white. <p>You can select a texture to reflect the texture effect. Furthermore, you can change the size and intensity of the texture pattern both at four levels.</p> <p>Function: Texture effect Functional material: Texture</p> 
9	Horizontal Position 	<p>With the leftmost part of Platen Frame set to 0, this function enables you to display and change the horizontal position of an object. When you drag the object to move it elsewhere, the corresponding value changes accordingly.</p>
10	Vertical Position 	<p>With the uppermost part of Platen Frame set to 0, this function enables you to display and change the vertical position of an object. When you drag the object to move it elsewhere, the corresponding value changes accordingly.</p>
11	Font Width 	<p>By specifying the width, you can change the font size. When you drag one of the four corners of a text object to zoom it in/out, or when you change the font size or the font height, the corresponding value changes accordingly. The maximum value is 1,300 pt or an equivalent value, and the minimum value is 10pt or an equivalent value. A unit for the values is the one specified by the Details button.</p>
12	Font Height 	<p>By specifying the height, you can change the font size. When you drag one of the four corners of a text object to zoom it in/out, or when you change the font size or the font width, the corresponding value changes accordingly. The maximum value is 1,300 pt or an equivalent value, and the minimum value is 10pt or an equivalent value. A unit for the values is the one specified by the Details button.</p>
13	Centering 	<p>This function positions an object at the center of the platen grid in both vertical and horizontal directions.</p>
14	Vertical Centering 	<p>This function positions an object at the center of the platen grid in a vertical direction.</p>

No.	Name		Function
15	Horizontal Centering		This function positions an object at the center of the platen grid in a horizontal direction.
16	Bring to the Front		It brings an object to the front. Among those objects that overlap with the selected object, this function moves one object to the foremost position in front of the object which is currently positioned at the front side. However, no change will take place if no object overlaps with each other.
17	Send to the Back		Send an object to the bottom/back of the overall image. Among objects that overlap with the selected object, this function moves one object to the bottommost position behind the object which is currently positioned at the rearmost of the overall image. However, no change will take place if no object overlaps with each other.
18	Delete		Click the icon to delete any object.

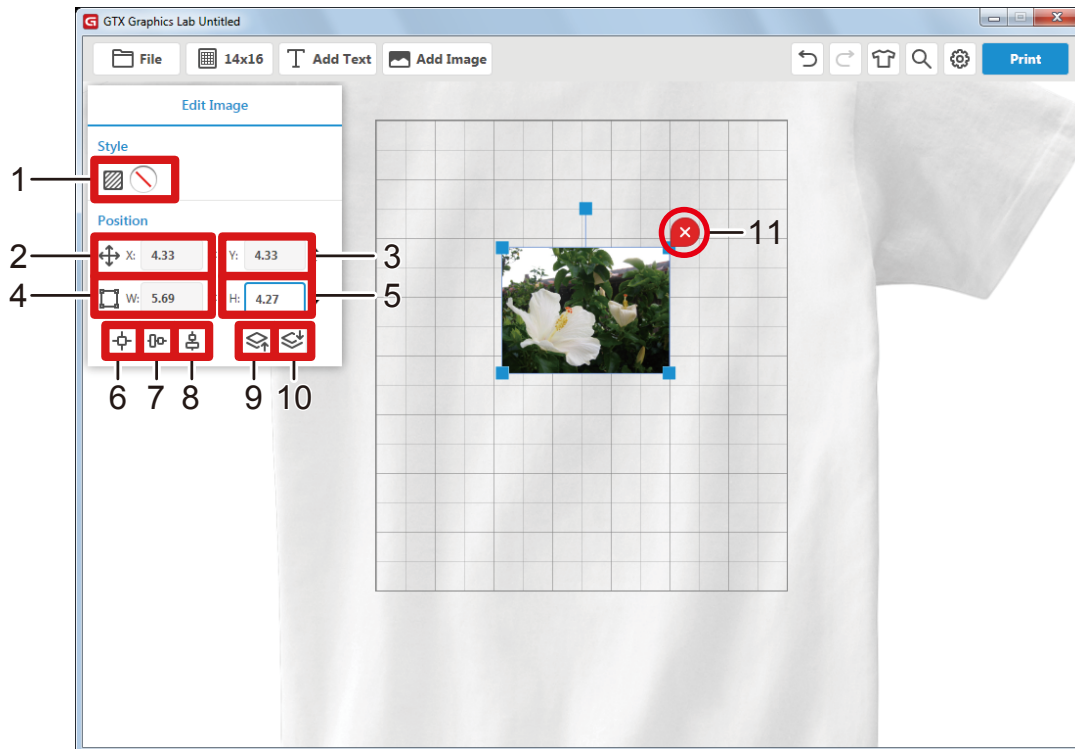
5-2-7. Editing images in GTX Graphics Lab


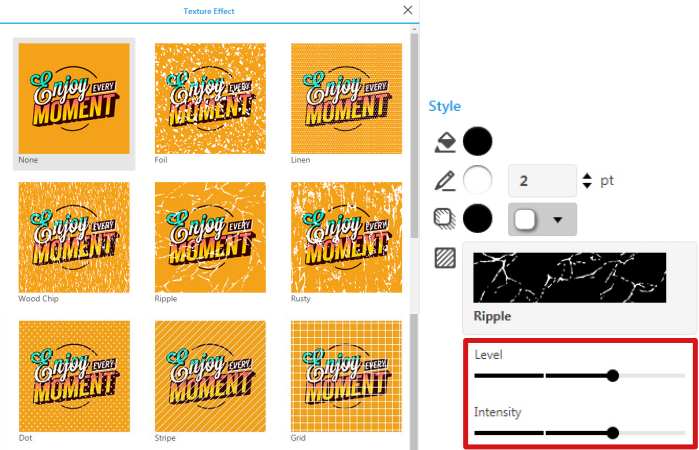







When you select an already placed image, the image properties appear.




Changing any item inside the properties enables you to edit an image object.

<TIPS>

- When you read an image data, the color profile is deleted. However, it will not be deleted from the source data.
- RGB=255 is treated as "White". When treating RGB=255 as "Transparent color", using "GT Transparency" enables you to convert RGB=255 of image file to transparent. For details, please refer to "5-2-3. Using GT Transparency to set RGB=255 to "Transparent color" >>P.64".



No.	Name	Function
1	Texture Effect 	<p>Applies a texture effect to the object.</p> <p><TIPS></p> <ul style="list-style-type: none"> The texture effect is used to apply an effect to an object in order not to print the part that looks white. <p>You can select a texture to reflect the texture effect. Furthermore, you can change the size and intensity of the texture pattern both at four levels.</p> <p>Function: Texture effect Functional material: Texture</p> 
2	Horizontal Position 	<p>With the leftmost part of Platen Frame set to 0, this function enables you to display and change the horizontal position of an object. When you drag the object to move it elsewhere, the corresponding value changes accordingly.</p>
3	Vertical Position 	<p>With the uppermost part of Platen Frame set to 0, this function enables you to display and change the vertical position of an object. When you drag the object to move it elsewhere, the corresponding value changes accordingly.</p>
4	Image Width 	<p>By specifying the width, you can change the image size. When you change the image height, the corresponding value changes accordingly. The maximum value is 32 inch, and the minimum value is 0.5 inch. A unit for the values is the one specified by the Details button.</p>
5	Image Height 	<p>By specifying the height, you can change the image size. When you change the image width, the corresponding value changes accordingly. The maximum value is 42 inch, and the minimum value is 0.5 inch. A unit for the values is the one specified by the Details button.</p>
6	Centering 	<p>This function positions an object at the center of the platen grid in both vertical and horizontal directions.</p>
7	Vertical Centering 	<p>This function positions an object at the center of the platen grid in a vertical direction.</p>
8	Horizontal Centering 	<p>This function positions an object at the center of the platen grid in a horizontal direction.</p>

No.	Name	Function
9	Bring to the Front 	It brings an object to the front. Among those objects that overlap with the selected object, this function moves one object to the foremost position in front of the object which is currently positioned at the front side. However, no change will take place if no object overlaps with each other.
10	Send to the Back 	Send an object to the bottom/back of the overall image. Among objects that overlap with the selected object, this function moves one object to the bottommost position behind the object which is currently positioned at the rearmost of the overall image. However, no change will take place if no object overlaps with each other.
11	Delete 	Click the icon to delete any object.

5-2-8. Creating print data (ARX4 file) from GTX Graphics Lab

Save the image data and print settings as a set of print data in ARX4 file format.

The following will be made available if the print data is converted into an ARX4 file:

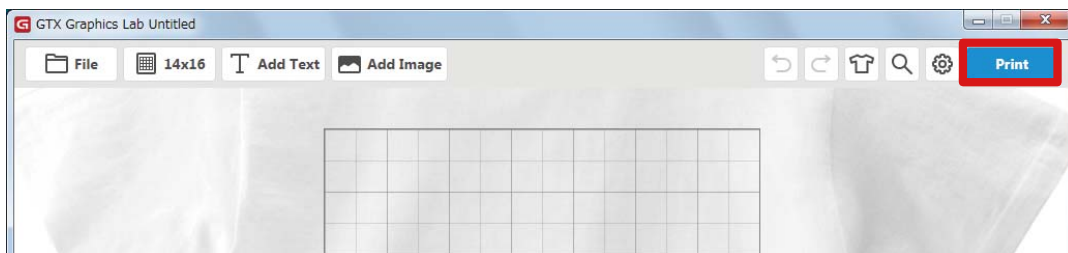
- Image data and print settings can be put together and stored.
- Without connection to PC, the printing can be performed directly from a USB flash memory.

<TIPS>

- Image editing is unavailable for any ARX4 file. As such, save your image data for an editing purpose in advance.
- For details of directly sending data to the Printer from GTX Graphics Lab, refer to "6-6-2. Sending print data from GTX Graphics Lab >>P.187".

(1) Open an image data file in GTX Graphics Lab.

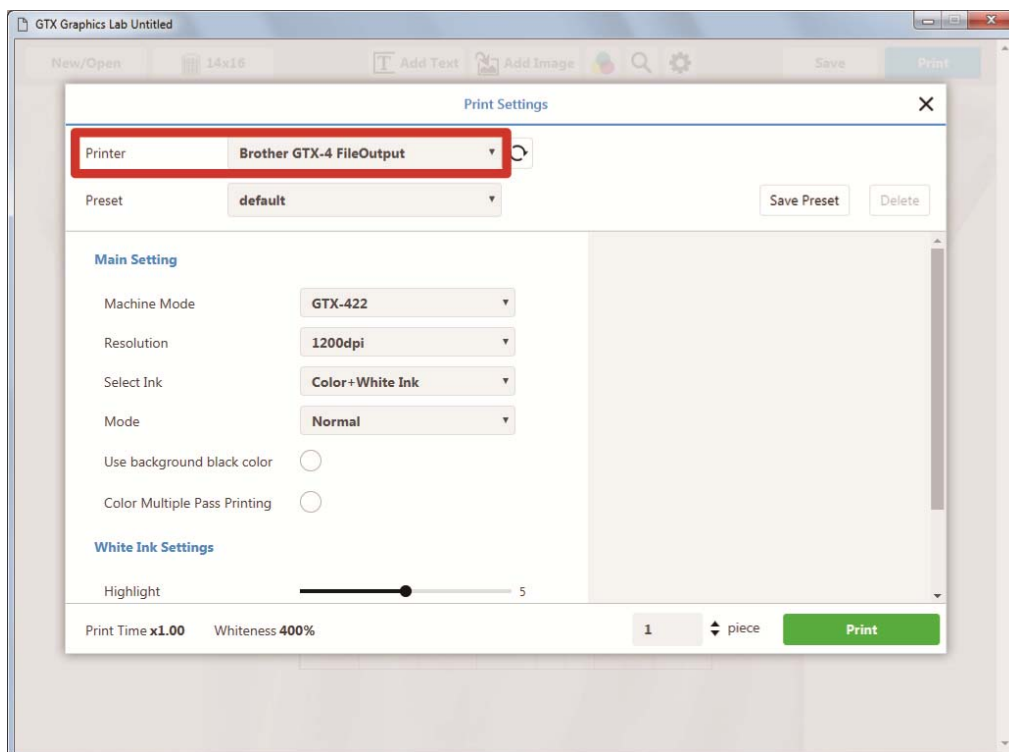
(2) Click [Print].



(3) From [Printer], select "Brother GTX-4 FileOutput" for file output.

<TIPS>

- If the specified [Printer] is set to "Brother GTX-4", the print data will be sent to the printer.
If the specified [Printer] is set to "Brother GTX-4 FileOutput", the print data will be saved as an ARX4 file.



(4) Make your settings for the printer driver.

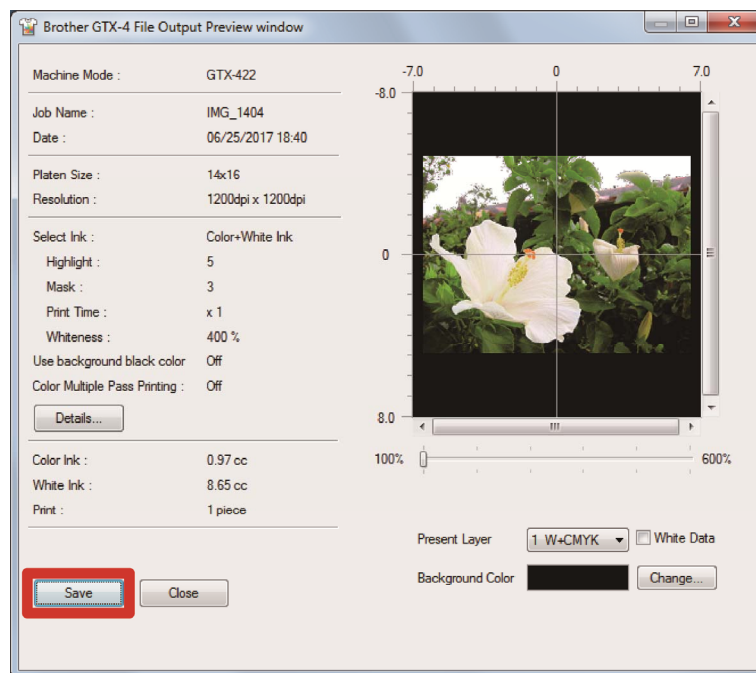
<TIPS>

- For details of the printer driver's setting procedures, refer to "5-3. Printer driver's setting from GTX Graphics Lab >>P.77".
- Older versions of the printer driver may display an error [A driver of corresponding version is not found. (-1401)]. If so, please update the driver to the newest version.

(5) When you click [Print], the dialog box shown below will be displayed on the screen. After that, click [Save].

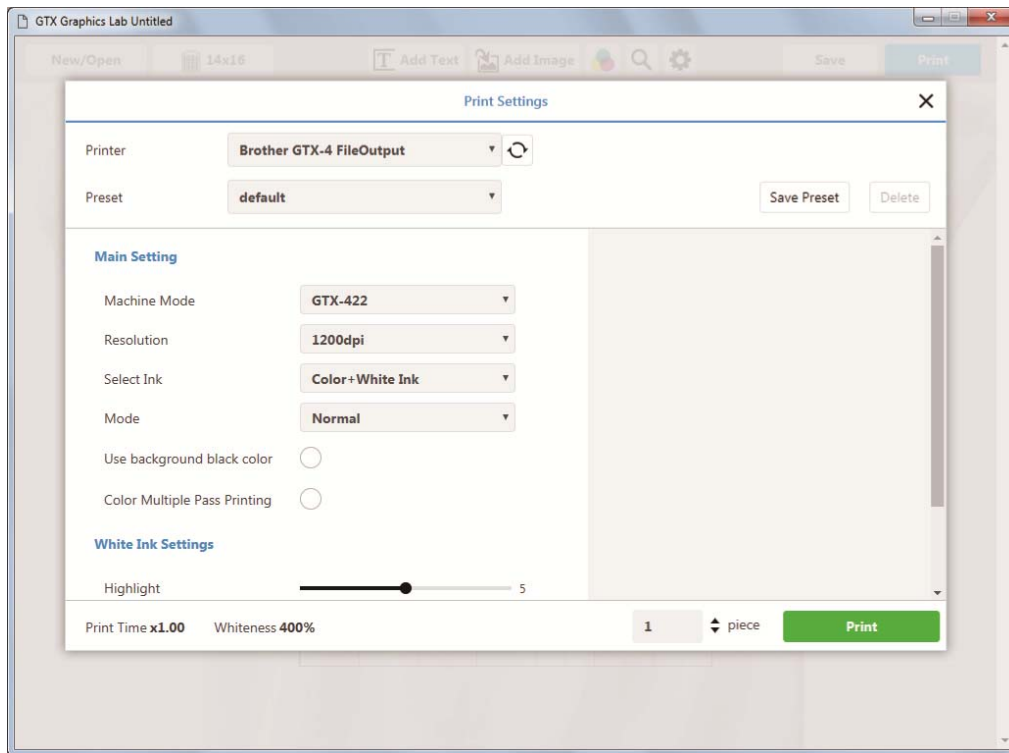
<TIPS>

- When you use a Macintosh to output a file by means of "Brother GTX-4 FileOutput", activate the "GTX-4 FileViewer" first, then click [Print]. If you try to output and send a file without activating it, an error will occur and the file cannot be saved to the system.
- There may be cases where this saving process takes several minutes.

**(6)** Specify the [Save In] and [File name] first, then click [Save] to save the ARX4 file to your PC.

5-3. Printer driver's setting from GTX Graphics Lab

(1) Click [Print] to open the print setup dialog box of the printer driver.

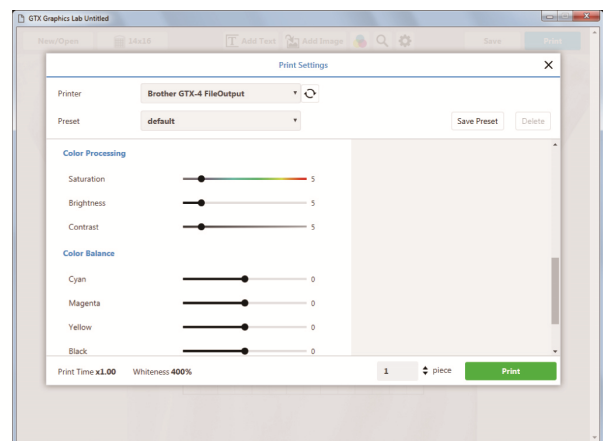
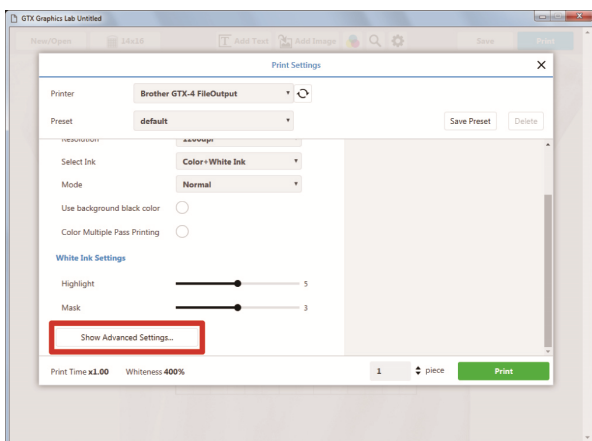


(2) In the dialog box for setting the printer driver, configure the required settings.

By clicking on the [Show Advanced Settings...], White ink settings, [Color Processing], and [Uni-Directional Printing] can be configured.

<TIPS>

- Depending on the settings you have made in the [Select Ink:] option or the like, setup items that appear on the screen vary.
- The rollover help is displayed at right side of the dialog box. Place the mouse pointer over it to browse the help feature.
- For the detailed description of setup items, refer to each chapter mentioned below.

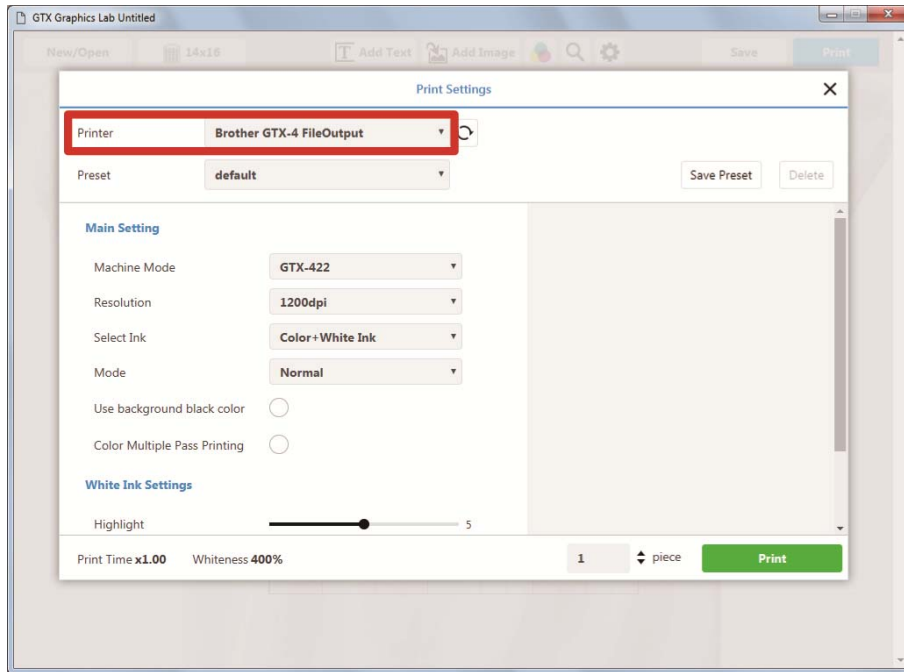


5-3-1. For GTX Graphics Lab: Selecting a printer

From [Printer], select a destination printer to send print data.

<TIPS>

- If the specified [Printer] is set to "Brother GTX-4", the print data will be sent to the printer.
If the specified [Printer] is set to "Brother GTX-4 FileOutput", the print data will be saved as an ARX4 file.



5-3-2. For GTX Graphics Lab: Creating/selecting/importing/exporting preset

From [Preset], a printer driver setting can be saved, deleted, or selected.

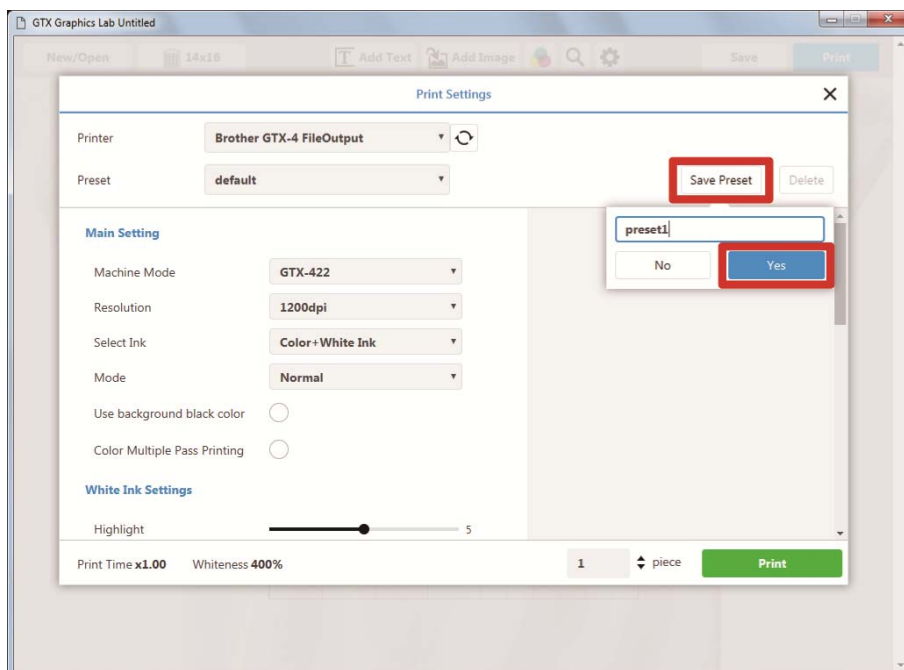
When repeatedly using the same setting for creating print data, it is recommended to save the preset data.

You can import and export preset files.

Saving preset data

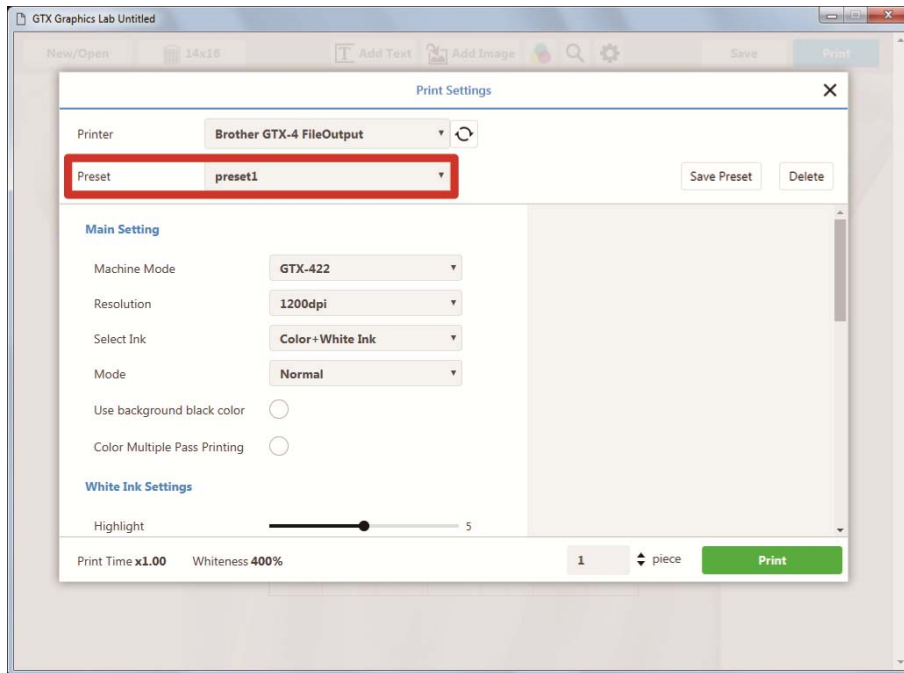
Create your settings of printer driver and click [Save Preset].

Enter a preset name and click [Save] to save the preset.



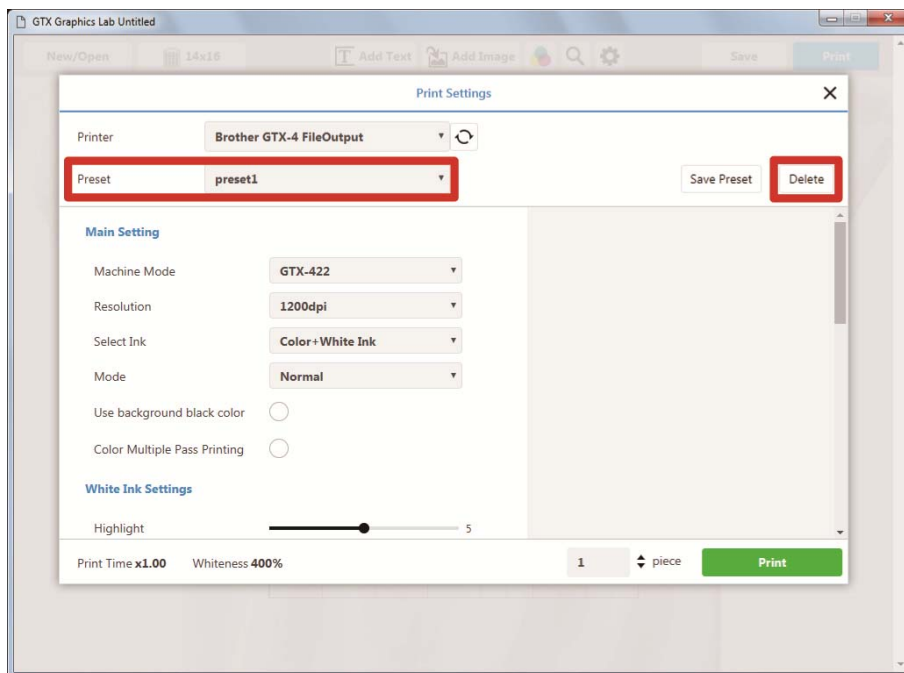
Selecting preset data

Select a desired preset to be used from [Preset].
The selected preset configuration will be propagated.



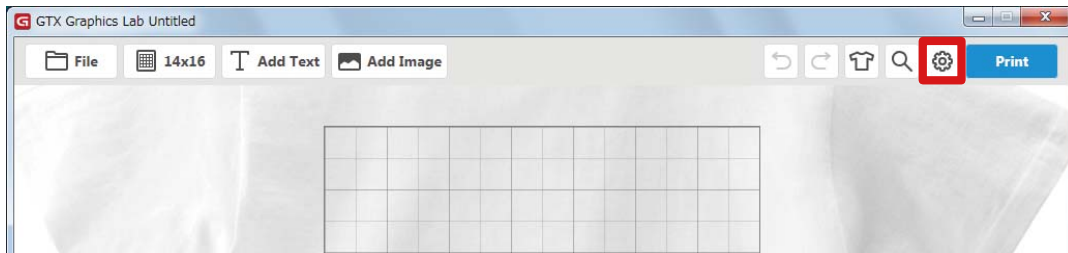
Deleting preset data

Select a desired preset to be deleted from [Preset] and click [delete].

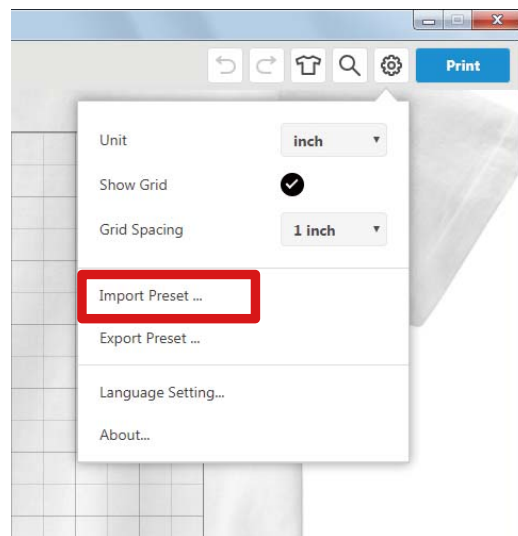


Importing preset data

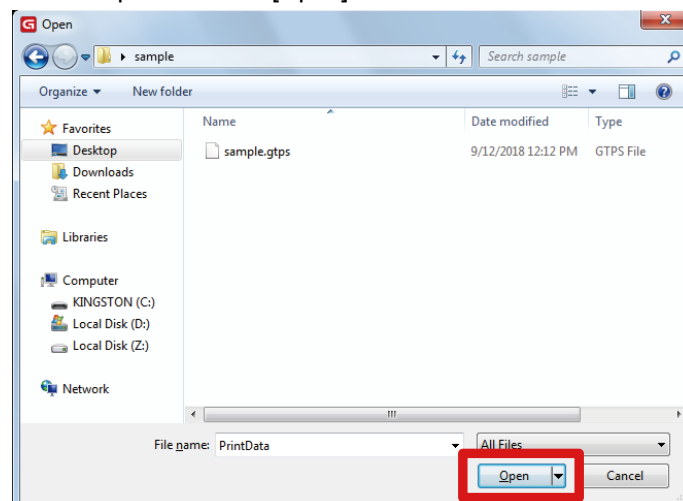
- (1) Click  .



- (2) Click [Import Preset ...].



- (3) Select the gtps file you want to import and click [Open].



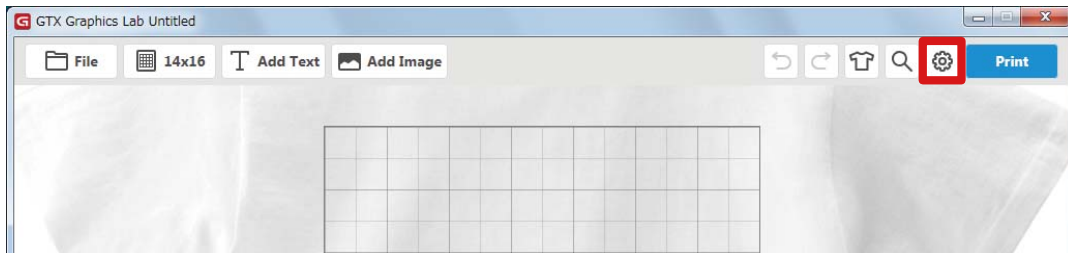
- (4) Preset data will be imported.

<TIPS>

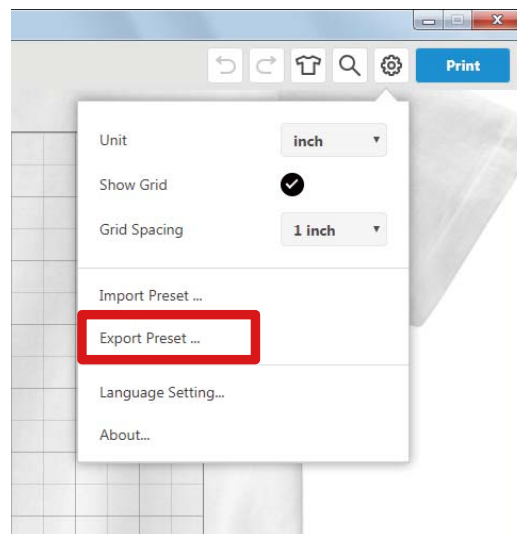
- If the imported file contains a number of presets, all the presets will be imported.

Exporting preset data

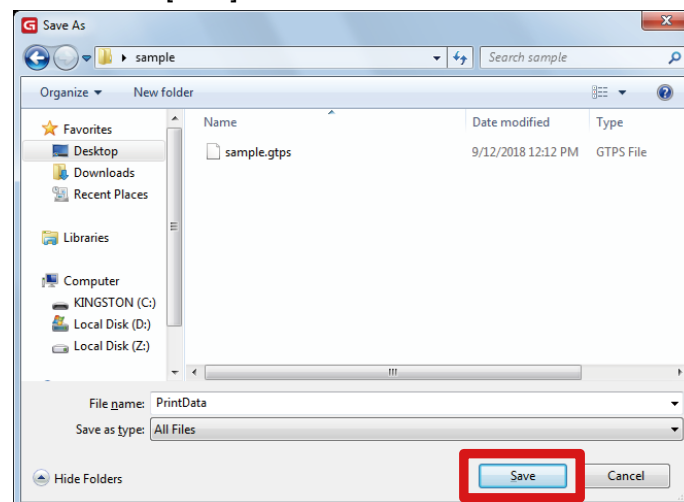
- (1) Click  .



- (2) Click [Export Preset ...].



- (3) Select the destination folder and click [Save].



- (4) Preset data will be exported.

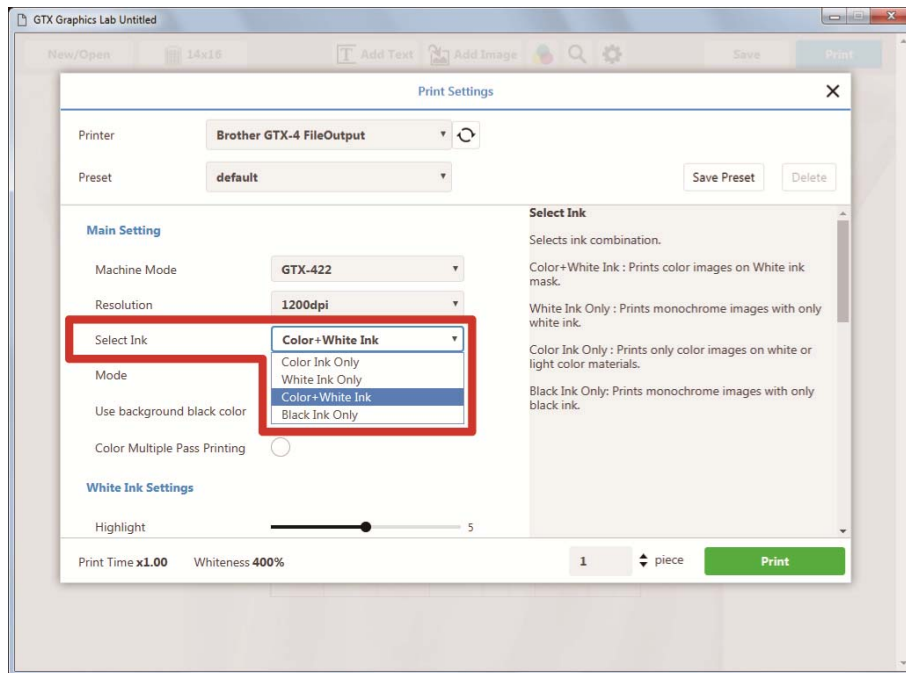
<TIPS>

- All saved preset data will be exported as one file.

5-3-3. For GTX Graphics Lab: Selecting inks

From the [Select Ink:] option, select a combination of inks to be used.

Setup item	Description
[Color+White Ink]	This option enables a color image to be printed out on the mask layer of white ink.
[White Ink Only]	This option enables the white ink only to be used for printing out a monochrome image.
[Color Ink Only]	This option enables a color image to be printed out on a white background or lighter and pale color background.
[Black Ink Only]	This option enables the black ink only to be used for printing out a monochrome image.

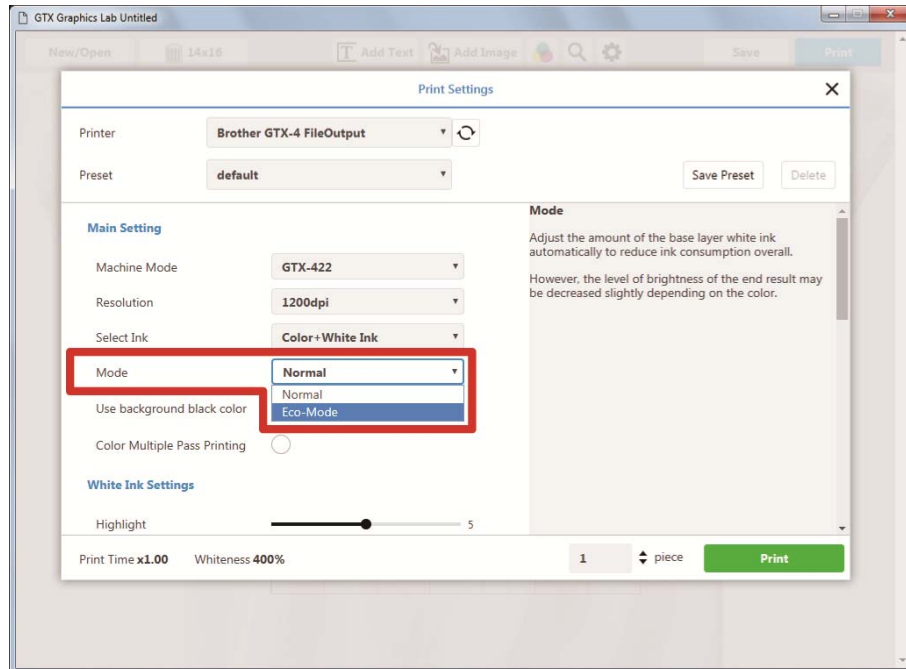


5-3-4. For GTX Graphics Lab: White ink saving mode

If you set [Mode:] to [Eco-Mode], the white ink volume serving as the background is automatically adjusted to reduce the overall ink consumption.

<TIPS>

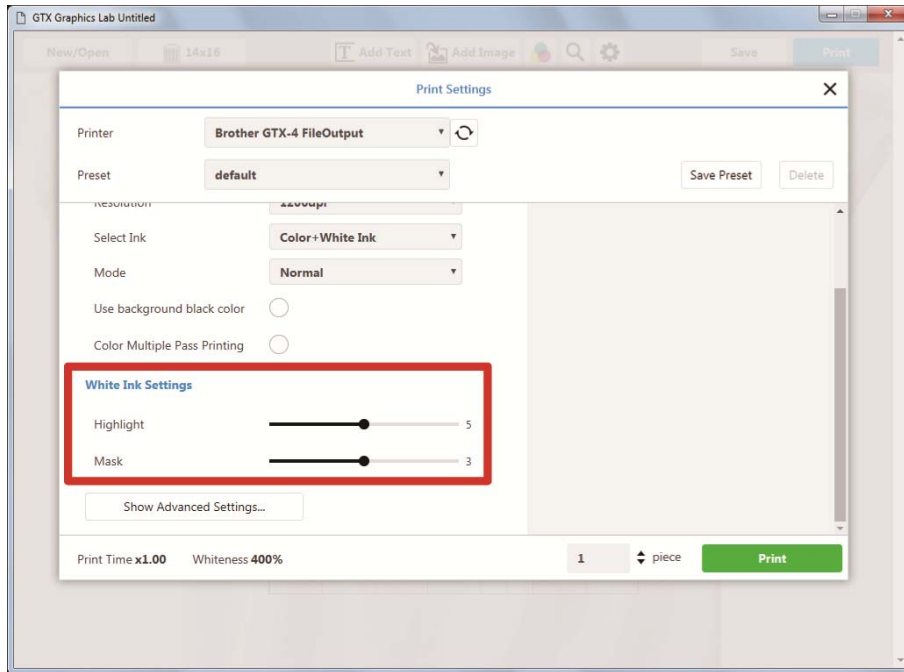
- The luminance on the finished print may be slightly reduced depending on the color.



5-3-5. For GTX Graphics Lab: White ink settings

If you have selected [Color+White Ink] or [White Ink Only] in the [Select Ink:], the setup items for [White Ink Settings:] will appear.

Adjust the white ink volume separately in the [Highlight:] (visible white ink volume) and in the [Mask:] (white ink volume to cover the background color).



Highlight

This enables you to select whiteness (thickness) of RGB=254 in such nine levels as [1] to [9]. When you increase this value, the White ink volume will increase.

Highlight setpoints	Ink volume
[1]	White ink volume 200%
[2]	White ink volume 250%
[3]	White ink volume 300%
[4]	White ink volume 350%
[5]	White ink volume 400%
[6]	White ink volume 450%
[7]	White ink volume 500%
[8]	White ink volume 550%
[9]	White ink volume 600%

<TIPS>

- Appropriate highlight setting value depends on color or material of the T-shirt. It is recommended to consider and decide on an appropriate highlight setting value before creating print data. Perform the highlight check pattern print and select an appropriate setting value by referring to "5-7-6. Print out of highlight check pattern >>P.142".
- Depending on the settings of [Highlight:] and [Color Multiple Pass Printing], the [Print Time:] and [Whiteness:] will change accordingly.
- [Print Time:] will be set to [X1] if the setup value of [Highlight:] is [5] and [Color Multiple Pass Printing] is turned OFF. With this [X1] serving as a reference value, how many times relates to how long the print time will take when printing.
- Actual ink consumption depends on the actual colors used in the original image. As such, use this number as a reference for ink consumption.

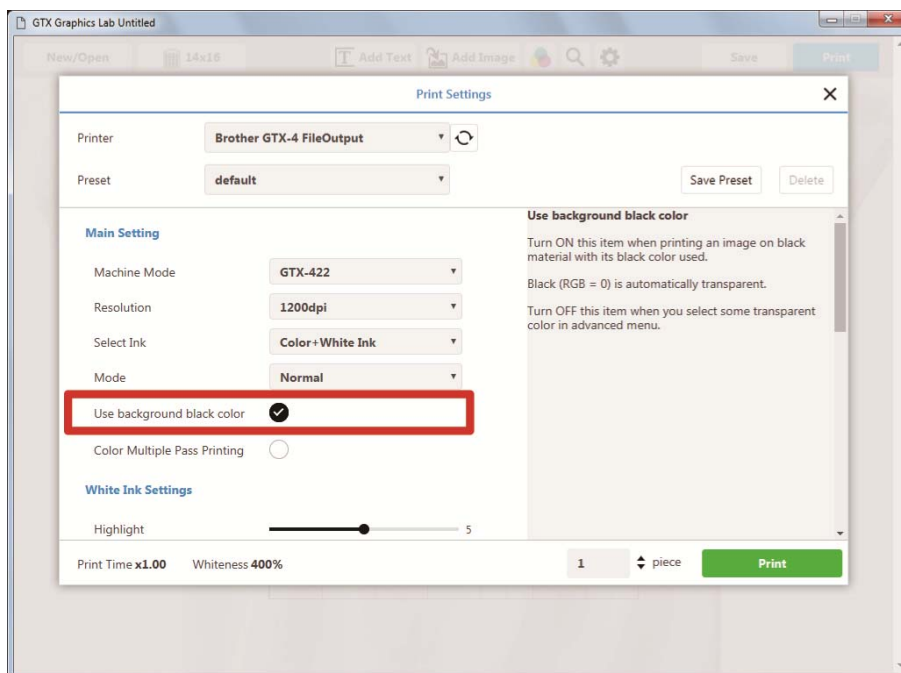
Mask

This enables you to select the volume of white ink which is used as background color for color inks in such five levels as [1] to [5].

Setup value	Description
[1] or [2]	These setup values are suitable for such lighter and pale background colors as pale pink, ash and cream.
[3]	This is the default value. This value will reproduce the most smooth white-gray-black gradation.
[4]	This value is suitable for vivid background color, e.g. red, purple, green, etc. It also covers the strong background colors.
[5]	This value enables the printing with the largest amount of white ink under all colors except darker color areas.

5-3-6. For GTX Graphics Lab: Use background black color

If you have selected [Color+White Ink] in the [Select Ink:], the setup items of [Use background black color:] will appear. In the event that you wish to print a black T-shirt making use of the T-shirt's background black color, mark the [Use background black color:] checkbox.



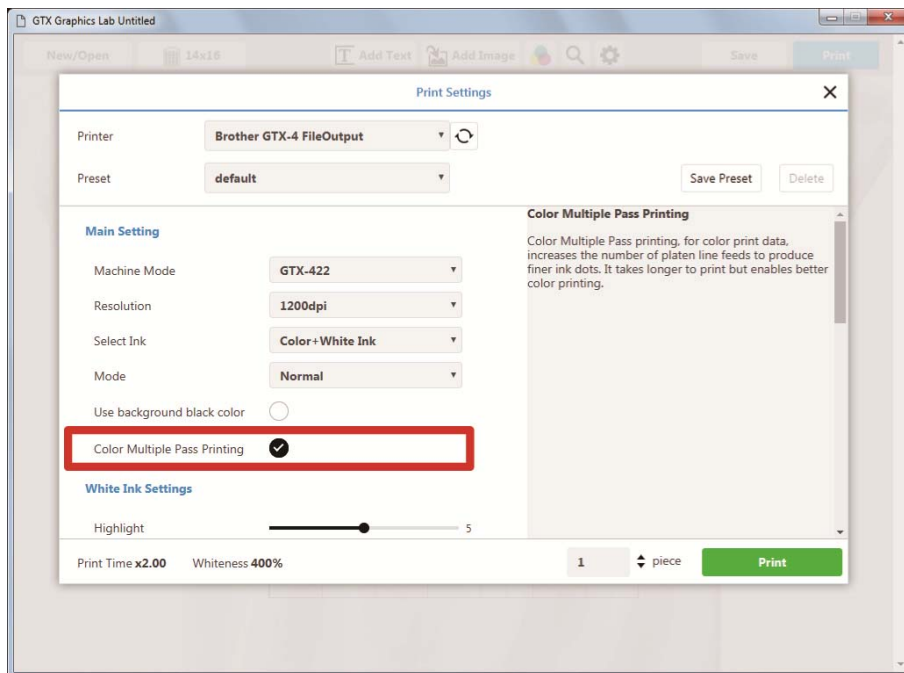
5-3-7. For GTX Graphics Lab: Color multiple pass printing

If you have selected one of the [Color+White Ink], [Color Ink Only] or [Black Ink Only] in the [Select Ink:], the setup items for [Color Multiple Pass Printing] will appear.

In cases where small and horizontal stripes are highly noticeable in the print result, mark the [Color Multiple Pass Printing] checkbox.

<TIPS>

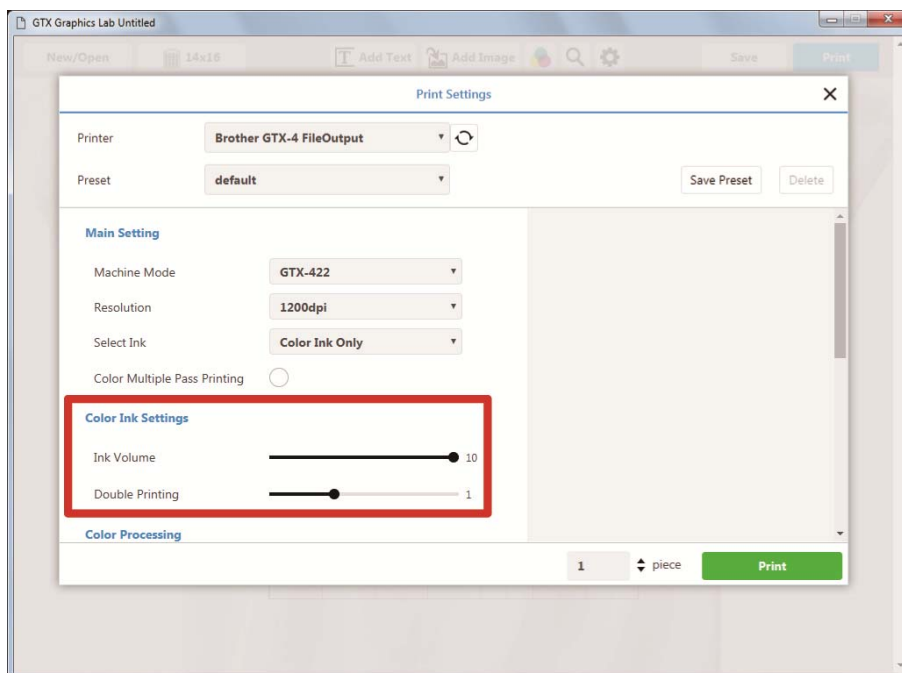
- Even if the [Color Multiple Pass Printing] checkbox is marked, the amount of inks to be consumed will remain unchanged.
- When the [Color Multiple Pass Printing] checkbox is marked, it takes a longer time for the print time to be completed. For typical print time, refer to [Print Time:].



5-3-8. For GTX Graphics Lab: Color ink settings

If you have selected [Color Ink Only] or [Black Ink Only] in the [Select Ink:], the setup items of [Color Ink Settings:] will appear.

In the [Color Ink Settings:] window, you can make your setting from the [Ink Volume:] or [Double Printing:] option.



Ink volume

This enables you to select the ink volume in such ten levels as [1] to [10].

Setup value	Description
[10]	This is the default value. This value corresponds to 100%-cotton fabrics as well as for blended yarn fabrics (hemp 50%/polyester 50% or cotton 50%/polyester 50%).
[9] to [7]	These values correspond to a thinner T-shirt, thick towel, and cotton products woven with twill fabrics.
[6] to [4]	These values correspond to thin and plain fabrics as well as for blended yarn fabrics that consist of cotton, polyester and polyurethane.
[3] to [1]	These values correspond to polyester jerseys and synthetic fabrics that have no water absorbency.

<TIPS>

- When you print other clothes than a thick T-shirt, check on the actual blurring first, then adjust a value in the [Ink Volume:] option.

Double Printing

Performing the print cycle two times separately will make the printed color stand out more.

Setup value	Description
[0]	No separate processes
[1]	Separate processes (wait time between the 1st and 2nd print cycle)
[2]	Separate processes (longer wait time than the case with setting [1] between the 1st and 2nd print cycle)
[3]	Separate processes (longer wait time than the case with setting [2] between the 1st and 2nd print cycle)

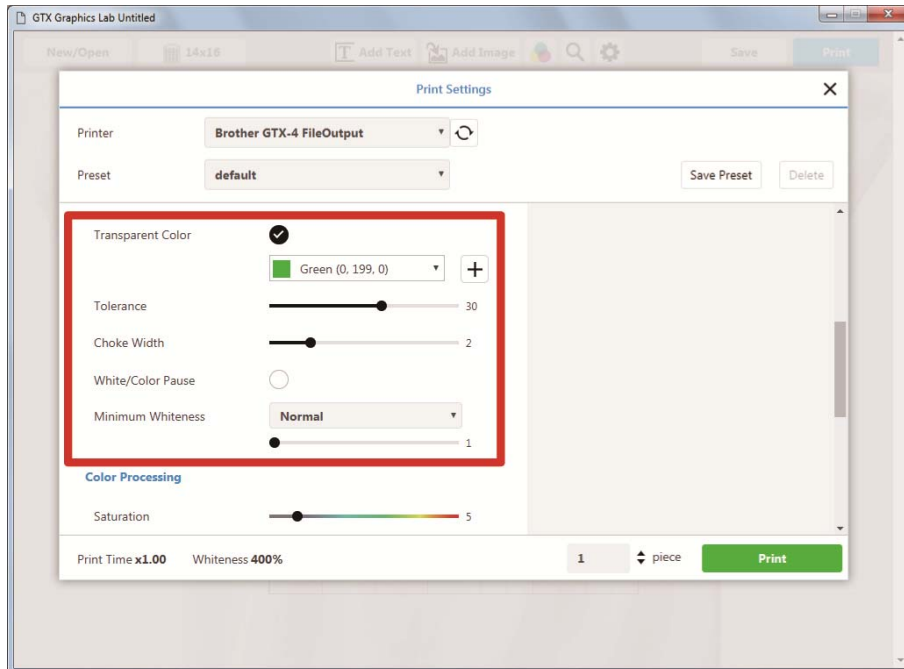
<TIPS>

- For the options [1] to [3], the platen will reciprocate two times.
- The higher the setpoint is, the longer the print time will be.

5-3-9. For GTX Graphics Lab: White ink advanced settings

If you have selected [Color+White Ink] or [White Ink Only] in the [Select Ink:], this setting menu will be displayed. When you click on the [Show Advanced Settings...], the setup items of [White Ink Settings:] will appear.

Advanced settings for white ink can be configured for [Transparent Color:], [Tolerance:], [Minimum Whiteness :], [Choke Width:], and [White/Color Pause].



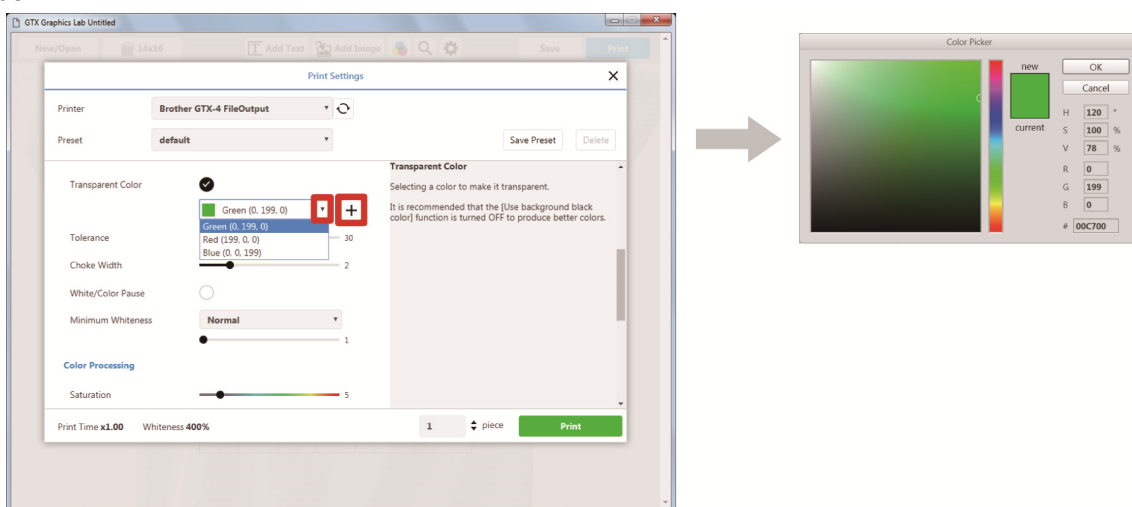
Transparent color

With this option, specify a color which is treated as a transparent color without using any color during the printing process. Perform the following procedures to make your setting.

<TIPS>

- RGB=255 is treated as "White". When treating RGB=255 as "Transparent color", using "GT Transparency" enables you to convert RGB=255 of image file to transparent. For details, please refer to "5-2-3. Using GT Transparency to set RGB=255 to "Transparent color" >>P.64".
- You would be better off making [Use background black color:] OFF to produce better colors.

- (1) Click the [Transparent Color:] checkbox.
Then, the pull-down menu for color selection becomes active.
- (2) In the pull-down menu, select a color which serves as a background color of T-shirt, or click "+" to specify a RGB value.



Tolerance

When the checkbox [Transparent Color:] is ON, setting items of [Tolerance:] will appear.

Specify the gradation range (RGB values) to smoothly connect the zone between "Unprinted color" and "Printed color" to be gradually changed in tone.

<TIPS>

- If this value is increased, the gradation range in which the mask white is generated from a state in which no mask white exists will increase.
- The gradation's image quality depends on image data. For this reason, it is advisable to perform a test printing beforehand.

Minimum white ink volume

When printing with [Color+White Ink], the volume of background white color ink for dark or black color ink can be controlled.

When printing with [Color+White Ink], you can increase the amount of the white ink volume used as the base in a dark area by specifying a larger value.

Selecting [Special] allows you to select a value of [3] or higher.

<TIPS>

- Larger the value, the more likely that blurring occurs.

White Ink Choke Width

This enables you to select the white ink choke width in such ten levels as [1] to [10]. When you increase this value, the choke width increases. By decreasing the print range of white ink, the white ink will be prevented from extending off from under the color inks.

<TIPS>

- Check the original image if white lines and/or dots are seen around the image, this may be caused by "Anti-alias" bitmap.
- There are instances in which fine lines (characters or photographs) will disappear if this level is increased. For this reason, it is advisable to perform a test printing beforehand.

White / Color Pause

Tiny images may become black when printed. When that occurs, print a white layer first and wait for a while (waiting time), to print the color layers.

<TIPS>

- Check this checkbox to activate it when you print a tiny image.

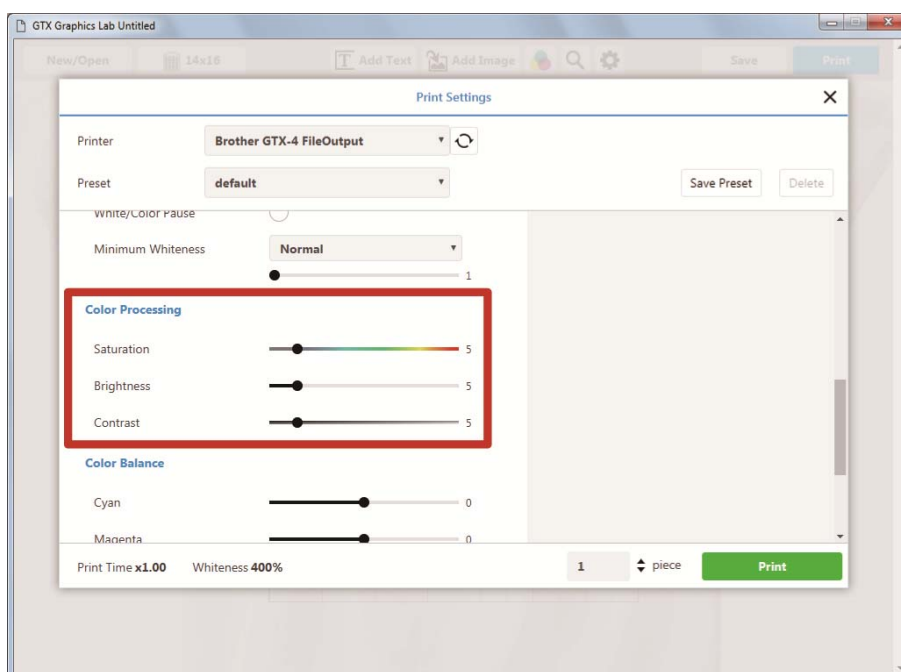
5-3-10. For GTX Graphics Lab: Color Processing

When you click on the [Show Advanced Settings...], the setup items of [Color Processing] will appear. In the [Color Processing] option, you can make settings for [Saturation:], [Brightness:] and [Contrast:]. Make adjustments to increase vividness, brightness and clarity of an image without using any functions of application software.

Setup item	Description
[Saturation:]	The more vivid the color is, the higher its value.
[Brightness:]	The brighter the color is, the higher its value.
[Contrast:]	Contrast makes the image lighter for lighter colors and darker for darker colors if its value increases.

<TIPS>

- If a value of [Contrast:] is increased, there may be some cases in which fine lines will disappear.
- For this reason, it is advisable to perform a test printing beforehand when you specify a higher value.



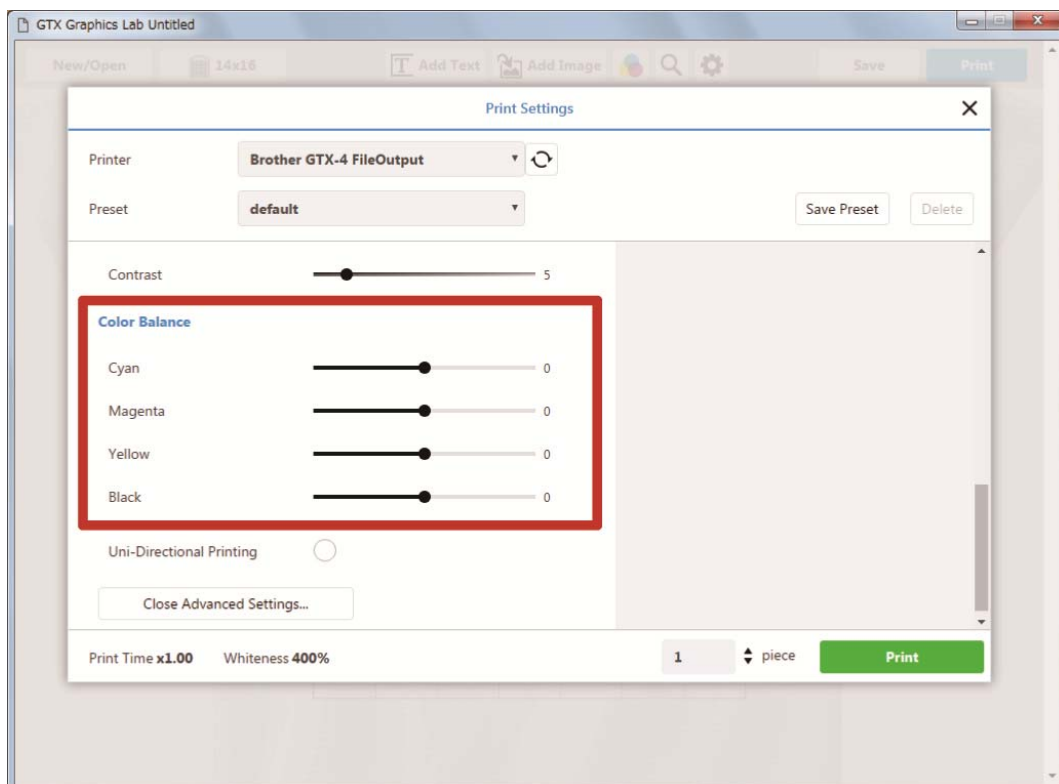
5-3-11. For GTX Graphics Lab: Color balance

When you click on the [Show Advanced Settings...], the setup items of [Color Balance] will appear. In the [Color Balance], you can make settings for [Cyan:], [Magenta:], [Yellow:], and [Black:]. You can adjust the color in 11 gradations, -5 to +5.

<TIPS>

- If you select [Black Ink Only] for ink selection, you can adjust [Black:] only.

Setup item	Description
[Cyan:]	Adjust the cyan ink volume. If you increase its value, the color becomes light bluish overall. If you decrease its value, the color becomes reddish overall.
[Magenta:]	Adjust the magenta ink volume. If you increase its value, the color becomes reddish-purple overall. If you decrease its value, the color becomes greenish overall.
[Yellow:]	Adjust the yellow ink volume. If you increase its value, the color becomes yellowish overall. If you decrease its value, the color becomes bluish overall.
[Black:]	Adjust the black ink volume. If you increase its value, the color becomes blackish overall. If you decrease its value, the color becomes whitish overall.

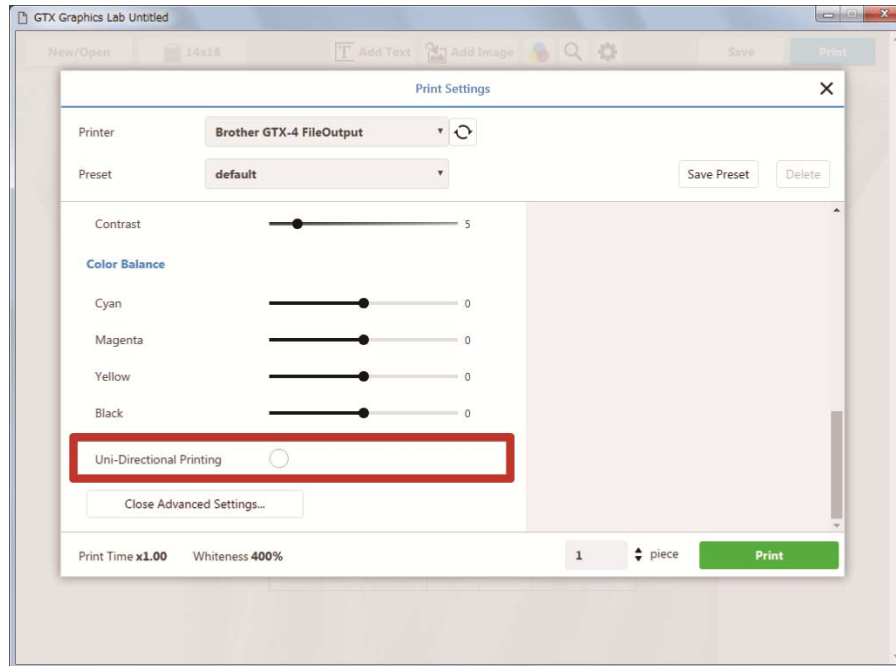


5-3-12. For GTX Graphics Lab: Specifying print direction

By clicking on the [Show Advanced Settings...], [Uni-Directional Printing] can be configured.

<TIPS>

- What you have specified on the printer's operation panel are prioritized, and this option becomes active only when the print direction specified on the printer side is set to [Auto].
- Print time will be doubled.



5-4. Creating print data from GTX Graphics Lab Basic

5-4-1. About GTX Graphics Lab Basic

GTX Graphics Lab Basic is the software application for creating and saving layout data and print data of the GTX-4 printer. It is operable on 32-bit PC. Its intuitive operation enables you to lay out images and create data. It is also able to create a layout data that contains the transparent information (α channel).

The GTX-4 printer driver must be installed beforehand for creating and saving print data.

<TIPS>

- The GTX Graphics Lab Basic allows only the output to GTX-4 print data (ARX4 file).
- Users of a 64-bit PC are recommended to use the GTX Graphics Lab. For details, refer to "5-2. Creating Print Data from GTX Graphics Lab >>P.62".

5-4-2. Specifications

About operating environment

Compatible OS	Windows 7 (32 bit), Windows 8.1 (32 bit), and Windows 10 (32 bit)
Min. operating environment	CPU with 2 GHz or above RAM with 4 GB or above
Display resolution	XGA (1024 x 768) or higher

About computer-readable image file format

In cases where an image data does not contain some transparent information	PNG, JPEG, BMP and GIF
In cases where an image data contains some transparent information	PNG only

<TIPS>

- The display screen images indicated on this document are those images that are commonly seen in Windows 7 operating environment. Please note, however, that they may vary depending on OS and use environment.

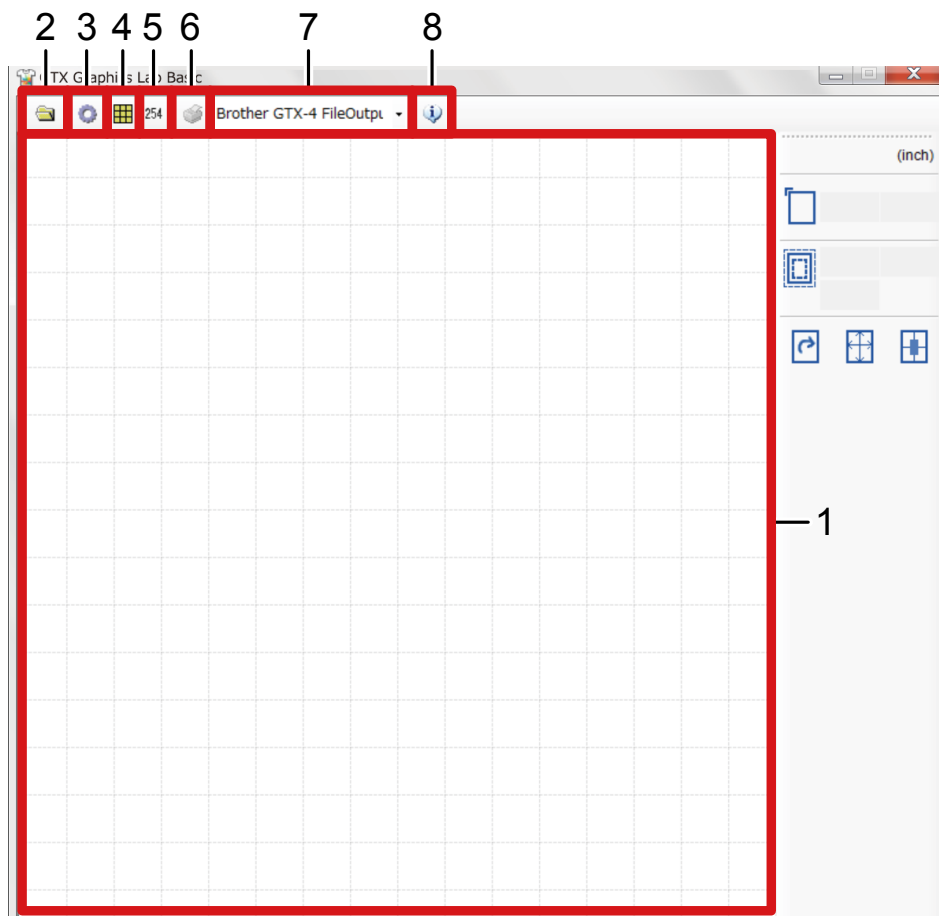
5-4-3. Activating GTX Graphics Lab Basic


When activating the GTX Graphics Lab Basic, from [All Programs] in the Start menu, select the "GTX Graphics Lab Basic" of "Brother GTX-4 Tools".






<TIPS>

- The display language corresponds to the language selected in installing the GTX-4 printer driver.

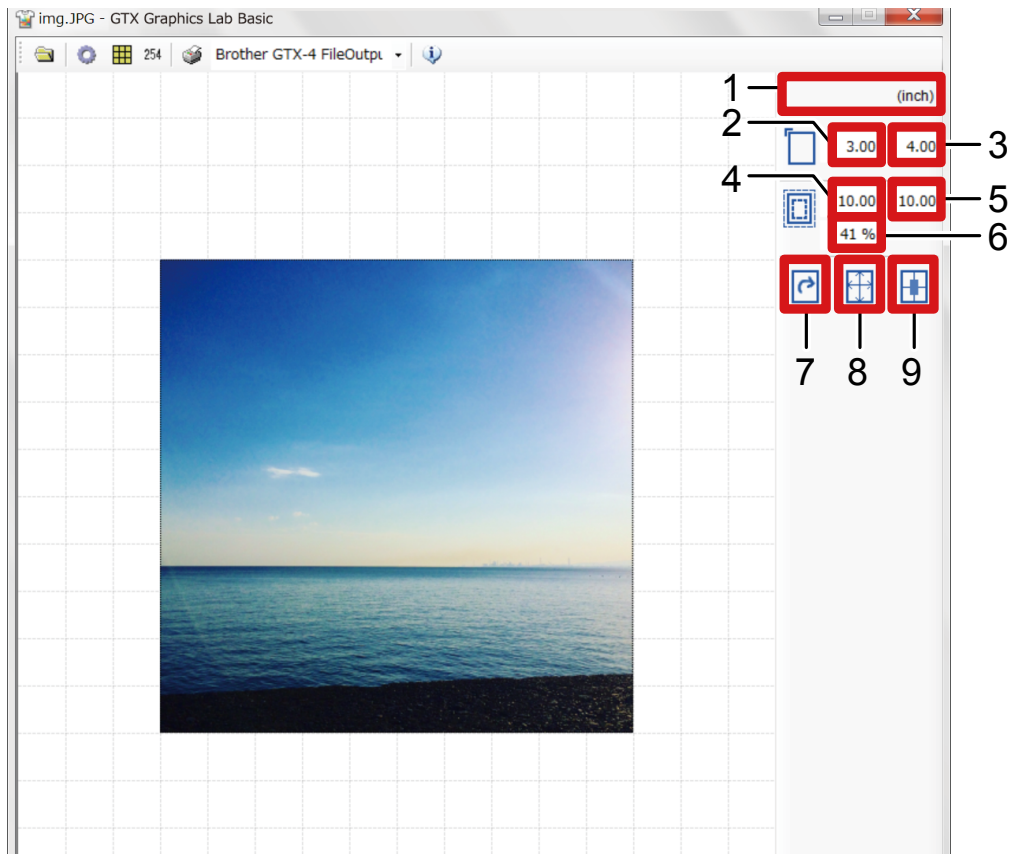
5-4-4. Structure of GTX Graphics Lab Basic screen










No.	Name	Function
1	Platen Frame	This varies according to the platen size set in the printer driver. The intervals between vertical and horizontal grid lines indicates 1 inch. At the time of printing, only such range that is clipped out by means of Platen Frame will be printed out.
2	Add Image 	With this function, select an image file, and dispose an image object in place by means of the Open button. The image formats that PDIP can read out are as follows: <ul style="list-style-type: none"> For image data that does not contain the transparent information: PNG, JPEG, BMP and GIF For image data that contains the transparent information: PNG only For details of the editing of image object, refer to "5-4-5. Editing images in GTX Graphics Lab Basic >>P.97". <TIPS> <ul style="list-style-type: none"> Only one image file is readable. Drag & Drop operation is also available to arrange image objects.

No.	Name	Function
3	Printing Preferences button 	<p>This button displays the screen for setting the printer driver. Referring to "5-6. Printer driver's setting from other applications >>P.122", conduct the necessary settings.</p> <p><TIPS></p> <ul style="list-style-type: none"> As the platen size is changed, the on-screen print area varies accordingly. GTX Graphics Lab Basic only enables the setting of [Number of prints]. Enter the value of 1 through 999 for the Number of prints. Pressing the [OK] on the printer driver setting screen will reflect the set value and guide you back to the edit screen. However, when any value out of the range of 1 through 999 is set in the [Number of prints], a corresponding error message appears and the screen returns to the printer driver setting screen.
4	Change T-shirt Background Color button 	Pressing this button enables you to change the background color of the T-shirt.
5	RGB=255 => 254 conversion button 	<p>When the checkbox is ON, the printer driver converts RGB=255 to 254 and then performs printing with white ink.</p> <p>When the checkbox is OFF, the printer driver treats RGB=255 as "Transparent color" and does not eject the ink.</p> <p><TIPS></p> <ul style="list-style-type: none"> This is enabled only when creating print data with [Color+White Ink] or [White Ink Only]. When printing with [Color Ink Only], RGB=255 is treated as "Transparent color".
6	Print button 	<p>This button sends a print data.</p> <p>Conduct the printer driver setting from the "Printing Preferences button", select a desired printer from the "Select Printer button", and then click the Print button.</p> <p><TIPS></p> <ul style="list-style-type: none"> In a state where any image data is not inserted, the Print button is not selectable.
7	Select Printer button	<p>From the pull-down menu, select a destination printer to send print data.</p> <p>If "Brother GTX-4" is selected, the print data will be sent to the printer.</p> <p>If "Brother GTX-4 FileOutput" is selected, the print data will be saved as an ARX4 file.</p>
8	Information button 	This button allows you to confirm the version information of the GTX Graphics Lab Basic.

5-4-5. Editing images in GTX Graphics Lab Basic



No.	Name	Function
1	Switch Units button	This button allows you to switch to select the unit between inch and cm.
2	Horizontal Position 	With the leftmost part of Platen Frame set to 0, this function enables you to display and change a horizontal position of an object. When you drag the central portion of the object to move it elsewhere, the corresponding value changes accordingly. The maximum value that can be entered is 100.00 in. (254.00 cm), and the minimum value is -100.00 in. (-254.00 cm).
3	Vertical Position 	With the uppermost part of Platen Frame set to 0, this function enables you to display and change a vertical position of an object. When you drag the central portion of the object to move it elsewhere, the corresponding value changes accordingly. The maximum value that can be entered is 100.00 in. (254.00 cm), and the minimum value is -100.00 in. (-254.00 cm).
4	Image Width 	By specifying the width, you can change the image size. Even when you change the image height or enlargement ratio and when you drag the end of the object to change its size, the corresponding value changes accordingly. The maximum value is 100.00 in. (254.00 cm), and the minimum value is 0.10 in. (0.25 cm). A unit for the values is the one specified by the Switch Units button.

No.	Name	Function
5	Image Height 	<p>By specifying the height, you can change the image size. Even when you change the image width or enlargement ratio and when you drag the end of the object to change its size, the corresponding value changes accordingly.</p> <p>The maximum value is 100.00 in. (254.00 cm), and the minimum value is 0.10 in. (0.25 cm).</p> <p>A unit for the values is the one specified by the Switch Units button.</p>
6	Image enlargement ratio	<p>By specifying the enlargement ratio, you can change the image size. Even when you change the image width or image height and when you drag the end of the object to change its size, the corresponding value changes accordingly.</p> <p>The maximum value is 100.00 in. (254.00 cm), and the minimum value is 0.10 in. (0.25 cm).</p>
7	Rotation 	Rotates an image clockwise by 90 degree.
8	Fit to print area 	Enlarge the image to the full of the print area and arrange it at the center of print area in both vertical and horizontal directions.
9	Centering 	This function positions an object at the center of print area in both vertical and horizontal directions.

5-4-6. Creating print data (ARX4 file) from GTX Graphics Lab Basic

Save the image data and print settings as a set of print data in ARX4 file format.

The following will be made available if the print data is converted into an ARX4 file:

- Image data and print settings can be put together and stored.
- Without connection to PC, the printing can be performed directly from a USB flash memory.

<TIPS>

- For details of directly sending data to Printer from GTX Graphics Lab Basic, refer to "6-6-3. Sending print data from GTX Graphics Lab Basic >>P.189".

(1) GTX Graphics Lab Basic is used to layout images.

(2) Click the "Printing Preferences button" to make your settings of printer driver.

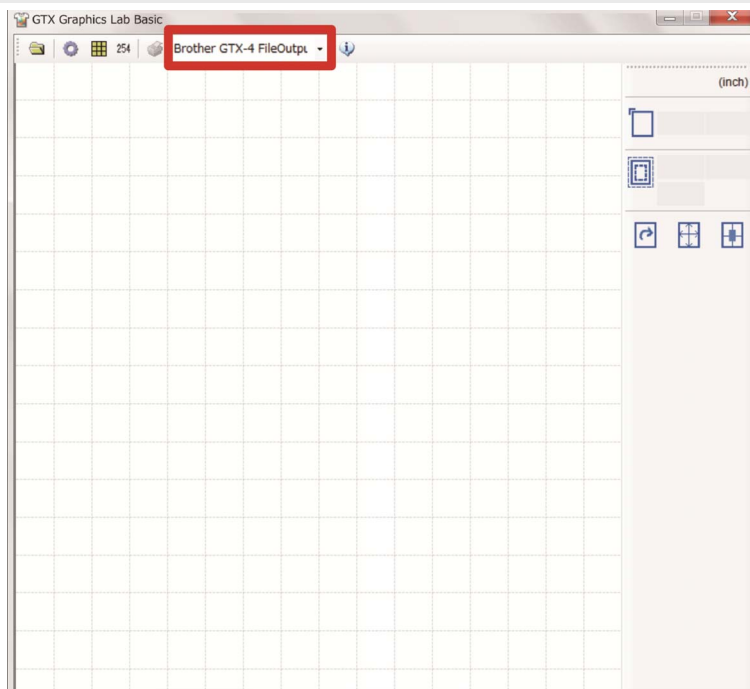
<TIPS>

- For details of the printer driver's setting procedures, refer to "5-6. Printer driver's setting from other applications >>P.122".
- Old version of printer driver may display an error [A driver of corresponding version is not found. (-1001)]. If so, please update the driver to the newest version.

(3) From "Select Printer button", select "Brother GTX-4 FileOutput" for file output.

<TIPS>

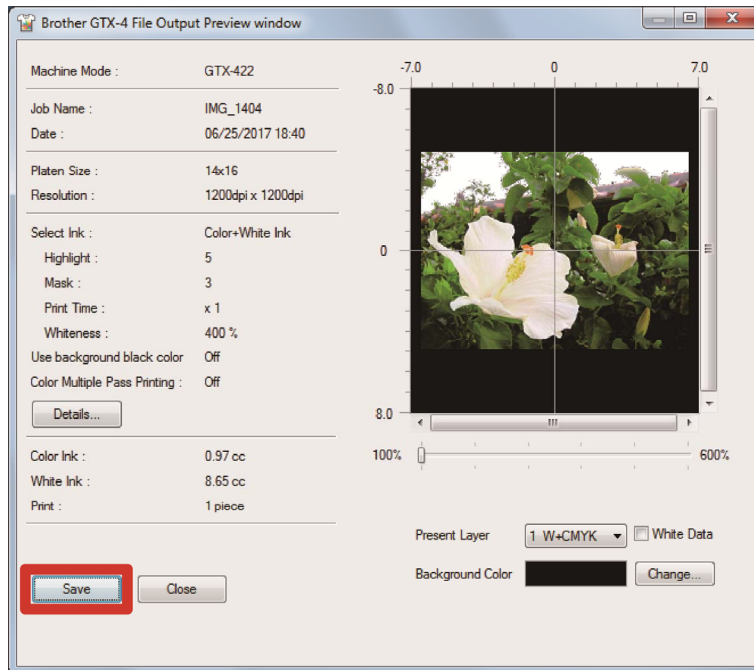
- If "Brother GTX-4" is selected, the print data will be sent to the printer.
If "Brother GTX-4 FileOutput" is selected, the print data will be saved as an ARX4 file.



- (4) When you click "Print button", the dialog box shown below will be displayed on the screen. After that, click [Save].

<TIPS>

- There may be cases where this saving process takes several minutes.



- (5) Specify the [Save In] and [File name] first, then click [Save] to save the ARX4 file to your PC.

5-5. Creating print data from other applications

5-5-1. CorelDRAW

In CorelDRAW, configure the required settings for the following items:

- Color setting
- Print size

As required, perform the following procedures:

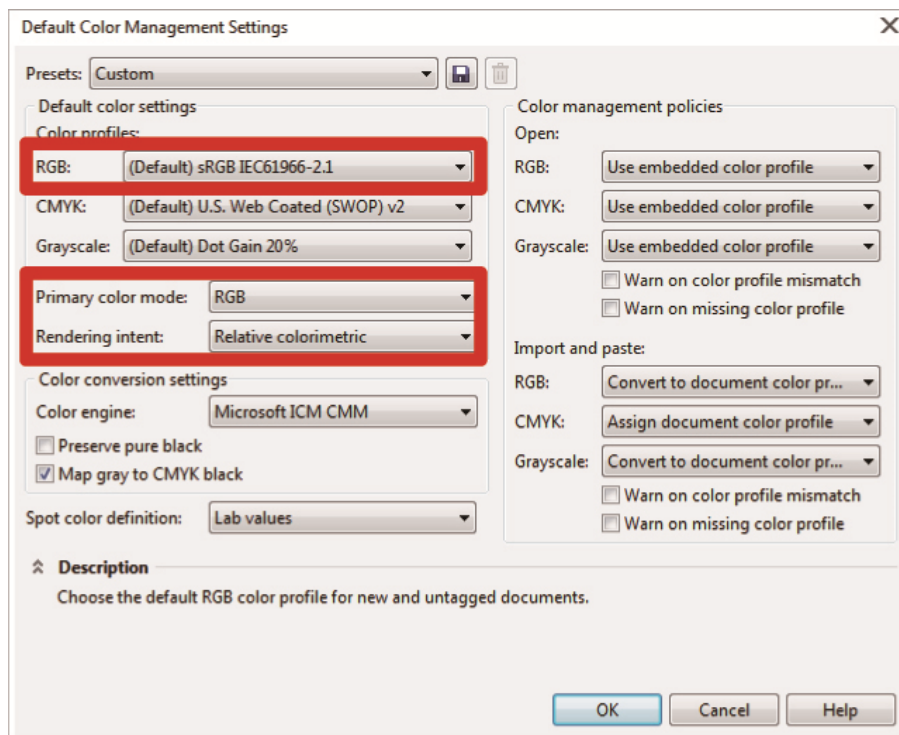
- Create print data (ARX4 file)
- What to do when using the color palette in Useful Tools
- What to do when converting data to bitmap image data
- What to do when replacing RGB=255 in bitmap image data with RGB=254

<TIPS>

- For this printer, it is recommendable to use CorelDRAW X7/X8. The display screen is described in CorelDRAW X7.

Color setting

- (1) In the menu bar, select the [Tools] > [Color Management] > [Default Settings].
- (2) Establish the settings of [Default Color Management Settings] as follows:
 - [RGB]: [sRGB IEC61966-2.1]
 - [Primary color mode]: [RGB]
 - [Rendering intent]: [Relative colorimetric]

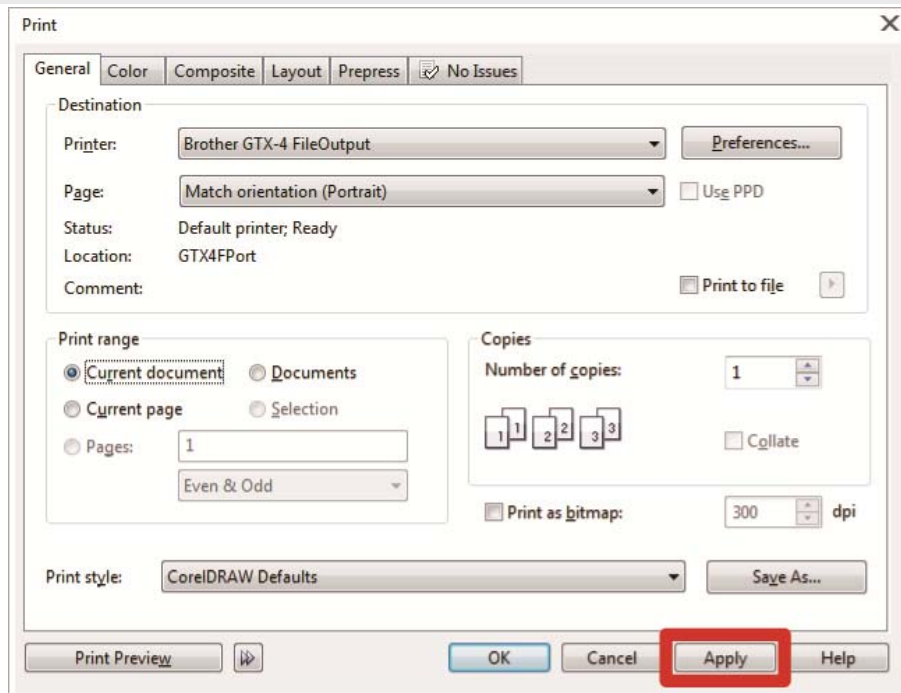


Print size

- (1) In the menu bar, select [File] > [Print].
- (2) Set the [Printer] to either "Brother GTX-4" or "Brother GTX-4 FileOutput", click on [Apply], and close the [Print] dialog box.

<TIPS>

- If [Printer] is set to "Brother GTX-4", the print data at the time of printing will be sent to the printer.
If [Printer] is set to "Brother GTX-4 FileOutput", the print data at the time of printing will be saved as an ARX4 file.



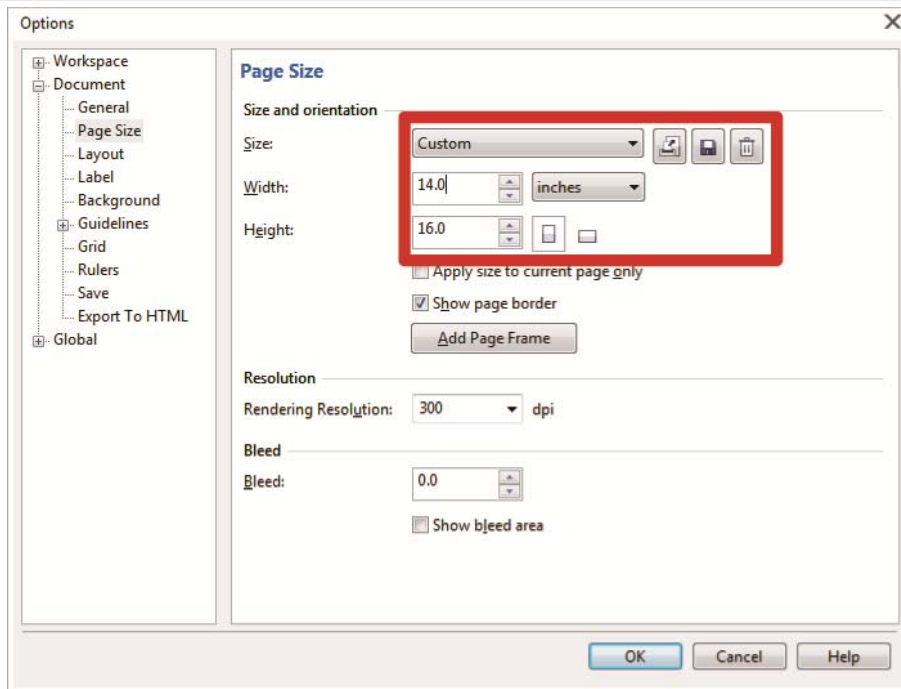
- (3) In the menu bar, select [Layout] > [Page Layout].

(4) Make the following settings in the [Page Size] window:

- [Size]: [Custom]
- [Width]: 14.0 in. (355.6 mm)
- [Height]: 16.0 in. (406.4 mm)
- Page orientation: Portrait

<TIPS>

- Set the width and height to the size of platen to be used. The above size is the standard 14X16 platen size. For details of platen size's numeric values, refer to "5-6-1. For other applications: Selection of platen size >>P.124".



Create print data (ARX4 file)

Save the image data and print settings as a set of print data in ARX4 file format.

The following will be made available if the print data is converted into an ARX4 file:

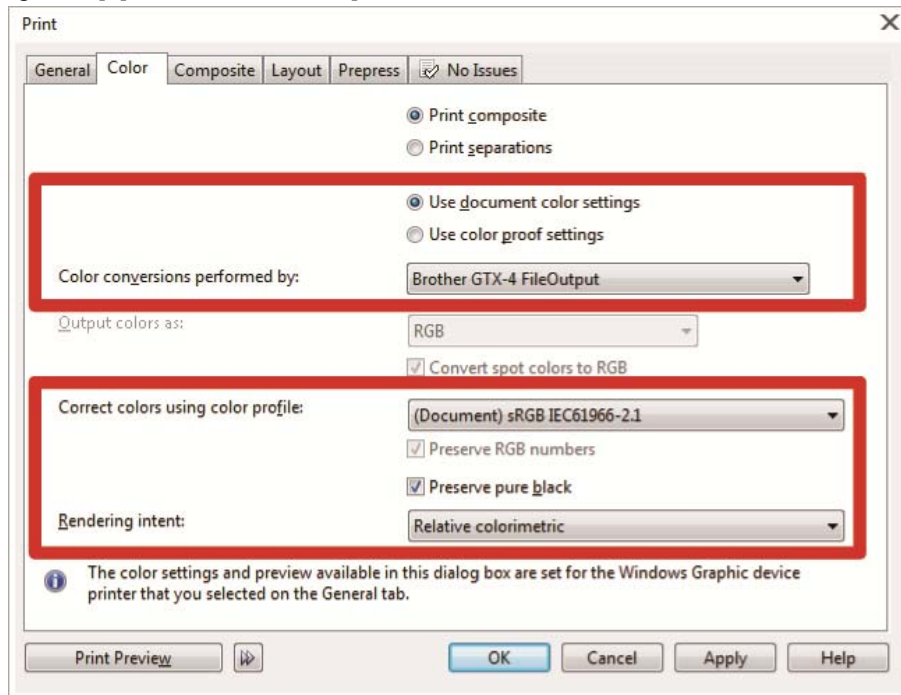
- Image data and print settings can be put together and stored.
- Without connection to a PC, the printing can be performed directly from a USB flash memory unit.

<TIPS>

- Image editing is unavailable for any ARX4 file. As such, save your image data for an editing purpose in advance.
- For file output, there are some cases where neither file output destination nor extension cannot be specified by the [Print to file] command. Be sure to use the printer driver "Brother GTX-4 FileOutput".
- For details of directly sending data to the Printer from an application, refer to "6-6-4. Sending print data from other applications >>P.191".

(1) In the menu bar, select [File] > [Print].

- (2) Open the [Color] tab, and make the following settings:
- Place a checkmark in the [Use document color settings] checkbox.
 - [Color conversions performed by]: "Brother GTX-4" or "Brother GTX-4 FileOutput"
 - [Correct colors using color profile]: [sRGB IEC61966-2.1]
 - [Rendering intent]: [Relative colorimetric]



- (3) On [General] tab, select [Printer] and select "Brother GTX-4 FileOutput" for file output.

<TIPS>

- If the specified [Printer] is set to "Brother GTX-4", the print data will be sent to the printer.
If the specified [Printer] is set to "Brother GTX-4 FileOutput", the print data will be saved as an ARX4 file.

- (4) On [Preferences], create your settings of printer driver.

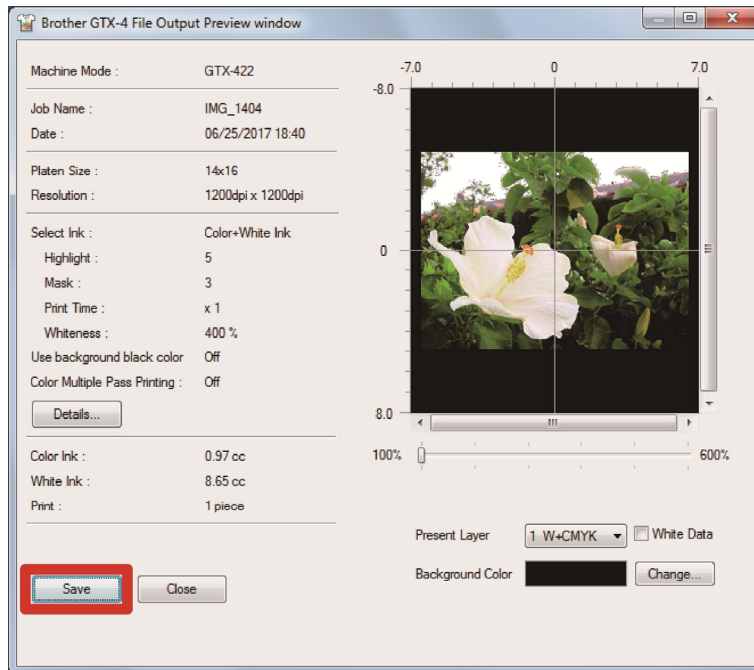
<TIPS>

- For details, refer to "5-6. Printer driver's setting from other applications >>P.122".

- (5) When you press [OK] in the [Print] dialog box, the dialog box shown below will be displayed. After that, click [Save].

<TIPS>

- There may be cases where this saving process takes several minutes.



- (6) Specify the [Save In] and [File name] first, then click [Save] to save the ARX4 file to your PC.

What to do when using the color palette in Useful Tools

- (1) Follow "5-7-1. Color palette for Adobe Photoshop, Photoshop Elements, Illustrator and CoreIDRAW >>P.138" to save the color palette files ("GT_Colors.xml" and "GT_Tshirts.xml") for CoreIDRAW on your PC.
- (2) In the menu bar, select [Window] > [Color Palettes] > [Open Palette].
- (3) Select the files having such filename as "GT_Colors.xml" and "GT_Tshirts.xml", respectively.

<TIPS>

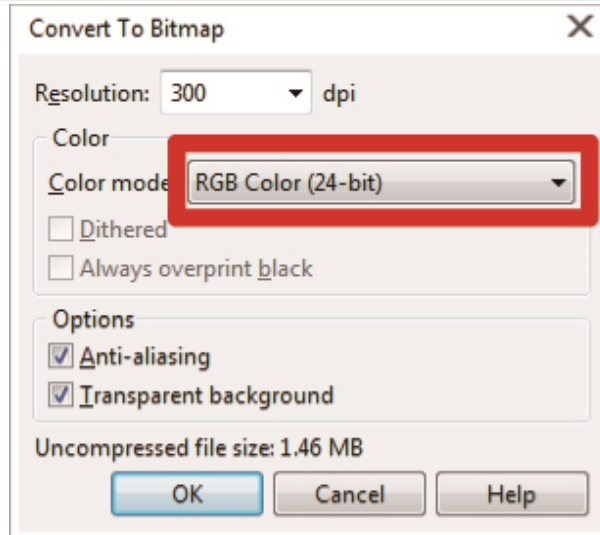
- Do not use any color from the color sample palette, such as HKS and Pantone. Otherwise, an on-screen color may differ from the resulting print color.

What to do when converting data to bitmap image data

- (1) In the menu bar, select [Bitmaps] > [Convert To Bitmap].
- (2) Set the [Color mode] to [RGB Color].

<TIPS>

- When the white ink is used for performing the printing, unmark the [Anti-aliasing] checkbox.



