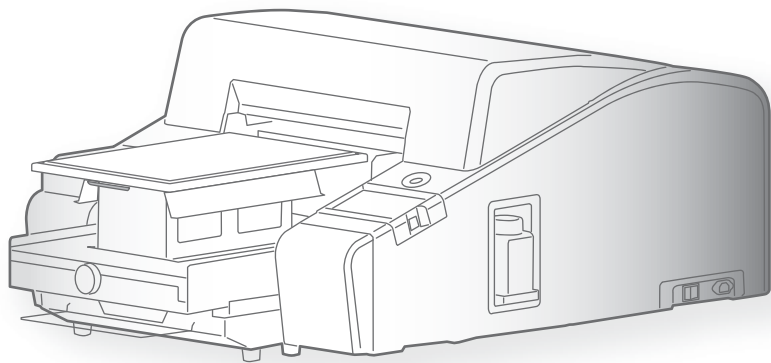


VJ-404GT/405GT

Startup Guide

Installation and initial setup



Unpacking	2
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-
- Unauthorized copying or duplication of the whole or part of the contents of this Guide is prohibited.
 - Every care has been taken in writing the contents of this Guide, but please contact MUTOH or the dealer you purchased the product from if you find any unclear, erroneous or otherwise unsatisfactory content in the Guide.
 - Please be aware that MUTOH will not be liable in any way for failures or accidents that result from handling or operating the printer according to any procedures other than those set forth in this Guide.
 - Company names and product names that appear in this Guide are registered trademarks of the respective companies.

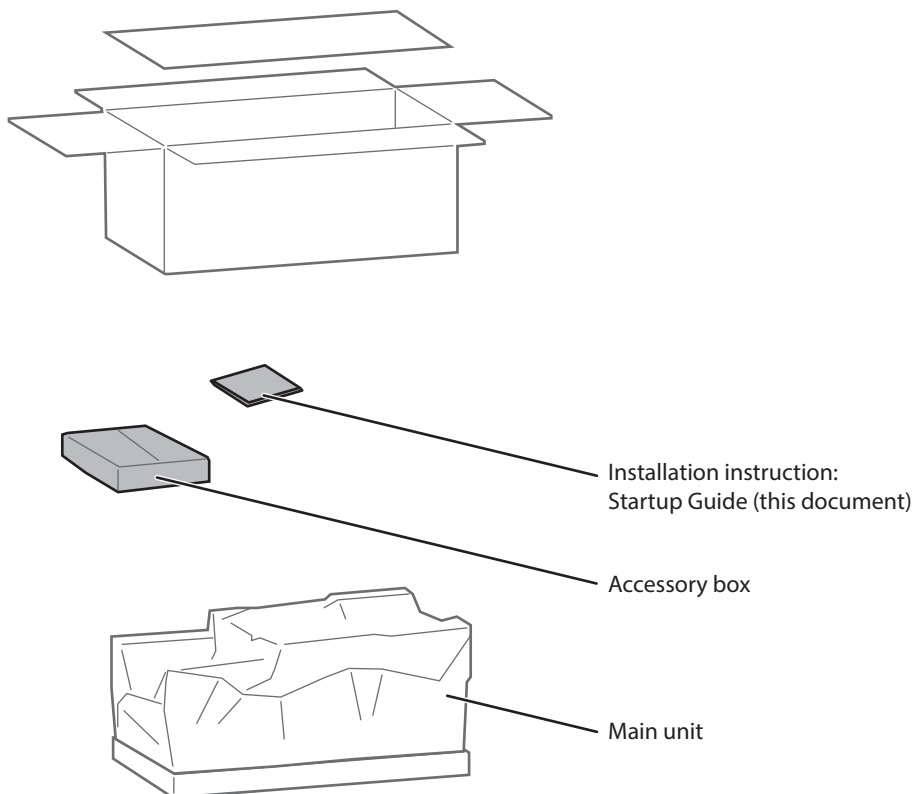
Unpacking

CAUTION

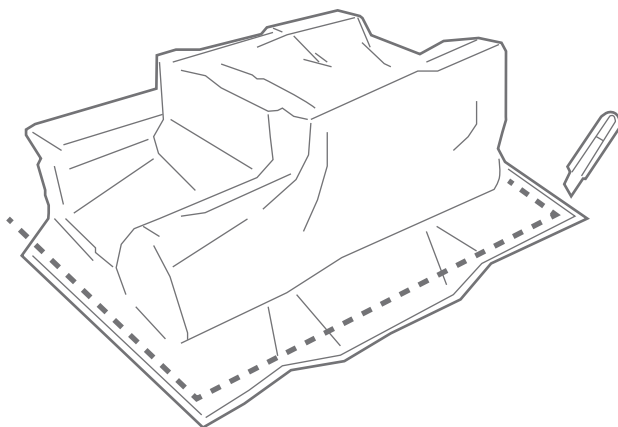
- When unpacking or moving this product, be sure to work with four or more people.
- Keep this product level when moving it.

Unpacking this Product

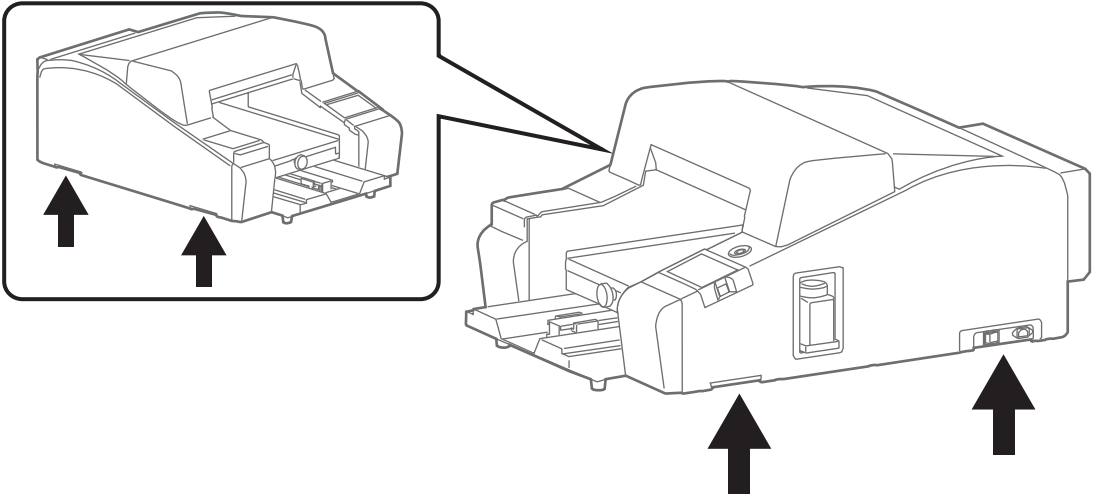
- [1] Open the box and remove each part.



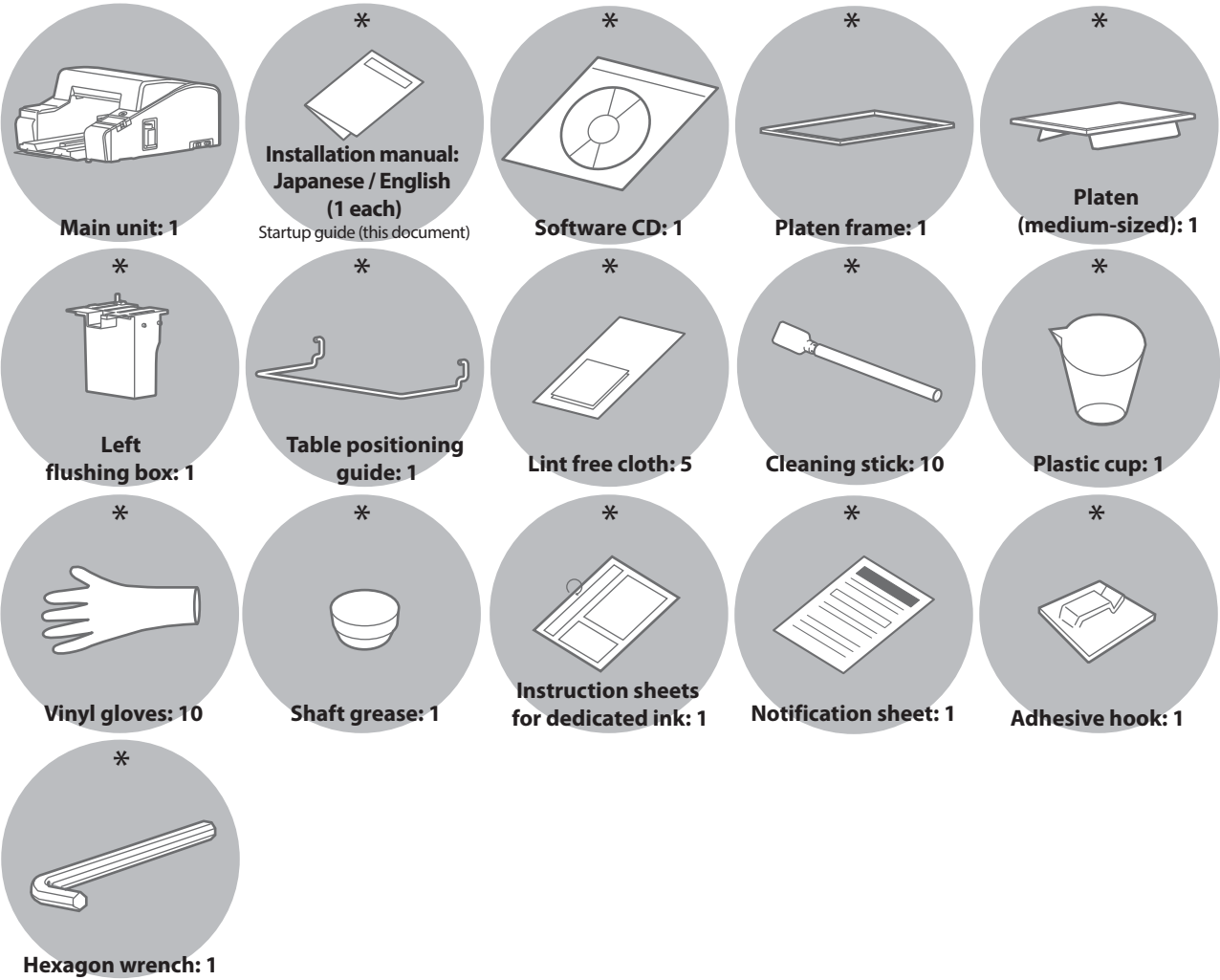
- [2] Open the aluminum bag (moisture-proof) with cutter and remove the cushions.



[3] When lifting the printer, hold the positions indicated by the arrows.
Lift the printer with four people.