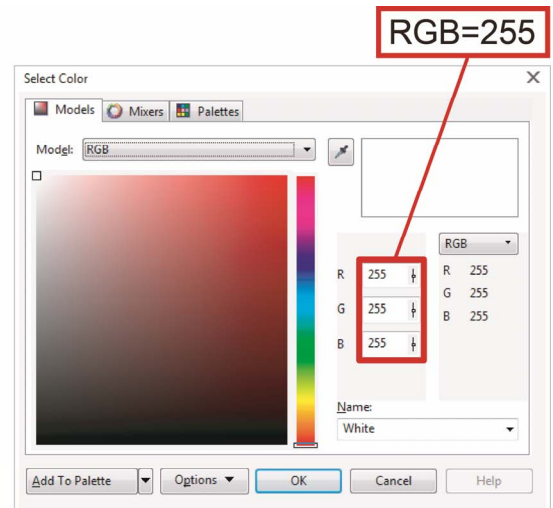
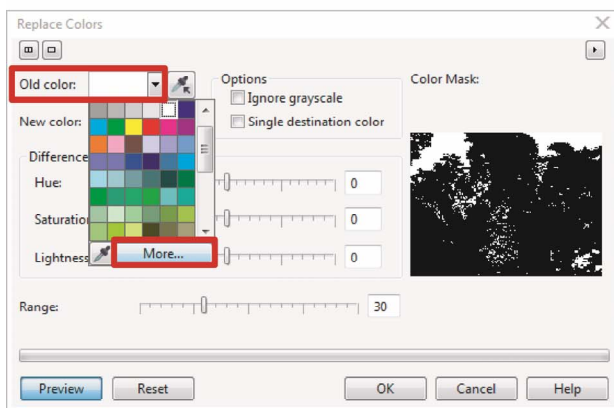
<TIPS>

- Even when the platen size to be used has been selected from the printer driver, the current setting in [Page Layout] may change to [Settings from printer].
In the [Page Layout], be sure to change the width and the height according to the size of the platen.

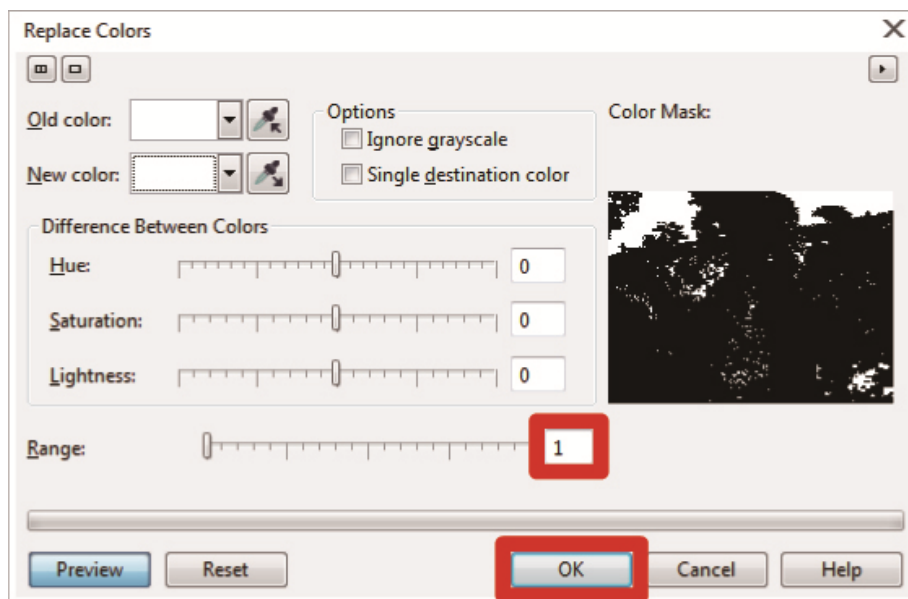
What to do when replacing RGB=255 in bitmap image data with RGB=254

RGB=255 is identified as a transparent color. In a portion where RGB=255 is contained, no ink will be ejected. In order for the white ink to be printed, select an area for RGB=255, and replace it with RGB=254. To make such replacement, use the method mentioned below.

- (1) In the menu bar, select [Effects] > [Adjust] > [Replace Colors].
- (2) From the [Old color] pull-down menu, click [More] to set RGB=255 in [Select Color].



- (3) In the same manner, set [New color] to RGB=254.
- (4) Set [Range] to "1", and click on the [OK] button.



<TIPS>

- For the vector data, change the fill color to RGB=254.

5-5-2. Adobe Photoshop

In Photoshop, configure the settings mentioned below:

- Color setting

As required, perform the following procedures:

- Create print data (ARX4 file)
- What to do when using the color palette in Useful Tools
- What to do when replacing RGB=255 with RGB=254

<TIPS>

- For an image created in the CMYK color mode, select [Image] > [Mode] in the menu bar, and change the color to the RGB color (sRGB). In order to edit an image, select [Image] > [Adjustments] in the menu bar and edit it, or edit it by means of the image quality improvement of the printer driver (Refer to "5-6-9. For other applications: Color Processing >>P.135").
- For this printer, it is recommended to use Photoshop CS6/CC. The display screen is described in Photoshop CC.

Color setting

(1) In the menu bar, select [Edit] > [Color Settings].

(2) Establish the settings of [Color Settings] as follows:

[Working Spaces]

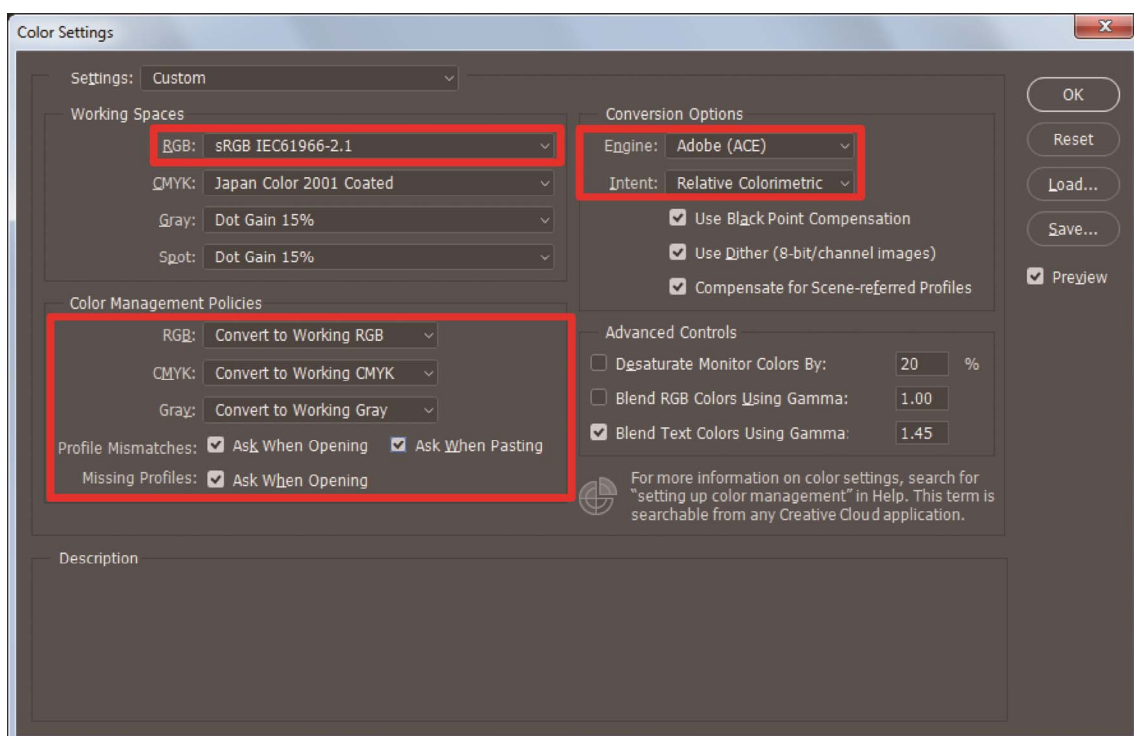
- [RGB]: [sRGB IEC61966-2.1]

[Conversion Options]

- [Engine]: [Adobe(ACE)]
- [Rendering Intent]: [Relative Colorimetric]

[Color Management Policies]

- [RGB]: [Convert to Working RGB]
- [CMYK]: [Convert to Working CMYK]
- [Gray]: [Convert to Working Gray]
- [Profile Mismatches]: Mark the [Ask When Opening] and [Ask When Pasting] checkboxes.
- [Missing profiles]: Mark the [Ask When Opening] checkbox.



Create print data (ARX4 file)

Save the image data and print settings as a set of print data in ARX4 file format.

The following will be made available if the print data is converted into an ARX4 file:

- Image data and print settings can be put together and stored.
- Without connecting to a PC, the printing can be performed directly from a USB flash memory.

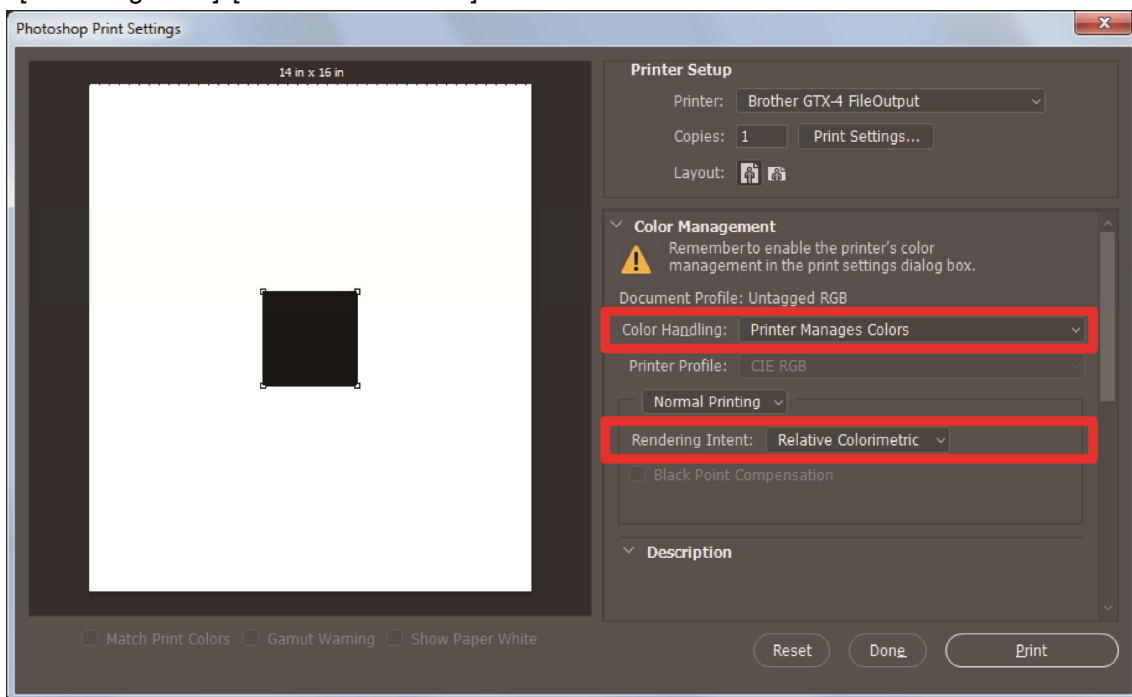
<TIPS>

- Image editing is unavailable for any ARX4 file. As such, save your image data for an editing purpose in advance.
- For file output, there are some cases where neither file output destination nor extension cannot be specified by the [Print to file] command. Be sure to use the printer driver "Brother GTX-4 FileOutput".
- For details of directly sending data to the Printer from an application, refer to "6-6-4. Sending print data from other applications >>P.191".

(1) In the menu bar, select [File] > [Print]. If the PC's default printer is either "Brother GTX-4" or "Brother GTX-4 FileOutput", the layout is set to the platen size.

(2) Make the settings as follows:

- [Color Handling]: [Printer Manages Colors]
- [Rendering Intent]: [Relative Colorimetric]



(3) From [Printer], select "Brother GTX-4 FileOutput" for file output.

<TIPS>

- If [Printer] is set to "Brother GTX-4", the print data will be sent to the printer.
If [Printer] is set to "Brother GTX-4 FileOutput", the print data will be saved as an ARX4 file.

(4) On [Print Settings], make your settings for the printer driver.

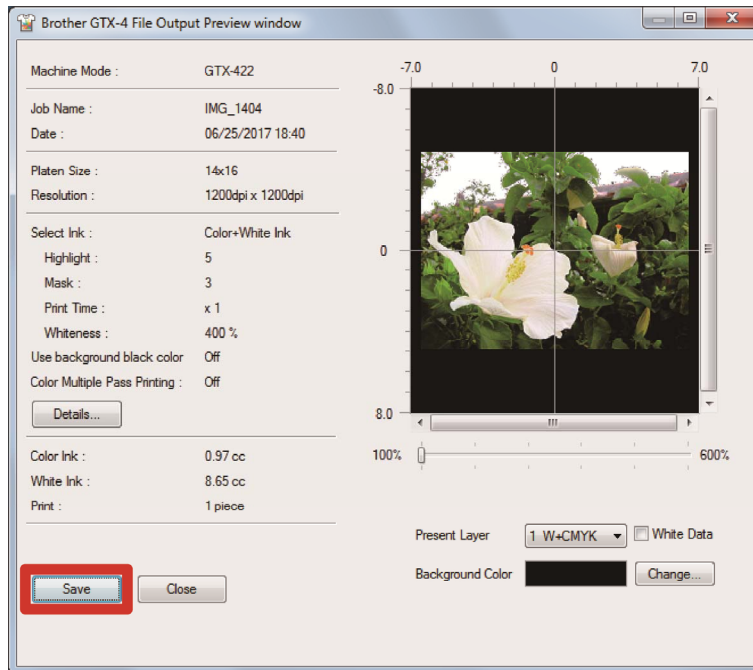
<TIPS>

- For setting details, refer to "5-6. Printer driver's setting from other applications >>P.122".

- (5) When you press [Print], the dialog box shown below will be displayed on the screen. After that, click [Save].

<TIPS>

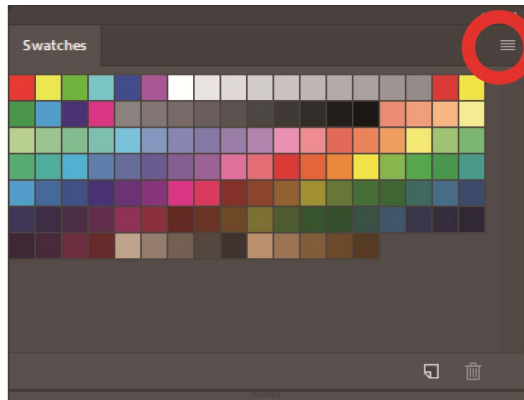
- There may be cases where this saving process takes several minutes.



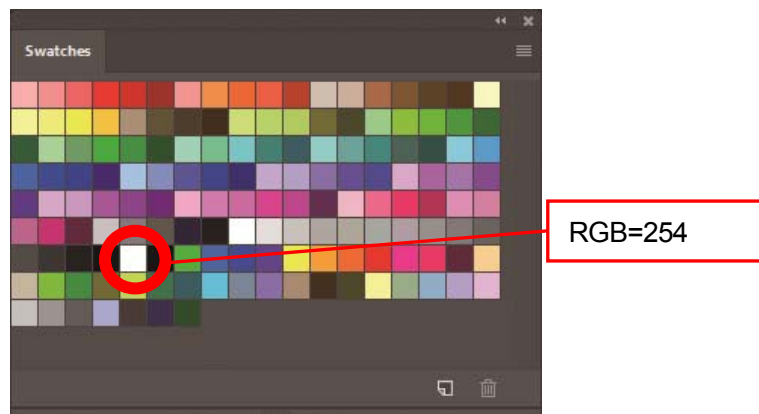
- (6) Specify the [Save In] and [File name] first, then click [Save] to save the ARX4 file to your PC.

What to do when using the color palette in Useful Tools

- (1) Follow "5-7-1. Color palette for Adobe Photoshop, Photoshop Elements, Illustrator and CorelDRAW >>P.138" to save the color palette file for Photoshop "GT_Colors_T.ase" on your PC.
- (2) In the menu bar, select [Window] > [Swatches].
- (3) Click on the ▼☰ to open the submenu.



- (4) From [Replace Swatches], select [Swatch Exchange (*.ASE)] for the type of file and then select the file name [GT_Colors_T.ase].



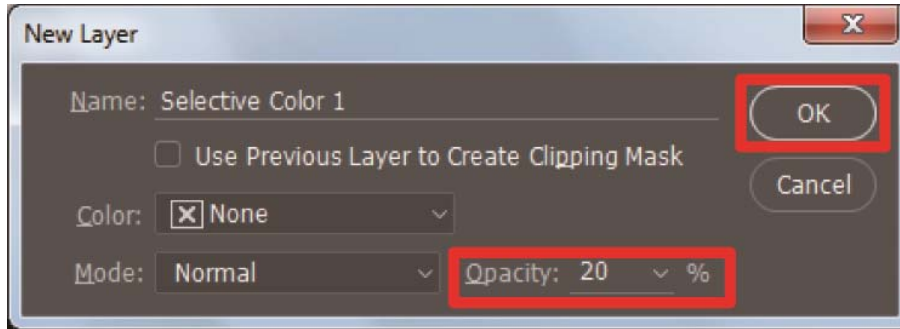
<TIPS>

- Do not use any color from the color sample palette, such as HKS and Pantone. Otherwise, an on-screen color may differ from the resulting print color.

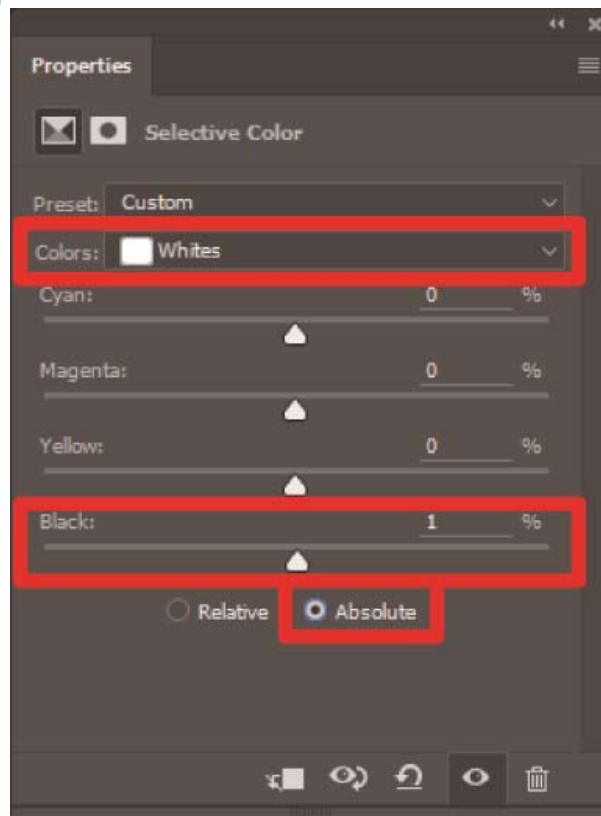
What to do when replacing RGB=255 with RGB=254

RGB=255 is identified as a transparent color. To a portion where RGB=255 is contained, no ink will be ejected. In order for the white ink to be printed, select an area for RGB=255, and replace it with RGB=254. To make such replacement, use the method mentioned below.

- (1) On the menu bar, select [Layer] > [New Adjustment Layer] > [Selective Color], and create a new layer.
- (2) Set the opacity to 20%, and click [OK].



- (3) From the [Selective Color], make the following settings:
 - [Colors]: [Whites]
 - [Black]: 1%
 - Mark the [Absolute] option



<TIPS>

- The method to replace RGB=255 with RGB=254 as shown above can be used only when the [Color mode] is set to [8 bit] of [RGB Color].
- For Photoshop, the action file "SolidWhite.atn" is made available in Useful Tools, which changes RGB=255 to RGB=254 (Refer to "5-7-2. Action file for Photoshop >>P.138"). For how to use it, refer to the Help feature that Photoshop is provided with.

5-5-3. Adobe Illustrator

In Illustrator, perform the required procedures mentioned below:

- Color setting
- Open a new file

As required, perform the following procedures:

- Create print data (ARX4 file)
- What to do when using the color palette in Useful Tools

<TIPS>

- Take one of the actions mentioned below, in order to avoid such troubles that no image data is inserted into the print range or part of image data is cut off.
 - Before start-up, specify the PC's default printer as the "Brother GTX-4" or the "Brother GTX-4 FileOutput".
 - Use the "Brother GTX-4 FileOutput" printer driver to output a file, then display and check the print preview.
- For an image created in CMYK color mode, load the image into Photoshop, select [Image] > [Mode] in the menu bar, and change the color to the RGB color (sRGB). In order to edit an image, load the image into the Photoshop, edit it in the form of bitmap data, or edit it by means of the image quality improvement of printer driver (Refer to "5-6-9. For other applications: Color Processing >>P.135").
- For this printer, it is recommended to use Illustrator CS6/CC. The display screen is described in Illustrator CC.

Color setting

- (1) In the menu bar, select [Edit] > [Color Settings].
- (2) Click on the [More Options].
- (3) Ensure selection of the settings as mentioned below, and click [OK].

- [Settings]: [Custom]

[Working Spaces]

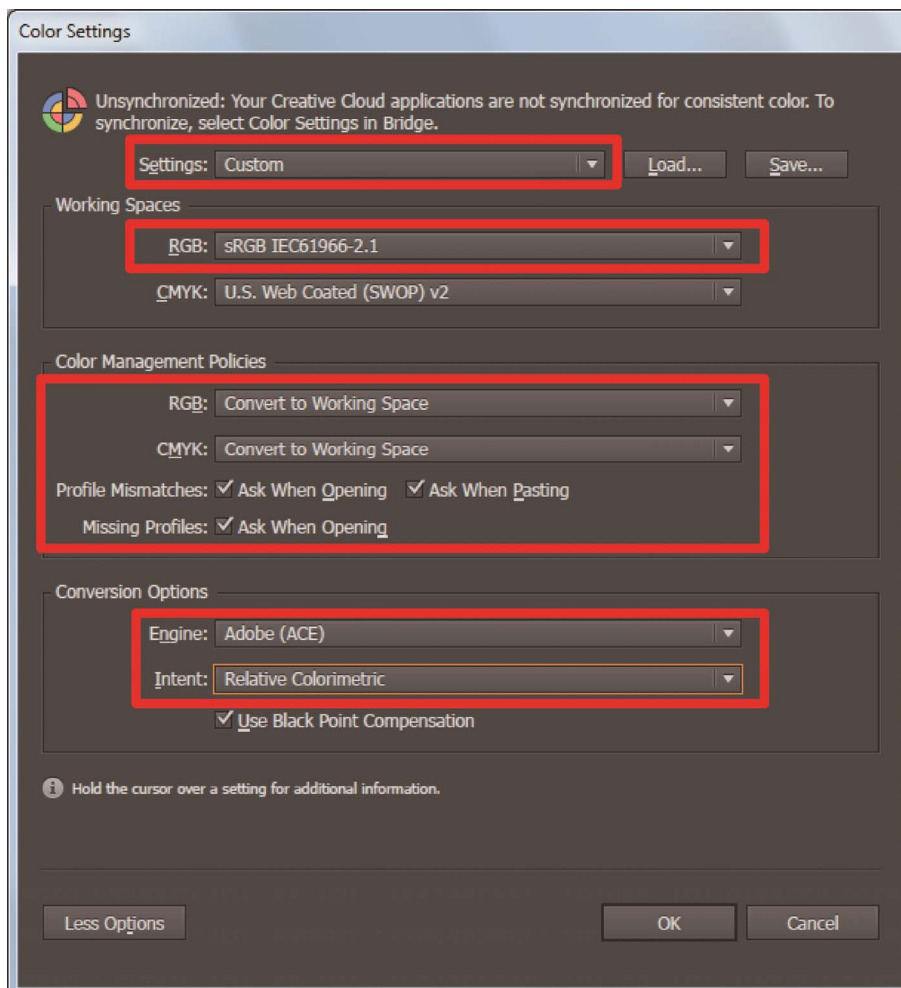
- [RGB]: [sRGB IEC61966-2.1]

[Color Management Policies]

- [RGB]: [Convert to Working Space]
- [CMYK]: [Convert to Working Space]
- [Profile Mismatches]: Mark the [Ask When Opening] and [Ask When Pasting] checkboxes.
- [Missing profiles]: Mark the [Ask When Opening] checkbox.

[Conversion Options]

- [Engine]: [Adobe(ACE)]
- [Rendering Intent]: [Relative Colorimetric]



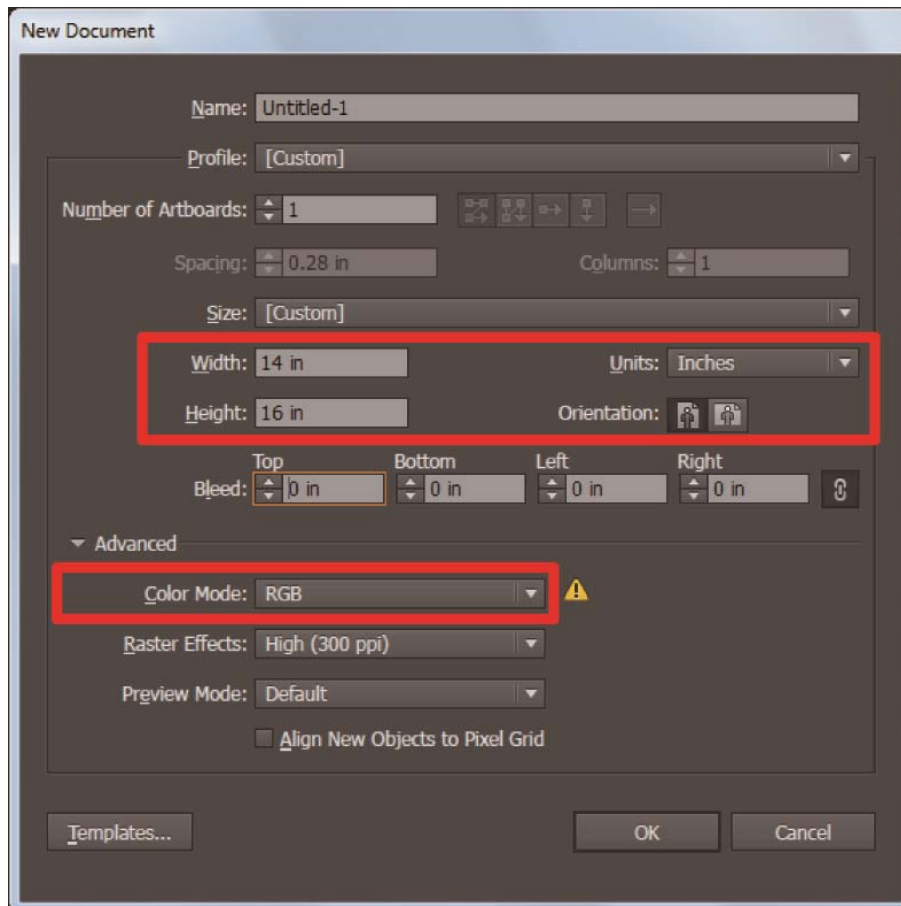
Open a new file

(1) Set up a new document as follows:

- [Width]: 14.0 in. (355.6 mm)
- [Height]: 16.0 in. (406.4 mm)
- [Orientation]: Portrait
- [Color Mode]: [RGB]

<TIPS>

- Set the width and height to the size of platen to be used. The above size is the standard 14X16 platen size. For details of platen size's numeric values, refer to "5-6-1. For other applications: Selection of platen size >>P.124".



Create print data (ARX4 file)

Save the image data and print settings as a set of print data in ARX4 file format.

The following will be made available if the print data is converted into an ARX4 file:

- Image data and print settings can be put together and stored.
- Without connecting to a PC, the printing can be performed directly from a USB flash memory.

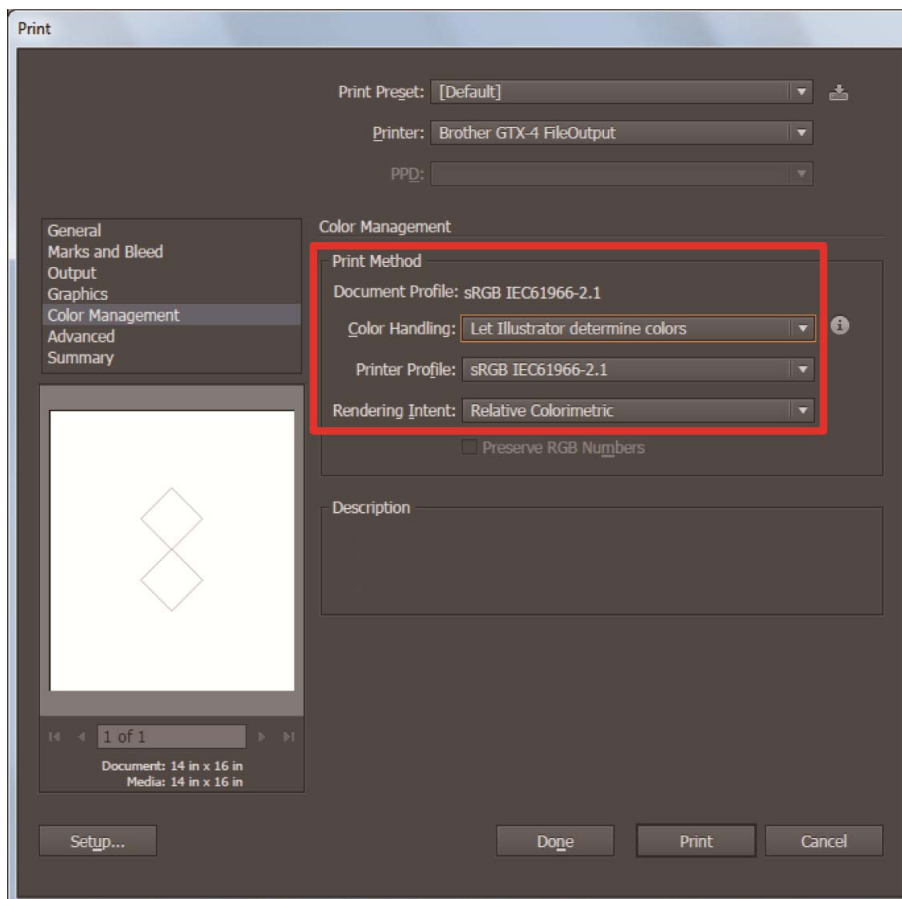
<TIPS>

- Image editing is unavailable for any ARX4 file. As such, save your image data for an editing purpose in advance.
- For file output, there are some cases where neither file output destination nor extension cannot be specified by the [Print to file] command. Be sure to use the printer driver "Brother GTX-4 FileOutput".
- For details of directly sending data to the Printer from an application, refer to "6-6-4. Sending print data from other applications >>P.191".

(1) In the menu bar, select [File] > [Print] > [Color Management].

(2) Make the settings as follows:

- [Document Profile]: [sRGB IEC61966-2.1]
- [Color Handling]: [Let Illustrator determine colors]
- [Printer Profile]: [sRGB IEC61966-2.1]
- [Rendering Intent]: [Relative Colorimetric]



- (3) From [Printer], select "Brother GTX-4 FileOutput" for file output.

<TIPS>

- If [Printer] is set to "Brother GTX-4", the print data will be sent to the printer.
If [Printer] is set to "Brother GTX-4 FileOutput", the print data will be saved as an ARX4 file.

- (4) On the [Advanced], make your settings for the printer driver.

<CAUTION>

- For Adobe Illustrator, set the platen size for the paper size in the Print dialog box in the application. The size or placement of the image may not be set correctly if you make settings in the Print Settings dialog.

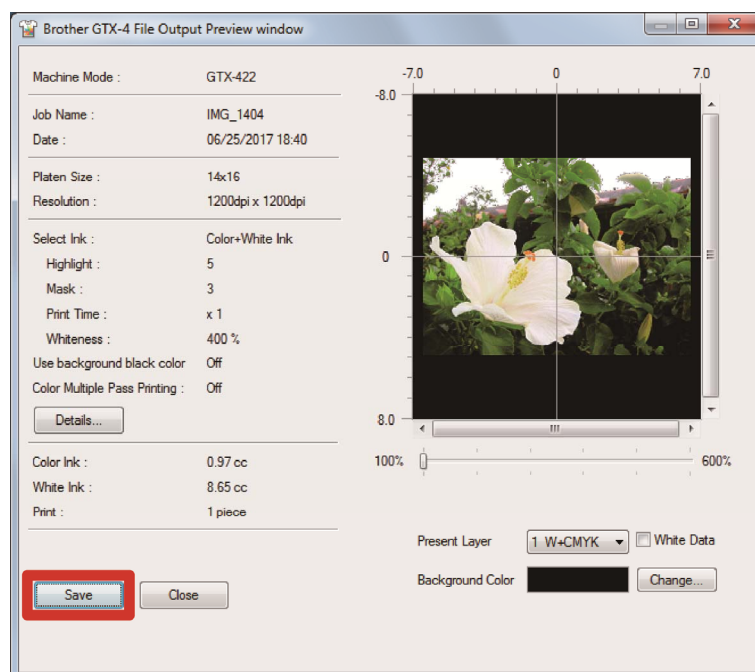
<TIPS>

- For setting details, refer to "5-6. Printer driver's setting from other applications >>P.122".

- (5) When you press [Print], the dialog box shown below will be displayed on the screen. After that, click [Save].

<TIPS>

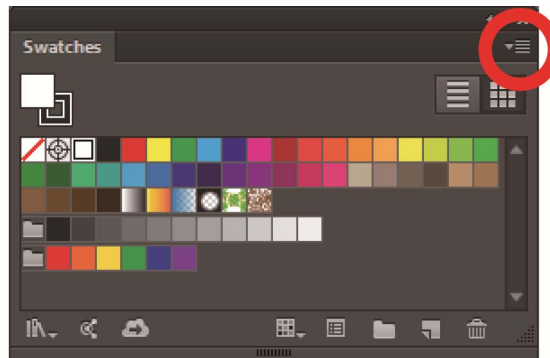
- There may be cases where this saving process takes several minutes.



- (6) Specify the [Save In] and [File name] first, then click [Save] to save the ARX4 file to your PC.

What to do when using the color palette in Useful Tools

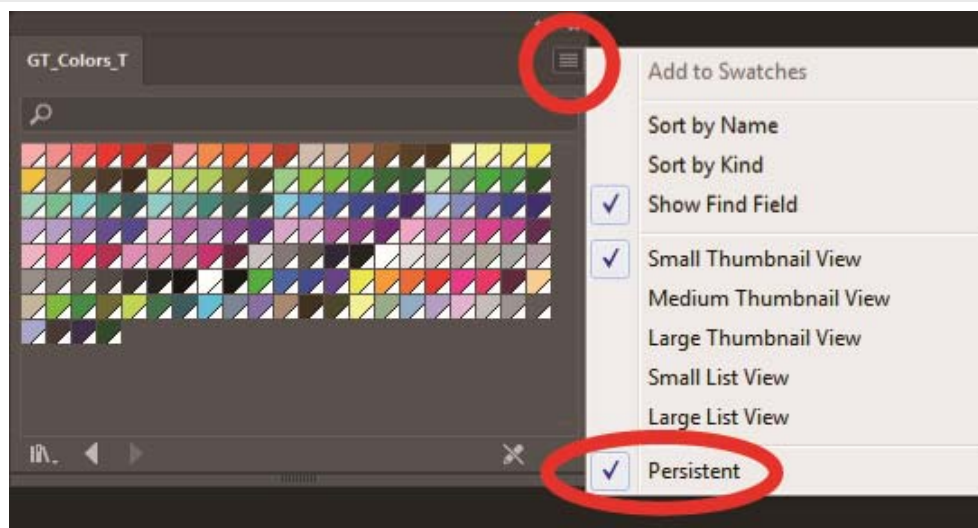
- (1) Follow "5-7-1. Color palette for Adobe Photoshop, Photoshop Elements, Illustrator and CoreDRAW >>P.138" to save the color palette file "GT_Colors_T.ase" for Illustrator on your PC.
- (2) In the menu bar, select [Window] > [Swatches].
- (3) Click on the ▼☰, and select [Open Swatch Library] from the submenu.
- (4) Select [Other Library].



- (5) On the [Open] screen, select the file having such filename as "GT_Colors_T.ase".

<TIPS>

- Unlike the Photoshop or CoreDRAW, this Swatch needs to be selected each time a file is opened. However, you can fix the Swatch library in the following method to display the screen automatically whenever you start the application if you are using Illustrator CC. Click ▼☰ on the top right corner of the Swatch library and select [Fix] from the submenu.



5-5-4. Adobe Photoshop Elements

In Photoshop Elements, make the setting mentioned below:

- Color setting

As required, perform the following procedures:

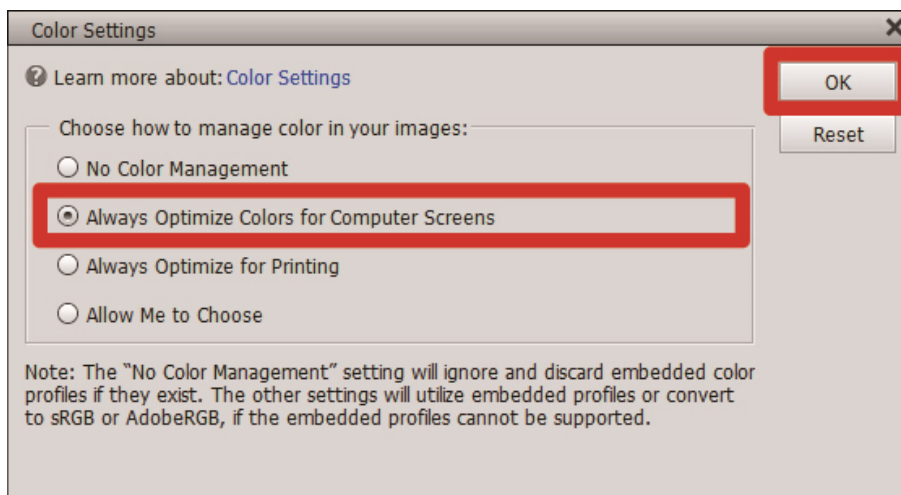
- Create print data (ARX4 file)
- What to do when using the color palette in Useful Tools

<TIPS>

- For this printer, it is recommendable to use Photoshop Elements 14/15. The display screen is described in the Photoshop Elements 15.

Color setting

- (1) In the menu bar, select [Edit] > [Color Settings].
- (2) In the [Color Settings] window, select the [Always Optimize Colors for Computer Screens], and click [OK].



Create print data (ARX4 file)

Save the image data and print settings as a set of print data in ARX4 file format.

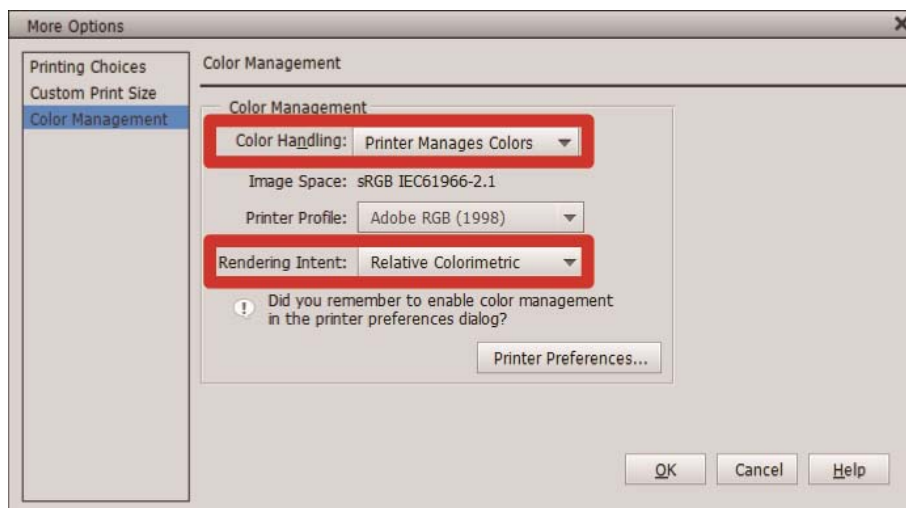
The following will be made available if the print data is converted into an ARX4 file:

- Image data and print settings can be put together and stored.
- Without connection to a PC, the printing can be performed directly from a USB flash memory.

<TIPS>

- Image editing is unavailable for any ARX4 file. As such, save your image data for an editing purpose in advance.
- For file output, there are some cases where neither file output destination nor extension cannot be specified by the [Print to file] command. Be sure to use the printer driver "Brother GTX-4 FileOutput".
- For details of directly sending data to the Printer from an application, refer to "6-6-4. Sending print data from other applications >>P.191".

- (1) In the menu bar, select [File] > [Print].
- (2) Select [More Options] > [Color Management].
- (3) Make the settings as follows:
 - [Color Handling]: [Printer Manages Colors]
 - [Rendering Intent]: [Relative Colorimetric]



- (4) When selecting a printer, select "Brother GTX-4 FileOutput" for file output.

<TIPS>

- If the [Printer] is set to "Brother GTX-4", the print data will be sent to the printer.
If the [Printer] is set to "Brother GTX-4 FileOutput", the print data will be saved as ARX4 file.

- (5) On [Printer Preferences], make your settings for the printer driver.

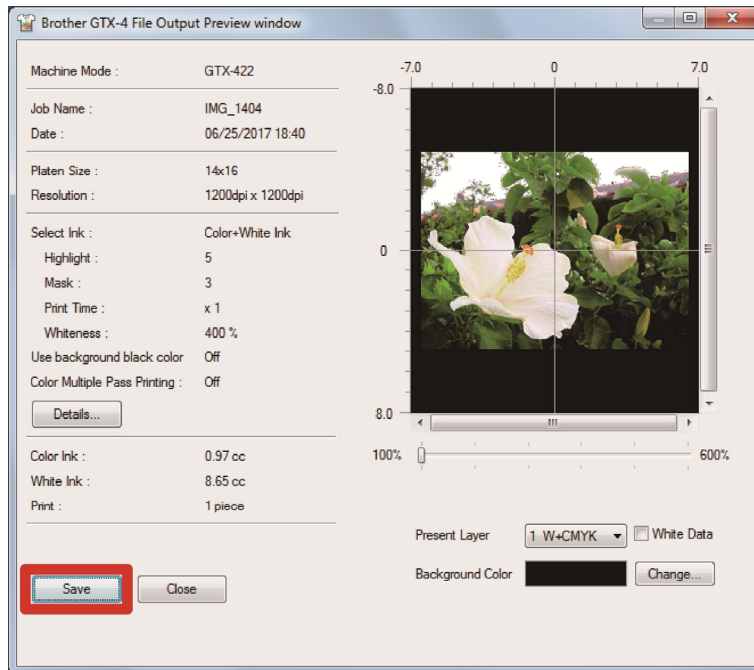
<TIPS>

- For setting details, refer to "5-6. Printer driver's setting from other applications >>P.122".

- (6) When you press [OK], the dialog box shown below will be displayed on the screen. After that, click [Save].

<TIPS>

- There may be cases where this saving process takes several minutes.



- (7) Specify the [Save In] and [File name] first, then click [Save] to save the ARX4 file to your PC.

What to do when using the color palette in Useful Tools

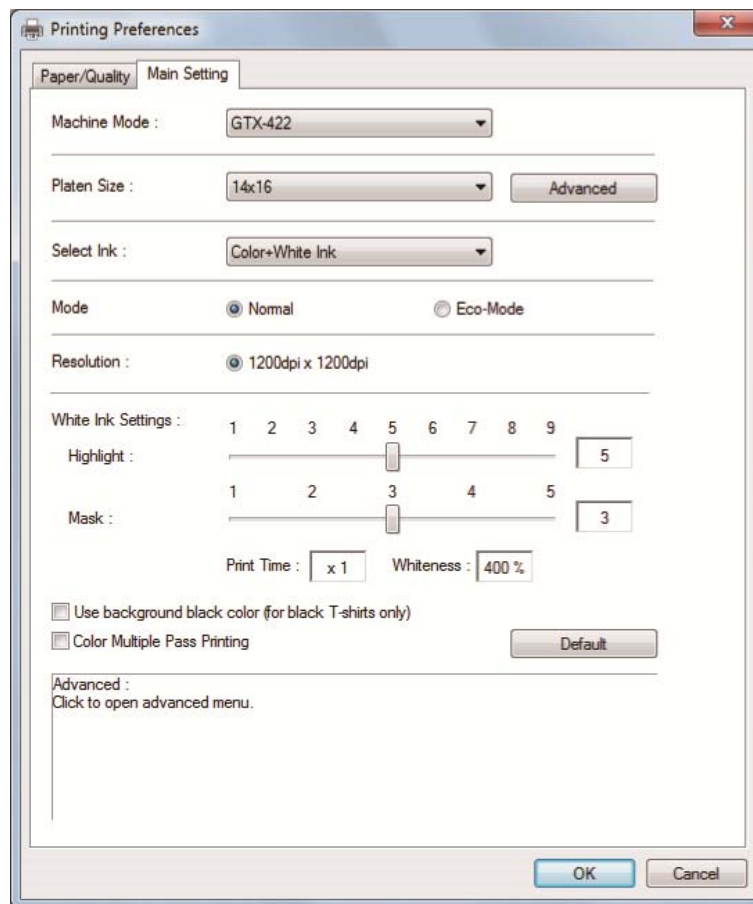
The color Swatch "GT_Colors_T.ase" for Photoshop can also be used in the Photoshop Element. For details, refer to "5-5-2. Adobe Photoshop >>P.108".

5-6. Printer driver's setting from other applications

<TIPS>

- The GTX-4 printer driver treats RGB=(255,255,255) as "Transparent color" and does not eject the ink. For such an image that you wish to print out in pure white color with white ink, make such a setting as RGB=(254,254,254).
- For the color replacement method, refer to a relevant page or help menu of each application software of "5-5. Creating print data from other applications >>P.101".

- (1) By following the printing procedures of each application software, open the print setup dialog box of the printer driver.

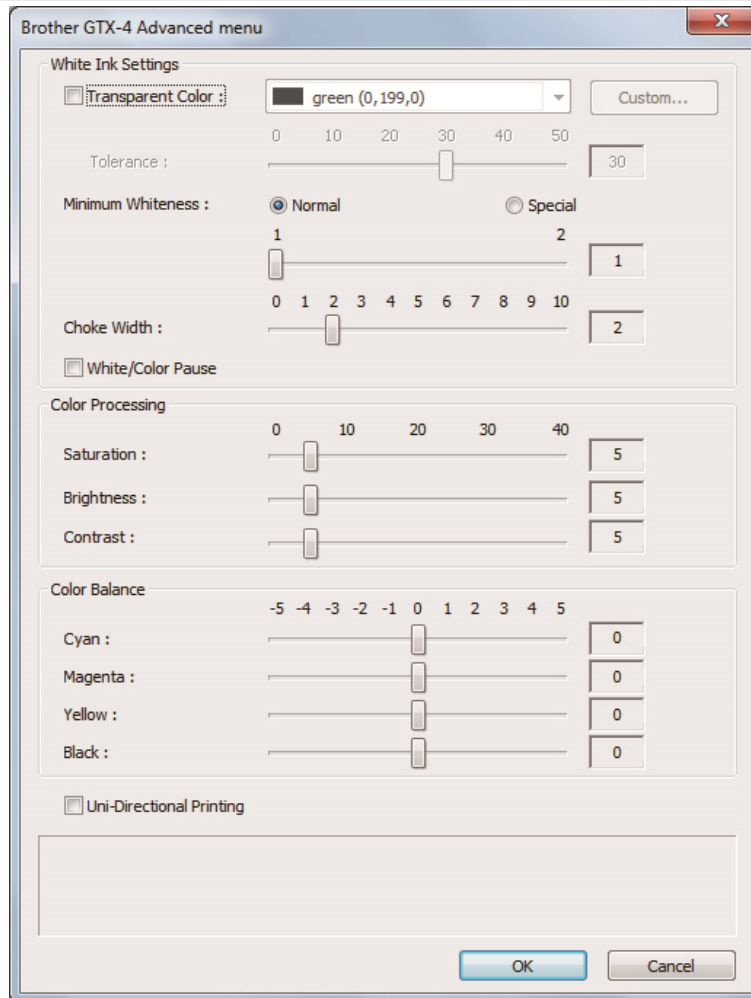


(2) In the dialog box for setting the printer driver, configure required settings.

If you click on the [Advanced], [White Ink Settings], [Color Processing], and [Uni-Directional Printing] can be configured.

<TIPS>

- Depending on the settings you have made in the [Select Ink:] option or the like, setup items that appear on the screen vary.
- The rollover help is displayed in the square portion at the bottom of dialog box. Place the mouse pointer over it to browse the help feature.
- For the detailed description of setup items, refer to each chapter mentioned below.



(3) After your settings are completed, click [OK].

<TIPS>

- You can refer to each value you have set up here by opening an ARX4 file from the "GTX-4 File Viewer".

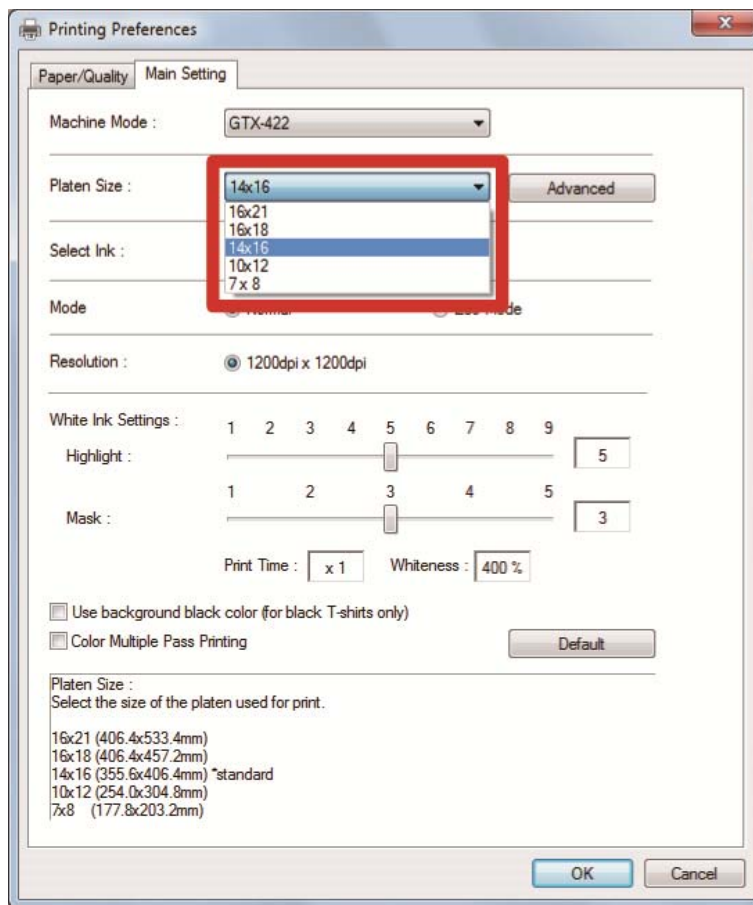
5-6-1. For other applications: Selection of platen size

From the pull-down menu of [Platen Size:], select a platen size for print area.

<TIPS>

- The platen size is equivalent to the paper size.

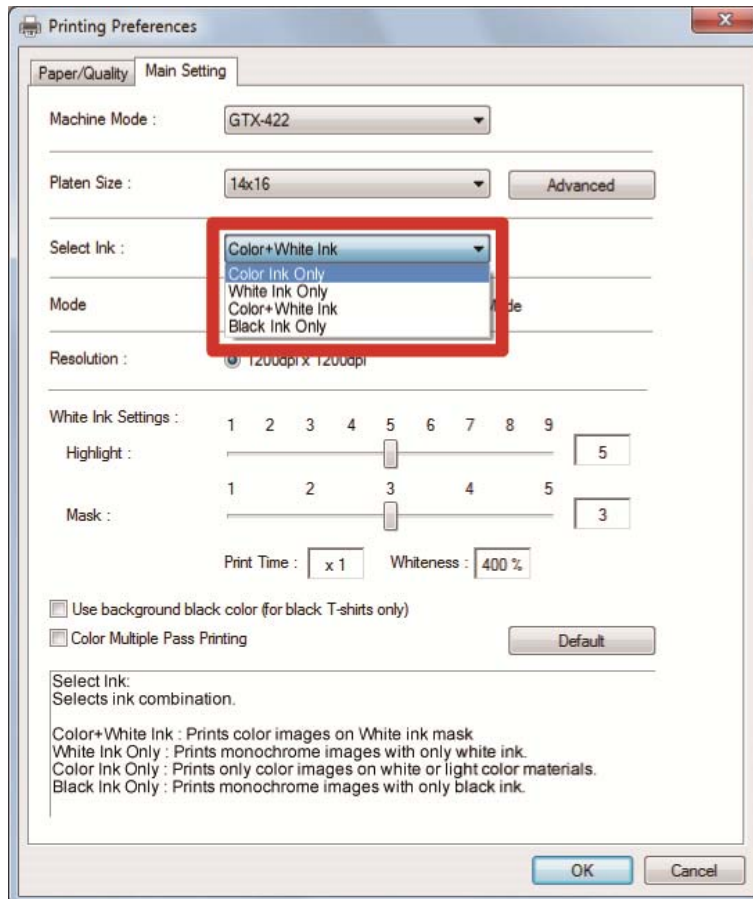
Setup item	Platen to be used	Size
[16X21]	16X21 platen	16.0 in. x 21.0 in. (406.4 mm x 533.4 mm)
[16X18]	16X18 platen	16.0 in. x 18.0 in. (406.4 mm x 457.2 mm)
[14X16]	14X16 platen	14.0 in. x 16.0 in. (355.6 mm x 406.4 mm)
[10X12]	10X12 platen	10.0 in. x 12.0 in. (254.0 mm x 304.8 mm)
[7X8]	7X8 platen	7.0 in. x 8.0 in. (177.8 mm x 203.2 mm)



5-6-2. For other applications: Selecting inks

From the [Select Ink:] option, select a combination of inks to be used.

Setup item	Description
[Color+White Ink]	This option enables a color image to be printed out on the mask layer of white ink.
[White Ink Only]	This option enables the white ink only to be used for printing out a monochrome image.
[Color Ink Only]	This option enables a color image to be printed out on a white background or lighter and pale color background.
[Black Ink Only]	This option enables the black ink only to be used for printing out monochrome image.

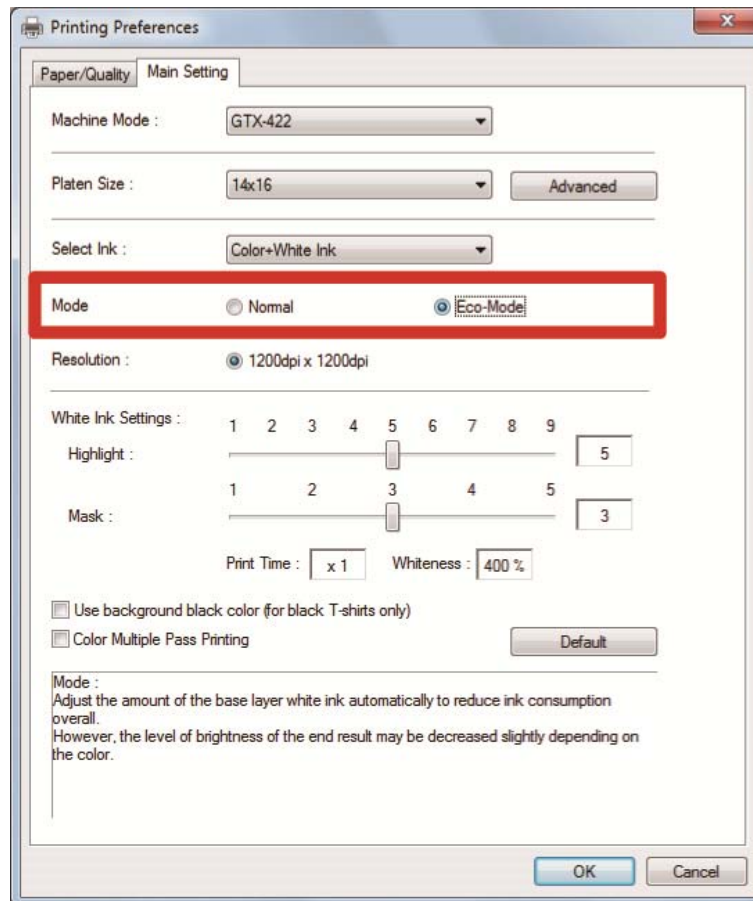


5-6-3. For other applications: White ink saving mode

If you set [Mode:] to [Eco-Mode], the white ink volume serving as the background is automatically adjusted to reduce the overall ink consumption.

<TIPS>

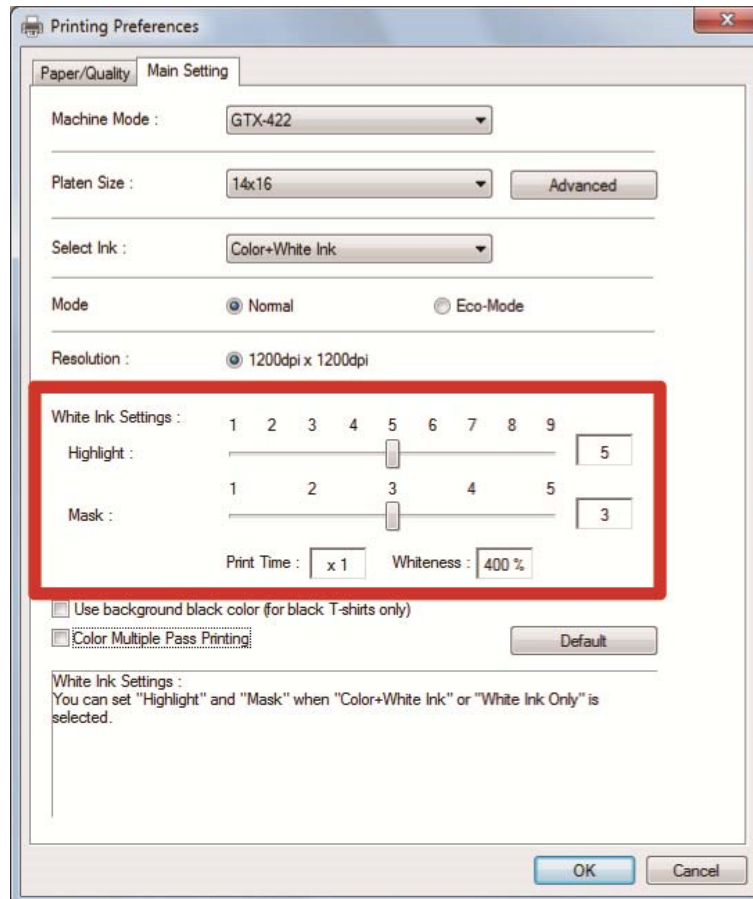
- The luminance on the finished print may be slightly reduced depending on the color.



5-6-4. For other applications: White ink settings

If you have selected [Color+White Ink] or [White Ink Only] in the [Select Ink:], the setup items for [White Ink Settings:] will appear.

Adjust the white ink volume separately in the [Highlight:] (visible white ink volume) and in the [Mask:] (white ink volume to cover the background color).



Highlight

This enables you to select whiteness (thickness) of RGB=254 in such nine levels as [1] to [9]. When you increase this value, the White ink volume will increase.

Highlight setpoints	Ink volume
[1]	White ink volume 200%
[2]	White ink volume 250%
[3]	White ink volume 300%
[4]	White ink volume 350%
[5]	White ink volume 400%
[6]	White ink volume 450%
[7]	White ink volume 500%
[8]	White ink volume 550%
[9]	White ink volume 600%

<TIPS>

- Appropriate highlight setting value depends on color or material of the T-shirt. It is recommended to consider and decide on an appropriate highlight setting value before creating print data. Perform a highlight check pattern print and select an appropriate setting value by referring to "5-7-6. Print out of highlight check pattern >>P.142".
- Depending on the settings of [Highlight:] and [Color Multiple Pass Printing], the [Print Time:] and [Whiteness:] will change accordingly.
- [Print Time:] will be set to [X1] if the setup value of [Highlight:] is [5] and [Color Multiple Pass Printing] is turned OFF. With this [X1] serving as a reference value, how many times relates to how long the print time will take when printing.
- Actual ink consumption depends on the actual colors used in the original image. As such, use this number as a reference for ink consumption.

Mask

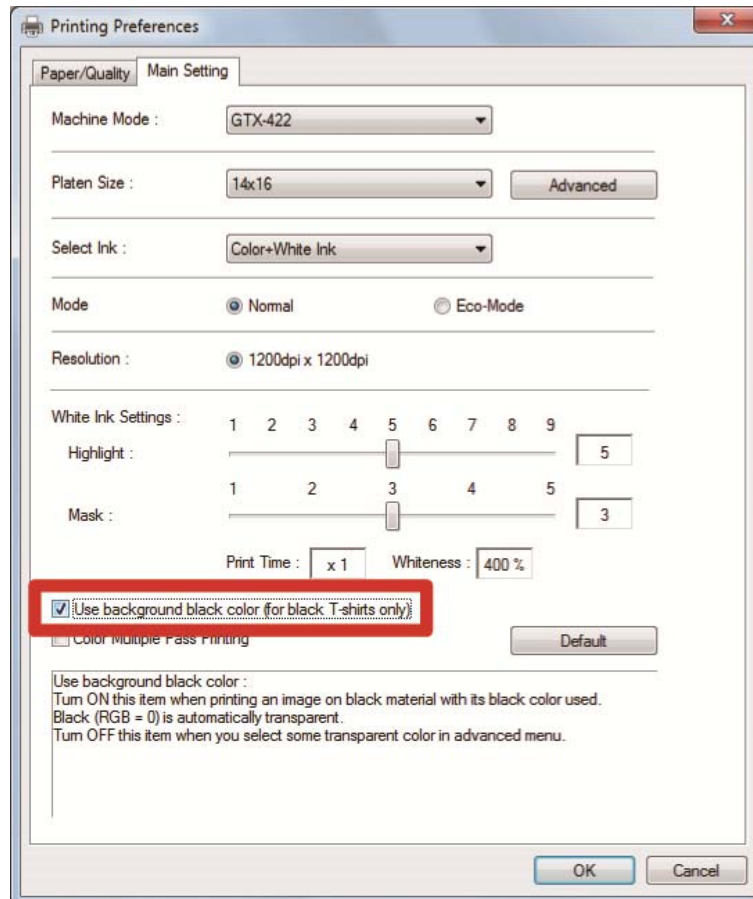
This enables you to select the volume of white ink which is used as background color for color inks in such five levels as [1] to [5].

Setup value	Description
[1] or [2]	These setup values are suitable for such lighter and pale background colors as pale pink, ash and cream.
[3]	This is the default value. This value will reproduce the most smooth white-gray-black gradation.
[4]	This value is suitable for vivid background color, e.g. red, purple, green, etc. It also covers the strong background colors.
[5]	This value enables the printing with the largest amount of white ink under all colors except darker color areas.

5-6-5. For other applications: Use background black color

If you have selected [Color+White Ink] in the [Select Ink:], the setup items of [Use background black color (for black T-shirts only)] will appear.

In the event that you wish to print a black T-shirt making use of the T-shirt's background black color, mark the [Use background black color (for black T-shirts only)] checkbox.



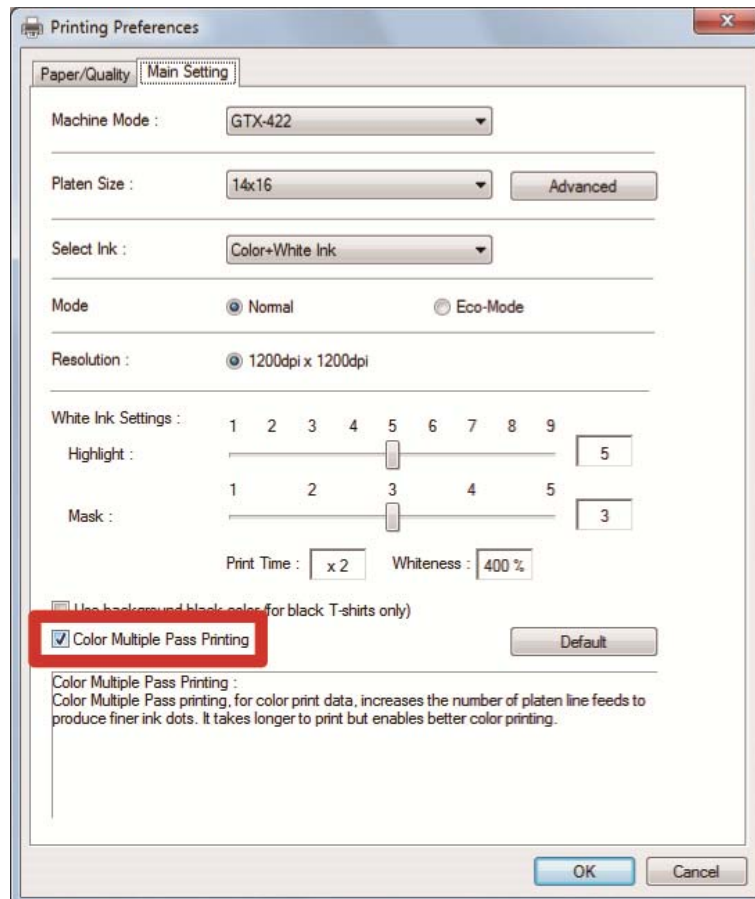
5-6-6. For other applications: Color multiple pass printing

If you have selected one of the [Color+White Ink], [Color Ink Only] or [Black Ink Only] in the [Select Ink:], the setup items for [Color Multiple Pass Printing] will appear.

In cases where small and horizontal stripes are highly noticeable in the print result, mark the [Color Multiple Pass Printing] checkbox.

<TIPS>

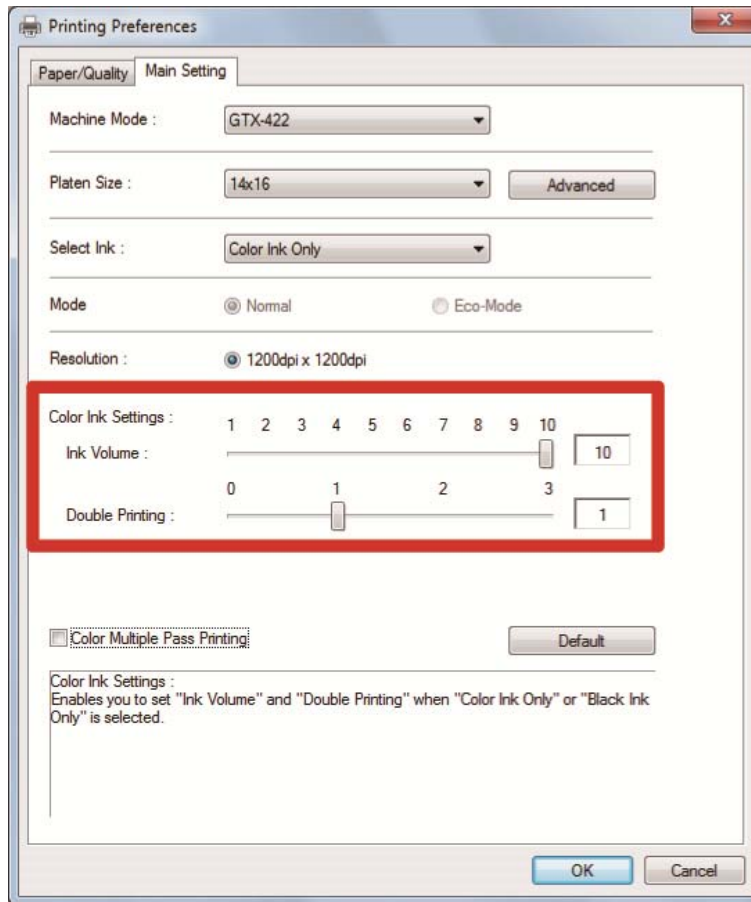
- Even if the [Color Multiple Pass Printing] checkbox is marked, the amount of inks to be consumed will remain unchanged.
- When the [Color Multiple Pass Printing] checkbox is marked, it takes a longer time for the print time to be completed. For typical print time, refer to [Print Time:].



5-6-7. For other applications: Color ink settings

If you have selected [Color Ink Only] or [Black Ink Only] in the [Select Ink:], the setup items of [Color Ink Settings:] will appear.

In the [Color Ink Settings:] window, you can make your setting from the [Ink Volume:] or [Double Printing:] option.



Ink volume

This enables you to select the ink volume in such ten levels as [1] to [10].

Setup value	Description
[10]	This is the default value. This value corresponds to 100%-cotton fabrics as well as for blended yarn fabrics (hemp 50%/polyester 50% or cotton 50%/polyester 50%).
[9] to [7]	These values correspond to a thinner T-shirt, thick towel, and cotton products woven with twill fabrics.
[6] to [4]	These values correspond to thin and plain fabrics as well as for blended yarn fabrics that consist of cotton, polyester and polyurethane.
[3] to [1]	These values correspond to polyester jerseys and synthetic fabrics that have no water absorbency.

<TIPS>

- When you print other clothes than a thick T-shirt, check on the actual blurring first, then adjust a value in the [Ink Volume:] option.

Double Printing

Performing the print cycle two times separately will make the printed color stand out more.

Setup value	Description
[0]	No separate processes
[1]	Separate processes (wait time between the 1st and 2nd print cycle)
[2]	Separate processes (longer wait time than the case with setting [1] between the 1st and 2nd print cycle)
[3]	Separate processes (longer wait time than the case with setting [2] between the 1st and 2nd print cycle)

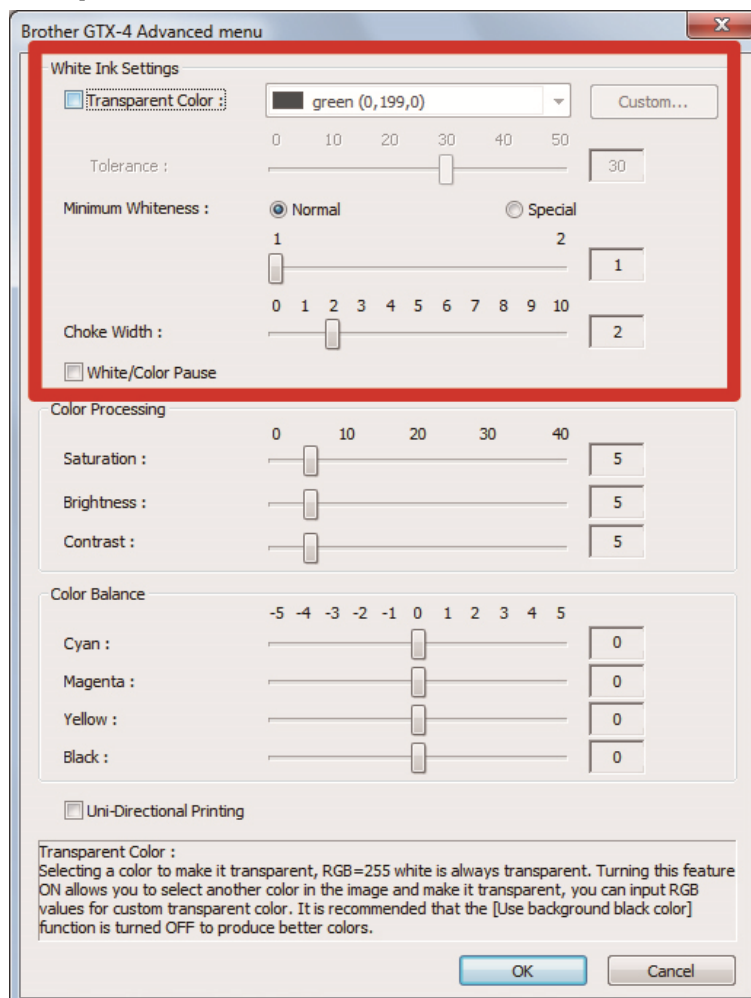
<TIPS>

- For the options [1] to [3], the platen will reciprocate two times.
- The higher the setpoint is, the longer the print time will be.

5-6-8. For other applications: White ink settings

If you have selected [Color+White Ink] or [White Ink Only] in the [Select Ink:], this setting menu will be enabled. When you click on the [Advanced] in the [Printing Preferences] dialog box, the setup items of [White Ink Settings] appear.

In the [White Ink Settings], you can make settings for [Transparent Color:], [Tolerance:], [Minimum Whiteness :], [Choke Width:], and [White/Color Pause].



Transparent color

With this option, specify a color which is treated as a transparent color without using any color during the printing process. If you want to specify other colors excluding the RGB=255 as "Transparent color", perform the following procedures to make your setting.

<TIPS>

- The RGB=255 is treated as a "Transparent color" (non-printing color).
- You would be better off making [Use background black color (for black T-shirts only)] OFF to produce better colors.

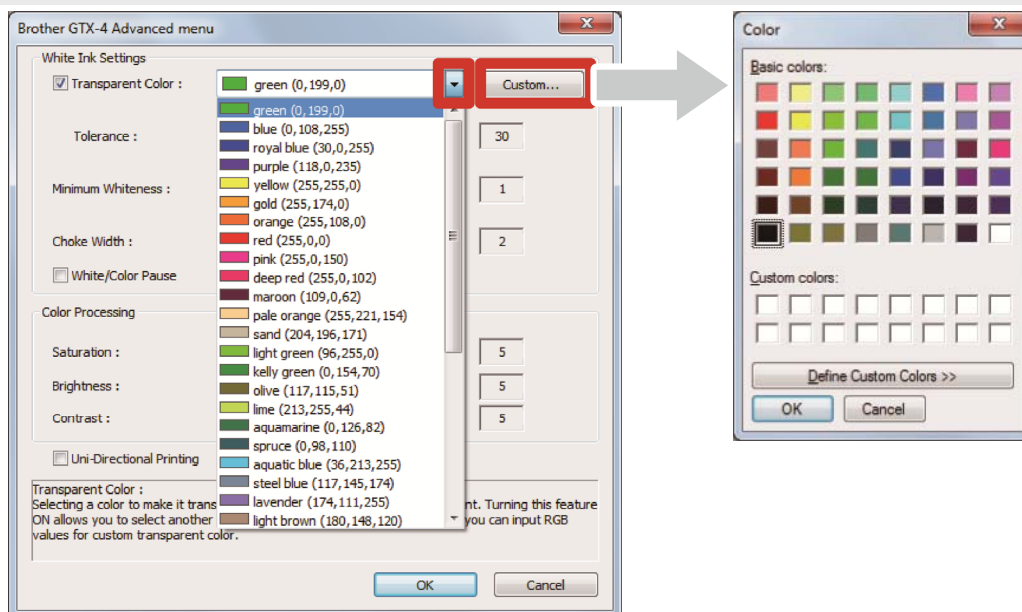
(1) Click the [Transparent Color:] checkbox.

Then, the pull-down menu for color selection becomes active.

(2) In the pull-down menu, select a color which serves as a background color of T-shirt, or click on the [Custom...] to specify a RGB value.

<TIPS>

- This custom color you have specified is valid only for one color which is specified immediately before. This color cannot be saved in the list.



Tolerance

Specify the gradation range (RGB values) to smoothly connect the zone between "Unprinted color" and "Printed color" to be gradually changed in tone.

<TIPS>

- If this value is increased, the gradation range in which the mask white is generated from a state in which no mask white exists will increase.
- The gradation's image quality depends on image data. For this reason, it is advisable to perform a test printing beforehand.

Minimum white ink volume

When printing with [Color+White Ink], the volume of background white color ink for dark or black color ink can be controlled.

When printing with [Color+White Ink], you can increase the amount of the white ink volume used as the base in a dark area by specifying a larger value.

Selecting [Special] allows you to select a value of [3] or higher.

<TIPS>

- Larger the value, the more likely that blurring occurs.

White Ink Choke Width

This enables you to select the white ink choke width in such ten levels as [1] to [10]. When you increase this value, the choke width increases. By decreasing the print range of white ink, the white ink will be prevented from extending off from under the color inks.

<TIPS>

- Check the original image if white lines and/or dots are seen around the image, this may be caused by "Anti-alias" bitmap.
- There are instances in which fine lines (characters or photographs) will disappear if this level is increased. For this reason, it is advisable to perform a test printing beforehand.

White / Color Pause

Tiny images may become black when printed. When that occurs, print a white layer first and wait for a while (waiting time), to print the color layers.

<TIPS>

- Check this checkbox to activate it when you print a tiny image.

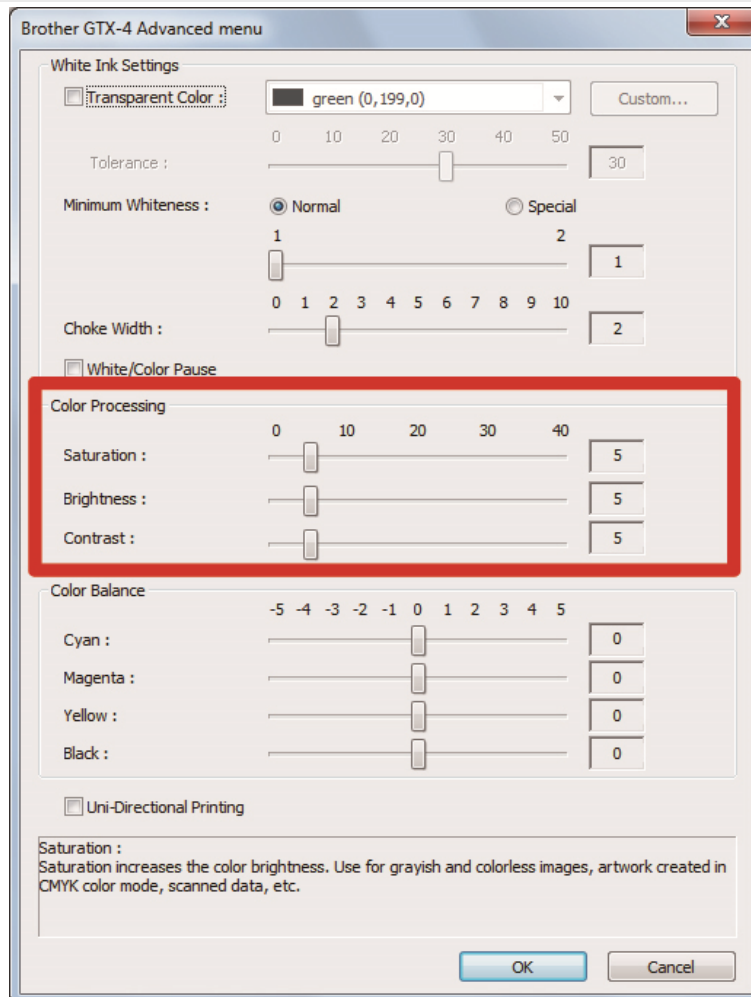
5-6-9. For other applications: Color Processing

When you click on the [Advanced] in the [Printing Preferences] dialog box, the setup items of [Color Processing] appear. In the [Color Processing] option, you can make settings for [Saturation:], [Brightness:] and [Contrast:]. Make adjustments to increase vividness, brightness and clarity of an image without using any functions of application software.

Setup item	Description
[Saturation:]	The more vivid the color is, the higher its value.
[Brightness:]	The brighter the color is, the higher its value.
[Contrast:]	Contrast makes the image lighter for lighter colors and darker for darker colors if its value increases.

<TIPS>

- If a value of [Contrast:] is increased, there may be some cases in which fine lines will disappear.
- For this reason, it is advisable to perform a test printing beforehand when you specify a higher value.



5-6-10. For other applications: Color balance

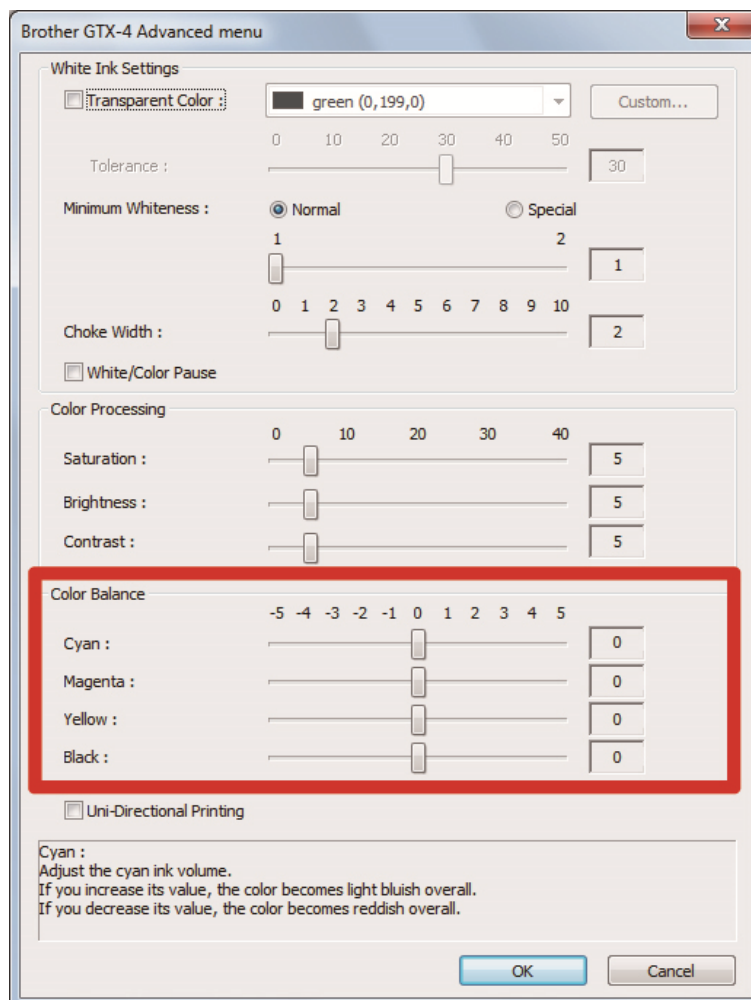
When you click on the [Advanced] in the [Printing Preferences] dialog box, the setup items of [Color Balance] appear. In the [Color Balance], you can make settings for [Cyan:], [Magenta:], [Yellow:], and [Black:].

You can adjust the color in 11 gradations, -5 to +5.

<TIPS>

- If you select [Black Ink Only] for ink selection, you can adjust [Black:] only.

Setup item	Description
[Cyan:]	Adjust the cyan ink volume. If you increase its value, the color becomes light bluish overall. If you decrease its value, the color becomes reddish overall.
[Magenta:]	Adjust the magenta ink volume. If you increase its value, the color becomes reddish-purple overall. If you decrease its value, the color becomes greenish overall.
[Yellow:]	Adjust the yellow ink volume. If you increase its value, the color becomes yellowish overall. If you decrease its value, the color becomes bluish overall.
[Black:]	Adjust the black ink volume. If you increase its value, the color becomes blackish overall. If you decrease its value, the color becomes whitish overall.

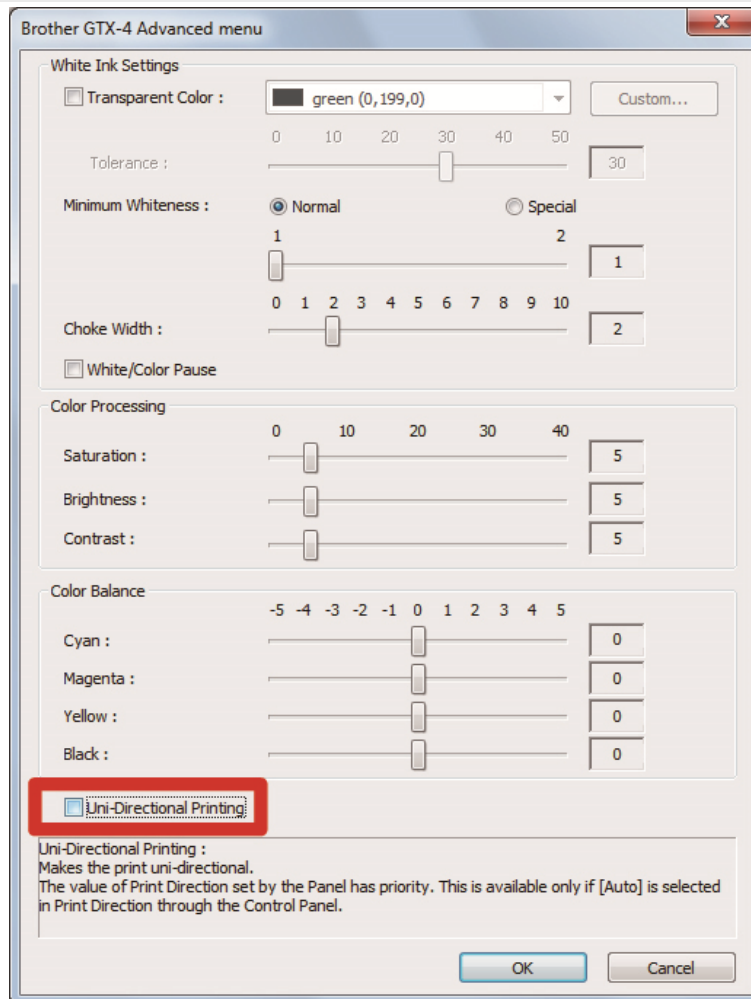


5-6-11. For other applications: Specifying print direction

When you click on the [Advanced] in the [Printing Preferences] dialog box, you can make the settings for [Uni-Directional Printing].

<TIPS>

- What you have specified on the printer's operation panel are prioritized, and this option becomes active only when the print direction specified on the printer side is set to [Auto].
- Print time will be doubled.



5-7. How to use Useful Tools

Useful tools and print data are provided for adjusting colors or searching for an appropriate print setting. The "Useful Tools" will be installed onto the subdirectory under the "Brother GTX-4 Tools" of your PC. For the details of each tool, please refer to the chapters described later.

5-7-1. Color palette for Adobe Photoshop, Photoshop Elements, Illustrator and CoreIDRAW

The different color palettes are available for each software application as follows:

- "GT_Colors_T.ase" for Adobe Photoshop/Photoshop Elements/Illustrator
- "GT_Colors.xml" and "GT_Tshirts.xml" for CoreIDRAW

<TIPS>

- When using the printer driver by default, use one of them as a color sample to check color reproduction and create/edit the image data. (Because CoreIDRAW cannot contain identical color in the same palette, the color palette is divided into two files.)

- (1) From the "Useful Tools", click a required file, and follow the on-screen instructions to save the file on your PC.
- (2) To use a color palette for each application, refer to the applicable page(s) to each application in "5-5. Creating print data from other applications >>P.101", or see the Help menu of each application.

5-7-2. Action file for Photoshop

For Photoshop, an action file is made available, which changes RGB=255 to RGB=254.

- (1) From the "Useful Tools", click "SolidWhite.atn", and follow the on-screen instructions to save the file on your PC.
- (2) In the menu bar of Photoshop, select [Window] > [Action file].
- (3) Click on the ▼☰ to open the submenu.
- (4) From the [Load Actions], select "SolidWhite.atn" saved on your PC.

<TIPS>

- For information on using action files, refer to the Help feature that Photoshop is provided with.
- "SolidWhite.atn" can be used only when the [Color mode] is set to [8 bit] of [RGB Color].

5-7-3. Color sample

The PDF file is provided that can be used as a Color sample.

Please use this color chart as a color sample like the one that is commonly provided by an ink maker, for the print data (ARX4 file) you created using your desired printer driver setting.

<TIPS>

- Make use of this color chart when you perform the printing after changing the settings of the printer driver.



(1) From the "Useful Tools", click a required file name to download the data. The following files are provided as color samples.

- GT_Blues.pdf
- GT_Greens.pdf
- GT_Oranges.pdf
- GT_Reds.pdf
- GT_ColorChart.pdf

(2) Configure the printer driver and create print data.

<TIPS>

- For details of the printer driver's setting procedures, refer to "5-3. Printer driver's setting from GTX Graphics Lab >>P.77" or "5-6. Printer driver's setting from other applications >>P.122".
- For details of how to create print data, please refer to the descriptions of respective applications contained in "5-2-8. Creating print data (ARX4 file) from GTX Graphics Lab >>P.75" or "5-4-6. Creating print data (ARX4 file) from GTX Graphics Lab Basic >>P.99" or "5-5. Creating print data from other applications >>P.101".

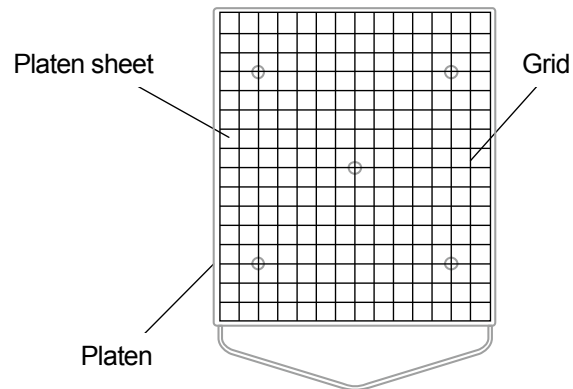
(3) Send the created print data to the printer and perform printing.

<TIPS>

- Check the print result and adjust the printer driver's settings.
- For the print procedure details, refer to "6. Basic printing procedures >>P.145".

5-7-4. Printing a grid pattern onto platen sheet

You can print a grid pattern onto a new platen sheet.



X0163

- (1) From the "Useful Tools", open such an ARX4 file (for example, Grid14x16.arx4) that has a grid size suitable to the platen size.
- (2) Send the print data of grid pattern to the printer.
- (3) Without putting a T-shirt in place, print the grid pattern directly onto the platen sheet.

<TIPS>

- After the printing is completed, press down the printed surface lightly with a dry cloth or a sheet of paper to dry the ink.

5-7-5. Printing ink volume

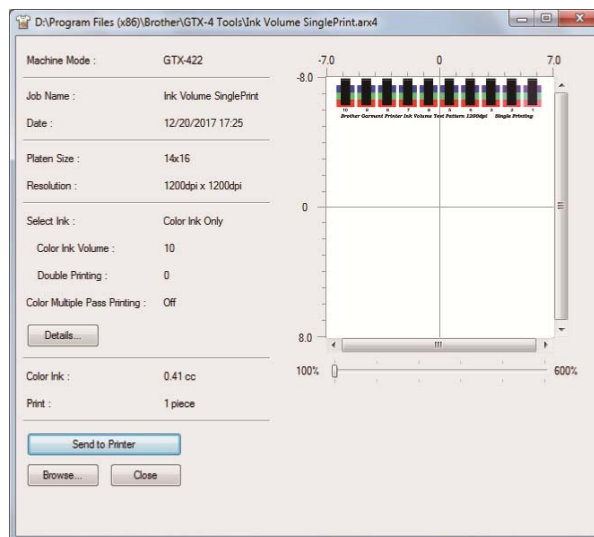
This is one of the print data for selecting ideal setting for [Ink Volume:] of the printer driver.

Download the data from "Useful Tools" and print the ink volume for checking the blurring beforehand.

<TIPS>

- For the print procedure details, refer to "6. Basic printing procedures >>P.145".
- Appropriate ink volume setting value depends on color or material of the T-shirt. It is recommended to consider and decide on an appropriate ink volume setting value before creating print data.
- There are four types of ink volume printing data. Select the ink volume print data to match the [Double Printing:] setting for the printer driver.

- (1) Select the desired file from "Ink Volume SinglePrint.arx4", "Ink Volume DoublePrint1.arx4", "Ink Volume DoublePrint2.arx4", and "Ink Volume DoublePrint3.arx4" from the "Useful Tools" to download data.
- (2) Send the data to the printer and perform printing.
- (3) Check the print result and adjust the value for [Ink Volume:] of the printer driver.



5-7-6. Print out of highlight check pattern

This is one of the print data files for selecting the ideal setting for [Highlight:] of the printer driver.

Download the data from "Useful Tools" and print the highlight check pattern for checking whiteness, background hiding level, and blurring beforehand.

<TIPS>

- Please print on a pretreated T-shirt. For the print procedure details, refer to "6. Basic printing procedures >>P.145".
- Appropriate highlight setting value depends on color or material of the T-shirt. It is recommended to consider and decide on an appropriate highlight setting value before creating print data.

- (1) From the "Useful Tools", click "Highlight-Mask Check at MW1.zip" or "Highlight-Mask Check at MW2.zip" to download data.

<TIPS>

- The file you should select differs depending on whether "Minimum Whiteness:" is set to [1] or [2].
- Check the number at the end of the file name before downloading the file.

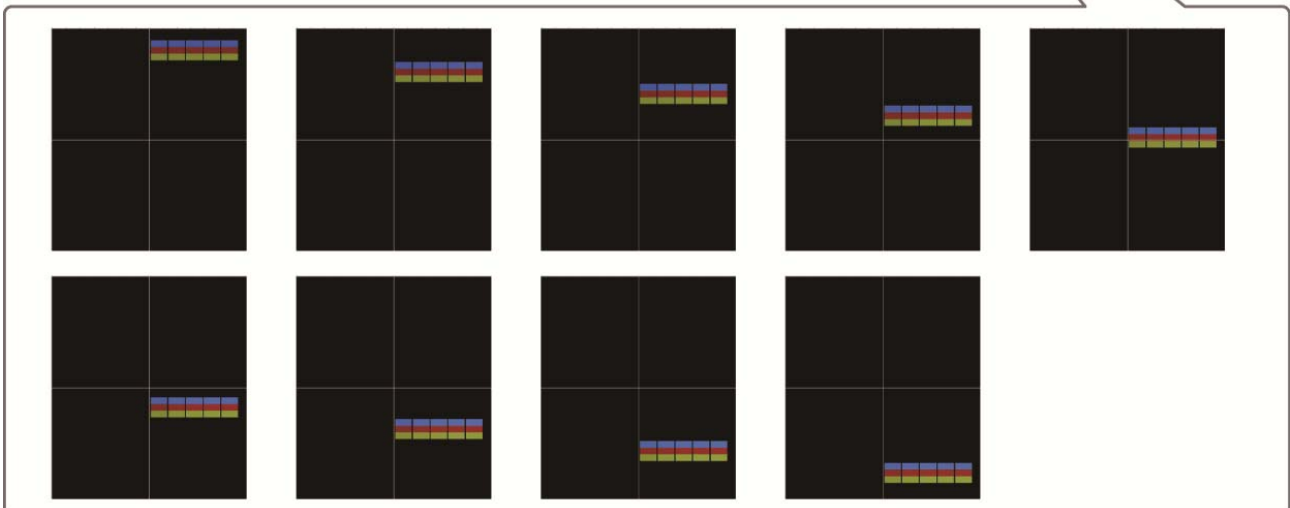
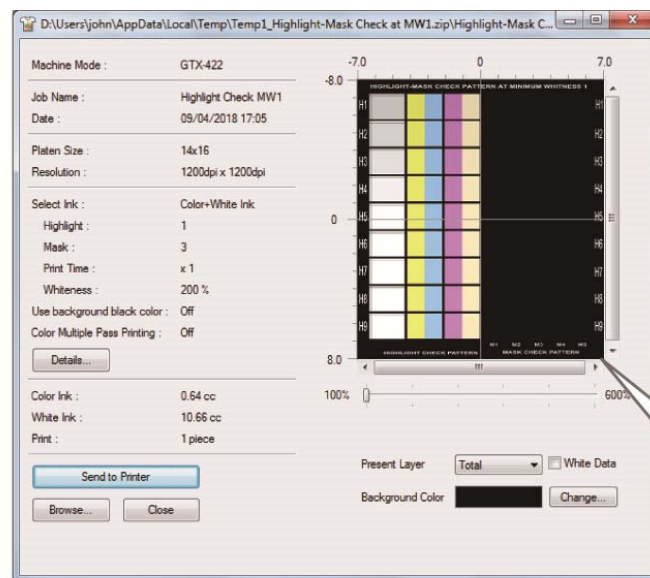
- (2) Unzip the file and the following print data will be displayed.

- "HighlightCheckPattern"
- "MaskCheckPattern" at each highlight

- (3) Print "HighlightCheckPattern" and select the optimum highlight setting.

- (4) Print "MaskCheckPattern" for the optimum highlight setting and select the optimum mask setting.

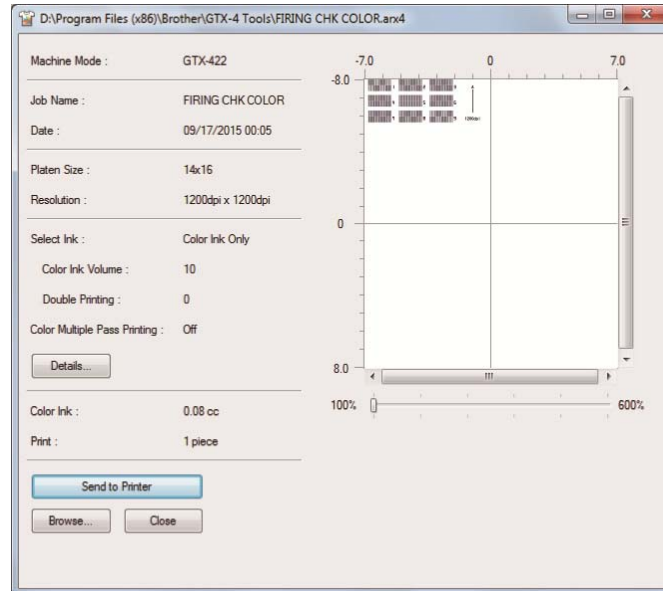
- (5) Check the print result and adjust the values for [Highlight:] and [Mask:] of the printer driver.



5-7-7. Data for confirming firing timing

This print data is used to confirm that the firing timing is appropriate.