[4] Check that all included items are there.

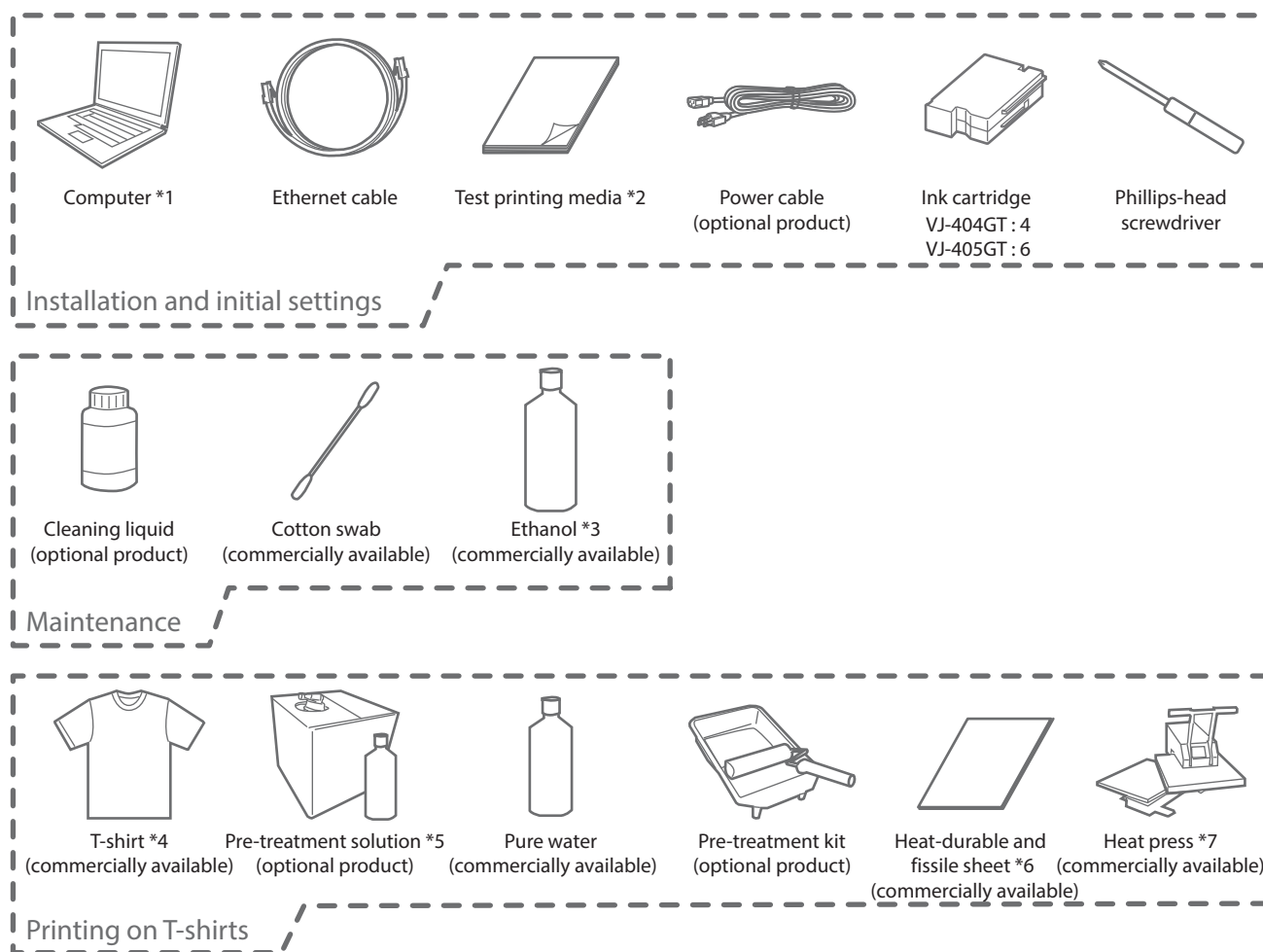


Note

Items marked with an asterisk (*) above are in the accessories box.

Other Notes

In addition to the included items, the following are required for this product.



Note

*1: Use a computer with one of the following operating systems.

Windows 10, Windows 8 / 8.1, Windows 7, or Windows Vista

*2: Prepare A4 size (210 mm x 297 mm) paper for the test printing media.

For VJ-405GT, we recommend using transparent or translucent media (such as OHP films or tracing paper and so on).

*3: Ethanol with a concentration of at least 50%

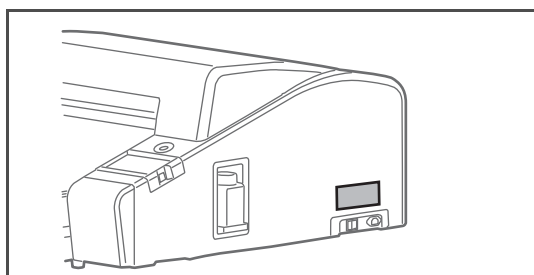
*4: 100% cotton, cotton/polyester mixture (up to 50% cotton) or 100% polyester

*5: White ink type and polyester type available.

*6: Silicon paper or fluororesin sheets with a heat resistance of 180 °C or more.

*7: Devices that can maintain heat of 170 °C or more for 60 seconds.

Important!

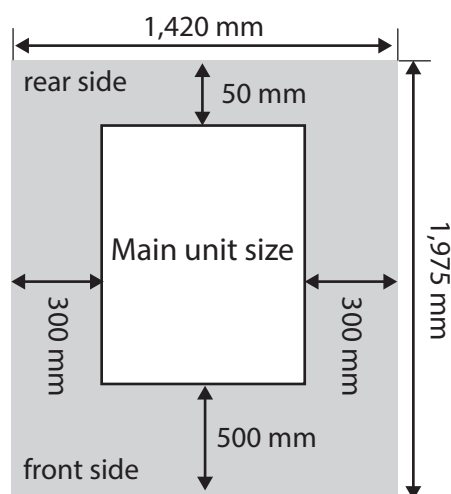


Be sure to check that the power cable matches the printer's voltage. Using a power cable that does not match the voltage may result in damaging the printer.

The printer's supported voltage is written on the rating plate above the power connector.

Installation Location

Minimum installation space



Main unit size

Width × Length : 820 mm x 1,425 mm

Height : 490 mm

Checking the installation location

Install this product in a location as described below.

- Level place
- Place not subject to vibration
- Place with little humidity and dust
- Place not subject to direct sunlight or bright lighting
- Place with little change in temperature and humidity
- Well-ventilated space
- Place not subject to direct wind (including air conditioning or heating equipment)
- Place with little noise such as electromagnetic waves



WARNING

If installing this product on a table or the like, install it at a height where you can open and close the front cover with both hands.

Also, if you have to remove your hands when fully opening the front cover, install this product on the edge of the table.

If you open or close the front cover while you are unbalanced, it could cause your hands to be caught and cause serious injury.



Installation environment conditions

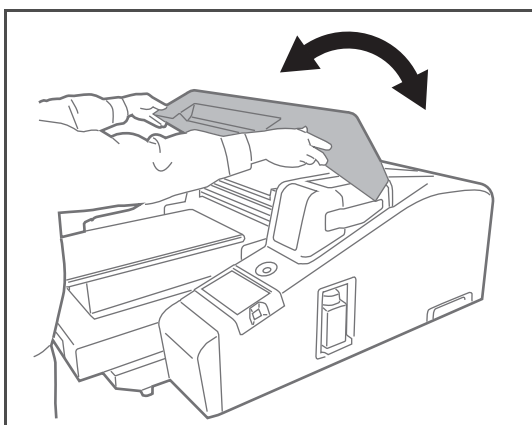
Install this product in a location that meets the conditions in the following chart.

Power specifications	Rated voltage	AC 100 - 120 V or AC 220 - 240 V (Not compatible)
	Voltage range	AC 90 - 132 V or AC 198 - 264 V (Not compatible)
	Frequency	50/60 Hz \pm 1 Hz
	Capacity	AC 100 - 120 V: 1.9A or higher AC 220 - 240 V: 1.3A or higher
Environment conditions	Operating environment	Temperature: 20 °C to 32 °C, Humidity: 40% to 60% (Non-condensing)
	Recommended Printing Environment	Temperature: 22 °C to 30 °C, Humidity: 40% to 60% (Non-condensing)
	Printer Storage Environment	Storage without ink charged: Within 6 months Temperature: -20 °C to 50 °C, Humidity: 20% to 80% (Non-condensing) *When the printer is left at 50 °C, the storage period should be within 5 days. Storage with ink charged: Within 1 week Temperature: 5 °C to 30 °C, Humidity: 20% to 60% (Non-condensing) *Requires regular power flow via sleep mode.
	Ink Storage Environment	Black / Cyan / Magenta / Yellow / White (200 ml each) <ul style="list-style-type: none">• Temperature: 5 °C to 35 °C• Humidity: Non-condensing Pre-treatment Solution <ul style="list-style-type: none">• Temperature: 5 °C to 35 °C• Humidity: Non-condensing Cleaning Cartridge <ul style="list-style-type: none">• Temperature: 5 °C to 35 °C• Humidity: Non-condensing

Requests Regarding Use

Opening and closing the front cover

 WARNING	Do not open or close the front cover while you are unstable. Opening and closing could cause your hands to be caught and cause serious injury.
 CAUTION	<ul style="list-style-type: none">• Do not leave the front cover half open. The cover may close suddenly.• When closing the front cover, be sure to place both hands on the specified positions. Placing your hands on the edge of the printer opening or around there could cause your hand to get caught and cause an injury.



Hold the positions in the figure, and be sure to use both hands to slowly open and close the cover.

Do not turn the power off

Make sure that the power is always turned on. When not using this printer, do not turn the power off, but make sure you put the printer into sleep mode. While in sleep mode, the printer periodically circulates ink internally and automatically performs head cleaning.

If you do not put the printer in sleep mode, the ink in its interior could settle and/or coagulate, causing poor image quality or printer failure.

Important!

DO NOT unplug the power cable from an outlet while using this product or during sleep mode.
Doing so will result in failure or damage to the printer.


Agitate the ink cartridges

Agitate the ink cartridges before installing them in the printer according to the procedure in this Manual.

Even after it is set, the white ink cartridge must be agitated periodically. Before daily operations, and when the message is displayed on the operation panel (every 12 hours), then agitate the ink cartridge according to the procedure on the Instruction sheets for dedicated ink or the Operation Manual.

If you do not, the ink in the cartridge could settle and/or coagulate, causing poor image quality or printer failure.