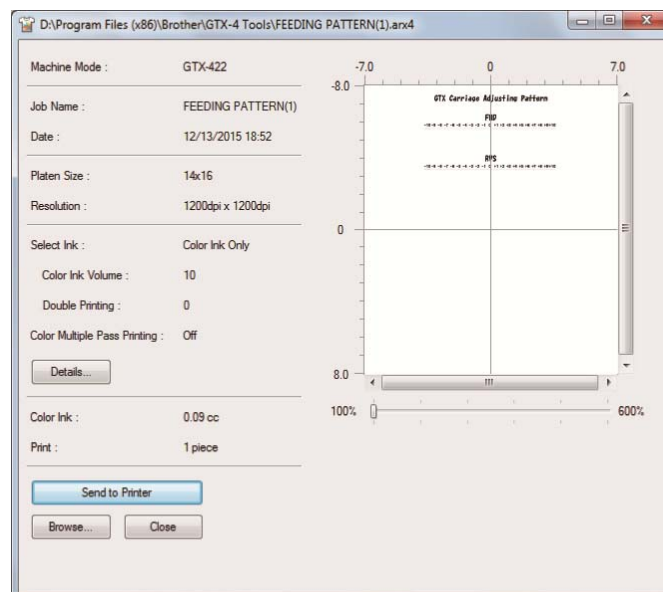
- (1) From the "Useful Tools", click "FIRING CHK COLOR.arx4" or "FIRING CHK WHITE.arx4" to download data.
- (2) Send the data to the printer and perform printing.
- (3) Check the print result to make sure the firing timing has been set correctly.



5-7-8. Data for confirming platen-rolling adjustment

This print data is used to confirm that the platen-rolling adjustment is appropriate.

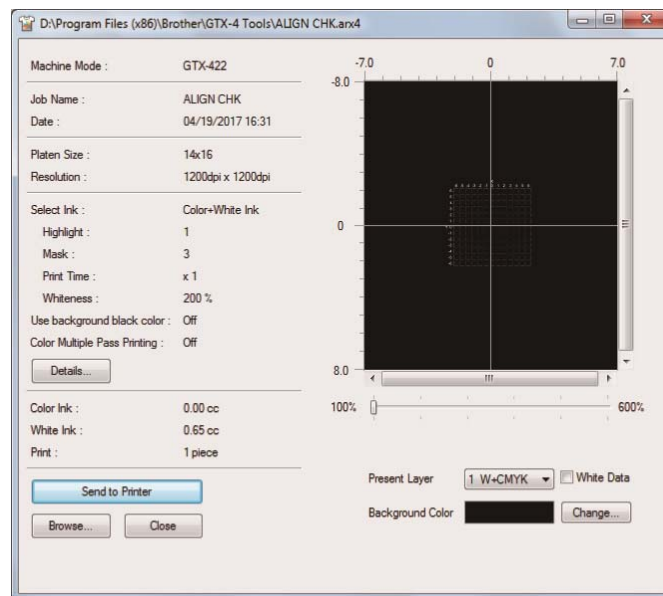
- (1) From the "Useful Tools", click "FEEDING PATTERN(1).arx4" to download data.
- (2) Send the data to the printer and perform printing.
- (3) Check the print result to make sure the platen-rolling adjustment has been set correctly.



5-7-9. Data for confirming White/Color alignment

This print data is used to confirm the alignment of the print position on the white side with the print position on the color side.

- (1) From the "Useful Tools", click "ALIGN CHK.arx4" to download data.
- (2) Send the data to the printer and perform printing.
- (3) Check the print result to make sure the print position on the white side has been aligned with the print position on the color side correctly.



 WARNING

If a foreign object gets inside the printer, immediately turn off the power, disconnect the power cord, and contact the place of purchase or a qualified technician. If you continue to use the printer while there is a foreign object inside, it may result in fire or electric shocks or problems with correct operation.



Do not allow the printer to come into contact with liquids. Otherwise it may cause fire or electric shocks or problems with correct operation.



If any liquid gets inside the printer, immediately turn off the power, disconnect the power cord, and contact the place of purchase or a qualified technician.












Do not use the printer when smoke or a bad odor is coming from the printer. Otherwise it may cause fire or electric shocks or problems with correct operation. Immediately turn off the power, disconnect the power cord, and contact the place of purchase or a qualified technician.





Keep your finger or any body part away from the rotating fan. Otherwise it will be caught up, which results in injuries.

Turn off the power when you approach the fan.

 CAUTION

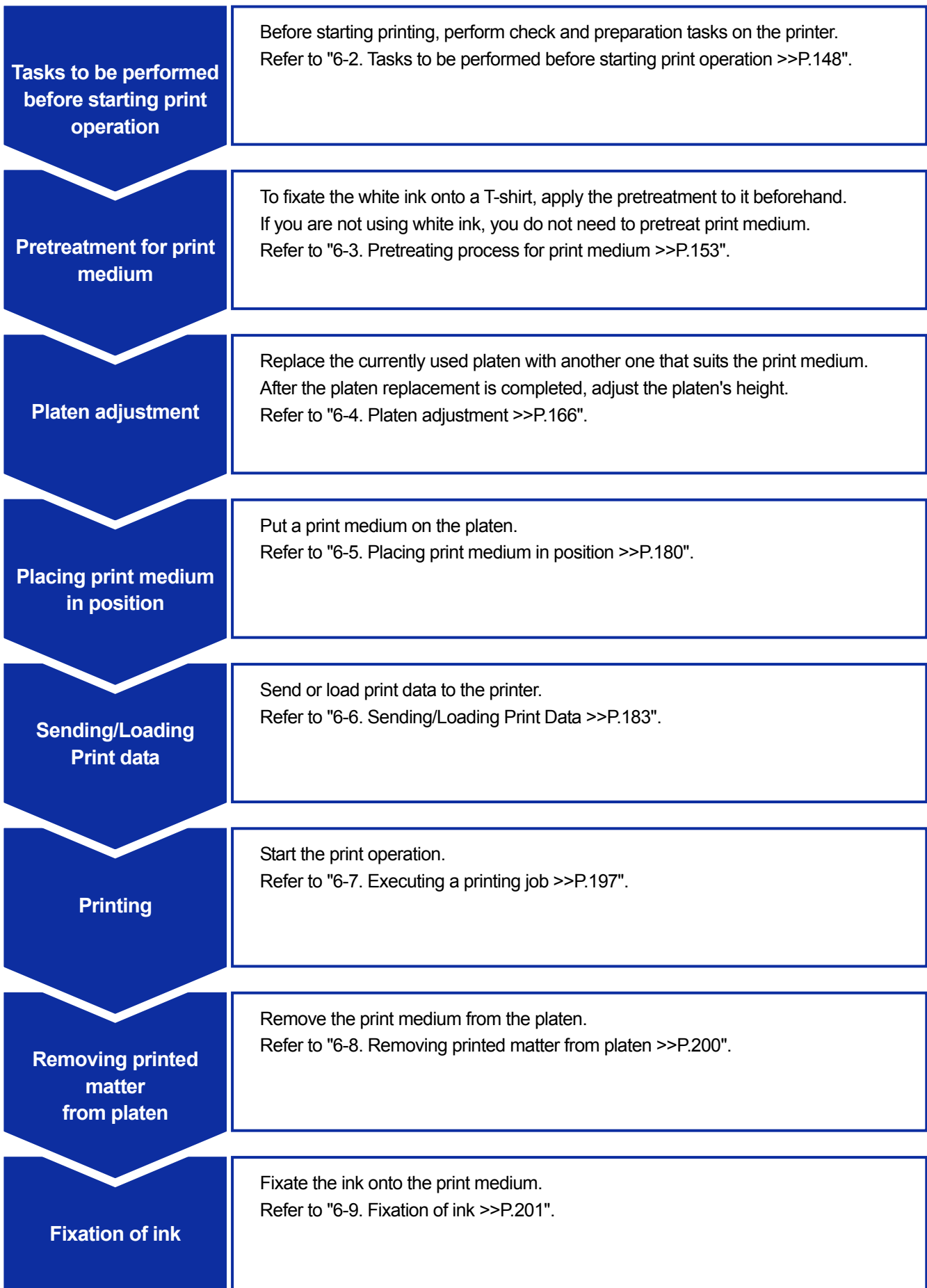
-  This printer should only be used by operators who are appropriately trained in its safe operation.
-  Ensure there is adequate space left in front of the printer and avoid placing any objects. Otherwise your hand may get caught between the platen and an object, which may result in injury.
-  Do not handle the platen while printing. If your hand gets caught between the platen or the T-shirt tray and the covers, it may be injured.
-  Do not put your hands inside the covers while the printer's power is turned on. Otherwise your hands may touch against moving parts and this may result in injury.
-  Do not disassemble the ink pouch. If the ink gets into your eyes or onto your skin, it may cause inflammation. In case of contact with eyes, do not rub but immediately rinse the eyes with water.
-  Do not disassemble the ink cartridge.
-  Do not drink liquids such as the ink, maintenance solution, cleaning solution, pretreatment, or waste. They may cause diarrhea or vomiting.
Avoid causing your eyes or skin to make contact with the ink, maintenance solution, cleaning solution, pretreatment or waste. It may cause inflammation. In case of contact with eyes, do not rub but immediately rinse the eyes with water.
Keep the liquids out of the reach of children.
-  When the pretreatment is applied to printed objects (like a T-shirt) with a spray or pretreatment applicator, sprayed mist is generated. So wear a pair of plastic gloves, a mask and protective glasses (or goggles) designed to shield against liquid splash, and fully take care of the air ventilation when you are working with it.
-  When a problem occurs with the operation of the printer, contact the place of purchase or a qualified technician.

 IMPORTANT

-  Do not move the platen by hand. Otherwise the printer may be mechanically and electrically damaged.
-  Ensure there is adequate space left in front of the printer and avoid placing any objects. The platen may be hit and damaged.

6-1. Basic printing process flow

What are described below are the basic work flows before the start and after the completion of print process.



6-2. Tasks to be performed before starting print operation

6-2-1. Confirmation and disposal of waste ink

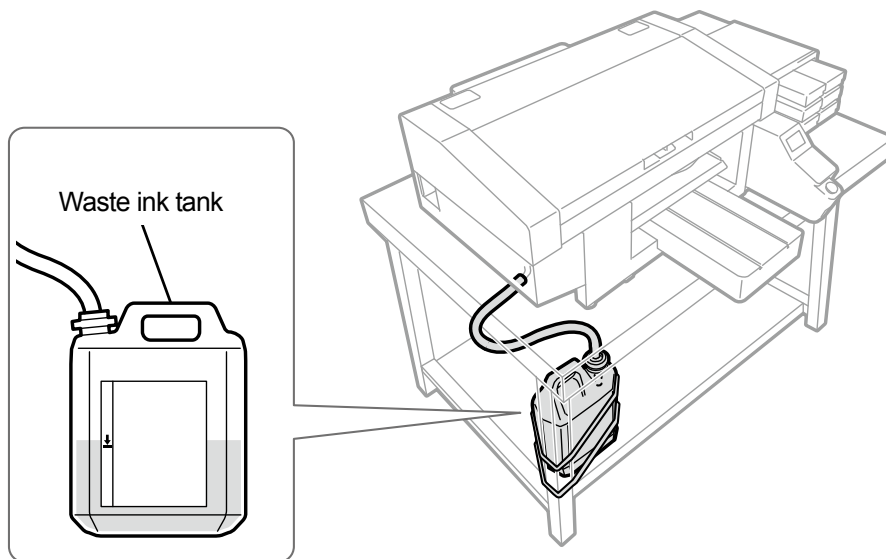
Check the amount of waste ink in the waste ink tank, and if the tank is filled with the waste ink up to its one-half or higher level, discard the ink.

(1) Check on the waste ink tank, and discard the waste ink.

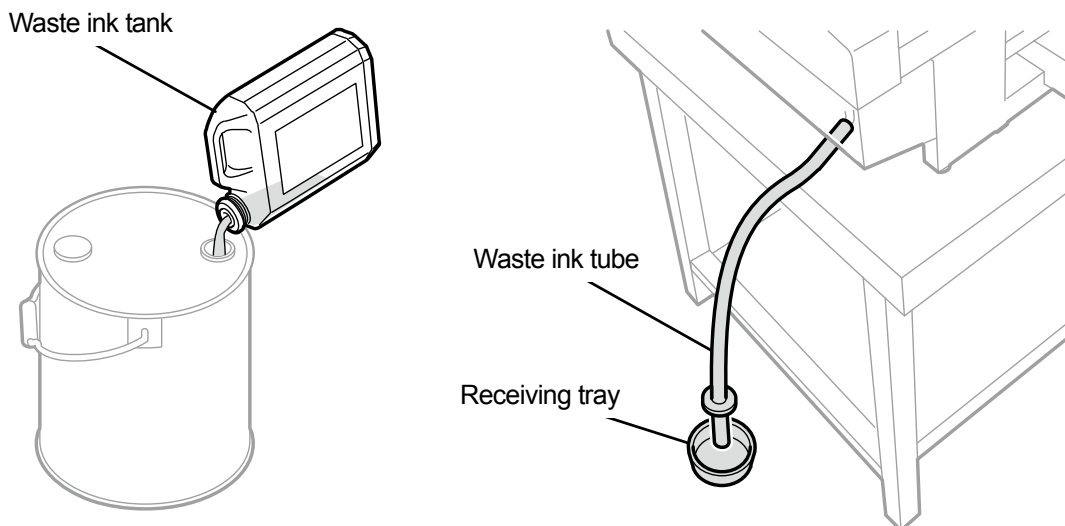
In an area under the other end of the waste ink tube (when removed) from the waste ink tank, place a receiving tray or the like so that the waste ink spilled from the tube will not be discharged onto the floor, etc.

<NOTE>

- Dispose of the waste ink properly as water-based waste fluid in accordance with applicable laws and ordinances.



X0045



X0046

(2) Return the waste ink tank to its original state, and insert the waste ink tube into the tank.

<NOTE>

- Be sure to ascertain that a flow path for the waste ink is provided properly and the waste ink tube is not bent or broken.
- The waste ink tube should be inserted into the waste ink tank so that the immersed length of the tube will be 1.6 to 2 in. (4 to 5 cm).

6-2-2. Confirmation and replenishment of cleaning solution

Check to see if the amount of cleaning solution is kept at a proper liquid level in the cleaning liquid tank, and refill the tank with the solution when its amount is below the proper level.

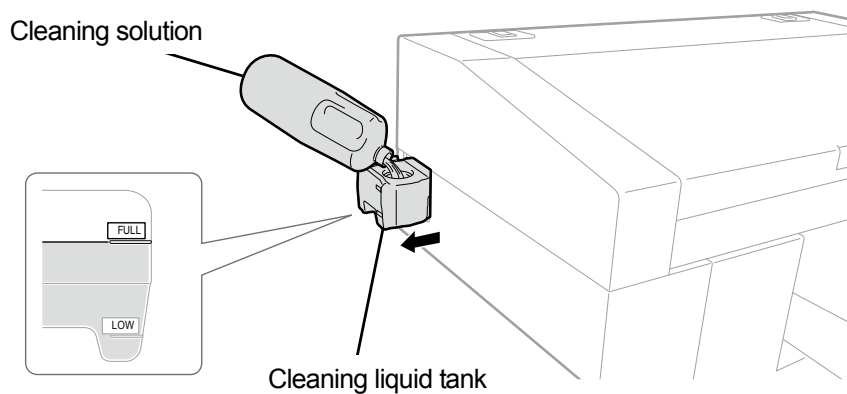
<TIPS>

- Also, refill the tank with the solution when a warning message appears on the operation panel screen or in the warning message window when the cleaning liquid tank is not pulled out.

- (1) Pull out the cleaning liquid tank from the side of the printer.
- (2) Open its lid and refill it with the cleaning solution up to the "FULL" line.

<IMPORTANT>

- Be sure not to put the cleaning solution into the tank above the "FULL" line.



X0044

- (3) Close the lid and slowly place the cleaning liquid tank into the printer.

6-2-3. Daily agitation of the white ink

Perform the procedures shown below if a white ink cartridge stirring message is displayed before starting operation.

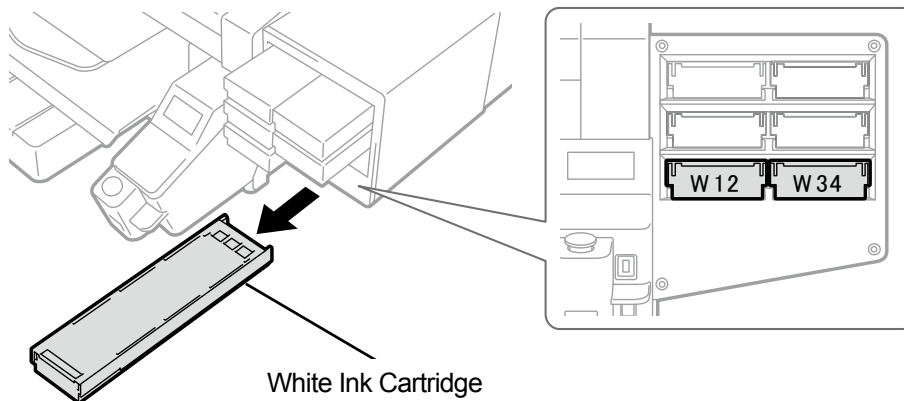
✕ Maintenance
 Remove the White Ink Cartridge
 and shake it

 After shaking the White Ink
 Press OK

- (1) Take out the white ink cartridge from the printer.

<CAUTION>

- The bottom of the cartridge may be soiled with ink. Clean the printer on a regular basis.



X0039

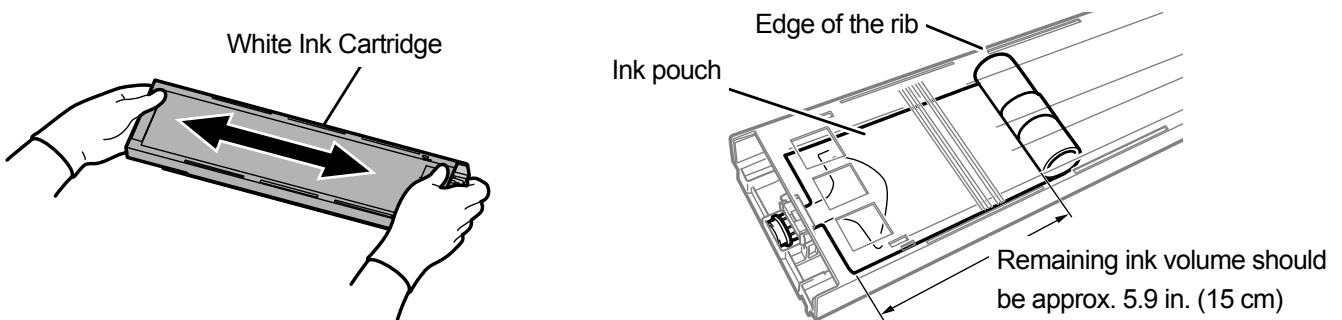
- (2) Shake the cartridge 100 times side by side to stir the white ink.

<IMPORTANT>

- The white ink cartridge should be held horizontally when shaking it.
- Holding the white ink cartridge upside down or shaking it too roughly could break the ink pouch.

<NOTE>

- Wear the provided gloves when performing this task.
- When the remaining ink level becomes approximately 5.9 in. (15 cm), shake the cartridge with its cover open and with the edge of the ink pouch slightly wined, to make the ink easier to stir.



Shake 100 times (for approx. 50 seconds)
 (Swing distance should be approx. 2 in. (5 cm).
 Increase the swing distance when the
 remaining ink level becomes low.)

X0194

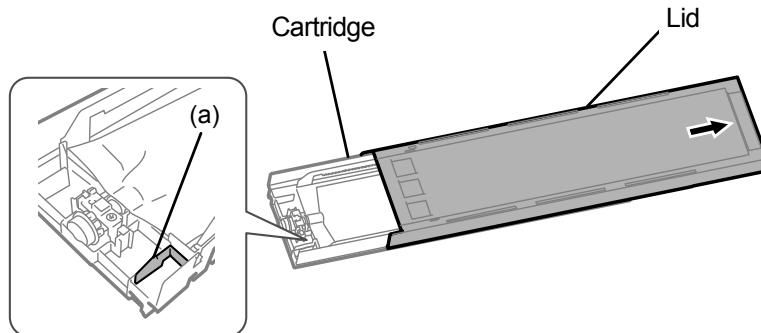
(3) Open the lid of the cartridge and place the ink pouch in its correct position.

<IMPORTANT>

- Always open the cartridge lid and properly rewind the ink pouch. If the pouch is placed without opening the lid, ink can flow into the wound section of the pouch when stirred, which can cause improper winding of the pouch.
- When opening the lid, place the entire cartridge on a flat surface, push the latches on the bottom surface of the cartridge downward and open the lid.
- When setting the ink pouch, avoid unevenness or wrinkles on the pouch.
- When opening the lid, be sure not to touch the portion (a). Otherwise, it could be damaged.

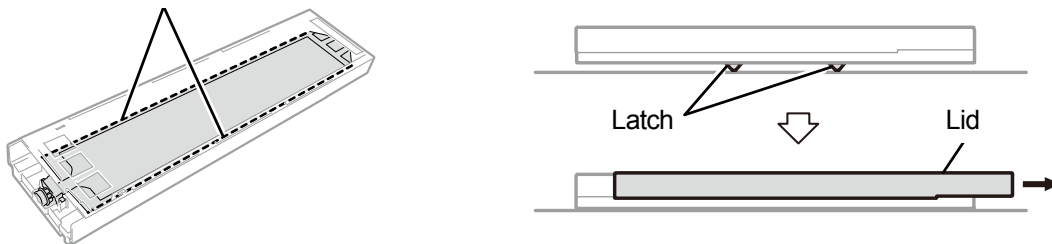
<NOTE>

- If the remaining ink level is low, hold the sagged part of the ink pouch and close the lid.

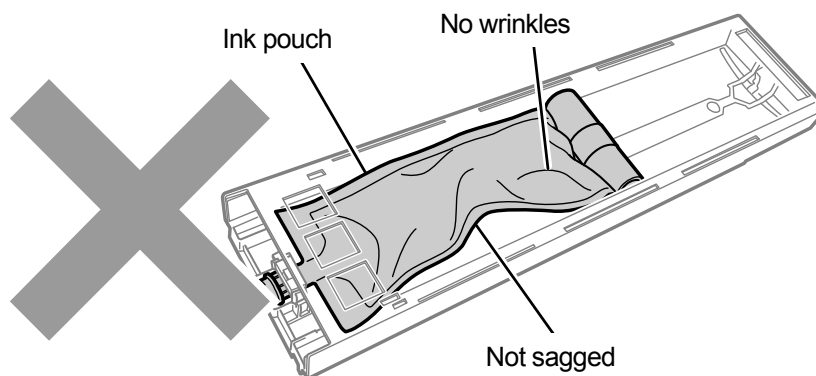


X0182

Place the pouch in a straight alignment with the cartridge



X0078




X0142

(4) Close the lid, and put the white ink cartridge in position inside the printer.

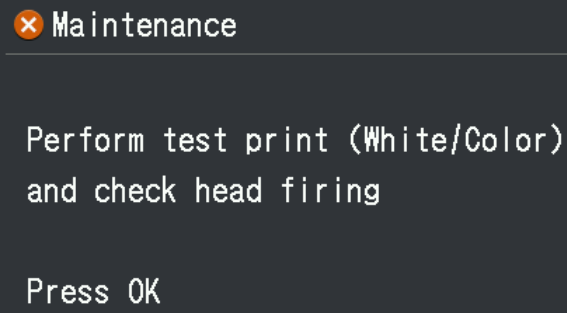
<IMPORTANT>

- W12 and W34 cartridges should correctly be placed at their original locations. Wrongly placed cartridges could cause the printer malfunction.

(5) Repeat the same process to shake the other white ink cartridge to stir up the ink.**(6)** On the operation panel, press .

Then, the white ink refilling will be performed automatically.

- (7) When you are finished replacing the white ink, press  in the operation panel to print the nozzle check pattern.



<TIPS>

- For details, refer to "7-2-1. Print out of the nozzle check pattern (checking on the print heads) >>P.231".

6-3. Pretreating process for print medium

To fixate the white ink onto the surface of fabric of a T-shirt, apply the pretreatment to it beforehand. If you are not using white ink, you do not need to pretreat print medium.

Workflow of pretreating process

Step	Item	Detailed description
1	Dilution of pretreatment	Put the pretreatment into a polypropylene container or the like, and dilute it with pure water.
2	Application of diluted pretreatment	By means of a spray or roller, apply the diluted pretreatment onto the print medium.
3	Fixation of pretreatment	Fixate the pretreatment by using the heat press to apply heat and pressure onto the print medium.

6-3-1. Provisions for pretreatment

Items to be prepared

Two types of application means are available for the pretreatment—roller and spray. With reference to the table below, make what you need available in advance.

○: What you need
△: Useful items, if any
–: Not required

Items to be prepared	For roller coating	For spray coating
Pretreatment	○	○
Pure water	○	○
Pretreatment roller	○	–
Handle (handgrip of roller)	○	–
Tray	○	–
Agent-coating table	△	–
Weighing instrument	○	○
Spray	–	○
Heat press	○	○
Peel-off sheet	△	△
Silicone foam (of open-cell structure)	△	△
Adhesive roller	△	△

- Pretreatment

It is the white liquid that is needed for pretreating process for printing with white ink. If a print medium is not coated with this agent, no color development of white ink takes place, and the whiteness becomes insufficient. Also, no color will be produced from the color inks that are applied onto the white ink. In order to apply the pretreatment onto a T-shirt, use a spray or roller, and use the heat press to fixate it.

<CAUTION>

- Be sure to wear a pair of plastic gloves, a mask and protective glasses during the work operation.
- For information on handling of the pretreatment, see the Material Safety Data Sheet issued by us.
<http://sds.brother.co.jp/sdsapp/index.html>

- Pure water

It refers to distilled water, purified water, etc. which is used to dilute the pretreatment with it.

- Pretreatment roller (option)
This is used to apply the pretreatment onto a T-shirt. It is advisable to use such a handgrip for the roller that is resistant to rust formation.

<NOTE>

- Separately provide a tray (container for dilution), handle (handgrip for roller), agent-coating table and weighing instrument for amount of coating.
- Spray (commercially available item)
This is used to apply the pretreatment onto a T-shirt. Use a spray (preferably of an electrically-operated type) that can emit fine spray. As compared with a roller, a spray allows for easy and even coating and reduces non-uniform coating, while it requires a special space for using it.
In addition to a spray, a pretreatment application device (commercial product) is available that can apply the pretreatment onto a T-shirt automatically. As required, make them available for use separately.

<CAUTION>

- Fully take care of the air ventilation when you work on operation that generates mist such as spray application.
- Be sure to wear a pair of plastic gloves, a mask and protective glasses (or goggles) designed to shield against liquid splash during the work operation.
- For information on handling of the pretreatment, see the Material Safety Data Sheet issued by us.
<http://sds.brother.co.jp/sdsapp/index.html>

<IMPORTANT>

- If you are using an electric spray to apply the pretreatment, perform the work at a place as far as possible from the printer. Otherwise, it may cause failure of print heads.
- Heat press
It must deliver the performance through which the print range of the platen can to be covered and 180°C (356°F) can be kept for 35 seconds or more. At a fixing stage of the pretreatment, be sure to use the heat press, but not an oven, to smoothen the surface.
- Peel-off sheet
When using the heat press, place this sheet on a T-shirt so that neither inks nor pretreatment can be attached to the press surface of the heat press. As a peel-off sheet, use a silicone-coated paper or a fluororesin sheet. There is a tendency to bring the print result to an almost matte finish if a silicone-coated paper is used at the ink fixation stage. There is a tendency to bring the print result to an almost bright finish if a fluororesin sheet is used at the ink fixation stage.
- Silicone foam (of open-cell structure)
It is the foamed mattress which is made of silicone that resists heat. When fixating the inks or pretreatment by means of the heat press, use this foam to ventilate steam with ease.
- Adhesive roller
Use these to remove lint from a T-shirt or debris from its surface.

- T-shirt (printing medium)
100%-cotton fabric or polyester blended yarn fabric (cotton 50% or more)

<TIPS>

- Although it is advisable to use a 100% cotton T-shirt, some textiles cannot necessarily guarantee good printing quality even if they are made of 100% cotton or blended yarn. In particular, for a T-shirt made of new material, perform a printing test on it beforehand.
- Some textiles may leave noticeable imprints of the pretreatment after it is fixated. In that case, wash them away with water.
- Perform a printing test beforehand. Then, the following phenomena may occur:
 - The textiles may be discolored by the pretreatment and cannot be restored to the original color even if they are washed.
 - A deep-colored polyester blended yarn fabric dissolves dye, which may cause the white ink to change to a slightly different color.
 - It is likely that a textile may become yellowish in color after the pretreatment is fixated.

6-3-2. Dilution of pretreatment

Be sure to use the pretreatment after diluting it with pure water.

<CAUTION>

- Be sure to wear a pair of plastic gloves and protective glasses during the work operation.
- For information on handling of the pretreatment, see the Material Safety Data Sheet issued by us.
<http://sds.brother.co.jp/sdsapp/index.html>

Dilution ratio

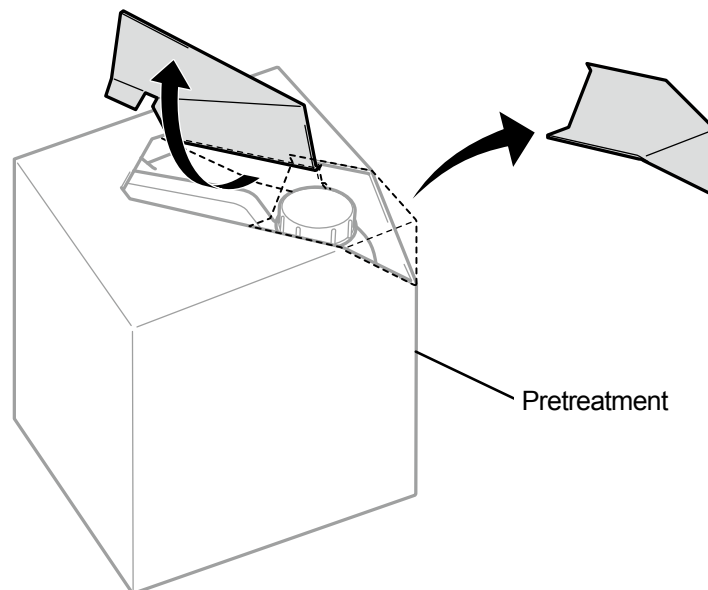
Use within the ratio range of x3 (Pretreatment:Pure water=1:2) (Volume ratio).

Dilution method

<TIPS>

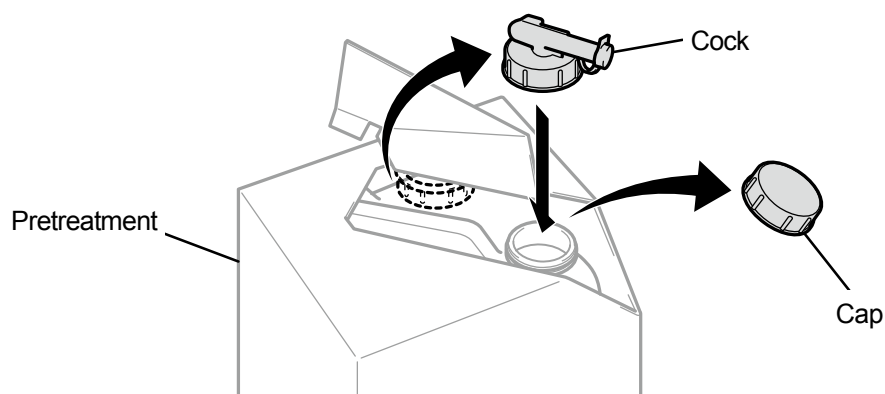
- The figure below is based on the pretreatment (20 kg (44 lb)). When using the pretreatment (5 kg (11 lb)), remove the cap and pour the agent into the container, and dilute it with pure water, referring to step (4) and the subsequent steps. Dilution ratio is the same.

- (1) Unpack the pretreatment container from the shipping carton by cutting off the perforated paper along the perforated tear-off line to open the carton.



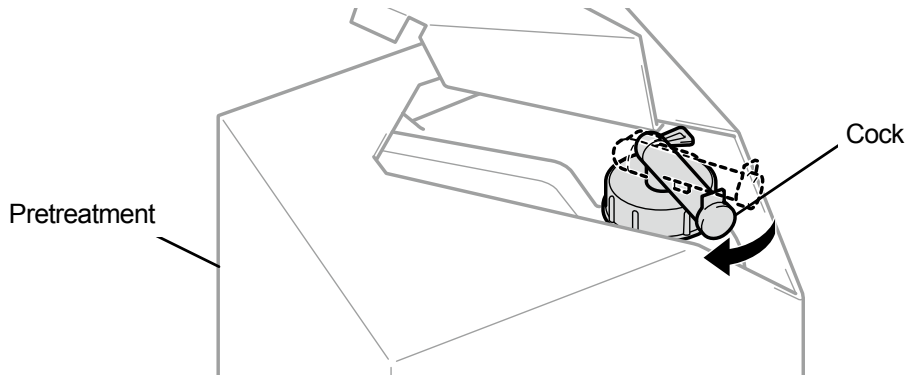
X0079

- (2) Remove the cap, and place the cap in position.



X0080

- (3) Orient the pour spout of cock in the position as shown in the figure below.

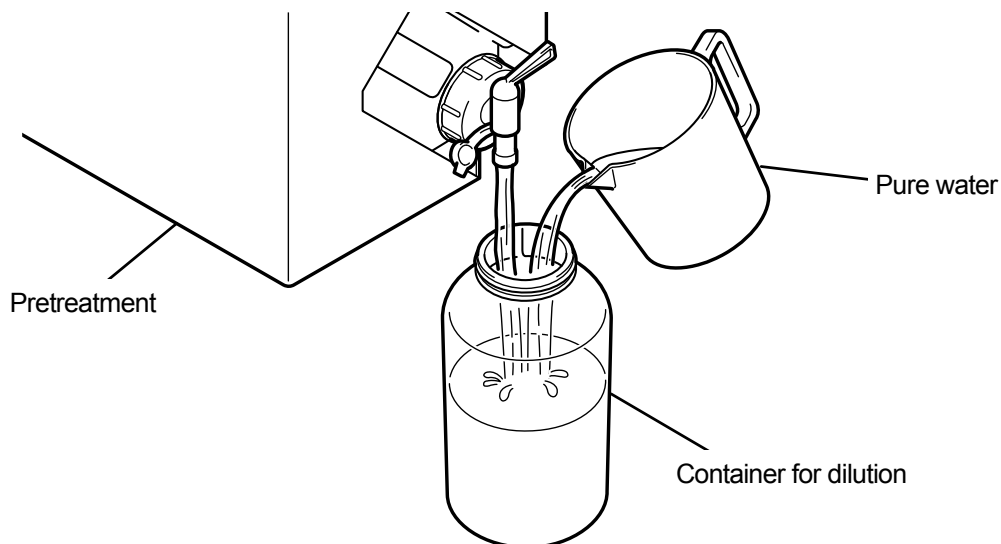


X0081

- (4) Lean the entire shipping carton of pretreatment toward a container for dilution to pour the agent into the container, and dilute it with pure water.

<IMPORTANT>

- Use with the dilution rate of x3 (Pretreatment:Pure water=1:2) (Volume ratio).
- Close the cap of the container for dilution, and shake it sufficiently to provide equal concentration.



X0082

- (5) To provide safekeeping for the pretreatment, close the cock, place the pretreatment with the cock part facing upward, and store the entire carton in a safe place.

6-3-3. Application of pretreatment

In order for the pretreated portions to be printed with inks, apply the pretreatment evenly to a wider area than the print range.

<CAUTION>

- Fully take care of the air ventilation when you work on operation that generates mist such as spray application.
- Be sure to wear a pair of plastic gloves, a mask and protective glasses (or goggles) designed to shield against liquid splash during the work operation.
- For information on handling of the pretreatment, see the Material Safety Data Sheet issued by us.
<http://sds.brother.co.jp/sdsapp/index.html>

<IMPORTANT>

- Some T-shirts may leave distinct imprints of the pretreatment after it is fixated. Wash away any imprint of the pretreatment with water, if any.
Also, some T-shirts may be discolored by the pretreatment and cannot be restored to the original color even if they are washed. When performing the printing for the first time, do that after applying the agent to an unnoticeable area on trial.
- If you are using an electric spray to apply the pretreatment, perform the work at a place as far as possible from the printer. Otherwise, it may cause failure of print heads.

Reference guide for amount of coating of pretreatment

Determine a coating area and amount of coating according to a platen size. When your coating area differs from what are shown in the table below, calculate the amount of coating based on the area ratio.

<IMPORTANT>

- Depending on the type of fabric, the print quality cannot be guaranteed with the amount of coating of pretreatment shown below. It is therefore necessary to conduct sufficient print tests and adjust the amount of coating.
- If the amount of coating of pretreatment is too small, imprints of the pretreatment may become less noticeable after it is fixated, whereas color reproduction of the white ink and color inks on the white ink will deteriorate.
- Meanwhile, if the amount of coating of pretreatment is too large, imprints of the pretreatment may become noticeable, the printed surface may be cracked or discoloring may occur after washing.

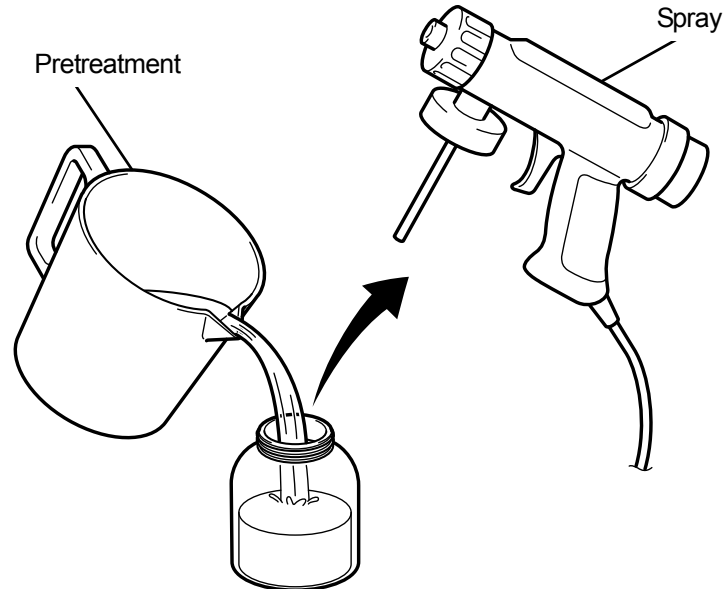
Platen Size	Amount of coating of pretreatment
16 x 21	45 g (1.6 oz)
16 x 18	39 g (1.4 oz)
14 x 16	30 g (1.1 oz)
10 x 12	16 g (0.6 oz)
7 x 8	8 g (0.3 oz)
Letter size/A4-size	15 g (0.5 oz)
Pocket size (3.9 in. x 3.9 in. (10 cm x 10 cm))	3 g (0.1 oz)

For coating with a spray (commercial product: preferably of an electrically-operated type)

- (1) Fill a spray with the diluted pretreatment.

<TIPS>

- Please use a spray (preferably of an electrically-operated type) that can emit fine spray.



X0083

- (2) Put a T-shirt flatly on a flat surface or lean it back against wall, and apply the pretreatment evenly onto it.

<CAUTION>

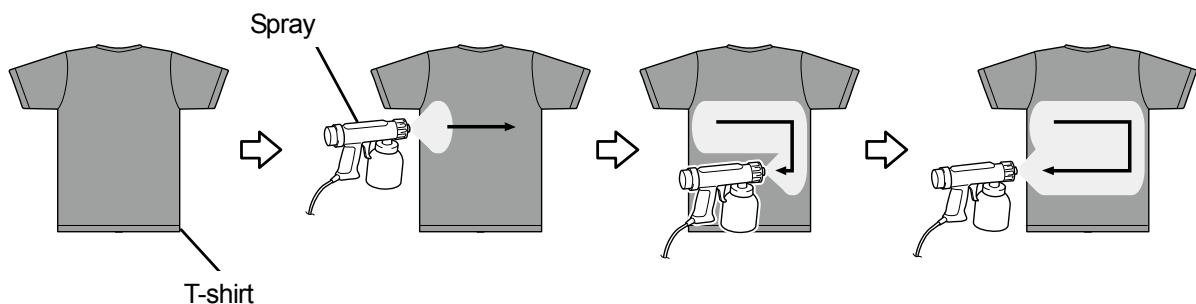
- Fully take care of the air ventilation when you work on operation that generates mist such as spray application.
- Be sure to wear a pair of plastic gloves, a mask and protective glasses (or goggles) designed to shield against liquid splash during the work operation.
- For information on handling of the pretreatment, see the Material Safety Data Sheet issued by us.
<http://sds.brother.co.jp/sdsapp/index.html>

<IMPORTANT>

- If you are using an electric spray to apply the pretreatment, perform the work at a place as far as possible from the printer. Otherwise, it may cause failure of print heads.

<TIPS>

- Note that pretreatment will not soak into the back (reverse) side of a T-shirt if you put an intermediate plate in the T-shirt. Remove the intermediate plate from the T-shirt before the pressing stage.
- When you are still unaccustomed to the spray coating, perform it while measuring the amount of coating by means of a weighing instrument.



X0084

For coating with a pretreatment roller (option)

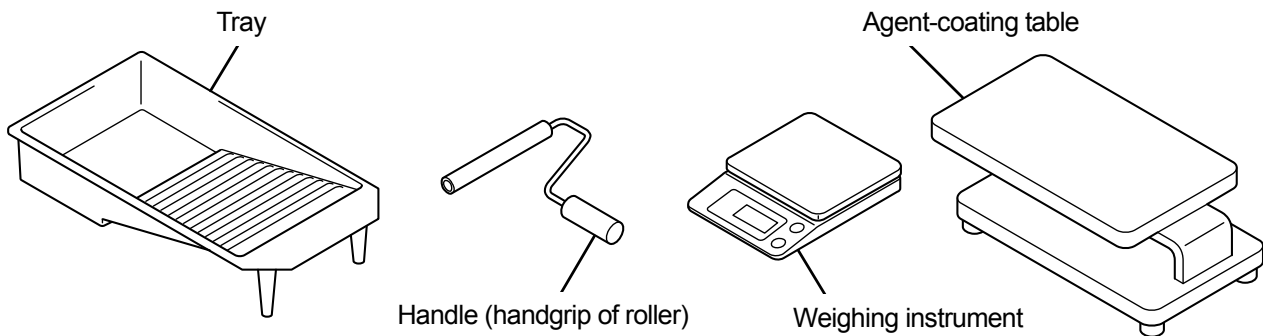
<TIPS>

- For details of the item code, refer to "10-4. About consumable supplies, optional items and replacement parts >>P.360".

- Make a polypropylene tray or the like, handle (handgrip for roller), weighing instrument to measure the amount of coating and agent-coating table ready for use.

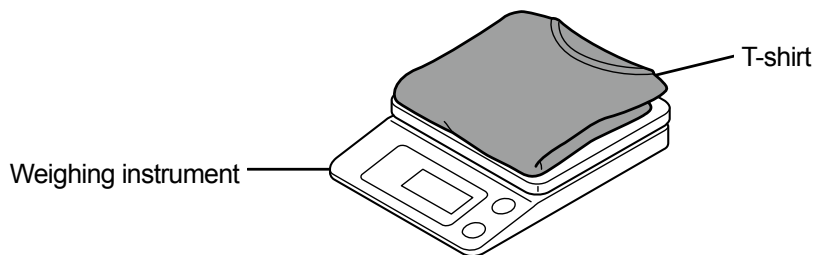
<TIPS>

- It is convenient for you to use an agent-coating table that can cover the print area, because it prevents the pretreatment from soaking into the underside of the area.



X0086

- Weigh a T-shirt before applying the pretreatment to it, so that you will be able to know how much of the agent you have applied to it later.

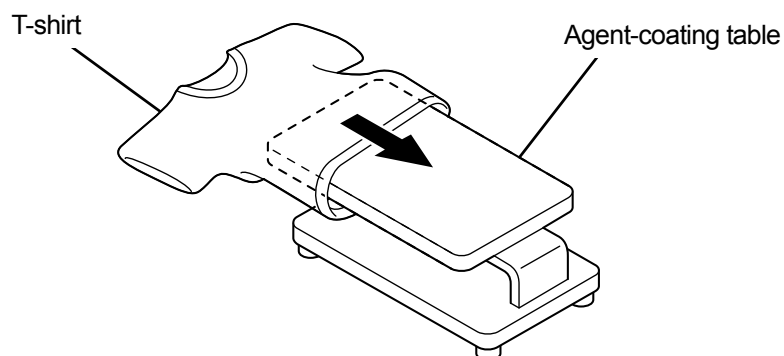


X0087

- Slide a T-shirt onto the agent-coating table, with its printing side facing upward.

<TIPS>

- Note that pretreatment agent will not soak into the back (reverse) side of a T-shirt if you put an intermediate plate inside the T-shirt when there is not an agent-coating table.

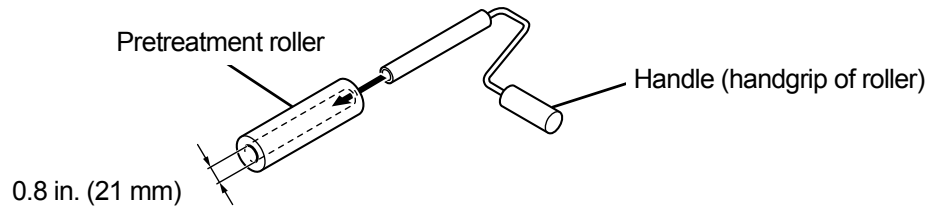


X0088

- (4) Attach the pretreatment roller to the handle (handgrip of roller).

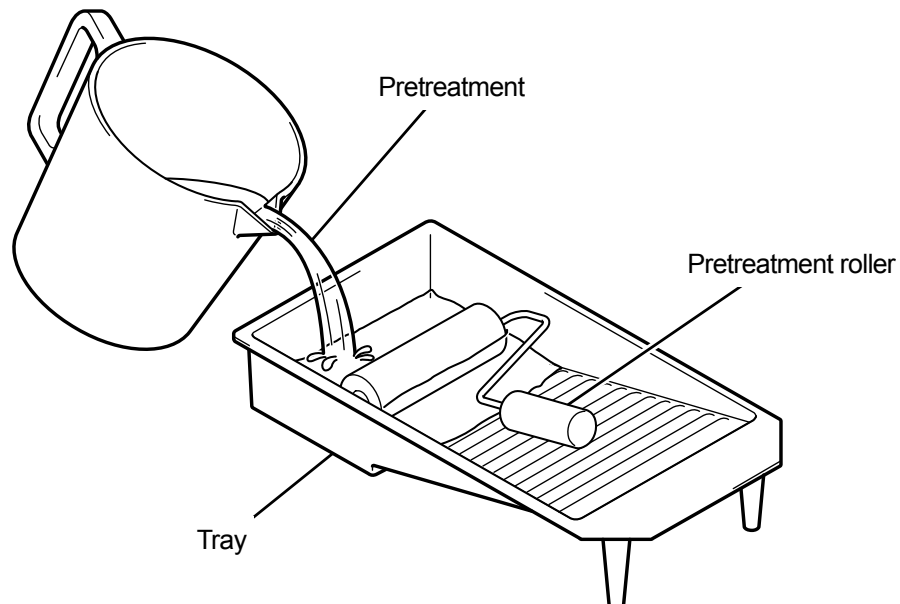
<TIPS>

- Use a commercially available handle provided with a roller that fits the pretreatment roller's inside diameter of 0.8 in. (21 mm).



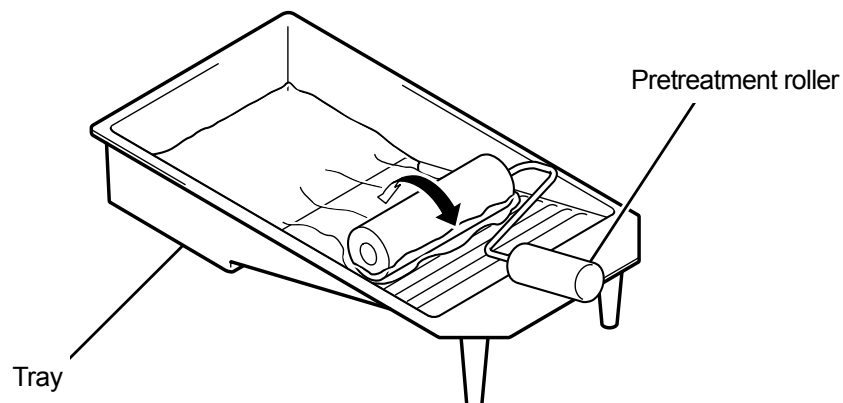
X0089

- (5) Pour the diluted pretreatment into the tray, and dip the pretreatment roller in the agent so that it will be dampened with the agent.



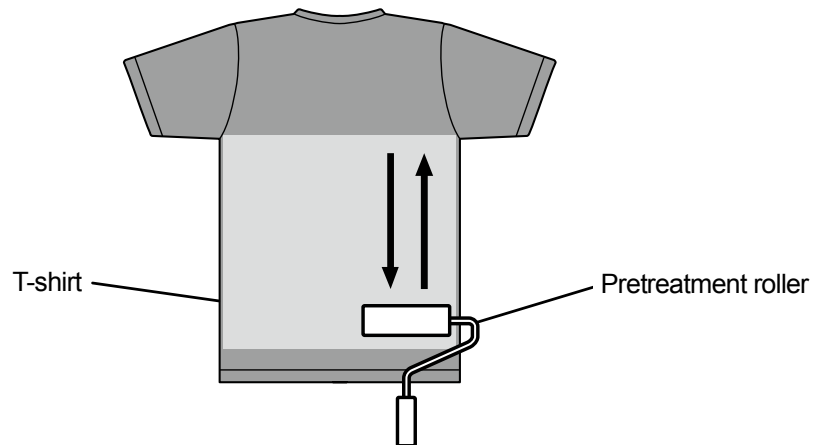
X0090

- (6) Rub the pretreatment roller well against the scrub board of the tray and squeeze a redundant agent out of it.



X0091

- (7) Move the pretreatment roller on the T-shirt in a longitudinal direction, and apply the agent evenly onto the print range.

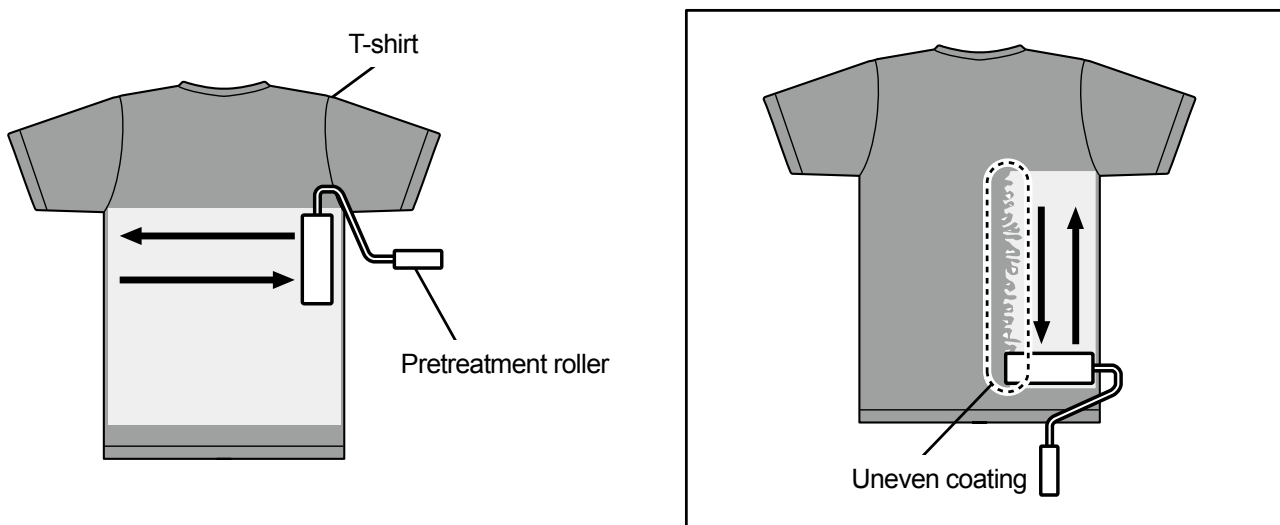


X0092

- (8) Move the pretreatment roller on the T-shirt in a lateral direction, and apply the agent evenly onto the print range.

<TIPS>

- Depending on a difference in the force applied by you to the pretreatment roller, the pretreatment may not be applied evenly to a T-shirt. Move the pretreatment roller repeatedly on each area to apply the agent evenly onto such area.
- When there is any area (gap) that fails to be coated with the pretreatment or any other area that is found to be unevenly coated, dip the pretreatment roller in the agent again, and apply the agent evenly there.

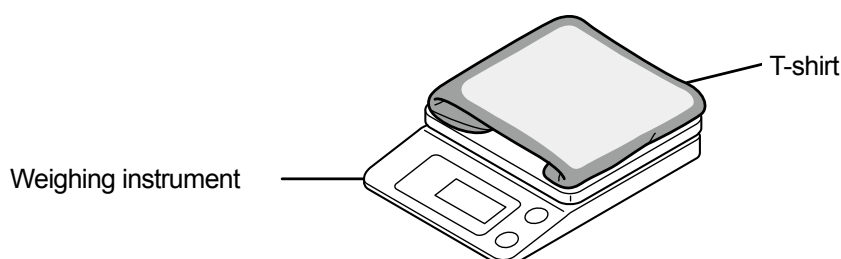


X0093

- (9) Weigh the T-shirt to check to see if the required amount of pretreatment has been applied to it.

<TIPS>

- For reference guide for the amount of coating of pretreatment, refer to "6-3-3. Application of pretreatment >>P.158".
- If the amount of coating is small, color reproduction of the white ink and color inks on the white ink will deteriorate.
- Meanwhile, if the amount of coating is too large, it is likely that a T-shirt may harden, imprints of the pretreatment may become noticeable or washing fastness may get worse and so on after the pretreatment is fixed.



X0094

Maintenance of pretreatment roller

If you continue using the pretreatment roller under a state in which any fuzziness, yarn waste, dust, etc. remain attached to its surface, you may not provide a uniform coating.

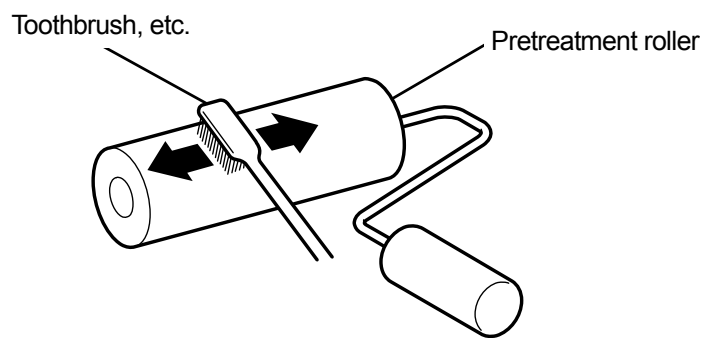
In such case, use a toothbrush or the like to brush off such fuzziness to remove it from the surface.

<CAUTION>

- Be sure to wear a pair of plastic gloves and protective glasses during the work operation.
- For information on handling of the pretreatment, see the Material Safety Data Sheet issued by us.
<http://sds.brother.co.jp/sdsapp/index.html>

<NOTE>

- After the pretreatment roller is used, put it in a plastic bag or the like hermetically to prevent it from drying up, and keep it in a flat place in an upright position.
Also, when it remains unused for two weeks or longer, wash it well with running water, and let it dry in a shaded area before using it again.



X0095

6-3-4. Fixation of pretreatment

<CAUTION>

- As the operation will generate mist, fully take care of the air ventilation.
- Be sure to wear a pair of plastic gloves, a mask and protective glasses (or goggles) designed to shield against liquid splash during the work operation.
- For information on handling of the pretreatment, see the Material Safety Data Sheet issued by us.
<http://sds.brother.co.jp/sdsapp/index.html>

<TIPS>

- Because the pretreatment will not work best if it is dried through oven-based drying or air drying, be sure to use the heat press. As the oven does not bind fuzziness, the agent may be applied unevenly on white print.
- When you put a T-shirt on the heat press, set it so as to flatten the T-shirt's surface, place a peel-off sheet on the entire press area, and apply pressure.
- Note that any area in which the pretreatment is fixated may cause its effect to deteriorate or could cause the agent to be coated there unevenly if such area gets wet once.
- Do not touch the treated area with your hand after the pretreatment is fixated.
- After the pretreatment is fixated, do not touch or place the T-shirts on top of each other.
- Avoid leaving the pretreatment as it is in any highly humid areas.
- If the agent is left unchecked for a long time, use the heat press to apply pressure to a T-shirt immediately before the printing in order to dry it well.

Guidelines on fixation conditions of pretreatment

The undermentioned fixation temperature/time serve as guidelines only, and optimum conditions vary with your heat press. Be sure to perform the fixation after checking on the temperature and fixation results beforehand.

<TIPS>

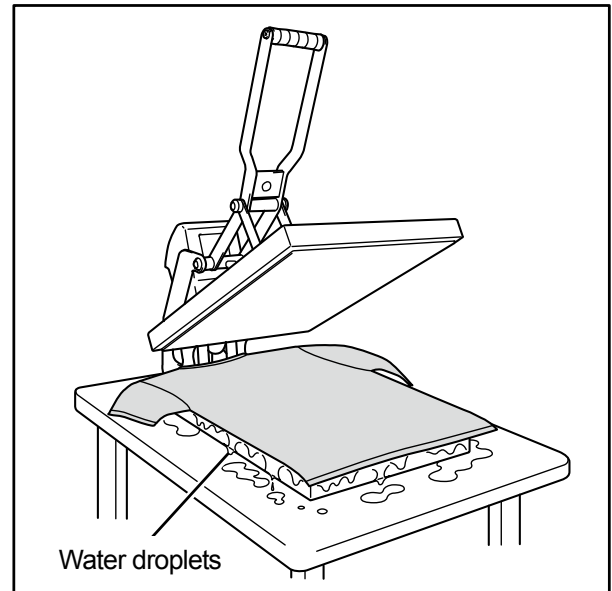
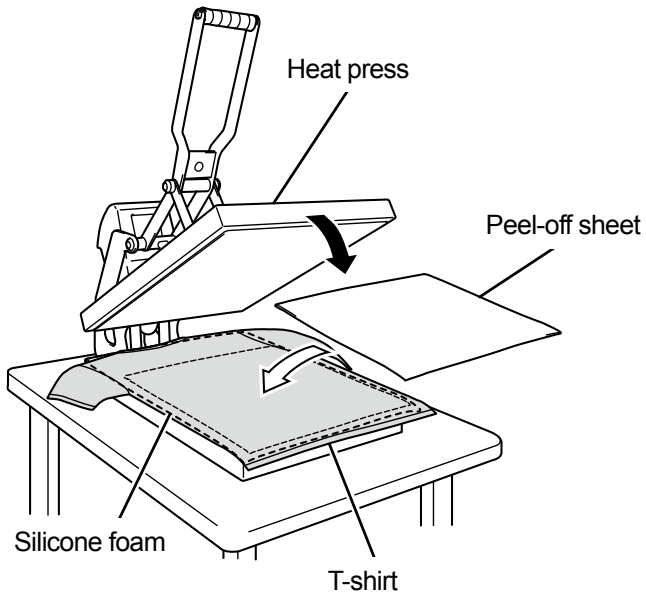
- Prior to and during a fixation process, check the heat press's temperature. If the fixation is performed continuously, the heat press's temperature will decrease, resulting in improper fixation of the pretreatment. In this case, the whiteness cannot be reproduced because the white ink soaks into the fabric of a T-shirt.
- Such a pressure is required that is adequate enough to flatten the surface. As the fixation conditions differ by heat press, check the ink fixation result in advance and adjust the pressure.
- If it is not dry enough after pressing for 35 seconds, extend the time while checking the dried condition of the pretreatment.
- The following values should be regarded as guidelines only, for the optimum fixation conditions depend on the amount of coating of pretreatment.

Temperature	Time
180°C (356°F)	35 seconds

- (1) Place the silicone foam, T-shirt and peel-off sheet in position under the heat press first, and fixate the pretreatment properly.

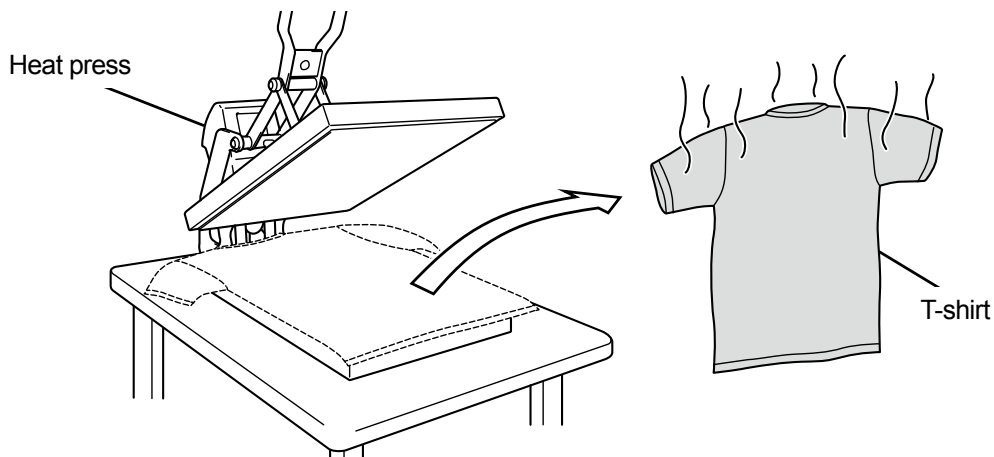
<TIPS>

- Water droplets are generated around the heat press to evaporate water content of the pretreatment by the heat of heat press. Keep your working space clean so that the surface to be coated with the agent will not get wet.
- A peel-off sheet should be used if needed, depending on the heat press you use.



X0096

- (2) Remove the T-shirt from the heat press so that the steamy heat will escape from it.



X0097


6-4. Platen adjustment

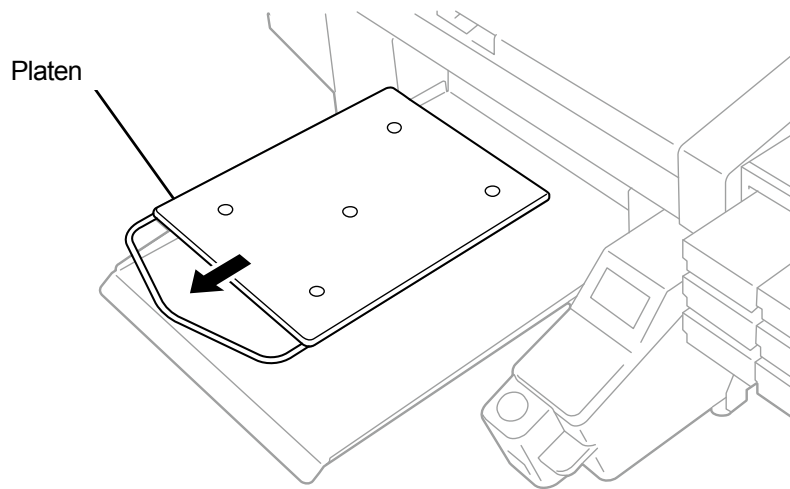
Replace the currently used platen with another one that suits the medium to be printed.

<TIPS>

- In cases where such an optionally sized platen as 10X12 platen is used, ascertain that a proper "Platen size" has been selected in the printer driver's setting menu. For details, refer to "5-6-1. For other applications: Selection of platen size >>P.124".
- If you are using the 16X21 platen, refer to "6-4-3. Using the 16X21 platen >>P.178".

6-4-1. Replacing the currently used platen with another one

- (1) On the operation panel, press , and move the platen toward the front of the printer.

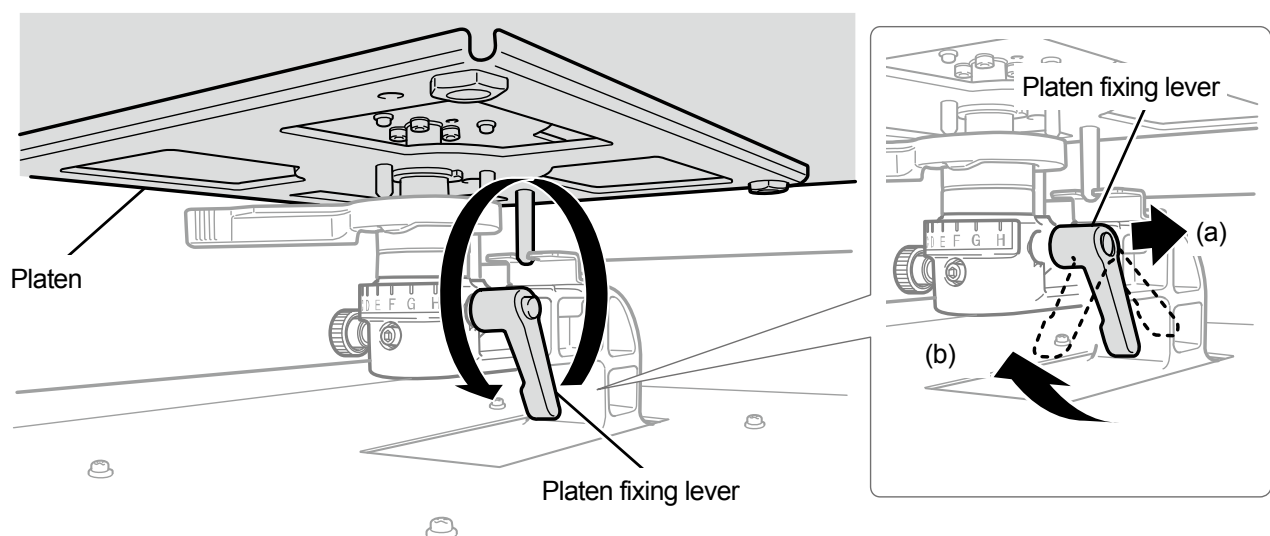


X0164

- (2) Loosen the platen fixing lever by rotating it one to two turns.

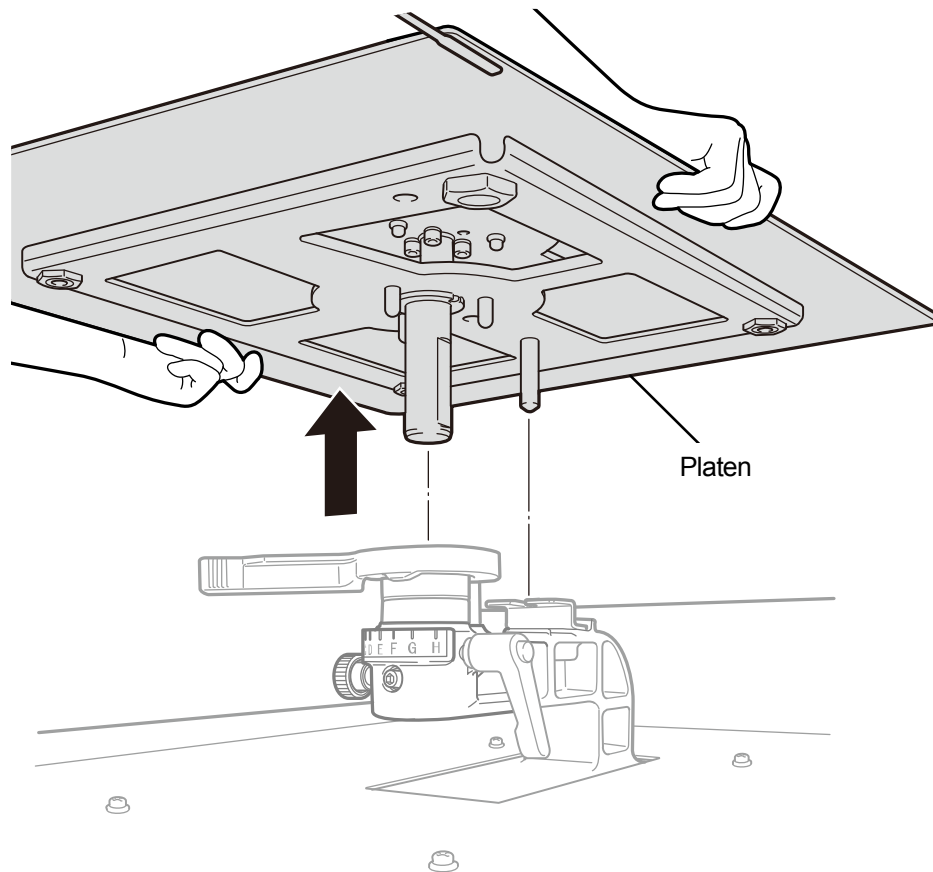
<TIPS>

- Depending on the height of the platen, the platen fixing lever may strike against the platen, and prevent rotation. In that case, move the platen fixing lever in the direction (a), draw the edge of the platen fixing lever forward as shown in (b), then loosen it again.



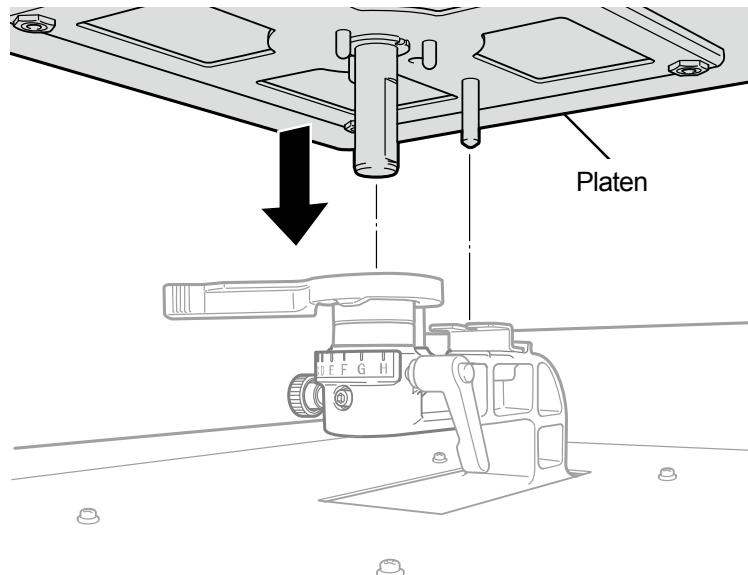
X0098

- (3) Remove the platen moving it straight upwards by holding both ends of it.



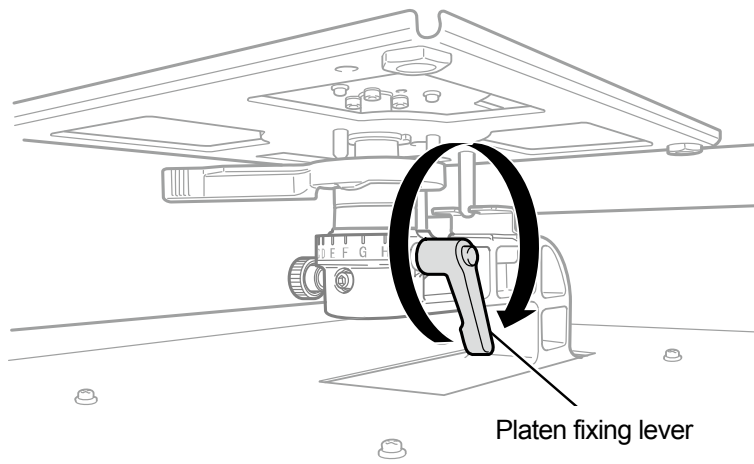
X0199

- (4) Put another platen to be used in position directly from above.



X0100

- (5) Tighten the platen fixing lever.



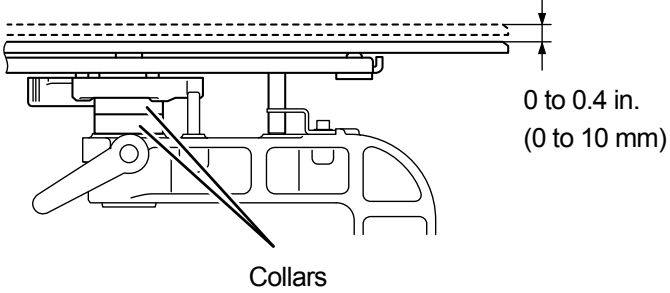
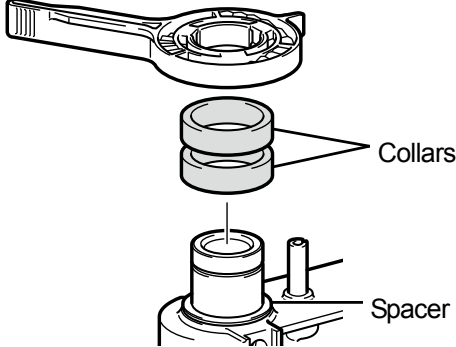
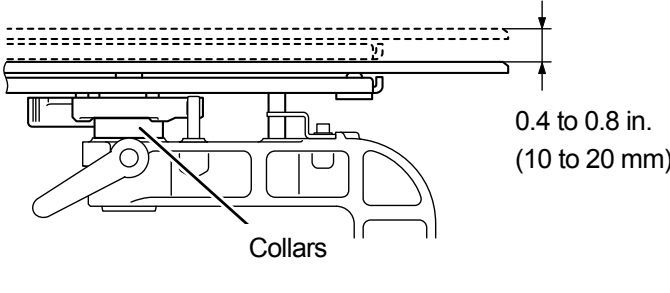
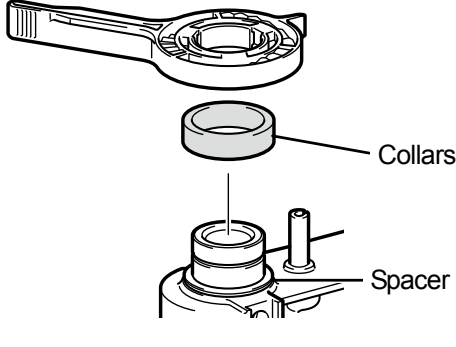
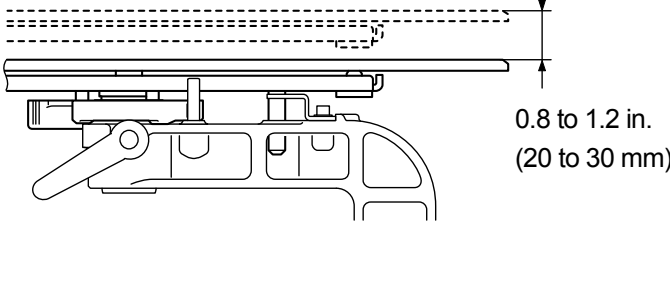
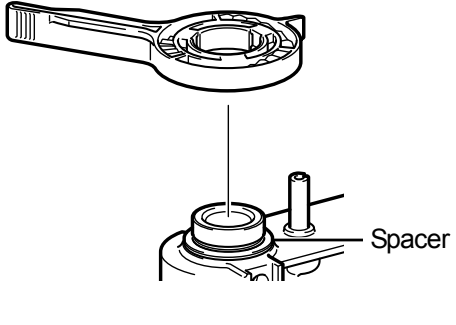
X0101

6-4-2. Platen height adjustment

When constantly printing on thick material, the platen height can be lowered by up to 1.2 in. (30 mm) by adjusting the platen bearing and collars.

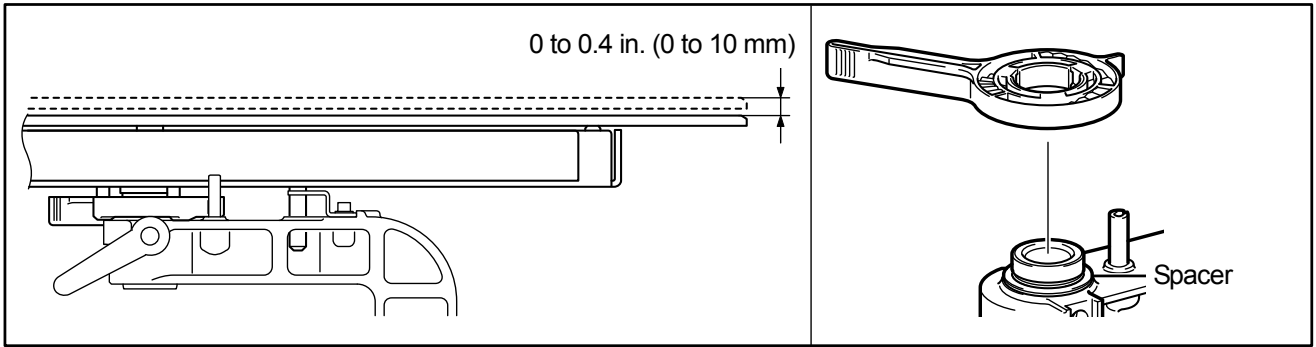
<TIPS>

- Please refer to the table below for the platen's height adjustment range (height A, measured from the platen height adjustment lever; with the standard parts installed).
- Spacers are installed on your printer so that the height can be the reference value. Do not change the number of spacers.
- When using the 16X21 platen, it can be used only at the lowest position. Remove all the collars before mounting the platen. Also note that the height adjustment range of the 16X21 platen is 0.4 in. (10 mm) at maximum.
- When adjusting the height, put the latch of the platen height adjustment lever into the groove of the platen bearing.

 <p>0 to 0.4 in. (0 to 10 mm)</p> <p>Collars</p>	 <p>Collars</p> <p>Spacer</p>
 <p>0.4 to 0.8 in. (10 to 20 mm)</p> <p>Collars</p>	 <p>Collars</p> <p>Spacer</p>
 <p>0.8 to 1.2 in. (20 to 30 mm)</p>	 <p>Spacer</p>

X0102

Case of 16X21 platen



X0165

As an example, the cases where the platen's height is set to the lowest position from the standard position and to the middle position from the lowest position are described below.

From the standard to the lowest position

- (1) Detach the platen.
- (2) Remove the platen fixing lever, platen height adjustment lever, and collars.

The number of collars and the height adjustment range are as follows:

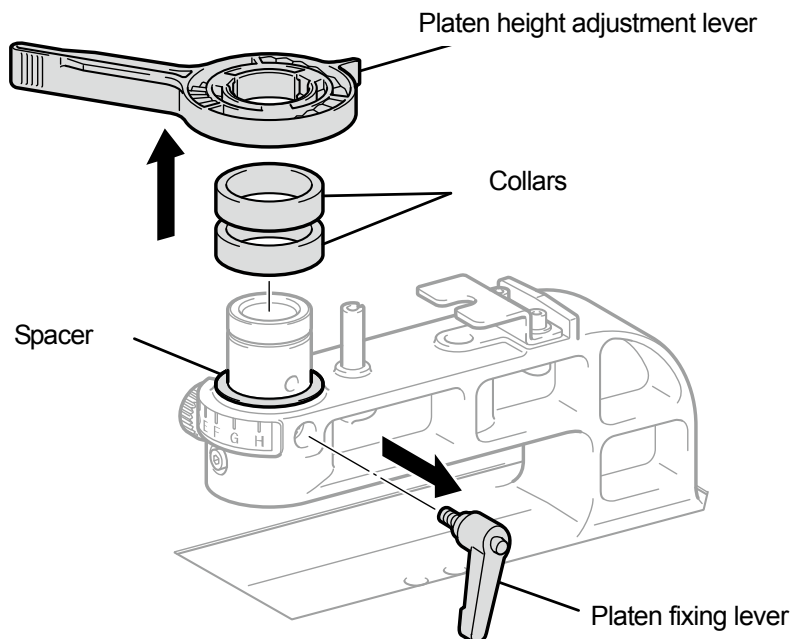
Position	Height	No. of collars
Highest position (standard)	0 to 10 mm	2
Middle position	10 to 20 mm	1
Lowest position	20 to 30 mm	None

Case of 16×21 platen

		No. of collars
Lowest position	0 to 10 mm	None

<TIPS>

- Spacers are installed on your printer so that the height can be the reference value. Do not change the number of spacers.



X0218

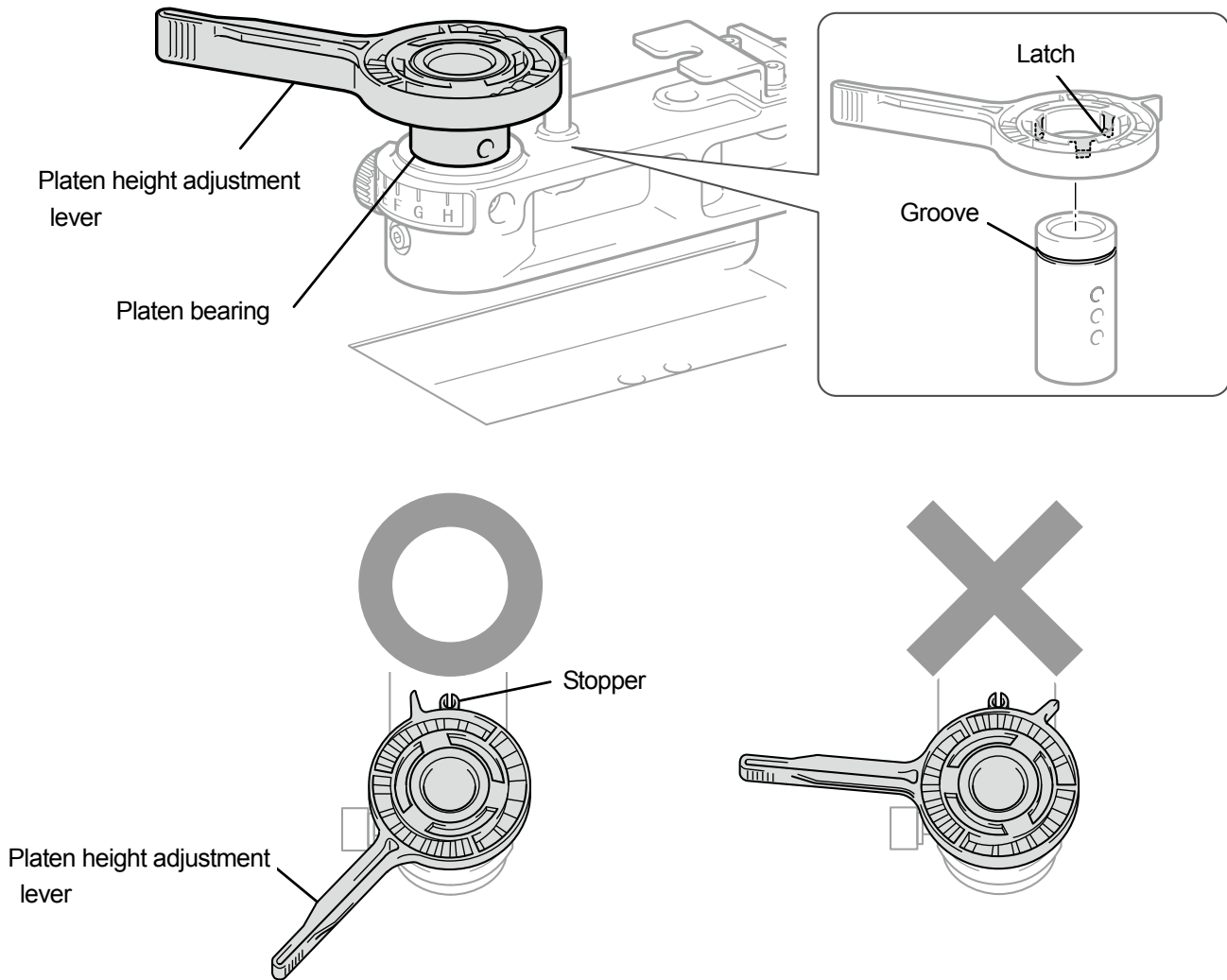
(3) Attach the platen height adjustment lever to the platen bearing.

<CAUTION>

- Attach the platen height adjustment lever to the position as illustrated in the figure below. The lever installed in the wrong position will interfere with the stopper when the platen is attached.

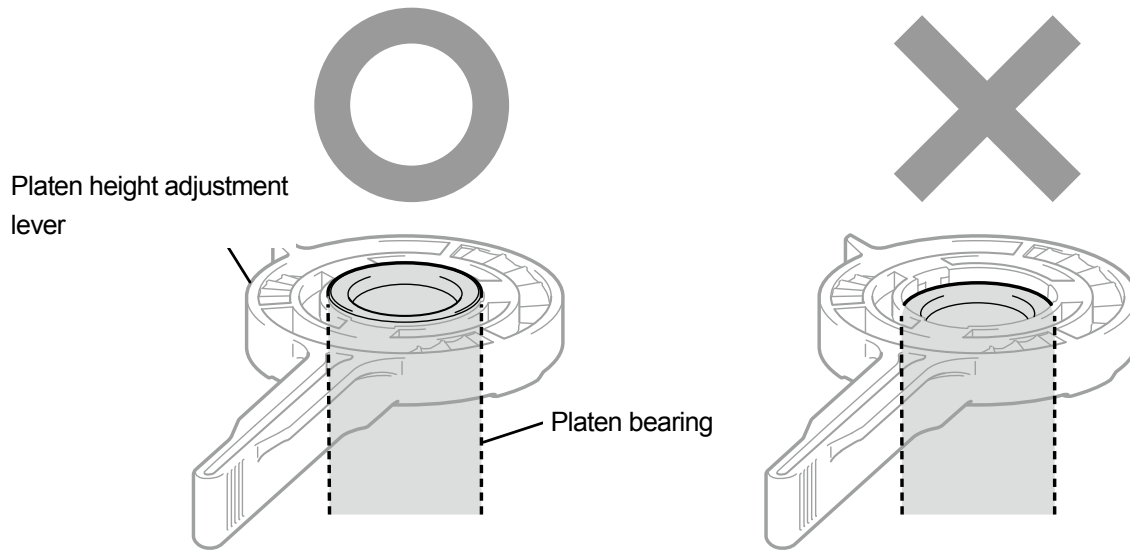
<TIPS>

- When adjusting the height, put the latch of the platen height adjustment lever into the groove of the platen bearing.



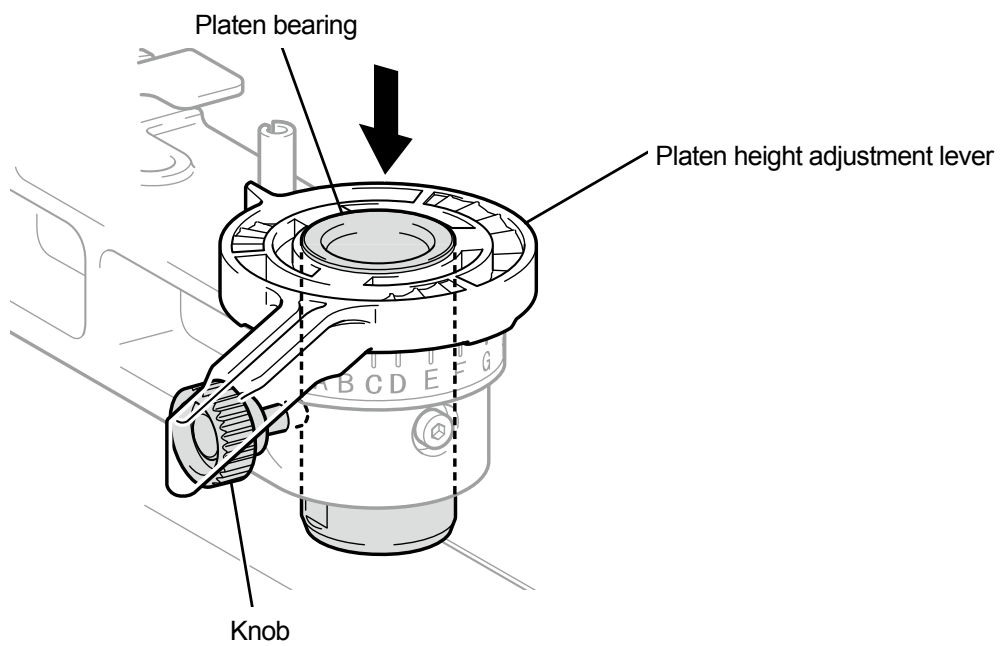
X0209

- (4) Check that the end position of the platen height adjustment lever is aligned with that of the platen bearing.



X0208

- (5) Loosen the knob while holding the platen height adjustment lever and lower the platen bearing and the height control lever.



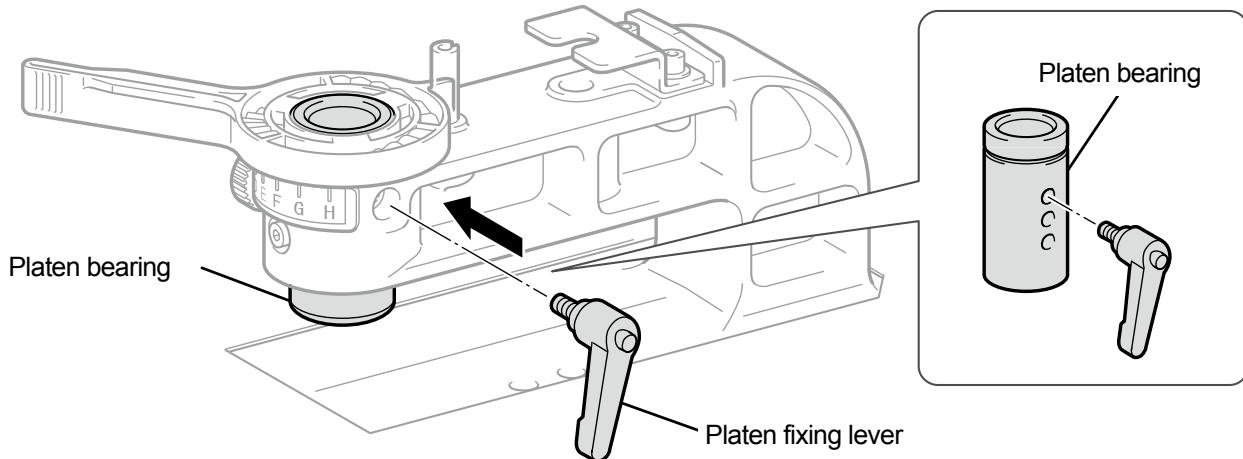
X0210

(6) Use the platen fixing lever to secure the platen temporarily.

The number of collars and the position of screw hole for the platen bearing differ by the height of the platen adjusted.

<TIPS>

- If you are setting the platen's height to the lowest position, remove all the collars and fix the platen bearing at its highest screw hole temporarily.
- If you are setting the platen's height to the middle position, attach one collar and fix the platen bearing at its middle screw hole temporarily.
- If you are setting the platen's height to the highest position, attach two collars and fix the platen bearing at its lowest screw hole temporarily.

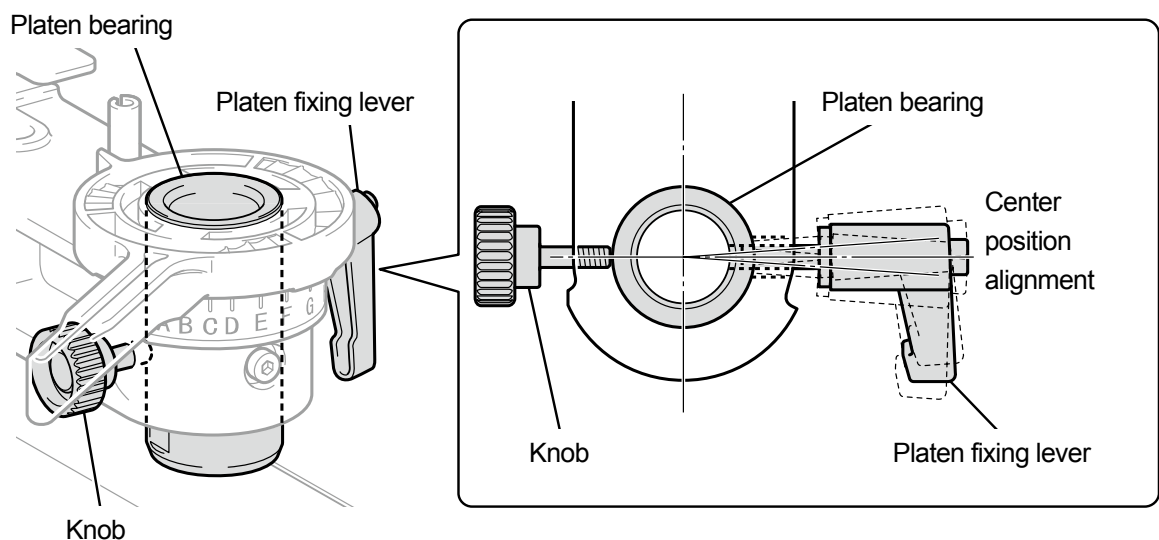


X0206

(7) Tighten the knob to secure the platen bearing in place.

<TIPS>

- Align the center of platen fixing lever with the position as illustrated in the figure below, and secure the platen bearing in place.



X0107

(8) Insert the platen to be used and tighten the platen fixing lever.

From the lowest position to the middle position

- (1) Detach the platen.
- (2) Remove the platen fixing lever, platen height adjustment lever.

The number of collars and the height adjustment range are as follows:

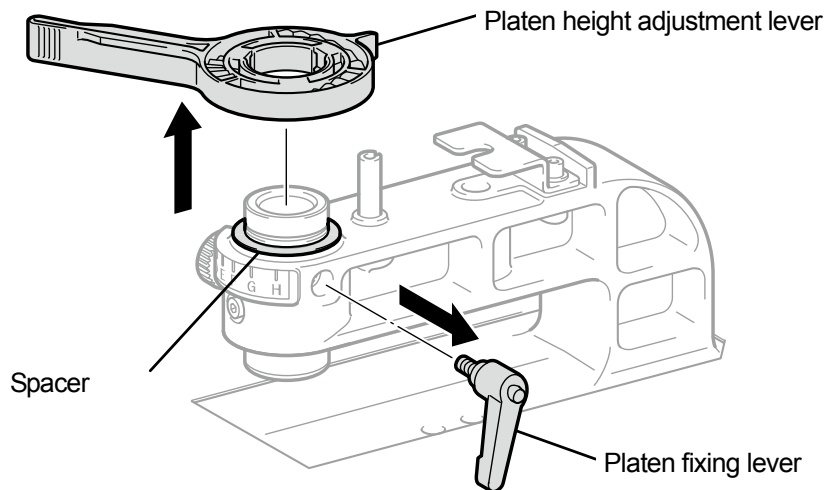
Position	Height	No. of collars
Highest position (standard)	0 to 10 mm	2
Middle position	10 to 20 mm	1
Lowest position	20 to 30 mm	None

Case of 16×21 platen

Position	Height	No. of collars
Lowest position	0 to 10 mm	None

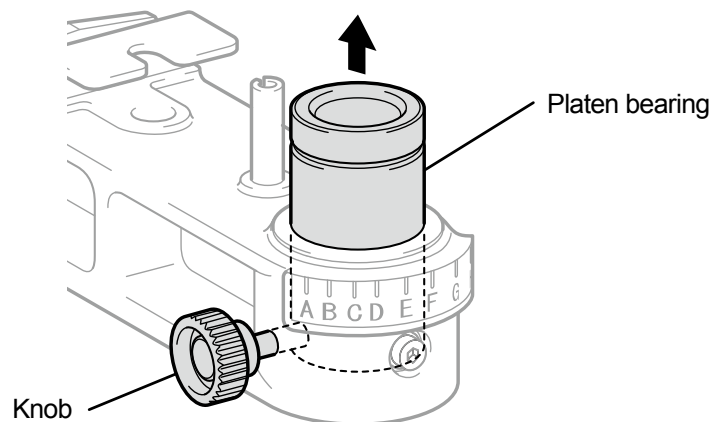
<TIPS>

- Spacers are installed on your printer so that the height can be the reference value. Do not change the number of spacers.



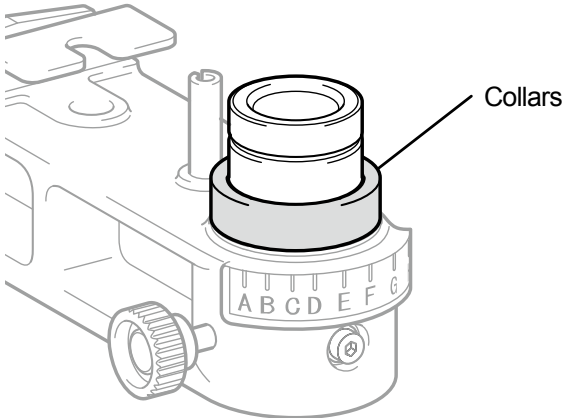
X0211

- (3) Loosen the knob while holding the platen bearing and lift the platen bearing to the top to tighten the knob again.



X0212

(4) Attach the collar.