Use the printer periodically

- Please use this product at least once per week. Leaving the printer unused for long periods of time can cause nozzle clogging in the print head and unit failures.
- If the printer is not to be used for long periods of time (more than a week), store it with the cleaner charged.
- If you don't use the printer for a long period of time, carry out initial charging when you start using it again.
 Operation Manual "Transporting and long-term storage" on page 122

Perform maintenance periodically

This product requires daily maintenance. Be sure to perform maintenance after thoroughly reading the Instruction sheets for daily maintenance or the Operation Manual.

If the maintenance work is not performed on a daily basis, it could shorten the life of the printer or cause printer failure.

	VJ-405GT	VJ-404GT
Cleaning wiper and caps	Every day	Once a week
Around the print head	Once a week	Once a week
Shaft and encoder scale	Once every two weeks	Once every two weeks
Waste liquid bottle	Empty the bottle when a message is displayed on the operation panel.	

 Note

- After cleaning the shaft, apply grease.
- When "Head Gap" is set to "Large", carry out maintenance on the shaft and encoder scale once a week.

There are consumables and periodically replaced parts

- Parts that require replacement

Left flushing box	Needs to be replaced if the message is displayed on the operation panel.
Mist filter	Once every two months.

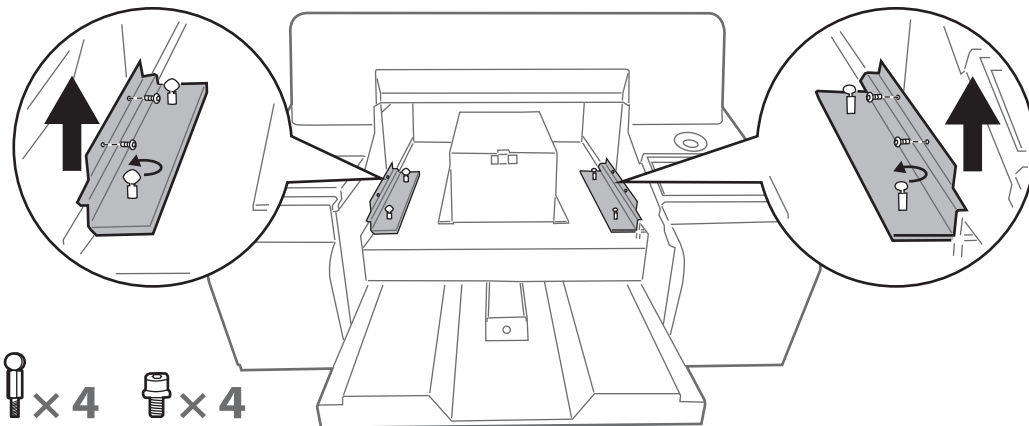
 Note

- One flushing box is provided with the printer for replacement.
- When necessary, place an order for parts that need regular replacement (optional products).
- The time interval for parts that need regular replacement may change depending on the environment in which the printer is used and the frequency of its use.

Removing Protective Material

Steps

- [1] Remove all the protective material and tape applied to the outside of the product.
- [2] Remove all tape applied to gaps in the cover.
 - After finishing peeling, close the cover.
- [3] Remove the screws on the transportation brackets (four each), then remove the transportation brackets (two pieces).
 - To remove the screws (M4, two pieces each) on the side surfaces, use a hexagon wrench.

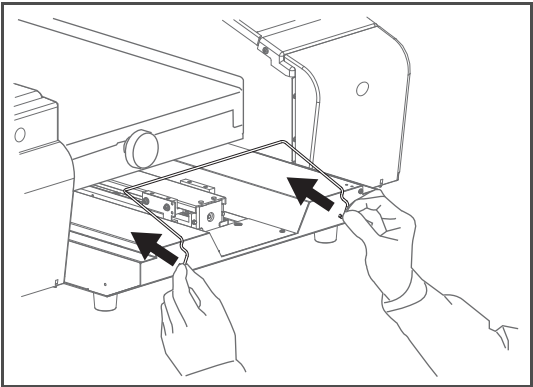
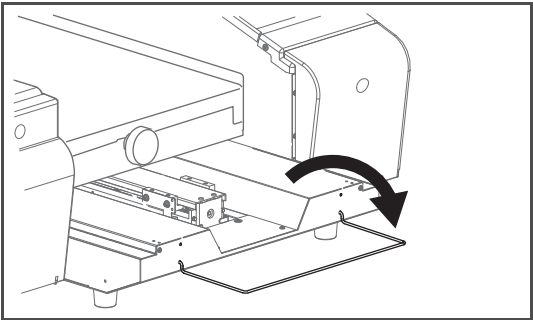


Assembly

Installing the table position guide

The table position guide shows the position when the printer table has moved out the furthest.

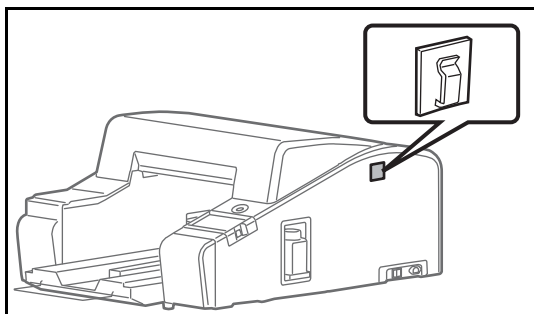
Attach the table position guide so that you do not accidentally touch the table while the printer is in operation, causing it to stop.

- [1]  Insert the both edges of the table position guide into the holes of the base front.
- [2]  Lean the table position guide forward to insert the both edges deeper into place.

Installing the Instruction sheets for dedicated ink

Install the Instruction sheets for dedicated ink on the printer so that it can be easily seen.

[1]



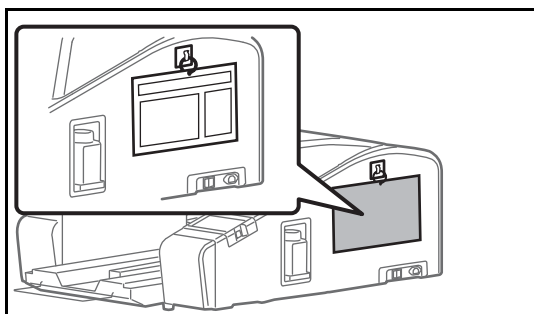
Apply the adhesive hook to the position in the figure on the left.



Note

Apply it to the top of the cover of the right side of the printer, as seen from the front.

[2]

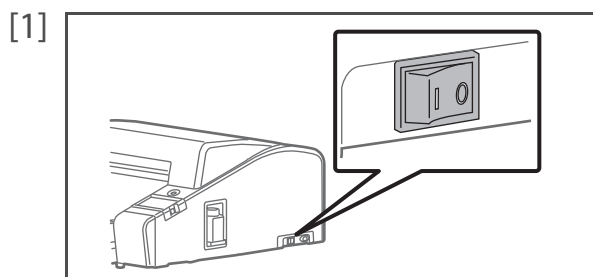


Put the Instruction sheets for dedicated ink on the hook.

Cable Connections

Connecting the Power Cable and Ethernet Cable

1. Connecting the power cable

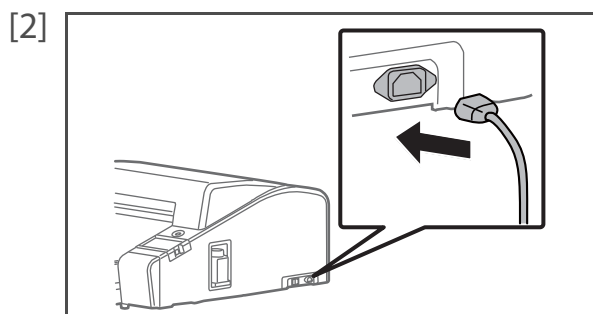


Check that the main power switch is off.

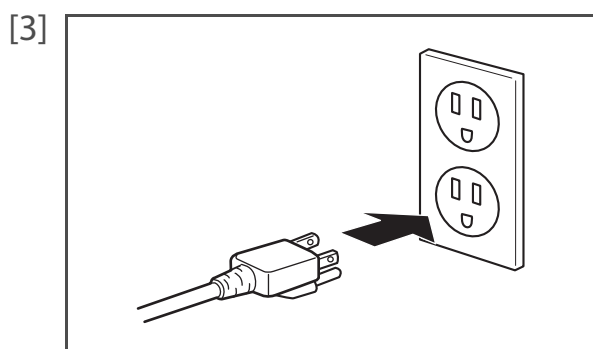


Note

- The **I** mark on the main power switch indicates ON.
- The **O** mark on the main power switch indicates OFF.



Connect the power cable to this product.



Insert this power cable plug into an outlet properly.

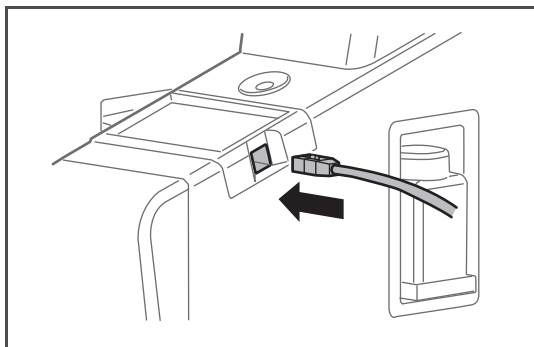


Important!

- **Check that the outlet's voltage matches the unit's supported voltage. Connecting the printer to an outlet with unsupported voltage may damage the printer. The printer's supported voltage is written on the rating plate above the power connector.**
- **Use a grounding (earthing) connection to prevent electrical leaks.**

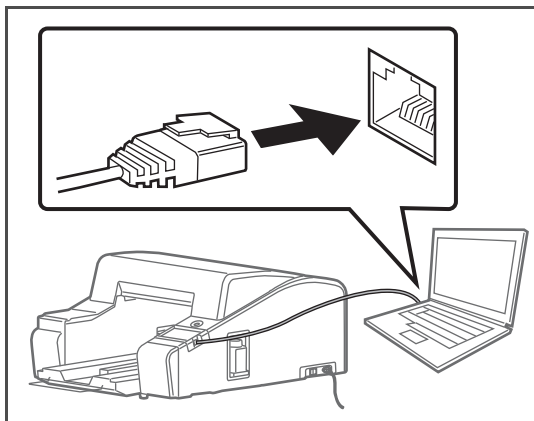
2. Connecting the Ethernet cable

[1]



Connect the Ethernet cable to the printer.

[2]

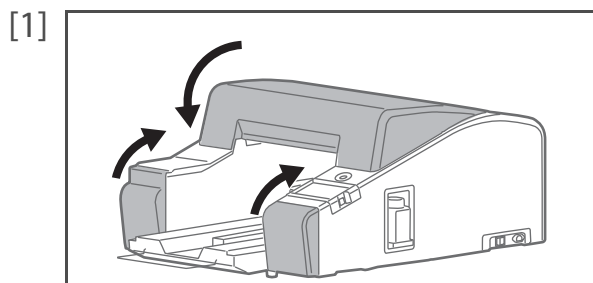


Connect the Ethernet cable to the computer.

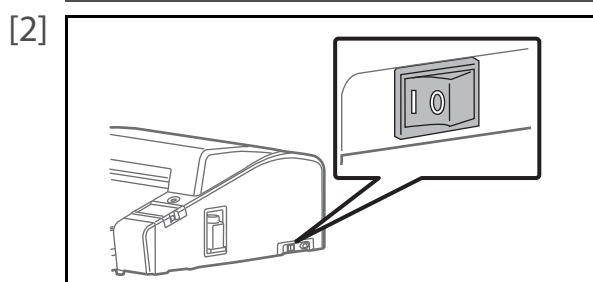
Important!

- The figure to the left shows a peer-to-peer connection between this printer and a computer. The connection method may vary depending on your environment.
- If using this printer on a LAN, set this printer to be on the same subnet as the computer to be connected to.

Turning the Power On



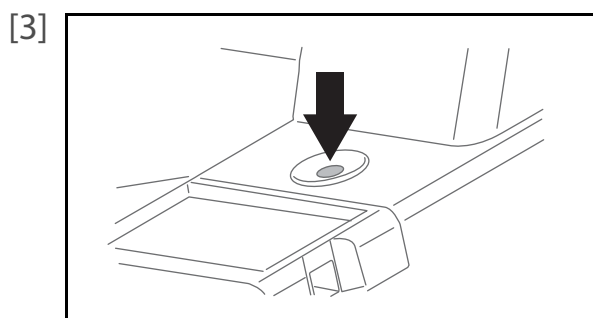
Check that these covers are closed.



Turn on the main power switch.

Note


- The **I** mark on the main power switch indicates ON.
- The **O** mark on the main power switch indicates OFF.



Hold down the sub power button for more than one second.

- The blue light becomes ON.
- This product starts its initialization operations.

Note

- Activation begins during the initialization operations. Perform activation according to "Printer Initial Setting" in this Manual.
- The  mark on the sub power button indicates standby. For this product, standby and sleep mode are different statuses.

Important!

Make sure that the main power switch and the sub power button are always turned on. When not using this printer, do not turn the power off, but make sure you put the printer into sleep mode. If you do not put the printer in sleep mode, the ink in its interior could settle and/or coagulate, causing poor image quality or printer failure.

 ["Sleep mode" on page47](#)

Printer Initial Settings

Flow of Initial Setting

Perform activation

Activate this device by using the touch panel.

Language settings

Set the touch panel display language.

Setting and Initial Charging of the Ink Cartridges

Install the ink cartridges into the device and use the printer head to charge them with ink.

Load the media for test printing

Set the media you want to use to print out the nozzle check pattern.

Nozzle check and cleaning

Print out the nozzle check pattern and continue cleaning the head until the nozzles are aligned.

Network settings

Use the touch panel to enter the printer IP address.

Software installation

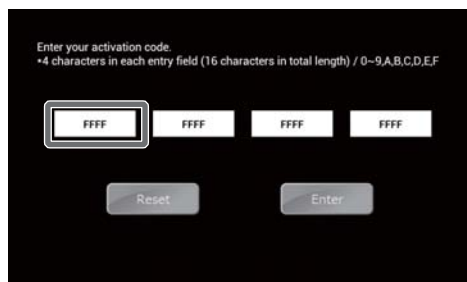
Install the software for this device on the computer.

The setup is now complete!

Step 1 Perform Activation

This product requires activation when first during the power on.
Acquire the activation code via e-mail from your sales agent.

[1]



When the screen on the left is displayed, input your activation code.
Tap the left-most area of the input areas displaying [FFFF].

- The number entry screen is displayed.



Note

Input the 16-digit activation code in 4-digit sections.

[2]



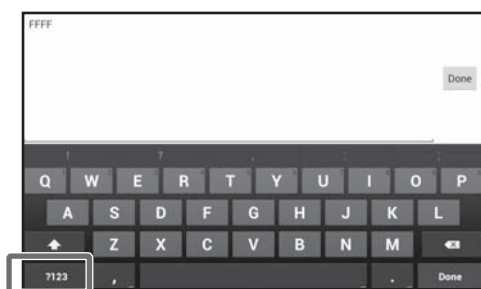
Use the numerical keyboard to input the activation code.

- Input up to the 4th digit of the 16-digit code.
- Tap [Done] to confirm the entry.



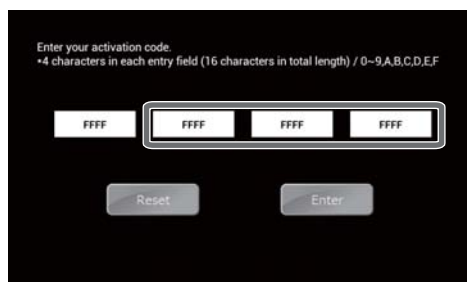
Note

Tap the touch panel firmly. If you touch it lightly, it may not respond as it is pressure-sensitive.



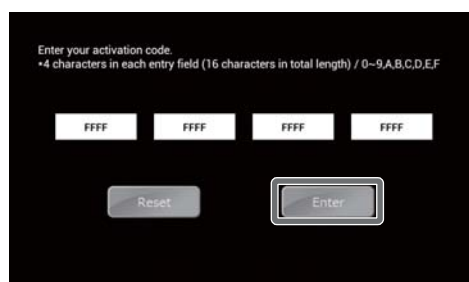
- Tap the key on the bottom left to switch between letters and numbers.

[3]



Input all remaining areas in the same way.
Input up to the 16th digit of the activation code.

[4]



Tap [Enter].

- The printer will be activated using the settings you input.



Note

Tap [Reset] to perform input again.



Important!

When activation is complete, the table will move to the front of the printer. At this time, be careful not to touch the table.

Step 2 Language Settings

Set the language displayed in status displays and dialog windows on the touch panel. Initially, the display is set to English. Even if the language is changed, function keys are displayed in English.

[1]



Tap the [SET UP] menu.

[2]



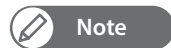
Tap the [Language] key.

- The language select dialog will appear.

[3]



Tap the language you would like to use, then tap [Change].



Note

Tap the [Cancel] key to return to the [SET UP] menu.

Step 3 Setting and Initial Charging of the Ink Cartridges

Set the ink cartridges and fill the for the first time following the procedure below.

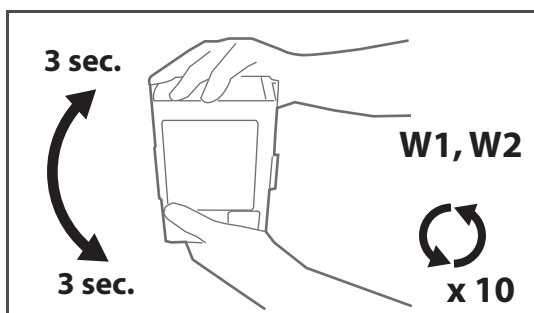
[1]



Check that the printer status on the touch panel is as shown below.

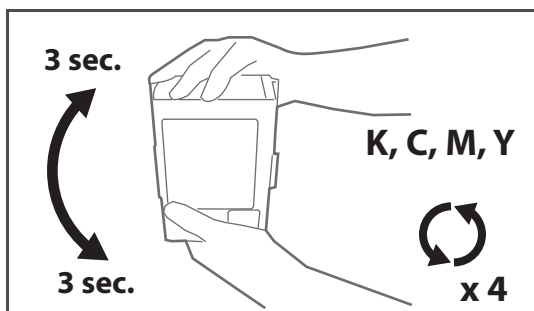
- "Machine has been cleaned"
- "Please fill ink for operation or discharge for storage"
- "Cartridge is not loaded"

[2]



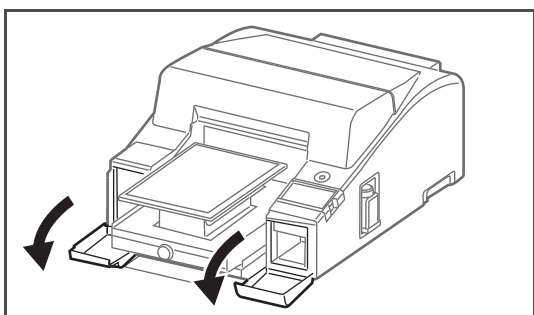
Make sure you agitate the ink cartridge after you unpack it.

- As for the white ink cartridge, turn the ink plug upward and wait for three seconds.
- Next, turn the ink plug downward and wait for three seconds.
- Repeat that 10 times.

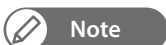


- As for other ink cartridges, turn the ink plug upward and wait for three seconds.
- Next, turn the ink plug downward and wait for three seconds.
- Repeat that four times.

[3]



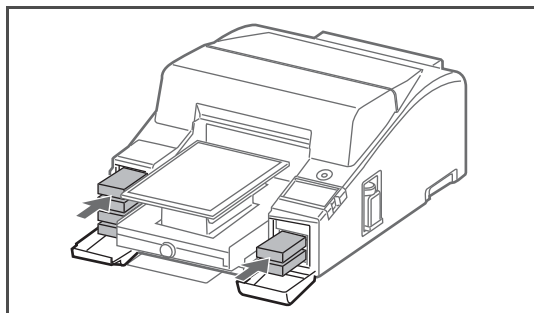
Open the cartridge covers on both sides.



Note

Push the cartridge cover, and it opens forward.

[4]



Set the ink cartridges.



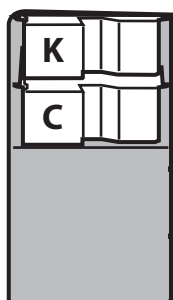
Note

- Match the label of this product to the color of ink cartridge.
- Insert the ink cartridges firmly and all the way.

VJ-404GT

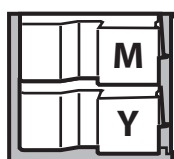
L

R



Black
(K)

Cyan
(C)



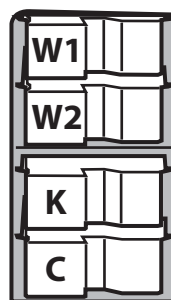
Magenta
(M)

Yellow
(Y)

VJ-405GT

L

R

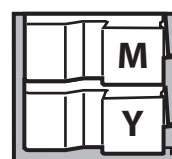


White 1
(W1)

White 2
(W2)

Black
(K)

Cyan
(C)



Magenta
(M)

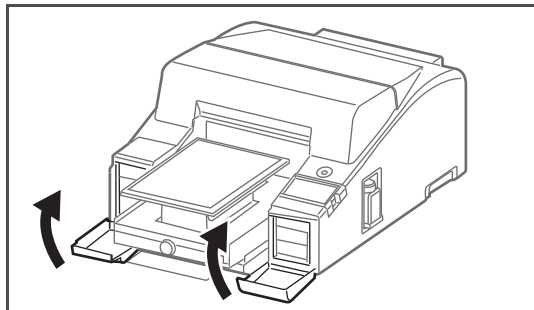
Yellow
(Y)



Important!