X0213

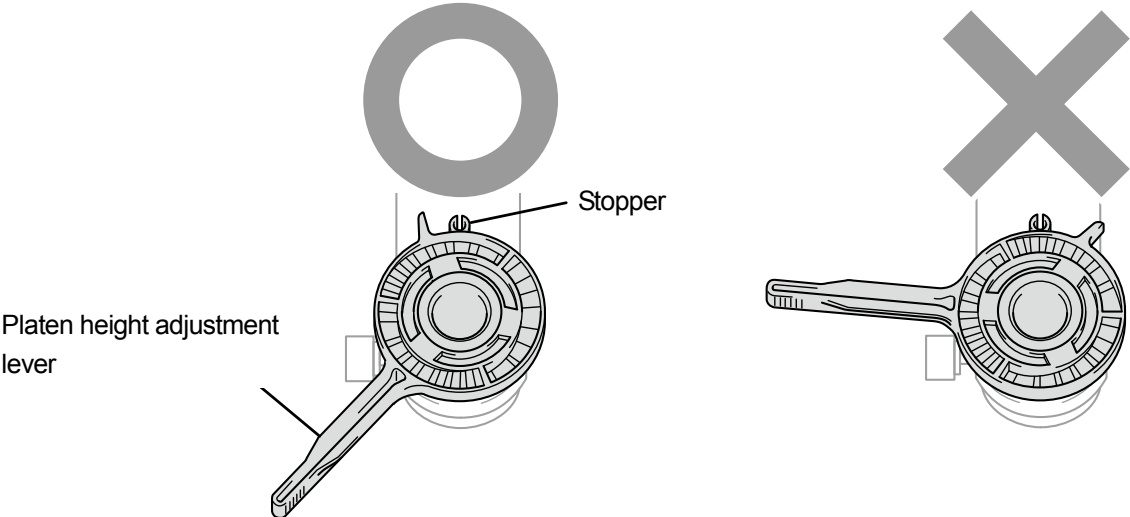
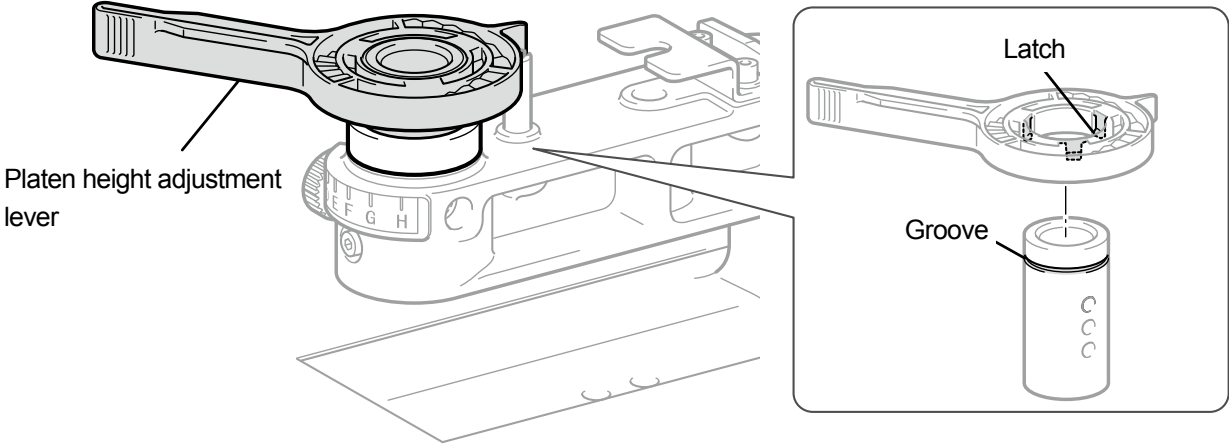
(5) Attach the platen height adjustment lever to the platen bearing.

<CAUTION>

- Attach the platen height adjustment lever to the position shown below. The lever installed in the wrong position will interfere with the stopper when the platen is attached.

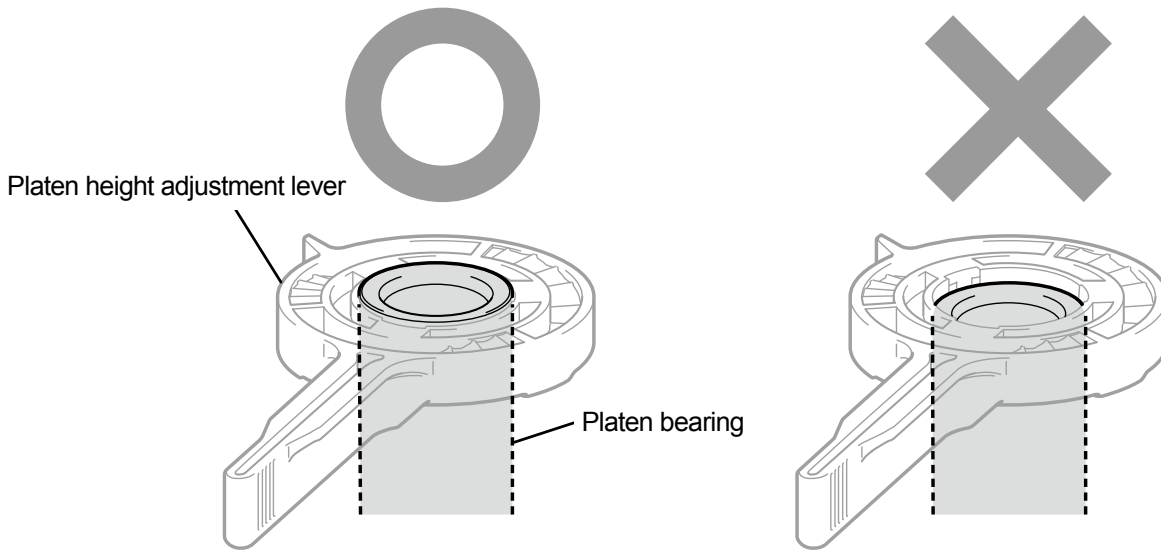
<TIPS>

- When adjusting the height, put the latch of the platen height adjustment lever into the groove of the platen bearing.



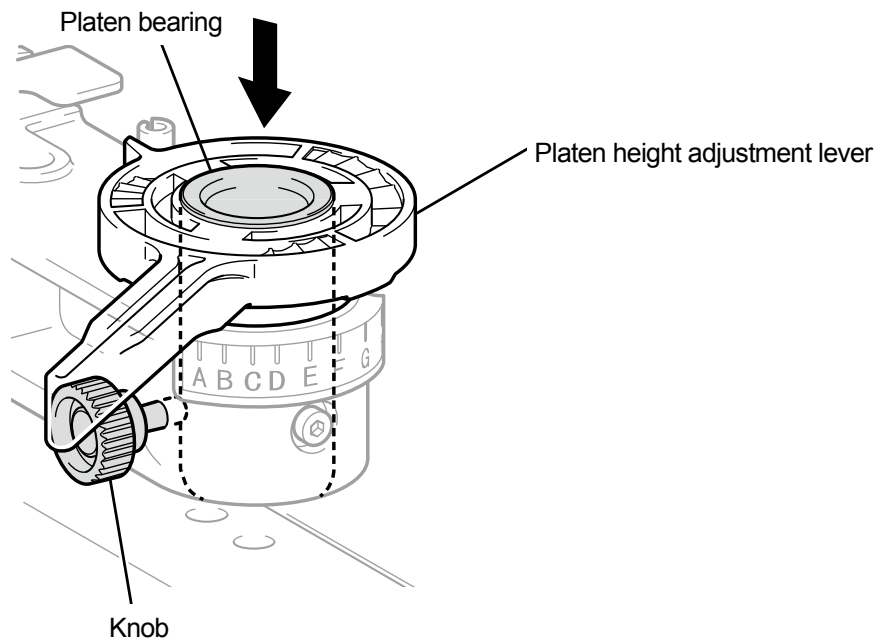
X0214

- (6) Check that the end position of the platen height adjustment lever is aligned with that of the platen bearing.



X0208

- (7) Loosen the knob while holding the platen height adjustment lever and lower the platen bearing and the height control lever.



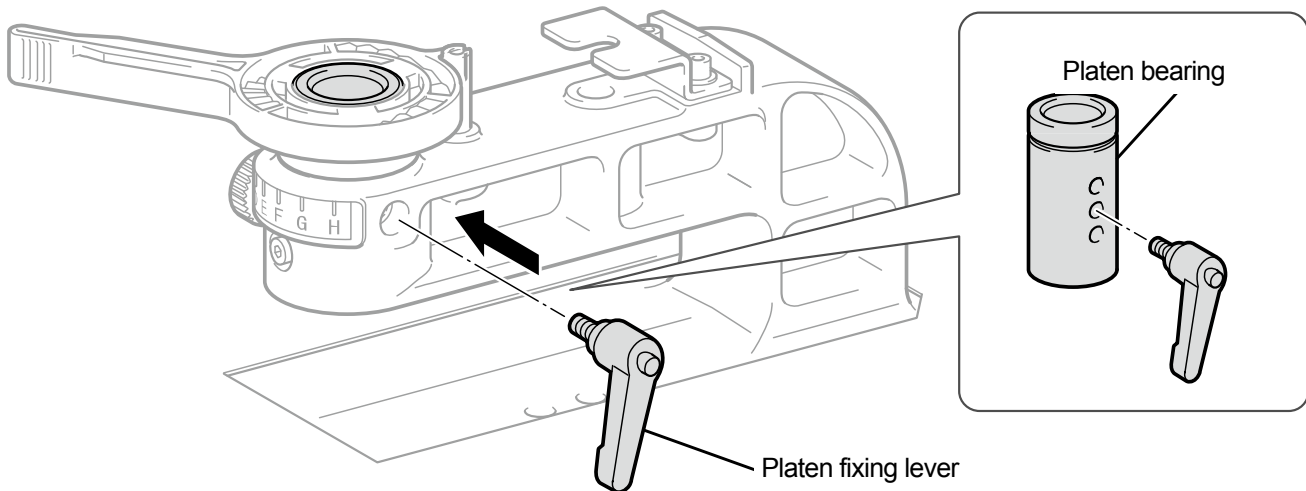
X0215

(8) Use the platen fixing lever to secure the platen temporarily.

The number of collars and the position of screw hole for the platen bearing differ by the height of the platen adjusted.

<TIPS>

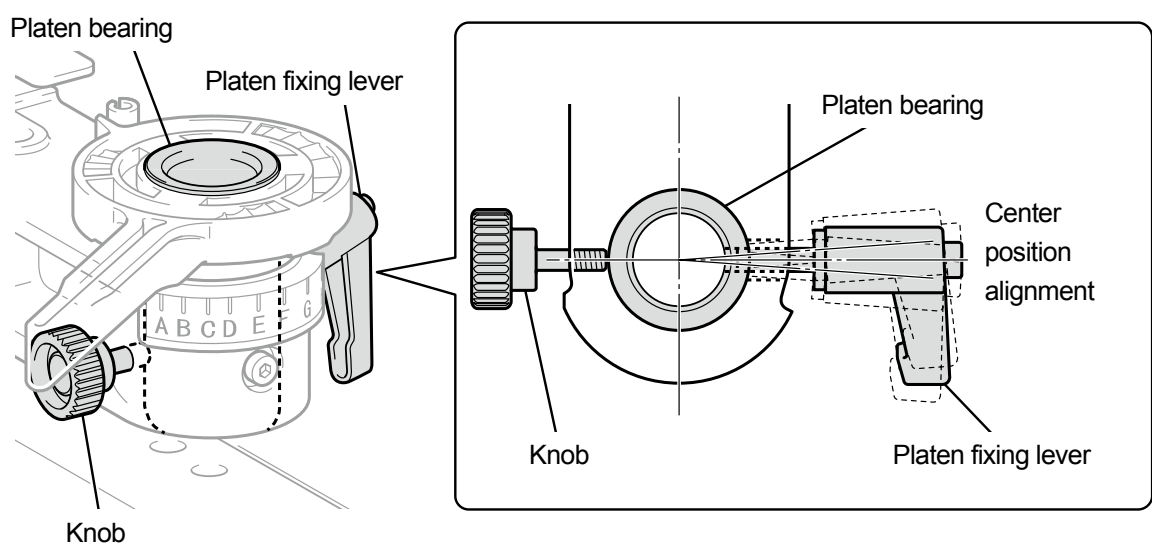
- If you are setting the platen's height to the lowest position, remove all the collars and fix the platen bearing at its highest screw hole temporarily.
- If you are setting the platen's height to the middle position, attach one collar and fix the platen bearing at its middle screw hole temporarily.
- If you are setting the platen's height to the highest position, attach two collars and fix the platen bearing at its lowest screw hole temporarily.



X0216

(9) Tighten the knob to secure the platen bearing in place.**<TIPS>**

- Align the center of platen fixing lever with the position as illustrated in the figure below, and secure the platen bearing in place.



X0217

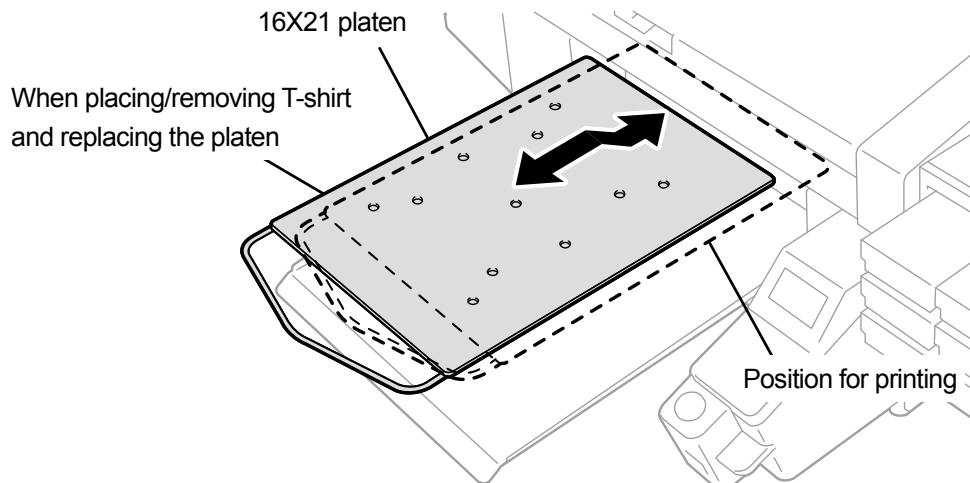
(10) Insert the platen to be used and tighten the platen fixing lever.

6-4-3. Using the 16X21 platen

<CAUTION>

- When using the 16X21 platen, handle it with care because it is heavy. Be sure not to touch the moving parts of the platen. Otherwise you may be injured.
- When you slide the 16X21 platen manually, move it slowly.

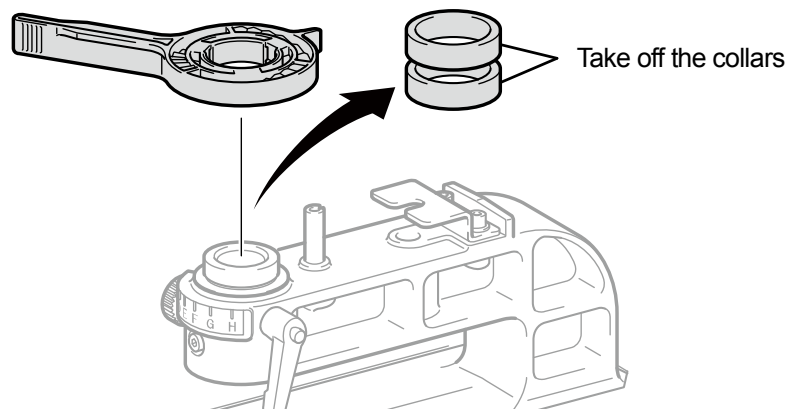
When you place or remove a T-shirt, and when you replace the platen, manually slide the platen forward and draw it out of the main unit completely to perform such operation. At this time, slide the platen while lifting it a little. When you perform printing, slide the platen backward and return it to the printing position before starting the print process.




X0158

<TIPS>

- When using the 16X21 platen, remove all the collars for height adjustment before using it. For information on platen height adjustment, refer to "6-4-2. Platen height adjustment >>P.169".

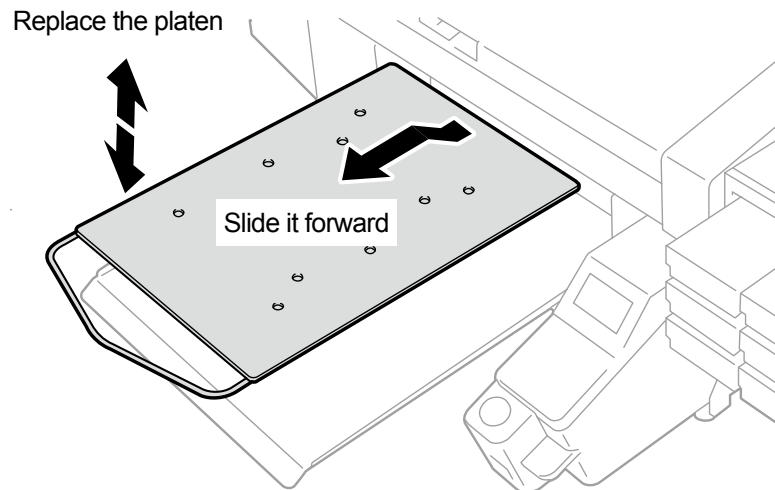


X0167

- (1) On the operation panel, press , and move the 16x21 platen toward the front of the printer.
- (2) Slide the 16X21 platen while lifting it a little to draw it forward.
- (3) Perform the work for placing or removing a T-shirt and replacing the platen in this condition.

<TIPS>

- For information on replacing the platen, refer to "6-4-1. Replacing the currently used platen with another one >>P.166".
- For information on placing or removing a T-shirt, refer to "6-5. Placing print medium in position >>P.180".

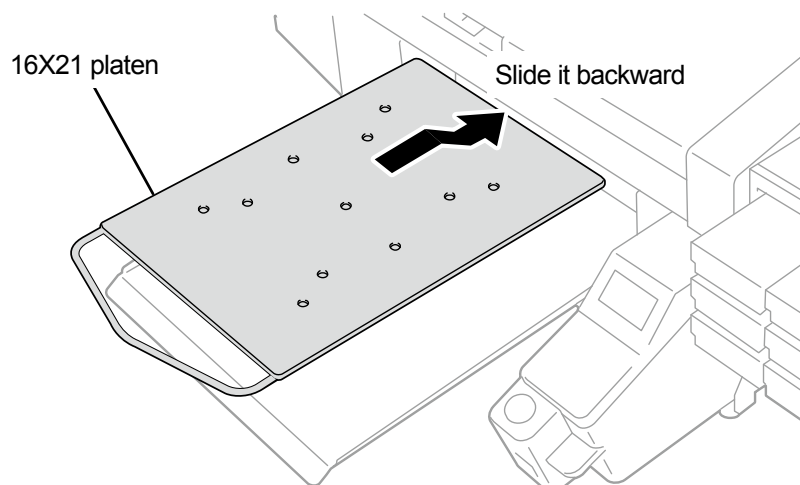


X0166

- (4) When you finish placing or removing a T-shirt, and replacing the platen, slide the platen backward and return it to its printing position.

<IMPORTANT>

- As the platen is positioned higher when it is slid forward, it is detected by the obstacle sensor, which prevents printing from being performed. However, if the platen's height is set at the lowest position, the platen is not detected by the obstacle sensor, and printing may be performed outside the print range of the platen. Make sure to start printing after sliding the platen to the printing position.



X0168

6-5. Placing print medium in position

In order to provide an optimum printing image quality when a print medium is placed in position, you need to adjust the platen's height in accordance with the thickness of the T-shirt or other print medium.

<CAUTION>

- Ensure there is adequate space left in front of the printer and avoid placing any objects that may hinder your movement or the complete movement of the platen. The platen moves forward while operating and it can strike/damage anything set in its path of movement.
- Do not handle the platen while printing. If your hand gets caught between the platen or the T-shirt tray and the covers, it may be injured.

<IMPORTANT>

- Do not move the platen by hand. Otherwise the printer may be mechanically and electrically damaged.

<TIPS>

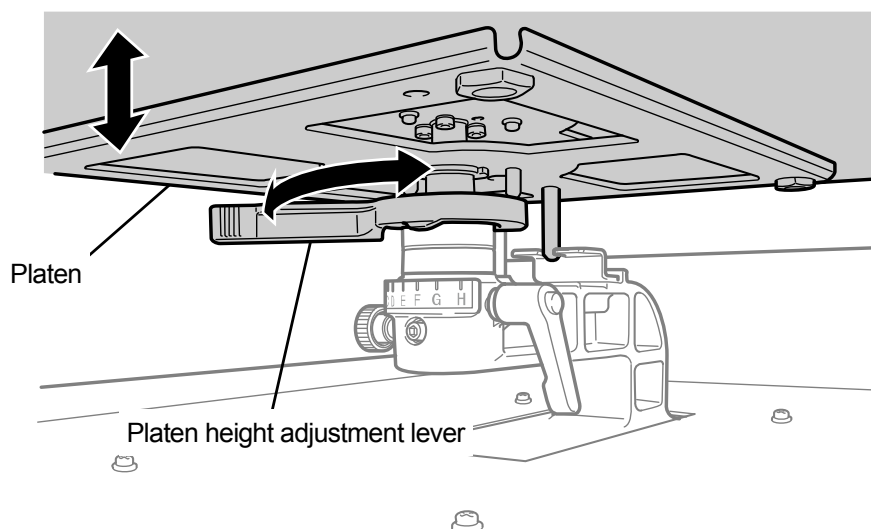
- Adjust the height of the platen corresponding to the print medium before using it. You can use the platen height adjustment lever to adjust the height of the platen. As a rough indication, adjust the height so that it is lowered by one step from the limit height detected by the obstacle sensor, and check that the platen is not detected by the sensor.
In the event that the platen's height is lowered excessively, ink mist will be scattered inside the printer, which may result in staining of the printing surface, blurring of the printed image, and malfunction of the sensor and the main unit.
- Use Uni-Directional Printing in the case where the platen's height needs to be lowered to avoid a hemmed (edge) and seam. For details, refer to "8-1. Setting the print direction >>P.262".
- You can specify the Uni-Directional Printing for each print data from the printer driver as well. For details, refer to "5-3-12. For GTX Graphics Lab: Specifying print direction >>P.93" or "5-6-11. For other applications: Specifying print direction >>P.137".
- When you print a thick printing material, you can always lower the platen's height by adjusting the platen bearing, collars. For details, please refer to "6-4-2. Platen height adjustment >>P.169".
- If you are using the 16X21 platen, refer to "6-4-3. Using the 16X21 platen >>P.178".

(1) If the platen has not been moved forward, press  on the operation panel.

(2) Use the platen height adjustment lever to adjust the height of platen.

<TIPS>

- Set the platen height adjustment lever to the position around "A" for a T-shirt, or to the position "C" for such thick material as a sweatshirt.
- If the platen's height is lowered too much, the printing quality may deteriorate, the main unit may be soiled with ink mist and so on.



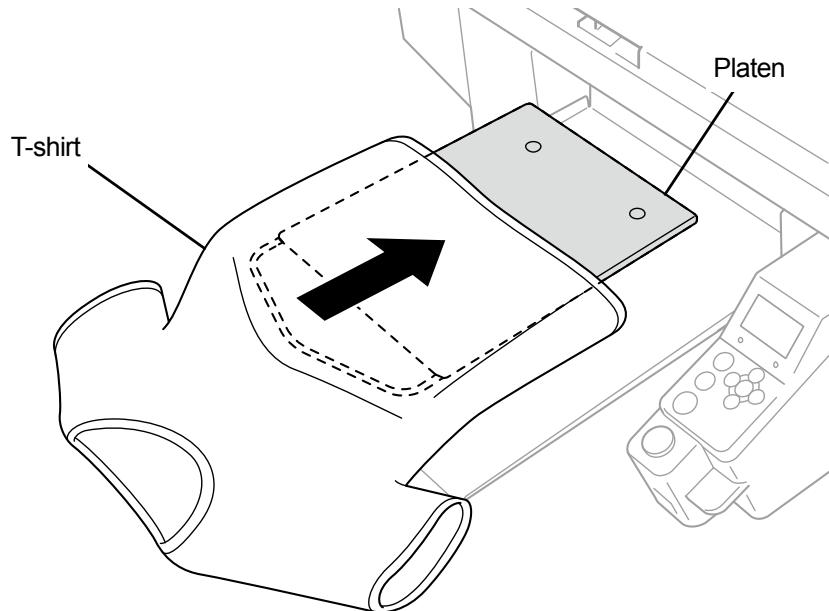
- (3) Put a T-shirt onto the platen, with its printing side facing upward.

<IMPORTANT>

- If the 16X21 platen is mounted, slide it forward and place a T-shirt on it.

<TIPS>

- For the position alignment of white or pale-colored T-shirts, a grid to be printed out on the platen sheet is available from [All Programs] in the Start menu, by selecting "Brother GTX-4 Tools" > "Useful Tools".
For details, refer to "5-7-4. Printing a grid pattern onto platen sheet >>P.140".

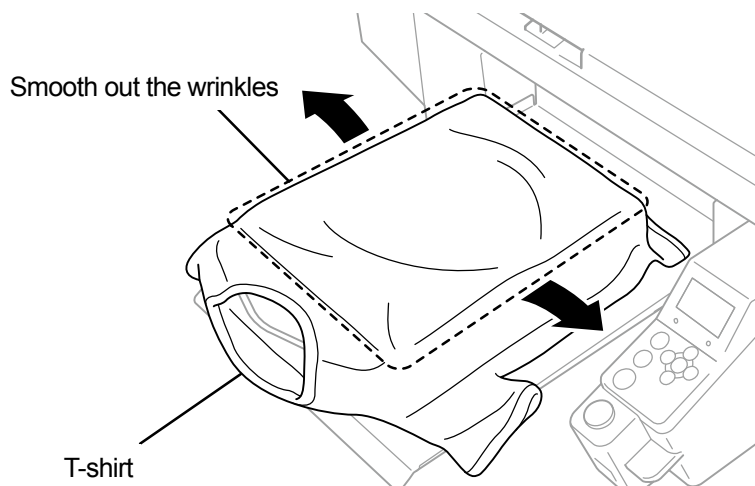


X0110

- (4) Smooth down the creases in the T-shirt and remove lint and dust from it.

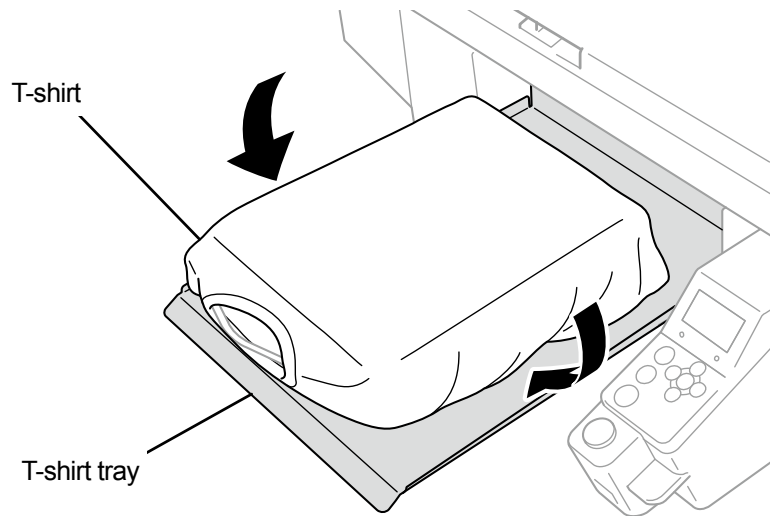
<TIPS>

- Seams on a hemmed (edge), neck portion, armhole, tucks and sleeves or the like are easily detected by the obstacle sensor.
- In particular, both ends of the T-shirt tend to be raised easily during the printing operation if not flattened properly and detected by the obstacle sensor.
- Touching on the fixated pretreated surface should be avoided during the work.
- Do not pull the T-shirt with the pretreatment applied. Instead, flatten it in such a way that it will fit onto the platen surface well.
- When the surface of the T-shirt does not remain flattened properly, the obstacle sensor detects it.
- In the event that any T-shirt is placed on the platen by pulling it outward forcibly, there are instances in which ejection areas of the white and color inks are misaligned and the white ink extends off its specified printing area. In particular, be careful not to stretch a thin T-shirt outward on the platen.




X0111

- (5) The T-shirt should be placed on the T-shirt tray, trying not to draw the excessive parts like sleeves and hems into the printer.




X0112

- (6) On the operation panel, press , and move the platen toward the rear of the printer.

Try moving the platen, and check on the gap between the T-shirt surface and the obstacle sensor over the entire print area.

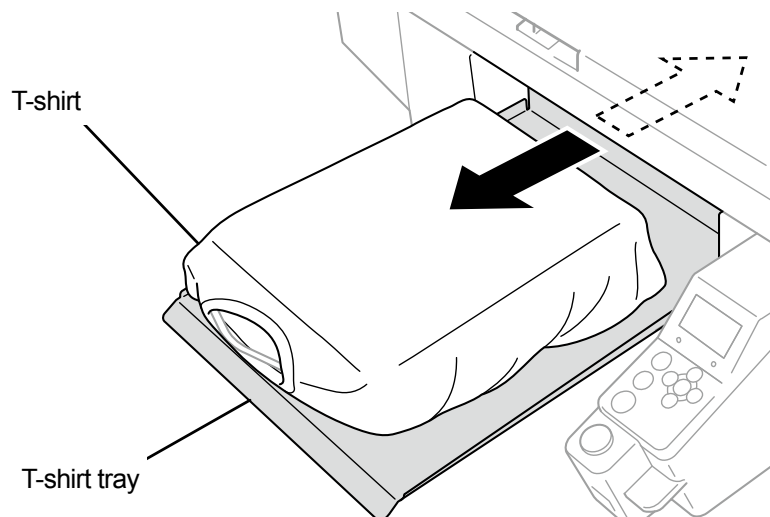
<TIPS>

- If this gap is too wide, adjust it by rotating the platen height adjustment lever.
- Adjust the height so that it is lowered by one step from the limit height detected by the obstacle sensor, and check that the platen is not detected by the sensor.
- If the platen's height is too high, a print medium will strike against the print head during the printing process, which in turn results in ink stains or malfunction.
- If the 16X21 platen is mounted, manually slide it backward until it returns to the original position, then move the platen toward the rear of the printer.

- (7) On the operation panel, press , and move the platen toward the front of the printer.

<TIPS>

- Repeat the height adjustment until the platen will be positioned at a proper height.
- After your desired height is determined, start the printing operation. For details, refer to "6-7. Executing a printing job >>P.197".



X0113

6-6. Sending/Loading Print Data

Print data can be loaded into the printer in the following ways:

- Receive the print data from the PC connected with the USB or LAN cable.
- Load the print data from the USB flash.

For details, please refer to the chapters described later.

6-6-1. Sending print data from ARX4 file preview

- (1) Open an ARX4 file.

<TIPS>

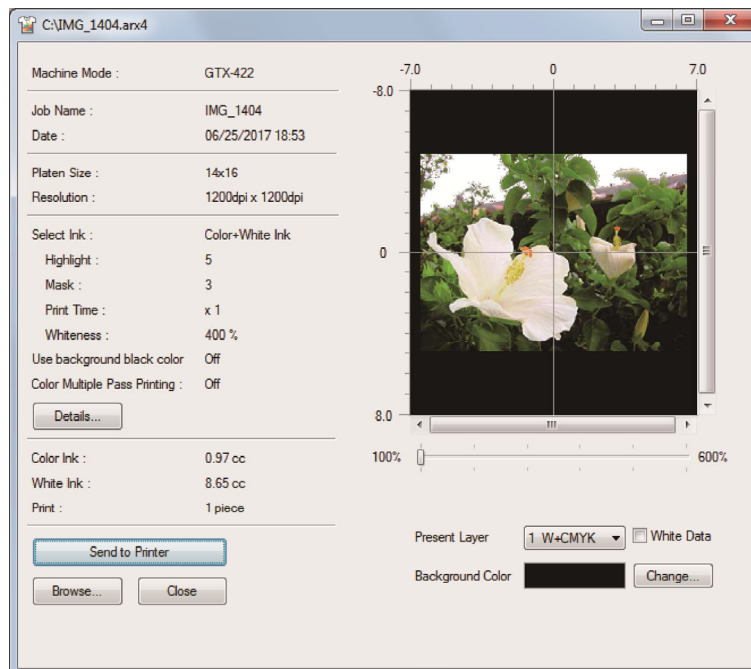
- Double click on the ARX4 file, or select [All Programs] > "Brother GTX-4 Tools" > "GTX-4 File Viewer", to select and open the ARX4 file.
- For details of how to save image data as ARX4 file, please refer to the descriptions of respective applications contained in "5-2-8. Creating print data (ARX4 file) from GTX Graphics Lab >>P.75" or "5-4-6. Creating print data (ARX4 file) from GTX Graphics Lab Basic >>P.99" or "5-5. Creating print data from other applications >>P.101".

- (2) The file's printing conditions and preview window will be displayed.

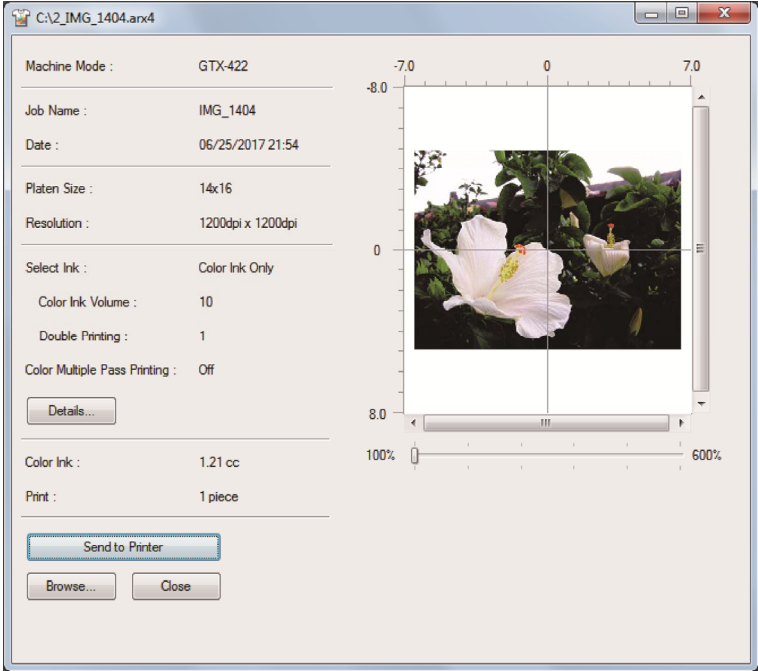
<TIPS>

- If you have selected [Color+White Ink] or [White Ink Only] in the Select Ink operation, the preview window will be displayed against a "Black" background or a "Transparent color" background which has been specified in the Advanced settings.
- If you have selected [Color Ink Only] in the Select Ink operation, the preview window will be displayed against a "White" background.
- When you press the Details button, those items that have been specified in the Advanced setting window of the printer driver appear.

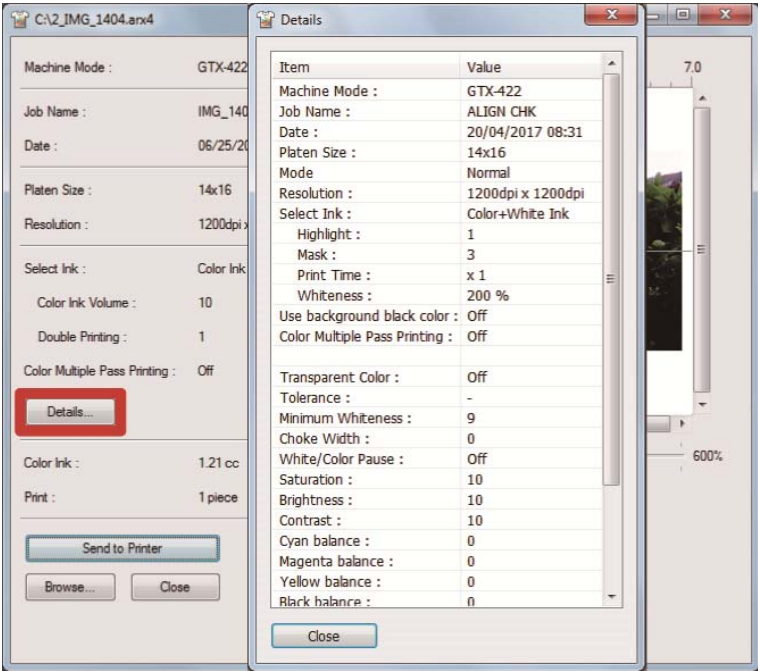
- When [Color+White Ink] or [White Ink Only] is selected



- When [Color Ink Only] is selected



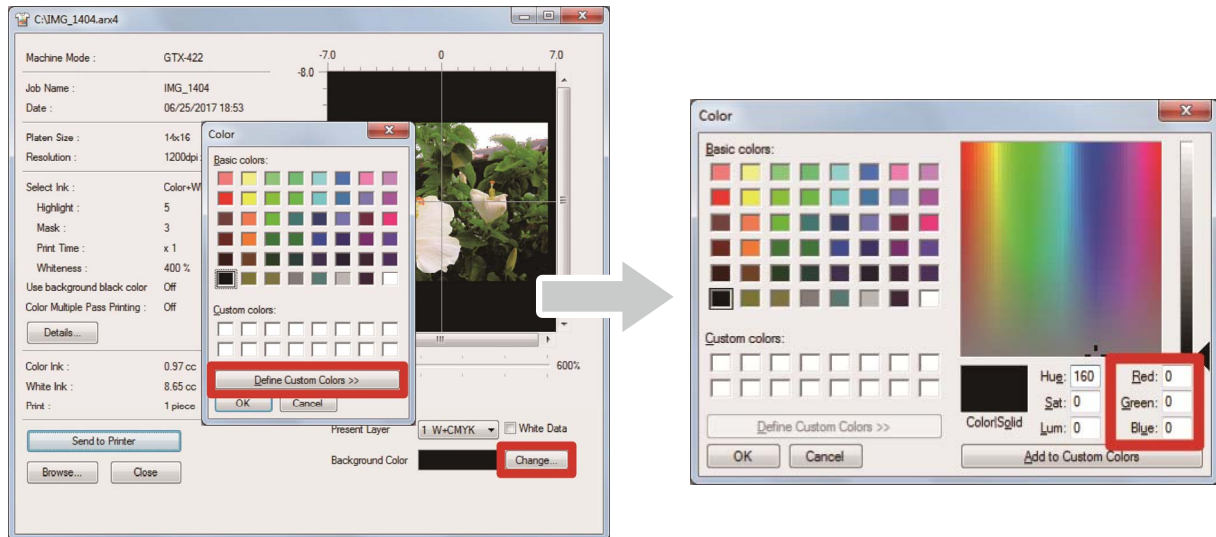
- [Details]



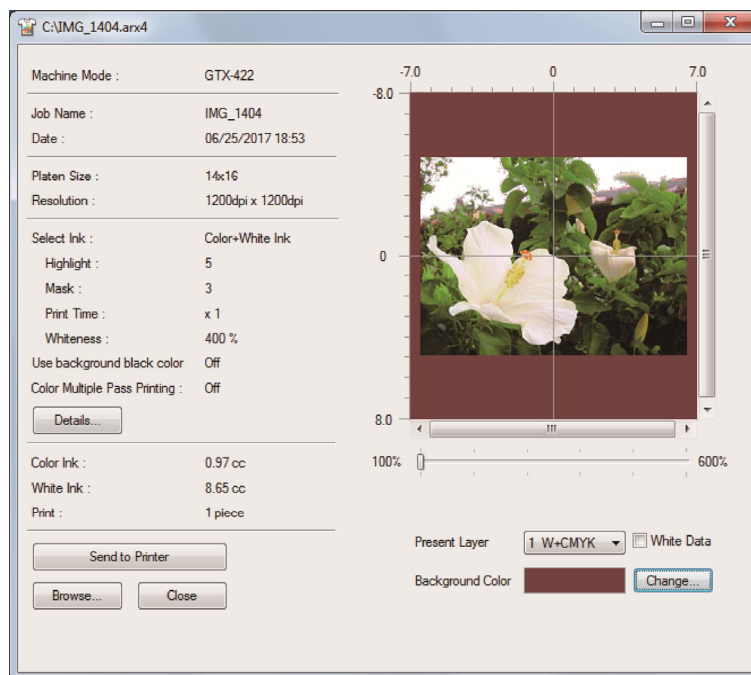
- (3) If you have selected [Color+White Ink] or [White Ink Only] in the Select Ink operation, you can change the background color of the preview window and preview the print image. Select [Change...] > [Define Custom Colors], and enter RGB value.

<TIPS>

- When the [White Data] checkbox is marked, the preview window for white ink only will be displayed.



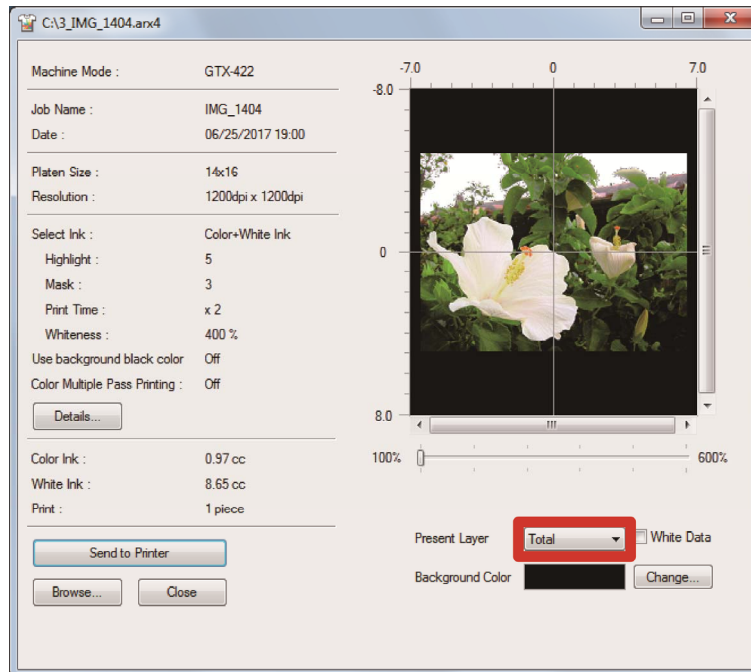
"Example: Preview window for printing an image on a brown (R=128, G=64, B=64) T-shirt"



- (4) For the print data that requires multiple cycles of platen reciprocate movement, print data of each layer can be verified separately by selecting the desired layer to be displayed. From the [Present Layer], select a layer that you want to bring into the view.

<TIPS>

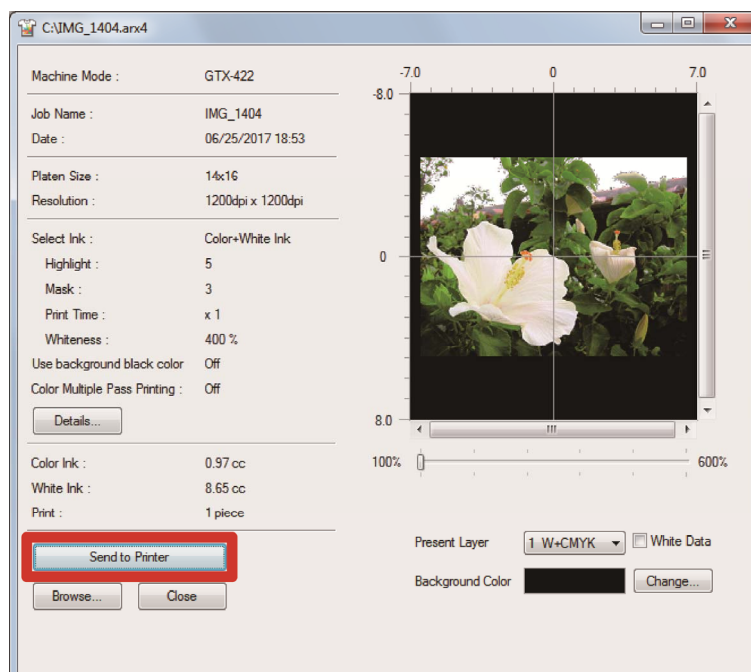
- In the layer that is shown as [Total], the preview window of the final print result is displayed.
- When the [White Data] checkbox is marked, the preview window for white ink only will be displayed.



- (5) Check the printing conditions and preview window, and click on [Send to Printer]. Then, the ARX4 file is sent to the printer.

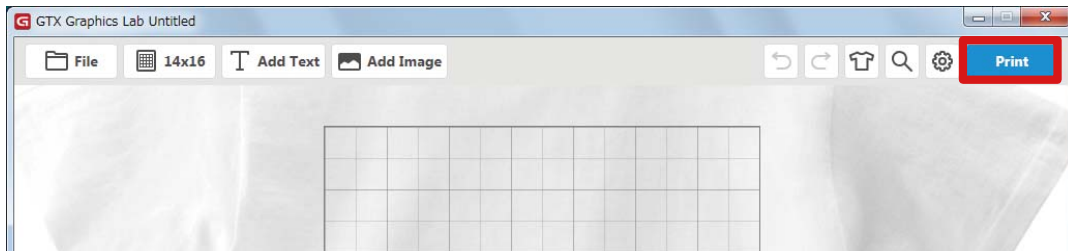
<TIPS>

- Make sure that a connection of USB 2.0 cable or LAN cable is made between your PC and the printer.
- In the event that two or more GTX-4 printer drivers have been installed on your PC, select one of them and click [OK].



6-6-2. Sending print data from GTX Graphics Lab

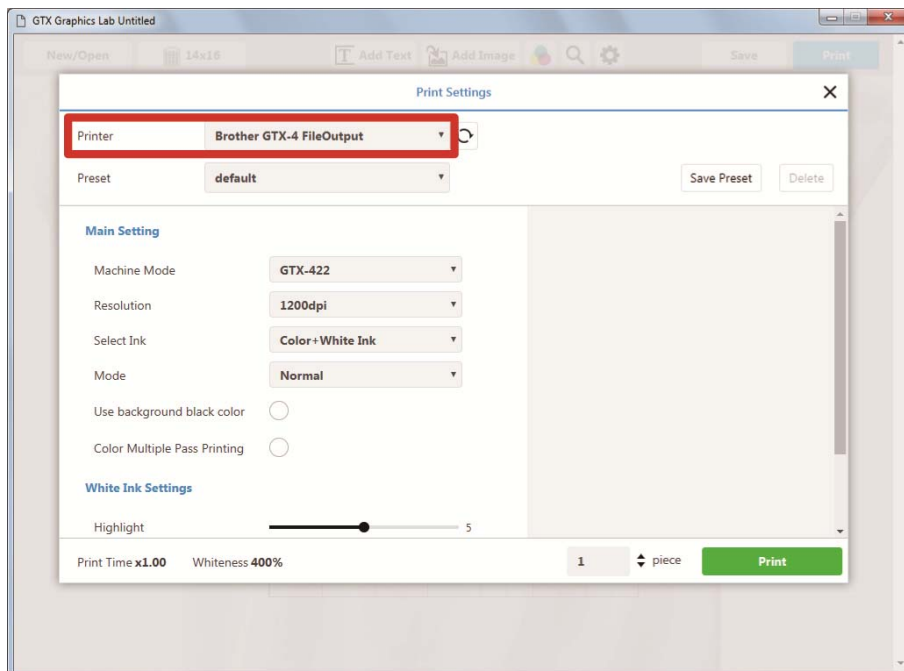
- (1) Open an image file in GTX Graphics Lab.
- (2) Click [Print].



- (3) From [Printer], select "Brother GTX-4".

<TIPS>

- If the specified [Printer] is set to "Brother GTX-4", the print data will be sent to the printer.
- If the specified [Printer] is set to "Brother GTX-4 FileOutput", the print data will be saved as an ARX4 file.



- (4) Create your settings for the printer driver.

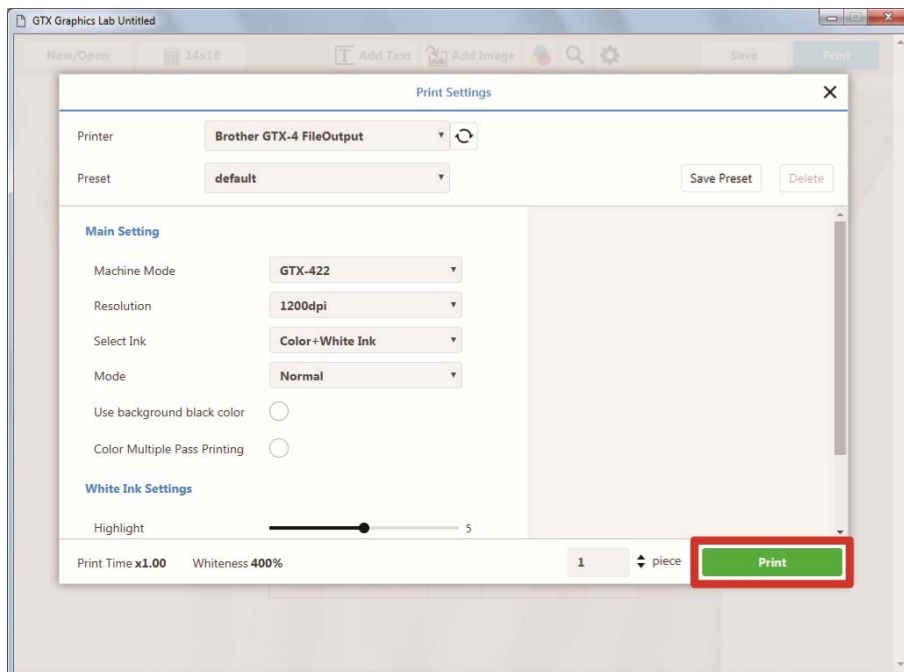
<TIPS>

- For details of the printer driver's setting procedures, refer to "5-3. Printer driver's setting from GTX Graphics Lab >>P.77".
- Older versions of printer driver may display an error [A driver of corresponding version is not found. (-1401)]. If so, please update the driver to the newest version.

(5) Click [Print].

<TIPS>

- Clicking on [Print] will not start the print operation of the printer itself. The print button of the printer should be pressed to start the printing operation.



6-6-3. Sending print data from GTX Graphics Lab Basic

- (1) GTX Graphics Lab Basic is used to layout images.
- (2) Click the "Printing Preferences button" to make your settings of printer driver.

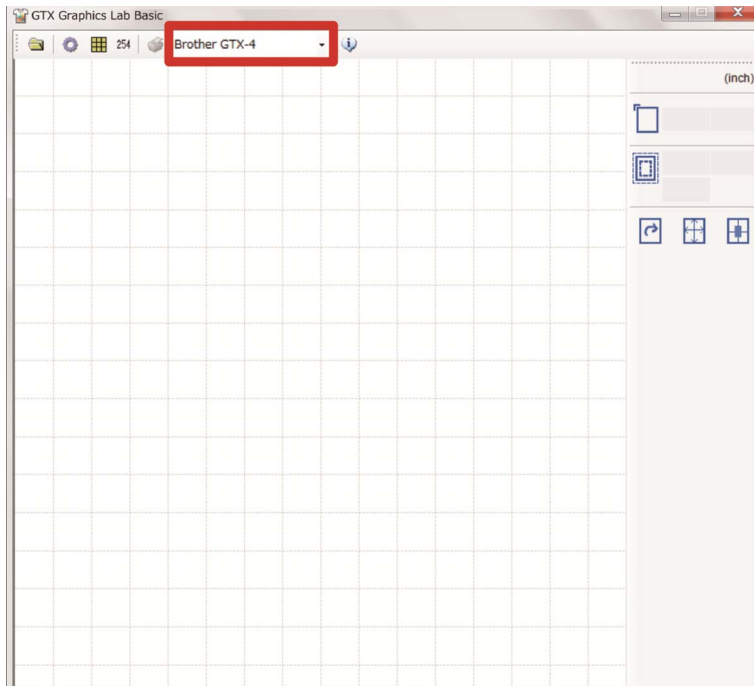
<TIPS>

- For details of the printer driver's setting procedures, refer to "5-6. Printer driver's setting from other applications >>P.122".
- Older versions of printer driver may display an error [A driver of corresponding version is not found. (-1001)]. If so, please update the driver to the newest version.

- (3) In the "Printing Preferences button", select "Brother GTX-4".

<TIPS>

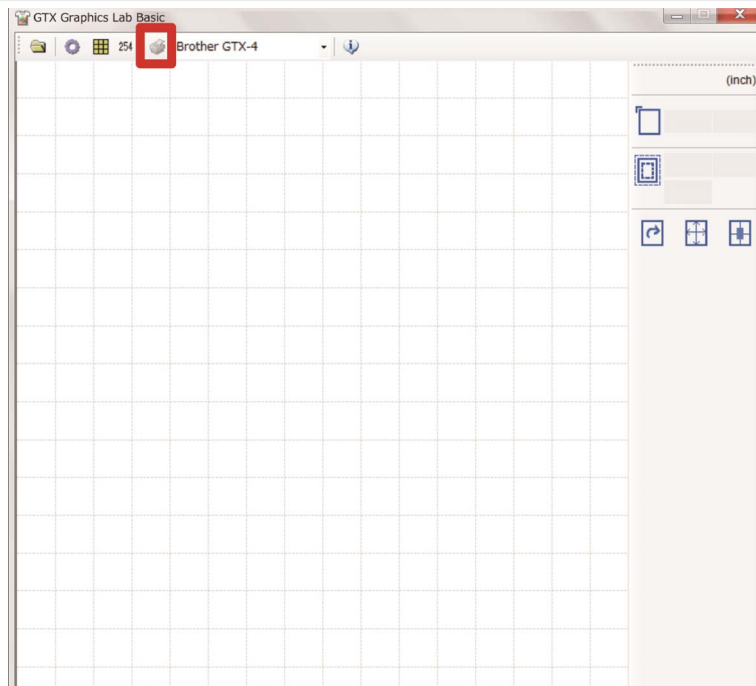
- If "Brother GTX-4" is selected, the print data will be sent to the printer.
If "Brother GTX-4 FileOutput" is selected, the print data will be saved as an ARX4 file.



(4) Click "Print button".

<TIPS>

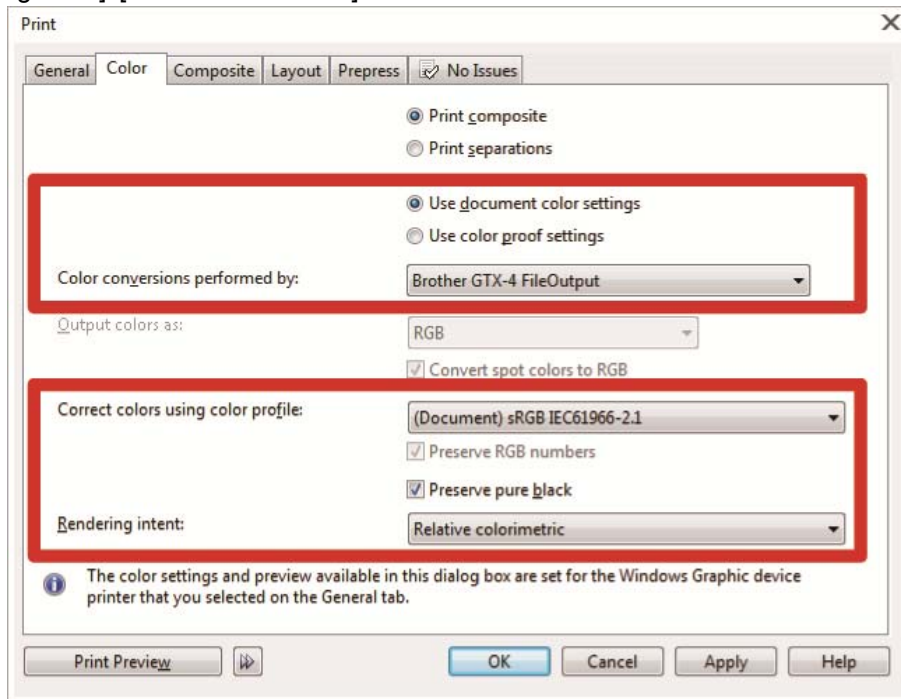
- Clicking on "Print button" will not start the print operation of the printer itself. The print button of the printer should be pressed to start the printing operation.



6-6-4. Sending print data from other applications

CoreIDRAW

- (1) In the menu bar, select [File] > [Print].
- (2) Open the [Color] tab, and make the following settings:
 - Place a checkmark in the [Use document color settings] checkbox.
 - [Color conversions performed by]: "Brother GTX-4" or "Brother GTX-4 FileOutput"
 - [Correct colors using color profile]: [sRGB IEC61966-2.1]
 - [Rendering intent]: [Relative colorimetric]



- (3) Open [General] tab and select "Brother GTX-4" from [Printer].

<TIPS>

- If the specified [Printer] is set to "Brother GTX-4", the print data will be sent to the printer.
- If the specified [Printer] is set to "Brother GTX-4 FileOutput", the print data will be saved as an ARX4 file.

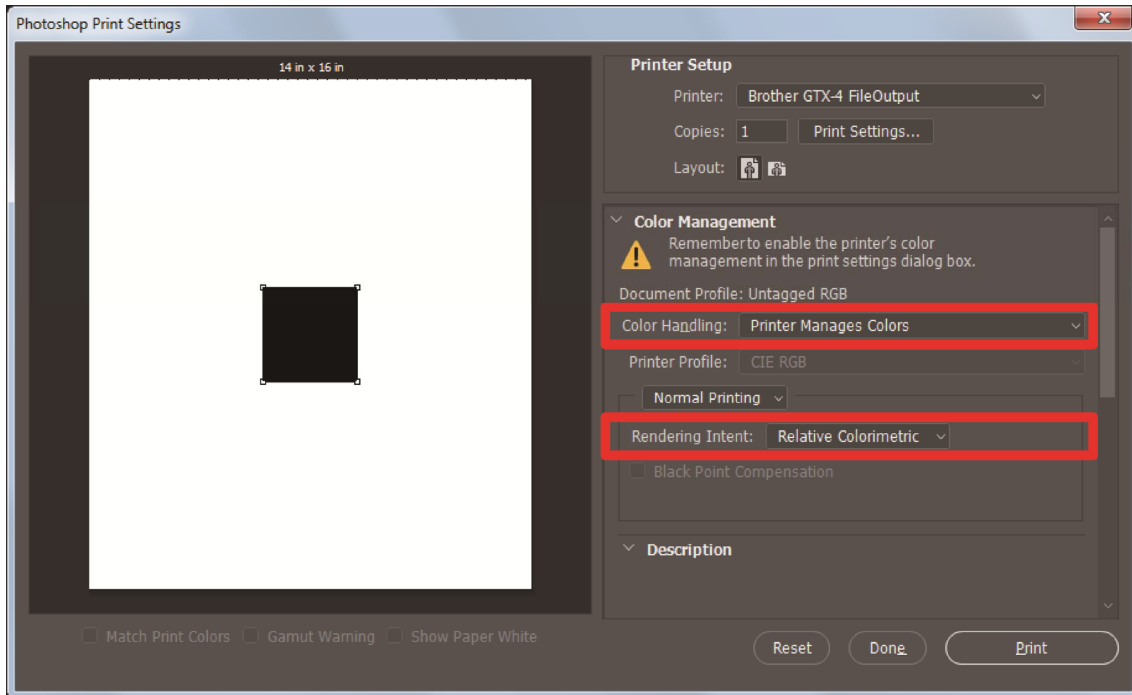
- (4) On [Preferences], set up the printer driver and send the print data by clicking [OK] in the [Print] dialog box.

<TIPS>

- For details, refer to "5-6. Printer driver's setting from other applications >>P.122".
- Clicking on [OK] will not start the print operation of the printer itself. The print button of the printer should be pressed to start the printing operation.

Adobe Photoshop

- (1) In the menu bar, select [File] > [Print]. If the PC's default printer is either "Brother GTX-4" or "Brother GTX-4 FileOutput", the layout is set to the platen size.
- (2) Make the settings as follows:
 - [Color Handling]: [Printer Manages Colors]
 - [Rendering Intent]: [Relative Colorimetric]



- (3) From [Printer], select "Brother GTX-4".

<TIPS>

- If [Printer] is set to "Brother GTX-4", the print data will be sent to the printer.
- If [Printer] is set to "Brother GTX-4 FileOutput", the print data will be saved as an ARX4 file.

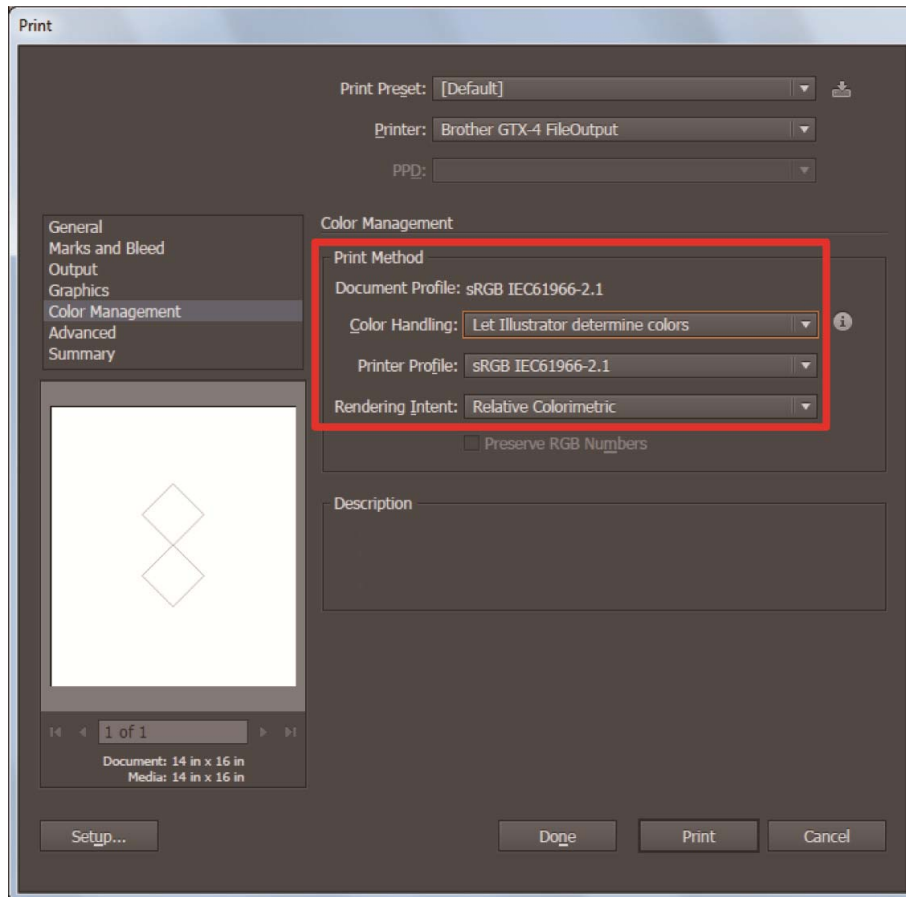
- (4) In the [Print Settings], set up the printer driver, and send the print data by clicking [Print].

<TIPS>

- For setting details, refer to "5-6. Printer driver's setting from other applications >>P.122".
- Clicking on [Print] will not start the print operation of the printer itself. The print button of the printer should be pressed to start the printing operation.

Adobe Illustrator

- (1) In the menu bar, select [File] > [Print] > [Color Management].
- (2) Make the settings as follows:
 - [Document Profile]: [sRGB IEC61966-2.1]
 - [Color Handling]: [Let Illustrator determine colors]
 - [Printer Profile]: [sRGB IEC61966-2.1]
 - [Rendering Intent]: [Relative Colorimetric]



- (3) From [Printer], select "Brother GTX-4".

<TIPS>

- If [Printer] is set to "Brother GTX-4", the print data will be sent to the printer.
- If [Printer] is set to "Brother GTX-4 FileOutput", the print data will be saved as an ARX4 file.

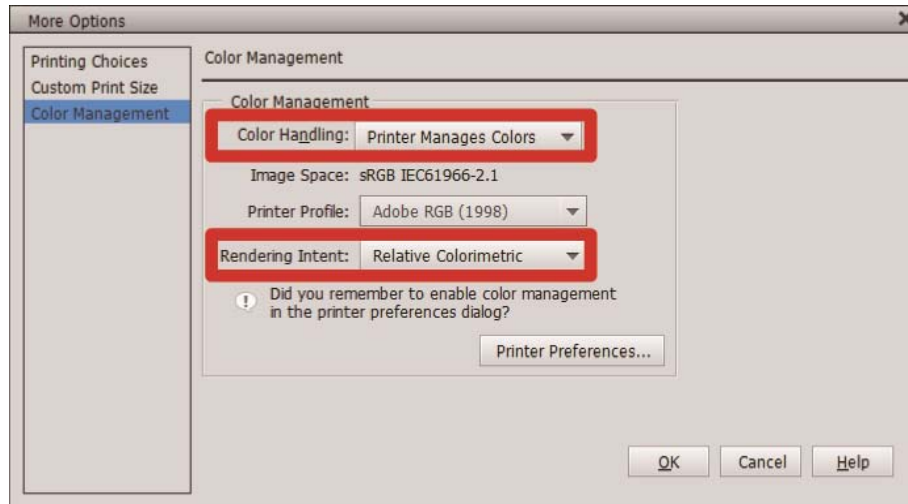
- (4) In the [Advanced], set up the printer driver, and send the print data by clicking [Print].

<TIPS>

- For setting details, refer to "5-6. Printer driver's setting from other applications >>P.122".
- Clicking on [Print] will not start the print operation of the printer itself. The print button of the printer should be pressed to start the printing operation.

Adobe Photoshop Elements

- (1) In the menu bar, select [File] > [Print].
- (2) Select [More Options] > [Color Management].
- (3) Make the settings as follows:
 - [Color Handling]: [Printer Manages Colors]
 - [Rendering Intent]: [Relative Colorimetric]



- (4) When selecting a printer, select "Brother GTX-4".

<TIPS>

- If the [Printer] is set to "Brother GTX-4", the print data will be sent to the printer.
If the [Printer] is set to "Brother GTX-4 FileOutput", the print data will be saved as an ARX4 file.

- (5) In the [Printer Preferences], set up the printer driver, and send the print data by clicking [OK].

<TIPS>

- For setting details, refer to "5-6. Printer driver's setting from other applications >>P.122".
- Clicking on [OK] will not start the print operation of the printer itself. The print button of the printer should be pressed to start the printing operation.

6-6-5. Loading print data (ARX4 file) from USB flash memory

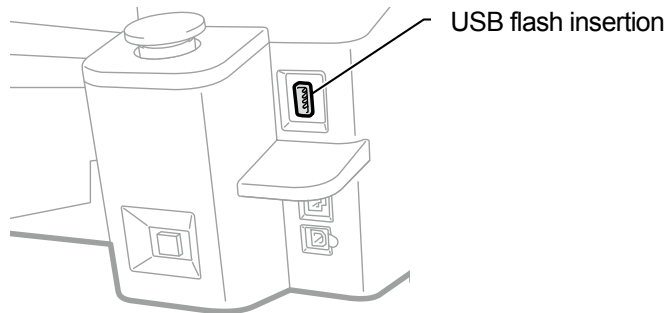
- (1) Insert a USB flash memory into the insertion slot near the operation panel of the printer.

<IMPORTANT>

- Do not apply undue force to the USB flash memory when you insert it into the slot. Otherwise, it could be damaged.

<TIPS>

- Please use a FAT32-formatted USB flash memory of which storage capacity is 2 GB to 32 GB in total. You cannot use a USB memory with security functions such as password lock function.
- Note that the data which can be loaded from the USB flash memory is only the data in the ARX4 format.

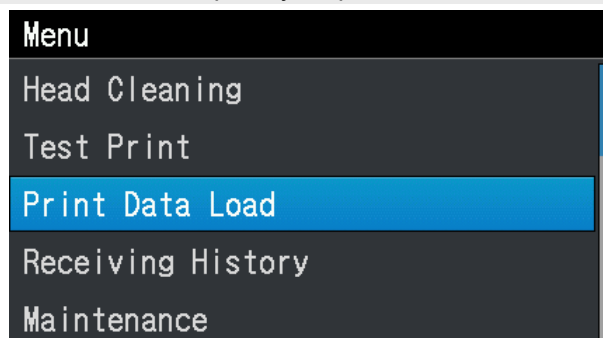



X0038

- (2) From the menu, select [Print Data Load], and press .



<TIPS>

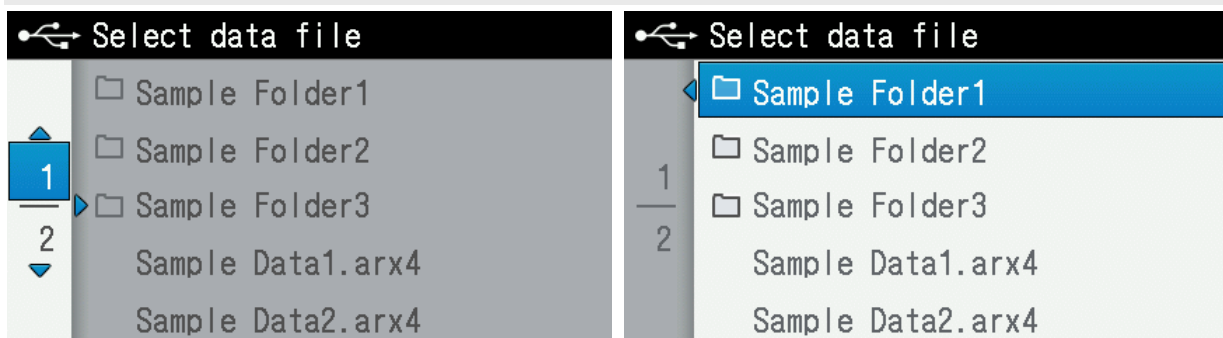
- The information on file is shown on the liquid crystal panel.




- (3) Select a filename to be printed out, and press .

<TIPS>

- Selecting  will display the file stored in .
- Folders in the USB flash memory are shown down to the 3rd layer. Folders created in the 4th layer or below are not displayed.



- (4) Check the print image displayed in the preview window, and press .

<IMPORTANT>

- Never touch the USB flash memory when the print button is blinking. Otherwise, any already-saved data may be corrupted.

<TIPS>

- Depending on data size, it may take several minutes before the loading process is completed.
- If any files of USB flash memory cannot be read out, please refer to "9-1. Troubleshooting instructions >>P.276" for details.
- If a folder contains more than one print data, you can use ▲ / ▼ buttons to switch the preview display screen.
- It is possible to change the direction of the preview display screen as well. For the change method, refer to "8-14. Preview display settings >>P.269".



The print data loading will be completed when the print button stops blinking and remains lit, while the electric chime sounds.

6-7. Executing a printing job

6-7-1. Executing a print job once for a single print medium

(1) Receiving a print data file.

The print button blinks during reception of data. When the data reception is completed, an audible alarm is activated and the print button illuminates.

As there are two types of audible alarms, make sure the mounted platen matches the platen size of the print data.


<TIPS>

- When data of the same platen size as the previous one was received: A notice sound of "ping-pong" is output.
- When data of a different platen size from the previous one was received: A notice sound of "ping-pong pan-pong" is output.

(2) Make sure that the print data you want to print out is displayed on the liquid crystal panel, and press the print button to start the printing.

When the printing is completed, the platen moves to the forward-most position and the sound of "pong" is heard.

<TIPS>

- If the print button is pressed when the platen has not moved toward the front, the platen will move toward the front of the printer, but no print job will be started. In this case, press the print button once again.
- Pressing  causes the printing to be canceled.
- The printer may shift to low temperature operation mode, when the room temperature is less than 18°C (64.4°F) and white ink is used.
During low temperature mode, it may take a longer time for print operation and maintenance before starting the print. To change the low temperature operation mode, refer to "8-5. Print Operation Settings Under Low Temperature >>P.265".
- High-temperature and low-humidity environment may prolong the maintenance time after completion of printing. If any warning message about temperature and humidity is displayed, be sure to control the temperature and humidity promptly so as to conform with the print warranty scope with reference to "10-1. Apparatus >>P.356".

6-7-2. Executing a print job several times for multiple print media

You can keep the identical print data and execute a print job several times for multiple print media.


<TIPS>

- When the power is turned off, the retained print data is erased.
- In the event that [ON] is selected from the [Auto Job Delete] in the [Printer Setting] window, the print data will be erased after the printing of the specified number of print media is completed. To change the setting, refer to "8-11. Automatic deletion of print data >>P.267".

- (1) Make sure that the print data you want to print out is displayed on the liquid crystal panel, and press the print button to start printing.

When the printing is completed, the platen moves to the forward-most position and the sound of "pong" is heard.

<TIPS>

- If the print button is pressed when the platen has not moved toward the front, the platen will move toward the front of the printer, but no print job will be started. In this case, press the print button once again.
- Pressing  causes the printing to be canceled.
- The number of print media of which printing is completed is shown on the liquid crystal panel.
- The printer may shift to low temperature operation mode, when the room temperature is less than 18°C (64.4°F) and white ink is used.
During low temperature mode, it may take a longer time for print operation and maintenance before starting the print. To change the low temperature operation mode, refer to "8-5. Print Operation Settings Under Low Temperature >>P.265".
- High-temperature and low-humidity environment may prolong the maintenance time after completion of printing. If any warning message about temperature and humidity is displayed, be sure to control the temperature and humidity promptly so as to conform with the print warranty scope with reference to "10-1. Apparatus >>P.356".

- (2) Replace the platen's printed medium (T-shirt) with the next one and repeat the procedure until the desired number of print jobs are completed.

6-7-3. Performing the printing from receiving history

You can print out such print data that you have received before.

<TIPS>

- The print data that can be retained are max. 100 pieces of them and 800 MB in total capacity, wherein each print data will be erased in the order from the oldest to the latest.
- When the power is turned off, the retained print data is erased.
- In the event that [ON] is selected from the [Auto Job Delete] in the [Printer Setting] window, the print function in the [Receiving History] is disabled. To change the setting, refer to "8-11. Automatic deletion of print data >>P.267".

- (1) From the menu, select a print data you want to print out in the [Receiving History].


<TIPS>

- Each of the pieces of print data is displayed in the order in which they are received from the newest to the oldest ones.

- (2) Make sure that the print data you want to print out is displayed on the liquid crystal panel, and press the print button to start the printing.

When the printing is completed, the platen moves to the forward-most position and the sound of "pong" is heard.

<TIPS>

- If the print button is pressed when the platen has not moved toward the front, the platen will move toward the front of the printer, but no print job will be started. In this case, press the print button once again.
- Pressing  causes the printing to be canceled.
- The printer may shift to low temperature operation mode, when the room temperature is less than 18°C (64.4°F) and white ink is used.
During low temperature mode, it may take a longer time for print operation and maintenance before starting the print. To change the low temperature operation mode, refer to "8-5. Print Operation Settings Under Low Temperature >>P.265".
- High-temperature and low-humidity environment may prolong the maintenance time after completion of printing. If any warning message about temperature and humidity is displayed, be sure to control the temperature and humidity promptly so as to conform with the print warranty scope with reference to "10-1. Apparatus >>P.356".

6-8. Removing printed matter from platen

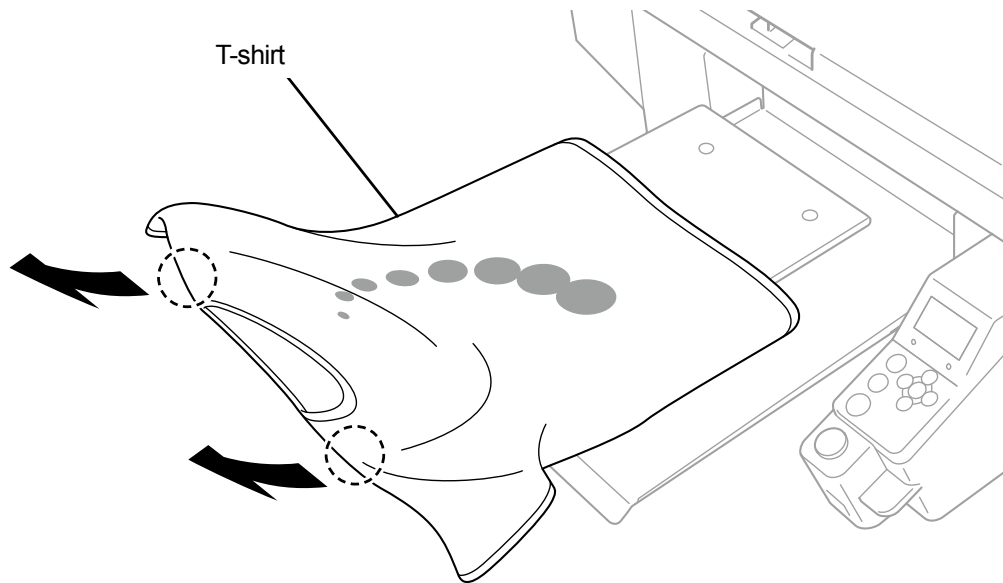
- (1) Hold the shoulder portions of print medium with your hand, and pull it out slowly in the forward direction indicated.

<IMPORTANT>

- Because the printed surface is still wet with ink, avoid touching it.
- If any ink is attached to your hands, wash your hands with soap and water.
- Those inks that are attached to fabrics cannot be cleaned up, please handle the inks with utmost care.

<TIPS>

- The printed ink is not fixated at this point - therefore, handle the T-shirt with care to avoid the printed surface touching with other objects.



X0114

6-9. Fixation of ink

For fixation of ink, use the heat press or oven.

- Heat press
It is useful because you can control its temperature and operating time with ease.
- Oven
If the number of articles to be printed is high, it will improve the operational efficiency.

<CAUTION>

- Please use the heat press and oven in a well-ventilated area. If your working area is not well ventilated, wear a protective mask.

<TIPS>

- If the inks are fixated insufficiently, discoloring may occur due to washing and friction.
- Keep the fixation surface of heat press and peel-off sheet clean.
Otherwise, the printing surface may be soiled with stains from the peel-off sheet.
- If a printed material is rubbed with vinyl-chloride-based white or light-colored synthetic leather, color transfer may occur.
When a color-printed surface is rubbed strongly against a printed surface with only white ink, color transfer may occur in the same fashion.
When a color transfer takes place, wipe the color-transferred area and clean off dirt with a soft and clean cloth or a toothbrush that is moistened with a small amount of mild detergent for home use and/or alcohol.
- Component of pretreatment remains on the T-shirt on which the ink was fixated after applying pretreatment. For this reason, it is advisable to wash such T-shirts with water before wearing them.

Guidelines on fixation conditions of ink

The undermentioned fixation temperature/time serve as guidelines only, and optimum conditions vary with your heat press or oven. Be sure to perform the fixation after checking on the temperature and fixation results beforehand.

<TIPS>

- Because optimum conditions vary depending on the type of your heat press or oven, use the fixation conditions as a reference guide. Be sure to adjust the conditions while checking on the temperature and ink fixation results beforehand.
- Because some print media easily get scorched, please carefully check and see how the surface actually looks like.
In particular, the print media onto which the pretreatment has been applied will easily get scorched.
- When using the heat press, adjust the pressure while checking the ink fixation result.
- **If it is not dry enough after processing for the period of the guideline, extend the time while checking the dried condition of the ink.**

Device	Temperature	Time
Heat press	180°C (356°F)	35 seconds
Oven	Surface temperature: 160°C (320°F)*1	3 min. and 30 sec. to 5 min.

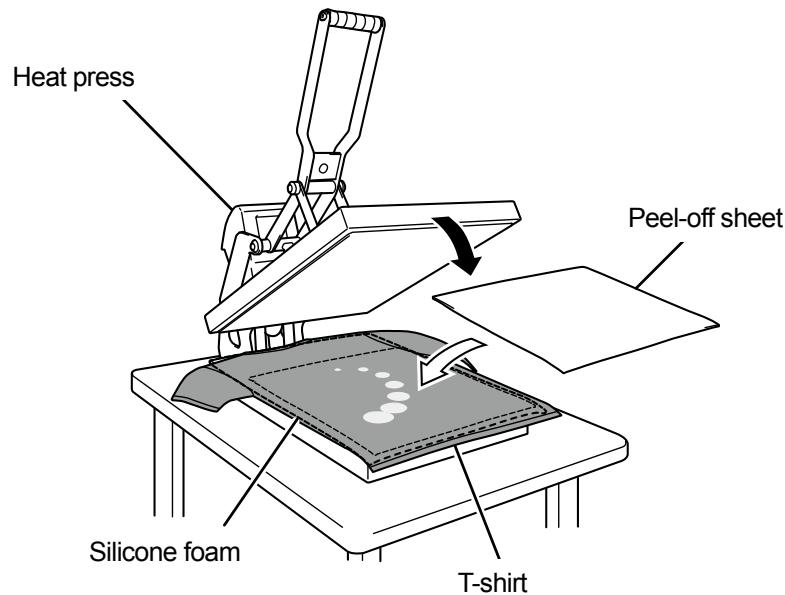
*1: Because a T-shirt may be discolored if this temperature increases too high, great care should be taken to exercise temperature control.

Ink fixation by means of heat press

- (1) Place the silicone foam, T-shirt and peel-off sheet in position under the heat press first, and fixate the pretreatment properly.

<TIPS>

- For the guidelines on fixation conditions of ink, please refer to "6-9. Fixation of ink >>P.201".
- For details, refer to the instruction manual of your heat press.
- There is a tendency to bring the print result to an almost matte finish if a silicone-coated paper is used as a peel-off sheet or to an almost bright finish if a fluororesin sheet is used as the same at the ink fixation stage. Selectively use either of them according to your desired finish.



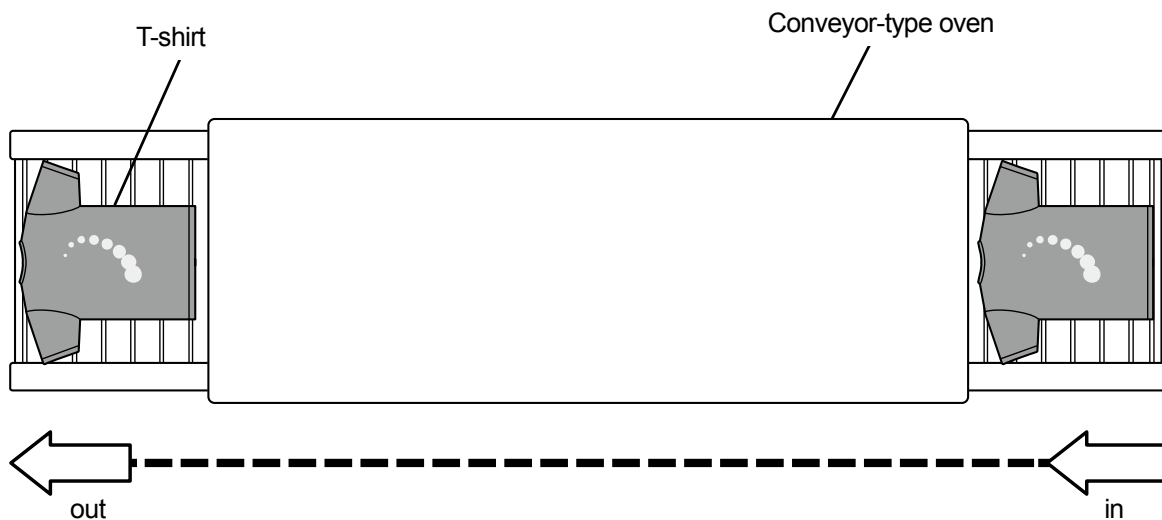
X0115

Ink fixation by means of conveyor-type oven

- (1) Fixate inks onto a T-shirt by means of the conveyor-type oven.

<TIPS>

- For the guidelines on fixation conditions of ink, please refer to "6-9. Fixation of ink >>P.201".
- For the conveyor-type oven, identify the oven's internal temperature, and check up on actual ink fixation result.
- For details, refer to the instruction manual of your conveyor-type oven.



X0116

⚠ DANGER

Contact with high voltage sections may lead to a serious injury. Turn off the power, and remove the cover 5 minutes later.

⚠ CAUTION

Be careful not to get your fingers caught when closing the front cover, otherwise it may result in injury to your fingers.



Do not disassemble the ink pouch. If the ink gets into your eyes or onto your skin, it may cause inflammation. In case of contact with eyes, do not rub but immediately rinse the eyes with water.



Do not disassemble the ink cartridge.



Do not drink liquids such as the ink, maintenance solution, cleaning solution, pretreatment, or waste. They may cause diarrhea or vomiting.

Avoid causing your eyes or skin to make contact with the ink, maintenance solution, cleaning solution, pretreatment or waste. It may cause inflammation. In case of contact with eyes, do not rub but immediately rinse the eyes with water.

Keep the liquids out of the reach of children.



Be sure to wear protective goggles and gloves when handling the grease, so that it does not get into your eyes or onto your skin.

It can cause inflammation.

Do not drink or eat the grease. It may cause diarrhea or vomiting.

Keep the liquids out of the reach of children.



When replacing parts and installing optional accessories, be sure to use only genuine Brother parts. Brother will not be held responsible for any accidents or problems resulting from the use of non-genuine parts.



When replacing parts or installing optional accessories, be sure to follow the procedures described in the Instruction Manual. Incorrect procedures could cause injuries or problems.

((!))IMPORTANT


Do not move the platen by hand. Otherwise the printer may be mechanically and electrically damaged.



Ensure there is adequate space left in front of the printer and avoid placing any objects. The platen may be hit and damaged.

7-1. Tasks to be performed regularly

7-1-1. Replacement of ink pouch with a new one

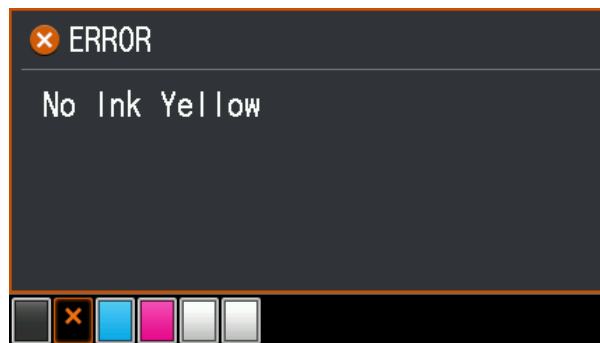
If the  is displayed in the remaining ink volume indication window on the operation panel screen, replace the ink pouch which is marked with X with a new one.

<IMPORTANT>

- No cartridges can be refilled with any ink. Do not disassemble the ink pouch. In order to use the printer for a long period and to take full advantage of its capabilities, we recommend to use the ink pouches that are specified by us.
- During the printing process or head cleaning operation, avoid replacing any ink pouch with a new one. Otherwise, the printer may break down.

<TIPS>

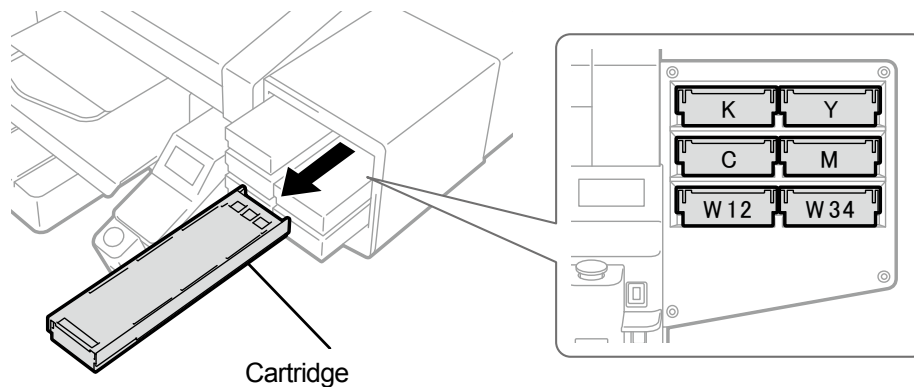
- If you replace an ink pouch that still has much amount of remaining ink in the way of use, the remaining ink volume indication window may not display the correct remaining volume.
- Any ink pouch has been designed to leave a small amount of ink in it when reading the end of its service life. This is required to protect the printer and keep its good printing quality. Please keep this matter in mind.



- (1) Take out the ink cartridge displayed on the screen from the printer.

<CAUTION>

- The bottom of the cartridge may be soiled with ink. Clean the printer on a regular basis.

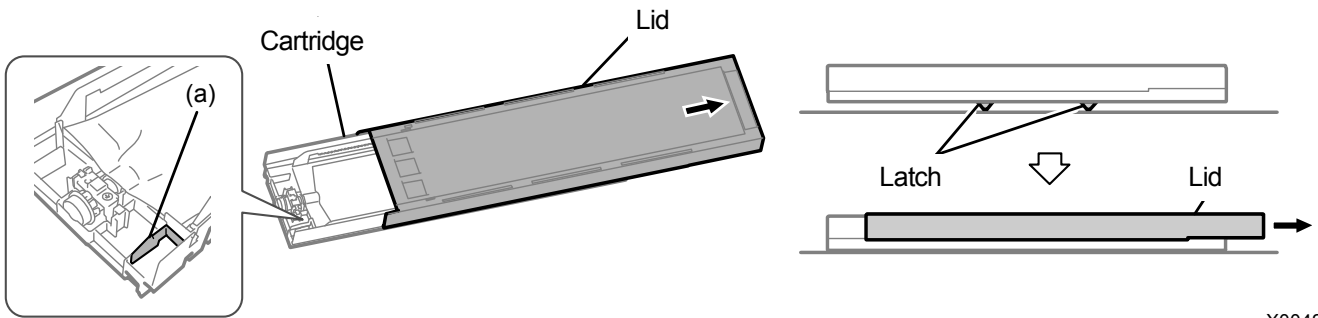


X0047

(2) Open the cartridge's lid.

<IMPORTANT>

- When opening the lid, be sure not to touch the portion (a). Otherwise, it could be damaged.
- Place the entire cartridge on a flat surface, push the latches on the bottom surface of the cartridge downward and open the lid.

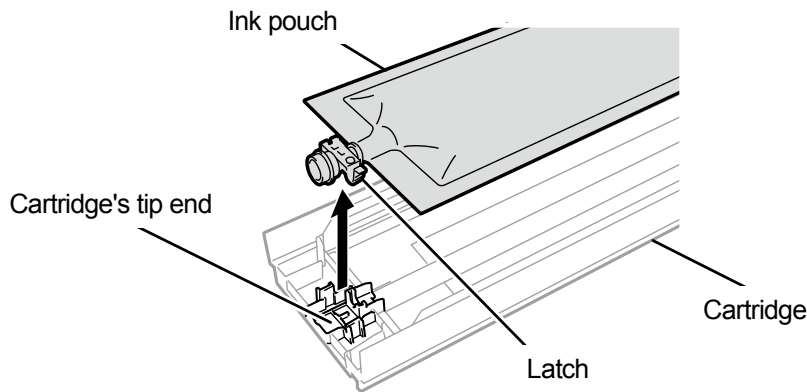


X0042

(3) Pinch the latch at the front end of ink pouch, and draw out the depleted ink pouch from the cartridge.

<CAUTION>

- Remove the accumulated ink at the tip of the cartridge with a waste cloth (non-fuzzy cloth). Clean the printer on a regular basis.



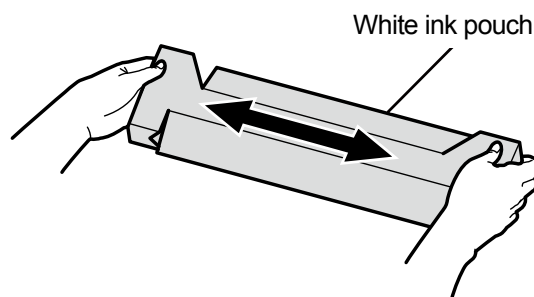
X0119

(4) Unpack a new ink pouch from its shipping carton.

For the white ink pouch, shake it 100 times each in the side to side direction with its obverse side and reverse side facing upward separately, as shown below.

<NOTE>

- Shake the pouch under the condition it remains contained in the inner box.

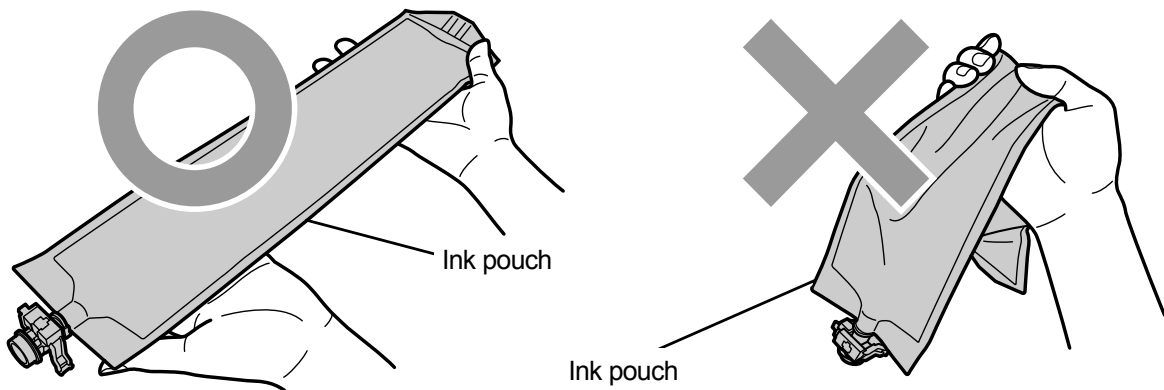


X0048

(5) Unpack a new ink pouch from its inner box.

<IMPORTANT>

- Do not place the ink pouch near the sharp edges. It could break the pouch and leak the contained ink.
- Handle the ink pouch with care. It could be damaged when bent, snagged by sharp objects, or dropped.



X0143

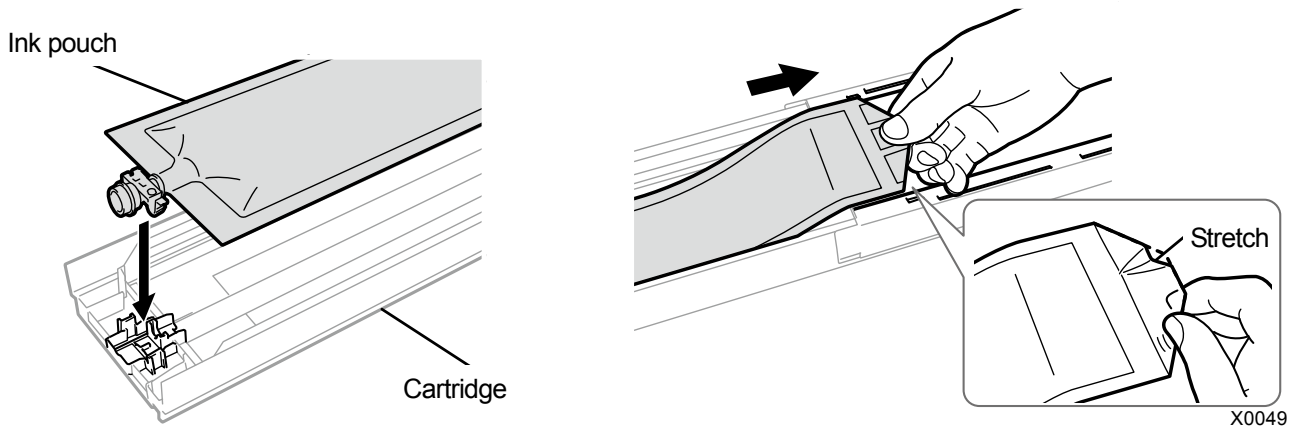
(6) Put a new ink pouch in the cartridge.

Push the tip end of the ink pouch into the cartridge until it clicks into place.

Straighten the ink pouch in such a manner that it will be aligned with the gutter of lid of cartridge, and mount in position by pulling it with your hand.

<NOTE>

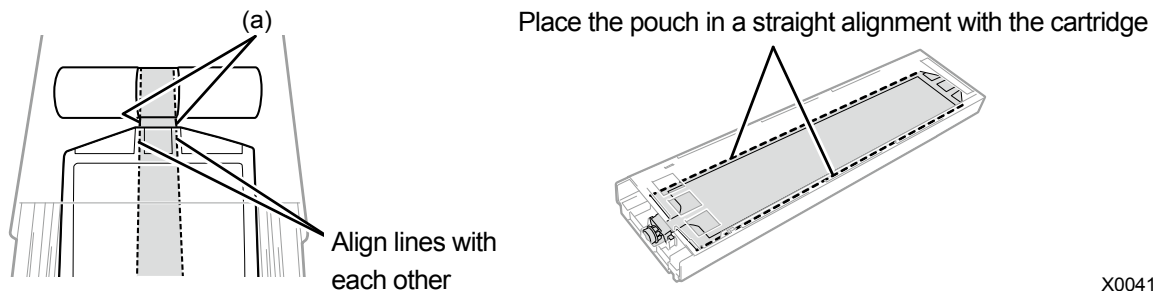
- If the edge of the ink pouch is bent or undulating significantly, make it straight with your hand.



(7) Put the ink pouch in its correct position.

<CAUTION>

- Avoid touching the portion (a) of cartridge. Otherwise, you may cut your hand.



- (8) Close the lid, and put the ink cartridge in position inside the printer.

<IMPORTANT>

- Be sure to put a cartridge in its correct position. If a different ink cartridge is put by mistake, the applicable print head may be adversely affected. If a cartridge of different color is placed, please set it into the right position. If colors are mixed on the print result or within the ink pouch, please contact your dealer.

<NOTE>

- Dispose of any waste resulting from the replacement in accordance with applicable laws and ordinances.

- (9) Attach a shelf life seal included with ink pouch onto the front surface of the cartridge.



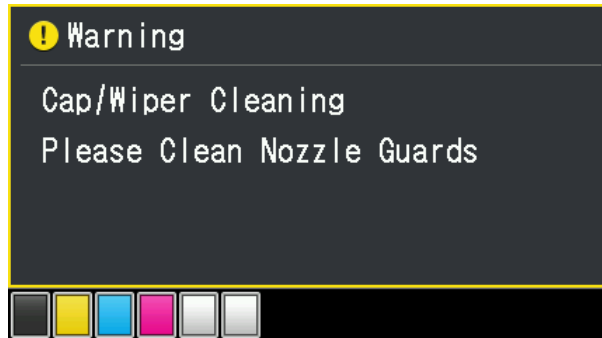
Shelf life label

X0144

7-1-2. Cleaning the nozzle guard, wiper, exhaust cap, and suction cap

When a warning message appears in the warning message window, perform the cleaning.

In the event that maintenance has been performed inadequately, a printed material may be soiled with waste ink during a print session or a printed surface quality may deteriorate.




(1) Make the clean stick R, cleaning cup, tweezers, gloves and cleaning solution, which come standard with the printer, available for use.

(2) From the menu, select [Maintenance] > [Maintenance Part Clean/Replace], and press .

<IMPORTANT>

- If any other error or message is displayed on the operation panel or warning message window, follow the message to solve the problem, then perform the cleaning.

<TIPS>

- Pressing  causes the platen to start moving. Do not put anything around the platen.