**White ink W1 and W2 cartridges have different shapes. Make sure to install in the correct slots.
If not, it may cause printer damage.**

[5]



Close the cartridge covers.

- The initial ink charging starts.



Important!

During initial charging, do not perform the following things.

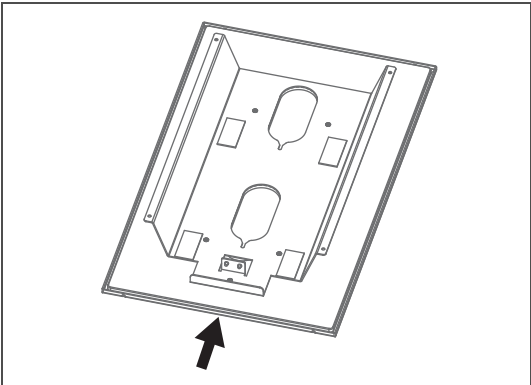
- Do not turn the power off or unplug the power cable.
- Do not open the front cover or the cartridge covers.

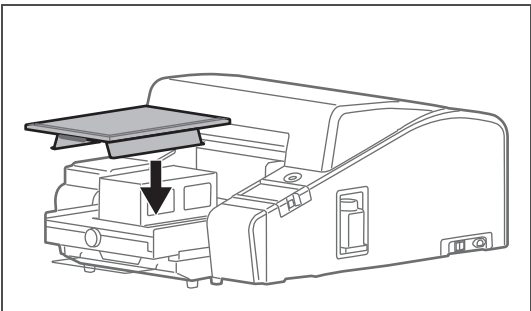
Step 4 Load the Media for Test Printing

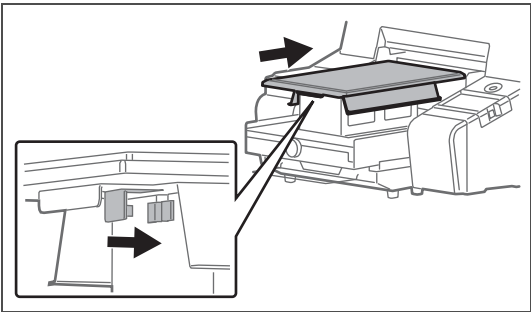
1. Platen installation

[1] Check that the power is on.

[2]  Make sure that the table is in the eject position.

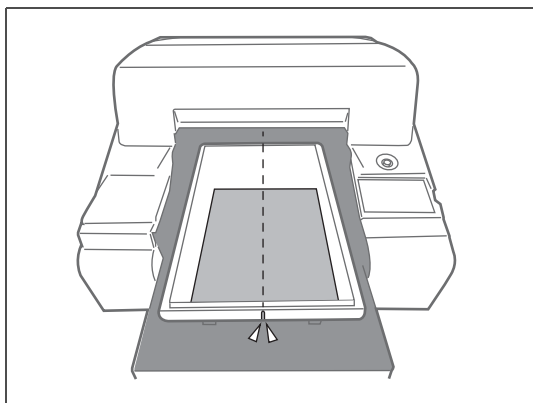
[3]  Turn over the platen and check the front part of the platen.
• The front part is shown by the arrow in the illustration.

[4]  Turn back the platen, and then place the platen on the printer table.

[5]  Insert it all the way in until it does not go any further.
• Put the latch on the bottom platen onto the catch on the table.

2. Placing the media on the platen

[1]



Place the media on the platen.

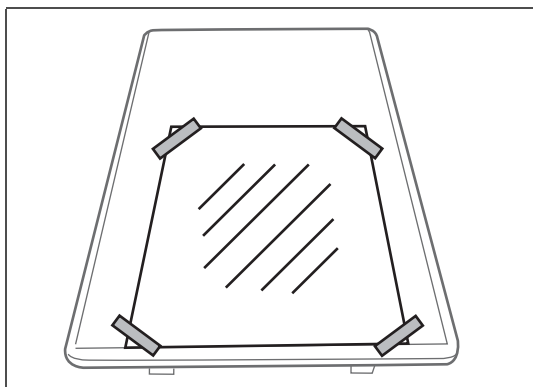
- Set the A4 size (210 mm x 297 mm) media vertically.
- Align the front edge of the media and the front edge of the platen.
- Align the center of the media and platen.
- There is a groove in the center of the platen's front edge. Use it as a measure for the set position.



Note

White ink is used on VJ-405GT. Therefore, we recommend using transparent or translucent media (such as OHP films or tracing paper and so on).

[2]



If the media does not sit flat on the platen, use tape to fix the four corners of the media.



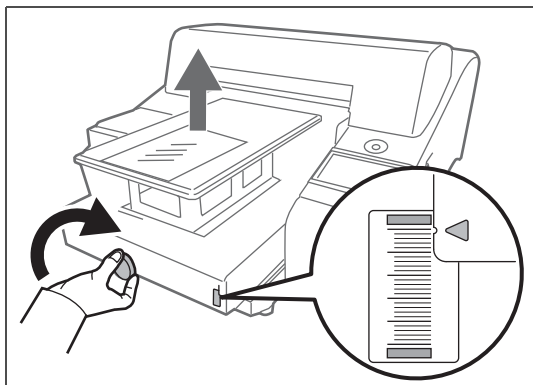
Note

If the media does not sit flat on the platen, it may cause an error.

3. Adjusting platen height

To raise the platen to an appropriate height, raise the platen to its highest position to cause an obstruction error, then gradually lower the platen to a height where the error disappears. For better printing, bring the media and print head as close together as possible.

[1]



Turn the table up-down dial to raise the platen to its highest position.



Important!

- **After lifting up the table all the way, do not turn the table up-down dial any further, as doing so could damage the printer.**
- **The same applies when lowering the table all the way.**

[2]



Tap the [MAIN] menu.

[3]



Tap the [SET] key.

- The table moves to the print start position.
- See below for the response to an obstruction error.

➡ ["When an obstruction error has occurred before printing" on page21](#)



Note

Tap the touch panel firmly. If you touch it lightly, it may not respond as it is pressure-sensitive.

4. When an obstruction error has occurred before printing

If the table height is too high, there is a foreign material on the platen, or the media does not sit flat on the platen, an obstruction error occurs. During the error, the sub power button flashes.

Follow the steps below and clear the cause of the error.

[1]



Tap [OK].

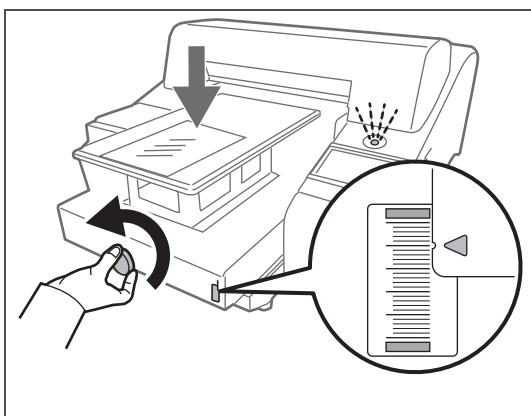
[2]

Visually check if there is a foreign material on the platen or if the media does not sit flat on the platen.

- If there is no foreign material on the platen and the media sit flat on the platen, proceed to step 3.
- If there is a foreign material on the platen or the media does not sit flat on the platen, see the following.

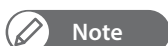
➡ ["If there is a foreign material or the media does not sit flat on the platen" on page22](#)

[3]



If there is no foreign material on the platen and the media sit flat on the platen, turn the table up-down dial to lower the table.

- Check the scale on the right edge of the table and lower the table little by little so that the gap between the print head and the media is not too wide.
- Lower it until the sub power button stops flashing.



Note

- One scale is 1 mm.
- When the gap between the print head and the media becomes wide, print quality declines. Bring the print head and the media very close together.

[4]



Tap the [SET] key.

- The table moves to the print start position.

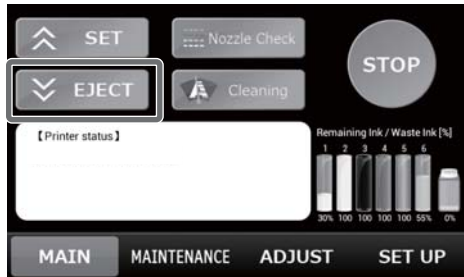
If there is a foreign material or the media does not sit flat on the platen



Important!

When obstacles are detected, carefully ensure that the printer is stopped, and then remove obstacles.

[1]



Tap the [EJECT] key.

- The table moves to the eject position.

[2]

Remove any foreign material on the platen. If the media does not sit flat on the platen, flatten out the media.

[3]



Tap the [SET] key.

- The table moves to the print start position.



Important!


**Never raise the height for the table after the table has moved to the print start position.
The table may touch the print head, damaging it.**

Step 5 Nozzle Check and Cleaning

Run the nozzle check printing, and if there is nozzle clogging, carry out cleaning.

1. Nozzle check steps

- [1] Set the media to use for nozzle check.

 ["Placing the media on the platen" on page20](#)

[2]



Tap the [MAIN] menu.

[3]



Tap the [SET] key.

- The table moves to the print position.

[4]



Tap the [Nozzle Check] key.

- The confirmation screen is displayed.

[5]

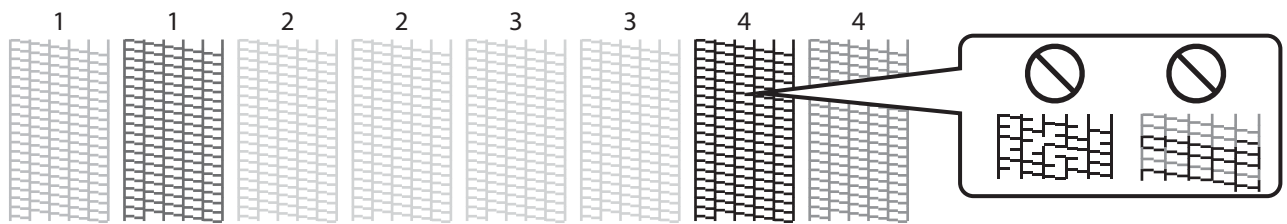


Tap [Yes].