(3) Follow the on-screen message and turn off the power.

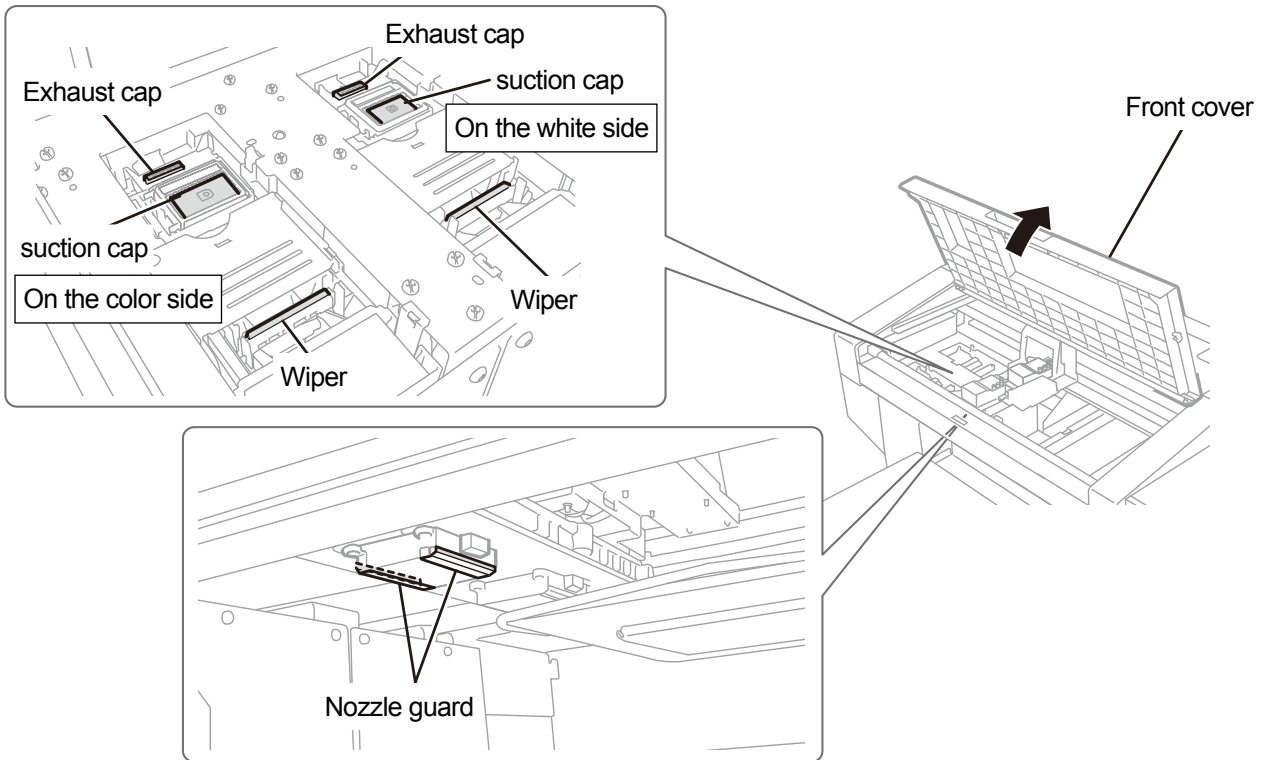
<IMPORTANT>

- Please complete the task within 30 minutes, in order to prevent the print heads from drying up.
- If the task takes more than 30 minutes to complete, close the front cover and turn on the power, and then select [Maintenance Part Clean/Replace] again to restart the task. Then, the head cleaning will be performed to prevent any ink from drying up.

- (4) Open the front cover, and clean each of the nozzle guards, wipers, exhaust caps, and suction caps.

<TIPS>

- For the cleaning method, refer to the description mentioned below.



X0193

- (5) After the cleaning is completed, close the front cover.
- (6) Turn on the power.

<NOTE>

- Dispose of any waste resulting from the cleaning in accordance with applicable laws and ordinances.

<TIPS>

- Then, a head cleaning will be performed to prevent any ink from drying up.
- Because the cleaning cup will be reused, rinse it in clean cleaning solution and store it in a safe place.

Cleaning of the nozzle guard, wiper and exhaust cap should be performed separately for the white side and color side. For the way to perform cleaning, refer to the respective items.

1 Perform cleaning of the white side.

Prepare a new clean stick R and the cleaning solution.

Nozzle guard Cleaning

Perform cleaning of the nozzle guard part and the resin part on the white side.
Refer to "Cleaning the nozzle guard >>P.211".

Wiper Cleaning

Perform cleaning of the wiper part on the white side.
Refer to "Cleaning wiper >>P.213".

Exhaust cap Cleaning

Perform cleaning of the exhaust cap part on the white side.
Refer to "Cleaning exhaust cap >>P.214".

Cleaning suction cap

Perform cleaning of the suction cap part on the white side.
Refer to "Cleaning suction cap >>P.216".

2 Perform cleaning of the color side.

Rinse the cleaning cup, and prepare a new clean stick R and the cleaning solution.

Nozzle guard Cleaning

Perform cleaning of the nozzle guard part and the resin part on the color side.
Refer to "Cleaning the nozzle guard >>P.211".

Wiper Cleaning

Perform cleaning of the wiper part on the color side.
Refer to "Cleaning wiper >>P.213".

Exhaust cap Cleaning

Perform cleaning of the exhaust cap part on the color side.
Refer to "Cleaning exhaust cap >>P.214".

Cleaning suction cap

Perform cleaning of the suction cap part on the color side.
Refer to "Cleaning suction cap >>P.216".

Cleaning the nozzle guard

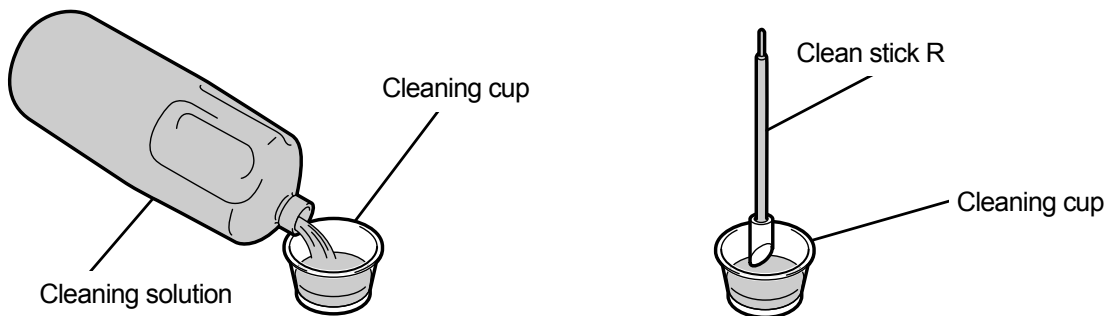
- (1) Put a proper amount of cleaning solution into the cleaning cup.
- (2) Moisten a new clean stick R with the cleaning solution.

<IMPORTANT>

- Use a new clean stick R when you start cleaning.
- Never touch the tip end of clean stick R with your hand. If any sebaceous matter is attached to the wiper, it may result in a printer malfunction.
- Do not use other fluids (water, etc.), because they may damage the print heads.
- Do not return the cleaning solution which has been put in the cleaning cup to the cleaning solution bottle.

<NOTE>

- For a proper work operation, be sure to wear the printer-provided gloves.



X0051

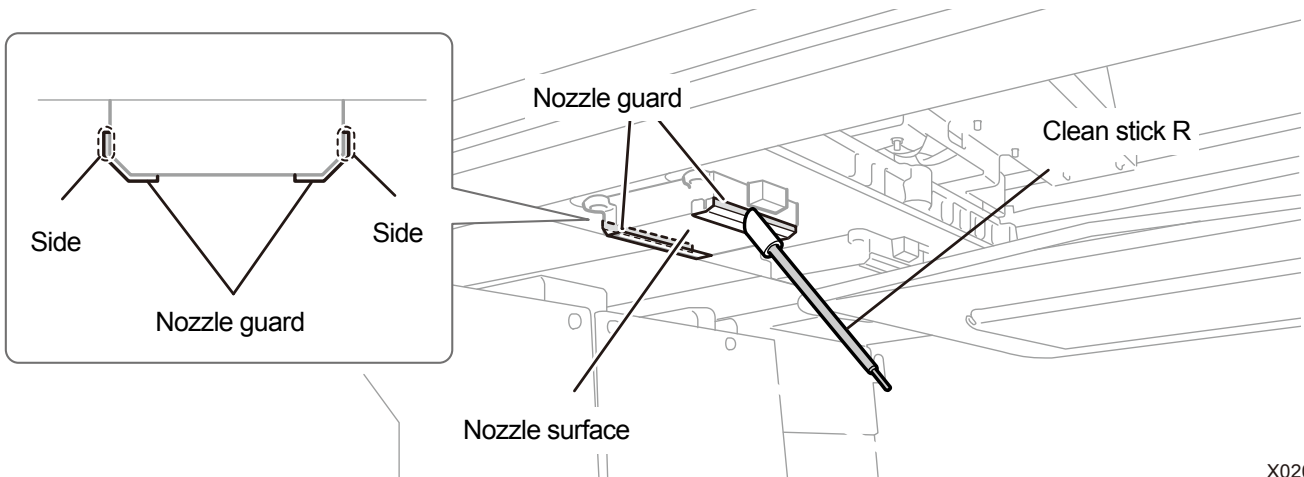
- (3) Wipe clean the sides of the nozzle guard with the clean stick R.

<IMPORTANT>

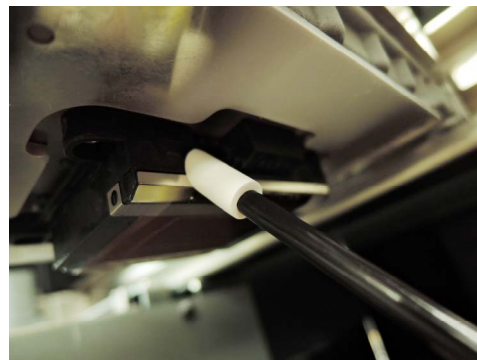
- Be sure not to touch the nozzle surface as well as the level surface and sidling surface of the nozzle guard.

<TIPS>

- Manually move the carriage to such a position that you can perform the cleaning with ease.



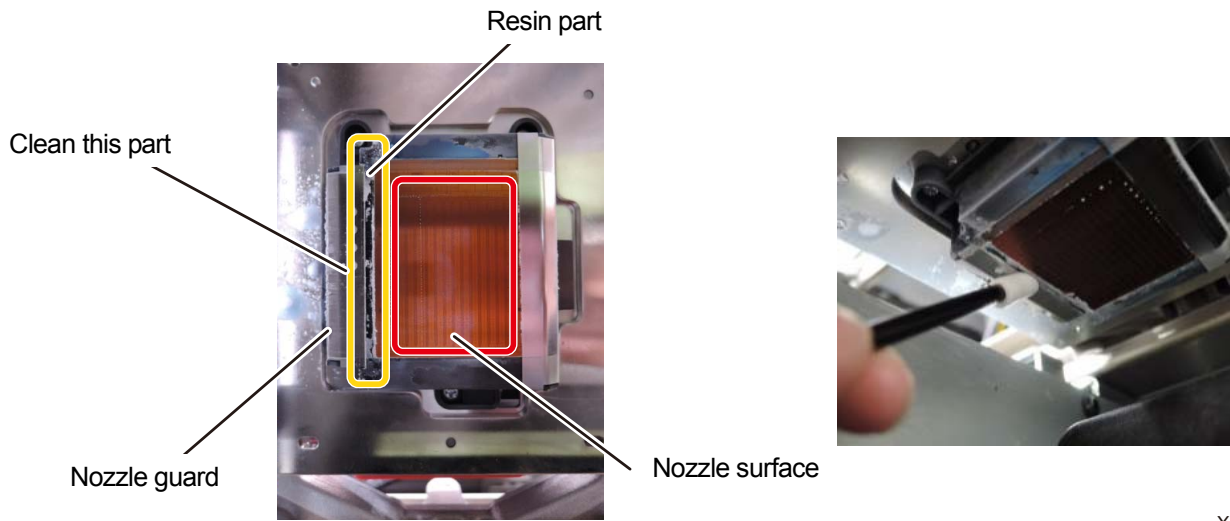
X0202



(4) Wipe the resin part between the print head's nozzle surface and nozzle guard.

<IMPORTANT>

- Be sure not to touch the red-frame zone of the nozzle surface.
- For cleaning, be sure not to use any tool other than clean stick R.



X0172

Cleaning conditions

Pre-cleaning state	Post-cleaning state
<p>Resin part</p>	<p>Resin part</p>

X0173

<TIPS>

- There may remain white ink in the black resin part, but it doesn't matter if the severity is small as shown in the photo. Wipe away the white ink spreading out of the nozzle guard and nozzle surface.

(5) Rinse the clean stick R in the cleaning cup to use it for cleaning of the wiper to be performed next.

<IMPORTANT>

- Be sure to use the clean stick R separately for white ink and color ink.

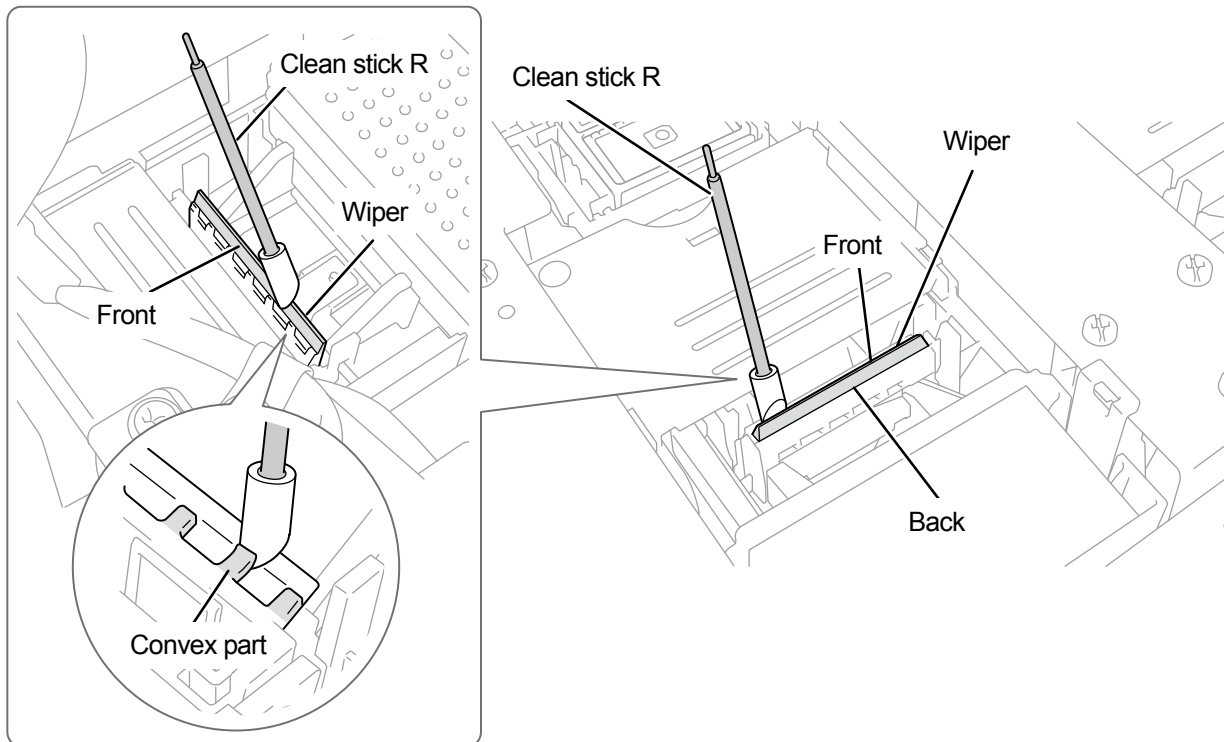
Cleaning wiper

- (1) Use clean stick R to wipe clean the surface of the wiper as well as the gap between the convex part and the wiper.

<IMPORTANT>

- Never touch the tip end of clean stick R with your hand. If any sebaceous matter is attached to the wiper, it may result in a printer malfunction.
- The clean stick R used for cleaning the nozzle guard should be rinsed in the cleaning cup before the next use. Be sure to use the clean stick R separately for color ink and white ink.

- (2) Use the clean side of clean stick R to wipe clean the back of the wiper.



X0195

- (3) Rinse the clean stick R in the cleaning cup to use it for cleaning of the exhaust cap to be performed next.

<IMPORTANT>

- Be sure to use the clean stick R separately for white ink and color ink.

Cleaning exhaust cap

- (1) Wipe clean the rubber seal of exhaust cap with the clean stick R.

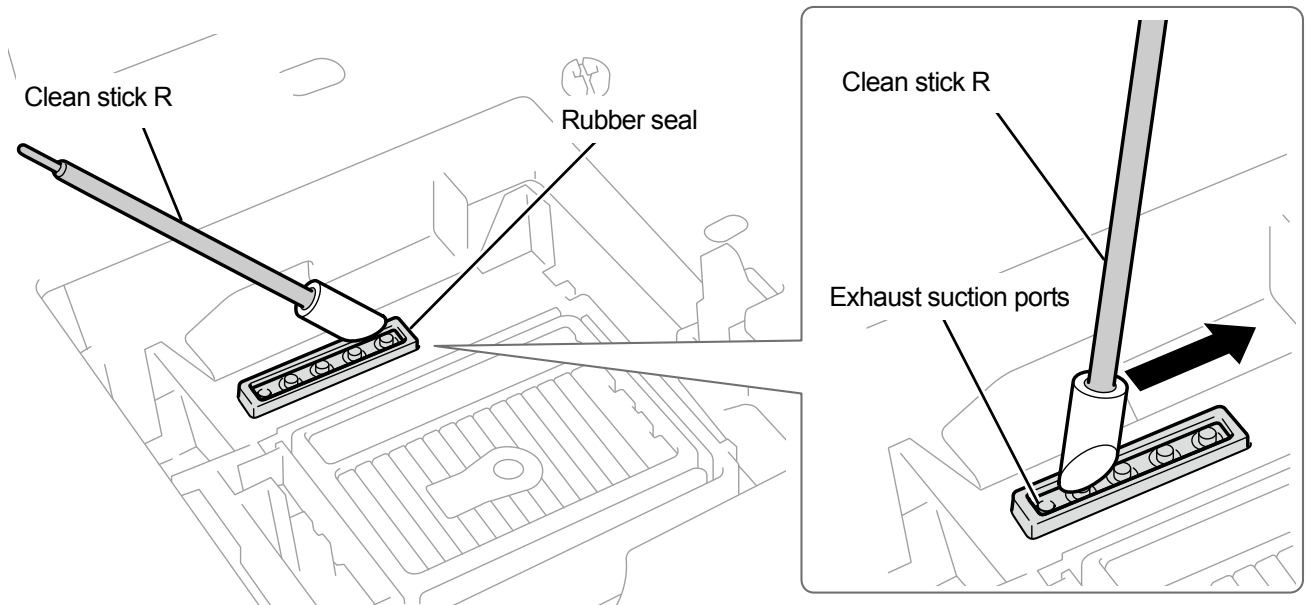
<IMPORTANT>

- Never touch the tip end of clean stick R with your hand. If any sebaceous matter is attached to the wiper, it may result in a printer malfunction.
- The clean stick R used for cleaning the nozzle guard and wiper should be rinsed in the cleaning cup before the next use. Be sure to use the clean stick R separately for color ink and white ink.

- (2) Use the clean stick R to soak up the ink accumulated in the exhaust cap, and remove it.

<IMPORTANT>

- If there is any ink clot in the exhaust cap, move the clean stick R in the direction as illustrated below. If the stick is moved toward yourself, any of the exhaust suction ports may be clogged with ink clot.



X0054

- (3) Rinse the clean stick R in the cleaning cup to use it for cleaning of the suction cap to be performed next.

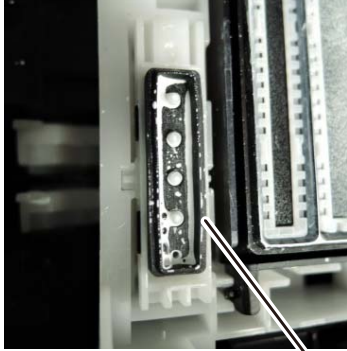
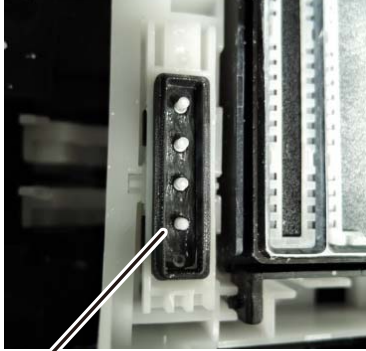
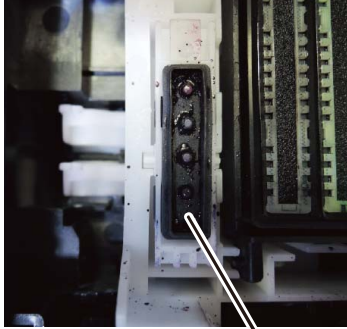
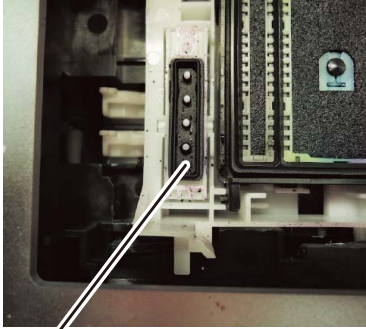
<IMPORTANT>

- Be sure to use the clean stick R separately for white ink and color ink.

<TIPS>

- Some cleaning solution may remain in the exhaust cap, but it will not cause any functional problem.

Cleaning conditions

	Pre-cleaning state	Post-cleaning state
On the white side	 <p>Exhaust cap rubber part</p>	 <p>Exhaust cap rubber part</p>
On the color side	 <p>Exhaust cap rubber part</p>	 <p>Exhaust cap rubber part</p>

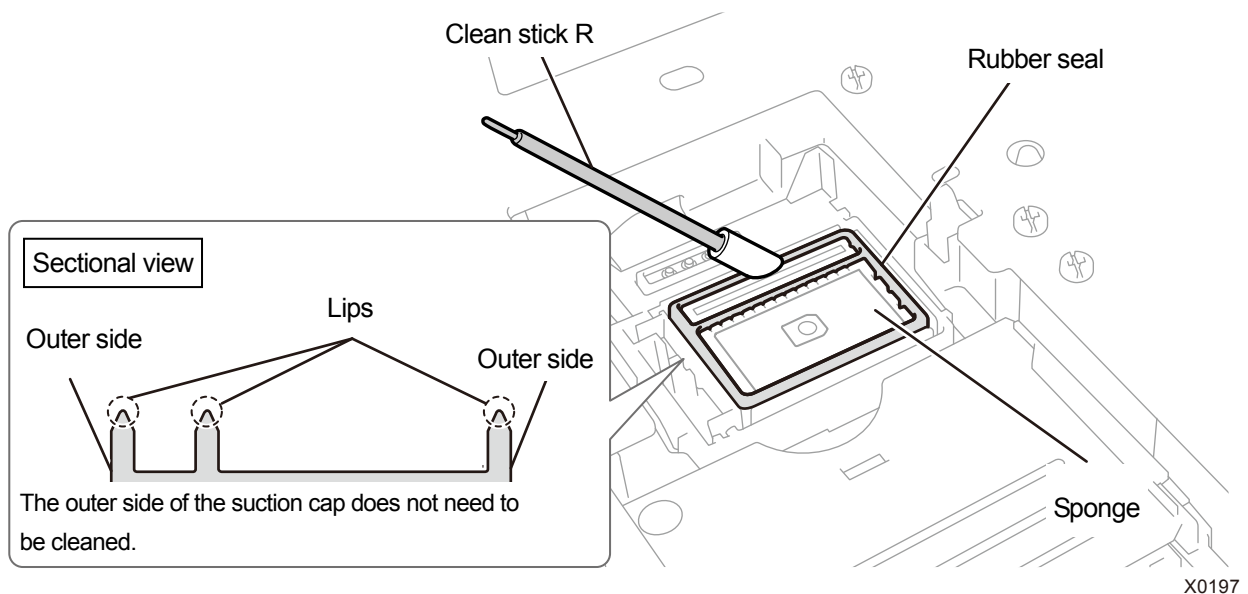
X0203

Cleaning suction cap

- (1) Wipe the rubber seal and lip of the suction cap with one side of the tip portion of clean stick R in parallel with the seal.

<IMPORTANT>

- Clean the lip part of the suction cap carefully with clean stick R. The print head dries and causes an ejection failure if solidified ink remains.
- Do not touch the sponge of the suction cap. The sponge may come off.
- Never touch the tip end of clean stick R with your hand. If any sebaceous matter is attached to the wiper, it may result in a printer malfunction.
- The clean stick R used for cleaning the nozzle guard, wiper, and exhaust cap should be rinsed in the cleaning cup before the next use. Be sure to use the clean stick R separately for color ink and white ink.



- (2) When an ink clot comes to the surface, pinch it with tweezers and remove it.

<IMPORTANT>

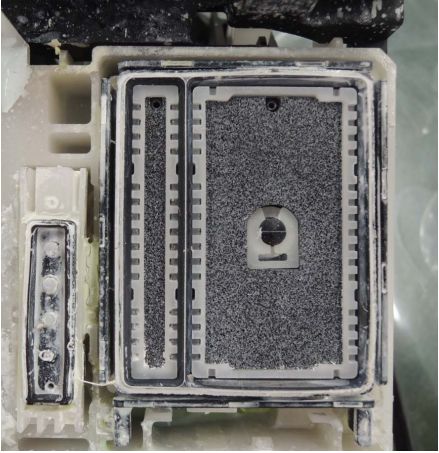
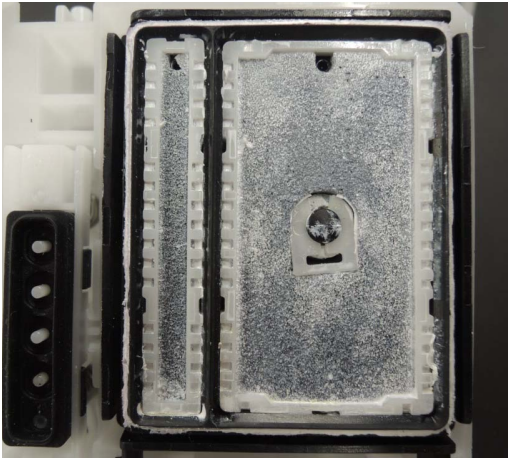
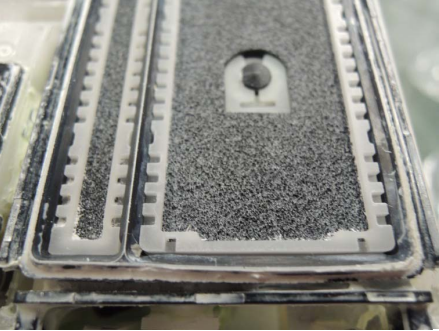

- Be sure not to pinch the rubber seal. If it is damaged, its sealing property will be degraded, which in turn may lead to non-ejection of ink-jet droplets from the print heads.

- (3) Replace the clean stick R with a new one, rinse the cleaning cup, and clean the nozzle guard of the color side head.

<IMPORTANT>

- Be sure to use the clean stick R separately for white ink and color ink.
- The used clean stick R should be disposed of, and should not be reused.
- After cleaning the nozzle guard of the color side head, rinse the cleaning cup with pure water, let it dry sufficiently, and store it so that dust does not get inside.

Cleaning conditions

Pre-cleaning state	Post-cleaning state
	
	

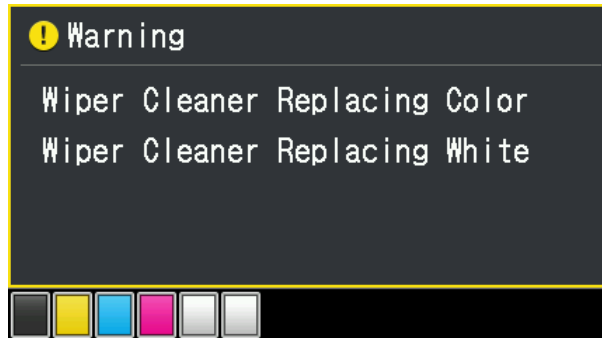
X0204

7-1-3. Replacing the wiper cleaner

When a warning message appears on the operation panel screen or in the warning message window, replace the specified wiper cleaner with a new one.

<TIPS>

- When you replace the wiper cleaner, check the staining state inside the printer. If parts inside the printer (carriage guide shaft, roller guide, and carriage roller) are stained, perform cleaning with reference to "7-1-5. Cleaning the internal area of printer >>P.225".




(1) Have the supplied gloves and wiper cleaner ready.

(2) From the menu, select [Maintenance] > [Maintenance Part Clean/Replace], and press .

<IMPORTANT>

- If any other error or message is displayed on the operation panel or warning message window, follow the message to solve the problem, then perform the cleaning.

<TIPS>

- Pressing  causes the platen to start moving. Do not put anything around the platen.

(3) Follow the on-screen message and turn off the power.

<IMPORTANT>

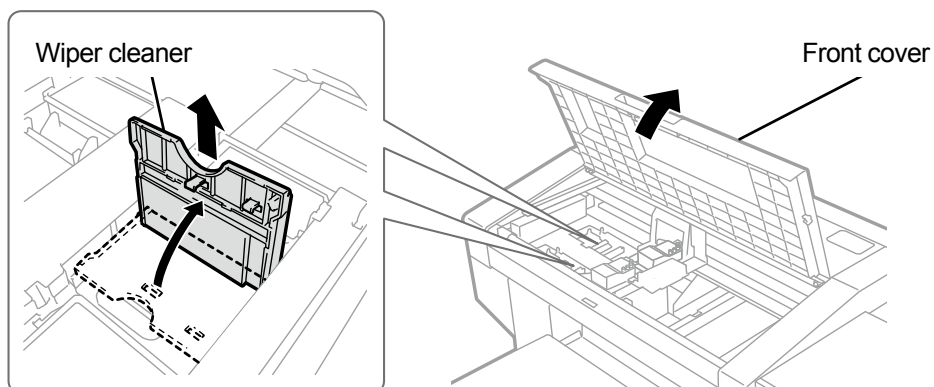
- Please complete the task within 30 minutes, in order prevent the print heads from drying up.
- If the task takes more than 30 minutes to complete, after attaching the wiper cleaner, close the front cover and turn on the power, and then select [Maintenance Part Clean/Replace] again to restart the task. Then, the head cleaning will be performed to prevent any ink from drying up.

(4) Open the front cover.

(5) Raise the wiper cleaner and move it to its upright position, and remove it by moving it upward.

<NOTE>

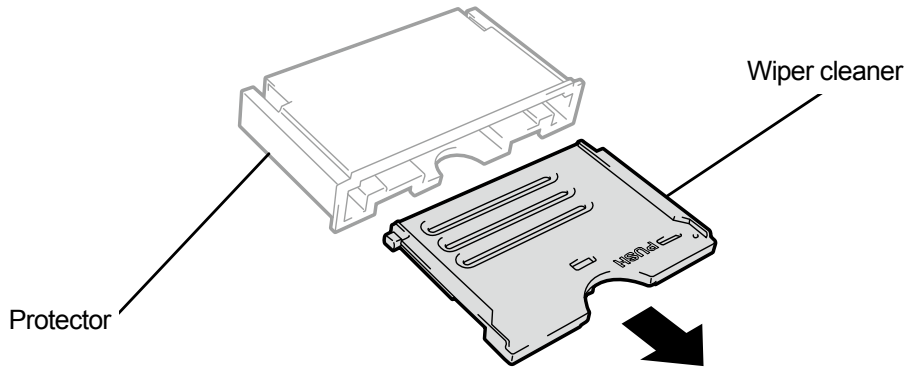
- For a proper work operation, be sure to wear the printer-provided gloves.



- (6) Take out the wiper cleaner from its packing bag, and remove it from its protector.

<IMPORTANT>

- As soon as it is unpacked, do not leave it as it is and put it in position.

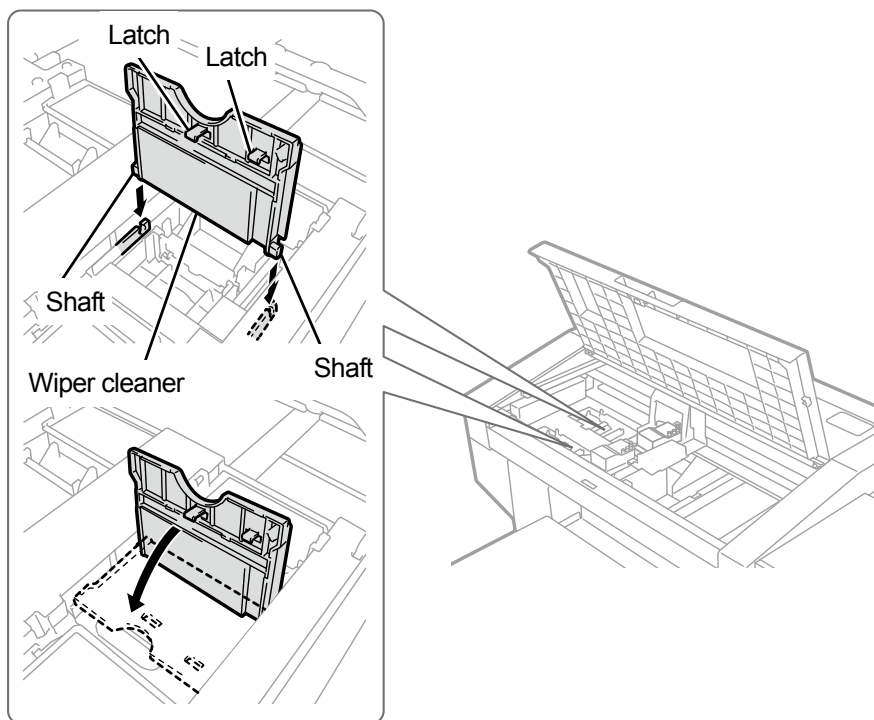


X0128

- (7) Insert a new wiper cleaner into the printer from above, tip it leftward and put it in place.

<TIPS>

- First, insert the shaft from above. Then fold it to the left, press the area with the PUSH indication until a clicking sound is heard, and get the latch into position.



X0056

- (8) Close the front cover.

- (9) Turn on the power.

<NOTE>

- Dispose of any waste resulting from the replacement in accordance with applicable laws and ordinances.

<TIPS>

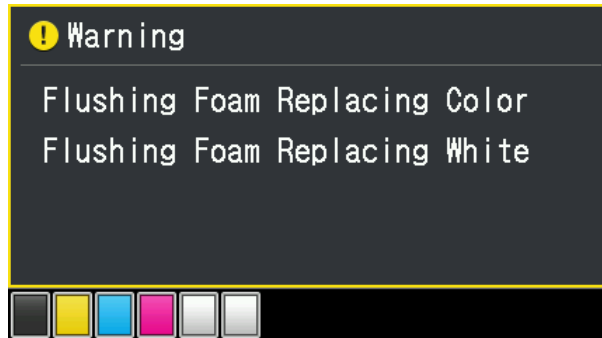
- A head cleaning will be performed to prevent ink from drying up.

7-1-4. Replacing the flushing foam

When a warning message appears on the operation panel screen or in the warning message window, replace the specified flushing foam with a new one.

<TIPS>

- When you replace the flushing foam, check the staining state inside the printer. If parts inside the printer (carriage guide shaft, roller guide, and carriage roller) are stained, perform cleaning with reference to "7-1-5. Cleaning the internal area of printer >>P.225".




(1) Make the clean stick R, gloves and flushing foam, which come standard with the printer, available for use.

(2) From the menu, select [Maintenance] > [Maintenance Part Clean/Replace], and press .

<IMPORTANT>

- If any other error or message is displayed on the operation panel or warning message window, follow the message to solve the problem, then perform the cleaning.

<TIPS>

- Pressing  causes the platen to start moving. Do not put anything around the platen.

(3) Follow the on-screen message and turn off the power.

<IMPORTANT>

- Please complete the task within 30 minutes, in order to prevent the print heads from drying up.
- If the task takes more than 30 minutes to complete, after attaching the flushing receiver, close the front cover and turn on the power, and then select [Maintenance Part Clean/Replace] again to restart the task. Then, the head cleaning will be performed to prevent any ink from drying up.

(4) Open the front cover.

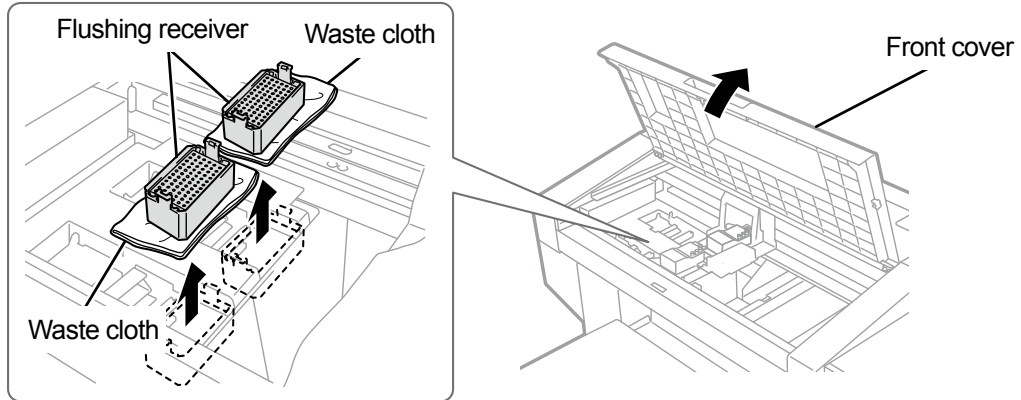
- (5) Remove the flushing receiver from the maintenance unit.

<IMPORTANT>

- Ink droplets will drop off from the hole on the bottom of flushing receiver. Press a waste cloth against the bottom surface, and lift the flushing receiver vertically to remove it.

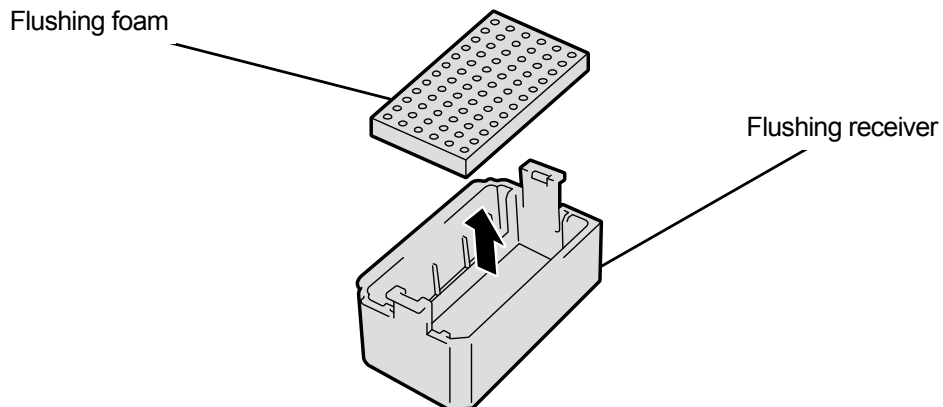
<NOTE>

- For a proper work operation, be sure to wear the printer-provided gloves.



X0057

- (6) From the flushing receiver, remove the flushing foam.



X0059

- (7) Put a proper amount of cleaning solution into the cleaning cup.

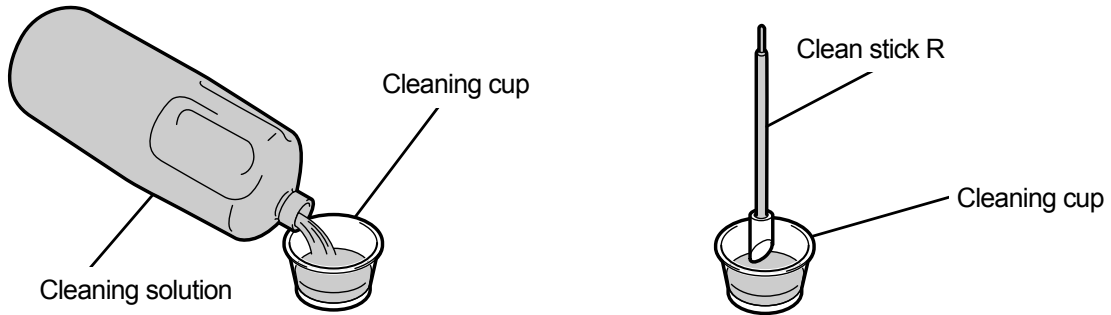
(8) Moisten a new clean stick R with the cleaning solution.

<IMPORTANT>

- Never touch the tip end of clean stick R with your hand. If any sebaceous matter is attached to the wiper, it may result in a printer malfunction.
- Do not use other fluids (water, etc.), because they may damage the print heads.
- Do not return the cleaning solution which has been put in the cleaning cup to the cleaning solution bottle.

<NOTE>

- For a proper work operation, be sure to wear the printer-provided gloves.



X0051

(9) Use a waste cloth and wipe away any dirt from the outboard end portions of flushing receiver and any ink debris accumulated therein.

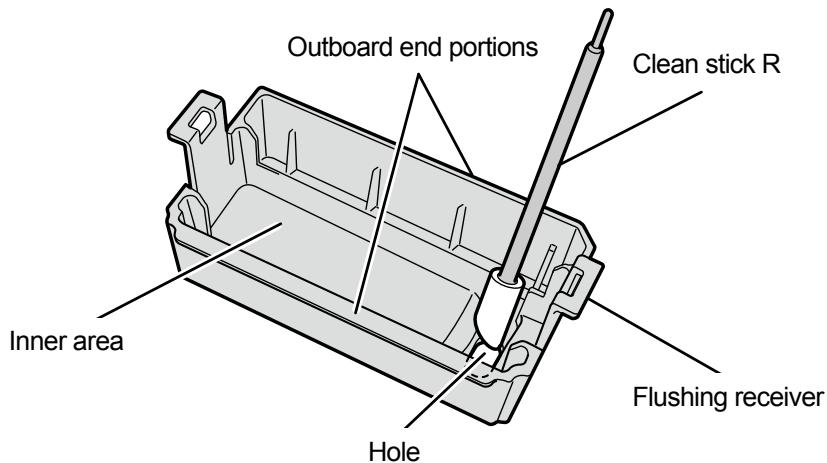
<IMPORTANT>

- If any ink debris or dust is accumulated on the outboard end portions of flushing receiver, the print heads may come into contact with such portions, which may result in poor ejection of ink-jet droplets.

(10) Use the clean stick R to clean off any ink debris attached to the hole on the bottom of flushing receiver.

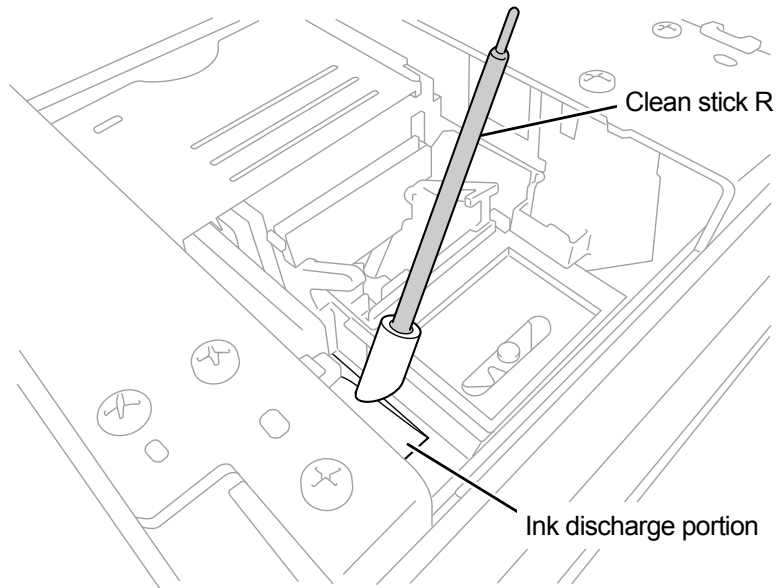
<TIPS>

- For this cleaning, you can use an already-used dirty clean stick R.



X0058

- (11) Clean the ink discharge portion of the flushing receiver with a clean stick R.

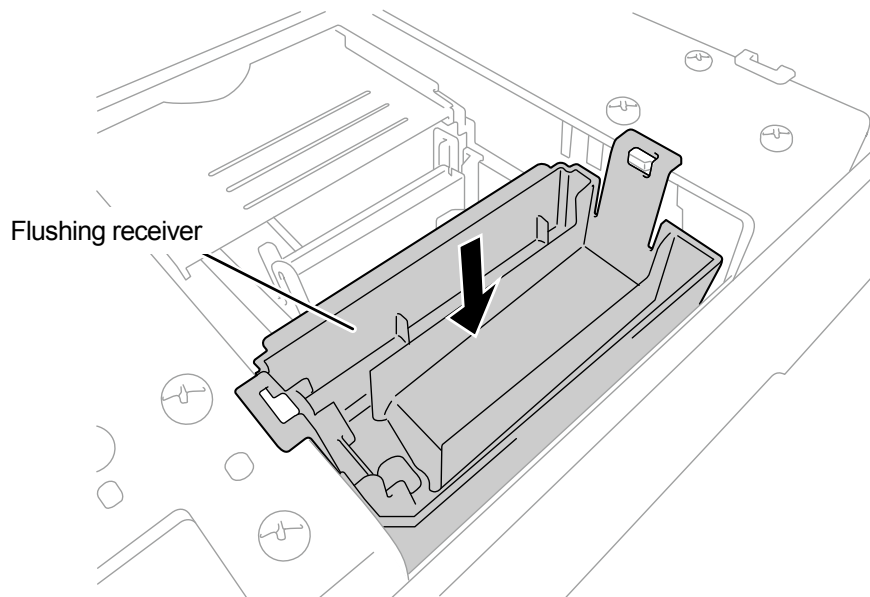


X0183

- (12) Mount the flushing receiver back to its original place in the maintenance unit.

<TIPS>

- Direct its orientation with a hole on the bottom to the front.



X0184

- (13) Assemble a new flushing foam to the flushing receiver.

<IMPORTANT>

- After this assembly process is completed, make sure that no flushing foam extends off the outboard end portions of flushing receiver. If it sticks out of the end portions, it may interfere with any nozzles and may result in non-ejection of ink-jet droplets.

- (14) Close the front cover.

- (15) Turn on the power.

<NOTE>

- Dispose of any waste resulting from the replacement in accordance with applicable laws and ordinances.

<TIPS>

- The head cleaning will be performed to prevent ink from drying up.

7-1-5. Cleaning the internal area of printer

When you replace the wiper cleaner and the flushing foam, check the staining state inside the printer. If parts inside the printer (carriage guide shaft, roller guide, and carriage roller) are stained, perform cleaning.

- (1) Prepare a clean stick R, cleaning cup, gloves, cleaning solution, and grease which come standard with the printer.

<IMPORTANT>


- Never touch the tip end of clean stick R with your hand. If any sebaceous matter is attached to the head nozzle, it may result in a printer malfunction.

- (2) From the menu, select [Maintenance] > [Maintenance Part Clean/Replace], and press .

<IMPORTANT>

- If any other error or message is displayed on the operation panel or warning message window, follow the message to solve the problem, then perform the cleaning.

<TIPS>

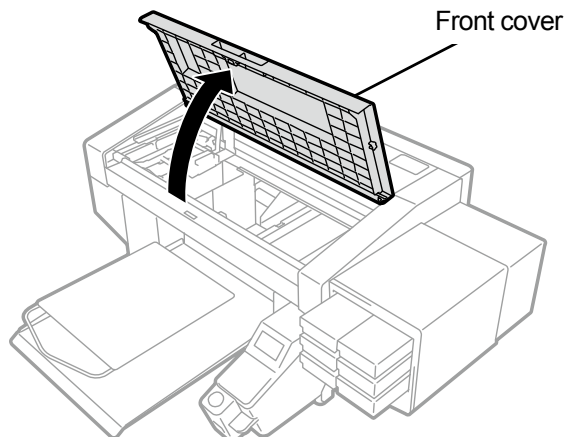
- Pressing  causes the platen to start moving. Do not put anything around the platen.

- (3) Follow the on-screen message and turn off the power.

<IMPORTANT>

- Please complete the task within 30 minutes, in order to prevent the print heads from drying up.
- If the task takes more than 30 minutes to complete, close the front cover and turn on the power, and then select [Maintenance Part Clean/Replace] again to restart the task. Then, the head cleaning will be performed to prevent any ink from drying up.

- (4) Open the front cover.



X0050

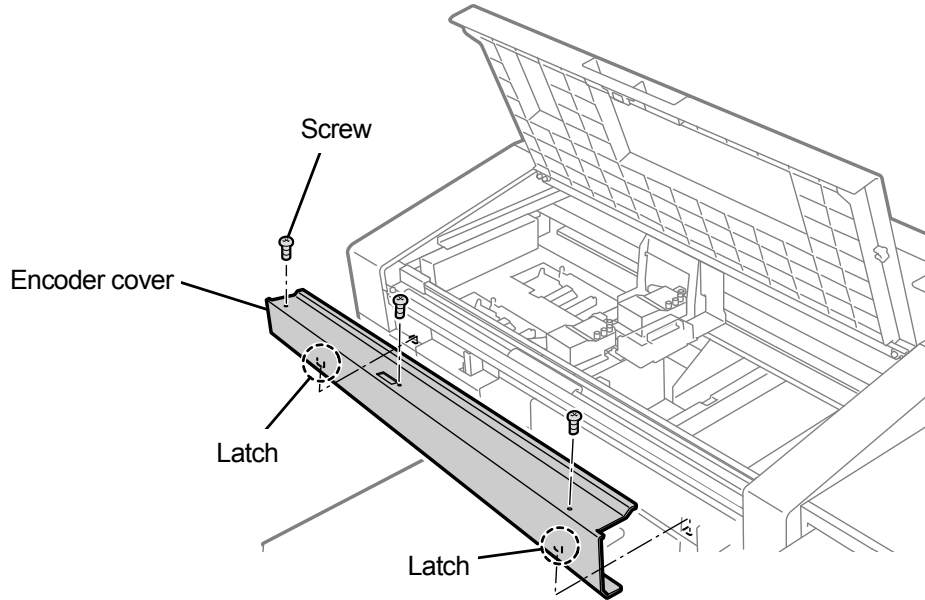
- (5) Remove three screws to remove the encoder cover.

<CAUTION>

- Do not touch the latch under the encoder cover. Otherwise, the operator may get injured.

<IMPORTANT>

- Do not touch the encoder on the main unit.



X0148

- (6) Put a proper amount of cleaning solution into the cleaning cup.

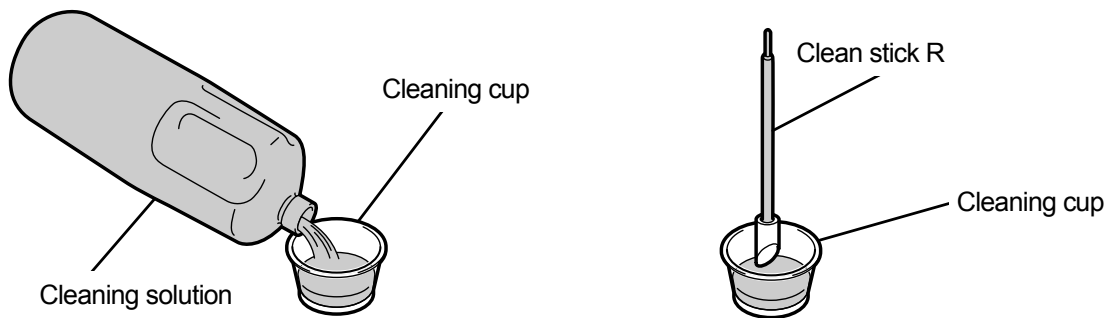
- (7) Moisten a clean stick R with the cleaning solution.

<IMPORTANT>

- Do not return the cleaning solution which has been put in the cleaning cup to the cleaning solution bottle.

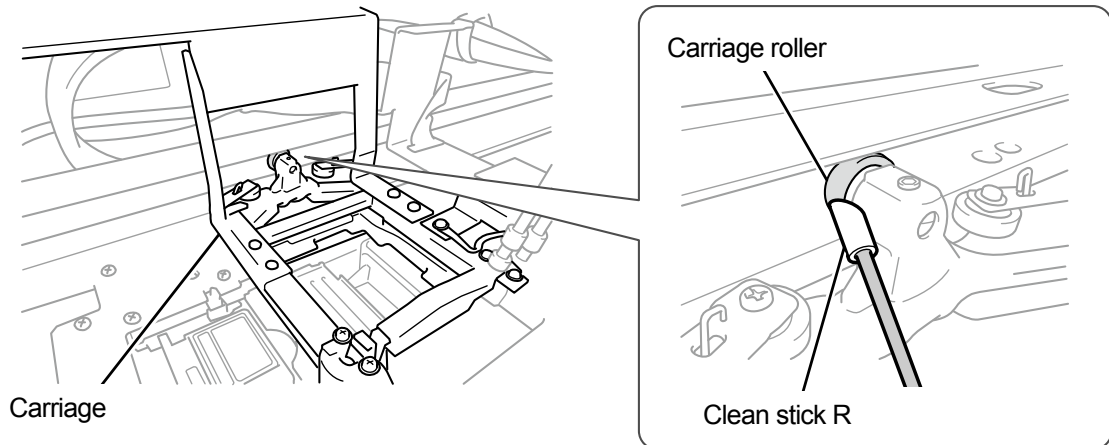
<NOTE>

- For a proper work operation, be sure to wear the printer-provided gloves.



X0051

- (8) With the clean stick R, wipe away the ink mist on the carriage roller part.
- (9) Move the carriage from side to side to rotate the roller part, and wipe all around the carriage roller.



X0170

- (10) Clean the carriage guide shaft and the three sides (upper, front, and lower sides across which the roller rolls) of roller guide.

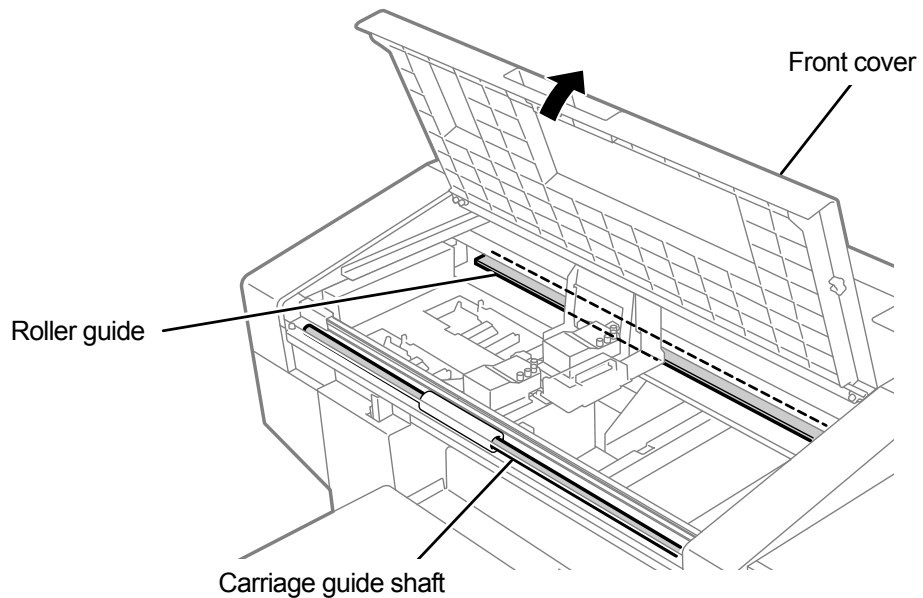
<TIPS>

- Moisten a waste cloth (non-fuzzy cloth) with a small amount of alcohol, and use such cloth to wipe clean the internal surface.
- Do not use alcohol on parts other than the carriage guide shaft and the roller guide.

- (11) Apply a proper amount of the grease (which is included with the printer) onto the carriage guide shaft.

<CAUTION>

- When handling the grease, perform the work operation in such a manner that it will not get into your eyes or onto your skin.



X0063

(12) Insert the two latches under the encoder cover and fix the cover with three screws.

(13) Close the front cover.

(14) Turn on the power.

<NOTE>

- Dispose of any waste resulting from the cleaning in accordance with applicable laws and ordinances.

<TIPS>

- Then, a head cleaning will be performed to prevent any ink from drying up.
- Because the cleaning cup will be reused, rinse it in clean cleaning solution and store it in a safe place.

(15) Adjust the carriage speed.

<TIPS>

- For details, refer to "7-4-1. CR (Carriage) speed adjustment >>P.250".

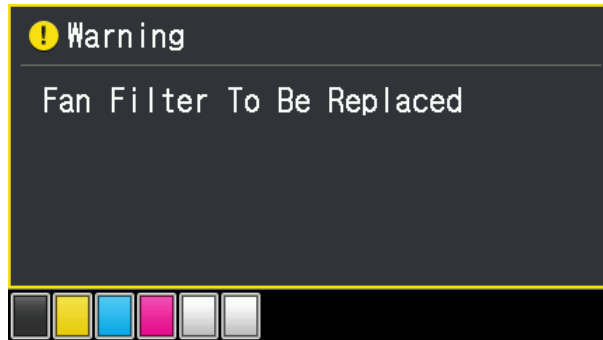
(16) Print out a nozzle check pattern.


<TIPS>

- For details, refer to "7-2-1. Print out of the nozzle check pattern (checking on the print heads) >>P.231".

7-1-6. Replacing the fan filter

When a warning message appears in the warning message window, replace the fan filter with a new one.





- (1) Make the gloves which come standard with the printer, as well as a new fan filter, available for use.
- (2) From the menu, select [Maintenance] > [Maintenance Part Clean/Replace], and press .

<IMPORTANT>

- If any other error or message is displayed on the operation panel or warning message window, follow the message to solve the problem, then perform the cleaning.

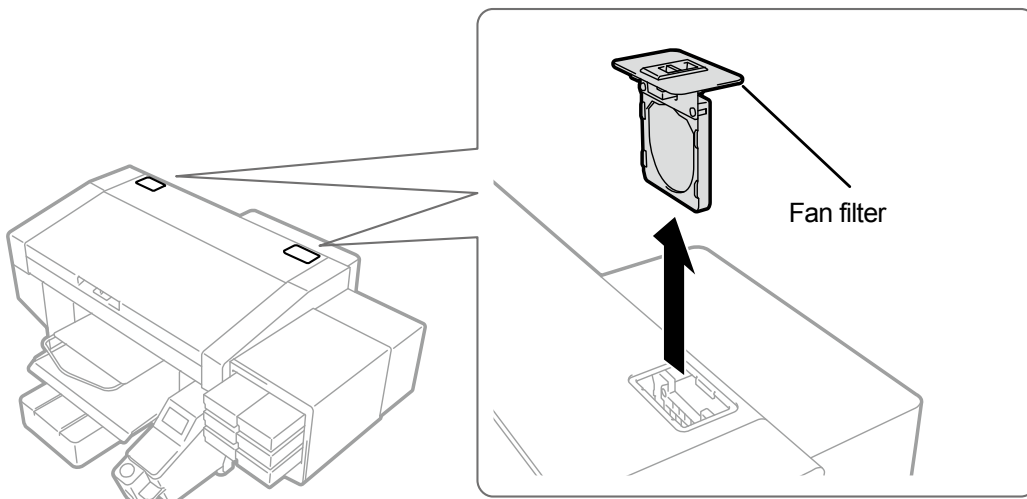
<TIPS>

- Pressing  causes the platen to start moving. Do not put anything around the platen.
- Pressing  will not move the platen or head if the error and warning displayed are [Fan Filter To Be Replaced] only.

- (3) Follow the on-screen message and turn off the power.
- (4) Remove the fan filter from the main unit of printer.

<NOTE>

- For a proper work operation, be sure to wear the printer-provided gloves.

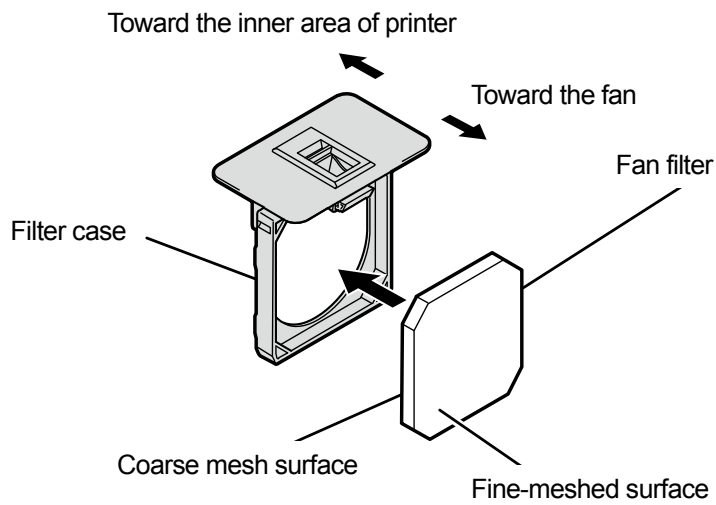


X0061

(5) Mount a new fan filter to the frame of filter case.

<IMPORTANT>

- Mount the fan filter properly in correct position in such a way that its coarse mesh surface faces toward the inner area of printer.



X0062

(6) Mount the assembled fan filter in the main unit of printer.

(7) Turn on the power.

<NOTE>

- Dispose of any waste resulting from the replacement in accordance with applicable laws and ordinances.

<TIPS>

- Then, a head cleaning will be performed to prevent any ink from drying up.

7-2. Tasks to be performed when needed

7-2-1. Print out of the nozzle check pattern (checking on the print heads)

By printing out a nozzle check pattern, you can check on the printing quality.

It is recommended to always perform this procedure to verify the output.

<TIPS>

- The serial number, firmware version, and print date (day/month/year) and time are printed at the bottom of the nozzle check pattern.
The date and time will be printed in Coordinated Universal Time with "(UTC)" printed at the end if time adjustment as a maintenance tool has not been made. You can print the date and time according to your environment by making time adjustment. For details of time adjustment, refer to "7-4-6. Setting of the time displayed on the nozzle check pattern >>P.255".

- Put the platen 14X16 in place, and position its level at "A".

<TIPS>

- For details, refer to "6-4-1. Replacing the currently used platen with another one >>P.166" and "6-4-2. Platen height adjustment >>P.169".

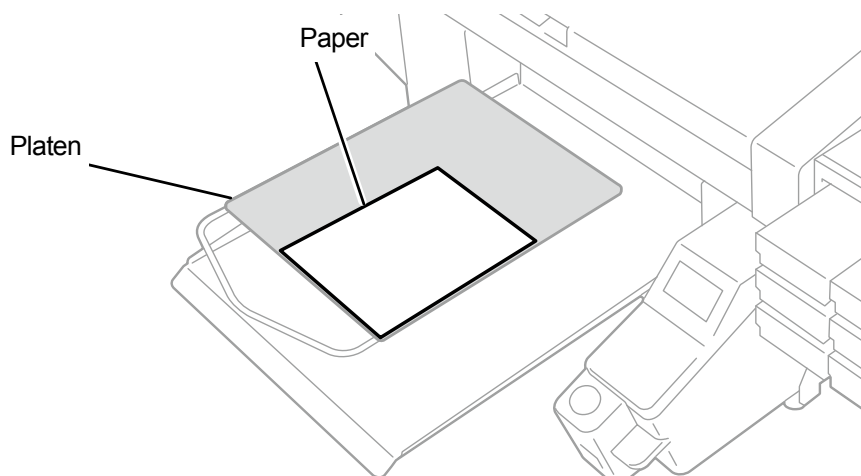
- As illustrated below, put the A4-size or letter-size white paper on the platen in alignment with the right-hand corner of the platen at its front edge.

When the paper is loosely fitted, fix its edge with a tape or the like.


A T-shirt can also be used instead.

<TIPS>

- When printing out a nozzle check pattern on the white side, print it on a pretreated black or dark color textile or black paper, or a transparent sheet (such as OHP sheet).




X0043

- From the menu, select [Test Print] > [Nozzle Check CMYK], and press .

Then, printing will begin.

- After printing on the color side is completed, remove the printed paper and replace it with a paper for printing on the white side.

- From the menu, select [Test Print] > [Nozzle Check White], and press .

Then, printing will begin.

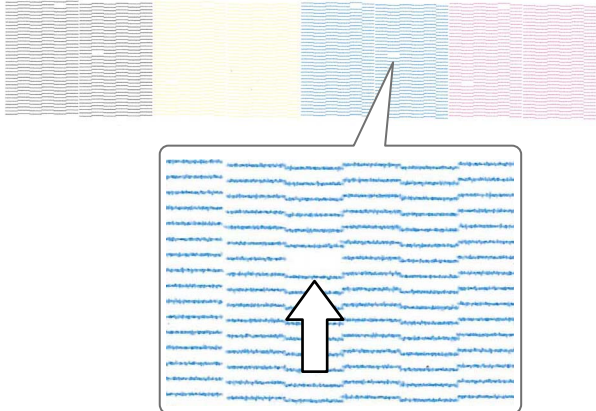
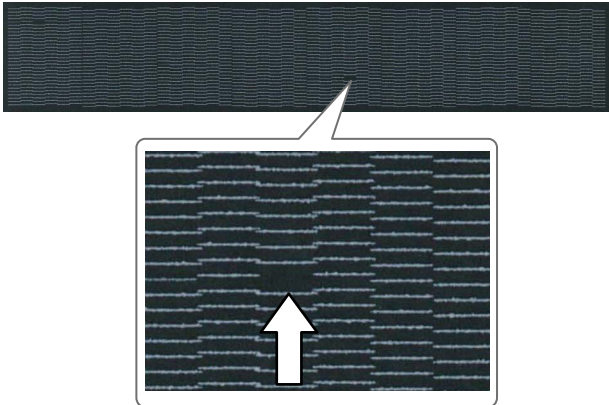
- (6) Check to see if the printed result of both sides are acceptable, and if no ink-jet droplets have been ejected, perform a head cleaning for print heads.

<IMPORTANT>

- If the print result shows an intermittent line, non-ejection has occurred. A head cleaning should be performed on the print head that has a poor nozzle check result.
- Even if the lines of the white-side printed result are light, since white ink is fired from more than one nozzle on the same place, the quality is not affected.

<TIPS>

- For details, refer to "7-2-2. Head cleaning >>P.233".

On the color side	On the white side
<p>Non-ejection occurred at the arrowed area.</p> <p>Example:</p> 	<p>Non-ejection occurred at the arrowed area.</p> <p>Example:</p> 

X0141

7-2-2. Head cleaning


This printer has been designed to perform the Auto Cleaning every time 24 print jobs are printed after the previous Auto Cleaning, or before starting the printing using the white ink when one hour or more elapses after the previous printing that used the white ink.


<TIPS>

- The frequency and start timing of Auto Cleaning can be changed. For details, refer to "8-2. Auto Cleaning Setting >>P.263".

In the event that there is any faintly printed or missing portion on a printed material, head cleaning sometimes provides a solution.

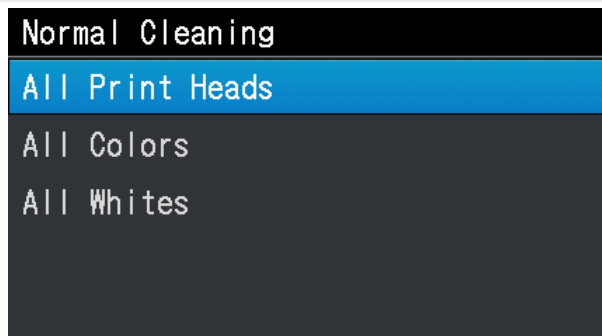
Pressing the head cleaning button to perform the head cleaning

(1) While the printer is in standby mode, press  on the operation panel.



(2) By pressing ▲/▼, select one of the options; [All Print Heads], [All Colors] or [All Whites], and press . Then, a normal cleaning will be performed for the selected print heads.

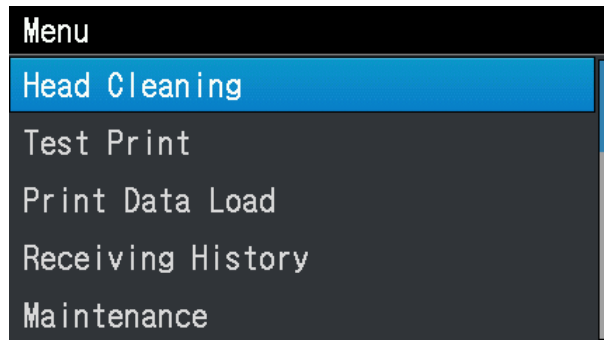
<TIPS>



- Under the condition that the nozzle which has been confirmed with reference to "7-2-1. Print out of the nozzle check pattern (checking on the print heads) >>P.231" is not ejecting ink-jet droplets, determine the print heads for which the head cleaning should be performed.
- The cleaning operation cannot be canceled halfway.
- After the procedures are completed, the current screen will go back to the standby mode screen.



Selecting a type of head cleaning from the menu to perform the head cleaning

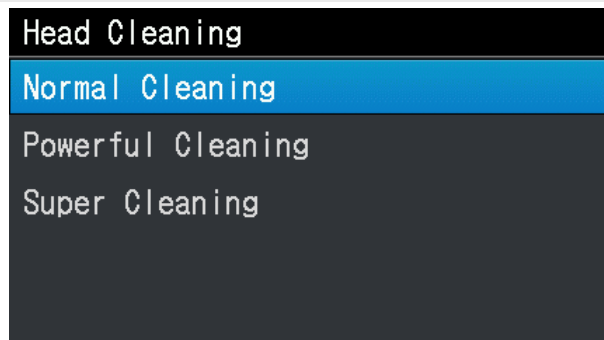
- (1) While the printer is in standby mode press  on the operation panel to bring the menu screen into the view.
- (2) From the menu, select [Head Cleaning], and press .





- (3) By pressing , select one of the options; [Normal Cleaning], [Powerful Cleaning] or [Super Cleaning], and press .

<TIPS>

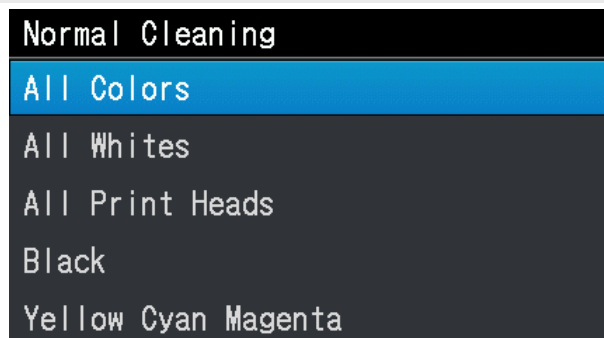
- For selecting a desired cleaning option, follow the instructions of each procedural step described in "9-2-1. Recovery action to be taken for such a nozzle that is unable to eject ink-jet droplets >>P.285".



- (4) By pressing , select one of the options; [All Colors], [All Whites], [All Print Heads], [Black] or [Yellow Cyan Magenta], and press .

<TIPS>

- Under the condition that the nozzle which has been confirmed with reference to "7-2-1. Print out of the nozzle check pattern (checking on the print heads) >>P.231" is not ejecting ink-jet droplets, determine the color(s) of print heads for which the head cleaning should be performed.



- (5) Then, the head cleaning will be performed for the specified print heads.

<TIPS>

- The cleaning operation cannot be canceled halfway.
- After the procedures are completed, the current screen will go back to the standby mode screen.

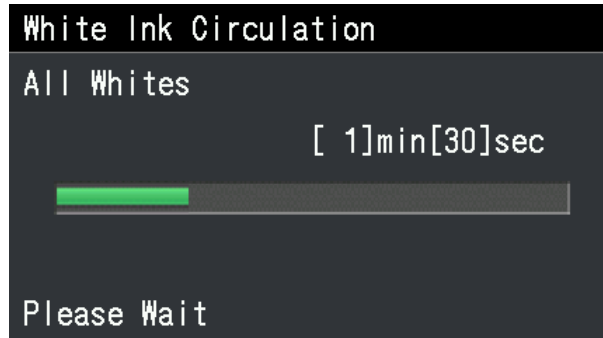
7-2-3. White ink circulation

When whiteness is not enough, it may be solved by performing white ink circulation.

- (1) While the printer is in standby mode, press  on the operation panel to bring the menu screen into view.
- (2) From the menu, select [Maintenance] > [White Ink Circulation], and press .

<TIPS>

- Time required for completing the white ink circulation varies depending on the ambient temperature. Generally it takes 6 minutes; however can take up to 15 minutes. If you are activating the printer after having had its power off for a long period, it will take up to 40 minutes.

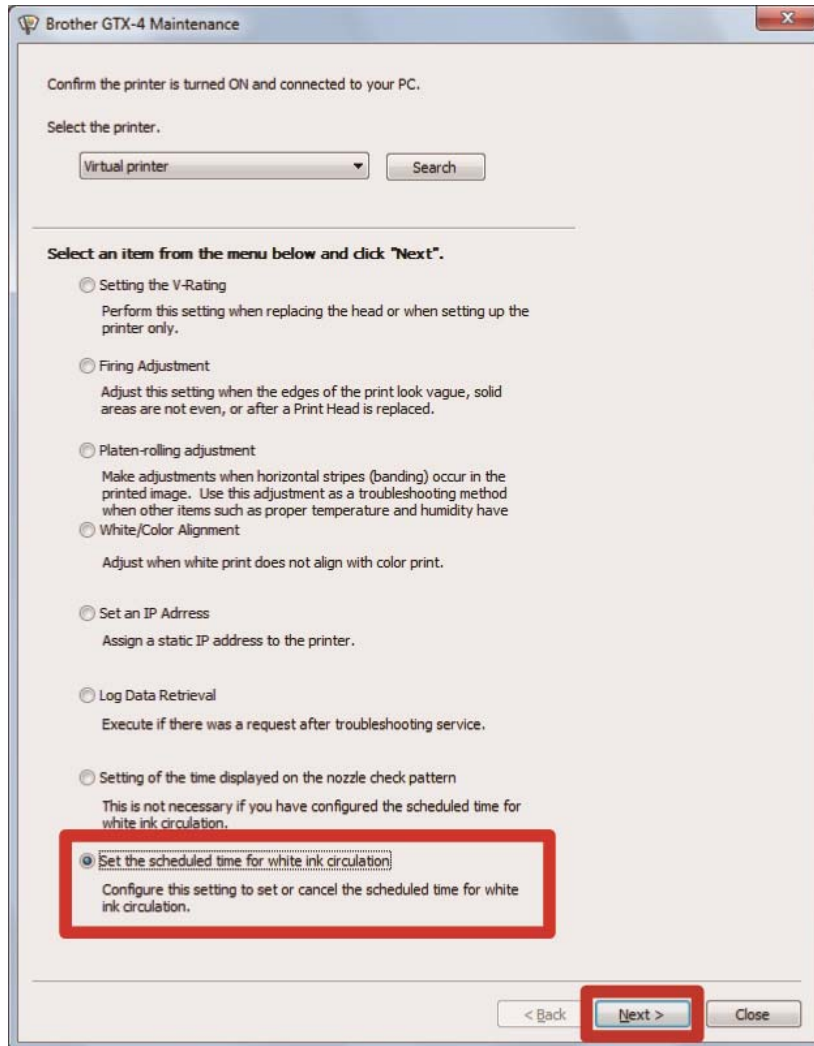


- (3) When the white ink circulation is completed, perform white ink refilling by reference to "6-2-3. Daily agitation of the white ink >>P.150".

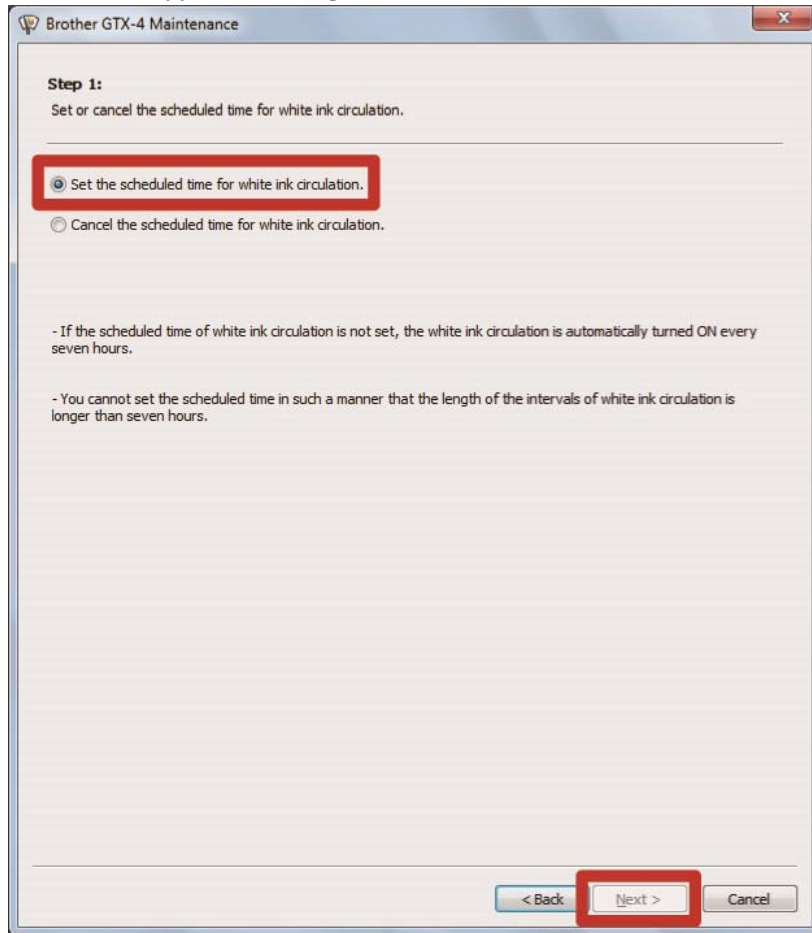
7-2-4. Set the scheduled time for white ink circulation

White ink circulation can be performed at a specified time. If not set, white ink circulation will be performed automatically every seven hours.

- (1) Make sure that a connection of USB 2.0 cable or LAN cable is made between the printer and your PC.
- (2) On the PC, from [All Programs] in the Start menu, select the "GTX-4 Maintenance" of "Brother GTX-4 Tools".
- (3) After the window shown below appears, select [Set the scheduled time for white ink circulation] and click [Next].



- (4) After the window shown below appears, select [Set the scheduled time for white ink circulation.] and click [Next].



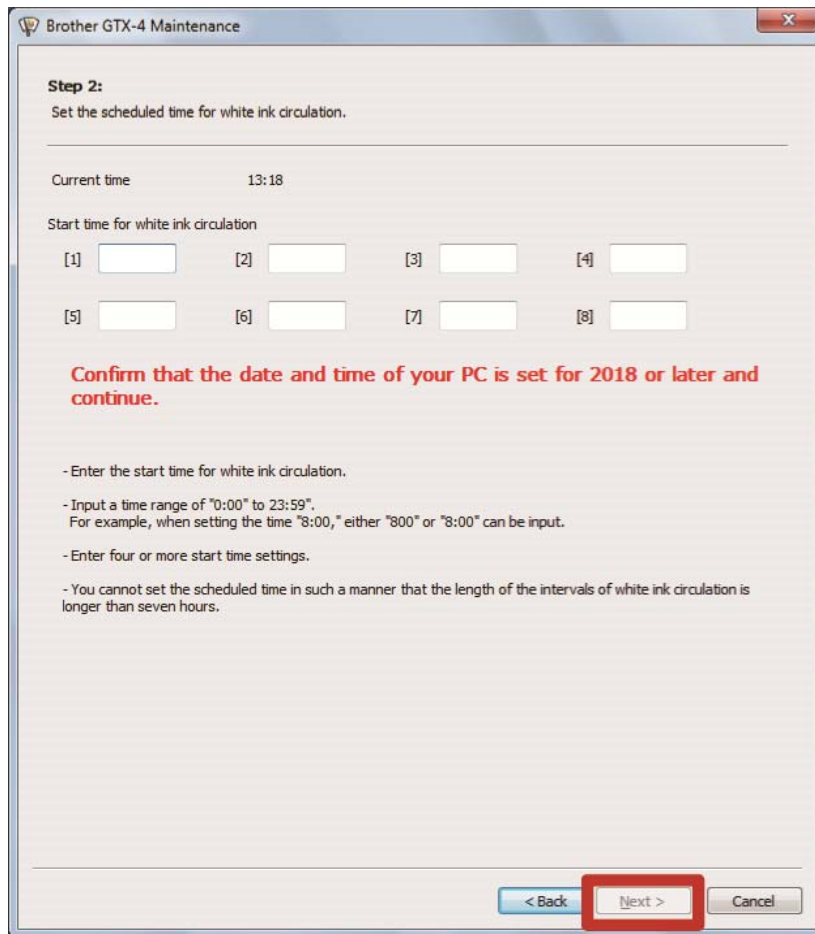
(5) Set the scheduled time for white ink circulation and click [Next].

<CAUTION>

- Confirm that the date and time of your PC are set correctly, and continue.
- Enter four or more start time settings.
- You cannot set the scheduled time in such a manner that the length of the intervals of white ink circulation is longer than seven hours.
- Input a time range of "0:00" to 23:59".

<TIPS>

- You can check on the main unit the scheduled time you set. To check the circulation schedule, refer to "8-19. Check circulation schedule >>P.272".



7-2-5. Cleaning the CR (carriage) plate

Clean the carriage plate when it is contaminated with ink.

<TIPS>

- You can use an already-used clean stick R.

- (1) Make the clean stick R, cleaning cup, gloves and cleaning solution, which come standard with the printer, available for use.

<IMPORTANT>


- Never touch the tip end of clean stick R with your hand. If any sebaceous matter is attached to the head nozzle, it may result in a printer malfunction.

- (2) From the menu, select [Maintenance] > [Maintenance Part Clean/Replace], and press .

<IMPORTANT>

- If any other error or message is displayed on the operation panel or warning message window, follow the message to solve the problem, then perform the cleaning.

<TIPS>

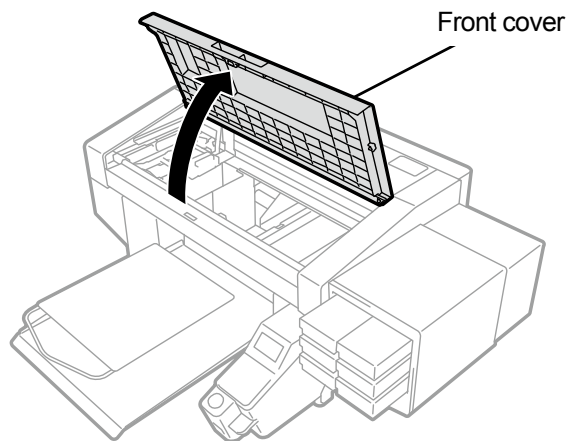
- Pressing  causes the platen to start moving. Do not put anything around the platen.

- (3) Follow the on-screen message and turn off the power.

<IMPORTANT>

- Please complete the task within 30 minutes, in order to prevent the print heads from drying up.
- If the task takes more than 30 minutes to complete, close the front cover and turn on the power, and then select [Maintenance Part Clean/Replace] again to restart the task. Then, the head cleaning will be performed to prevent any ink from drying up.

- (4) Open the front cover.



X0050

- (5) Put a proper amount of cleaning solution into the cleaning cup.

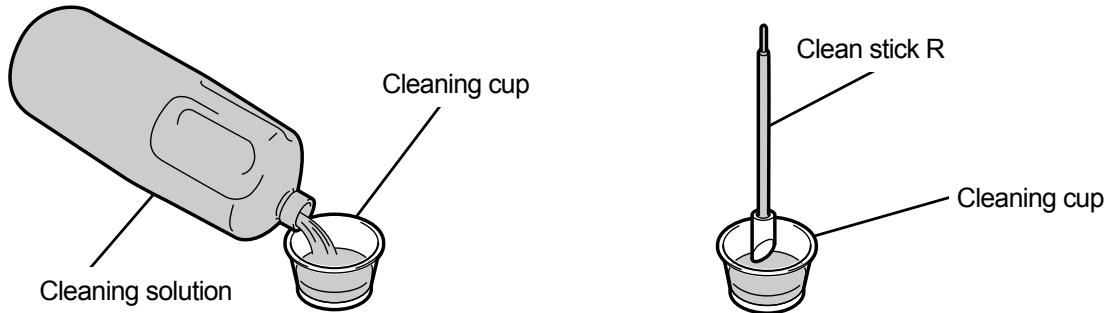
(6) Moisten a clean stick R with the cleaning solution.

<IMPORTANT>

- If you use an already-used clean stick R, do not use it for other purposes than cleaning the carriage plate.
- Do not use other fluids (water, etc.), because they may damage the print heads.
- Do not return the cleaning solution which has been put in the cleaning cup to the cleaning solution bottle.

<NOTE>

- For a proper work operation, be sure to wear the printer-provided gloves.



X0051

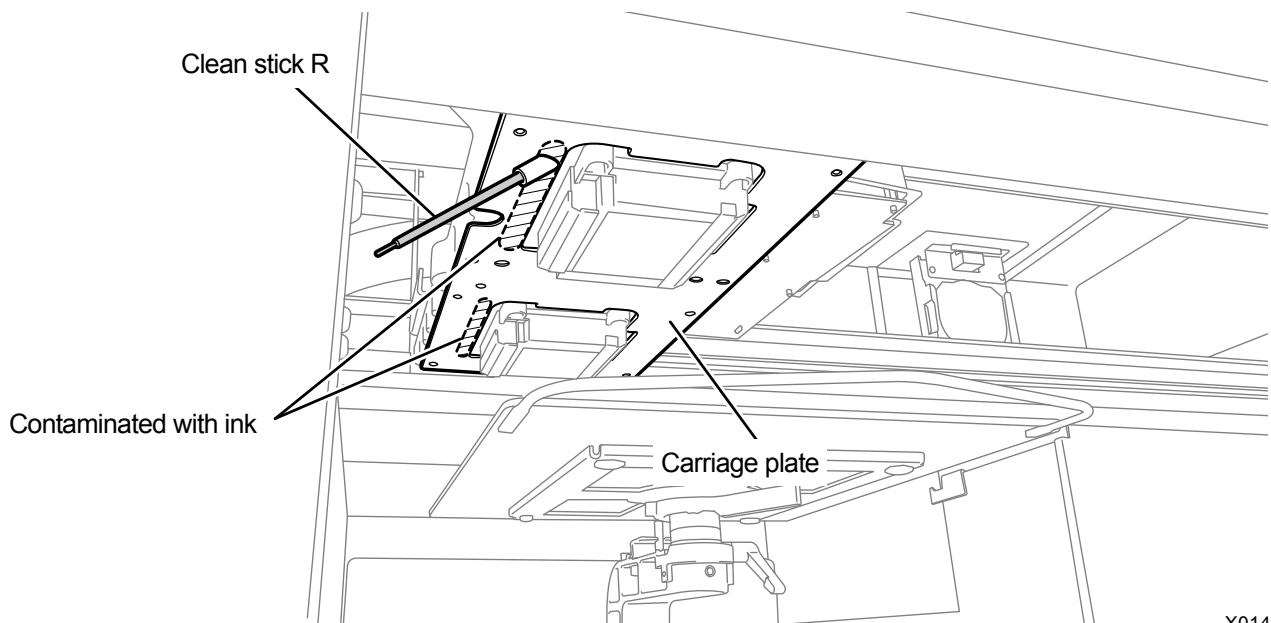
(7) With the clean stick R, wipe away the accumulated ink on the carriage plate of the left-side of the print head.

<IMPORTANT>

- Be sure not to touch the nozzle surface.

<TIPS>

- Manually move the carriage to such a position that you can perform the cleaning with ease.



X0147

(8) Clean the carriage plate on the left side of the other print head in the same manner.

<IMPORTANT>

- The used clean stick R should be disposed of, and should not be reused.

(9) Close the front cover.

(10) Turn on the power.

<NOTE>

- Dispose of any waste resulting from the cleaning in accordance with applicable laws and ordinances.

<TIPS>

- Then, a head cleaning will be performed to prevent any ink from drying up.
- Because the cleaning cup will be reused, rinse it in clean cleaning solution and store it in a safe place.

7-2-6. Replacing the platen sheet

When the platen sheet gets soiled, replace it with a new one.

- (1) Remove the platen from the main unit of the printer.

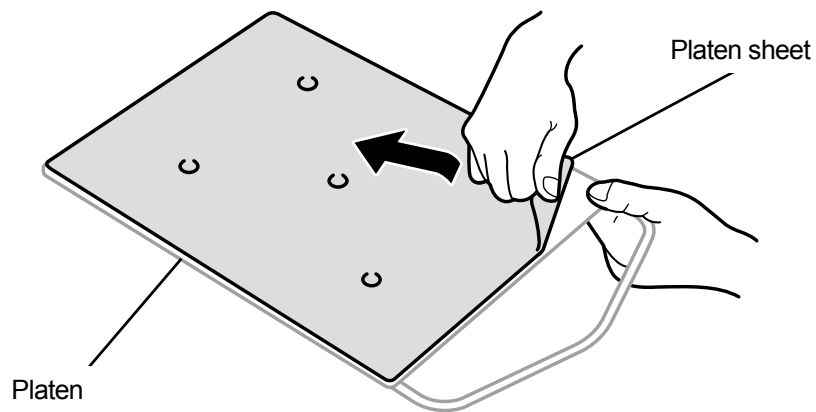
<TIPS>

- For details, refer to "6-4-1. Replacing the currently used platen with another one >>P.166".

- (2) Peel the platen sheet off the platen.

<TIPS>

- When it is hard to peel the platen sheet off, warm it using a hair dryer or the like and peel it off.



X0064

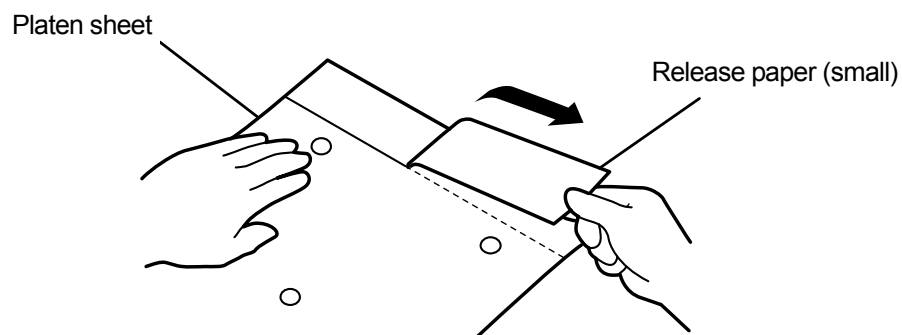
- (3) Wipe the surface of the platen with a clean cloth moistened with a mild detergent which is diluted with water, then wipe the platen clean with a dry and soft clean cloth.

- (4) Mount the platen in the main unit of the printer.

<TIPS>

- For details, refer to "6-4-1. Replacing the currently used platen with another one >>P.166".

- (5) Peel the release paper (small in size) off a new platen sheet.

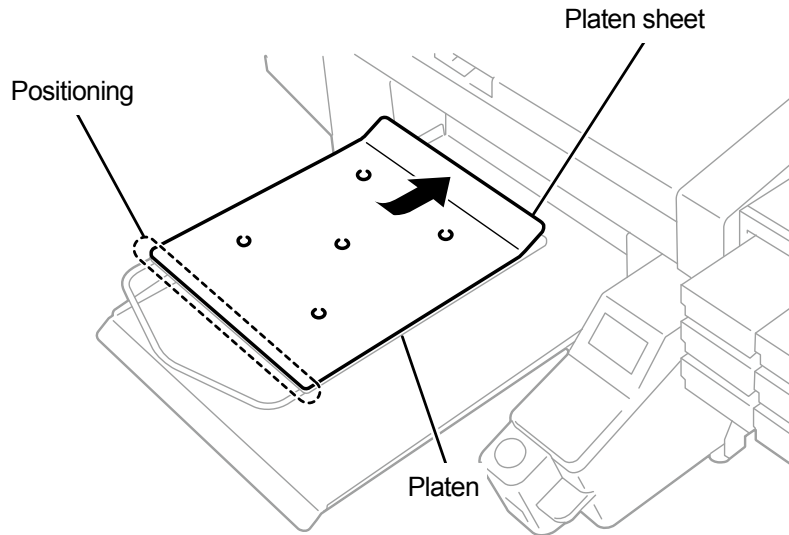


X0157

- (6) Position the platen sheet to match the platen surface, and onto the platen, stick the portion of the platen sheet where the release paper (small) was removed.

<TIPS>

- If the 16X21 platen is used, slide it forward before working on it.

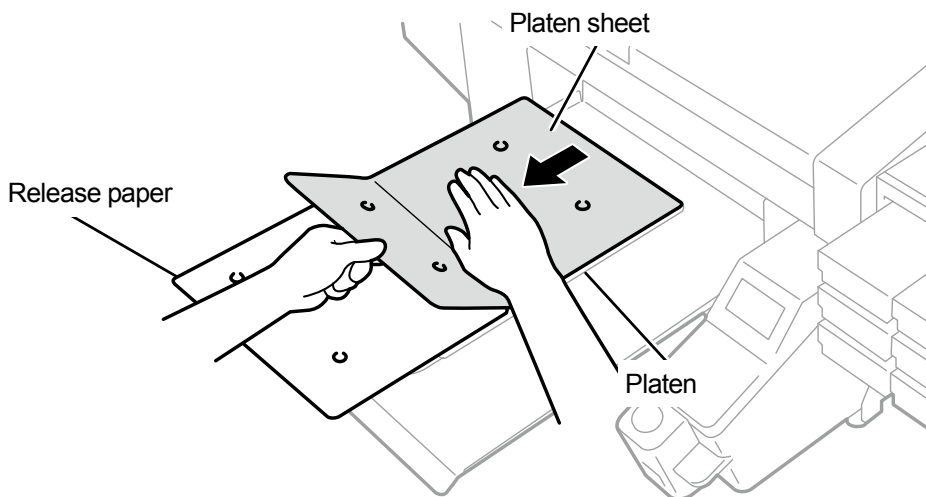


X0065

- (7) Peel off the rest of the release paper, and paste the whole platen sheet onto the entire platen.

<TIPS>

- Straighten the platen sheet, and stick it properly while pressing it with hands outward from the center to avoid making wrinkles.



X0066

- (8) As required, print a grid pattern onto the new platen sheet.

<TIPS>

- For details, refer to "5-7-4. Printing a grid pattern onto platen sheet >>P.140".
- After the printing is completed, press down the printed surface lightly with a dry cloth or a sheet of paper to dry the ink.

7-3. What to do in the White Ink Pause Mode

7-3-1. Disabling white ink

If you do not plan to use the white ink for 1 month or longer, it is recommended to set the printer to white ink pause mode. This eliminates the necessity to maintain the white ink, and saves its consumption.

<TIPS>

- Although the white ink pause mode can be activated even when the remaining volume of maintenance solution in the maintenance solution pouch is running short, there may be a case where the pouch needs to be replaced with a new one in the middle of the process depending on such remaining volume. If the remaining volume is 500 g (17.6 oz) or less, prepare a new maintenance solution pouch, follow the instructions on the screen to replace the pouch, and activate the mode again.

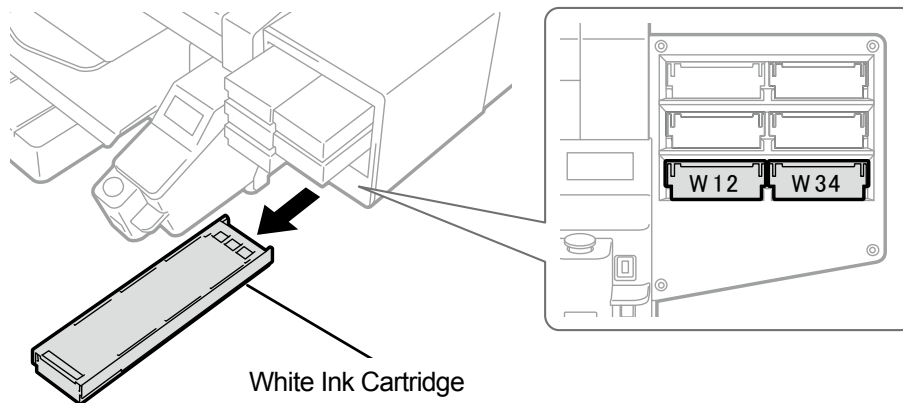
(1) From the menu, select [Maintenance] > [White Ink Pause Mode] > [Enable].

(2) Check the waste ink tank for its availability and take a necessary measure for it, if any, then press .

(3) Remove the white ink cartridge from the printer.

<CAUTION>

- The bottom of the cartridge may be soiled with ink. Clean the printer on a regular basis.

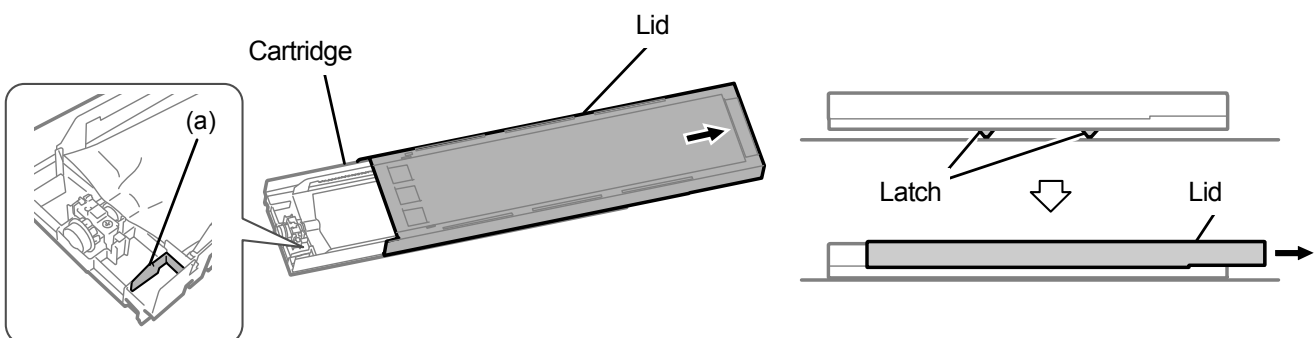


X0039

(4) Open the cartridge's lid.

<IMPORTANT>

- When opening the lid, be sure not to touch portion (a). Otherwise, it could be damaged.
- Place the entire cartridge on a flat surface, push the latches on the bottom surface of the cartridge downward and open the lid.

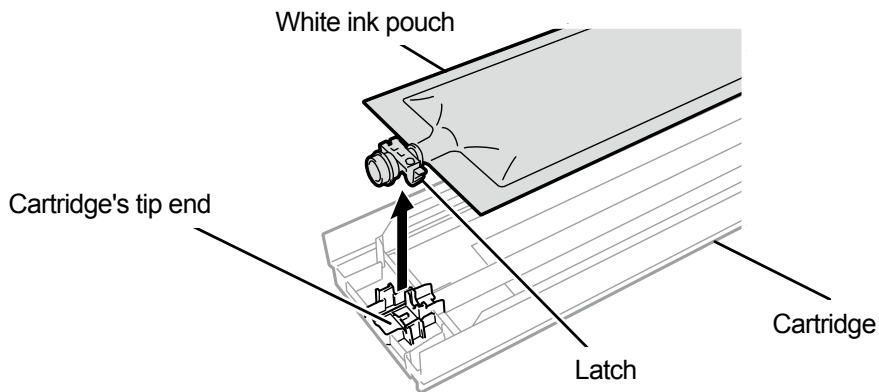


X0042

- (5) Pinch the latch at the front end of the ink pouch, and draw out the white ink pouch from the cartridge.

<CAUTION>

- Remove the accumulated ink at the tip of the cartridge with a waste cloth (non-fuzzy cloth). Clean the printer on a regular basis.



X0119

- (6) Put the maintenance solution pouch in the cartridge.

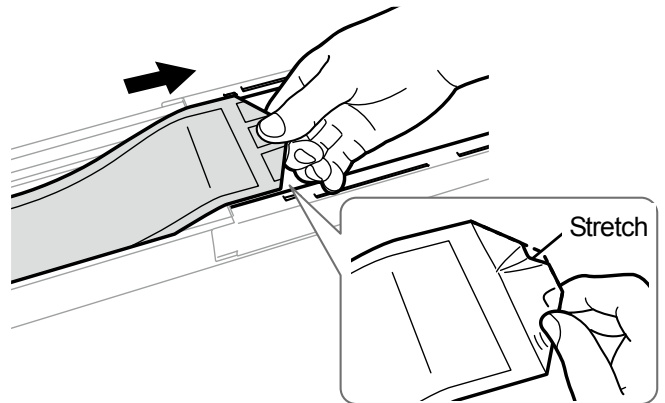
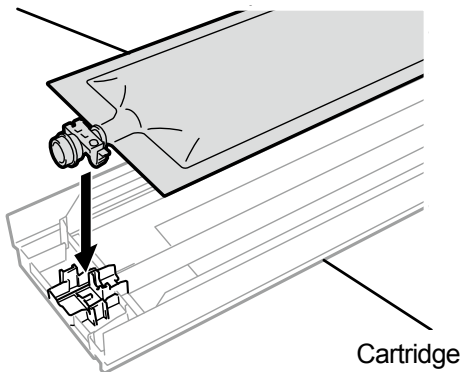
Push the tip end of the maintenance solution pouch into the cartridge until it clicks into place.

Straighten the maintenance solution pouch in such a manner that it will be aligned with the gutter of lid of cartridge, and mount into position by pulling it with your hand.

<NOTE>

- If the edge of the ink pouch is bent or undulating significantly, make it straight with your hand.

Maintenance solution pouch

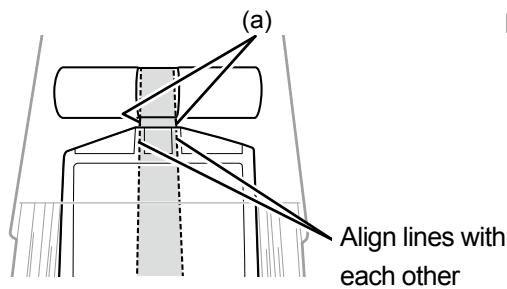


X0049

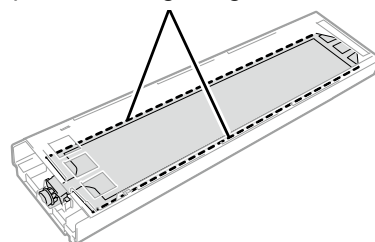
- (7) Put the maintenance solution pouch in its correct position.

<CAUTION>


- Avoid touching portion (a) of the cartridge. Otherwise, you may cut your hand.



Place the pouch in straight alignment with the cartridge



X0041

- (8) Close the lid, and put the maintenance solution cartridge in position inside the printer.
- (9) Repeat the same process to replace the other white ink cartridge with the maintenance solution pouch.
- (10) On the operation panel, press  .


Then, the white ink will be replaced with the maintenance solution.

<TIPS>

- After the procedures are completed, the current screen will go back to the standby mode screen.
- Always keep the maintenance solution cartridge placed in its position.
- To restart printing with the white ink, perform the operations instructed in "7-3-2. Reusing White Ink >>P.246".
- If the maintenance solution pouch runs out, replace the maintenance solution pouch with a new one.

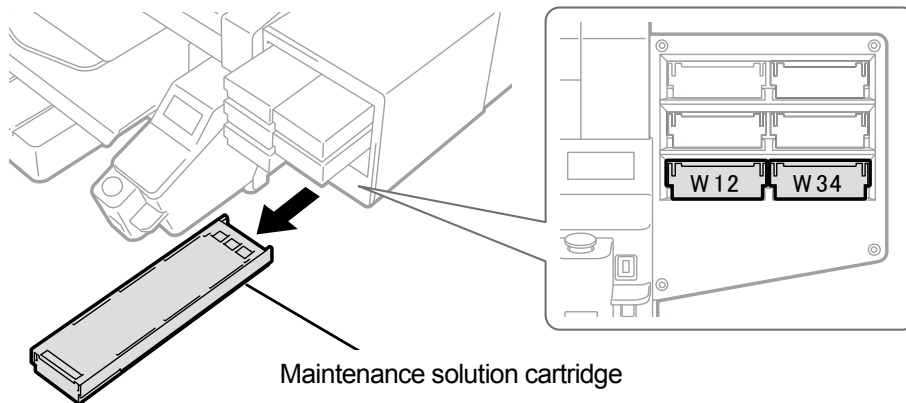
7-3-2. Reusing White Ink

Perform the following operations when you restart printing with the white ink after activating the white ink pause mode.

- (1) From the menu, select [Maintenance] > [White Ink Pause Mode] > [Disable].
- (2) Check the waste ink tank level and take a necessary measure for it, if any, then press .
- (3) Remove the maintenance solution cartridge from the printer.

<CAUTION>

- The bottom of the cartridge may be soiled with ink. Clean the printer on a regular basis.

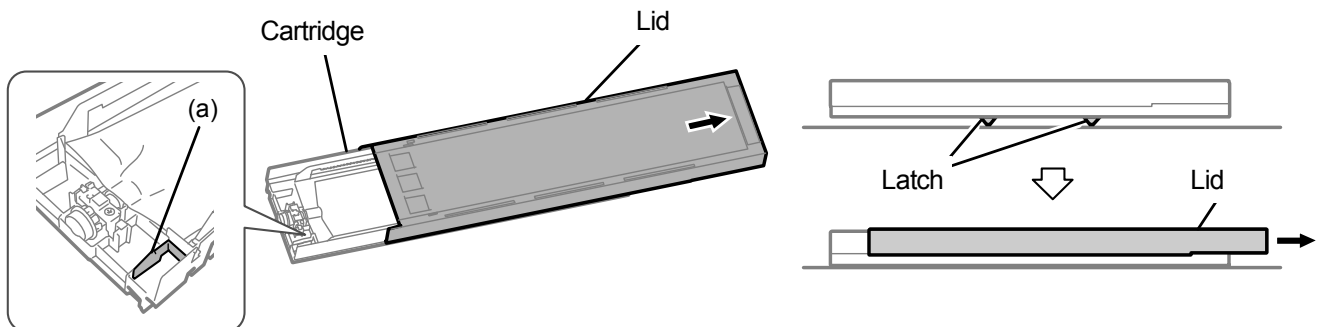


X0039

- (4) Open the cartridge's lid.

<IMPORTANT>

- When opening the lid, be sure not to touch portion (a). Otherwise, it could be damaged.
- Place the entire cartridge on a flat surface, push the latches on the bottom surface of the cartridge downward and open the lid.



X0042

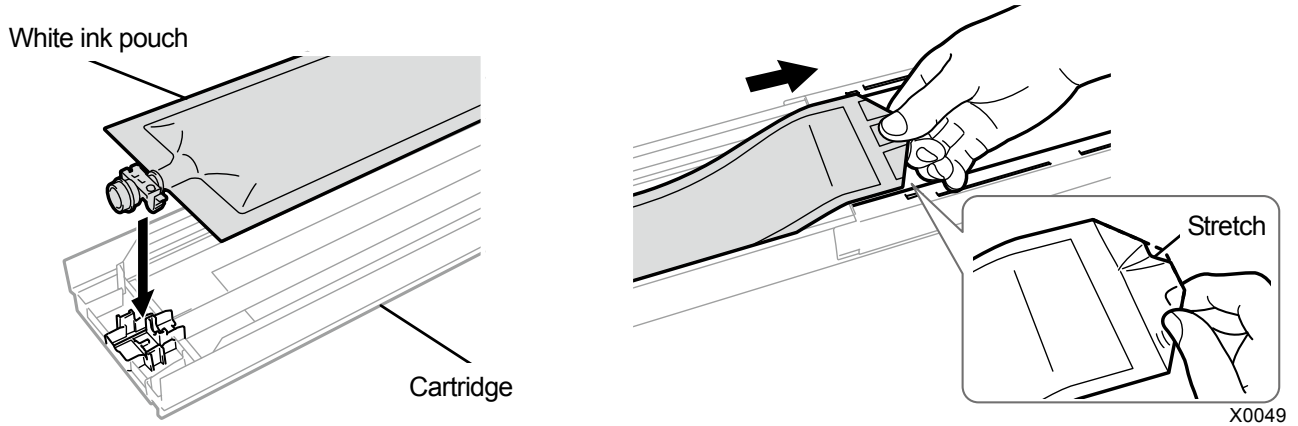
(5) Remove the maintenance solution pouch from the cartridge, and put the white ink pouch in place.

Push the tip end of the ink pouch into the cartridge until it clicks into place.

Straighten the ink pouch in such a manner that it will be aligned with the gutter of the lid of cartridge, and mount in position by pulling it with your hand.

<NOTE>

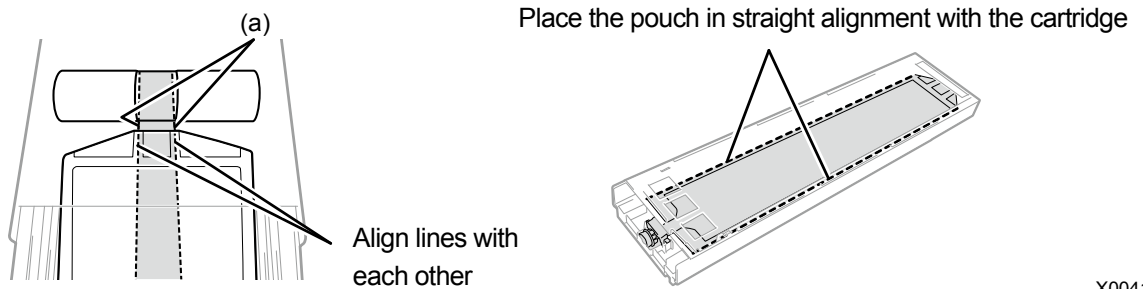
- If the edge of the ink pouch is bent or undulating significantly, make it straight with your hand.



(6) Make sure that the white ink pouch is set in its correct position, to close the lid.

<CAUTION>

- Avoid touching portion (a) of cartridge. Otherwise, you may cut your hand.



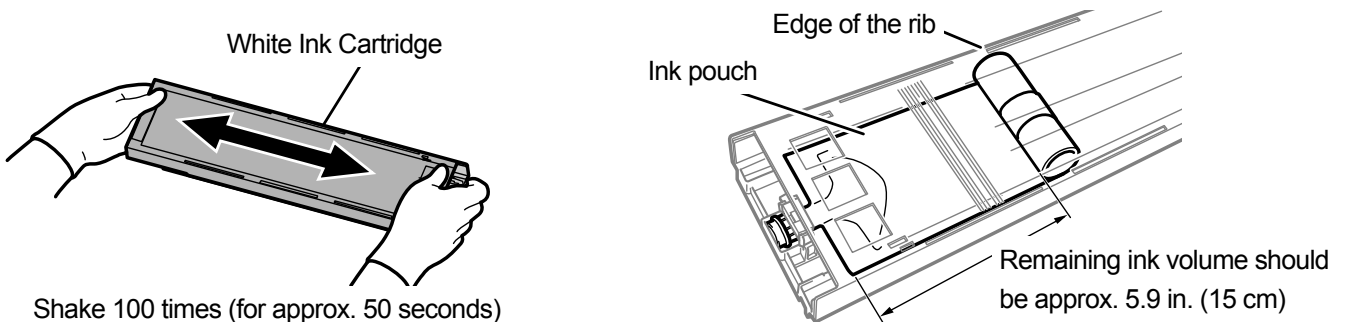
(7) Shake the cartridge 100 times side to side to stir the ink.

<IMPORTANT>

- The white ink cartridge should be held horizontally when shaking it.
- Holding the white ink cartridge upside down or shaking it too roughly could break the ink pouch.

<NOTE>

- Wear the provided gloves when performing this task.
- When the remaining ink level becomes approximately 5.9 in. (15 cm), shake the cartridge with its cover open and with the edge of the ink pouch slightly winded, to make the ink easier to stir.



Shake 100 times (for approx. 50 seconds)
(Swing distance should be approx. 2 in. (5 cm).
Increase the swing distance when the remaining
ink level becomes low.)

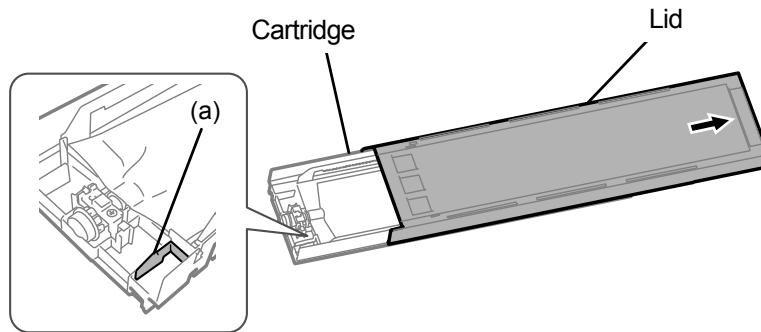
(8) Open the lid of the cartridge and place the ink pouch in its correct position.

<IMPORTANT>

- Always open the cartridge lid and properly rewind the ink pouch. If the pouch is placed without opening the lid, ink can flow into the wound section of the pouch when stirred, causing improper winding of the pouch.
- When opening the lid, place the entire cartridge on a flat surface, push the latches on the bottom surface of the cartridge downward and open the lid.
- When setting the ink pouch, avoid unevenness or wrinkles on the pouch.
- When opening the lid, be sure not to touch the portion (a). Otherwise, it could be damaged.

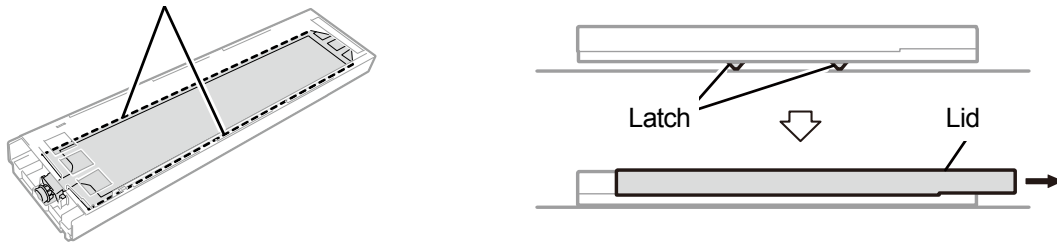
<NOTE>

- If the remaining ink level is low, hold the sagged part of the ink pouch and close the lid.

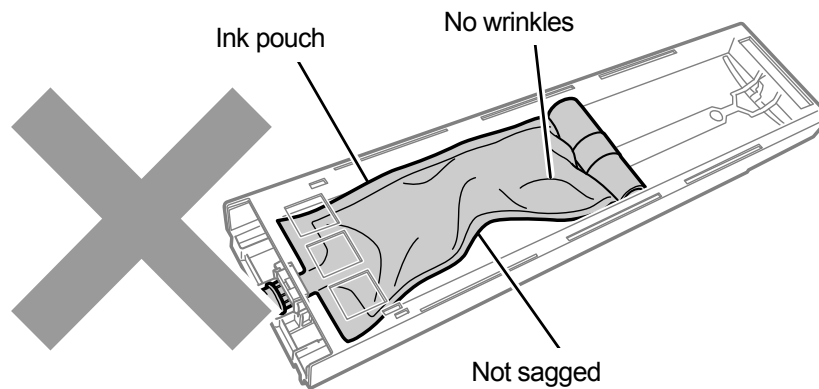


X0182

Place the pouch in straight alignment with the cartridge



X0078




X0142

(9) Close the lid, and put the white ink cartridge in position inside the printer.

<IMPORTANT>

- W12 and W34 cartridges should correctly be placed at their original locations. Wrongly placed cartridges could cause printer malfunction.

(10) Repeat the same process to replace the other maintenance solution cartridge with the white ink pouch.

(11) On the operation panel, press  .

Then, the white ink will be installed.




<TIPS>

- When the white ink pouch runs low on its remaining volume of white ink, the Install Ink function can no longer get started. Furthermore, there may be cases where the pouch needs to be replaced with a new one during the installation process of white ink. If the remaining volume is 400 g (14.1 oz) or less, prepare a new white ink pouch, follow the instructions on the screen to replace the pouch, and activate the mode again.
- After the procedures are completed, the current screen will go back to the standby mode screen.

7-4. Adjustment

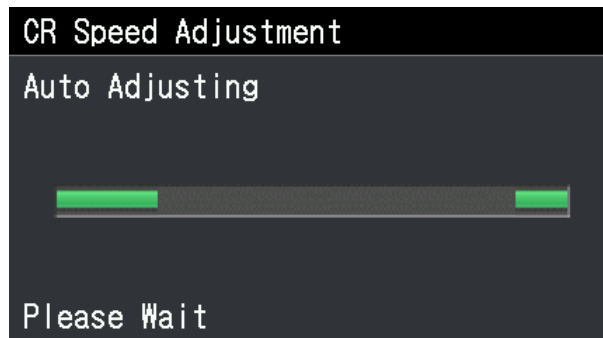
7-4-1. CR (Carriage) speed adjustment

Carriage speed should be adjusted when the error message [Adjust CR] is displayed on the operation panel. Adjustment should always be performed when carriage shaft cleaning or print head replacement tasks are carried out, or after completing the setup procedures.

- (1) While the printer is in standby mode, press  on the operation panel to bring the menu screen into view.
- (2) From the menu, select [Printer Setting] > [CR Speed Adjustment], and press .
- (3) Select [Start] or [Start (after cleaning/setup)] and press .
 - [Start]: If you cannot clean the internal area of the printer such as carriage shaft immediately after the head replacement or when the error message is displayed.
 - [Start (after cleaning/setup)]: After cleaning the carriage shaft.

Wait until the carriage stops moving and the sound of pong is heard.

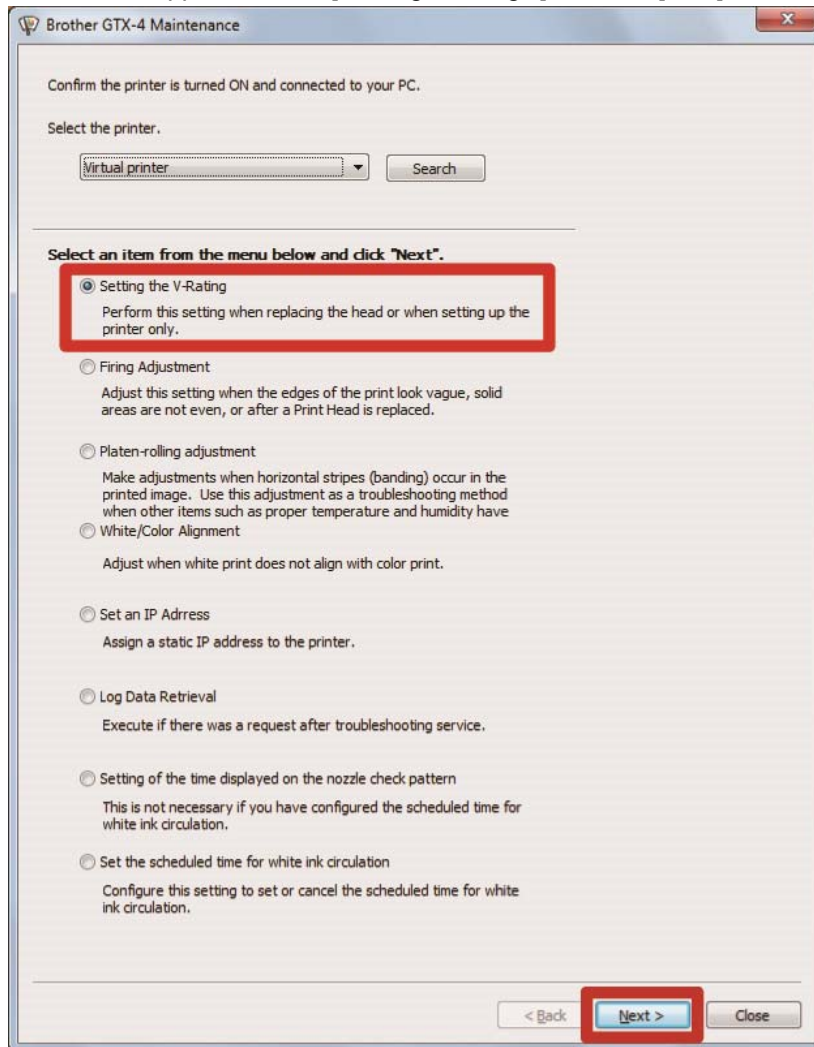
It takes about 3 minutes to adjust the carriage speed.



7-4-2. V-rating setting

Set V-rating after replacing the print head or completing the setup procedure.

- (1) Make sure that a connection of USB 2.0 cable or LAN cable is made between the printer and your PC.
- (2) On the PC, from [All Programs] in the Start menu, select the "GTX-4 Maintenance" from "Brother GTX-4 Tools".
- (3) After the window shown below appears, select [V-rating's settings:] and click [Next].

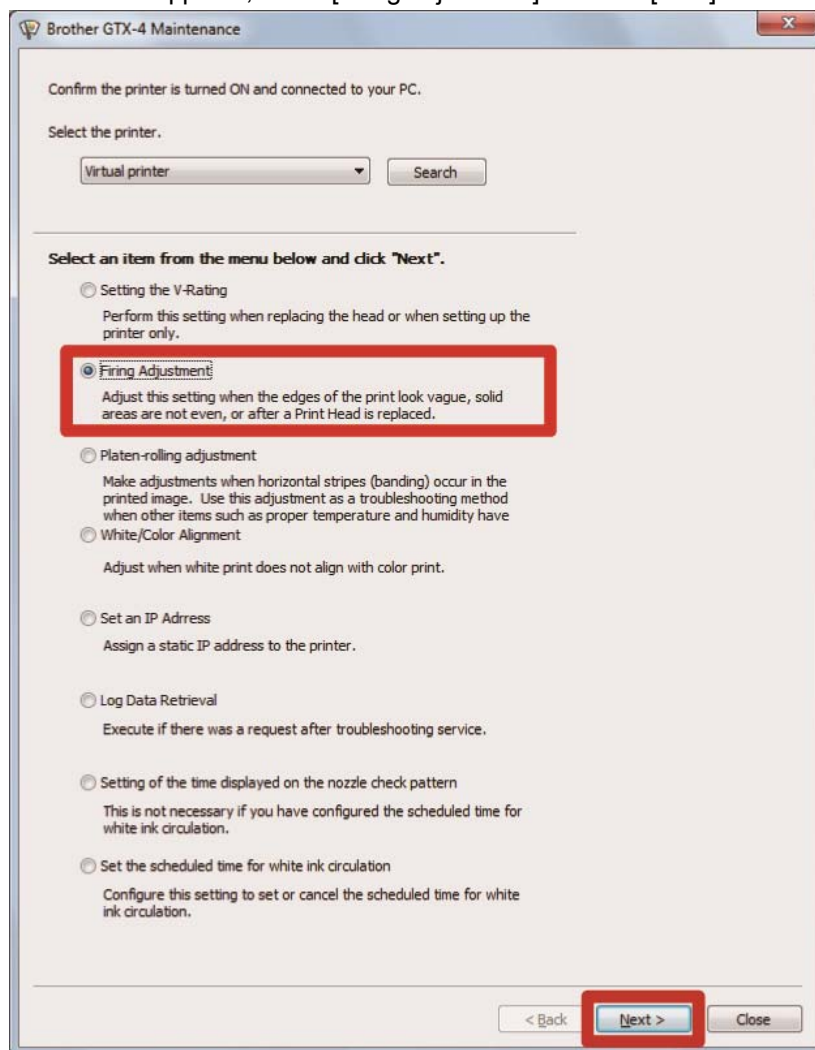


- (4) Perform the required operation by following the on-screen instructions in the dialog box. After the adjustment is completed, the currently displayed screen will go back to the window mentioned above.

7-4-3. Firing adjustment

Because the ejection timing varies depending on the platen's height and properties of each print head, this function is provided to adjust the ejection timing for each print head when any print head is replaced with a new one or after the completion of the setup procedure, for instance. If you are making adjustments after replacing a print head, this task should be carried out after configuring the V-rating settings.

- (1) Make several sheets of A4-size or letter-size paper (black paper or transparent sheet such as OHP sheet, and white paper) available for use.
- (2) Make sure that a connection of USB 2.0 cable or LAN cable is made between the printer and your PC.
- (3) On the PC, from [All Programs] in the Start menu, select the "GTX-4 Maintenance" from "Brother GTX-4 Tools".
- (4) After the window shown below appears, select [Firing Adjustment] and click [Next].

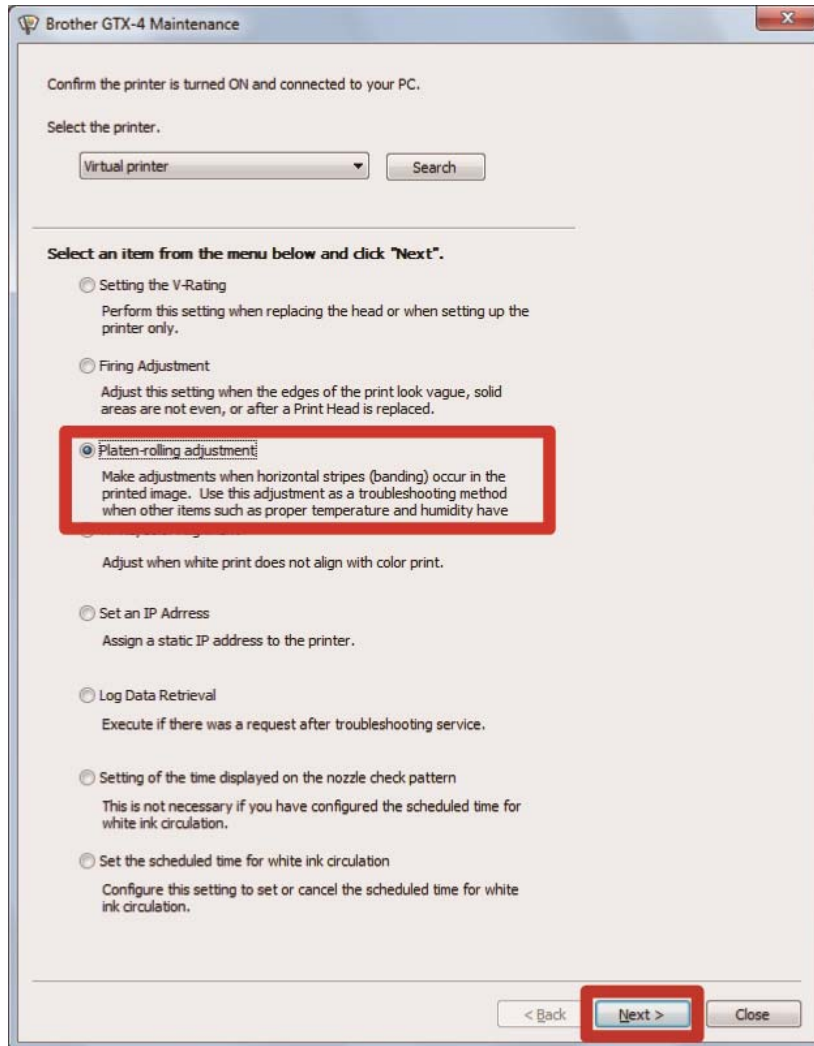


- (5) Perform the required operation by following the on-screen instructions in the dialog box. After the adjustment is completed, the currently displayed screen will go back to the window mentioned above.

7-4-4. Platen feed adjustment

Platen feed adjustment should be performed after replacing the print head or completing the set up procedure. If you are making adjustments after replacing the head, this task should be carried out after configuring the V-rating settings and adjusting the firing timing.

- (1) Make several sheets of A4-size or letter-size white paper available for use.
- (2) Make sure that a connection of USB 2.0 cable or LAN cable is made between the printer and your PC.
- (3) On the PC, from [All Programs] in the Start menu, select the "GTX-4 Maintenance" from "Brother GTX-4 Tools".
- (4) When the window shown below is displayed, select [Platen-Rolling Adjustment] and click [Next].



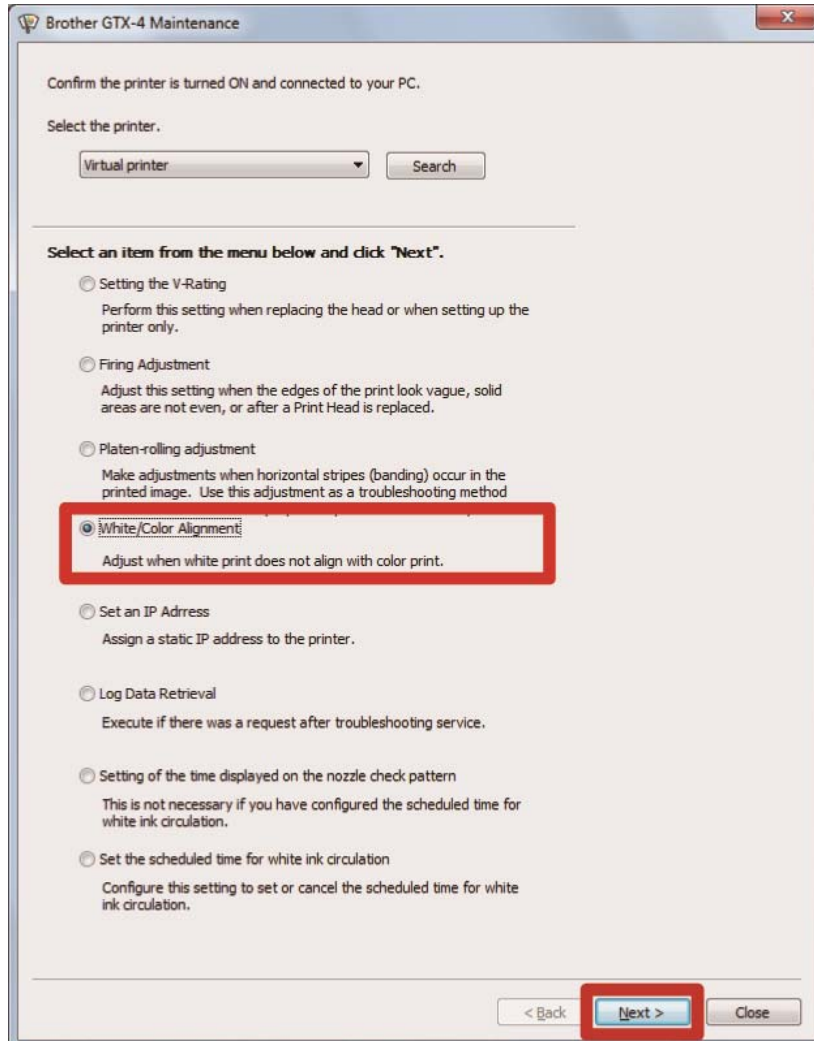
- (5) Perform the required operation by following the on-screen instructions in the dialog box. After the adjustment is completed, the currently displayed screen will go back to the window mentioned above.

7-4-5. White/color alignment

This is the adjustment function to align the print position on the white side with the print position on the color side. Adjust white/color alignment after replacing a print head or completing the setup procedure.

If you are making adjustments after replacing the head, this task should be carried out after configuring the V-rating settings, adjusting the firing timing, and adjusting the platen feed.

- (1) Make a black or deep colored pretreated T-shirt ready for use.
- (2) Make sure that a connection of USB 2.0 cable or LAN cable is made between the printer and your PC.
- (3) On the PC, from [All Programs] in the Start menu, select the "GTX-4 Maintenance" from "Brother GTX-4 Tools".
- (4) After the window shown below appears, select the [White/Color Alignment] and click [Next].

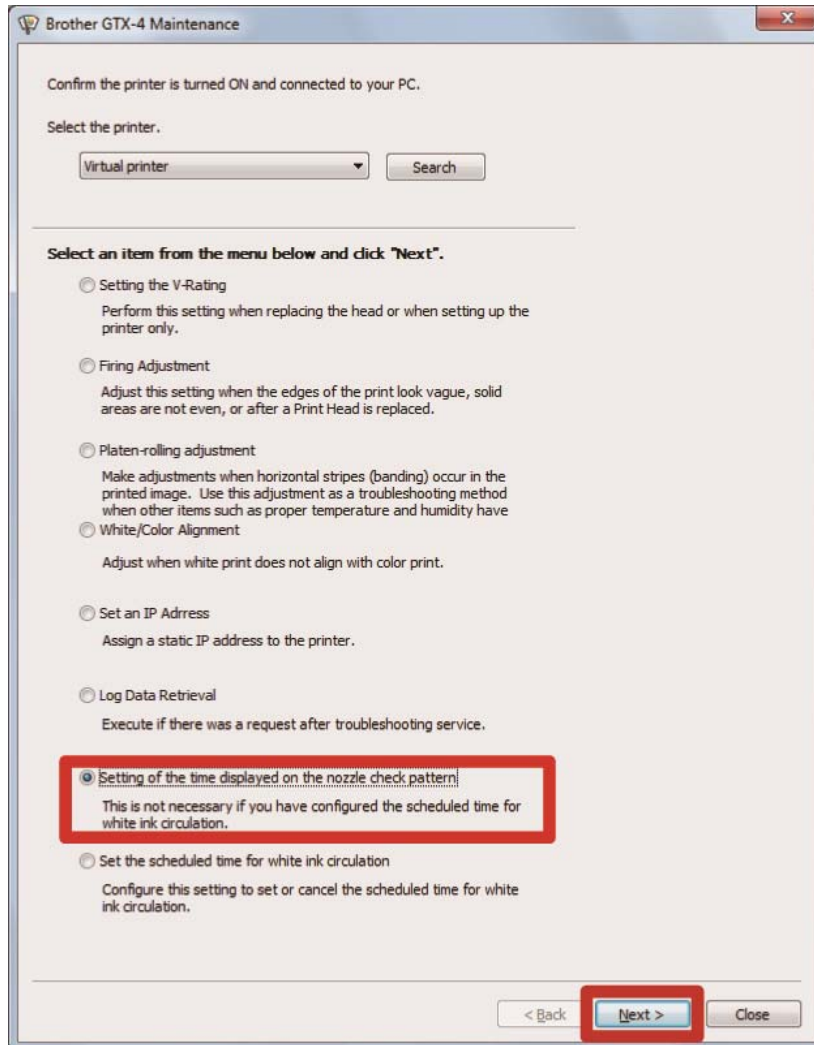


- (5) Perform the required operation by following the on-screen instructions in the dialog box. After the adjustment is completed, the currently displayed screen will go back to the window mentioned above.

7-4-6. Setting of the time displayed on the nozzle check pattern

Set the time displayed on the nozzle check pattern.

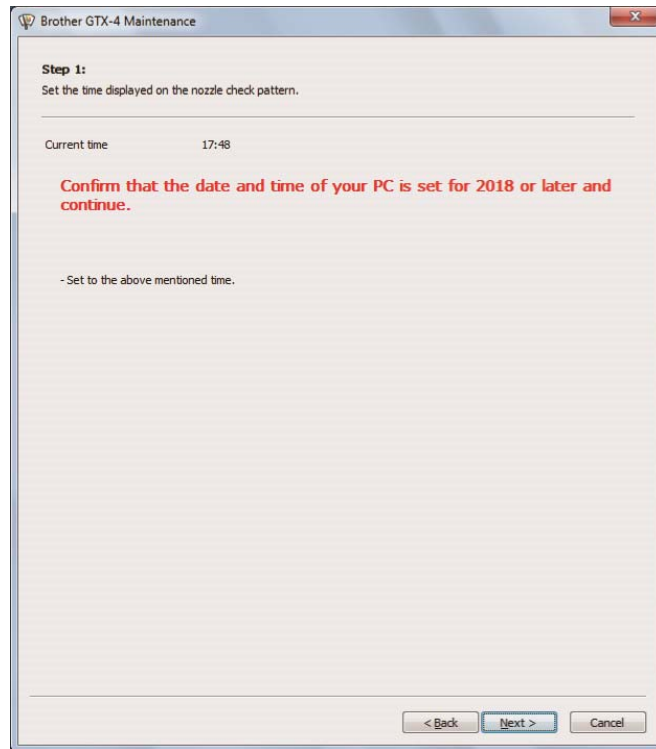
- (1) Make sure that a connection of USB 2.0 cable or LAN cable is made between the printer and your PC.
- (2) On the PC, from [All Programs] in the Start menu, select the "GTX-4 Maintenance" of "Brother GTX-4 Tools".
- (3) After the window shown below appears, select [Setting of the time displayed on the nozzle check pattern] and click [Next].



- (4) Perform the required operation by following the on-screen instructions in the dialog box.

<CAUTION>

- Confirm that the date and time of your PC are set correctly, and continue.



- (5) After the setting is completed, the currently displayed screen will go back to the Main screen.



7-5. When Not Using for a Long Period of Time

When the printer will not be used for a prolonged period of time, take appropriate procedures before storing the printer depending on storage period or condition.

<IMPORTANT>

- Do not turn the printer off. Otherwise, the printer may be damaged.
- If the power source to the printer cannot be sustained, please contact your dealer in advance.

<NOTE>

- If any error message is displayed on the screen, follow the instructions.
- When storing the printer for more than two weeks, cleaning of the nozzle guard, wiper and exhaust cap should be performed. For details, refer to "7-1-2. Cleaning the nozzle guard, wiper, exhaust cap, and suction cap >>P.208".

7-5-1. When Not Using for a Long Period of Time: within 2 weeks

The printer can be used through normal procedure after the storage period, by performing the following maintenance tasks.

- (1) Check the amount of waste ink in the waste ink tank, and if the tank is filled with waste ink up to its one-half or higher level, discard the ink.

<TIPS>

- Refer to "6-2-1. Confirmation and disposal of waste ink >>P.148".

- (2) Check the amount of cleaning solution in the cleaning liquid tank, and refill the tank when its amount is below the proper level.

<TIPS>

- Refer to "6-2-2. Confirmation and replenishment of cleaning solution >>P.149".

- (3) Stir the white ink if a white ink cartridge stirring message is displayed on the operation panel screen.

<TIPS>

- Refer to "6-2-3. Daily agitation of the white ink >>P.150".

- (4) As required, print out a nozzle check pattern.

<TIPS>

- For details, refer to "7-2-1. Print out of the nozzle check pattern (checking on the print heads) >>P.231".

7-5-2. When Not Using for a Long Period of Time: more than 2 weeks

Perform the following maintenance every two weeks.

- (1) Check the amount of waste ink in the waste ink tank, and if the tank is filled with the waste ink up to its one-half or higher level, discard the ink.

<TIPS>

- Refer to "6-2-1. Confirmation and disposal of waste ink >>P.148".

- (2) Check the amount of cleaning solution in the cleaning liquid tank, and refill the tank when its amount is below the proper level.

<TIPS>

- Refer to "6-2-2. Confirmation and replenishment of cleaning solution >>P.149".

- (3) Stir the white ink if a white ink cartridge stirring message is displayed on the operation panel screen.

<TIPS>

- Refer to "6-2-3. Daily agitation of the white ink >>P.150".

- (4) Print out a nozzle check pattern and verify the result.

<TIPS>

- For details, refer to "7-2-1. Print out of the nozzle check pattern (checking on the print heads) >>P.231".

- (5) If a non-firing nozzle is found, perform head cleaning and run the nozzle check pattern print, and verify the result again.

<TIPS>

- For details, refer to "7-2-2. Head cleaning >>P.233".

7-5-3. When Not Using for a Long Period of Time: within 2 weeks with white ink pause mode

The printer can be used through normal procedure after the storage period, by performing the following maintenance tasks.

- (1) Check the amount of waste ink in the waste ink tank, and if the tank is filled with the waste ink up to its one-half or higher level, discard the ink.

<TIPS>

- Refer to "6-2-1. Confirmation and disposal of waste ink >>P.148".

- (2) Check the amount of cleaning solution in the cleaning liquid tank, and refill the tank when its amount is below the proper level.

<TIPS>

- Refer to "6-2-2. Confirmation and replenishment of cleaning solution >>P.149".

- (3) As required, print out a nozzle check pattern for the color side.

<TIPS>

- For details, refer to "7-2-1. Print out of the nozzle check pattern (checking on the print heads) >>P.231".
- For the White ink pause mode, print the nozzle check patterns for the head only on the color side.

7-5-4. When Not Using for a Long Period of Time: more than 2 weeks with white ink pause mode

Perform the following maintenance every two weeks.

- (1) Check the amount of waste ink in the waste ink tank, and if the tank is filled with the waste ink up to its one-half or higher level, discard the ink.

<TIPS>

- Refer to "6-2-1. Confirmation and disposal of waste ink >>P.148".

- (2) Check the amount of cleaning solution in the cleaning liquid tank, and refill the tank when its amount is below the proper level.

<TIPS>

- Refer to "6-2-2. Confirmation and replenishment of cleaning solution >>P.149".

- (3) Print out a nozzle check pattern on the color side and verify the result.

<TIPS>

- For details, refer to "7-2-1. Print out of the nozzle check pattern (checking on the print heads) >>P.231".
- For the White ink pause mode, print the nozzle check patterns for the head only on the color side.

- (4) If a non-firing nozzle is found, perform head cleaning and run the nozzle check pattern print, and verify the result again.

<TIPS>

- For details, refer to "7-2-2. Head cleaning >>P.233".

- (5) Perform the normal white head cleaning.

<TIPS>

- For details, refer to "7-2-2. Head cleaning >>P.233".



As required, make settings and adjustments as mentioned below.

About menu layer on the setting screen


Menu	Setting screen	Description
[Printer Setting]	[Print Direction]	[Auto]
		[Always Bi-Directional]
		[Always Uni-Directional]
	[Back Light]	[Light High]
		[Light Medium]
		[Light Low]
	[Auto Screen Erase Time]	[No Auto Screen Erase]
		[5 min]
		[10 min]
		[15 min]
	[Menu TimeOut Setting]	[30 min]
		[1min]
		[3min]
	[Speaker Volume]	[5min]
		0 to 7
	[Temperature]	[Fahrenheit]
		[Centigrade]
	[Preview display settings]	[display it upward]
		[display it downward]
	[File name display setting]	[Priority to file name display]
		[Priority to job name display]
	[Low Temperature Mode]	[Enable(Normal)]
		[Disable]
	[Auto Cleaning Setting]	1 to 24
	[Auto Cleaning Start Timing]	[Conduct before Printing]
		[Conduct after Printing]
	[CR Speed Adjustment]	[Start]
		[Start (after cleaning/setup)]0
	[Flushing Interval Setting]	[every 40 lines]
		[normal 22 lines]
		[every 10 lines]
	[Flushing Volume Setting]	[More]
		[Standard]
[Less]		
[Auto Job Delete]	[OFF]	
	[ON]	
[Rcvng Prnt Setting]	[Enable]	
	[Disable]	
[IP Address Set]	[Manual setting]	
	[Automatic acquisition]	
[Total Print]		
[Temperature/Humidity Info]		

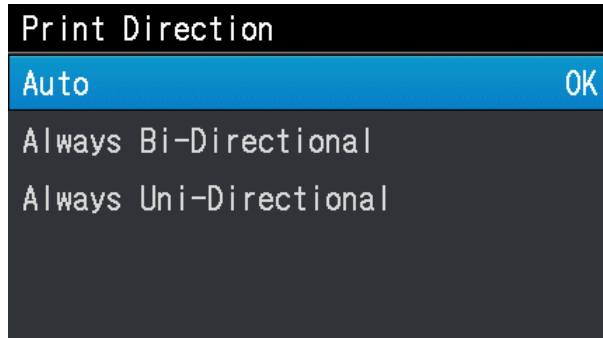
Menu	Setting screen	Description
[Confirm network setting]	[IP Address]	
	[Subnet Mask]	
	[Default Gateway]	
	[Host name]	
	[MAC address]	
[Check circulation schedule]		
[Language]	[English]	
	[Español]	
	[Français]	
	[Deutsch]	
	[Italiano]	
	[日本語]	
	[中文]	
[Version]	[Firm Version]	
	[Data Info]	
	[Serial No.]	

8-1. Setting the print direction

- (1) From the menu, select [Printer Setting] > [Print Direction], and press .
- (2) Select your desired print direction of the print heads, and press .

<TIPS>




- The print direction is displayed here in the form of either bi-directional or the uni-directional icon .
- Note that the setting of the print direction gives priority to the printer's setting over the setting of the printer driver.
- The setting content will be kept intact until it is changed for the next printing job.



8-2. Auto Cleaning Setting

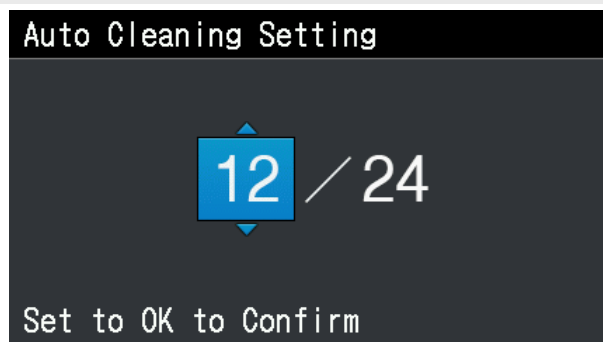
Setting the Number of Printed Sheets for Auto Cleaning

Specify the number of printed sheets as the frequency of Auto Cleaning; where head cleaning is automatically performed every time a predetermined number of sheets are printed in order to protect the printer and provide stable printing quality. If the printing quality deteriorates in continuous printing, decrease the number of printed sheets for Auto Cleaning. The default value is 24.

- (1) From the menu, select [Printer Setting] > [Auto Cleaning Setting], and press .
- (2) Press  to set up the number of sheets to be printed in the range between 1 and 24, and press .



<TIPS>

- The printing quality tends to deteriorate if the humidity is low.
- If the auto cleaning is performed more frequently, the Wiper cleaner and flushing foam will need to be replaced with a new one earlier.



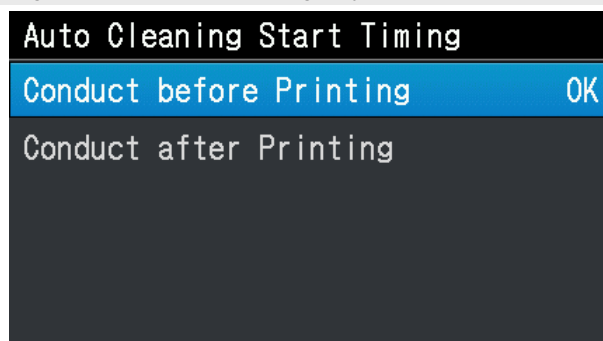
Auto Cleaning Start Timing

Specify your desired auto cleaning start timing.

- (1) From the menu, select [Printer Setting] > [Auto Cleaning Start Timing], and press .
- (2) Select your desired auto cleaning start timing, and press .



<TIPS>

- Even when [Conduct after Printing] is selected, Auto Cleaning may be performed before printing, depending on the state of use.



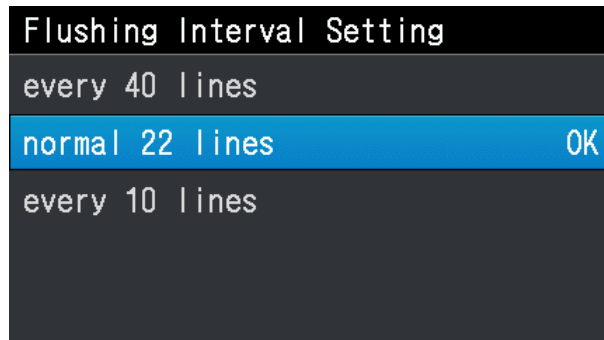
8-3. Flushing Interval Setting

Perform this if the printing quality deteriorates during printing operations.

- (1) From the menu, select [Printer Setting] > [Flushing Interval Setting], and press .
- (2) Select the desired number of scanning operations until the flushing starts, and press .



<TIPS>

- The printing quality tends to deteriorate during the printing operation if the humidity is low.
- Setting shorter flushing intervals improves the printing quality, however, increases the ink consumption and increases the time required for printing.



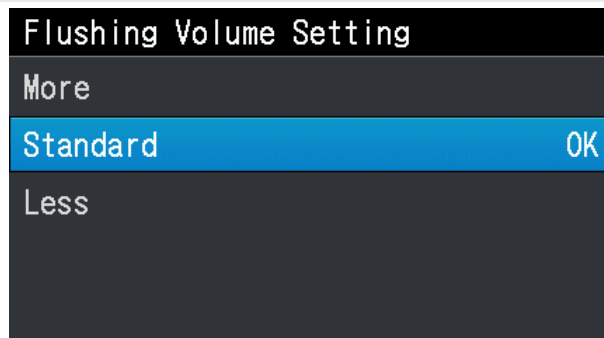
8-4. Flushing Volume Setting

Perform this if the printing quality deteriorates at the startup of the printing operation.

- (1) From the menu, select [Printer Setting] > [Flushing Volume Setting], and press .
- (2) Select your desired volume of ink to be ejected from the print heads during the flushing operation before the printing operation starts, and press .

<TIPS>

- The printing quality tends to deteriorate at the startup of the printing operation if the humidity is low.
- Setting larger flushing volume improves the printing quality, however, increases the ink consumption.





8-5. Print Operation Settings Under Low Temperature

Configure the printer with automatic switching to low temperature operation mode for ensuring print quality when [Temp Low] is displayed on the liquid crystal panel. It is set to [Enable(Normal)], by default.

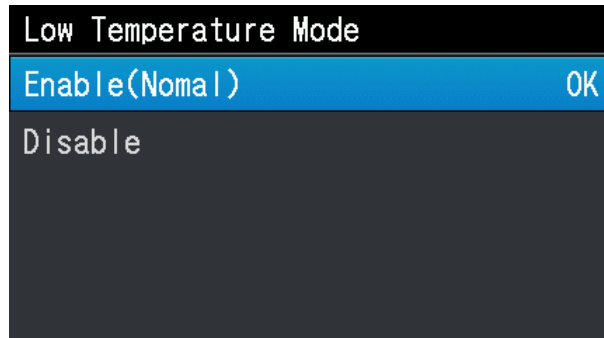
If the low temperature operation mode is enabled, the printer will automatically be switched to the low temperature operation. Although it can assure print quality, it may take longer time for printing.

If the low temperature operation mode is disabled, print speed will not slow down; however, poor ejection may occur.



- (1) From the menu, select [Printer Setting] > [Low Temperature Mode], and press .
- (2) Select the print mode under low temperature and press .

<TIPS>

- When [Disable] is selected, white ink injection may become unstable when trying to print a wide area.

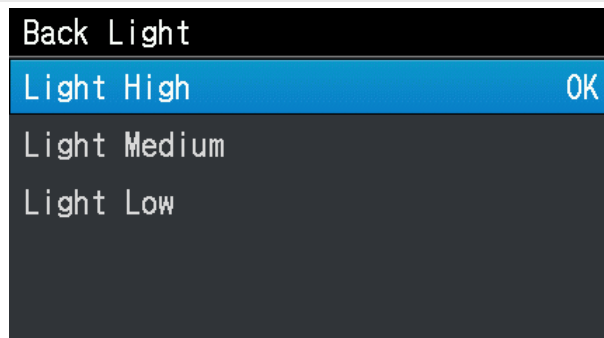


8-6. Screen back light adjustment



- (1) From the menu, select [Printer Setting] > [Back Light], and press .
- (2) Select your desired brightness of Liquid crystal panel, and press .

<TIPS>

- During this menu selection process, the screen is displayed with the selected brightness.



8-7. Setup of Auto Screen Erase Time



- (1) From the menu, select [Printer Setting] > [Auto Screen Erase Time], and press .
- (2) Select your desired time until the liquid crystal panel and print button become unlit, and press .

<TIPS>

- During this menu selection process, the currently selected set value is displayed.

Auto Screen Erase Time	
No Auto Screen Erase	OK
5 min	
10 min	
15 min	
30 min	

8-8. Setting the menu timeout period



- (1) From the menu, select [Printer Setting] > [Menu TimeOut Setting], and press .
- (2) Select the time before the display screen returns to the standby mode screen, and press .

<TIPS>

- During this menu selection process, the currently selected set value is displayed.

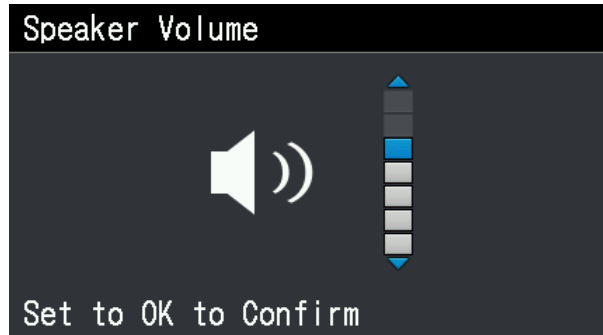
Menu TimeOut Setting	
1min	OK
3min	
5min	

8-9. Speaker volume adjustment



- (1) From the menu, select [Printer Setting] > [Speaker Volume], and press .
- (2) Adjust the speaker volume in eight-step scale from 0 to 7, and press .

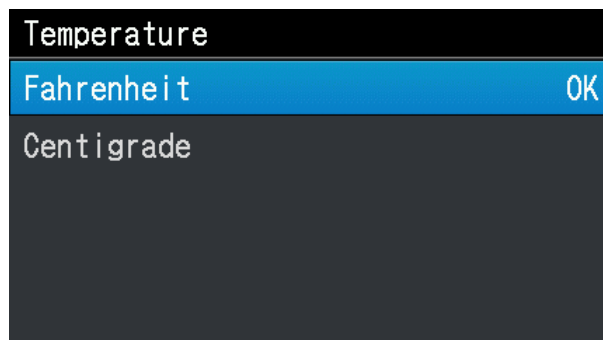
<TIPS>

- You can adjust the volume while checking it.





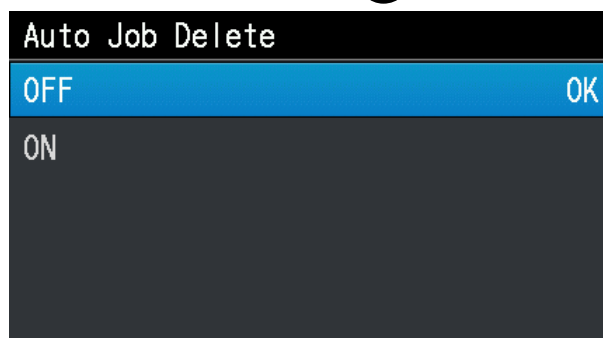
8-10. Setup of temperature indication

- (1) From the menu, select [Printer Setting] > [Temperature], and press .
- (2) Select your desired unit of ambient temperature to be shown on the liquid crystal panel, and press .





8-11. Automatic deletion of print data

- (1) From the menu, select [Printer Setting] > [Auto Job Delete], and press .
- (2) Select the desired function of Auto Job Delete, and press .



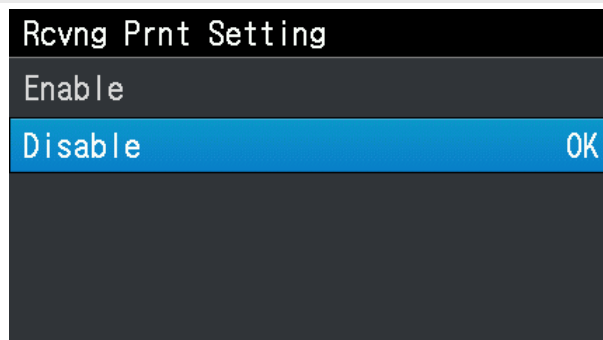
8-12. Settings to start printing during reception of data

When sending created print data from your PC to the printer, you can press the print button to start printing before the data reception is completed. In the initial setting, [Disable] is selected.

- (1) From the menu, select [Printer Setting] > [Rcvng Prnt Setting], and press .
- (2) Select the receiving print setting, and press .



<TIPS>

- Use the "Brother GTX-4 FileOutput" printer driver for file output to create print data (ARX4 file) in advance, and then use the created print data in data sending operation from "GTX-4 File Viewer" to the printer.
- When sending any print data created during the operation directly to the printer without creating such ARX4 file, please select the [Disable] in the [Rcvng Prnt Setting].
- When starting printing during reception of print data, if transferring of the print data from your PC is interrupted for a while exceeding the specified time, the printer will get into error state. If such error occurs, with reference to "7-2-1. Print out of the nozzle check pattern (checking on the print heads) >>P.231", print a nozzle check pattern to check the print head status. As required, with reference to "7-2-2. Head cleaning >>P.233", perform the head cleaning.



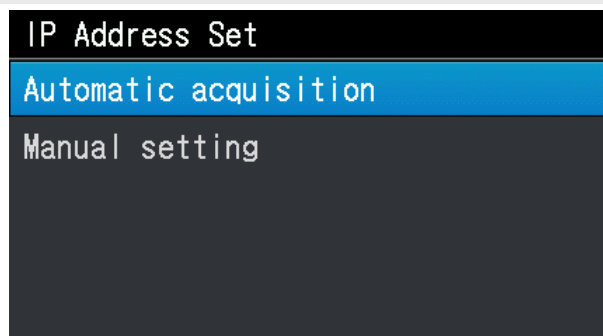
8-13. Static IP address setting





In the [IP Address Set] window, select the manual setting or automatic acquisition, and set up the [IP Address], [Subnet Mask] and [Default Gateway] when you select the manual setting.


- (1) From the menu, select [Printer Setting] > [IP Address Set], and press .
- (2) Select either [Manual setting] or [Automatic acquisition] and press .

<TIPS>

- If you select [Automatic acquisition], the screen will go back to the standby mode screen after the settings are automatically acquired.

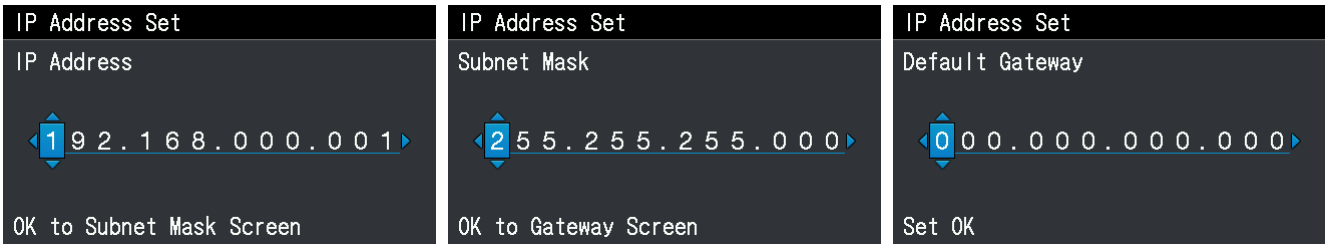


- (3) To make manual settings, press  /  to move to and select your desired position.
- (4) To make manual settings, press  /  to specify your desired numeric value.

- (5) When the  button is pressed, the selected value is accepted, and the display screen goes to the [IP Address], [Subnet Mask] and [Default Gateway] in an orderly manner.



<TIPS>

- The display screen shown here has been taken as an example.



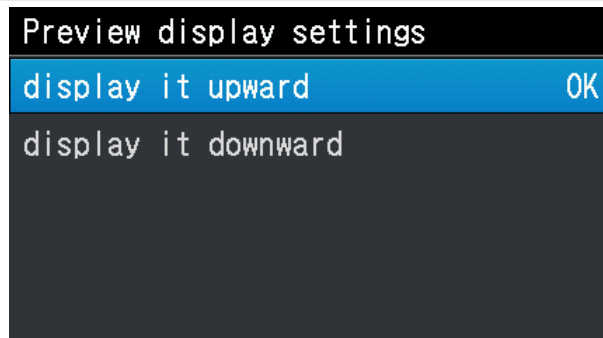
8-14. Preview display settings

Set the display direction of the preview image.

- (1) From the menu, select [Printer Setting] > [Preview display settings], and press .
- (2) Select the display direction and press .

<TIPS>


- During this menu selection process, the currently selected set value is displayed.



8-15. File name display setting

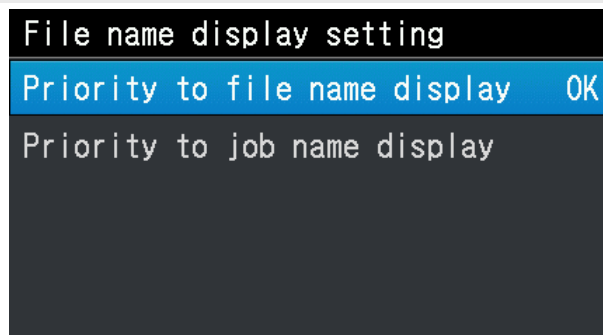
Make file name display settings of print data.

The display name you set is reflected in the selection screen of standby mode or receiving history or the USB memory loading screen.

- (1) From the menu, select [Printer Setting] > [File name display setting], and press .
- (2) Select the display method and press .


<TIPS>

- The job name is set automatically by the image editing application.



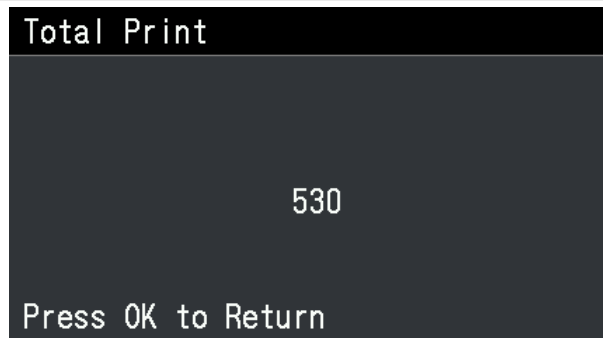
8-16. Display of total printed sheets

On this display screen, the total number of printed sheets is shown.

- (1) From the menu, select [Total Print], and press .
- (2) Then, the total number of printed sheets is displayed.


<TIPS>

- Only the number of printed sheets of which printing has succeeded is counted, in which the canceled number of sheets is not included.
- All the printed sheets involved in printing operation, including test print, are counted.
- The display screen shown here has been taken as an example.
- The count of total number of printed sheets cannot be reset.



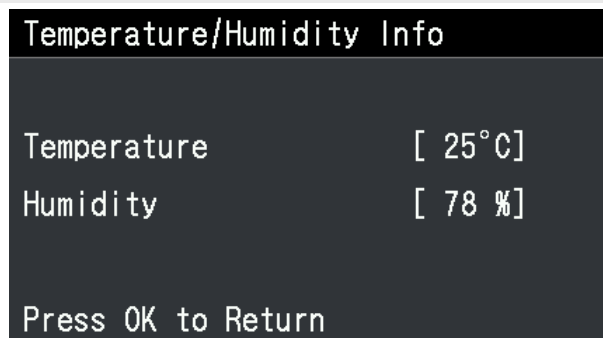
8-17. Display of Temperature/Humidity Info

On this display screen, the ambient temperature and humidity are shown.

- (1) From the menu, select [Temperature/Humidity Info], and press .
- (2) Then, the ambient temperature and humidity are displayed.


<TIPS>

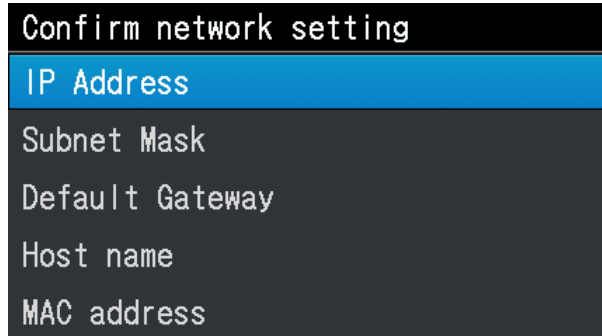
- Make the setting of temperature indication unit in the Temperature window.
- The display screen shown here has been taken as an example.



8-18. Confirm network setting

In the [Confirm network setting] window, display the [IP Address], [Subnet Mask], [Default Gateway], [Host name], and [MAC address].

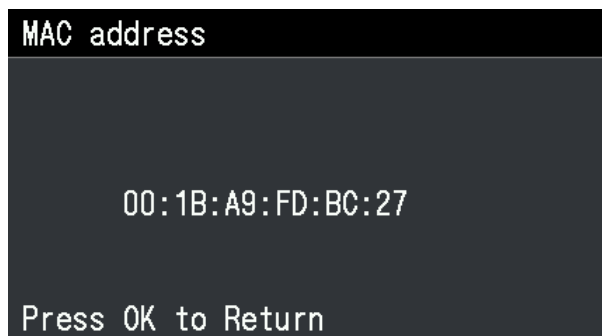
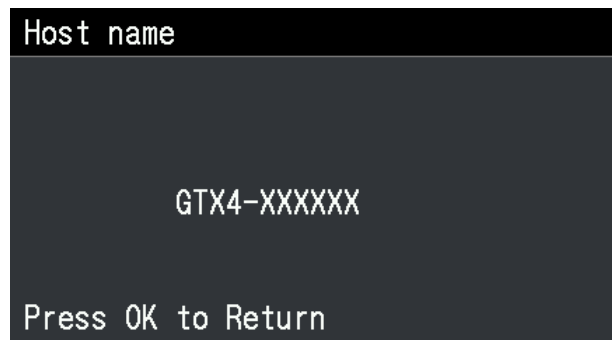
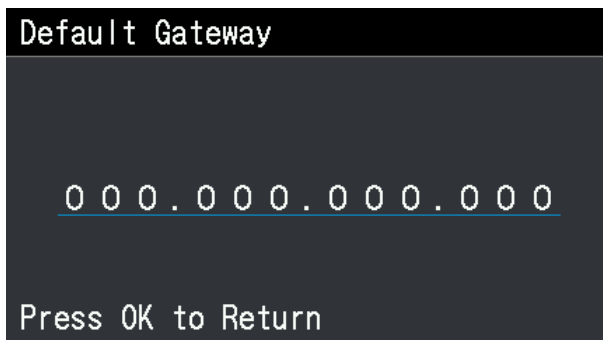
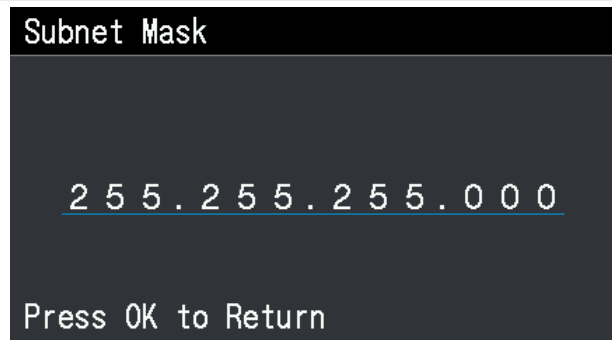
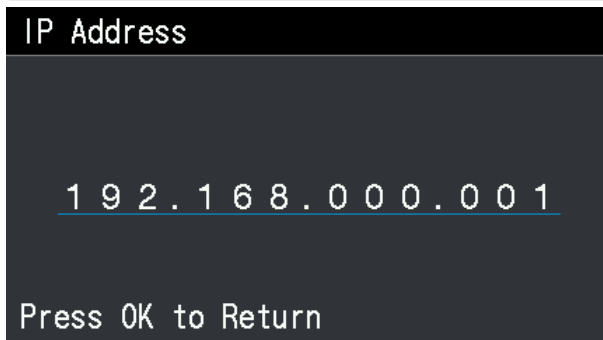
- (1) From the menu, select [Confirm network setting], and press .
- (2) Select one out of the [IP Address], [Subnet Mask], [Default Gateway], [Host name], and [MAC address], and press



- (3) Display [IP Address], [Subnet Mask], [Default Gateway], [Host name], or [MAC address].


<TIPS>

- The display screen shown here has been taken as an example.



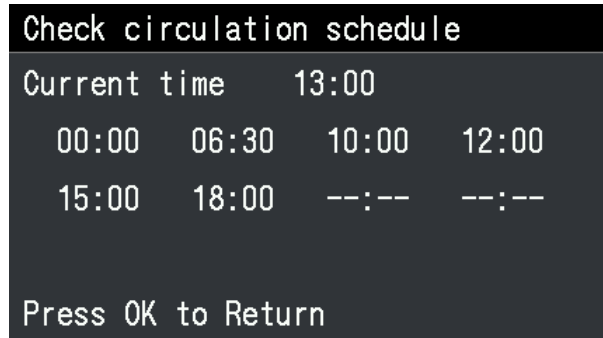
8-19. Check circulation schedule

White ink circulation can be performed at a specified time.

- (1) From the menu, select [Check circulation schedule], and press .
- (2) Display the circulation schedule.



<TIPS>

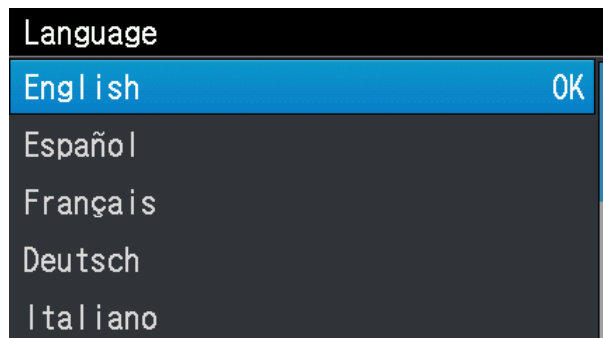
- If the scheduled time of white ink circulation is not set with the maintenance tool, the circulation schedule will not be displayed.



8-20. Language setting


Select your desired language to be shown on the liquid crystal panel.


- (1) From the menu, select [Language], and press .
- (2) Select your desired language in the [Language] window, and finalize your setting by pressing .
- (3) Follow the on-screen message, and turn off the power and on again.

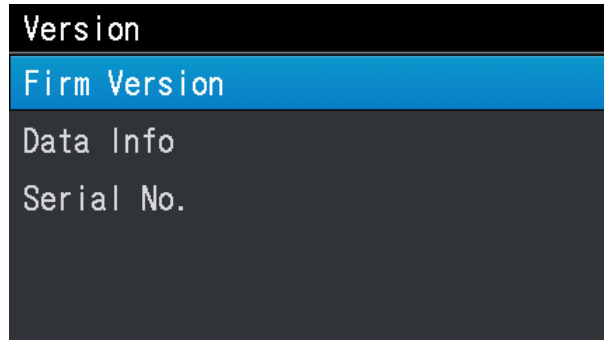


8-21. Display of version

On this display screen, the firmware's version information, [Firm Version], as well as [Data Info] and [Serial No.], are shown.

(1) From the menu, select [Version], and press .

(2) In the window shown below, select one of the [Firm Version], [Data Info] and [Serial No.], and press .



(3) Then, one of the [Firm Version], [Data Info] and [Serial No.] will appear.

<TIPS>

- Pressing the ◀ button causes the currently displayed window to go back to the [Version] window.
- The display screen shown here has been taken as an example.

Firm Version	Data Info	Serial No.
Main 0.52.0001	Message 0.19.0000	Serial No. ABCDEFG1
MNT 0.39.0000/ 0.39.0000	Font 1.00.0000	Hardware ID 1.0
LCD 0.08.0000	Test Print 0.00.0007	
Head 0.32.0000/ 0.32.0000		

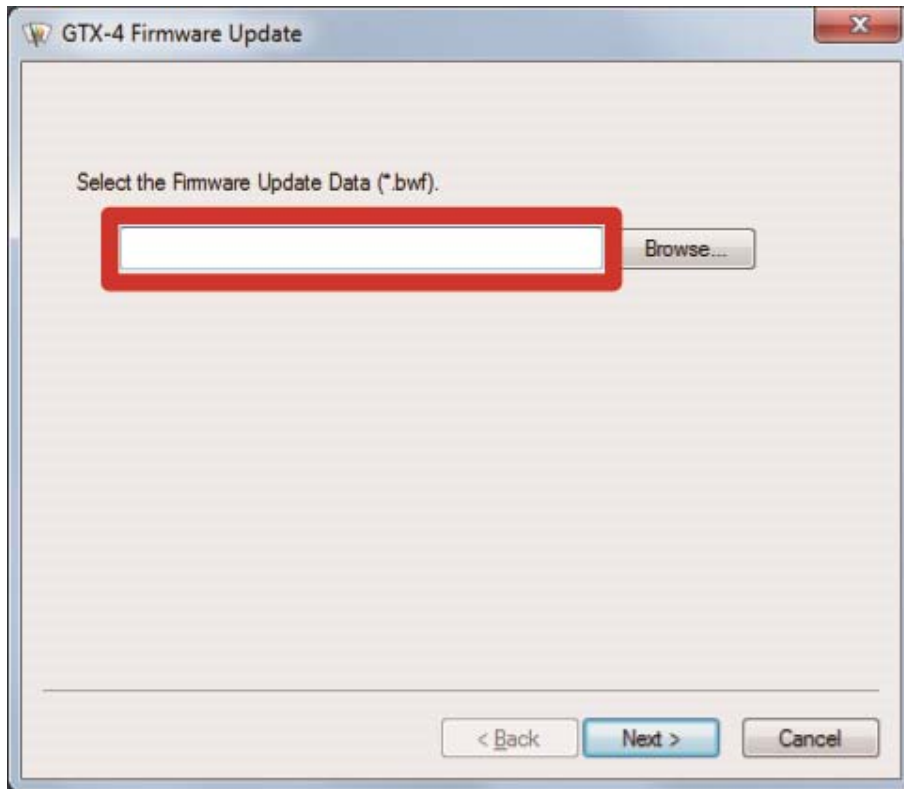
8-21-1. Updating of firmware

When a new firmware is released, please update the firmware.

<TIPS>

- To check any release information of a new firmware, please visit the website of Brother Industries, Ltd.

- (1) Download the firmware's updated data from the website of Brother Industries, Ltd.
- (2) On the PC, from [All Programs] in the Start menu, select the "GTX-4 Firmware Update" from "Brother GTX-4 Tools".
- (3) Specify the firmware's updated data (.bwf).



- (4) Make a connection of the USB 2.0 cable or LAN cable between your PC and the printer, and update your firmware by performing the on-screen procedures.

⚠ CAUTION

Ensure there is adequate space left in front of the printer and avoid placing any objects. Otherwise your hand may get caught between the platen and an object, which may result in injury.



Do not handle the platen while printing. If your hand gets caught between the platen or the T-shirt tray and the covers, it may be injured.



Do not put your hands inside the covers while the printer's power is turned on. Otherwise your hands may touch against moving parts and this may result in injury.



Be careful not to get your fingers caught when closing the front cover, otherwise it may result in injury to your fingers.



When you mount or replace the head, be careful not to get your hands or fingers caught. Otherwise you may be injured.



Do not drink liquids such as the ink, maintenance solution, cleaning solution, pretreatment, or waste. They may cause diarrhea or vomiting.

Avoid causing your eyes or skin to make contact with the ink, maintenance solution, cleaning solution, pretreatment or waste. It may cause inflammation. In case of contact with eyes, do not rub but immediately rinse the eyes with water.

Keep the liquids out of the reach of children.



Be sure to wear protective goggles and gloves when handling the grease, so that it does not get into your eyes or onto your skin.

It can cause inflammation. Do not drink or eat the grease. It may cause diarrhea or vomiting.

Keep the liquids out of the reach of children.



When replacing parts and installing optional accessories, be sure to use only genuine Brother parts. Brother will not be held responsible for any accidents or problems resulting from the use of non-genuine parts.



When replacing parts or installing optional accessories, be sure to follow the procedures described in the Instruction Manual. Incorrect procedures could cause injuries or problems.

((!))IMPORTANT

Do not move the platen by hand. Otherwise the printer may be mechanically and electrically damaged.

9-1. Troubleshooting instructions

With reference to the descriptions below, troubleshoot your problem.

No print data can be sent from PC

Probable Cause	Remedy
Have you selected an incorrect printer or not?	From the menu for printing, check your printer name.
Has a USB or LAN cable been connected properly?	Ascertain that connection of the USB 2.0 cable or the LAN cable has been made correctly.
Are you using such PC or OS that is outside the specification?	With reference to "10-2. Software >>P.357", check your PC's operating environment.
Are you using such a USB 2.0 cable that is outside the specification?	With reference to "1-3. Other items you must make available for use >>P.22", please use such a USB 2.0 cable that is compliant with the specification.
Has any noise been produced between the printer and your PC?	Remove the USB 2.0 cable/LAN cable first, then make a connection of it once again in five seconds. If the problem continues, power off the printer first, then reactivate it in five seconds.
Does your PC function properly?	Restart the PC.
Has any other USB device been connected to your PC?	Remove the other USB device, restart the PC, and check to see if the printer functions properly.
Has the USB cable/LAN cable been damaged?	Use a different USB or LAN cable.

No printing job gets started even after pressing the print button

Probable Cause	Remedy
Is any error message displayed?	With reference to "9-3. Error message >>P.329", eliminate the cause of the error, and perform printing once more.
Does the menu screen still appear on the screen, or are you performing the maintenance operation from the menu?	Please exit the menu. Alternatively, please wait until the maintenance operation will come to an end.
Is the automatic head cleaning operation underway?	Please wait until the ongoing head cleaning operation is completed.
Is the printer in the white ink circulation stage?	Please wait until the ongoing white ink circulation is completed.
Is the room temperature suited to the usage conditions?	With reference to "10-1. Apparatus >>P.356", check for your PC's operating environment and adjust the room temperature.
Does the printer receive no print data, or is it in the state to receive such data (the print button is not illuminating)?	Send the print data to the printer. Alternatively, please wait until the reception of print data is completed. If you start the printing operation during the reception process of print data, enable the [Rcvng Prnt Setting] by reference to "8-12. Settings to start printing during reception of data >>P.268".
Do you find that the temperature of print heads is becoming high, and [Color Head Getting Warm] or [W Head Temp Rising] message appears?	There may be the possibility that the flat cables of print heads have not been put in place and the temperature of print heads has become high. Turn off the power, make sure that the flat cable is in place, and wait until the temperature decreases.

The power cannot be turned on

Probable Cause	Remedy
Is the power cord connected to the printer?	Make sure that the power cord is connected to the printer.
Is the front cover closed firmly?	Close the front cover properly.

An error occurs immediately after activating the printer

Probable Cause	Remedy
Is any error message displayed?	With reference to "9-3. Error message >>P.329", check the content of the error, and restart the printer. If the error is still not eliminated, please contact your dealer or Brother.

No print data can be loaded from USB flash memory

Probable Cause	Remedy
Has the USB flash memory been inserted into its insertion slot properly?	Insert the USB flash memory into the insertion slot firmly.
Is the applicable file ARP or AR3 file?	This printer cannot print out the print data of GT-541/GT-782/GT-3. Recreate the print data.
Is your USB flash memory suited to required conditions?	Please use a FAT32-formatted USB flash memory of which storage capacity ranges from 2 GB to 32 GB. You cannot use a USB memory with security functions such as password lock function.
Has your USB flash memory been broken?	Check to see if it functions properly using your PC or the like.

Neither uni-directional printing nor bi-directional printing can be performed

Probable Cause	Remedy
Do the settings of printer driver and printer agree with each other?	Note that the setting of the printer's setting has priority over the setting of printer driver. The printer driver's setup value takes effect only if the printer's setting is [Auto]. For the printer configuration details, please refer to "8-1. Setting the print direction >>P.262".

An empty state of an ink pouch cannot be detected

Probable Cause	Remedy
Is an ink pouch in its correct position?	If the ink pouch is in contact with the side of the ink cartridge case, detection may not be performed correctly. With reference to "7-1-1. Replacement of ink pouch with a new one >>P.204", set the ink pouch once again correctly.
After stirring the white ink, is the lid of the ink cartridge opened and the pouch placed in the correct position?	Open the lid of the white ink cartridge and appropriately rewind the ink pouch. Ink might have entered into the wound section of the pouch when stirred, which could have caused improper winding of the pouch. Refer to "6-2-3. Daily agitation of the white ink >>P.150".

"x" is displayed for the remaining ink level after replacing the ink pouch

Probable Cause	Remedy
Is a wrong color of an ink pouch installed?	Put an ink pouch in its correct position. If colors are mixed on the print result or within the ink pouch, please contact your dealer.


Remaining volume indication of the ink pouch does not reflect the actual status

Probable Cause	Remedy
Didn't you replace an ink pouch in the way of use?	If you take out an ink pouch that still has much amount of remaining ink in the way of use, then set a different ink pouch or the original used ink pouch back to the printer, it can indicate a different volume from the actual remaining volume. If you keep on using it and the volume is reduced to some extent, the correct remaining volume will be displayed again.


9-2. Solutions to print quality problems

With reference to the descriptions below, troubleshoot your problem.

Print is too light

Probable Cause	Remedy
Is the setting of an image editing software application made improperly, or is an image placed in CMYK mode?	With reference to "5-5. Creating print data from other applications >>P.101", edit the image.
Have the printing conditions been applied improperly, or does your image data have insufficient color saturation?	With reference to "5-3-10. For GTX Graphics Lab: Color Processing >>P.91" or "5-6-9. For other applications: Color Processing >>P.135", adjust saturation or contrast on [Color Processing].
Is a sufficient amount of ink left in a cartridge?	With reference to "7-1-1. Replacement of ink pouch with a new one >>P.204", replace the applicable ink pouch with a new one.
Is there any nozzle that does not eject ink-jet droplets?	Press  on the operation panel, or perform the head cleaning by selecting [Head Cleaning] from the menu. If this problem is still not remedied, follow the instructions of "9-2-1. Recovery action to be taken for such a nozzle that is unable to eject ink-jet droplets >>P.285".
Is V-rating settings configured?	With reference to "7-4-2. V-rating setting >>P.251", configure the V-rating settings.
Isn't the [Low Temperature Mode] set to [Disable]?	With reference to "8-5. Print Operation Settings Under Low Temperature >>P.265", change the setting to [Enable(Normal)].

Horizontal stripe (banding) is found on printed material

Probable Cause	Remedy
Is there any nozzle that does not eject ink-jet droplets?	Press  on the operation panel, or perform the head cleaning by selecting [Head Cleaning] from the menu. If this problem is still not remedied, follow the instructions of "9-2-1. Recovery action to be taken for such a nozzle that is unable to eject ink-jet droplets >>P.285".
Do you print ink dots on a highly water-absorbing print medium?	With reference to "8-1. Setting the print direction >>P.262", set the print head's print direction to [Always Uni-Directional]. Also, with reference to "5-3-7. For GTX Graphics Lab: Color multiple pass printing >>P.86" or "5-6-6. For other applications: Color multiple pass printing >>P.130", combine the color multiple pass printing with the printing.
Is the platen positioned at too low level?	With reference to "6-5. Placing print medium in position >>P.180", adjust the height of the platen corresponding to the print medium before using it. You can use the platen height adjustment lever to adjust the height of platen. As a rough indication, adjust the height so that it is lowered by one step from the limit height detected by the obstacle sensor, and check that the platen is not detected by the sensor.
Is the firing timing well-timed?	With reference to "7-4-3. Firing adjustment >>P.252", make the firing adjustment again. It is likely that the setup value is incorrectly set after replacing a print head or the platen with a new one, or after adjusting the platen height.

Probable Cause	Remedy
Is platen feed adjusted?	With reference to "7-4-4. Platen feed adjustment >>P.253", adjust the feed of the platen. It is likely that the setup value is incorrectly set after replacing a print head or the platen with a new one.
Isn't the [Low Temperature Mode] set to [Disable]?	With reference to "8-5. Print Operation Settings Under Low Temperature >>P.265", change the setting to [Enable(Normal)].

Blurring is observed (when printed with [Color Ink Only])

Probable Cause	Remedy
Isn't the amount of ink excessive against the print media?	With reference to "5-7-5. Printing ink volume >>P.141", print the ink volume and check the blurring, and select appropriate set value for [Ink Volume:]. For details of [Ink Volume:] setting procedure, refer to "5-3-8. For GTX Graphics Lab: Color ink settings >>P.87" or "5-6-7. For other applications: Color ink settings >>P.131".

Blurring is observed (when printed with [Color+White Ink])

Probable Cause	Remedy
Is the [Highlight:] of [White Ink Settings:] too high?	With reference to "5-7-6. Print out of highlight check pattern >>P.142", print the highlight check pattern to check the blurring, and select appropriate set value for [Highlight:]. For details of [Highlight:] setting procedure, refer to "5-3-5. For GTX Graphics Lab: White ink settings >>P.84" or "5-6-4. For other applications: White ink settings >>P.127". By turning ON the [White/Color Pause] or [Color Multiple Pass Printing] checkbox, extend time before the color ink settles onto the white ink, to prevent blurring. Try this method to eliminate blurring without weakening the highlight. For details of [White/Color Pause] setting procedure, refer to "5-3-9. For GTX Graphics Lab: White ink advanced settings >>P.89" or "5-6-8. For other applications: White ink settings >>P.132". For details of [Color Multiple Pass Printing] setting method, refer to "5-3-7. For GTX Graphics Lab: Color multiple pass printing >>P.86" or "5-6-6. For other applications: Color multiple pass printing >>P.130".

Ink sticks to such an area where no print data exists (ink stain, horizontal stripe, etc.)

Probable Cause	Remedy
Is the area around the print heads soiled with waste ink spilled from the wiper cleaner or head cap?	With reference to "7-1-2. Cleaning the nozzle guard, wiper, exhaust cap, and suction cap >>P.208", clean the area around the print heads and the suction cap. Furthermore, by reference to "7-1-3. Replacing the wiper cleaner >>P.218", replace the old wiper cleaner with a new one.
Is any lint attached to the nozzle surface?	With reference to "7-1-2. Cleaning the nozzle guard, wiper, exhaust cap, and suction cap >>P.208", clean the nozzle guard.
Is the carriage plate contaminated?	With reference to "7-2-5. Cleaning the CR (carriage) plate >>P.239", perform the cleaning on the carriage plate.

Probable Cause	Remedy
Do the print heads rub against a T-shirt?	With reference to "6-5. Placing print medium in position >>P.180", flatten the surface of T-shirt, and adjust the platen's height as required.
Has the flushing foam become dirty?	With reference to "7-1-4. Replacing the flushing foam >>P.220", replace the dirty flushing foam with a new one.
Has the platen sheet become dirty?	With reference to "7-2-6. Replacing the platen sheet >>P.241", replace the dirty platen sheet with a new one.
Has any ink attached to the carriage that secures the print heads in place or is it dripping off?	With reference to "7-2-5. Cleaning the CR (carriage) plate >>P.239", perform the cleaning of the carriage plate and remove the accumulated ink.

The edges of the image are blurred, characters and straight lines are doubly printed and printed result appears too granular

Probable Cause	Remedy
Is the platen positioned at a level that is too low?	With reference to "6-5. Placing print medium in position >>P.180", adjust the height of the platen corresponding to the print medium before using it. You can use the platen height adjustment lever to adjust the height of platen. As a rough indication, adjust the height so that it is lowered by one step from the limit height detected by the obstacle sensor, and check that the platen is not detected by the sensor.
Is the firing timing correct?	With reference to "7-4-3. Firing adjustment >>P.252", make the firing adjustment again. It is likely that the setup value is incorrectly set after replacing a print head or the platen with a new one, or after adjusting the platen height.
Is the image enlarged on the printer setting screen?	When a low resolution image is enlarged on the printer setting screen, it may blur or angle the image. Pattern data should be enlarged on an image editing application, and its roughness should be checked.

Thin color cannot be printed out well gradually


Probable Cause	Remedy
Is the ambient atmosphere at a high temperature and very dry, which in turn tends to cause the nozzle surface to dry up?	With reference to "8-3. Flushing Interval Setting >>P.264", perform the flushing more frequently. In addition, by reference to "8-4. Flushing Volume Setting >>P.264", increase the flushing volume.

White ink is not printed out evenly

Probable Cause	Remedy
Has the pretreatment been applied unevenly?	With reference to "6-3-3. Application of pretreatment >>P.158", apply the recommended amount of pretreatment evenly to the target area.
Has the pretreatment caused any change in hardness or deformation of the pretreatment roller? (This applies to the case where the pretreatment roller is used.)	After the pretreatment roller is used, put it in a plastic bag or the like hermetically to prevent it from drying up, and keep it in a flat place in an upright position. Also, when it remains unused for two weeks or longer, wash it well with running water, and let it dry in a shaded area.

Probable Cause	Remedy
Is any water content attached to the pretreatment roller after the pretreatment is fixated?	With reference to "6-3-4. Fixation of pretreatment >>P.164", prevent water content from being attached to the roller after the pretreatment is fixated.
Is there any lint, yarn waste, dust, etc. that are attached to the surface of pretreatment roller? (This applies to the case where the pretreatment roller is used.)	With reference to "6-3-3. Application of pretreatment >>P.158", clean the surface of the pretreatment roller.
Did you shake the pretreatment after its dilution?	With reference to "6-3-2. Dilution of pretreatment >>P.156", shake the pretreatment sufficiently.
Is the [Low Temperature Mode] set to [Disable]?	With reference to "8-5. Print Operation Settings Under Low Temperature >>P.265", change the setting to [Enable(Normal)].
Has the pretreatment been fixated insufficiently?	With reference to "6-3-4. Fixation of pretreatment >>P.164", check on an actual temperature of the heat press and its pressure during the fixation stage. Always keeping the lower iron (where media is placed) of the heat press at heated temperature with a heating source may solve this problem.

Whiteness of print result is insufficient

Probable Cause	Remedy
Has the pretreatment been applied insufficiently?	With reference to "6-3-3. Application of pretreatment >>P.158", apply a proper amount of pretreatment.
Has the pretreatment been fixated insufficiently?	With reference to "6-3-4. Fixation of pretreatment >>P.164", check on an actual temperature of the heat press and its pressure during the fixation stage.
Is there any nozzle that does not eject ink-jet droplets?	Press  on the operation panel, or perform the head cleaning by selecting [Head Cleaning] from the menu. If this problem is still not remedied, follow the instructions of "9-2-1. Recovery action to be taken for such a nozzle that is unable to eject ink-jet droplets >>P.285".
Is the white ink circulated insufficiently?	From the menu, select [Maintenance] > [White Ink Circulation] to circulate the white ink properly.
Do you perform white ink refilling?	With reference to "6-2-3. Daily agitation of the white ink >>P.150", perform white ink refilling.
Is the white ink stirred insufficiently?	In the event that the white ink remains accumulated in the bottom of the ink pouch, shake the pouch 100 times and additionally shake it until the ink is stirred well. Also, when the remaining ink level becomes approximately 5.9 in. (15 cm), shake the cartridge with its cover open and with the edge of the ink pouch slightly winded.
Is the [Low Temperature Mode] set to [Disable]?	With reference to "8-5. Print Operation Settings Under Low Temperature >>P.265", change the setting to [Enable(Normal)].
Is the dilution rate of the pretreatment correct?	With reference to "6-3-2. Dilution of pretreatment >>P.156", correctly dilute the pretreatment.

Probable Cause	Remedy
Is the [Highlight:] of [White Ink Settings:] too low?	With reference to "5-7-6. Print out of highlight check pattern >>P.142", print the highlight check pattern to check the blurring, and select appropriate set value for [Highlight:]. For details of [Highlight:] setting procedure, refer to "5-3-5. For GTX Graphics Lab: White ink settings >>P.84" or "5-6-4. For other applications: White ink settings >>P.127".

Too much luster

Probable Cause	Remedy
Are you using Teflon-treated peel-off sheet for fixation?	Use a silicon coated peel off sheet when curing the ink to reduce the gloss.

Too fuzzy

Probable Cause	Remedy
Did you touch the print media (T-shirt) just before printing?	Excessively touching the media (T-shirt) on the platen by trying to flatten the media before printing could cause fuzziness. Make sure not to touch the media surface too much after the pretreatment is fixated.
Does it take a long time before printing, after the pretreatment fixation?	Leaving the print media (T-shirt) after fixing the pretreatment may cause fuzziness, because the media would absorb water. Print the pretreatment fixated media as soon as possible.
Is the upper iron on the heat press contaminated during the pretreatment fixation process?	If the upper iron is contaminated, it could roughen the print media (T-shirt) surface by a heat press process, to cause fuzziness. Clean the upper iron of the heat press with a cloth. If the condition persists, try using a peel-off sheet during the pretreatment fixation process, to probably improve the condition.
Unevenly dried during the fixation process?	It may be solved by inserting a silicone foam between the heat press lower iron and a print media (T-shirt) during ink fixation.

Background white ink spreads out when printed with [Color+White Ink]

Probable Cause	Remedy
[White/Color Alignment] misaligned?	Misalignment of white and color inks can occur when the media thickness or the platen height is changed. Adjust the platen height first, and align the white and color inks positions by referring to "7-4-5. White/color alignment >>P.254".
Is the media easy to stretch when wet?	Print misalignment may occur between white and color inks when the media stretches when wet with white ink. Increasing [Choke Width:] can prohibit spreading of the background white ink. For details of [Choke Width:] configuration, refer to "5-3-9. For GTX Graphics Lab: White ink advanced settings >>P.89" or "5-6-8. For other applications: White ink settings >>P.132".

Printed surface cracks after fixation

Probable Cause	Remedy
Isn't the print surface folded before fixation is completed?	Try not to touch the print surface until the fixation process is completed.

The lower left side area of the printer's main unit is soiled with ink

Probable Cause	Remedy
Is the waste ink tube dismounted from the maintenance unit?	For help, please contact your dealer.

The cleaning solution is leaked from the cleaning liquid tank

Probable Cause	Remedy
Is the main body of printer put aslant?	With reference to "4-1. Installation of printer >>P.39", place the printer horizontally level. If the problem is still not remedied, please contact your dealer.

Takes longer print time than before

Probable Cause	Remedy
Is the ambient temperature under 18°C (64.4°F)?	Adjust the room temperature to 18°C (64.4°F) or more. If it is difficult to adjust the room temperature, refer to "8-5. Print Operation Settings Under Low Temperature >>P.265" to [Disable] the operational configuration under low temperature.
Is your printing under high-temperature and low humidity environment?	Lower your room temperature below 30°C (86°F). Raise your room humidity over 35%.

9-2-1. Recovery action to be taken for such a nozzle that is unable to eject ink-jet droplets

Please verify the followings when any nozzle is not ejecting ink droplets.

Items to be checked	Description	Remedy	Document
Is the cap contaminated?	When the cap is contaminated, it cannot fully contact the head, which would lead to suction failure.	Clean the cap	Refer to "7-1-2. Cleaning the nozzle guard, wiper, exhaust cap, and suction cap >>P.208".
Is there any deposit of ink around the nozzle surface?	When the surrounding area of nozzle surface is contaminated, it could lead to ejection failure since the wiper cannot clean the nozzle surface properly. Or, it could reduce the adhesion between the nozzle and cap, thereby causing ink suction failure.	Cleaning the surrounding area of nozzle surface	Refer to "9-2-4. Cleaning the surrounding area of nozzle surface >>P.299"
Is the wiper contaminated?	When the wiper tip is contaminated, it could lead to ejection failure since the wiper cannot clean the nozzle surface properly.	Clean the wiper	Refer to "7-1-2. Cleaning the nozzle guard, wiper, exhaust cap, and suction cap >>P.208".
Is there any indication of scar or deformation on the wiper?	When the wiper has any scar or deformation, it could lead to ejection failure since the wiper cannot clean the nozzle surface.	Replace the wiper	Refer to "9-2-7. Replacing the Wiper >>P.323".
Is the wiper cleaner contaminated?	If the wiper cleaner is contaminated, residual dirt on the wiper may prohibit the wipers cleaning function.	Replacing the wiper cleaner	Refer to "7-1-3. Replacing the wiper cleaner >>P.218".
Is the wiper cleaner dried?	If the wiper cleaner is dry, it may prohibit the wiper's proper function to wipe clean.	Replacing the wiper cleaner	Refer to "7-1-3. Replacing the wiper cleaner >>P.218".
Is the flushing foam floated?	If the flushing foam is not placed appropriately, it may touch the nozzle surface to stop ejection from the nozzle.	Replace the flushing foam	Refer to "7-1-4. Replacing the flushing foam >>P.220".
Is the ink accumulated on the flushing foam?	If an ink accumulates on the flushing foam, the ink may touch the nozzle surface to prevent ink from ejecting.	Replace the flushing foam	Refer to "7-1-4. Replacing the flushing foam >>P.220".
Is the waste ink tube bent in the middle?	The bent waste ink tube will stop the waste liquid flow, thereby disabling ink suction operation of the head cleaning function.	Verify the waste ink tube	Refer to "6-2-1. Confirmation and disposal of waste ink >>P.148".
Is the tip of the waste ink tube touching the waste tank bottom?	If the tip of the waste ink tube immersed in liquid, it will prevent the smooth flow of liquid, It can disable the ink suction operation of the head cleaning function.	Verify the waste ink tube	Refer to "6-2-1. Confirmation and disposal of waste ink >>P.148".
Is the tube correctly connected to the head?	If they are loosely mated, it may allow air to enter into the head section during the head cleaning operation, to cause non-ejection condition of the nozzle.	Verify connection between the head and the tube	Refer to "9-2-6. Replacement of print head >>P.304".
Is the ink pouch properly attached to the cartridge?	If the ink pouch is not properly installed, the cartridge cannot fully wind it, and fails to supply enough ink to the head.	Install an ink pouch	Refer to "7-1-1. Replacement of ink pouch with a new one >>P.204".