- Print the nozzle check.

[6] Check the patterns.

- If there is nozzle clogging (a line is missing), or a line is blurred, proceed to ["Cleaning steps" on page24](#).
The number on the pattern which could not be printed properly is the number of the print head which must be cleaned.
- If the patterns are printed properly, proceed to ["Step 6 Network Settings" on page25](#).



2. Cleaning steps

[1]



Tap the [MAIN] menu.

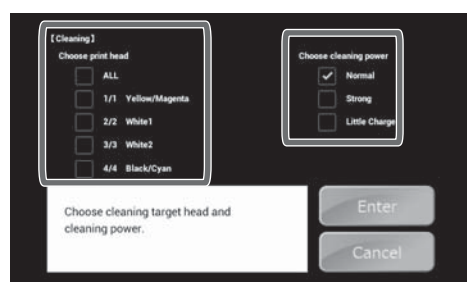
[2]



Tap the [Cleaning] key.

- The cleaning head selection screen is displayed.

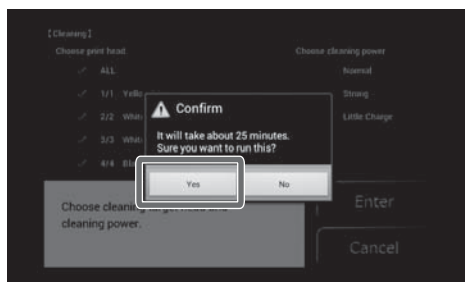
[3]



- Select the print heads you want to clean.
- You can select the strength of cleaning from [Normal], [Strong] and [Little charge].
- Once ink filling is complete, set the print head selection to [ALL] and the cleaning strength to [Strong] to perform the initial cleaning.

Note

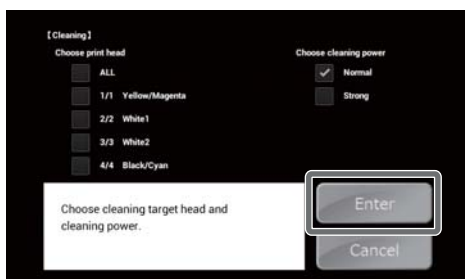
- The print head number corresponds to the number on the nozzle check pattern.
- [Little Charge] is a setting for more thorough cleaning than [Strong].
- The screen image on the left is for the VJ-405GT.



If the cleaning takes 10 minutes or longer, a message appears.

- Check the time and tap [Yes] to perform cleaning.

[4]



Tap [Enter].

- Cleaning will start.

[5] Conduct a nozzle check, again.

- Repeat the cleaning and nozzle checks until there is no more nozzle clogging or blurred lines.

👉 ["Nozzle check steps" on page23](#)

Step 6 Network Settings

[1]



Tap the [SET UP] menu.

[2]



Tap the [IP Address] key.

- The address setting screen is displayed.

[3]



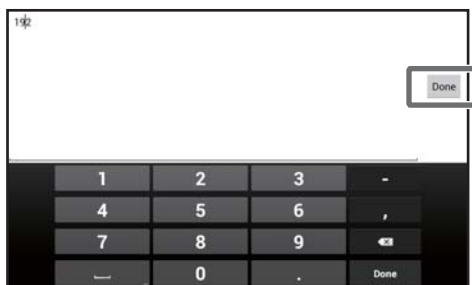
Set the IP Address.

- Tap the segment (number) you want to change.
- The number entry screen is displayed.

Note

- Set an IP address that is different from the IP address of the computer that the printer will be connected to.
- Be sure to set the IP address after consulting the network administrator.

[4]



Use the numerical keyboard to enter numbers.

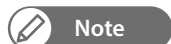
- Tap [Done] to confirm the entry.

[5]



Set the subnet mask (Netmask).

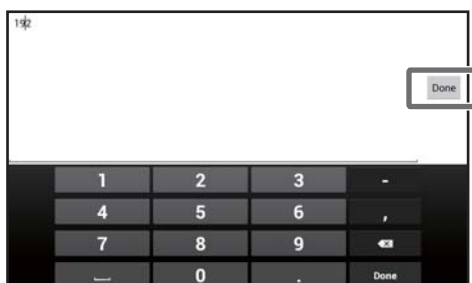
- Tap the segment (number) you want to change.
- The number entry screen is displayed.



Note

Be sure to set the subnet mask after consulting the network administrator.

[6]



Use the numerical keyboard to enter numbers.

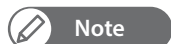
- Tap [Done] to confirm the entry.

[7]



Set the Gateway.

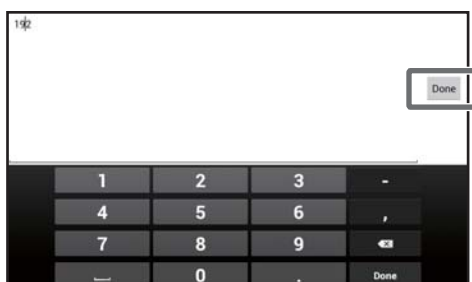
- Tap the segment (number) you want to change.
- The number entry screen is displayed.



Note

- If the printer is to be connected to peer-to-peer to a computer, you can leave the settings at the default values.
- Be sure to set the Gateway after consulting the network administrator.

[8]



Use the numerical keyboard to enter numbers.

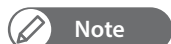
- Tap [Done] to confirm the entry.

[9]



Tap the [Change] key.

- Update the printer's address settings with the entered values.



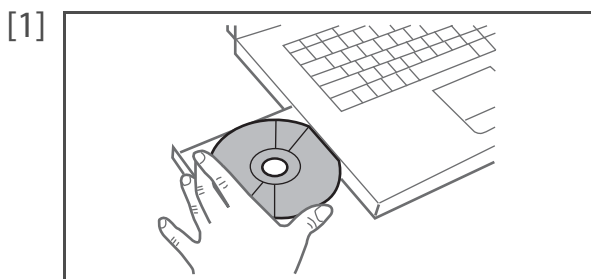
Note

Tap [Cancel] to close the address setting screen.

Step 7 Software Installation

The accessory CD contains the software and data listed below.

Layout and Print Tool	Used to layout the data on a T-shirt and print.
Printer driver	Sends print data from the computer to the printer. It also allows to change the print settings.
Manuals	The following manuals are included in a PDF format. <ul style="list-style-type: none">• VJ-404GT/405GT Startup Guide (this document)• VJ-404GT/405GT Operation Manual• Layout and Print Tool Operation Manual• Platen Edit Tool Operation Manual• VJ-405GT White Printing Guide



Set the accessory CD in the computer's CD/DVD drive.

- The setup wizard will start automatically.
- If it does not start automatically, right-click on the CD/DVD drive icon to open it, and double-click VjTotalnst.exe.



Click [Main Menu].



Install the software.

- This completes the initial settings.

Note

- Please keep the CD-ROM somewhere safe. You will need it when re-performing setup.
- If you want to finish operations here, put the printer in sleep mode; do not turn off the printer.

👉 ["Sleep mode" on page47](#)

Printing on T-shirts

This section is an excerpt from a section with the same name in the VJ-404GT/405GT Operation Manual. This document contains the bare minimum information. Be sure to read the Operation Manual later.

Items Needed to Print on a T-shirt

The following items are needed to print on a T-shirt.

Heat press (commercially available)

Used to remove wrinkles from the fabric and to fix the pre-treatment solution or ink to the fabric. The press surface should be larger than the platen in use, and it should be able to maintain 170 °C or higher for 60 seconds.

Heat-durable and fissile sheet (commercially available)

Place between the heat press and the T-shirt. Use one that can withstand temperatures of 180 °C or higher, made of silicon paper or fluoro-resin.

T-shirt

We recommend using a T-shirt made of the following materials.

- 50% to 100% cotton
- 100% polyester



Note

- White ink cannot be used for 100% polyester materials.
- Ink strike through or ink bleeding may occur depending on garment materials.

Pre-treatment solution (optional product)

There is a pre-treatment solution for white ink, and one for polyester.

- When using white ink, the ink will not be colored if you do not use the white ink pre-treatment solution.
- When printing on light-colored 100% polyester fabric, the ink will bleed if you do not use the polyester pre-treatment solution.

Pre-treatment kit (optional product or commercially available)

Includes a hard roller, cloth roller, and tray.

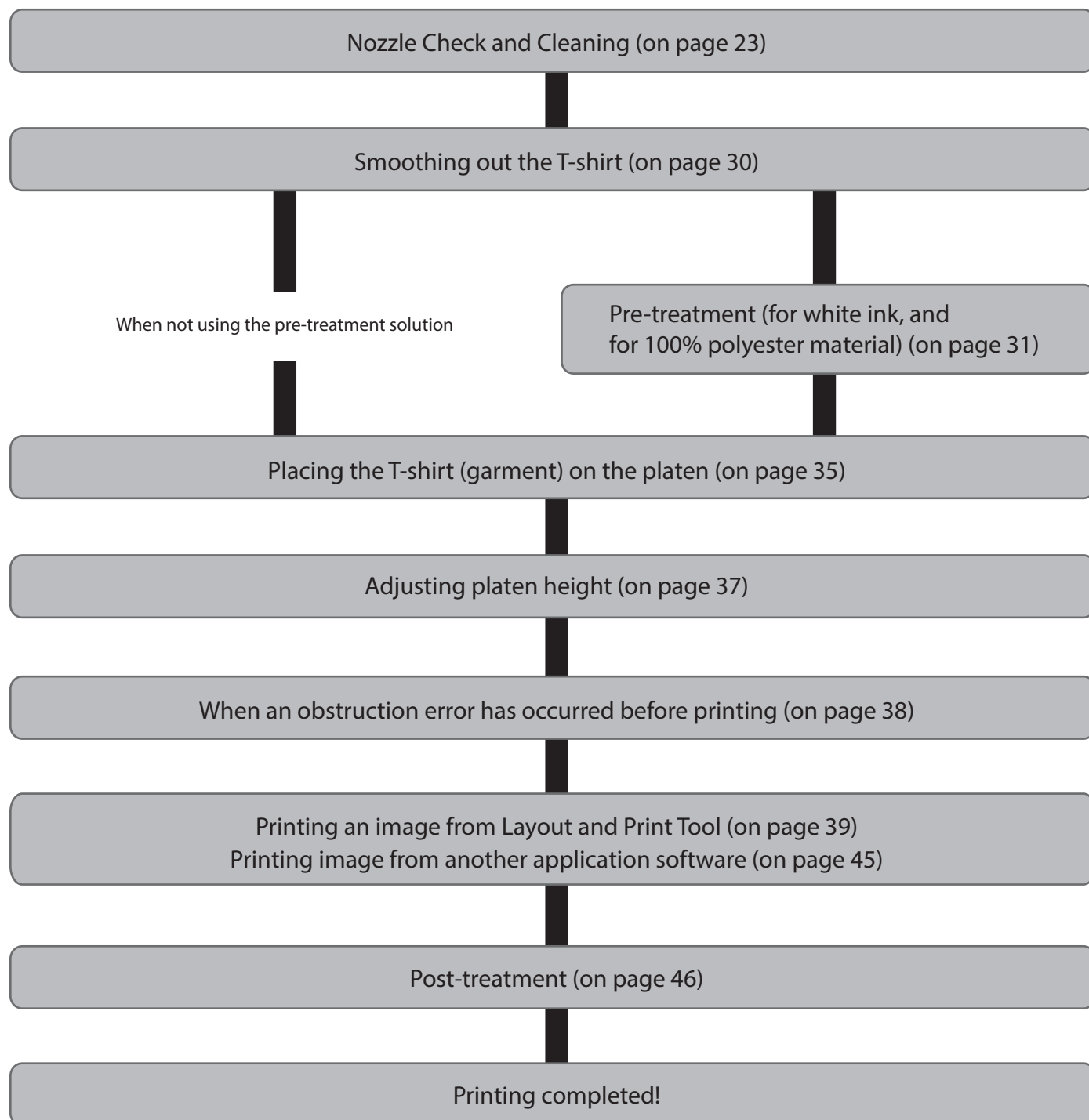
- The hard roller is for flattening any scuffing on the T-shirt.
- The cloth roller is for applying the pre-treatment solution to the T-shirt.
- The tray is for dipping the cloth roller in the diluted pre-treatment solution.