Items to be checked	Description	Remedy	Document
Is the tube filled with ink?	If a large amount of air exists in the tube, that air will go into the head to cause non-ejection condition of the nozzle.	Re-install the ink	Refer to "9-2-8. Re-install the ink >>P.328".

After carrying out appropriate remedial measures listed above, make sure the non-firing nozzle has been recovered. If it has not, perform the steps 1 to 5 to recover the non-firing nozzle.

Step 1: Print out a nozzle check pattern

- (1) Print out a nozzle check pattern (1st time).

<TIPS>

- For details of the printing method of nozzle check pattern, refer to "7-2-1. Print out of the nozzle check pattern (checking on the print heads) >>P.231".

- (2) Check the result of the printed nozzle check pattern (1st time), and carry out the following procedures.

<TIPS>

- To check the print result, refer to "7-2-1. Print out of the nozzle check pattern (checking on the print heads) >>P.231".
- Even if the white print result is weak, since the white ink is ejected on one same spot through multiple nozzles, a relatively large amount of ink volume will be used, and the firing problem of a single nozzle will not affect the print quality so much. Even in a condition with weak lines, the print is performed without a problem.

Existence or nonexistence of a nozzle that does not eject any ink-jet droplets	Recovery action
Such a nozzle does not exist that does not eject any ink-jet droplets	If a number of non-firing of white head is observed in printing although such non-firing problems do not occur in nozzle check pattern printing, please contact your dealer. If a number of non-firing of white head is observed in printing although such non-firing problems do not occur in nozzle check pattern printing, replace the filter. If non-firing cannot be resolved after replacing the filter, please contact your dealer.
Such a nozzle exists that does not eject any ink-jet droplets	Proceed to Step 2.

<TIPS>

- For information about replacing a filter, refer to "9-2-5. Replacing the color filter >>P.302".

Step 2: Perform the head cleaning

- (1) Perform a normal cleaning.

<TIPS>

- For details of the head cleaning method refer to "7-2-2. Head cleaning >>P.233".

- (2) Print out a nozzle check pattern (2nd time).

(3) Check the result of the printed nozzle check pattern (2nd time), and carry out the following procedures.

Existence or nonexistence of a nozzle that does not eject any ink-jet droplets	Recovery action
Such a nozzle does not exist that does not eject any ink-jet droplets	Exit
Ten-or-less nozzles exist that do not eject any ink-jet droplets	Perform the normal cleaning once again. Subsequently, proceed to (4).
Ten-or-more nozzles exist that do not eject any ink-jet droplets	Perform the powerful cleaning. Subsequently, proceed to (4).
More than half of the nozzles of the color heads have a problem concerning firing of the print heads.	Re-install the ink. Subsequently, proceed to (4).
More than half of the nozzles of the white heads have a problem concerning firing of the print heads.	Clean the white heads. Subsequently, proceed to (4).

<TIPS>

- For the ink re-installing method, please refer to "9-2-8. Re-install the ink >>P.328".
- For details of cleaning method of white heads, refer to "9-2-2. White head cleaning >>P.291".

(4) Print out a nozzle check pattern (3rd time).

(5) Check the result of the printed nozzle check pattern (3rd time), and carry out the following procedures.

Existence or nonexistence of a nozzle that does not eject any ink-jet droplets	Recovery action
Such a nozzle does not exist that does not eject any ink-jet droplets	Exit
Such a nozzle exists that does not eject any ink-jet droplets	Proceed to Step 3.

Step 3: Check that no ink-jet droplets are ejected from the applicable nozzle

- (1) Check locations of the non-ejecting nozzles on the result of the printed nozzle check pattern (1st to 3rd time), and carry out the following procedures.

Comparison of non-ejection nozzle positions	Recovery action
The same nozzle always does not eject ink-jet droplets	Perform the super cleaning -> print out of nozzle check pattern for the third time in a row.
A different nozzle does not eject ink-jet droplets	Leave the printer as it is for about 30 minutes, and perform the normal cleaning -> print out of nozzle check pattern for the third time in a row.

- (2) Check a result of the resultant nozzle check patterns, and carry out the following procedures.

Existence or nonexistence of a nozzle that does not eject any ink-jet droplets	Recovery action
Such a nozzle does not exist that does not eject any ink-jet droplets	Exit
Such a nozzle exists that does not eject any ink-jet droplets	Proceed to Step 4.

Step 4: Clean the nozzle surface

- (1) Clean the nozzle surface of the print heads.

<TIPS>

- For details of cleaning method of the head nozzle, refer to "9-2-3. Cleaning of head nozzle >>P.297".

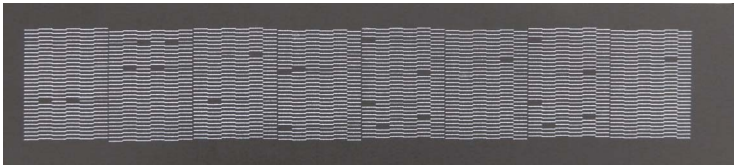
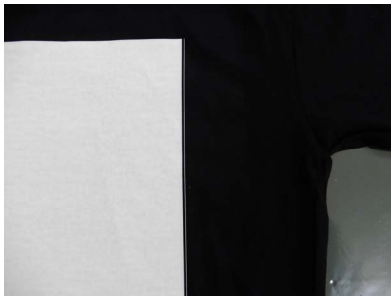
- (2) Print out a nozzle check pattern.

(3) Check a result of the resultant nozzle check patterns, and carry out the following procedures.

Existence or nonexistence of a nozzle that does not eject any ink-jet droplets	Recovery action
Such a nozzle does not exist that does not eject any ink-jet droplets	Exit
Such a nozzle exists that does not eject any ink-jet droplets	Proceed to Step 5.

<IMPORTANT>

- Even if the nozzles on the white side have a bit of problem concerning firing, since the white ink is ejected on one same spot through multiple nozzles, relatively large amount of ink volume will be used, and firing problem of a single nozzle will not affect the print quality so much. Even in a condition with a problem concerning firing as shown in (a), print is performed without a problem as shown in (b).

(a)	(b)
	

Step 5: Head Replacement

(1) Replace the print head with a new one.

<TIPS>

- For details of replacement method of print heads, refer to "9-2-6. Replacement of print head >>P.304".

9-2-2. White head cleaning


If a problem concerning firing of the white head side is not cleared even after performing the head cleaning, perform the white head cleaning.

After the white head cleaning is completed, conduct the Install White Ink After Cleaning.

<TIPS>


- Although the white head cleaning can begin even when the remaining volume of maintenance solution in the maintenance solution pouch is running short, there may be cases where the pouch needs to be replaced with a new one during the cleaning depending on such remaining volume. If the remaining volume is 500 g (17.6 oz) or less, prepare a new maintenance solution pouch.
- When the white ink pouch runs low on its remaining volume of white ink, the Install White Ink After Cleaning function can no longer get started. Furthermore, there may be cases where the pouch needs to be replaced with a new one during the installation process of white ink. If the remaining volume is 400 g (14.1 oz) or less, prepare a new white ink pouch.

White Head Cleaning

- (1) From the menu, select [Maintenance] > [White Head Cleaning], and press .

<TIPS>

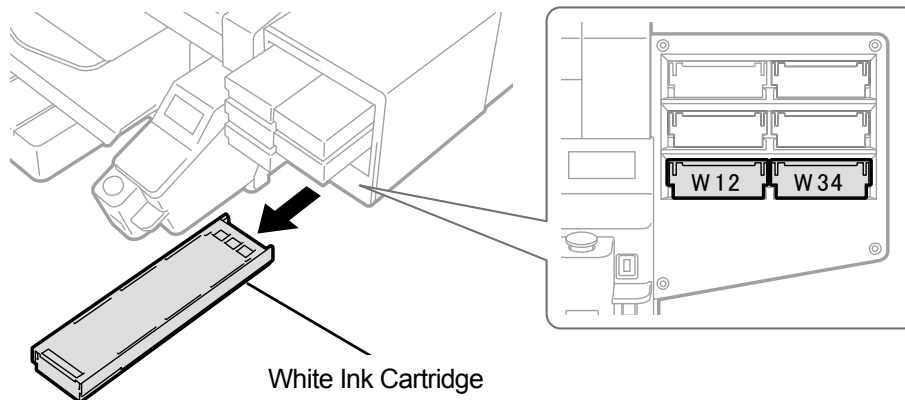
- Perform the work operation by following the on-screen instructions.

- (2) After making sure that the waste ink tank is filled one-half or less full with waste ink, and press .

- (3) Take out the white ink cartridge from the printer.

<CAUTION>

- The bottom of the cartridge may be soiled with ink. Clean the printer on a regular basis.

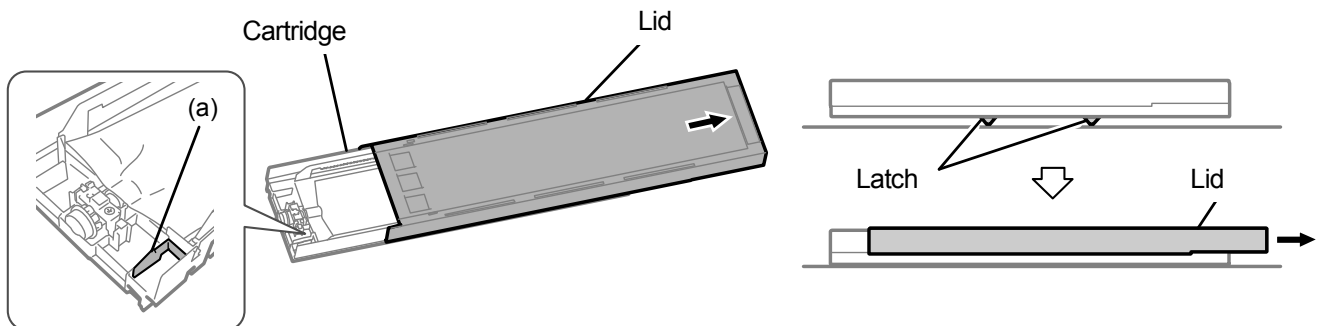


X0039

(4) Open the cartridge's lid.

<IMPORTANT>

- When opening the lid, be sure not to touch the portion (a). Otherwise, it could be damaged.
- Place the entire cartridge on a flat surface, push the latches on the bottom surface of the cartridge downward and open the lid.

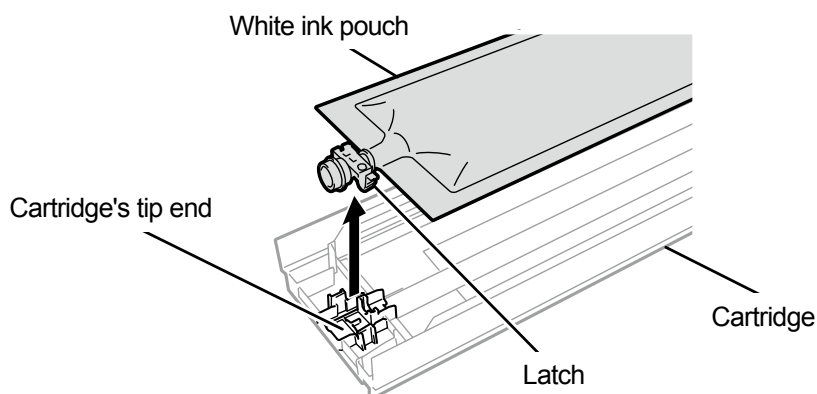


X0042

(5) Pinch the latch at the front end of ink pouch, and draw out the white ink pouch from the cartridge.

<CAUTION>

- Remove the accumulated ink at the tip of the cartridge with a waste cloth (non-fuzzy cloth). Clean the printer on a regular basis.



X0119

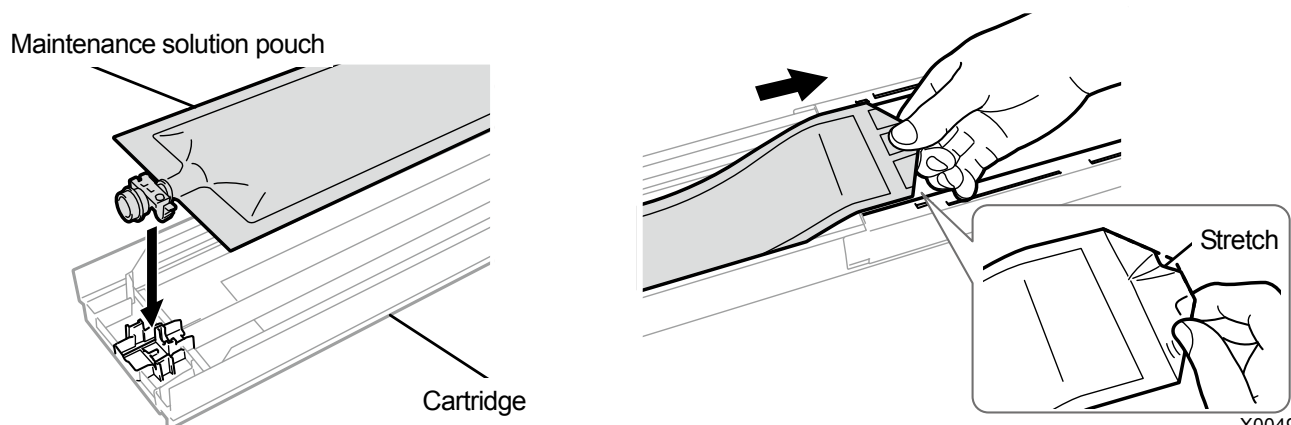
(6) Put the maintenance solution pouch in the cartridge.

Push the tip end of the maintenance solution pouch into the cartridge until it clicks into place.

Straighten the maintenance solution pouch in such a manner that it will be aligned with the gutter of the lid of the cartridge, and mount in position by pulling it with your hand.

<NOTE>

- If the edge of the ink pouch is bent or undulating significantly, make it straight with your hand.

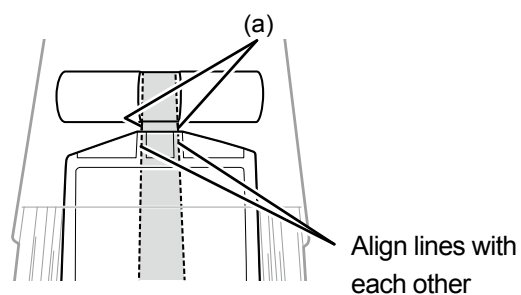


X0049

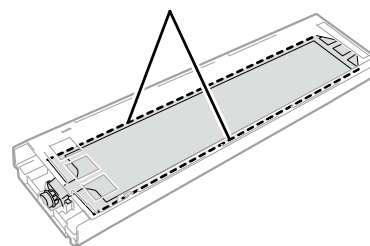
- (7) Put the maintenance solution pouch in its correct position.

<CAUTION>


- Avoid touching the portion (a) of cartridge. Otherwise, you may cut your hand.



Place the pouch in a straight alignment with the cartridge



X0041

- (8) Close the lid, and put the maintenance solution cartridge in position inside the printer.
- (9) Repeat the same process to replace the other white ink cartridge with the maintenance solution pouch.
- (10) On the operation panel, press  .

Then, the white head cleaning will be performed.

<TIPS>

- White head cleaning will take approximately 25 minutes. Perform the "Install White Ink After Cleaning" operation by following the on-screen instructions.

Install White Ink After Cleaning

- (1) Make sure the message [Install White Ink After Cleaning] is displayed on the liquid crystal panel.

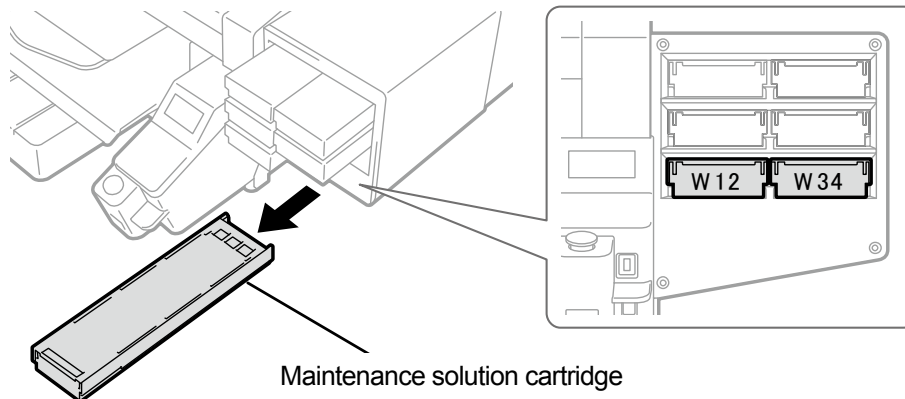
<TIPS>

- Perform the work operation by following the on-screen instructions.

- (2) Take out the maintenance solution cartridge from the printer.

<CAUTION>

- The bottom of the cartridge may be soiled with ink. Clean the printer on a regular basis.

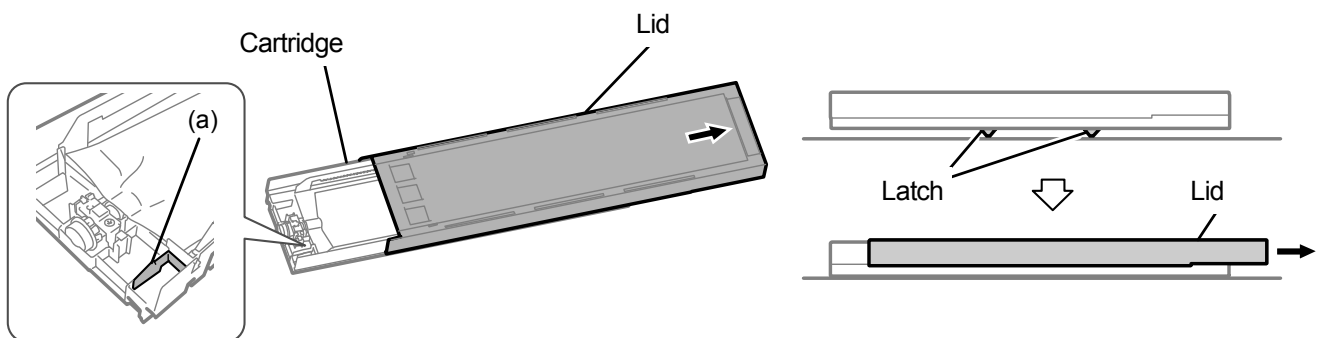


X0039

- (3) Open the cartridge's lid.

<IMPORTANT>

- When opening the lid, be sure not to touch the portion (a). Otherwise, it could be damaged.
- Place the entire cartridge on a flat surface, push the latches on the bottom surface of the cartridge downward and open the lid.

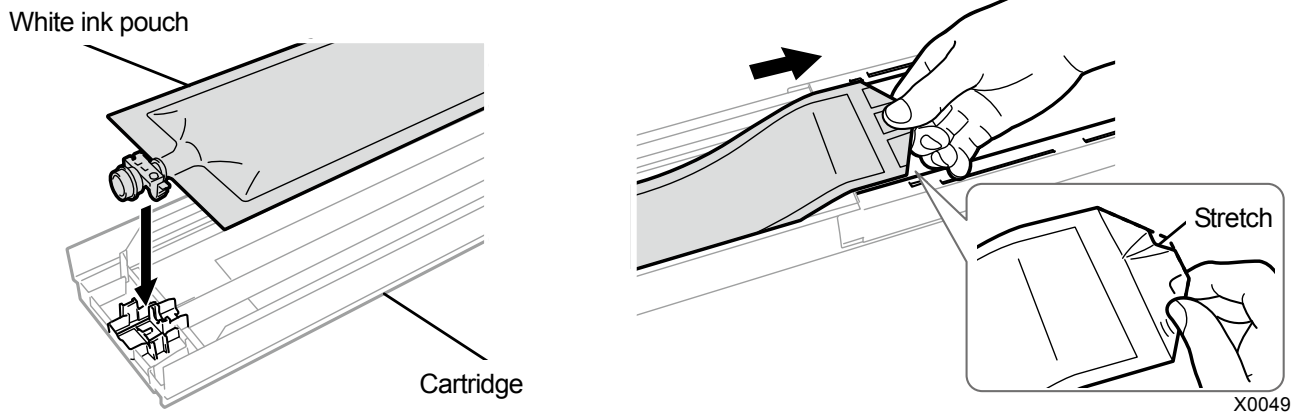


X0042

- (4) Take out the maintenance solution pouch from the cartridge, and put the white ink pouch in place. Push the tip end of ink pouch into the cartridge until it clicks into place. Straighten the ink pouch in such a manner that it will be aligned with the gutter of the lid of the cartridge, and mount in position by pulling it with your hand.

<NOTE>

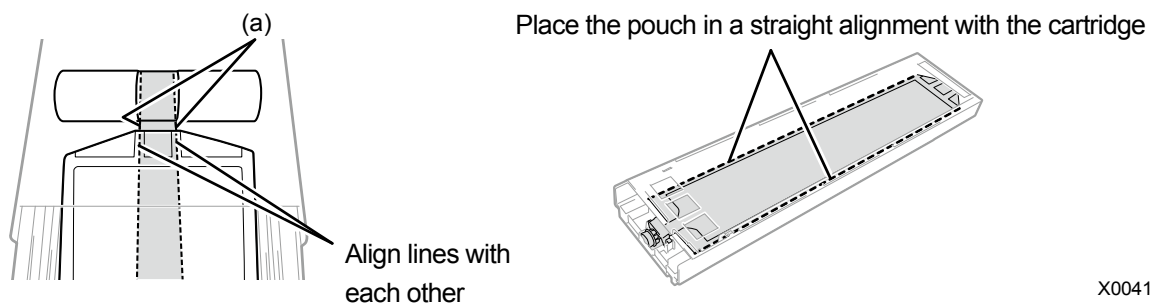
- If the edge of the ink pouch is bent or undulating significantly, make it straight with your hand.



- (5) Put the white ink pouch in its correct position.

<CAUTION>

- Avoid touching the portion (a) of cartridge. Otherwise, you may cut your hand.



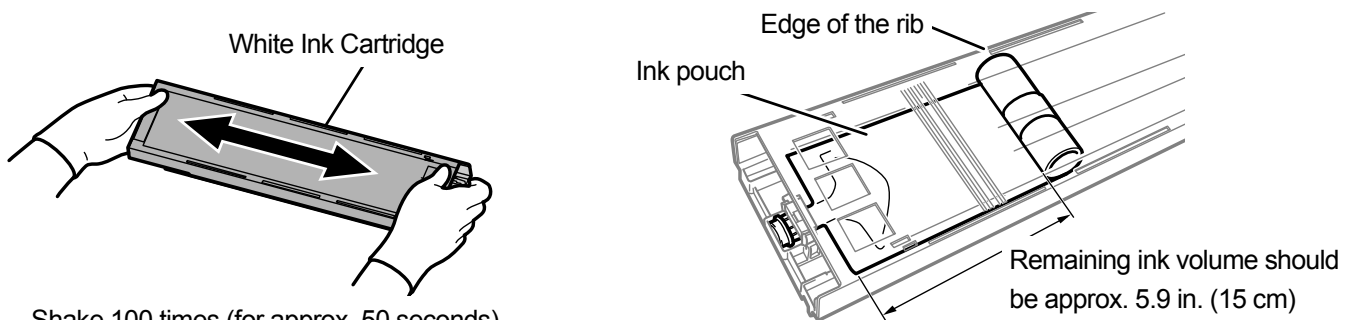
- (6) Shake the cartridge 100 times side to side to stir the ink.

<IMPORTANT>

- The white ink cartridge should be held horizontally when shaking it.
- Holding the white ink cartridge upside down or shaking it too roughly could break the ink pouch.

<NOTE>

- Wear the provided gloves when performing this task.
- When the remaining ink level becomes approximately 5.9 in. (15 cm), shake the cartridge with its cover open and with the edge of the ink pouch slightly winded, to make the ink easier to stir.



Shake 100 times (for approx. 50 seconds)
 (Swing distance should be approx. 2 in. (5 cm).
 Increase the swing distance when the remaining ink level becomes low.)

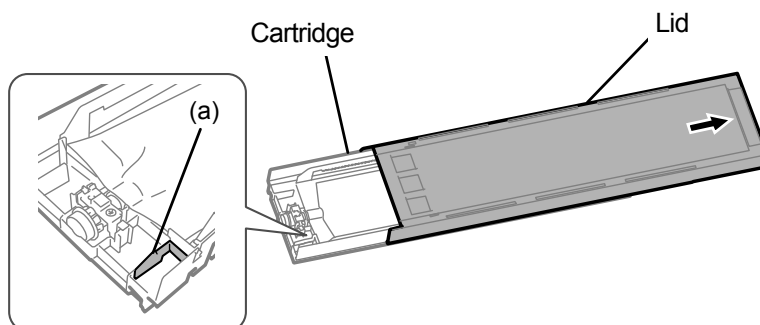
(7) Open the lid of the cartridge and place the ink pouch in its correct position.

<IMPORTANT>

- Always open the cartridge lid and properly rewind the ink pouch. If the pouch is placed without opening the lid, ink can flow into the wound section of the pouch when stirred, which can cause improper winding of the pouch.
- When opening the lid, place the entire cartridge on a flat surface, push the latches on the bottom surface of the cartridge downward and open the lid.
- When setting the ink pouch, avoid unevenness or wrinkles on the pouch.
- When opening the lid, be sure not to touch the portion (a). Otherwise, it could be damaged.

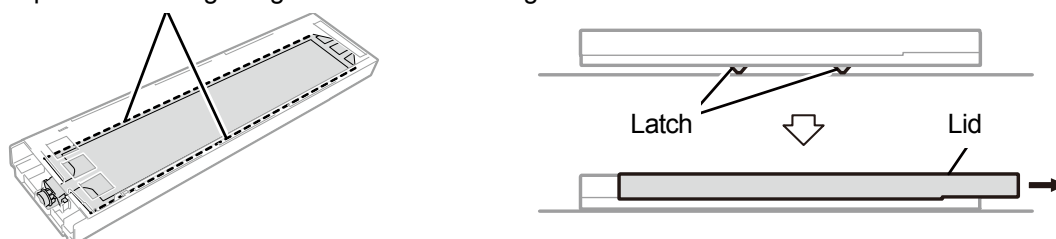
<NOTE>

- If the remaining ink level is low, hold the sagged part of the ink pouch and close the lid.

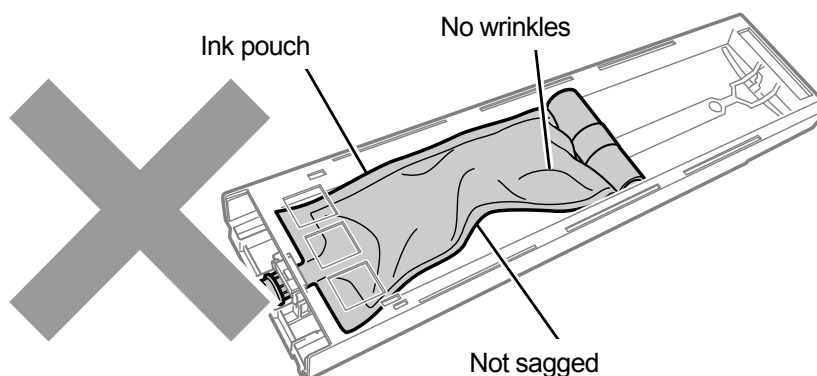


X0182

Place the pouch in a straight alignment with the cartridge



X0078



X0142

(8) Close the lid, and put the white ink cartridge in position inside the printer.

<IMPORTANT>

- W12 and W34 cartridges should correctly be placed in their original locations. Wrongly placed cartridges could cause a printer malfunction.

(9) Repeat the same process to replace the other maintenance solution cartridge with the white ink pouch.

(10) Check the waste ink tank level and take any necessary measure for it, if any, then press  on the operation panel.

After the cleaning is completed, the Install White Ink After Cleaning function will get started.

<TIPS>

- The "Install White Ink After Cleaning" operation will take approximately 15 minutes. After the procedures are completed, the current screen will go back to the standby mode screen.

9-2-3. Cleaning of head nozzle

If a problem of non-ejection of ink-jet droplets is not cleared even after performing the head cleaning, perform the head nozzle cleaning.

<IMPORTANT>

- With reference to "7-1-2. Cleaning the nozzle guard, wiper, exhaust cap, and suction cap >>P.208", clean the nozzle guard first, then clean the head nozzle.

- (1) Make the clean stick R, cleaning cup, gloves and cleaning solution, which come standard with the printer, available for use.

<IMPORTANT>


- Use a new clean stick R when you start cleaning.
- Never touch the tip end of clean stick R with your hand. If any sebaceous matter is attached to the head nozzle, it may result in the printer malfunction.

- (2) From the menu, select [Maintenance] > [Maintenance Part Clean/Replace], and press .

<IMPORTANT>

- If any other error or message is displayed on the operation panel or warning message window, follow the message to solve the problem, then perform the cleaning.

<TIPS>

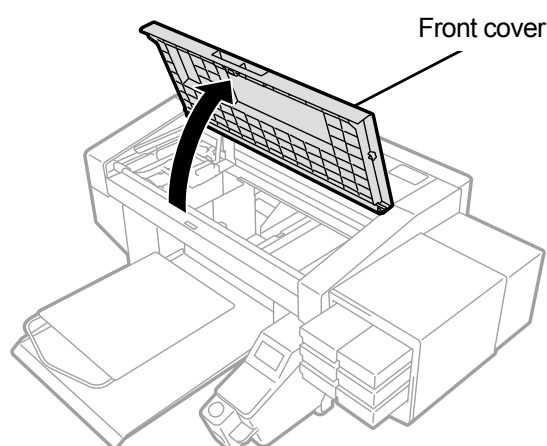
- Pressing  causes the platen to start moving. Do not put anything around the platen.

- (3) Follow the on-screen message and turn off the power.

<IMPORTANT>

- Please complete the task within 30 minutes, in order to prevent the print heads from drying up.
- If the task takes more than 30 minutes to complete, close the front cover and turn on the power, and then select [Maintenance Part Clean/Replace] again to restart the task. Then, the head cleaning will be performed to prevent any ink from drying up.

- (4) Open the front cover.



X0050

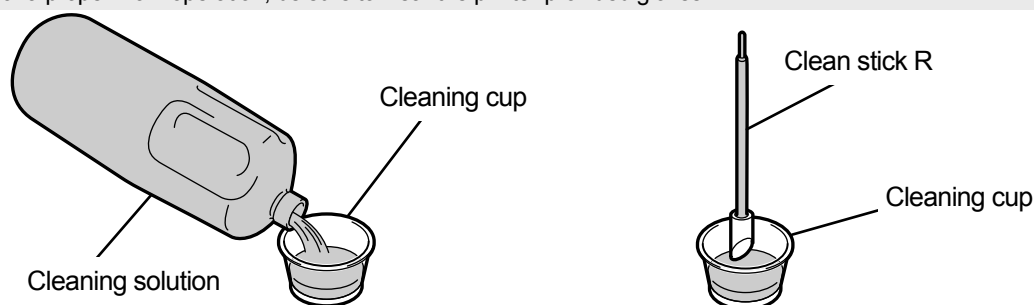
- (5) Put a proper amount of cleaning solution into the cleaning cup.
- (6) Moisten a clean stick R with the cleaning solution.

<IMPORTANT>

- Be sure to use a different clean stick R separately for the color head and the white head. Use a new clean stick R when you start cleaning.
- Do not use other fluids (water, etc.), because they may damage the print heads.
- Do not return the cleaning solution which has been put in the cleaning cup to the cleaning solution bottle.

<NOTE>

- For a proper work operation, be sure to wear the printer-provided gloves.

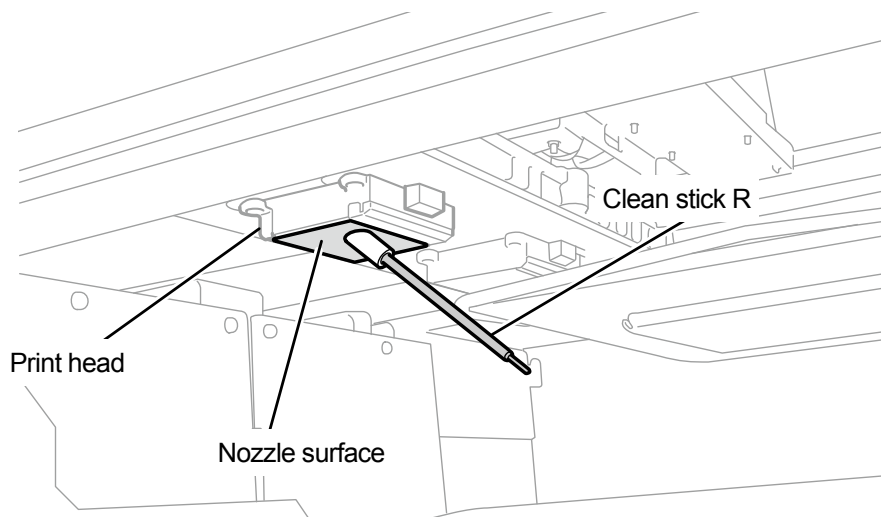


X0051

- (7) With a clean stick R, clean the nozzle surface of print head.
Manually move the carriage to such a position that you can perform the cleaning with ease.

<IMPORTANT>

- Be sure not to bring corner edges of the clean stick R into contact with the nozzle surface.
- Avoid roughly rubbing the nozzle surface.
- The used clean stick R should be disposed of, and should not be reused.



X0067

- (8) Close the front cover, turn on the power.
- (9) From the menu, select [Head Cleaning] > [Powerful Cleaning] > [All Print Heads], and press .

<NOTE>

- Dispose of any waste resulting from the cleaning in accordance with applicable laws and ordinances.

<TIPS>

- Then, the head cleaning will be performed to prevent any ink from drying up.
- Because the cleaning cup will be reused, rinse it in clean cleaning solution and store it in a safe place.

9-2-4. Cleaning the surrounding area of nozzle surface

- (1) Make the clean stick R, cleaning cup, gloves and cleaning solution, which come standard with the printer, available for use.

<IMPORTANT>


- Use a new clean stick R when you start cleaning.
- Never touch the tip end of clean stick R with your hand. If any sebaceous matter is attached to the head nozzle, it may result in the printer malfunction.

- (2) From the menu, select [Maintenance] > [Maintenance Part Clean/Replace], and press .

<IMPORTANT>

- If any other error or message is displayed on the operation panel or warning message window, follow the message to solve the problem, then perform the cleaning.

<TIPS>

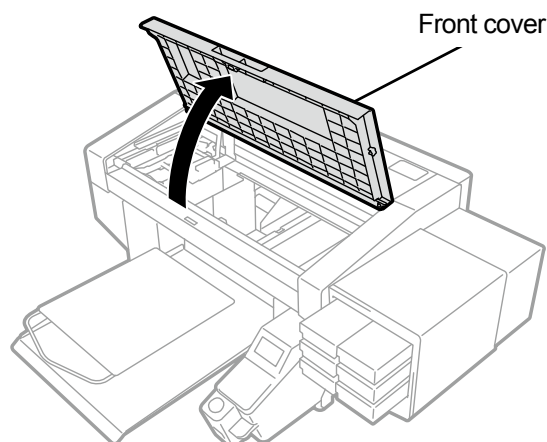
- Pressing  causes the platen to start moving. Do not put anything around the platen.

- (3) Follow the on-screen message and turn off the power.

<IMPORTANT>

- Please complete the task within 30 minutes, in order to prevent the print heads from drying up.
- If the task takes more than 30 minutes to complete, close the front cover and turn on the power, and then select [Maintenance Part Clean/Replace] again to restart the task. Then, the head cleaning will be performed to prevent any ink from drying up.

- (4) Open the front cover.



X0050

- (5) Put a proper amount of cleaning solution into the cleaning cup.
- (6) Moisten a clean stick R with the cleaning solution.

<IMPORTANT>

- Be sure to use a different clean stick R separately for the color head and the white head. Use a new clean stick R when you start cleaning.
- Do not use other fluids (water, etc.), because they may damage the print heads.
- Do not return the cleaning solution which has been put in the cleaning cup to the cleaning solution bottle.

<NOTE>

- For a proper work operation, be sure to wear the printer-provided gloves.

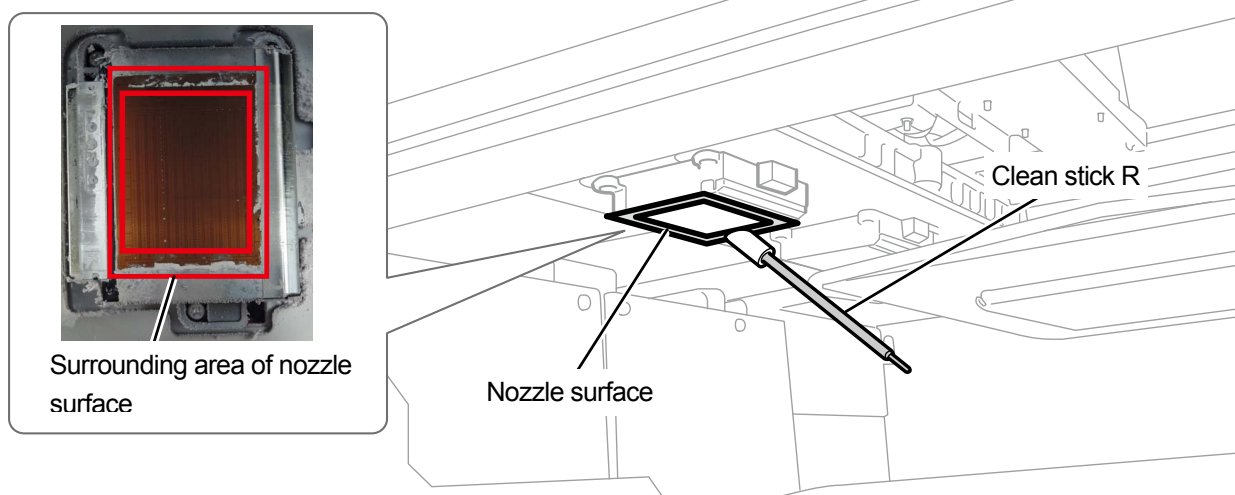


X0051

- (7) With a clean stick R, clean the surrounding area of nozzle surface of print head.
Manually move the carriage to such a position that you can perform the cleaning with ease.

<IMPORTANT>

- Be sure not to bring the clean stick R into contact with the nozzle surface.
- The used clean stick R should be disposed of, and should not be reused.



X0198

- (8) Close the front cover, turn on the power.
- (9) From the menu, select [Head Cleaning] > [Powerful Cleaning] > [All Print Heads], and press .


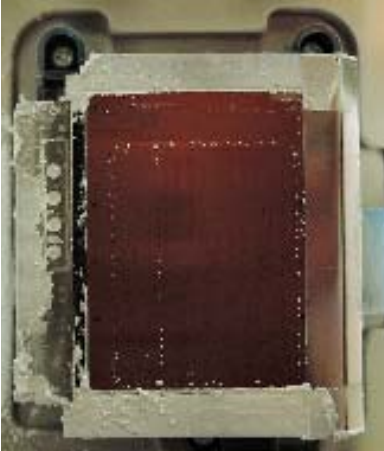
<NOTE>

- Dispose of any waste resulting from the cleaning in accordance with applicable laws and ordinances.

<TIPS>

- Then, the head cleaning will be performed to prevent any ink from drying up.
- Because the cleaning cup will be reused, rinse it in clean cleaning solution and store it in a safe place.

Cleaning conditions

Pre-cleaning state	Post-cleaning state
	

X0205

9-2-5. Replacing the color filter



If a number of non-firing color head nozzles is observed after printing, the filter should be replaced.

<IMPORTANT>


- When replacing multiple filters, filters for individual colors should be replaced one by one. Replace the filter for the first color and install ink, then replace the next filter. Removing multiple filters at the same time might damage the print head.

<TIPS>

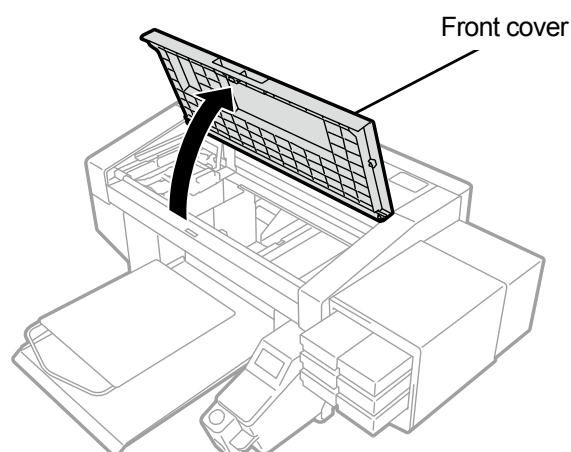
- Ink installation should be performed after replacing the filters. If the ink level is low, make a new ink pouch available for use.

- (1) Prepare the supplied gloves and optional filter.
- (2) From the menu, select [Maintenance] > [Exchange Filter], and press .
- (3) From [Black], [Yellow], [Cyan], and [Magenta] select non-firing color and press .

<TIPS>

- Pressing  causes the platen to start moving. Do not put anything around the platen.

- (4) Follow the on-screen message and turn off the power.
- (5) Open the front cover.

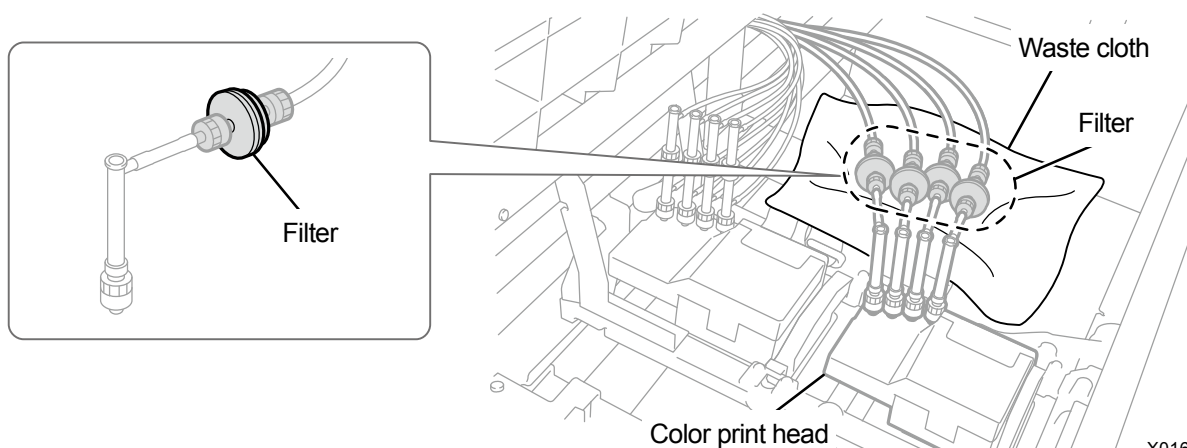


X0050

- (6) Lay a waste cloth under the filter to be replaced.

<TIPS>

- Non-fuzzy, clean cloth should be used.



X0169

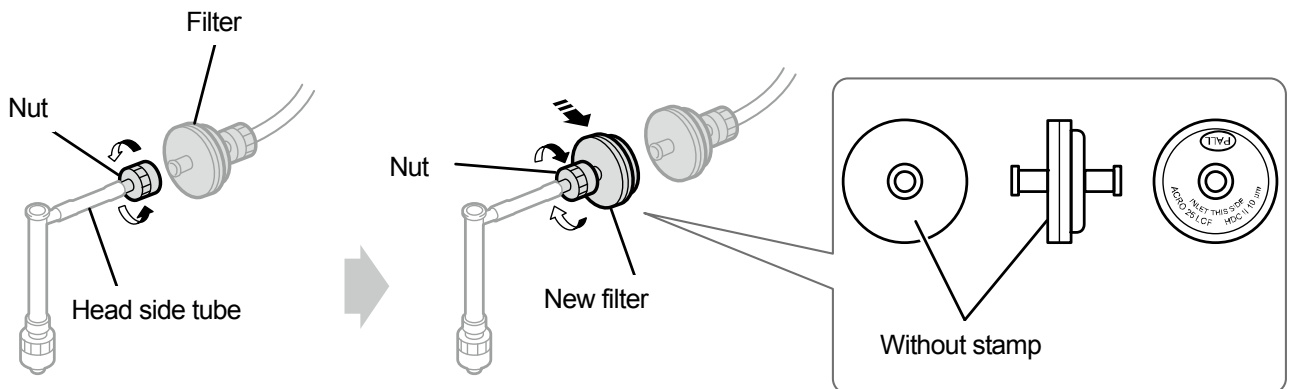
- (7) Rotate the nut of the tube on the head side and remove the filter.
- (8) Place a new filter on the head side tube and fasten the nut.

<IMPORTANT>

- Install the filter with no stamp facing the tube. Pay attention to this installation orientation.

<NOTE>

- For a proper work operation, be sure to wear the printer-provided gloves.

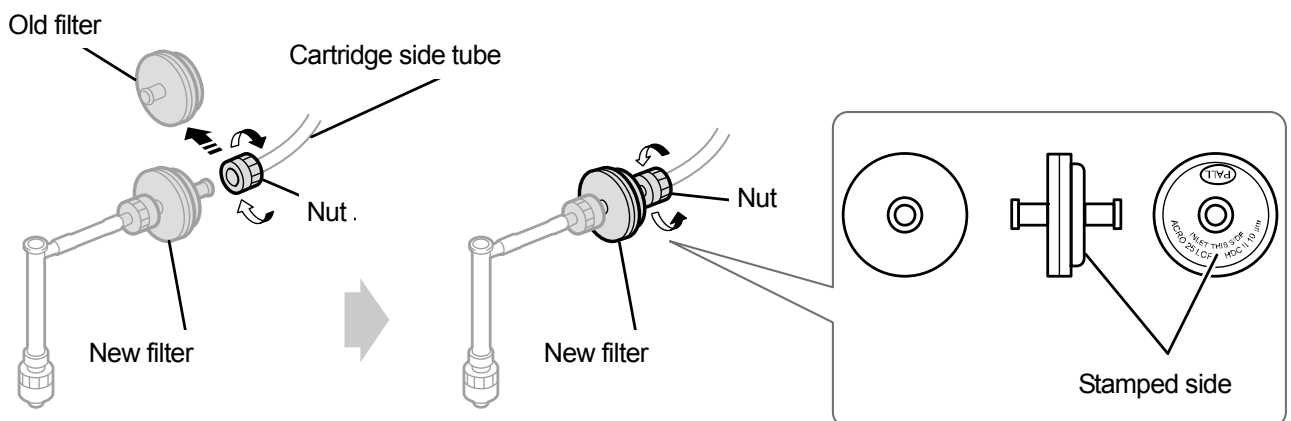


X0175

- (9) Rotate the nut of the tube on the cartridge side to remove the old filter.
- (10) Attach the cartridge side tube to a new filter and fasten the nut.

<IMPORTANT>

- Make sure to install the filter with the stamped side facing the cartridge side tube.



X0176

- (11) Remove the waste cloth from under the filter.
 - (12) Close the front cover, turn on the power.
- <NOTE>
- Dispose of any waste resulting from the replacement in accordance with applicable laws and ordinances.
- (13) Perform the [Filter exchange after ink Load] operation by following the on-screen instructions.

<TIPS>

- When replacing multiple filters, go back to the beginning of the procedure to start replacing the next filter.
- After the procedures are completed, the current screen will go back to the standby mode screen.

9-2-6. Replacement of print head


If a problem of non-ejection of ink-jet droplets is not cleared even after cleaning the head nozzle, replace a print head with a new one.

The replacement procedures vary from the color heads to the white heads. According to each of the replacement procedures, replace each print head with a new one separately.


<TIPS>

- Ink needs to be re-installed after replacing the print head. If the ink level is low, make a new ink pouch available for use.

Replacement procedures for print head on the color side

- (1) From the menu, select [Maintenance] > [Head Replacement] > [Color], and press .

<TIPS>

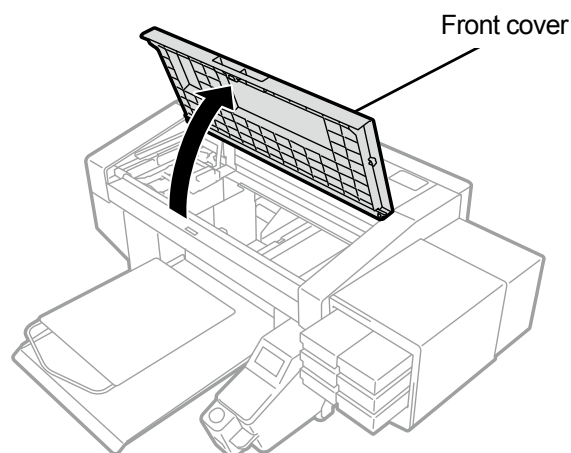
- Pressing  causes the platen to start moving. Do not put anything around the platen.

- (2) Follow the on-screen message and turn off the power.

<IMPORTANT>

- Please complete the task within 30 minutes, in order to prevent the print heads from drying up.

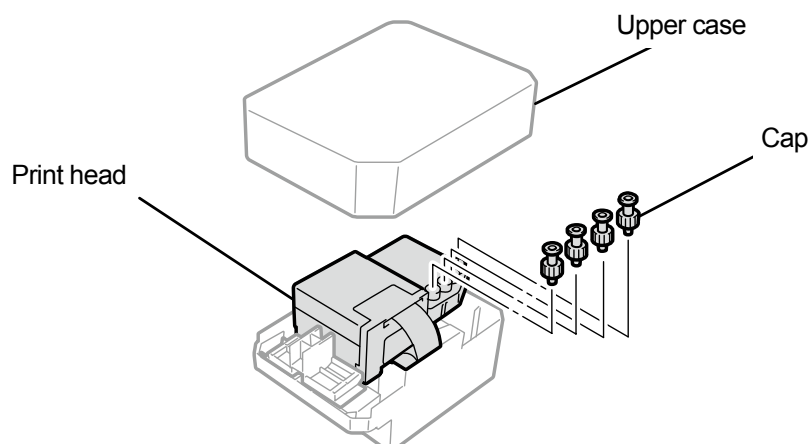
- (3) Open the front cover.



X0050

- (4) Remove the upper case of a new print head.

- (5) Remove four caps from the new print head.



X0068

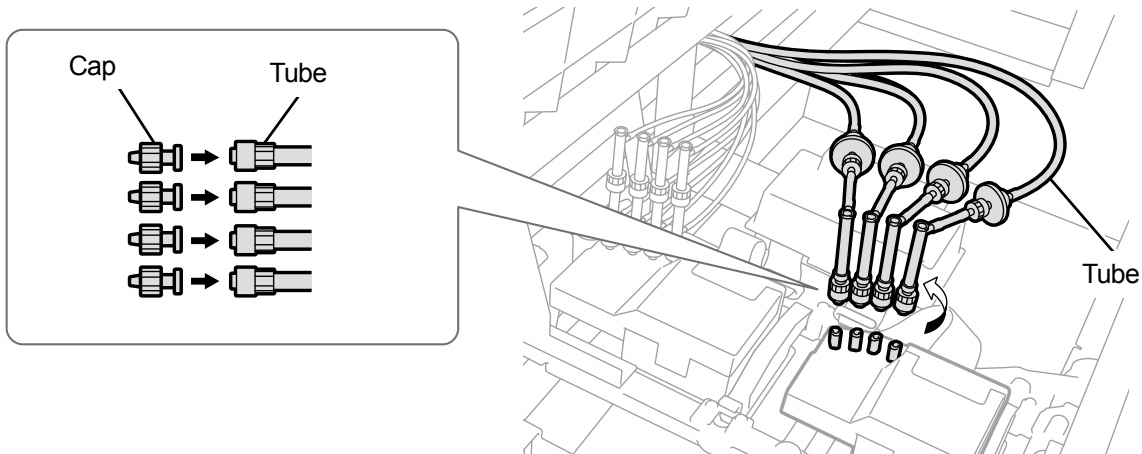
- (6) Remove each tube from the print head to be replaced with a new one, then attach each of the new caps which are removed from a new print head to each tube, while exercising care to prevent any ink from being spilled.

<IMPORTANT>

- Care is needed in preventing any ink from being spilled from each tube. If the ink is dripping, wipe off the dripping ink.
- Be careful not to confuse it with the tube for the print head on the white side.
- When you replace the print head, be sure to move the carriage manually to the position of platen at the center of the printer before starting the replacement. If you perform the mounting of the head when the carriage is directly above the maintenance unit, it may damage the maintenance unit or the heads.

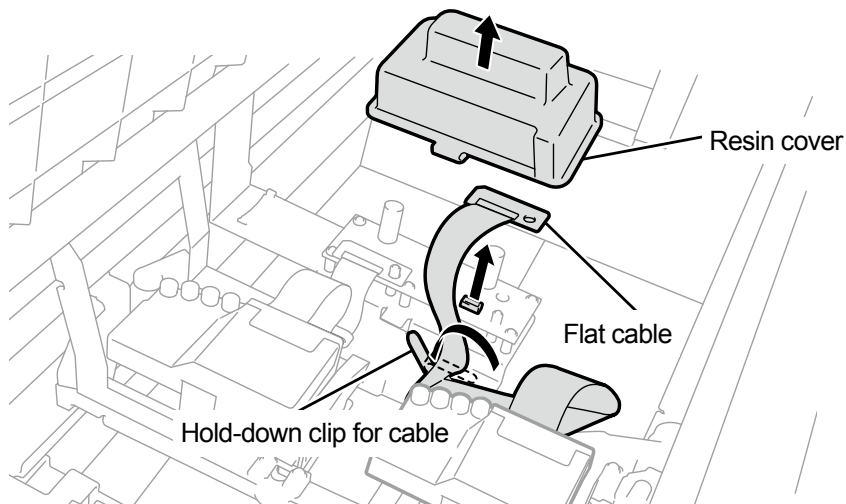
<NOTE>

- For a proper work operation, be sure to wear the printer-provided gloves.



X0070

- (7) Remove the resin cover which are placed on the top of the carriage board.
- (8) Open the hold-down clip for the cable, and remove the flat cable.

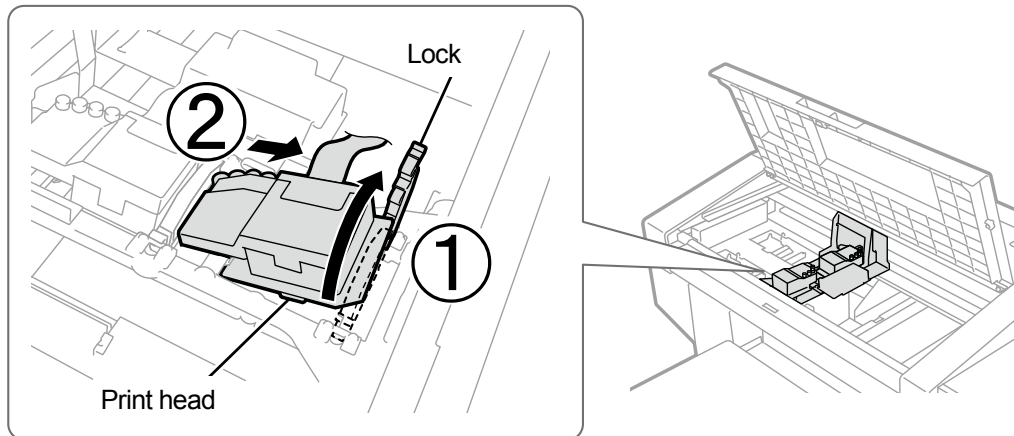


X0071

(9) Unlock the print head, and remove the print head.

<IMPORTANT>

- When removing the print head in position, be careful not to drip the ink on the carriage plate. If the ink is dripping, wipe off the dripping ink.



X0131

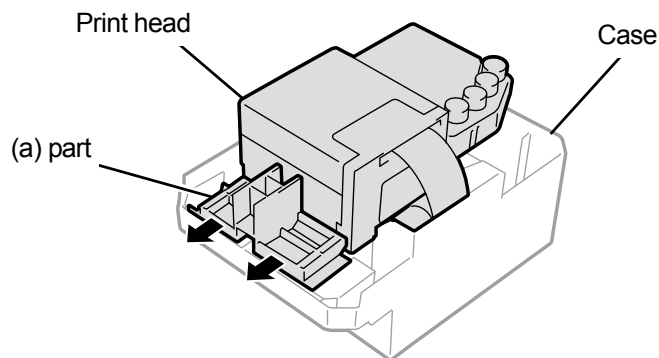
(10) Release the lock by pulling (a) part toward yourself, and take out the new print head from its case.

<IMPORTANT>

- When removing the print head, be careful not to touch the nozzle surface at the bottom of the head. Otherwise it may cause poor printing.

<TIPS>

- Sometimes, you may find it hard to remove the print head when you try to open the lock of (a) part. If it is hard, use both hands to remove it.



X0069

(11) By following the procedures mentioned below, mount a new print head on the carriage.

α Insert the rearward end of the print head into the carriage.

σ Push with force in direction σ so that the illustrated part (a) makes contact with the side of the metal plate of the print head.

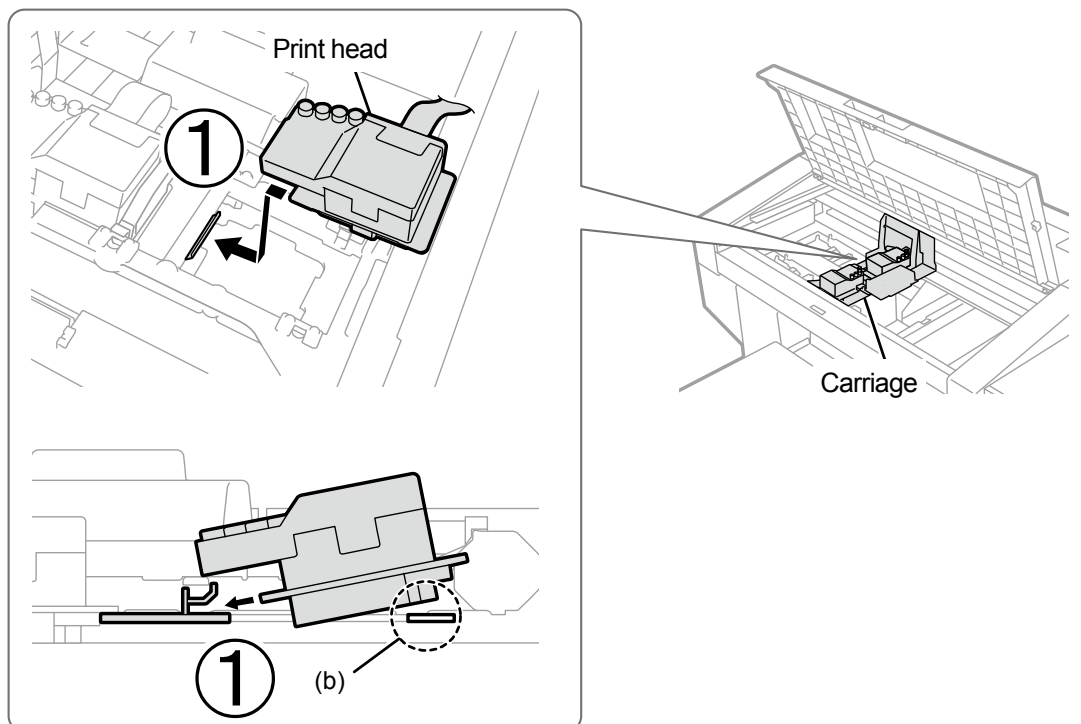
δ Lock the print head in place.

<IMPORTANT>

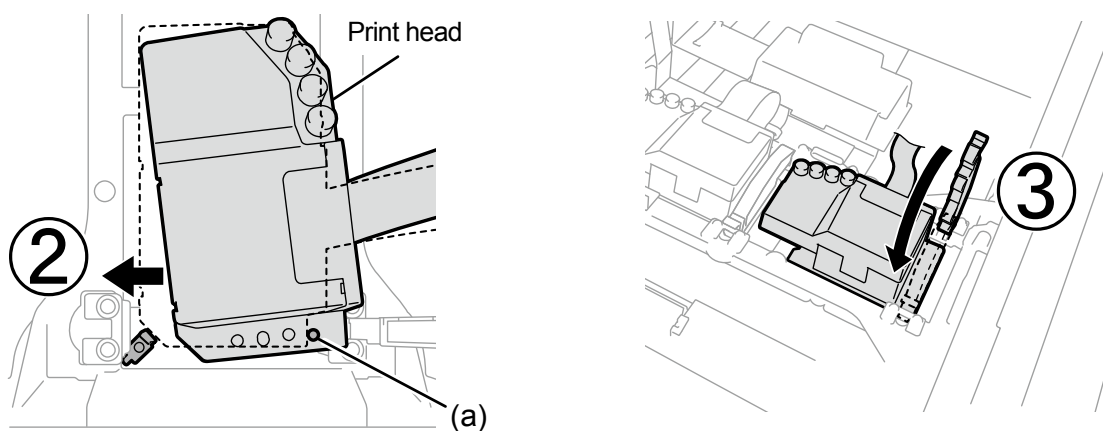
- Make sure the illustrated (a) part is in contact with the side of the metal plate.
- When re-installing the print head with ink refilled, care must be taken not to mistake white for color.
- When placing the print head in position, be careful not to move the carriage as much as possible. Your hand may be caught in the carriage and injured. In addition, the tubes may be rolled together possibly damaging them.
- When you mount δ , push it down from the top. Otherwise, you may get your finger caught in it and get injured.

<TIPS>

- If the print head is not inserted sufficiently, the part as illustrated in (b) could come into contact with its bottom surface, which in turn may result in poor printing. Please insert the print head as far as it can go.

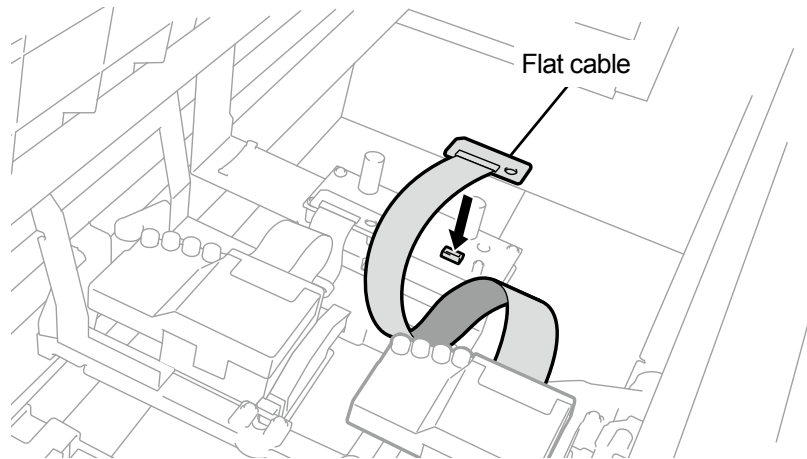


X0132



X0133

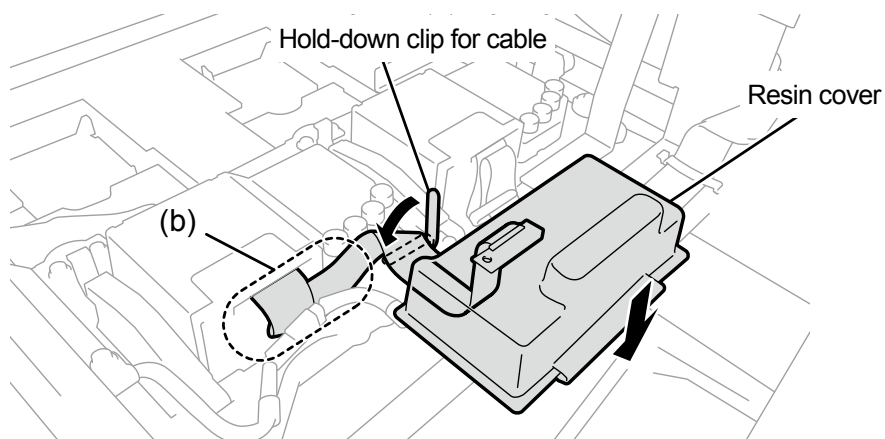
(12) Connect the flat cable to the carriage board.



X0074

(13) Place the resin cover back onto the carriage board, and engage the two latches properly.

(14) Make the wiring arrangement of flat cable as illustrated in (b), and secure it in place with the hold-down clip for the cable.



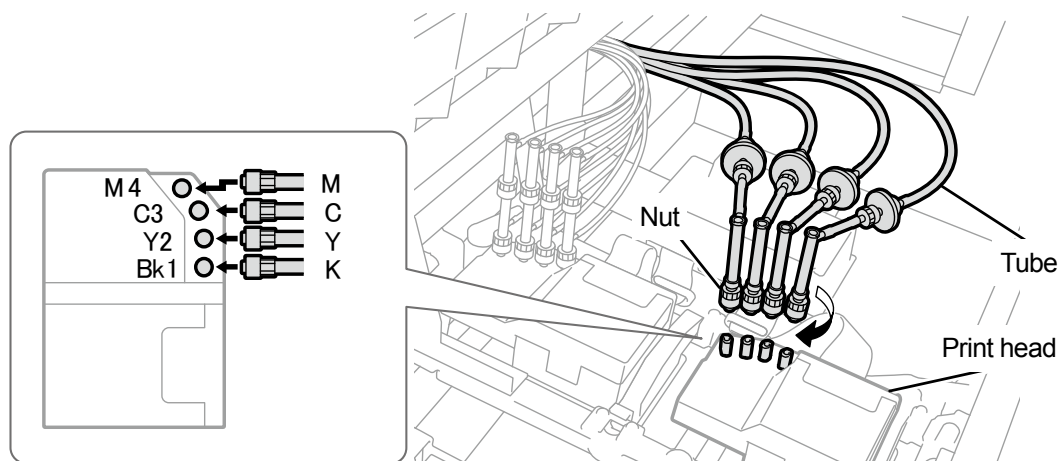
X0130

(15) Remove every cap from each tube, and connect them to the print head.

<IMPORTANT>

- To prevent the tubes from being entangled with each other, connect the innermost tube to the print head first, and make a connection of the rest of the tubes.
- Be sure to connect each tube with its correct position.

(16) Tighten the nut firmly until it stops so that each tube is fixed to the print head.



X0075

(17) Close the front cover, turn on the power.

(18) From the menu, select [Maintenance] > [Install Ink after Replacing Head] > [Color], and press



Perform the work operation by following the on-screen instructions.

<TIPS>

- After the procedures are completed, the current screen will go back to the standby mode screen.

(19) Adjust the carriage speed.

<TIPS>

- For details, refer to "7-4-1. CR (Carriage) speed adjustment >>P.250".

(20) Perform the V-rating settings configuration.

<TIPS>

- Please refer to "7-4-2. V-rating setting >>P.251".

(21) Adjust the ejection timing of print head.

<TIPS>

- For details, refer to "7-4-3. Firing adjustment >>P.252".

(22) Perform the platen feed adjustment.

<TIPS>

- Refer to "7-4-4. Platen feed adjustment >>P.253".

(23) Make the position adjustment between the white head and the color head.


<TIPS>

- For details, refer to "7-4-5. White/color alignment >>P.254".

Replacement procedures for print head on the white side

<IMPORTANT>


- When you replace a print head on the white side, you need a capping pouch (optionally available) in addition to a print head. Instead of the capping pouch, a white ink pouch at its empty level before its expiry date can also be used. A capping pouch or a white ink pouch at its empty level should be ready for use.

- (1) From the menu, select [Maintenance] > [Head Replacement] > [White], and press .

<IMPORTANT>

- Instead of the capping pouch, a white ink pouch at its empty level before its expiry date can also be used. A capping pouch or a white ink pouch at its empty level should be ready for use.

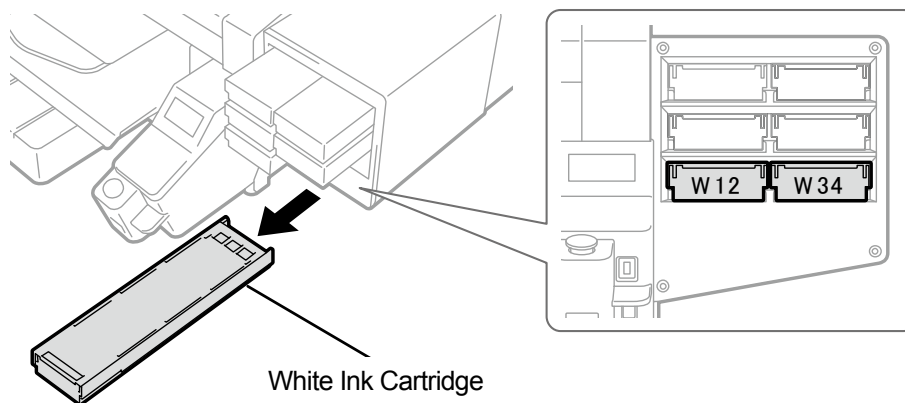
<TIPS>

- Perform the work operation by following the on-screen instructions.
- Pressing  causes the platen to start moving. Do not put anything around the platen.

- (2) Remove the white ink cartridge from the printer.

<CAUTION>

- The bottom of the cartridge may be soiled with ink. Clean the printer on a regular basis.

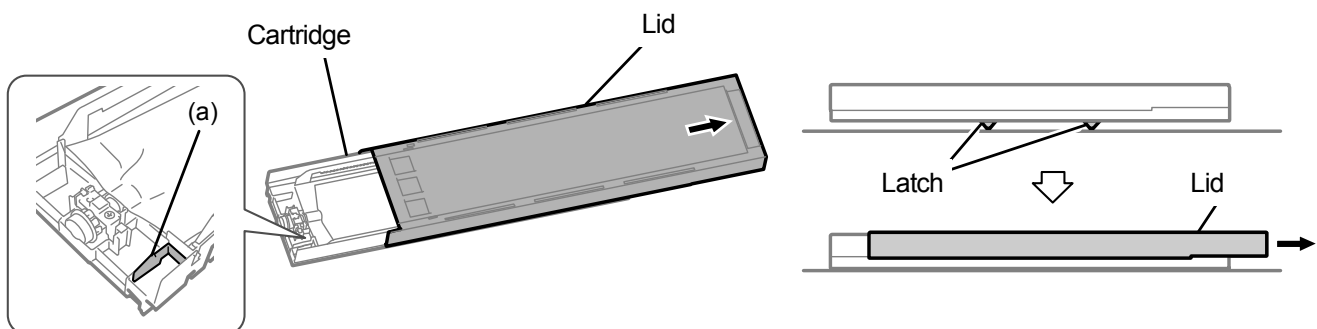


X0039

- (3) Open the cartridge's lid.

<IMPORTANT>

- When opening the lid, be sure not to touch the portion (a). Otherwise, it could be damaged.
- Place the entire cartridge on a flat surface, push the latches on the bottom surface of the cartridge downward and open the lid.

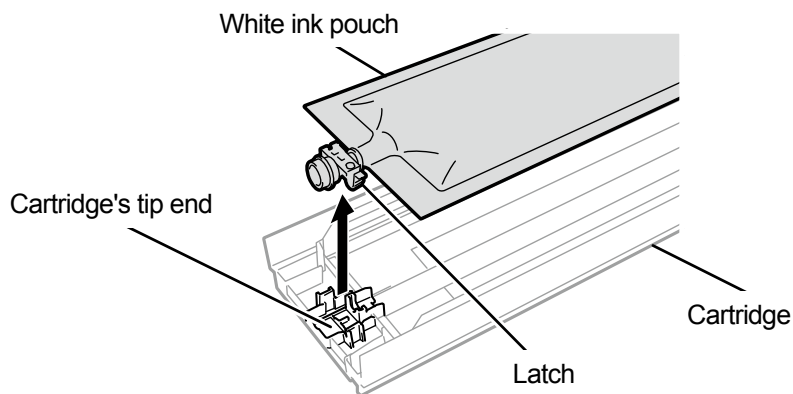


X0042

- (4) Pinch the latch at the front end of ink pouch, and draw out the white ink pouch from the cartridge.

<CAUTION>

- Remove the accumulated ink at the tip of the cartridge with a waste cloth (non-fuzzy cloth). Clean the printer on a regular basis.



X0119

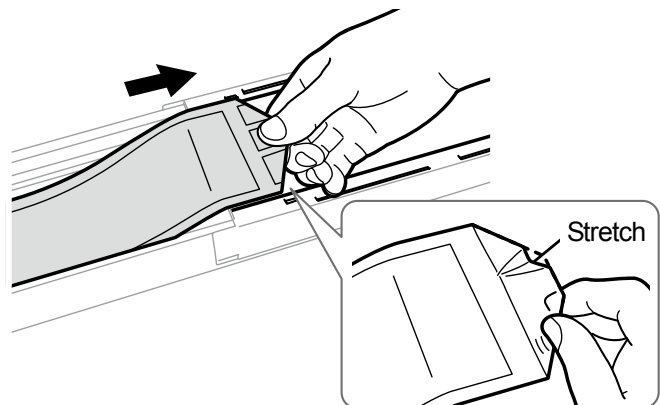
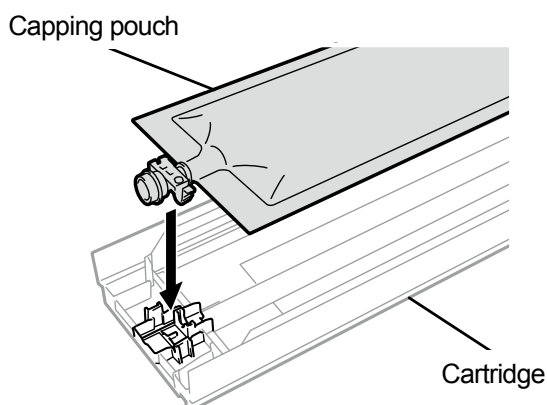
- (5) Put the capping pouch in the cartridge.

Push the tip end of capping pouch into the cartridge until it clicks into place.

Straighten the capping pouch in such a manner that it will be aligned with the gutter of lid of cartridge, and mount in position by pulling it with your hand.

<NOTE>

- If the edge of the ink pouch is bent or undulating significantly, make it straight with your hand.



X0049

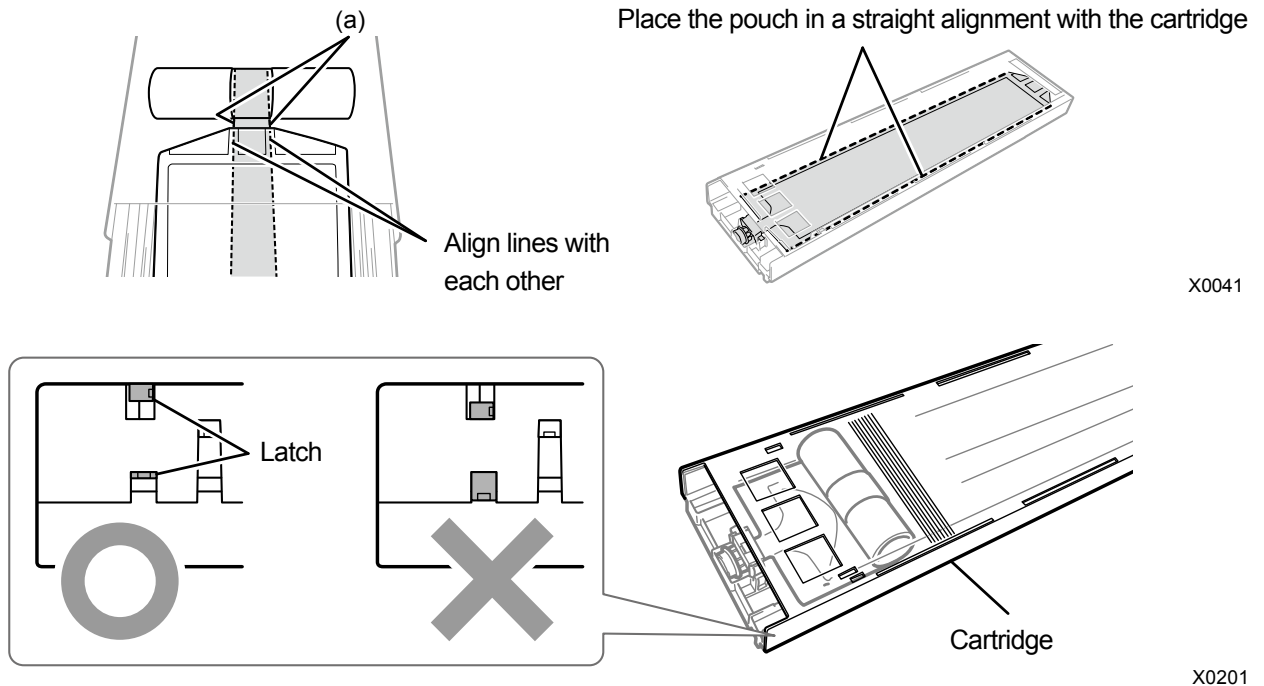
- (6) Put the capping pouch in its correct position.

<CAUTION>

- Avoid touching the portion (a) of cartridge. Otherwise, you may cut your hand.

<NOTE>

- Close the lid while holding the slack of the capping pouch by hand.
- After closing the lid, confirm that the capping pouch has been taken up to the end. When the latch of the cartridge side is raised, the winding is complete.



X0041

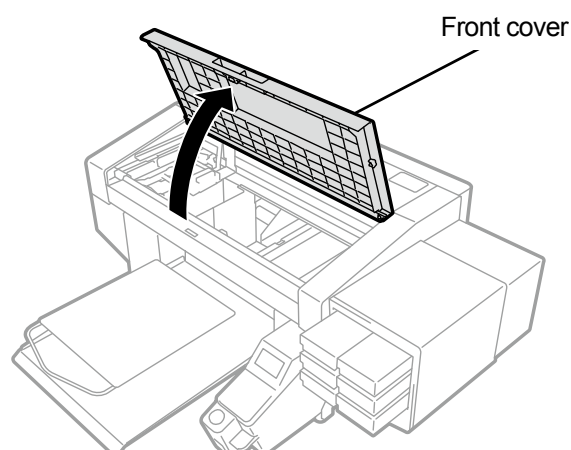
X0201

- (7) Close the lid, and put the capping cartridge in position inside the printer.
 (8) Repeat the same process to replace the other white ink cartridge with the capping pouch.
 (9) Follow the on-screen message and turn off the power.

<IMPORTANT>

- Please complete the task within 30 minutes, in order to prevent the print heads from drying up.

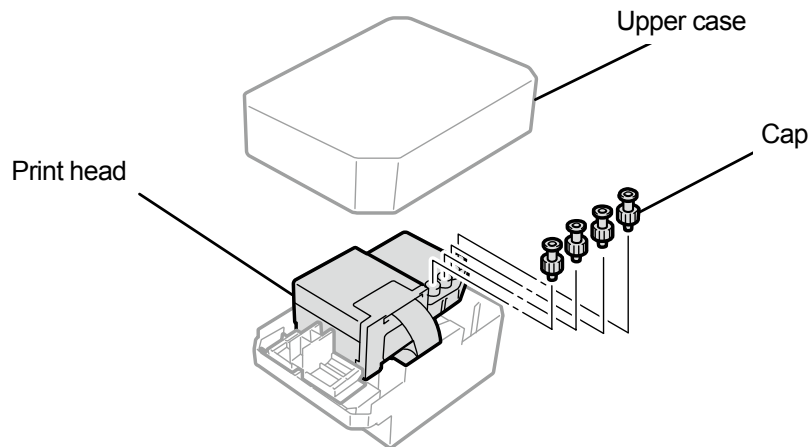
- (10) Open the front cover.



X0050

- (11) Remove the upper case of a new print head.

(12) Remove four caps from the new print head.



X0068

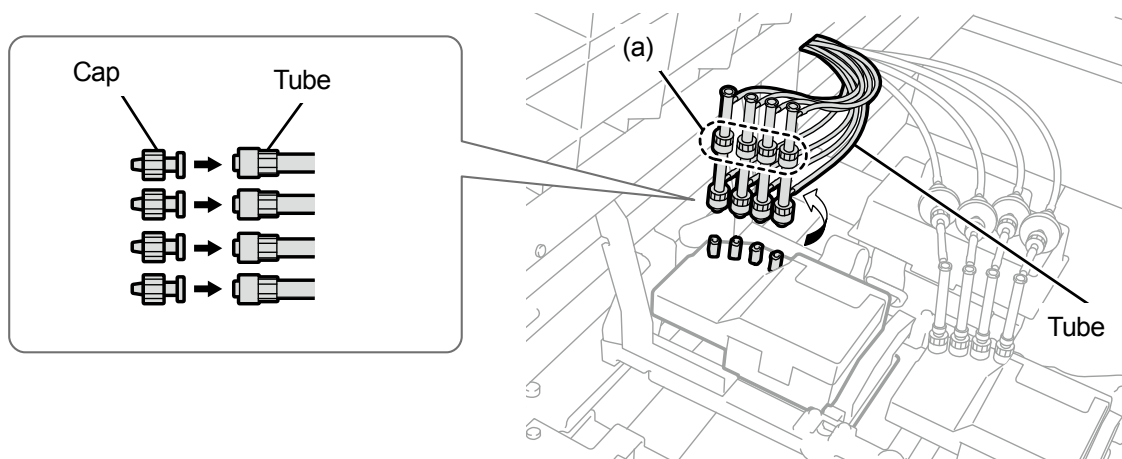
(13) Remove each tube from the print head to be replaced with a new one, then attach each of the new caps which are removed from a new print head to each tube, while exercising care to prevent any ink from being spilled.

<IMPORTANT>

- Care is needed in preventing any ink from being spilled from each tube. If the ink is dripping, wipe off the dripping ink.
- Be careful not to confuse it with the tube for the print head on the color side.
- Be sure not to tighten the nut for part (a) by mistake. It could remove the tube and leak the contained ink.
- When you replace the print head, be sure to move the carriage manually to the position of the platen at the center of the printer before starting the replacement. If you perform the mounting of the head when the carriage is directly above the maintenance unit, it may damage the maintenance unit or the heads.

<NOTE>

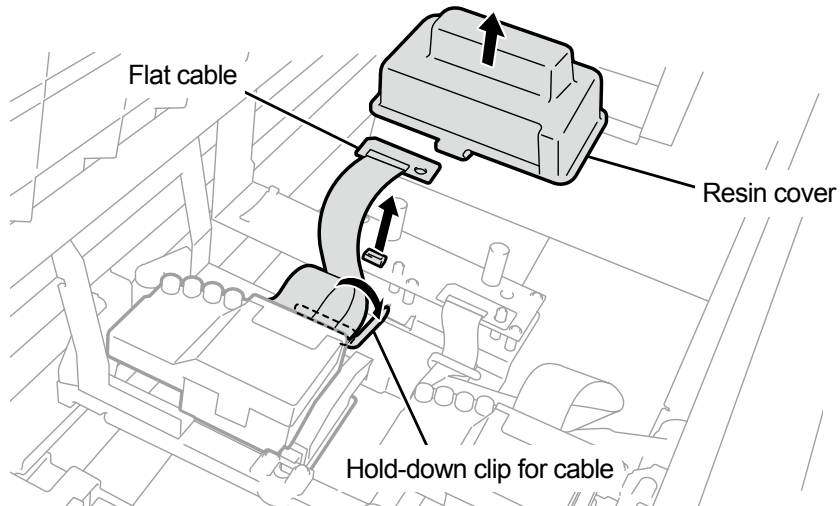
- For a proper work operation, be sure to wear the printer-provided gloves.



X0134

(14) Remove the resin cover which is placed on the top of the carriage board carriage board.

(15) Open the hold-down clip for cable, and remove the flat cable.

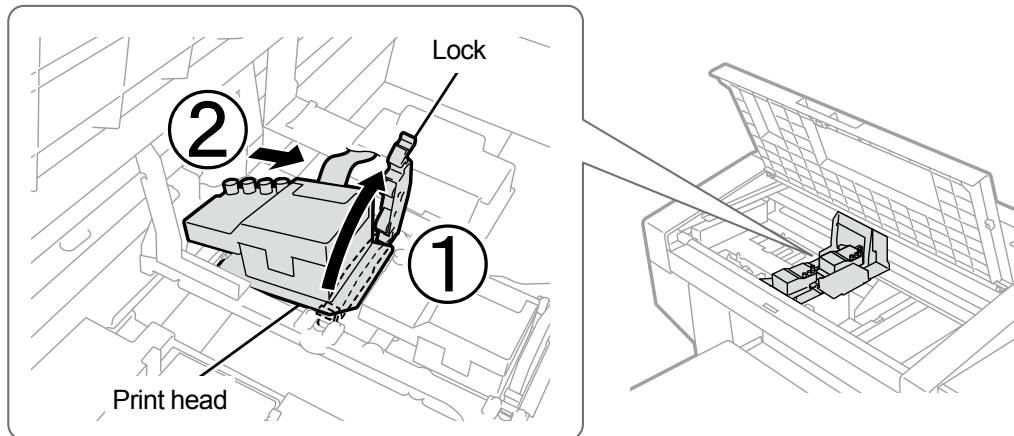


X0135

(16) Unlock the print head, and remove the print head.

<IMPORTANT>

- When removing the print head, be careful not to drip the ink on the carriage plate. If the ink is dripping, wipe off the dripping ink.



X0072

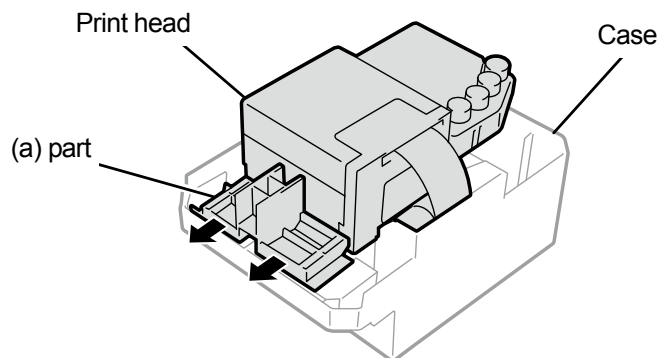
(17) Release the lock by pulling (a) part toward yourself, and take out the new print head from its case.

<IMPORTANT>

- When removing the print head, be careful not to touch the nozzle surface at the bottom of the head. Otherwise it may cause poor printing.

<TIPS>

- Sometimes, you may find it hard to remove the print head when you try to open the lock of (a) part. If it is hard, use both hands to remove it.



X0069

(18) By following the procedures mentioned below, mount a new print head on the carriage.

α Insert the rearward end of print head into the carriage.

σ Push with force in direction σ so that the illustrated part (a) makes contact with the side of the metal plate of the print head.

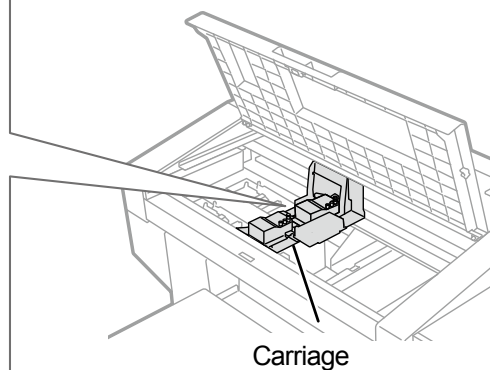
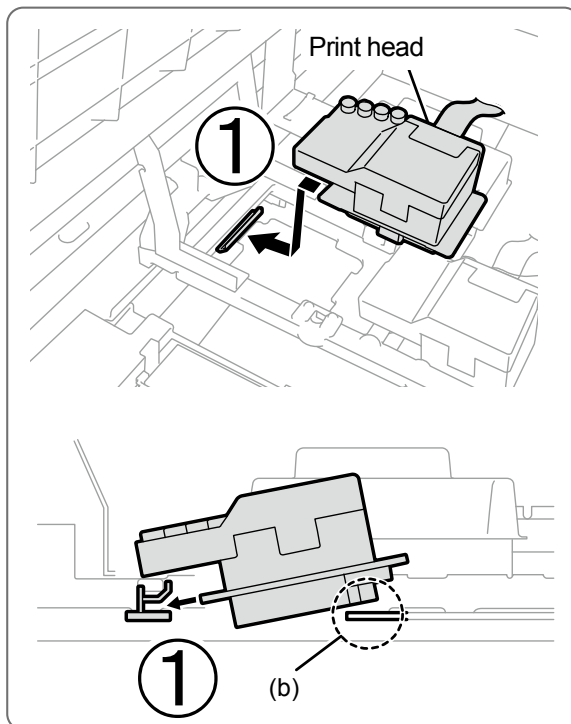
δ Lock the print head in place.

<IMPORTANT>

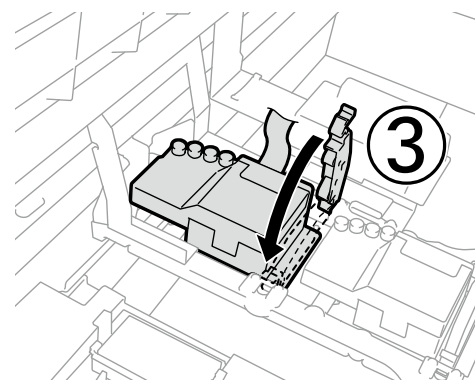
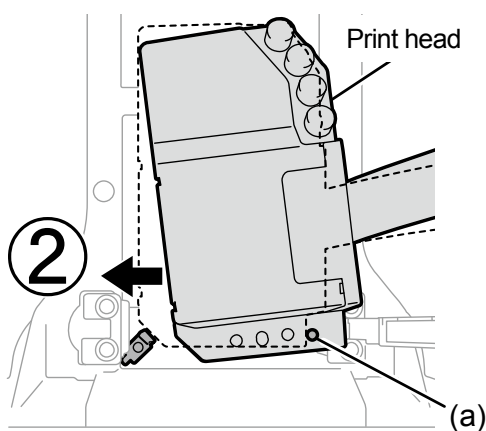
- Make sure the illustrated (a) part is in contact with the side of the metal plate.
- When re-installing the print head with ink refilled, care must be taken not to mistake white for color.
- When placing the print head in position, be careful not to move the carriage as much as possible. Your hand may be caught in the carriage and injured. In addition, the tubes may be rolled together possibly damaging them.
- When you mount δ , push it down from the top. Otherwise, you may get your finger caught in it and get injured.

<TIPS>

- If the print head is not inserted sufficiently, the part as illustrated in (b) could come into contact with its bottom surface, which in turn may result in poor printing. Please insert the print head as far as it can go.

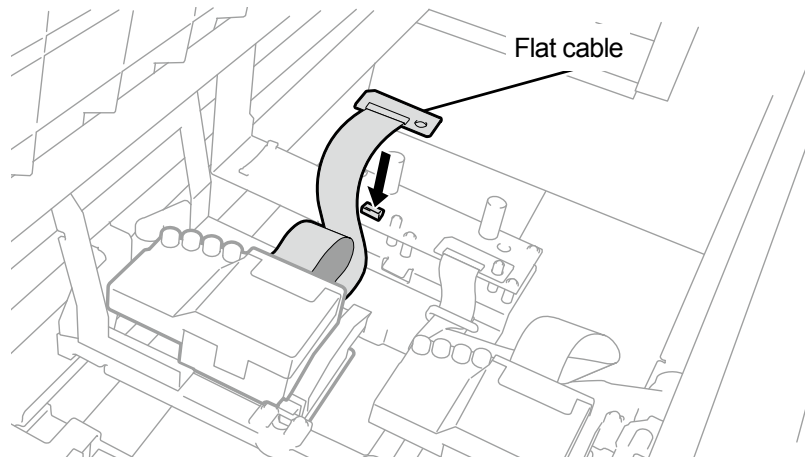


X0073



X0129

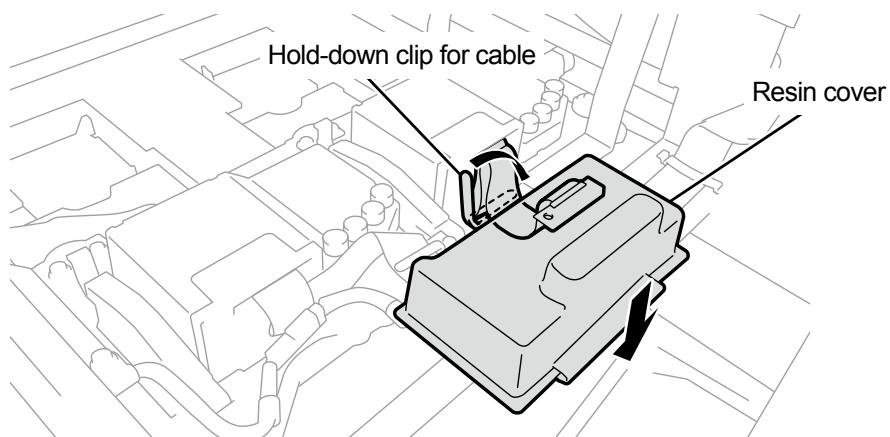
(19) Connect the flat cable to the carriage board.



X0136

(20) Make the wiring arrangement of flat cable as shown here, and secure it in place with the hold-down clip for the cable.

(21) Place the resin cover back onto the carriage board, and engage the two latches properly.



X0137

(22) Remove every cap from each tube, and connect them to the print head.

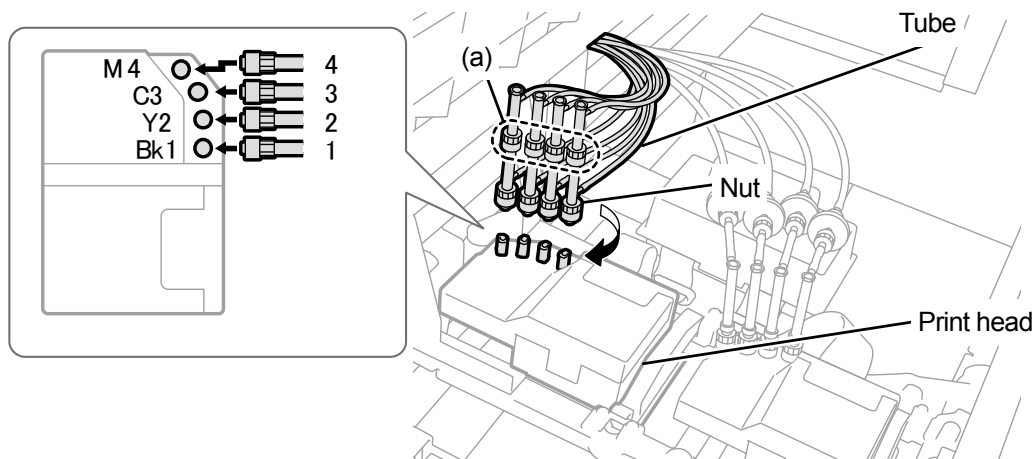
<IMPORTANT>

- To prevent the tubes from being entangled with each other, connect the innermost tube to the print head first, and make the connection of the rest of the tubes.
- Be sure to connect each tube with its correct position.

(23) Tighten the nut firmly until it stops so that each tube is fixed to the print head.


<IMPORTANT>

- Be sure not to tighten the nut for part (a) by mistake.



X0138

(24) Close the front cover, turn on the power.

(25) From the menu, select [Maintenance] > [Install Ink after Replacing Head] > [White], and press .

Perform the work operation by following the on-screen instructions.

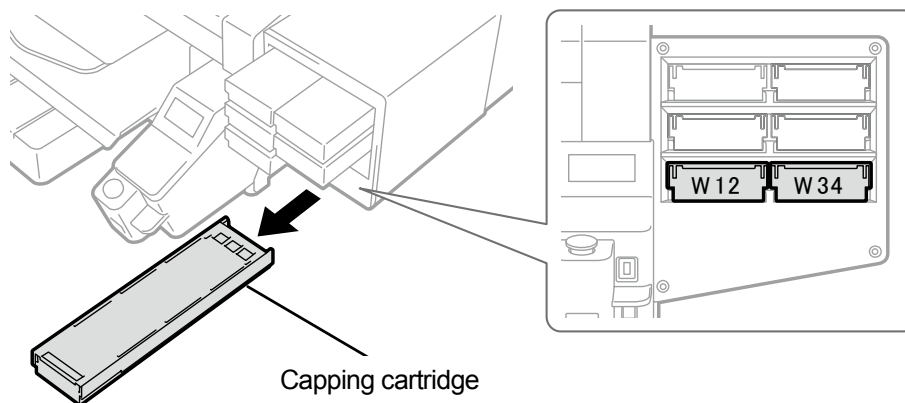
<TIPS>

- When the white ink pouch runs low on its remaining volume of white ink, the Install Ink after Replacing Head function can no longer get started. Furthermore, there may be cases where the pouch needs to be replaced with a new one during the installation process of white ink. If the remaining volume is 400 g (14.1 oz) or less, prepare a new white ink pouch, follow the instructions on the screen to replace the pouch, and activate the mode again.