Pure water (commercially available)

We recommend using pure water (purified water) for diluting the pre-treatment solution.

Flow of Printing

The general procedures of T-shirt printing is as follows.

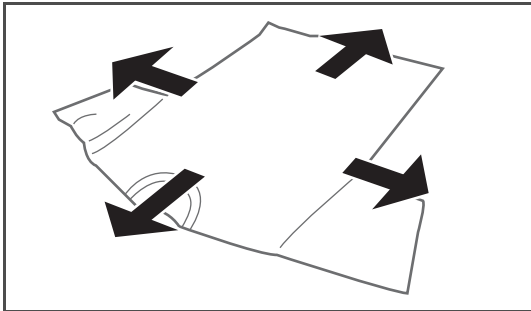


Pre-treatment (Common)

1. Smoothing out the T-shirt

This method is applied to all types of ink and garment. Perform these steps first.

[1]



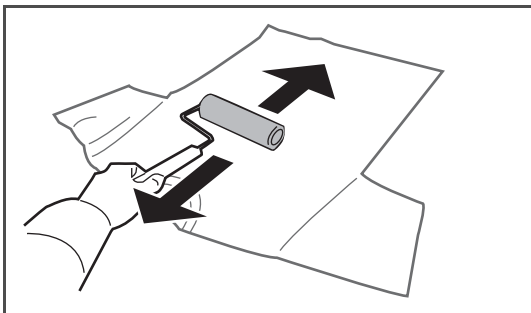
- Spread out a T-shirt on a flat surface.
- Smooth out the wrinkles with hands.



Note

Remove any dust from the surface.

[2]



Use a hard roller to smooth out the T-shirt.

- If you are not using white ink or polyester material, proceed to ["Placing the T-shirt \(garment\) on the platen" on page35](#).
- If you are using white ink or polyester material, proceed to ["Diluting the pre-treatment solution" on page33](#).

Pre-treatment (for white ink, and for 100% polyester material)

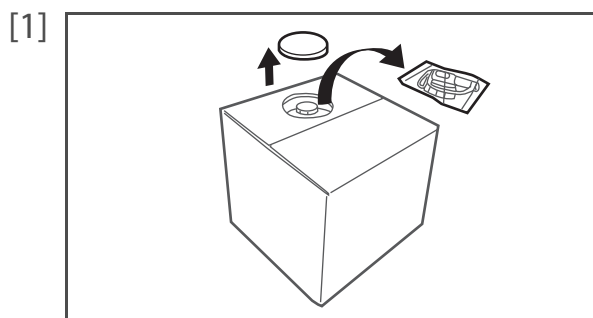
When printing in white ink, use the pre-treatment solution for white ink.

When printing on light-colored 100% polyester fabric, use the pre-treatment solution for polyester.

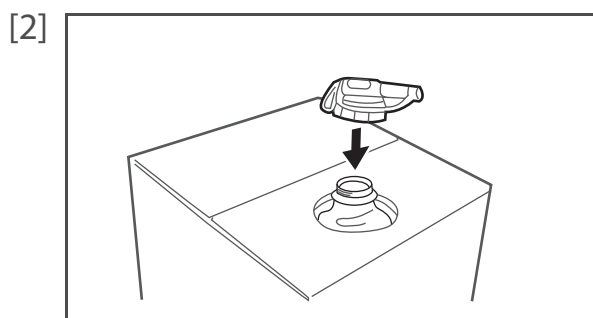
- Be sure to shake the pre-treatment solution for white ink before diluting it.
- Dilute the pre-treatment solution before applying it.

1. Preparation

How to attach the tap (10-liter container type)

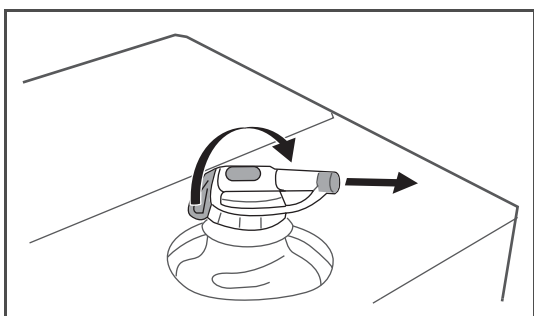


Cut the packaging for the pre-treatment solution along the perforated line and remove the tap.



Attach the tap.

How to pour



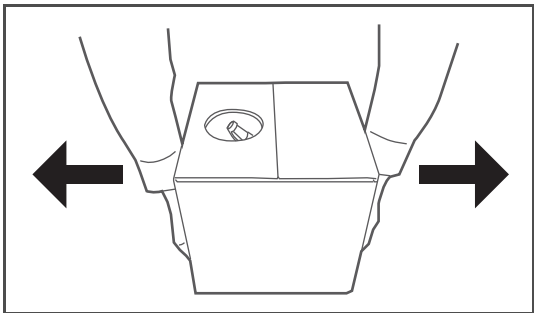
Remove the tap cap then move the lever so that the hole faces downward.

2. Shaking the pre-treatment solution for white ink

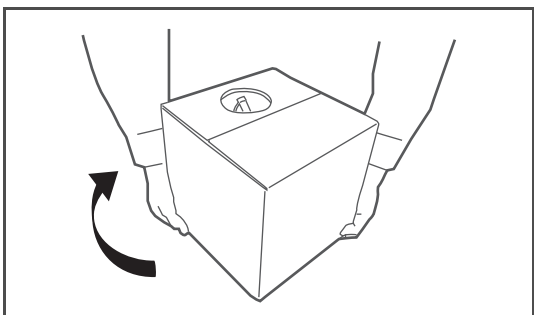
Shaking the pre-treatment solution for white ink (10-liter container type)

[1] Check that the tap is closed.

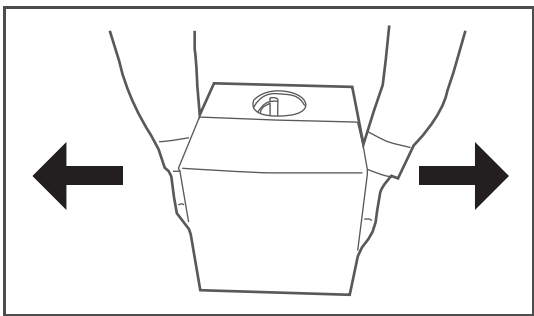
[2]  Shake it left and right for 30 seconds.



[3]  Change the container's orientation.



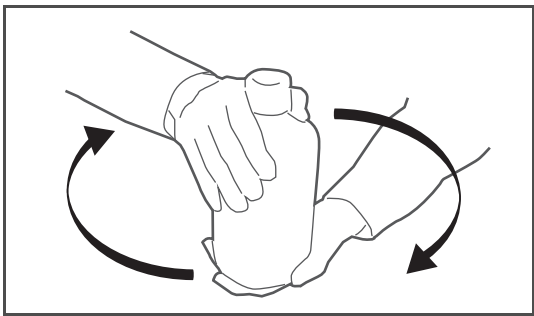
[4]  Shake it another 30 seconds.



Shaking the pre-treatment solution for white ink (1-liter container type)

[1] Check that the tap is closed.

[2]  Shake it for one minute, moving it around horizontally.



3. Diluting the pre-treatment solution

White ink pre-treatment solution

When using white ink pre-treatment solution, dilute it to 1.5 to 2 times.
The recommended coverage is 7 g to 12 g for a A4-sized printing area.

Dilution example (x1.5-2):

- 100 g of the pre-treatment solution for white ink
- 50 g to 100 g of pure water

Polyester pre-treatment solution


When using polyester pre-treatment solution, dilute it to 20 times.
The recommended coverage is 5 g to 10 g for a A4-sized printing area.

Dilution example (x20):

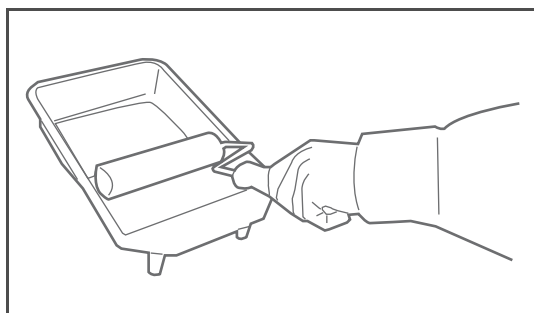
- 100 g of the pre-treatment solution for polyester
- 1,900 g of pure water

4. Applying the pre-treatment solution

[1] Smooth out the T-shirt.

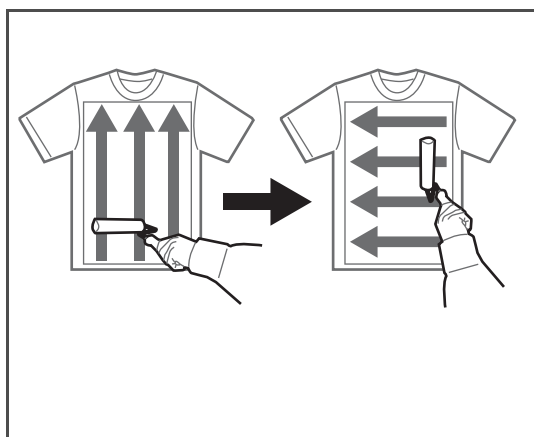
 ["Smoothing out the T-shirt" on page30](#)

[2]



Pour the diluted pre-treatment solution in the tray, and then soak the roller in the solution.