(26) Take out the capping cartridge from the printer.

<CAUTION>

- The bottom of the cartridge may be soiled with ink. Clean the printer on a regular basis.

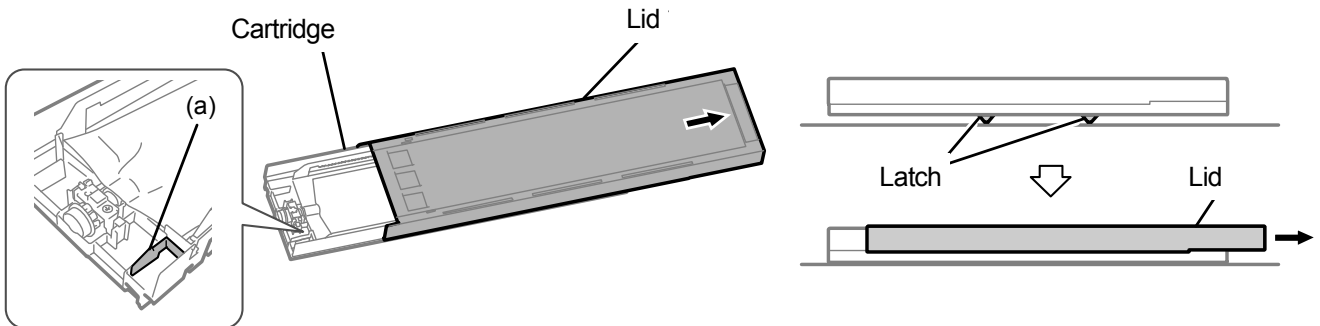


X0039

(27) Open the cartridge's lid.

<IMPORTANT>

- When opening the lid, be sure not to touch portion (a). Otherwise, it could be damaged.
- Place the entire cartridge on a flat surface, push the latches on the bottom surface of the cartridge downward and open the lid.



X0042

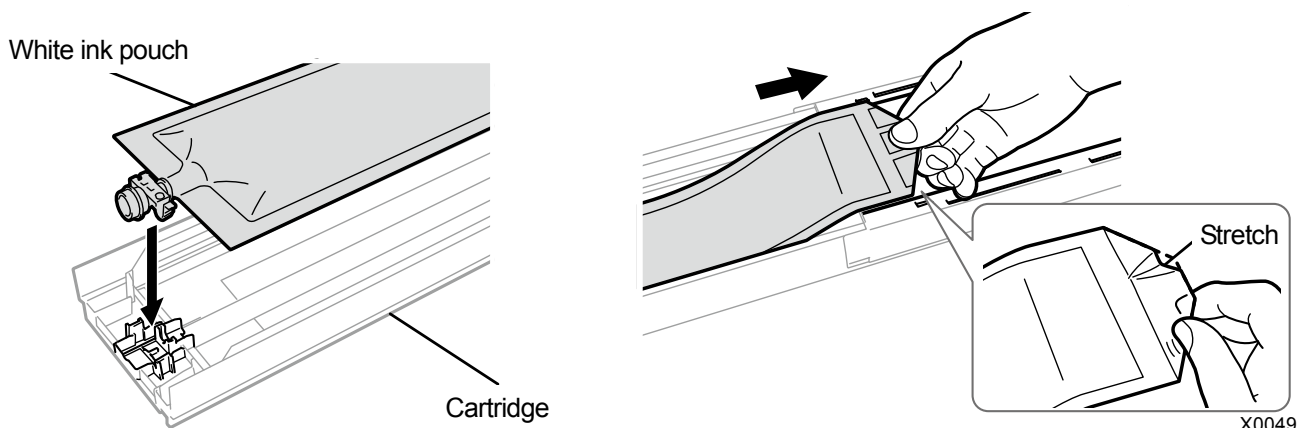
(28) Take out the capping pouch from the cartridge, and put the white ink pouch in place.

Push the tip end of the ink pouch into the cartridge until it clicks into place.

Straighten the ink pouch in such a manner that it will be aligned with the gutter of the lid of cartridge, and mount in position by pulling it with your hand.

<NOTE>

- If the edge of the ink pouch is bent or undulating significantly, make it straight with your hand.

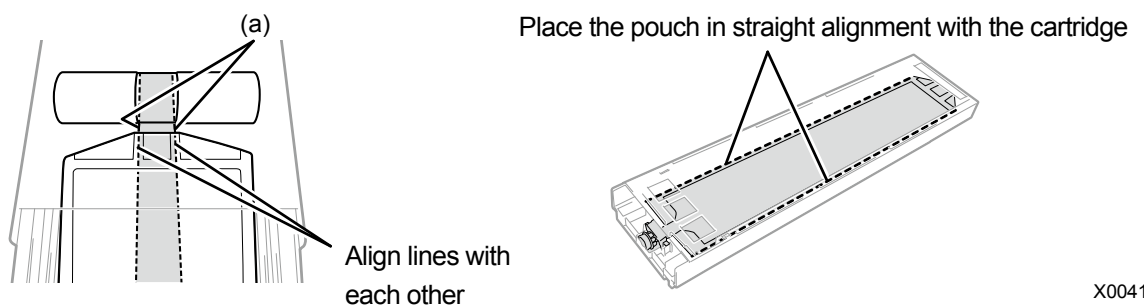


X0049

(29) Put the white ink pouch in its correct position and close the lid.

<CAUTION>

- Avoid touching portion (a) of the cartridge. Otherwise, you may cut your hand.



X0041

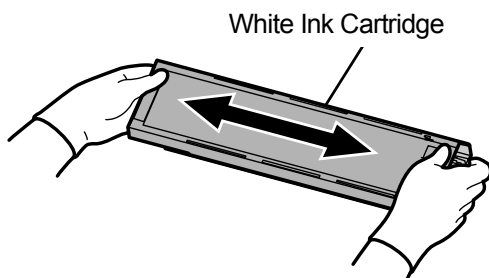
(30) Shake the cartridge 100 times side to side to stir the ink.

<IMPORTANT>

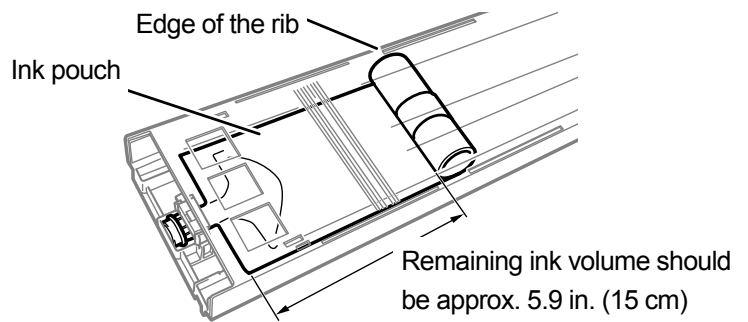
- The white ink cartridge should be held horizontally when shaking it.
- Holding the white ink cartridge upside down or shaking it too roughly could break the ink pouch.

<NOTE>

- Wear the provided gloves when performing this task.
- When the remaining ink level becomes approximately 5.9 in. (15 cm), shake the cartridge with its cover open and with the edge of the ink pouch slightly winded, to make the ink easier to stir.



Shake 100 times (for approx. 50 seconds)
 (Swing distance should be approx. 2 in. (5 cm).
 Increase the swing distance when the remaining
 ink level becomes low.)



X0194

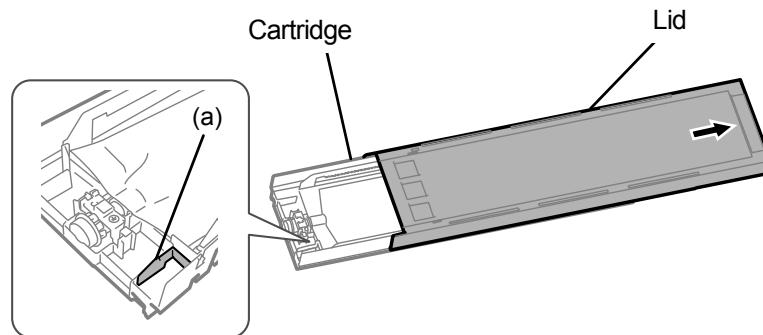
(31) Open the lid of the cartridge and place the ink pouch in its correct position.

<IMPORTANT>

- Always open the cartridge lid and properly rewind the ink pouch. If the pouch is placed without opening the lid, ink can flow into the wound section of the pouch when stirred, and cause improper winding of the pouch.
- When opening the lid, place the entire cartridge on a flat surface, push the latches on the bottom surface of the cartridge downward and open the lid.
- When setting the ink pouch, avoid unevenness or wrinkles on the pouch.
- When opening the lid, be sure not to touch the portion (a). Otherwise, it could be damaged.

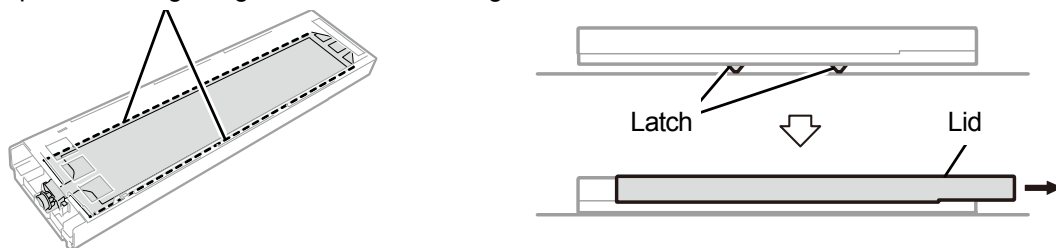
<NOTE>

- If the remaining ink level is low, hold the sagged part of the ink pouch and close the lid.

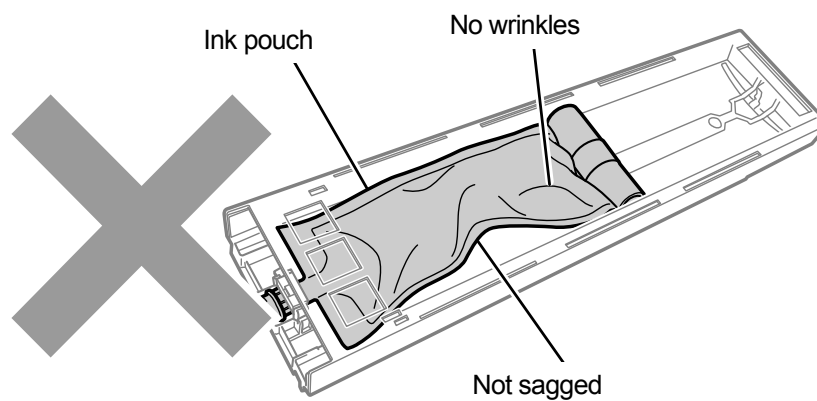


X0182

Place the pouch in straight alignment with the cartridge



X0078



X0142

- (32) Close the lid, and put the white ink cartridge in position inside the printer.

<IMPORTANT>

- W12 and W34 cartridges should correctly be placed at their original locations. Wrongly placed cartridges could cause a printer malfunction.

- (33) Repeat the same process to replace the other capping cartridge with the white ink pouch.

- (34) On the operation panel, press .

Then, the white ink will be installed after the head is replaced with a new one.

<TIPS>

- After the procedures are completed, the current screen will go back to the standby mode screen.

- (35) Adjust the carriage speed.

<TIPS>

- For details, refer to "7-4-1. CR (Carriage) speed adjustment >>P.250".

- (36) Perform the V-rating settings configuration.

<TIPS>

- Please refer to "7-4-2. V-rating setting >>P.251".

- (37) Adjust the ejection timing of the print head.

<TIPS>

- For details, refer to "7-4-3. Firing adjustment >>P.252".

- (38) Perform the platen feed adjustment.

<TIPS>

- Refer to "7-4-4. Platen feed adjustment >>P.253".

- (39) Make the position adjustment between the white head and the color head.

<TIPS>

- For details, refer to "7-4-5. White/color alignment >>P.254".

9-2-7. Replacing the Wiper


(1) Have the supplied gloves and wiper ready.

(2) From the menu, select [Maintenance] > [Maintenance Part Clean/Replace], and press .

<IMPORTANT>

- If any other error or message is displayed on the operation panel or warning message window, follow the message to solve the problem, then perform the cleaning.

<TIPS>

- Pressing  causes the platen to start moving. Do not put anything around the platen.

(3) Follow the on-screen message and turn off the power.

<IMPORTANT>

- Please complete the task within 30 minutes, in order to prevent the print heads from drying up.
- If the task takes more than 30 minutes to complete, after attaching the flushing receiver, wiper cleaner, and wiper, close the front cover and turn on the power, and then select [Maintenance Part Clean/Replace] again to restart the task. Then, the head cleaning will be performed to prevent any ink from drying up.

(4) Open the front cover.

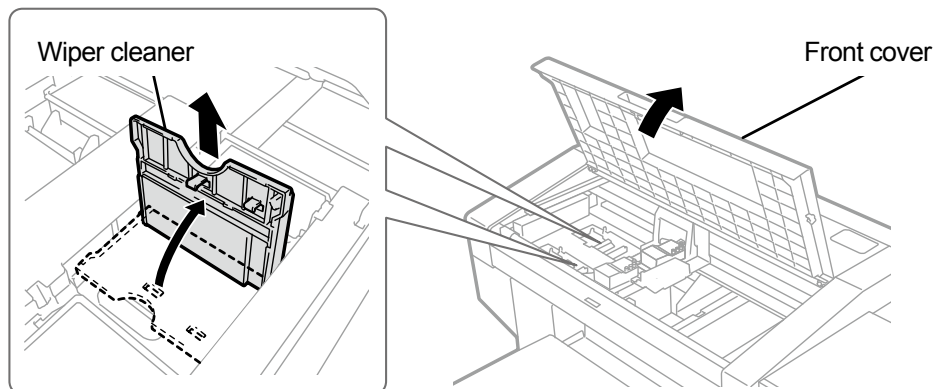
(5) Raise the wiper cleaner and move it to its upright position, and remove it by moving it upward.

<IMPORTANT>

- Removed wiper cleaner should be placed with the cleaner side facing up.

<NOTE>

- For a proper work operation, be sure to wear the printer-provided gloves.

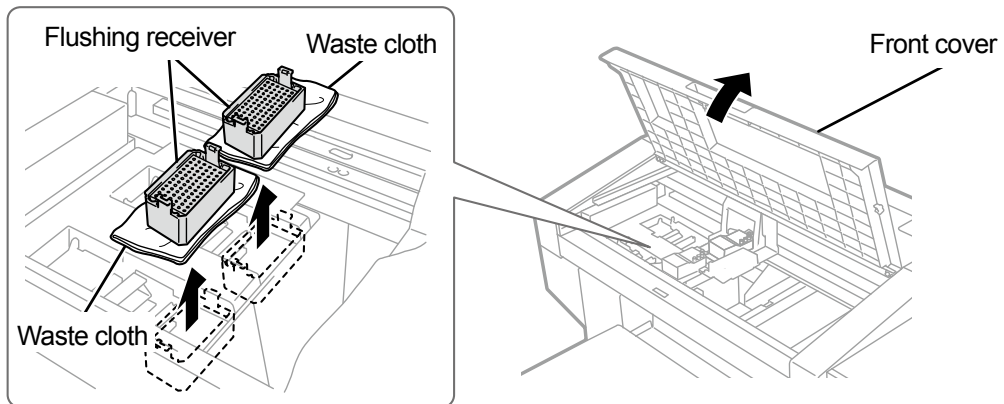


X0055

(6) Remove the flushing receiver from the maintenance unit.

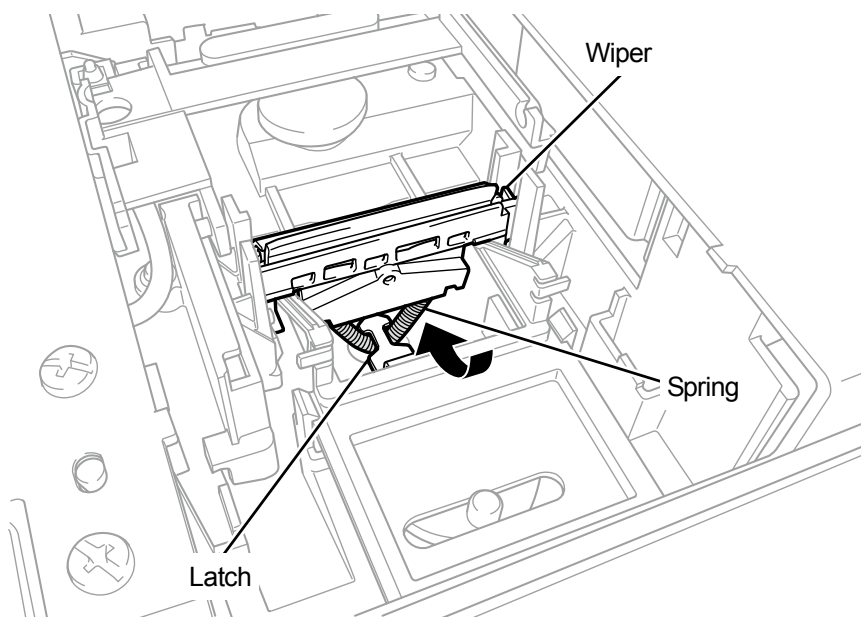
<IMPORTANT>

- Ink droplets will drop off from the hole on the bottom of flushing receiver. Press a waste cloth against the bottom surface, and lift the flushing receiver vertically to remove it.



X0057

(7) Remove the spring under the wiper from the maintenance unit latch.

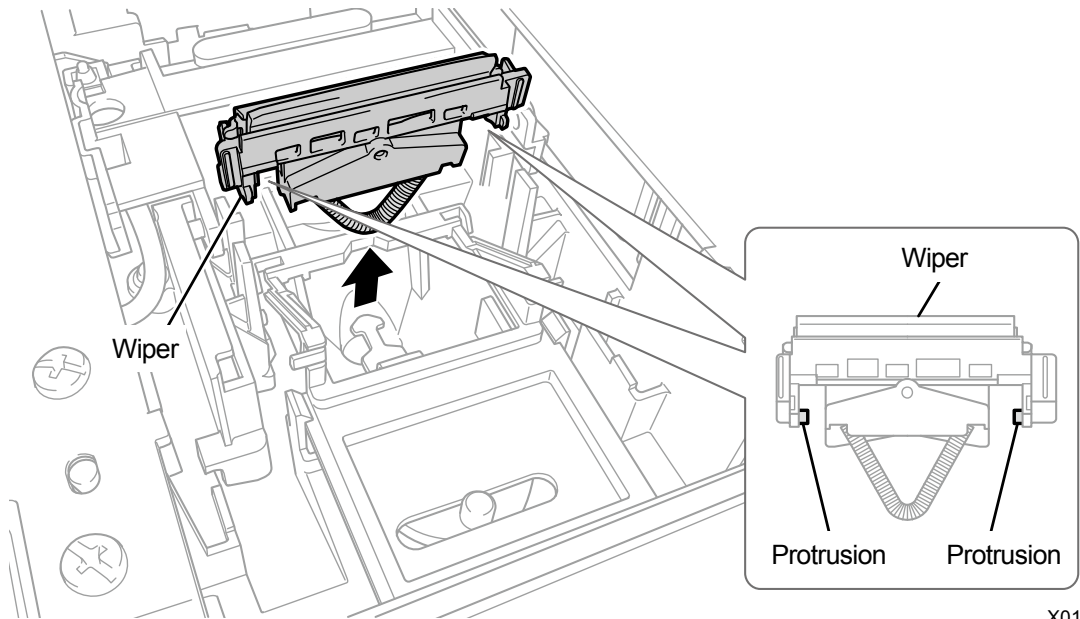


X0149

(8) Remove the wiper from the maintenance unit.

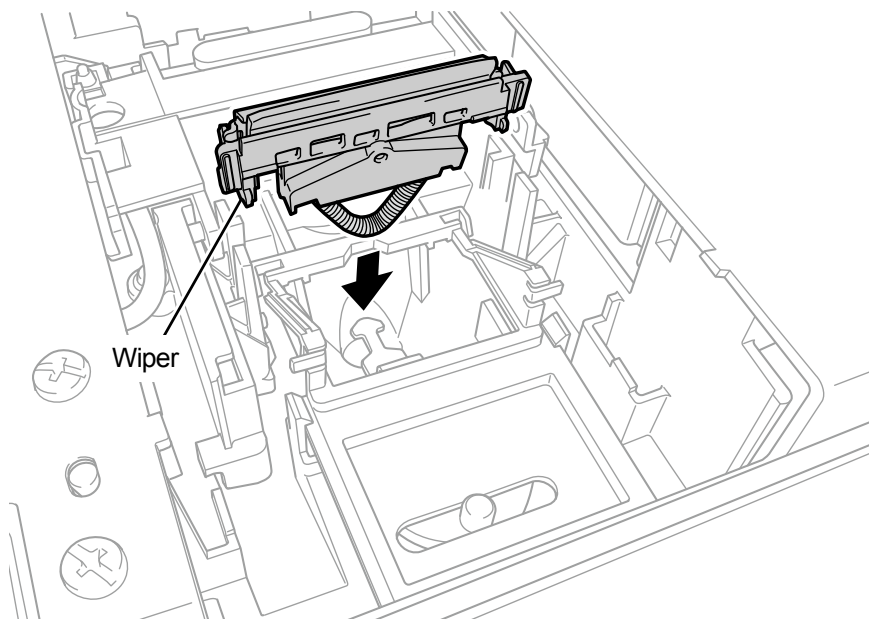
<IMPORTANT>

- There are two protruded parts underneath. Thoroughly remove the wiper not to damage these parts.



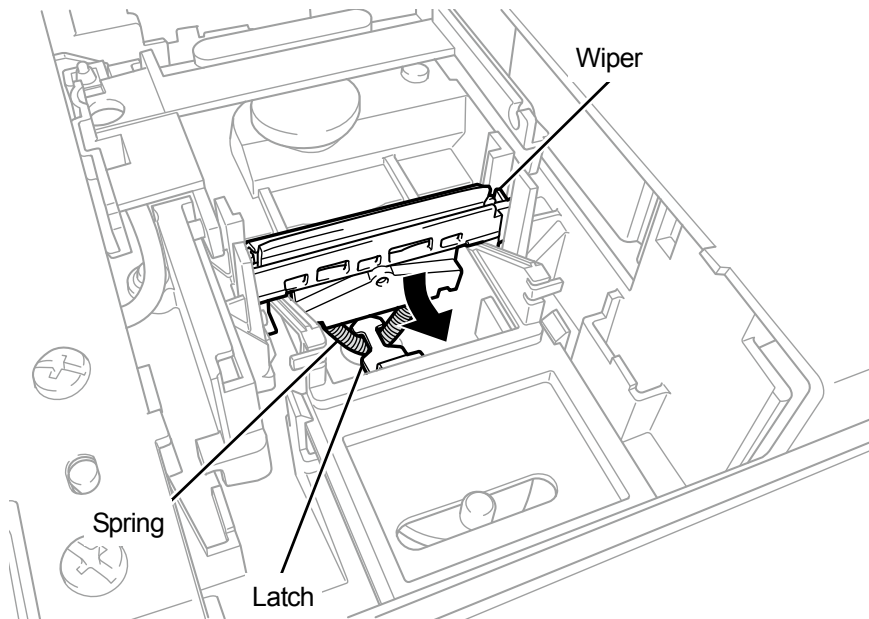
X0150

(9) Insert a new wiper into the printer from above.



X0151

(10) Place the spring under the wiper on the maintenance unit latch.

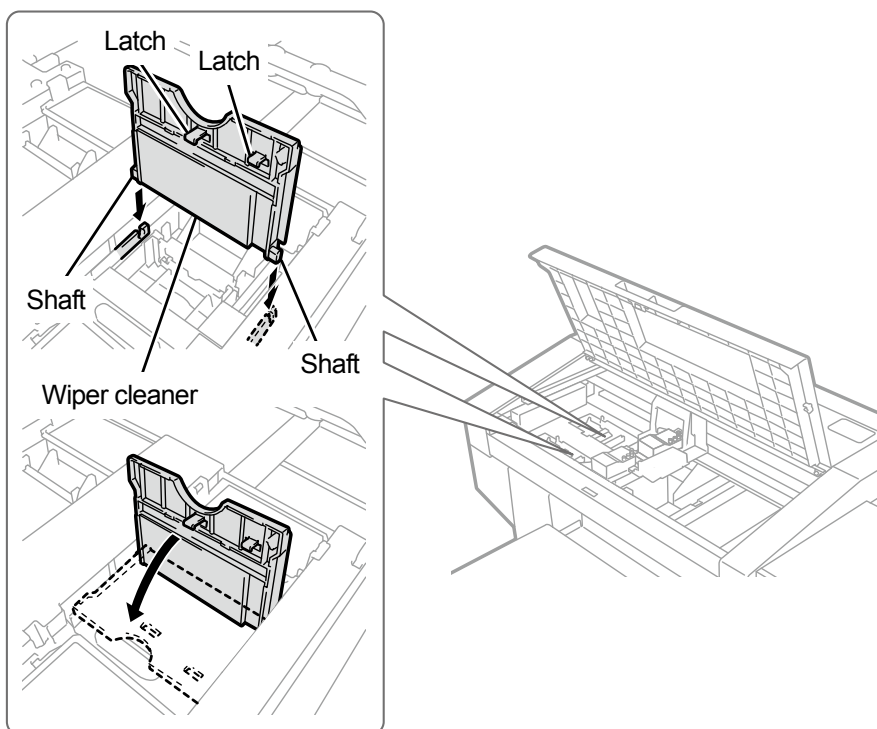


X0152

(11) Insert a wiper cleaner into the printer from above, tip it leftward and put it in place.

<TIPS>

- During this process, it is recommended to also replace the wiper cleaner with a new one.
- First, insert the shaft from above. Then fold it to the left, press the area with the PUSH indication until a clicking sound is heard, and get the latch into position.



X0056

(12) Mount the flushing receiver back to its original place in the maintenance unit.

<TIPS>

- Direct its orientation with a hole on the bottom to the front.

(13) Close the front cover.

(14) Turn on the power.

<NOTE>






- Dispose of any waste resulting from the replacement in accordance with applicable laws and ordinances.

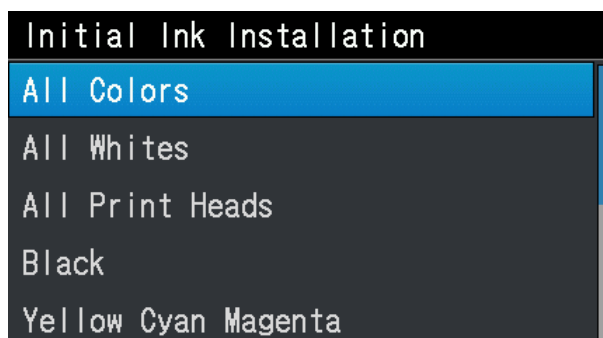
<TIPS>

- Then, the head cleaning will be performed to prevent any ink from drying up.

9-2-8. Re-install the ink

Ink should be re-installed when an entrance of air into the print head prevents proper ink-jet operation and remedial measure cannot improve the condition.

- (1) While the printer is in standby mode, press  on the operation panel to bring the menu screen into view.
- (2) Press , select [Maintenance] > [Initial Ink Installation], and press .
- (3) Press  to select one of the options; [All Colors], [All Whites], [All Print Heads], [Black], [Yellow Cyan Magenta], [White-1], or [White-2-4], and press .



- (4) According to the message displayed on the operation panel, press .

Initial ink installation will be operated.

<TIPS>


- Estimated time to complete the process is; 15 minutes for [White-1] and [White-2-4], and 10 minutes for [Black] and [Yellow Cyan Magenta]. After the procedures are completed, the current screen will go back to the standby mode screen.

9-3. Error message

What is shown below is the error message list of the GTX-4 printer. Any error message is displayed on the liquid crystal panel.





Please try to solve any error according to the resolution strategy.

Error code	Error message	Description	Remedy
—	[Temperature & Humidity Warning]	The printer is currently under high-temperature and low-humidity environment, thereby prolonging the time required for automatic maintenance operation after completion of printing.	With reference to "Environmental requirements" of "10-1. Apparatus >>P.356", adjust the surrounding temperature and humidity of the printer so that both of the temperature and humidity may be within the print warranty coverage with room left for the coverage.
1000	[Cleaning Solution Low - Add More]	The remaining cleaning solution is running low.	With reference to "6-2-2. Confirmation and replenishment of cleaning solution >>P.149", replenish the cleaning solution.
1001	[Cleaning Solution Out - Add More]	The cleaning solution has been depleted.	With reference to "6-2-2. Confirmation and replenishment of cleaning solution >>P.149", replenish the cleaning solution.
1030	[Color Head Getting Warm]	It is the warning about temperature increase in the color heads.	Please wait until the temperature decreases. If the problem still persists, please contact your dealer.
1031	[W Head Temp Rising]	It is the warning about temperature increase in the white heads.	Please wait until the temperature decreases. If the problem still persists, please contact your dealer.
1060	[Temp Low]	The ambient temperature decreases below the scope covered by its warranty for the best print result.	With reference to "10-1. Apparatus >>P.356", increase the room temperature.
1061	[Temp High]	The ambient temperature rises above the scope covered by its warranty for the best print result.	With reference to "10-1. Apparatus >>P.356", decrease the room temperature.
1064	[Humidity too Low]	The humidity decreases below the scope covered by its warranty for the best print result.	With reference to "10-1. Apparatus >>P.356", increase the room's humidity.
1065	[Humidity too High]	The humidity level is higher than the scope covered by its warranty for the best print result.	With reference to "10-1. Apparatus >>P.356", decrease the room's humidity.
1070	[Battery To Be Replaced]	Battery needs to be replaced.	Make note of their error code and error message, and please notify it to your dealer.
1080	[RTC Not Adjusted]	The built-in clock has not been set up.	Make note of their error code and error message, and please notify it to your dealer.
1085	[RTC Not Adjusted]	The built-in clock has not been set up.	Make note of their error code and error message, and please notify it to your dealer.

Error code	Error message	Description	Remedy
1090	[Cap/Wiper Cleaning]	Cap and wiper need to be cleaned.	With reference to "7-1-2. Cleaning the nozzle guard, wiper, exhaust cap, and suction cap >>P.208", clean the cap and wiper.
1091	[Cap/Wiper Cleaning]	Cap and wiper need to be cleaned.	With reference to "7-1-2. Cleaning the nozzle guard, wiper, exhaust cap, and suction cap >>P.208", clean the cap and wiper.
1092	[Wiper Cleaner Replacing White]	The wiper cleaner on the white side needs to be replaced with a new one.	With reference to "7-1-3. Replacing the wiper cleaner >>P.218", replace the old wiper cleaner with a new one.
1093	[Wiper Cleaner Replacing White]	The wiper cleaner on the white side needs to be replaced with a new one.	With reference to "7-1-3. Replacing the wiper cleaner >>P.218", replace the old wiper cleaner with a new one.
1095	[Wiper Cleaner Replacing Color]	The wiper cleaner on the color side needs to be replaced with a new one.	With reference to "7-1-3. Replacing the wiper cleaner >>P.218", replace the old wiper cleaner with a new one.
1096	[Wiper Cleaner Replacing Color]	The wiper cleaner on the color side needs to be replaced with a new one.	With reference to "7-1-3. Replacing the wiper cleaner >>P.218", replace the old wiper cleaner with a new one.
1100	[Pump Tube To Be Replaced]	Pump tube needs to be replaced.	Make note of the error code and error message, and please notify it to your dealer.
1120	[White Head Cleaning Timing]	The white heads need to be cleaned.	With reference to "9-2-2. White head cleaning >>P.291", clean the white heads. After the white head cleaning is completed, conduct the Install White Ink After Cleaning.
1125	[Install White Ink After Cleaning]	Because the white head cleaning is performed, the Install White Ink After Cleaning function needs to be put into execution.	With reference to "9-2-2. White head cleaning >>P.291", conduct the Install White Ink After Cleaning.
1202	[Remove the White Ink Cartridge and shake it]	The white ink needs to be stirred.	With reference to "6-2-3. Daily agitation of the white ink >>P.150", stir the white ink. Pressing  after the stirring causes the White Ink Refilling function to be put into execution.
1210	[Exhaust Fan Stop]	The exhaust fan is not working.	Make note of the error code and error message, and please notify it to your dealer.
1501	[Fan Filter To Be Replaced]	The fan filter needs to be replaced with a new one.	With reference to "7-1-6. Replacing the fan filter >>P.229", replace the fan filter with a new one.
1601	[Flushing Foam Replacing White]	The flushing foam on the white side needs to be replaced with a new one.	With reference to "7-1-4. Replacing the flushing foam >>P.220", replace the flushing foam with a new one.
1602	[Flushing Foam Replacing White]	The flushing foam on the white side needs to be replaced with a new one.	With reference to "7-1-4. Replacing the flushing foam >>P.220", replace the flushing foam with a new one.
1605	[Flushing Foam Replacing Color]	The flushing foam on the color side needs to be replaced with a new one.	With reference to "7-1-4. Replacing the flushing foam >>P.220", replace the flushing foam with a new one.

Error code	Error message	Description	Remedy
1606	[Flushing Foam Replacing Color]	The flushing foam on the color side needs to be replaced with a new one.	With reference to "7-1-4. Replacing the flushing foam >>P.220", replace the flushing foam with a new one.
1700	[Nozzle Guard Cleaning Timing]	The nozzle guard needs to be cleaned.	With reference to "7-1-2. Cleaning the nozzle guard, wiper, exhaust cap, and suction cap >>P.208", clean the nozzle guard.
1701	[Nozzle Guard Cleaning Timing]	The nozzle guard needs to be cleaned.	With reference to "7-1-2. Cleaning the nozzle guard, wiper, exhaust cap, and suction cap >>P.208", clean the nozzle guard.
1801	[Install Ink after Replacing Head]	Because the head replacement is made, the Install Ink after Replacing Head function needs to be put into execution.	With reference to "9-2-6. Replacement of print head >>P.304", conduct the Install Ink after Replacing Head.
1901	[Perform Initial Ink Installation]	The ink installation has not been performed yet.	With reference to "9-2-8. Re-install the ink >>P.328", perform the initial ink installation operation.
1905	[Exit Disable White Ink]	An operation to temporarily stop the use of white ink is stopped in the middle.	"7-3-1. Disabling white ink >>P.243" or "7-3-2. Reusing White Ink >>P.246" should be performed to its end.
2000	[Cartridge Not Set Black]	No black ink cartridge exists.	Place the black ink cartridge in position.
2001	[Cartridge Not Set Magenta]	No magenta ink cartridge exists.	Place the magenta ink cartridge in position.
2002	[Cartridge Not Set Cyan]	No cyan ink cartridge exists.	Place the cyan ink cartridge in position.
2003	[Cartridge Not Set Yellow]	No yellow ink cartridge exists.	Place the yellow ink cartridge in position.
2004	[Cartridge Not Set White-12]	No white 12 ink cartridge exists.	Place the white ink cartridge in position.
2005	[Cartridge Not Set White-34]	No white 34 ink cartridge exists.	Place the white ink cartridge in position.
2020	[No Ink Black]	The black ink pouch is empty.	Replace the old black ink pouch with a new one.
2021	[No Ink Magenta]	The magenta ink pouch is empty.	Replace the old magenta ink pouch with a new one.
2022	[No Ink Cyan]	The cyan ink pouch is empty.	Replace the old cyan ink pouch with a new one.
2023	[No Ink Yellow]	The yellow ink pouch is empty.	Replace the old yellow ink pouch with a new one.
2024	[No Ink White-12]	The white 12 ink pouch is empty.	Replace the old white ink pouch with a new one.
2025	[No Ink White-34]	The white 34 ink pouch is empty.	Replace the old white ink pouch with a new one.
2030	[Ink Pouch Error Black]	The black ink pouch cannot be identified properly.	Put a proper ink pouch in its correct position. Put an identifiable ink pouch in position inside the printer. If the problem still persists, please contact your dealer.

Error code	Error message	Description	Remedy
2031	[Ink Pouch Error Magenta]	The magenta ink pouch cannot be identified properly.	Put a proper ink pouch in its correct position. Put an identifiable ink pouch in position inside the printer. If the problem still persists, please contact your dealer.
2032	[Ink Pouch Error Cyan]	The cyan ink pouch cannot be identified properly.	Put a proper ink pouch in its correct position. Put an identifiable ink pouch in position inside the printer. If the problem still persists, please contact your dealer.
2033	[Ink Pouch Error Yellow]	The yellow ink pouch cannot be identified properly.	Put a proper ink pouch in its correct position. Put an identifiable ink pouch in position inside the printer. If the problem still persists, please contact your dealer.
2034	[Ink Pouch Error White 12]	The white 12 ink pouch cannot be identified properly.	Put a proper ink pouch in its correct position. Put an identifiable ink pouch in position inside the printer. If the problem still persists, please contact your dealer.
2035	[Ink Pouch Error White 34]	The white 34 ink pouch cannot be identified properly.	Put a proper ink pouch in its correct position. Put an identifiable ink pouch in position inside the printer. If the problem still persists, please contact your dealer.
2036	[Machine Error]	It is the read-out trouble of an ink pouch on the color side.	Make note of their error code and error message, and please notify it to your dealer.
2037	[Machine Error]	It is the read-out trouble of an ink pouch on the white side.	Make note of their error code and error message, and please notify it to your dealer.
2041	[No Wiper Cleaner (CMYK)]	There is no wiper cleaner on the color side.	Place a wiper cleaner in position on the color side.
2042	[No Wiper Cleaner (White)]	There is no wiper cleaner on the white side.	Place a wiper cleaner in position on the white side.
2050	[Temp Low]	The ambient temperature decreases below the operation assurance range for the best print result.	With reference to "10-1. Apparatus >>P.356", increase the room temperature.
2051	[Temp High]	The ambient temperature rises above the operation assurance range for the best print result.	With reference to "10-1. Apparatus >>P.356", decrease the room temperature.
2070	[Obstacle on the Platen]	The obstacle sensor has detected some obstacle on the platen or print medium.	Remove such obstacle from the platen, flatten its surface, and press  to clear the error.

Error code	Error message	Description	Remedy
2084	[White 12 Check The Cartridge]	The white 12 ink pouch may not be winded properly.	Take out the white 12 cartridge, open the cover, and have the ink pouch winded properly. Close the cover, set the ink pouch back to the printer, and press  to clear the error.
2085	[White 34 Check The Cartridge]	The white 34 ink pouch may not be winded properly.	Take out the white 34 cartridge, open the cover, and have the ink pouch winded properly. Close the cover, set the ink pouch back to the printer, and press  to clear the error.
2090	[Ink Pouch Error Black]	An error has been detected in the black ink pouch.	In that case, replace with a new ink pouch set.
2091	[Ink Pouch Error Magenta]	An error has been detected in the magenta ink pouch.	In that case, replace with a new ink pouch set.
2092	[Ink Pouch Error Cyan]	An error has been detected in the cyan ink pouch.	In that case, replace with a new ink pouch set.
2093	[Ink Pouch Error Yellow]	An error has been detected in the yellow ink pouch.	In that case, replace with a new ink pouch set.
2094	[Ink Pouch Error White 12]	An error has been detected in the white 12 ink pouch.	In that case, replace with a new ink pouch set.
2095	[Ink Pouch Error White 34]	An error has been detected in the white 34 ink pouch.	In that case, replace with a new ink pouch set.
2100	[USB flash drive Not Ready]	No USB flash memory been inserted into its insertion slot.	Insert a USB flash memory into the slot, wait for a couple of seconds, and perform the operation. Insert a USB flash memory into the slot again. If the problem still persists, check on the format and type of the USB flash memory. For details, refer to "9-1. Troubleshooting instructions >>P.276".
2101	[Not Enough Area]	At the writing stage to the USB flash memory there is not enough free space to store the data.	Use your PC to check free space on the USB flash memory. Insert the USB flash memory that has enough free space into the insertion slot.
2105	[No Files]	No valid file exists in a USB flash memory.	Connect the USB flash memory to your PC for checking the information stored in it. If the ARX4 file has been saved to it, check its content by means of the file viewer. For details, refer to "9-1. Troubleshooting instructions >>P.276".
2110	[Receiving History W/O Error1]	After the power is turned on, it is found that there is no print data received.	Press  to clear the error.
2120	[Print Data Auto Delete Enable]	Because the Print Data Auto Delete Enable function remains active, no receiving history is available.	Press  to clear the error. When you use the receiving history, disable the Auto Job Delete option.

Error code	Error message	Description	Remedy
2130	[White Ink Pause Mode... Non-performable]	Because the White Ink Pause Mode remains active, no white ink can be installed.	Press  to clear the error. When you use the white ink, do not make the White Ink Pause Mode active.
2200	[Maintenance Pouch Set Black]	Although an ink pouch is needed, a maintenance solution pouch is set to the black cartridge.	Set an ink pouch to the black cartridge.
2201	[Maintenance Pouch Set Magenta]	Although an ink pouch is needed, a maintenance solution pouch is set to the magenta cartridge.	Set an ink pouch to the magenta cartridge.
2202	[Maintenance Pouch Set Cyan]	Although an ink pouch is needed, a maintenance solution pouch is set to the cyan cartridge.	Set an ink pouch to the cyan cartridge.
2203	[Maintenance Pouch Set Yellow]	Although an ink pouch is needed, a maintenance solution pouch is set to the yellow cartridge.	Set an ink pouch to the yellow cartridge.
2204	[Maintenance Pouch Set White12]	Although an ink pouch is needed, a maintenance solution pouch is set to the white 12 cartridge.	Set the ink pouch to the white 12 cartridge.
2205	[Maintenance Pouch Set White34]	Although an ink pouch is needed, a maintenance solution pouch is set to the white 34 cartridge.	Set the ink pouch to the white 34 cartridge.
2214	[Ink Pouch Set White12]	Although a maintenance solution pouch is needed, an ink pouch is set to the white 12 cartridge.	Set the maintenance solution pouch to the white 12 cartridge.
2215	[Ink Pouch Set White34]	Although a maintenance solution pouch is needed, an ink pouch is set to the white 34 cartridge.	Set the maintenance solution pouch to the white 34 cartridge.
3000	[PC Communication Error]	Data reception from PC has suspended.	Make sure that your PC is connected to the printer, and resend the print data. If you have trouble in sending the data, restart your PC and the printer. This error will also occur "when the cable is removed during data reception" or "when the ongoing operation is canceled on the PC during data reception".

Error code	Error message	Description	Remedy
3001	[PC Communication Error]	Data transmission to PC has suspended.	Make sure that your PC is connected to the printer, and start operating the PC tool over from the beginning. If you have trouble in sending the data, restart your PC and the printer. This error may also occur "when the cable is removed during data transmission" or "when the PC tool is caused to stop running on the PC during data transmission".
3002	[PC Data Error]	The GT has received an unsupported data.	Make sure that your PC is connected to the printer, and resend the print data. If you have trouble in sending the data, restart your PC and the printer.
3003	[PC Data Error]	The version of printer driver disagrees with the firmware's version.	Update the firmware of the PC's printer driver as well as firmware of the printer to the latest version.
3004	[PC Data Error]	It is the communication error between your PC and the printer.	Ascertain whether the updated data of firmware you try to send is correct or not. Make sure that your PC is connected to the printer, and start communication between your PC and the printer once again. If the problem is still not remedied, restart your PC and the printer. If the problem still persists, please contact your dealer.
3005	[PC Data Error]	It is the communication error between your PC and the printer.	Make sure that your PC is connected to the printer, and start communication between your PC and the printer once again. If the problem is still not remedied, restart your PC and the printer. If the problem still persists, please contact your dealer.
3010	[PC Data Error]	It is the communication error between your PC and the printer.	Make sure that your PC is connected to the printer, and start communication between your PC and the printer once again. If the problem is still not remedied, restart your PC and the printer. If the problem still persists, please contact your dealer.
3013	[PC Data Error]	It is the communication error between your PC and the printer.	Make sure that your PC is connected to the printer, and start communication between your PC and the printer once again. If the problem is still not remedied, restart your PC and the printer. If the problem still persists, please contact your dealer.
3014	[PC Data Error]	It is the communication error between your PC and the printer.	Make sure that your PC is connected to the printer, and start communication between your PC and the printer once again. If the problem is still not remedied, restart your PC and the printer. If the problem still persists, please contact your dealer.
3015	[Can no longer receive data]	Too many print data has been sent from the PC during the print operation.	Number of the print data should be up to 99 during any print operation.

Error code	Error message	Description	Remedy
3100	[PC Data Error (with White)]	Such print data that uses the white ink was sent to the printer which is placed in the white ink pause mode.	On the setting screen of printer driver, verify that the ink selection is set to [Color Ink Only]. While the white ink pause mode remains active, any print data in which the white ink is included cannot be received.
3400	[PC Data Error]	In the print data, some command in incorrect command length is included.	Check on the ARX4 file by means of "GTX-4 File Viewer". Create the print data once again. If the problem still persists, please contact your dealer.
3401	[PC Data Error]	In the print data, some undefined command is included.	Check on the ARX4 file by means of "GTX-4 File Viewer". Create the print data once again. If the problem still persists, please contact your dealer.
3402	[PC Data Error]	It is the sequence error in the print data.	Check on the ARX4 file by means of "GTX-4 File Viewer". Create the print data once again. If the problem still persists, please contact your dealer.
3407	[Blank Data]	<ul style="list-style-type: none"> - The print data for blank page is received from PC. - When performing the printing, you have selected a totally white image pattern portion as a printing range in your software application, and sent it to the printer. - You have created a larger image than the specified paper size, and tried to print out a part of it in the printer, among others. 	<p>Check on the ARX4 file by means of "GTX-4 File Viewer".</p> <p>For example, please confirm the print range and paper size for your software application through the Print Preview function, etc. of Photoshop.</p>
3408	[PC Data Error (too large)]	The print data capacity is too large.	Make note of their error code and error message, and please notify it to your dealer.
3410	[PC Data Error]	It is the communication error between your PC and the printer.	Check on the ARX4 file by means of "GTX-4 File Viewer". Make sure that your PC is connected to the printer, and start communication between your PC and the printer once again. Restart your PC and the printer. If the problem still persists, please contact your dealer.

Error code	Error message	Description	Remedy
3411	[PC Data Error]	It is the communication error between your PC and the printer.	<p>Check on the ARX4 file by means of "GTX-4 File Viewer".</p> <p>Make sure that your PC is connected to the printer, and start communication between your PC and the printer once again.</p> <p>Restart your PC and the printer.</p> <p>If the problem still persists, please contact your dealer.</p>
3412	[PC Data Error]	It is the communication error between your PC and the printer.	<p>Check on the ARX4 file by means of "GTX-4 File Viewer".</p> <p>Make sure that your PC is connected to the printer, and start communication between your PC and the printer once again.</p> <p>Restart your PC and the printer.</p> <p>If the problem still persists, please contact your dealer.</p>
4100	[USB flash drive Access Error]	No file can be opened.	<p>Check on the content of USB flash memory.</p> <p>Insert a USB flash memory into the slot again, and perform the required operation once more.</p> <p>If the problem is still not remedied, restart the printer and try to operate it once again.</p> <p>For details, refer to "9-1. Troubleshooting instructions >>P.276".</p>
4101	[USB flash drive Access Error]	No file can be created.	<p>Check on the content of USB flash memory.</p> <p>Insert a USB flash memory into the slot again, and perform the required operation once more.</p> <p>If the problem is still not remedied, restart the printer and try to operate it once again.</p> <p>For details, refer to "9-1. Troubleshooting instructions >>P.276".</p>
4103	[USB flash drive Access Error]	File search has ended up in failure.	<p>Check on the content of USB flash memory.</p> <p>Insert a USB flash memory into the slot again, and perform the required operation once more.</p> <p>If the problem is still not remedied, restart the printer and try to operate it once again.</p> <p>For details, refer to "9-1. Troubleshooting instructions >>P.276".</p>
4104	[USB flash drive Access Error]	The system has failed to read the file.	<p>Check on the content of USB flash memory.</p> <p>Insert a USB flash memory into the slot again, and perform the required operation once more.</p> <p>If the problem is still not remedied, restart the printer and try to operate it once again.</p> <p>For details, refer to "9-1. Troubleshooting instructions >>P.276".</p>

Error code	Error message	Description	Remedy
4105	[USB flash drive Access Error]	The system has failed to write the file.	Check on the content of USB flash memory. Insert a USB flash memory into the slot again, and perform the required operation once more. If the problem is still not remedied, restart the printer and try to operate it once again. For details, refer to "9-1. Troubleshooting instructions >>P.276".
4106	[Illegal Format]	There is something wrong with the file's data.	Check on the content of USB flash memory. Insert a USB flash memory into the slot again, and perform the required operation once more. If the problem is still not remedied, restart the printer and try to operate it once again. For details, refer to "9-1. Troubleshooting instructions >>P.276".
4108	[USB flash drive Access Error]	The system has failed to obtain the file size.	Check on the content of USB flash memory. Insert a USB flash memory into the slot again, and perform the required operation once more. If the problem is still not remedied, restart the printer and try to operate it once again. For details, refer to "9-1. Troubleshooting instructions >>P.276".
4200	[Machine Error]	Abnormal indication is found in the language data on the LCD screen.	In the event that this error is displayed after suspending the updating of firmware, please start the updating operation over from the beginning. If the problem still persists, please contact your dealer.
4201	[Machine Error]	Abnormal indication is found in the language data on the LCD screen.	In the event that this error is displayed after suspending the updating of firmware, please start the updating operation over from the beginning. If the problem still persists, please contact your dealer.
4202	[Machine Error]	Abnormal indication is found in the language data on the LCD screen.	In the event that this error is displayed after suspending the updating of firmware, please start the updating operation over from the beginning. If the problem still persists, please contact your dealer.
4400	[Test print data Error]	An error is detected in the print data for test print menu.	In the event that this error is displayed after suspending the updating of firmware, please start the updating operation over from the beginning. If the problem still persists, please contact your dealer.
4401	[Test print data Error]	An error is detected in the print data for test print menu.	In the event that this error is displayed after suspending the updating of firmware, please start the updating operation over from the beginning. If the problem still persists, please contact your dealer.

Error code	Error message	Description	Remedy
4402	[Test print data Error]	An error is detected in the print data for test print menu.	In the event that this error is displayed after suspending the updating of firmware, please start the updating operation over from the beginning. If the problem still persists, please contact your dealer.
4500	[Machine Error]	The network interface was unable to be activated.	Press  to clear the error. Contact your network setup manager and network administrator. If the problem still persists, please contact your dealer.
4501	[IP Address Setting Error]	An error has been detected in the static IP address setting and subnet mask value.	Press  to clear the error. Use the maintenance tool to set up a correct static IP address and subnet mask value once again.
4502	[Machine Error]	The network interface setting has ended up in failure.	Press  to clear the error. Contact your network setup manager and network administrator. If the problem still persists, please contact your dealer.
4503	[Machine Error]	An error was found in the static IP address of the default gateway.	Press  to clear the error. Use the maintenance tool to set up a correct static IP address of default gateway once again.
4504	[IP Address Setting Error]	It is the error of static IP address setup value.	Press  to clear the error. Use the maintenance tool to set up a correct static IP address and subnet mask value once again.
4506	[No Enable Restore Data]	No data can be restored because its backup copy was not made.	Make note of the error code and error message, and please notify it to your dealer.
5001	[Machine Error]	A timeout has occurred at the time of initialization.	Make note of the error code and error message, and please notify it to your dealer.
5010	[PC Data Error]	An error is detected in the current print data being run.	Press  to clear the error. Create the print data again on the PC to load it to the printer, and try the print operation again.
5020	[Machine Error]	The carriage movement was not completed.	If the problem still persists even after restarting the printer, please contact your dealer.
5021	[Machine Error]	Head operation is incomplete.	If the problem still persists even after restarting the printer, please contact your dealer.
5022	[Machine Error]	Head operation is incomplete.	If the problem still persists even after restarting the printer, please contact your dealer.
5080	[Machine Error]	Maintenance unit operation is incomplete.	If the problem still persists even after restarting the printer, please contact your dealer.
5081	[Machine Error]	Maintenance unit operation is incomplete.	If the problem still persists even after restarting the printer, please contact your dealer.

Error code	Error message	Description	Remedy
5094	[Machine Error]	The platen cannot be moved toward the rear of the printer.	Make note of the error code and error message, and please notify it to your dealer.
5095	[Machine Error]	The platen cannot be moved toward the front of the printer.	Make note of the error code and error message, and please notify it to your dealer.
5096	[Machine Error]	The platen cannot be rolled.	Make note of the error code and error message, and please notify it to your dealer.
5200	[Machine Error]	It is the communication error between the main board and the maintenance unit.	Check to see if there is any source near the printer that produces a loud noise. If the problem still persists even after restarting the printer, please contact your dealer.
5201	[Machine Error]	It is the communication error between the main board and the maintenance unit.	Check to see if there is any source near the printer that produces a loud noise. If the problem still persists even after restarting the printer, please contact your dealer.
5230	[Machine Error]	It is the communication error between the main board and the maintenance unit.	Check to see if there is any source near the printer that produces a loud noise. If the problem still persists even after restarting the printer, please contact your dealer.
5231	[Machine Error]	It is the communication error between the main board and the maintenance unit.	Check to see if there is any source near the printer that produces a loud noise. If the problem still persists even after restarting the printer, please contact your dealer.
5232	[Machine Error]	It is the communication error between the main board and the maintenance unit.	Check to see if there is any source near the printer that produces a loud noise. If the problem still persists even after restarting the printer, please contact your dealer.
5233	[Machine Error]	It is the communication error between the main board and the maintenance unit.	Check to see if there is any source near the printer that produces a loud noise. If the problem still persists even after restarting the printer, please contact your dealer.
5240	[Machine Error]	It is the communication error between the main board and the maintenance unit.	Check to see if there is any source near the printer that produces a loud noise. If the problem still persists even after restarting the printer, please contact your dealer.
5241	[Machine Error]	It is the communication error between the main board and the maintenance unit.	Check to see if there is any source near the printer that produces a loud noise. If the problem still persists even after restarting the printer, please contact your dealer.
5250	[Machine Error]	The program data of the firmware of maintenance unit, which you try to update, has been found to be defective.	As it is likely that the firmware's file is corrupted, obtain a proper file of the firmware which is not corrupted. If the problem still persists even after restarting the printer and your PC, please contact your dealer.
5260	[Machine Error]	A version of the firmware of maintenance unit is incompatible.	In the event that this error is displayed after suspending the updating of firmware, please start the updating operation over from the beginning. If the problem still persists, please contact your dealer.

Error code	Error message	Description	Remedy
5301	[Machine Error]	It is the communication error between the main board and the maintenance unit (on the color side).	Check to see if there is any source near the printer that produces a loud noise. If the problem still persists even after restarting the printer, please contact your dealer.
5302	[Machine Error]	It is the communication error between the main board and the maintenance unit (on the color side).	Check to see if there is any source near the printer that produces a loud noise. If the problem still persists even after restarting the printer, please contact your dealer.
5303	[Machine Error]	It is the communication error between the main board and the maintenance unit (on the color side).	Check to see if there is any source near the printer that produces a loud noise. If the problem still persists even after restarting the printer, please contact your dealer.
5304	[Machine Error]	It is the communication error between the main board and the maintenance unit (on the color side).	Check to see if there is any source near the printer that produces a loud noise. If the problem still persists even after restarting the printer, please contact your dealer.
5305	[Machine Error]	It is the communication error between the main board and the maintenance unit (on the color side).	Check to see if there is any source near the printer that produces a loud noise. If the problem still persists even after restarting the printer, please contact your dealer.
5306	[Machine Error]	It is the communication error between the main board and the maintenance unit (on the color side).	Check to see if there is any source near the printer that produces a loud noise. If the problem still persists even after restarting the printer, please contact your dealer.
5307	[Machine Error]	It is the communication error between the main board and the maintenance unit (on the color side).	Check to see if there is any source near the printer that produces a loud noise. If the problem still persists even after restarting the printer, please contact your dealer.
5311	[Machine Error]	It is the communication error between the main board and the maintenance unit (on the color side).	Check to see if there is any source near the printer that produces a loud noise. If the problem still persists even after restarting the printer, please contact your dealer.
5312	[Machine Error]	It is the communication error between the main board and the maintenance unit (on the color side).	Check to see if there is any source near the printer that produces a loud noise. If the problem still persists even after restarting the printer, please contact your dealer.
5313	[Machine Error]	It is the communication error between the main board and the maintenance unit (on the color side).	Check to see if there is any source near the printer that produces a loud noise. If the problem still persists even after restarting the printer, please contact your dealer.
5314	[Machine Error]	It is the communication error between the main board and the maintenance unit (on the color side).	Check to see if there is any source near the printer that produces a loud noise. If the problem still persists even after restarting the printer, please contact your dealer.
5320	[Machine Error]	The cam of the maintenance unit (on the color side) malfunctions.	If the problem still persists even after restarting the printer, please contact your dealer.

Error code	Error message	Description	Remedy
5321	[Machine Error]	The cam of the maintenance unit (on the color side) malfunctions.	If the problem still persists even after restarting the printer, please contact your dealer.
5322	[Machine Error]	The cam of the maintenance unit (on the color side) malfunctions.	If the problem still persists even after restarting the printer, please contact your dealer.
5323	[Machine Error]	The cam of the maintenance unit (on the color side) malfunctions.	If the problem still persists even after restarting the printer, please contact your dealer.
5330	[Machine Error]	The wiper of the maintenance unit (on the color side) malfunctions.	Check to see if the wiper is properly installed and there is no obstacle around the wiper or wiper cleaner. If the problem still persists even after restarting the printer, please contact your dealer.
5331	[Machine Error]	The wiper of the maintenance unit (on the color side) malfunctions.	Check to see if the wiper is properly installed and there is no obstacle around the wiper or wiper cleaner. If the problem still persists even after restarting the printer, please contact your dealer.
5332	[Machine Error]	The wiper of the maintenance unit (on the color side) malfunctions.	Check to see if the wiper is properly installed and there is no obstacle around the wiper or wiper cleaner. If the problem still persists even after restarting the printer, please contact your dealer.
5333	[Machine Error]	The wiper of the maintenance unit (on the color side) malfunctions.	Check to see if the wiper is properly installed and there is no obstacle around the wiper or wiper cleaner. If the problem still persists even after restarting the printer, please contact your dealer.
5340	[Machine Error]	The wiper of the maintenance unit (on the color side) malfunctions.	Check to see if the wiper is properly installed and there is no obstacle around the wiper or wiper cleaner. If the problem still persists even after restarting the printer, please contact your dealer.
5341	[Machine Error]	The wiper of the maintenance unit (on the color side) malfunctions.	Check to see if the wiper is properly installed and there is no obstacle around the wiper or wiper cleaner. If the problem still persists even after restarting the printer, please contact your dealer.
5342	[Machine Error]	The wiper of the maintenance unit (on the color side) malfunctions.	Check to see if the wiper is properly installed and there is no obstacle around the wiper or wiper cleaner. If the problem still persists even after restarting the printer, please contact your dealer.

Error code	Error message	Description	Remedy
5343	[Machine Error]	The wiper of the maintenance unit (on the color side) malfunctions.	Check to see if the wiper is properly installed and there is no obstacle around the wiper or wiper cleaner. If the problem still persists even after restarting the printer, please contact your dealer.
5350	[Machine Error]	It is an internal error of the maintenance unit (on the color side), which is associated with updating of firmware.	Check to see if there is any source near the printer that produces a loud noise. Restart the printer and update the firmware again. If the problem still persists, please contact your dealer.
5351	[Machine Error]	It is an internal error of the maintenance unit (on the color side), which is associated with updating of firmware.	Check to see if there is any source near the printer that produces a loud noise. Restart the printer and update the firmware again. If the problem still persists, please contact your dealer.
5352	[Machine Error]	It is an internal error of the maintenance unit (on the color side), which is associated with updating of firmware.	Check to see if there is any source near the printer that produces a loud noise. Restart the printer and update the firmware again. If the problem still persists, please contact your dealer.
5353	[Machine Error]	It is an internal error of the maintenance unit (on the color side), which is associated with updating of firmware.	Check to see if there is any source near the printer that produces a loud noise. Restart the printer and update the firmware again. If the problem still persists, please contact your dealer.
5354	[Machine Error]	It is the communication error between the main board and the maintenance unit (on the color side), which is associated with the updating of firmware.	Check to see if there is any source near the printer that produces a loud noise. Restart the printer and update the firmware again. If the problem still persists, please contact your dealer.
5355	[Machine Error]	It is the communication error between the main board and the maintenance unit (on the color side), which is associated with the updating of firmware.	Check to see if there is any source near the printer that produces a loud noise. Restart the printer and update the firmware again. If the problem still persists, please contact your dealer.
5356	[Machine Error]	It is the communication error between the main board and the maintenance unit (on the color side), which is associated with the updating of firmware.	Check to see if there is any source near the printer that produces a loud noise. Restart the printer and update the firmware again. If the problem still persists, please contact your dealer.
5357	[Machine Error]	It is the communication error between the main board and the maintenance unit (on the color side), which is associated with the updating of firmware.	Check to see if there is any source near the printer that produces a loud noise. Restart the printer and update the firmware again. If the problem still persists, please contact your dealer.

Error code	Error message	Description	Remedy
5358	[Machine Error]	It is an internal error of the maintenance unit (on the color side), which is associated with updating of firmware.	Restart the printer and update the firmware again. If the problem still persists, please contact your dealer.
5359	[Machine Error]	It is an internal error of the maintenance unit (on the color side), which is associated with updating of firmware.	Restart the printer and update the firmware again. If the problem still persists, please contact your dealer.
5361	[Machine Error]	When the solenoid is in operation, there is a mismatch between the main board and the maintenance unit (on the color side).	Restart the printer and update the firmware again. If the problem still persists, please contact your dealer.
5391	[Machine Error]	It is the internal error of the maintenance unit (on the color side).	Restart the printer and update the firmware again. If the problem still persists, please contact your dealer.
5401	[Machine Error]	It is the communication error between the main board and the maintenance unit (on the white side).	Check to see if there is any source near the printer that produces a loud noise. If the problem still persists even after restarting the printer, please contact your dealer.
5402	[Machine Error]	It is the communication error between the main board and the maintenance unit (on the white side).	Check to see if there is any source near the printer that produces a loud noise. If the problem still persists even after restarting the printer, please contact your dealer.
5403	[Machine Error]	It is the communication error between the main board and the maintenance unit (on the white side).	Check to see if there is any source near the printer that produces a loud noise. If the problem still persists even after restarting the printer, please contact your dealer.
5404	[Machine Error]	It is the communication error between the main board and the maintenance unit (on the white side).	Check to see if there is any source near the printer that produces a loud noise. If the problem still persists even after restarting the printer, please contact your dealer.
5405	[Machine Error]	It is the communication error between the main board and the maintenance unit (on the white side).	Check to see if there is any source near the printer that produces a loud noise. If the problem still persists even after restarting the printer, please contact your dealer.
5406	[Machine Error]	It is the communication error between the main board and the maintenance unit (on the white side).	Check to see if there is any source near the printer that produces a loud noise. If the problem still persists even after restarting the printer, please contact your dealer.
5407	[Machine Error]	It is the communication error between the main board and the maintenance unit (on the white side).	Check to see if there is any source near the printer that produces a loud noise. If the problem still persists even after restarting the printer, please contact your dealer.

Error code	Error message	Description	Remedy
5411	[Machine Error]	It is the communication error between the main board and the maintenance unit (on the white side).	Check to see if there is any source near the printer that produces a loud noise. If the problem still persists even after restarting the printer, please contact your dealer.
5412	[Machine Error]	It is the communication error between the main board and the maintenance unit (on the white side).	Check to see if there is any source near the printer that produces a loud noise. If the problem still persists even after restarting the printer, please contact your dealer.
5413	[Machine Error]	It is the communication error between the main board and the maintenance unit (on the white side).	Check to see if there is any source near the printer that produces a loud noise. If the problem still persists even after restarting the printer, please contact your dealer.
5414	[Machine Error]	It is the communication error between the main board and the maintenance unit (on the white side).	Check to see if there is any source near the printer that produces a loud noise. If the problem still persists even after restarting the printer, please contact your dealer.
5420	[Machine Error]	The cam of the maintenance unit (on the white side) malfunctions.	If the problem still persists even after restarting the printer, please contact your dealer.
5421	[Machine Error]	The cam of the maintenance unit (on the white side) malfunctions.	If the problem still persists even after restarting the printer, please contact your dealer.
5422	[Machine Error]	The cam of the maintenance unit (on the white side) malfunctions.	If the problem still persists even after restarting the printer, please contact your dealer.
5423	[Machine Error]	The cam of the maintenance unit (on the white side) malfunctions.	If the problem still persists even after restarting the printer, please contact your dealer.
5430	[Machine Error]	The wiper cleaner of the maintenance unit (on the white side) malfunctions.	Check to see if the wiper cleaner is properly installed and there is no obstacle around the wiper or wiper cleaner. If the problem still persists even after restarting the printer, please contact your dealer.
5431	[Machine Error]	The wiper cleaner of the maintenance unit (on the white side) malfunctions.	Check to see if the wiper cleaner is properly installed and there is no obstacle around the wiper or wiper cleaner. If the problem still persists even after restarting the printer, please contact your dealer.
5432	[Machine Error]	The wiper cleaner of the maintenance unit (on the white side) malfunctions.	Check to see if the wiper cleaner is properly installed and there is no obstacle around the wiper or wiper cleaner. If the problem still persists even after restarting the printer, please contact your dealer.
5433	[Machine Error]	The wiper cleaner of the maintenance unit (on the white side) malfunctions.	Check to see if the wiper cleaner is properly installed and there is no obstacle around the wiper or wiper cleaner. If the problem still persists even after restarting the printer, please contact your dealer.

Error code	Error message	Description	Remedy
5440	[Machine Error]	The wiper of the maintenance unit (on the white side) malfunctions.	Check to see if the wiper is properly installed and there is no obstacle around the wiper or wiper cleaner. If the problem still persists even after restarting the printer, please contact your dealer.
5441	[Machine Error]	The wiper of the maintenance unit (on the white side) malfunctions.	Check to see if the wiper is properly installed and there is no obstacle around the wiper or wiper cleaner. If the problem still persists even after restarting the printer, please contact your dealer.
5442	[Machine Error]	The wiper of the maintenance unit (on the white side) malfunctions.	Check to see if the wiper is properly installed and there is no obstacle around the wiper or wiper cleaner. If the problem still persists even after restarting the printer, please contact your dealer.
5443	[Machine Error]	The wiper of the maintenance unit (on the white side) malfunctions.	Check to see if the wiper is properly installed and there is no obstacle around the wiper or wiper cleaner. If the problem still persists even after restarting the printer, please contact your dealer.
5450	[Machine Error]	It is an internal error of the maintenance unit (on the white side), which is associated with updating of firmware.	Check to see if there is any source near the printer that produces a loud noise. Restart the printer and update the firmware again. If the problem still persists, please contact your dealer.
5451	[Machine Error]	It is an internal error of the maintenance unit (on the white side), which is associated with updating of firmware.	Check to see if there is any source near the printer that produces a loud noise. Restart the printer and update the firmware again. If the problem still persists, please contact your dealer.
5452	[Machine Error]	It is an internal error of the maintenance unit (on the white side), which is associated with updating of firmware.	Check to see if there is any source near the printer that produces a loud noise. Restart the printer and update the firmware again. If the problem still persists, please contact your dealer.
5453	[Machine Error]	It is an internal error of the maintenance unit (on the white side), which is associated with updating of firmware.	Check to see if there is any source near the printer that produces a loud noise. Restart the printer and update the firmware again. If the problem still persists, please contact your dealer.
5454	[Machine Error]	It is the communication error between the main board and the maintenance unit (on the white side), which is associated with the updating of firmware.	Check to see if there is any source near the printer that produces a loud noise. Restart the printer and update the firmware again. If the problem still persists, please contact your dealer.

Error code	Error message	Description	Remedy
5455	[Machine Error]	It is the communication error between the main board and the maintenance unit (on the white side), which is associated with the updating of firmware.	Check to see if there is any source near the printer that produces a loud noise. Restart the printer and update the firmware again. If the problem still persists, please contact your dealer.
5456	[Machine Error]	It is the communication error between the main board and the maintenance unit (on the white side), which is associated with the updating of firmware.	Check to see if there is any source near the printer that produces a loud noise. Restart the printer and update the firmware again. If the problem still persists, please contact your dealer.
5457	[Machine Error]	It is the communication error between the main board and the maintenance unit (on the white side), which is associated with the updating of firmware.	Check to see if there is any source near the printer that produces a loud noise. Restart the printer and update the firmware again. If the problem still persists, please contact your dealer.
5458	[Machine Error]	It is an internal error of the maintenance unit (on the white side), which is associated with updating of firmware.	Restart the printer and update the firmware again. If the problem still persists, please contact your dealer.
5459	[Machine Error]	It is an internal error of the maintenance unit (on the white side), which is associated with updating of firmware.	Restart the printer and update the firmware again. If the problem still persists, please contact your dealer.
5461	[Machine Error]	When the solenoid is in operation, there is a mismatch between the state of the main board and that of the maintenance unit (on the white side).	Restart the printer and update the firmware again. If the problem still persists, please contact your dealer.
5471	[Machine Error]	It is the communication error between the maintenance unit (on the white side) and the cartridge sensor.	Check to see if there is any source near the printer that produces a loud noise. If the problem still persists even after restarting the printer, please contact your dealer.
5472	[Machine Error]	It is the communication error between the maintenance unit (on the white side) and the cartridge sensor.	Check to see if there is any source near the printer that produces a loud noise. If the problem still persists even after restarting the printer, please contact your dealer.
5473	[Machine Error]	It is the communication error between the maintenance unit (on the white side) and the cartridge sensor.	Check to see if there is any source near the printer that produces a loud noise. If the problem still persists even after restarting the printer, please contact your dealer.

Error code	Error message	Description	Remedy
5474	[Machine Error]	It is the communication error between the maintenance unit (on the white side) and the cartridge sensor.	Check to see if there is any source near the printer that produces a loud noise. If the problem still persists even after restarting the printer, please contact your dealer.
5475	[Machine Error]	It is the communication error between the maintenance unit (on the white side) and the cartridge sensor.	Check to see if there is any source near the printer that produces a loud noise. If the problem still persists even after restarting the printer, please contact your dealer.
5476	[Machine Error]	It is the communication error between the maintenance unit (on the white side) and the cartridge sensor.	Check to see if there is any source near the printer that produces a loud noise. If the problem still persists even after restarting the printer, please contact your dealer.
5477	[Machine Error]	It is the communication error between the maintenance unit (on the white side) and the cartridge sensor.	Check to see if there is any source near the printer that produces a loud noise. If the problem still persists even after restarting the printer, please contact your dealer.
5478	[Machine Error]	It is the communication error between the maintenance unit (on the white side) and the cartridge sensor.	Check to see if there is any source near the printer that produces a loud noise. If the problem still persists even after restarting the printer, please contact your dealer.
5491	[Machine Error]	It is the internal error of the maintenance unit (on the white side).	Check to see if there is any source near the printer that produces a loud noise. If the problem still persists even after restarting the printer, please contact your dealer.
5501	[Machine Error]	The sub tank of black ink is not filled with black ink.	Check the ink pouch (black) for any abnormalities.
5502	[Machine Error]	The sub tank of magenta ink is not filled with magenta ink.	Check the ink pouch (magenta) for any abnormalities.
5503	[Machine Error]	The sub tank of cyan ink is not filled with cyan ink.	Check the ink pouch (cyan) for any abnormalities.
5504	[Machine Error]	The sub tank of yellow ink is not filled with yellow ink.	Check the ink pouch (yellow) for any abnormalities.
5600	[Machine Error]	Ink pouch was identified with abnormal timing at the time of initialization.	If the problem still persists even after restarting the printer, please contact your dealer.
5601	[Machine Error]	An abnormality was detected when tried to check the ink pouch.	Check if the ink pouch is seated on the ink cartridge correctly. Ensure that the ink cartridge is correctly placed on the printer. If the problem still persists even after restarting the printer, please contact your dealer.
5602	[Machine Error]	An abnormality was detected when tried to check the ink pouch.	Check if the ink pouch is seated on the ink cartridge correctly. Ensure that the ink cartridge is correctly placed on the printer. If the problem still persists even after restarting the printer, please contact your dealer.

Error code	Error message	Description	Remedy
5603	[Machine Error]	An abnormality was detected when tried to check the ink pouch.	Check if the ink pouch is seated on the ink cartridge correctly. Ensure that the ink cartridge is correctly placed on the printer. If the problem still persists even after restarting the printer, please contact your dealer.
5801	[Machine Error]	It is the communication error between the main board and the panel board or the head board.	Check to see if there is any source near the printer that produces a loud noise. If a USB flash memory is inserted into the printer, remove the memory first, and then restart the printer. If the problem still persists even after restarting the printer, please contact your dealer.
5802	[Machine Error]	It is the communication error between the main board and the panel board or the head board.	Check to see if there is any source near the printer that produces a loud noise. If a USB flash memory is inserted into the printer, remove the memory first, and then restart the printer. If the problem still persists even after restarting the printer, please contact your dealer.
5803	[Machine Error]	It is the communication error between the main board and the panel board or the head board.	Check to see if there is any source near the printer that produces a loud noise. If a USB flash memory is inserted into the printer, remove the memory first, and then restart the printer. If the problem still persists even after restarting the printer, please contact your dealer.
5804	[Machine Error]	It is the communication error between the main board and the panel board or the head board.	Check to see if there is any source near the printer that produces a loud noise. If a USB flash memory is inserted into the printer, remove the memory first, and then restart the printer. If the problem still persists even after restarting the printer, please contact your dealer.
6004	[Obstacle on the Platen]	It indicates some error in the obstacle sensor.	Check to see if the obstacle sensor is covered with something. If the problem still persists even after restarting the printer, please contact your dealer.
6010	[PC Data Error]	The system failed to write the EEPROM of the main board.	Make note of their error code and error message, and please notify it to your dealer.
6011	[Machine Error]	The system failed to erase the FLASH ROM of the main board.	Make note of the error code and error message, and please notify it to your dealer.
6012	[Machine Error]	The system failed to write the FLASH ROM of the main board.	Make note of the error code and error message, and please notify it to your dealer.
6021	[No Battery]	The battery of the real-time clock is fully exhausted.	Make note of the error code and error message, and please notify it to your dealer.

Error code	Error message	Description	Remedy
6031	[Machine Error]	Platen button is out of working order.	Ascertain whether or not something is placed on the operation panel. For help, please contact your dealer.
6032	[Machine Error]	Print button is out of working order.	Ascertain whether or not something is placed on the operation panel. For help, please contact your dealer.
6033	[Machine Error]	Stop button is out of working order.	Ascertain whether or not something is placed on the operation panel. For help, please contact your dealer.
6034	[Machine Error]	Back button is out of working order.	Ascertain whether or not something is placed on the operation panel. For help, please contact your dealer.
6035	[Machine Error]	Right button is out of working order.	Ascertain whether or not something is placed on the operation panel. For help, please contact your dealer.
6036	[Machine Error]	Down button is out of working order.	Ascertain whether or not something is placed on the operation panel. For help, please contact your dealer.
6037	[Machine Error]	Up button is out of working order.	Ascertain whether or not something is placed on the operation panel. For help, please contact your dealer.
6038	[Machine Error]	Head cleaning button is out of working order.	Ascertain whether or not something is placed on the operation panel. For help, please contact your dealer.
6039	[Machine Error]	MENU/OK button is out of working order.	Ascertain whether or not something is placed on the operation panel. For help, please contact your dealer.
6101	[Machine Error]	It indicates the carriage's malfunction.	If the problem still persists even after reactivating the printer, please contact your dealer.
6102	[Machine Error]	The carriage stops at an incorrect position.	Check to see if something gets caught in the carriage or any foreign object exists inside the printer. With reference to "7-1-5. Cleaning the internal area of printer >>P.225", perform the cleaning. If the problem still persists, please contact your dealer.
6103	[Machine Error]	No cap can be locked in place.	Check to see if something gets caught in the carriage or any foreign object exists inside the printer. With reference to "7-1-5. Cleaning the internal area of printer >>P.225", perform the cleaning. If the problem still persists, please contact your dealer.

Error code	Error message	Description	Remedy
6104	[Machine Error]	Carriage does not move.	Check to see if something gets caught in the carriage or any foreign object exists inside the printer. With reference to "7-1-5. Cleaning the internal area of printer >>P.225", perform the cleaning. If the problem still persists, please contact your dealer.
6105	[Machine Error]	The carriage's home position return initialization has ended up in failure.	Check to see if something gets caught in the carriage or any foreign object exists inside the printer. With reference to "7-1-5. Cleaning the internal area of printer >>P.225", perform the cleaning. If the problem still persists, please contact your dealer.
6106	[Machine Error]	The carriage has bumped against the frame.	Check to see if something gets caught in the carriage or any foreign object exists inside the printer. With reference to "7-1-5. Cleaning the internal area of printer >>P.225", perform the cleaning. If the problem still persists, please contact your dealer.
6107	[Machine Error]	The carriage's reverse rotation has been detected.	Check to see if something gets caught in the carriage or any foreign object exists inside the printer. With reference to "7-1-5. Cleaning the internal area of printer >>P.225", perform the cleaning. If the problem still persists, please contact your dealer.
6108	[Machine Error]	Abnormal decrease in the speed of carriage has been detected.	Check to see if something gets caught in the carriage or any foreign object exists inside the printer. With reference to "7-1-5. Cleaning the internal area of printer >>P.225", perform the cleaning. If the problem still persists, please contact your dealer.
6109	[Machine Error]	The carriage has stopped abnormally within the print range.	Check to see if something gets caught in the carriage or any foreign object exists inside the printer. With reference to "7-1-5. Cleaning the internal area of printer >>P.225", perform the cleaning. If the problem still persists, please contact your dealer.
6110	[Machine Error]	The carriage cannot move out of its locked position.	Check to see if something gets caught in the carriage or any foreign object exists inside the printer. With reference to "7-1-5. Cleaning the internal area of printer >>P.225", perform the cleaning. If the problem still persists, please contact your dealer.

Error code	Error message	Description	Remedy
6111	[Machine Error]	Carriage cannot perform capping.	Check to see if something gets caught in the carriage or any foreign object exists inside the printer. With reference to "7-1-5. Cleaning the internal area of printer >>P.225", perform the cleaning. If the problem still persists, please contact your dealer.
6119	[Machine Error]	The carriage movement does not come to a full stop.	If the problem still persists even after restarting the printer, please contact your dealer.
6130	[Machine Error Adjust CR]	It indicates an abnormal decrease in the speed of carriage.	With reference to "7-1-5. Cleaning the internal area of printer >>P.225", perform the carriage cleaning. With reference to "7-4-1. CR (Carriage) speed adjustment >>P.250", perform the carriage speed adjustment.
6131	[Machine Error Adjust CR]	It indicates an excessive increase in the speed of carriage.	With reference to "7-1-5. Cleaning the internal area of printer >>P.225", perform the carriage cleaning. With reference to "7-4-1. CR (Carriage) speed adjustment >>P.250", perform the carriage speed adjustment.
6132	[Machine Error Adjust CR]	The carriage stops at an incorrect position.	With reference to "7-1-5. Cleaning the internal area of printer >>P.225", perform the carriage cleaning. With reference to "7-4-1. CR (Carriage) speed adjustment >>P.250", perform the carriage speed adjustment.
6133	[Machine Error]	It indicates an error in the carriage speed adjustment (reverse motion).	Check to see if something gets caught in the carriage or any foreign object exists inside the printer. With reference to "7-1-5. Cleaning the internal area of printer >>P.225", perform the cleaning. If the problem still persists, please contact your dealer.
6134	[Machine Error]	It indicates an error in the carriage speed adjustment (forward motion).	Check to see if something gets caught in the carriage or any foreign object exists inside the printer. With reference to "7-1-5. Cleaning the internal area of printer >>P.225", perform the cleaning. If the problem still persists, please contact your dealer.
6220	[Machine Error]	The color heads' temperature level is abnormal.	Ascertain whether or not the cable for the heads is disconnected. If the problem still persists even after restarting the printer, please contact your dealer.
6221	[Machine Error]	The white heads' temperature level is abnormal.	Ascertain whether or not the cable for the heads is disconnected. If the problem still persists even after restarting the printer, please contact your dealer.

Error code	Error message	Description	Remedy
6230	[Machine Error]	It refers to abnormal voltage in the color heads.	Ascertain whether or not the cable for the heads is disconnected. If the problem still persists, please contact your dealer.
6231	[Machine Error]	It refers to abnormal voltage in the white heads.	Ascertain whether or not the cable for the heads is disconnected. If the problem still persists, please contact your dealer.
6240	[Machine Error]	It refers to FFC failure in the color heads.	Ascertain whether or not the cable for the heads is disconnected. If the problem still persists even after restarting the printer, please contact your dealer.
6241	[Machine Error]	It refers to FFC failure in the white heads.	Ascertain whether or not the cable for the heads is disconnected. If the problem still persists even after reactivating the printer, please contact your dealer.
7000	[Machine Error]	It is the system call error.	Make note of the error code and error message, and please notify it to your dealer.
7012	[Machine Error]	Firmware internal error occurred.	If the problem still persists even after restarting the printer, please contact your dealer after noting the error code and message displayed.
7013	[Machine Error]	It is the general program error.	Make note of the error code and error message, and please notify it to your dealer.
7015	[Machine Error]	Because the ongoing print operation remains unfinished, the next print data cannot be printed out.	Send any print data to the printer while the printer is not performing the printing operation.

In the event that other error codes than those that are mentioned above are displayed or that any of the above-mentioned errors cannot be remedied even by following the troubleshooting procedures, please contact your dealer for help.




9-4. Acquisition of log file

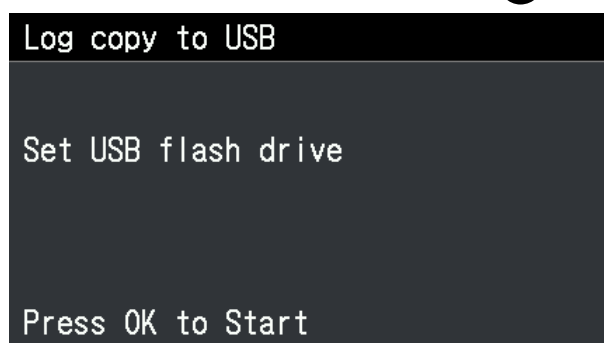
In cases where the printer malfunctions, you may be required by our service personnel to obtain your printer's log file. For this reason, please save your printer's log file to a file.

<TIPS>

- To the resultant file, such filename (.log) that automatically identifies your printer will be given.

Fetch a log file from USB flash memory

- (1) Insert a USB flash memory into the insertion slot of the printer.
- (2) Press  on the operation panel located on the left side of printer to go to the menu.
- (3) Press , select [Maintenance] > [Log copy to USB], and press .



- (4) Then, the print button stops blinking, and the log file writing operation will be completed when you hear the sound of pong.

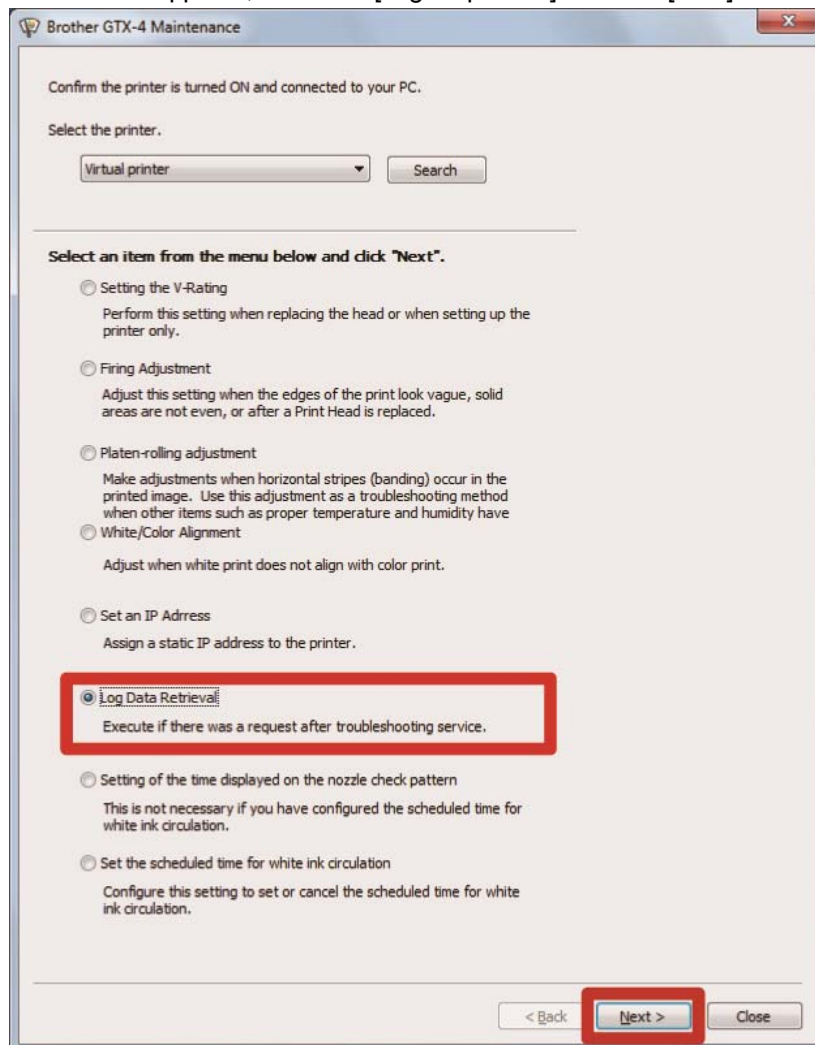
<IMPORTANT>

- Never remove the USB flash memory from the printer when the print button is blinking. Otherwise, the USB flash memory may be damaged, rendering its internal data to be unreadable.

- (5) Obtain the log file saved to the USB flash memory, and send such file to our service personnel.

Fetch a log file via USB/LAN connection

- (1) On the PC, from [All Programs] in the Start menu, select the "GTX-4 Maintenance" from "Brother GTX-4 Tools".
- (2) After the window shown below appears, select the [Log Acquisition] and click [Next].



- (3) Perform the required operation by following the on-screen instructions in the dialog box.

10 Specifications

10-1. Apparatus

External dimensions	55.1 in. (width) x 51.2 in. (depth) x 21.7 in. (height) (1400 mm (width) x 1300 mm (depth) x 550 mm (height))	
Basic machine weight (including platen)	120 kg (264 lb)	
Max. printable area	16.0 in. x 21.0 in. (406.4 mm x 533.4 mm)	
Printing resolution	1200 dpi x 1200 dpi	
Power	Single-phase 100 to 240 V	
Power supply frequency	50/60 Hz	
Power Consumptions	0.8 A (Actual value) (Reference: 0.3 A when circulating)	
Environmental requirements	Operation assurance range: (Environmental range where the printer can be operated.)	Temperature: 10 to 35°C (50 to 95°F) Humidity: 20 to 85% (No condensation should occur.)
	Printing-guaranteed range: (Environmental range where sufficient printing quality can be secured.)	Temperature: 18 to 30°C (64.4 to 86°F) Humidity: 35 to 85% (No condensation should occur.)
	Keeping your printer:	Temperature: 0 to 40°C (32 to 104°F) Humidity: 20 to 85% (No condensation should occur.)
	<p> Printing-guaranteed range Operating your printer Keeping your printer </p> <p>Humidity (%)</p> <p>Temperature (°C)</p> <p>(50 59 68 77 86 95 104 (°F))</p>	

X0210

10-2. Software

Compatible OS	Windows 7 (32 bit/64 bit), Windows 8.1 (32 bit/64 bit), Windows 10 (32 bit/64 bit) and Mac OS X 10.12 Sierra, Mac OS X 10.13 High Sierra
Interface	USB 2.0, LAN (10 BASE-T and 100 BASE-TX), USB flash memory (Please use a FAT32-formatted USB memory of which storage capacity is 2 GB to 32 GB in total, and a USB memory without security functions such as password lock function).
Min. operating environment	CPU with 2 GHz or above RAM with 4 GB or above
Display resolution	XGA (1024 x 768) or higher
Recommended application software for high-level image editing	CorelDRAW X7/X8, Adobe Photoshop CS6/CC, Adobe Illustrator CS6/CC, and Adobe Photoshop Elements 14/15

10-3. Ink, maintenance solution, cleaning solution, pretreatment

10-3-1. Ink

Name	Black / Magenta / Cyan / Yellow ink pouch	
Use expiration date	Expiration date on the pouch pack (supposing storage at normal temperature)	
Storage temperature	0 to 40°C (32 to 104°F)	
Cautions for storage	<ul style="list-style-type: none"> - Store them in a place where they are not exposed to direct sunlight. - Keep them out of the reach of children. - Store them away from fire, heat and oxidized substance. 	
Content	200 cc, 500 cc	
External dimensions in transport condition	1-piece set	20.4 in. (width) x 5.0 in. (depth) x 1.9 in. (height) (518 mm (width) x 126 mm (depth) x 48 mm (height)) (Common to 200 cc and 500 cc)
	12-piece set	21.2 in. (width) x 10.9 in. (depth) x 12.7 in. (height) (538 mm (width) x 276 mm (depth) x 322 mm (height)) (Common to 200 cc and 500 cc)

Name	White ink pouch	
Use expiration date	Expiration date on the pouch pack (supposing storage at normal temperature)	
Storage temperature	0 to 40°C (32 to 104°F)	
Cautions for storage	<ul style="list-style-type: none"> - Store them in a place where they are not exposed to direct sunlight. - Keep them out of the reach of children. - Store them away from fire, heat and oxidized substance. 	
Content	500 cc	
External dimensions in transport condition	2-piece set	20.4 in. (width) x 5.0 in. (depth) x 3.7 in. (height) (518 mm (width) x 126 mm (depth) x 93 mm (height))
	12-piece set	21.2 in. (width) x 10.9 in. (depth) x 12.7 in. (height) (538 mm (width) x 276 mm (depth) x 322 mm (height))

10-3-2. Maintenance solution

Name	Maintenance solution pouch	
Use expiration date	Expiration date on the pouch pack (supposing storage at normal temperature)	
Storage temperature	0 to 40°C (32 to 104°F)	
Cautions for storage	<ul style="list-style-type: none"> - Store them in a place where they are not exposed to direct sunlight. - Keep them out of the reach of children. - Store them away from fire, heat and oxidized substance. 	
Content	700 cc	
External dimensions in transport condition	1-piece set	20.4 in. (width) x 5.0 in. (depth) x 1.9 in. (height) (518 mm (width) x 126 mm (depth) x 48 mm (height))
	12-piece set	21.2 in. (width) x 10.9 in. (depth) x 12.7 in. (height) (538 mm (width) x 276 mm (depth) x 322 mm (height))

10-3-3. Cleaning solution

Name		Cleaning solution
Use expiration date		Expiration date on the container (supposing storage at normal temperature)
Storage temperature		0 to 40°C (32 to 104°F)
Cautions for storage		<ul style="list-style-type: none"> - Store them in a place where they are not exposed to direct sunlight. - Keep them out of the reach of children. - Store them away from fire, heat and oxidized substance. - Cap the container tightly, and keep it in a cool, dark place with good ventilation.
Content		1.9 kg (4.2 lb)
External dimensions in transport condition	6-piece set	18.9 in. (width) x 13.4 in. (depth) x 13.6 in. (height) (480 mm (width) x 340 mm (depth) x 345 mm (height))

10-3-4. Pretreatment

Name		Pretreatment
Use expiration date		Expiration date on the outer case (supposing storage at normal temperature)
Storage temperature		0 to 40°C (32 to 104°F)
Cautions for storage		<ul style="list-style-type: none"> - Store them in a place where they are not exposed to direct sunlight. - Keep them out of the reach of children. - Store them away from fire, heat and oxidized substance. - Cap the container tightly, and keep it in a cool, dark place with good ventilation.
Content		20 kg (44 lb), 5 kg (11 lb)
External dimensions in transport condition	1-piece set	10.4 in. (width) x 14.4 in. (depth) x 15.7 in. (height) (265 mm (width) x 365 mm (depth) x 400 mm (height)), (20 kg (44 lb))
	4-piece set	18.0 in. (width) x 12.6 in. (depth) x 12.5 in. (height) (456 mm (width) x 320 mm (depth) x 318 mm (height)), (5 kg (11 lb))

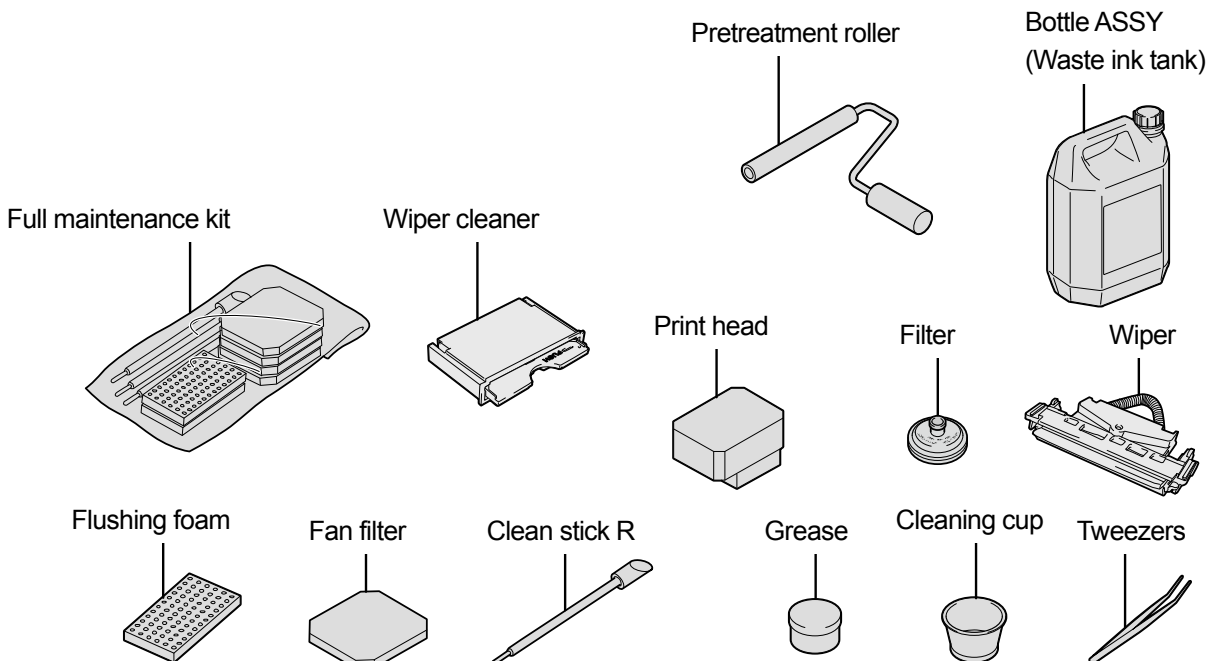
10-4. About consumable supplies, optional items and replacement parts

About consumable supplies, optional items and replacement parts

- Consumable supplies: Components required for the printing operation
- Optional items: Available items through purchase order according to customers' usage status
- Replacement parts: Components for which periodic maintenance needs to be performed for you to optimize the printer's operation

Consumable supplies		Code No.
Black ink pouch	200 cc	GCX-4K20
	500 cc	GCX-4K50
Magenta ink pouch	200 cc	GCX-4M20
	500 cc	GCX-4M50
Cyan ink pouch	200 cc	GCX-4C20
	500 cc	GCX-4C50
Yellow ink pouch	200 cc	GCX-4Y20
	500 cc	GCX-4Y50
White ink pouch	500 cc (2-piece set)	GCX-4W50
Cleaning solution	1.9 kg (4.2 lb)	GCX-4E02
Pretreatment	5 kg (11 lb)	GCX-4P05
	20 kg (44 lb)	GCX-4P20
Maintenance solution pouch	700 cc	GCX-4S70
Full maintenance kit <Printer-supplied items>		
Clean stick R	16 pcs.	SB7004
Flushing foam	2 pcs.	
Fan filter	4 pcs.	
Wiper cleaner	2-piece set	SB6673
Flushing foam	2-piece set	SB7006
Fan filter	2-piece set	SB7007
Clean stick R	50-piece set	SB7008

Optional items	Code No.
Over size platen X (16"x21" / 406 x 533mm)	SB6992
Platen sheet 16X21	SB7242
Large platen X (16"x18" / 406 x 457mm)	SB6994
Platen sheet 16X18	SB6995
Adult platen X (14"x16" / 356 x 406mm)	SB6996
Platen sheet 14X16	SB6667
Youth platen X (10"x12" / 254 x 305mm)	SB6998
Platen sheet 10X12	SB6999
Baby platen X (7"x8" / 178 x 203mm)	SB7001
Platen sheet 7X8	SB7002
Pretreatment roller	SB1290
Bottle ASSY (waste ink tank)	SB2582
Capping pouch	SB5696
Replacement parts	
Print head	SB5514
Filter	SB7093
Wiper	SB7870
Grease	SB3229
Cartridge (for white ink)	SB5495
Cartridge C (for colored ink)	SB6875
Cleaning cup	SB6925
Tweezers	117466100





*Please note that the contents of this manual may differ slightly from the actual product purchased as a result of product improvements.

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1-5, Kitajizoyama, Noda-cho, Kariya 448-0803, Japan.

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