[3]



Use a roller to apply the pre-treatment solution on a T-shirt.

- Evenly apply the solution vertically, then evenly apply the solution again horizontally.

Note

- We recommend spraying the solution to a slightly larger area than an actual printing area.
- Do not apply too much pre-treatment solution.
Excessive pre-treatment can provide proper print result before washing, however it may cause poor wash fastness and durability (cracking and loss of color may occur).

[4] Use the heat press to dry and adhere the pre-treatment solution.

 ["Using the heat press" on page34](#)

 ["Ink adherence conditions \(with heat press\)" on page34](#)

Using the heat press

Use a commercially available heat press. Use it to clear the wrinkles on the T-shirt, and dry and adhere the pre-treatment solution and ink.

When using a heat press, insert a sheet that is both heat-resistant (180 °C or higher) and fissile, such as a silicone paper, between the T-shirt and the press surface.

Ink adherence conditions (with heat press)

Temperature	Time	Pressure
170°C	60 seconds	3N/cm ² (300gf/cm ²) or more

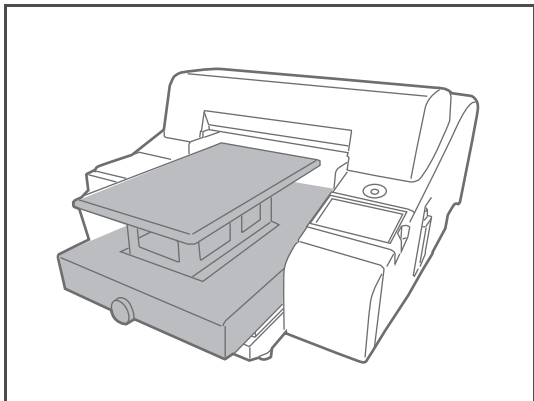
Note

- Use the conditions above as a reference only, since optimum conditions vary depending on heat press and materials.
- Heat press application produces vapors.
Avoid breathing vapors during this operation.
- If the ink does not fully adhere on the T-shirt, it may cause low wash fastness.
- After applying the heat press, the pre-treated area is visible on the garment. It can be removed with washing.

1. Placing the T-shirt (garment) on the platen

This section explains for the Small or Medium-sized platen only.
For the Large-sized platen (option), see the VJ-404GT/405GT Operation Manual.

[1]



Make sure that the table is in the eject position.

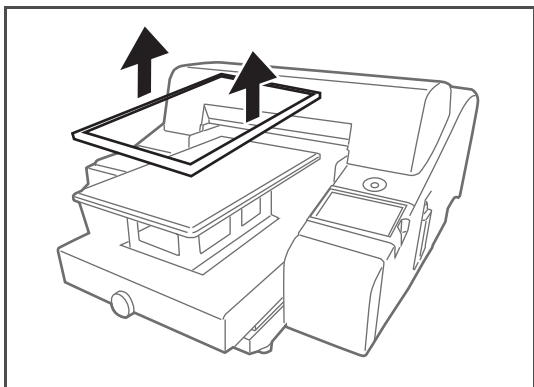


If the table is not in the eject position, tap the [MAIN] menu.



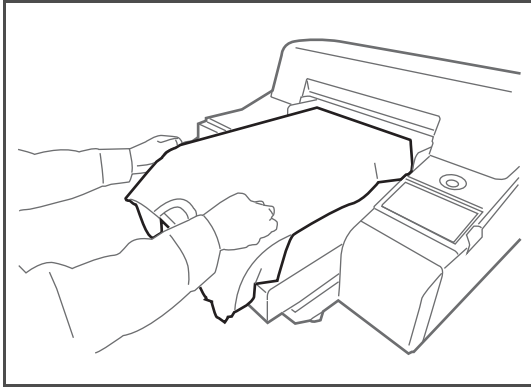
Tap the [EJECT] key to move the table to the eject position.

[2]



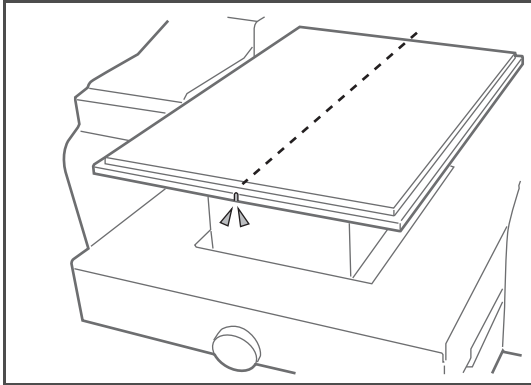
Remove the platen frame.

[3]



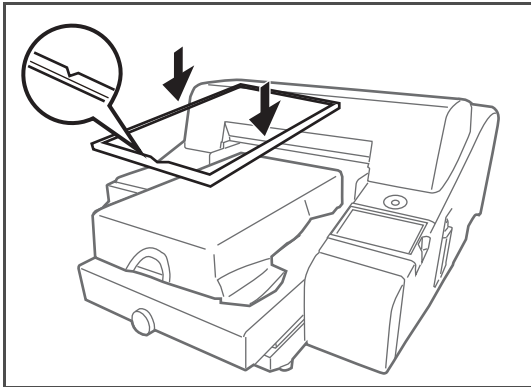
Place the T-shirt on the platen, with the collar on the front side.

- Lightly smooth out any wrinkles on the T-shirt.



- There is a groove on the platen front end to indicate the center position. Using the groove as a guide, align the center of the T-shirt and the platen center.

[4]



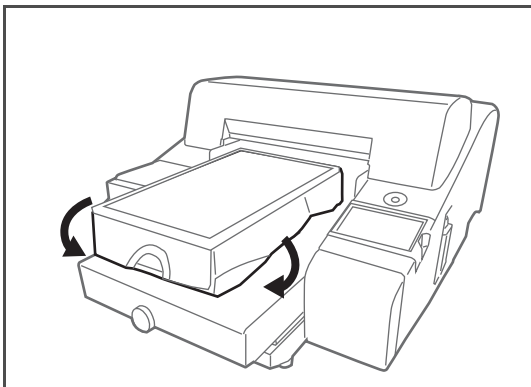
Place the frame.

- Lightly smooth out the T-shirt.

 Note

- Do not stretch the T-shirt so much. If so, the T-shirt will shrink after removing the frame and it may affect the print result.
- The V-notch on the frame center indicates the center position of the platen. When the notch and the T-shirt center are misaligned, adjust the T-shirt position.

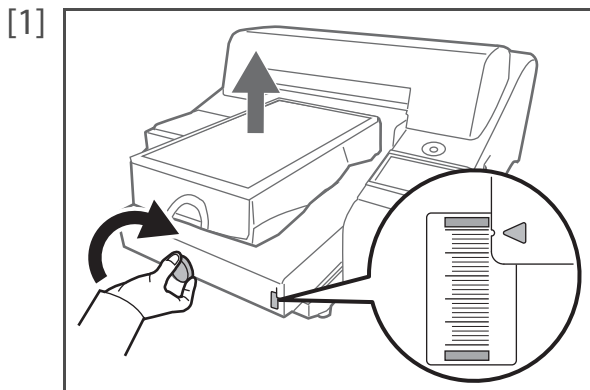
[5]



Tuck the excess shirt material under the platen.

2. Adjusting platen height

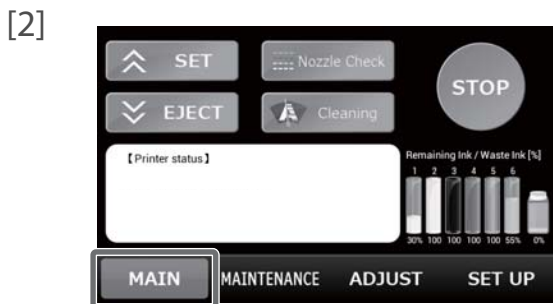
To raise the platen to an appropriate height, the platen to its highest position to cause an obstruction error, then gradually lower the platen to a height where the error disappears. For better printing, bring the garment and print head as close together as possible.



Turn the table up down dial to raise the platen to its highest position.

Important!

- After lifting up the table all the way, do not turn the table up-down dial any further, as doing so could damage the printer.
- The same applies when lowering the table all the way.



Tap the [MAIN] menu.



Tap the [SET] key to move the table to the print start position.

- See below for the response to an obstruction error.

👉 ["When an obstruction error has occurred before printing" on page38](#)

3. When an obstruction error has occurred before printing

If the table height is too high, there is a foreign material on the platen, or the garment does not sit flat on the platen, an obstruction error occurs. During the error, the sub power button flashes.

Follow the steps below and clear the cause of the error.

[1]



Tap [OK].

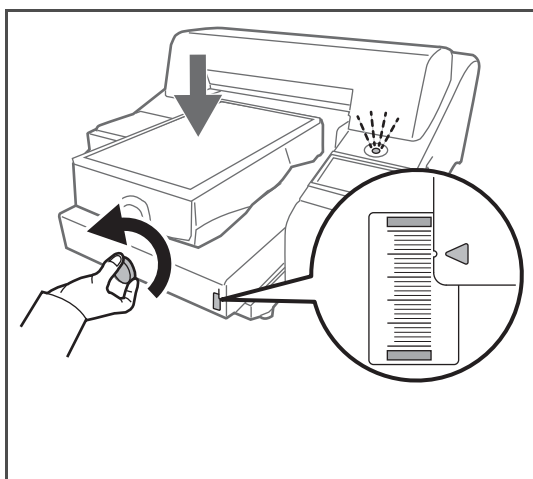
[2]

Visually check if there is a foreign material on the platen or if the garment does not sit flat on the platen.

- If there is no foreign material on the platen and the garment sit flat on the platen, proceed to step 3.
- If there is a foreign material on the platen or the garment does not sit flat on the platen, see the following.

👉 ["If there is a foreign material or the media does not sit flat on the platen" on page22](#)

[3]



If there is no foreign material on the platen and the garment sit flat on the platen, turn the table up-down dial to lower the table.

- Check the scale on the right edge of the table and lower the table little by little so that the gap between the print head and the garment is not too wide.
- Lower it until the sub power button stops flashing.

Note

- One scale is 1 mm.
- If the head gap (between the print head and garment) becomes wider, it may cause poor print quality.
Bring the print head and the garment very close together.

[4]



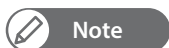
Tap the [SET] key to move the table to the print start position.

4. Printing an image from Layout and Print Tool

You can layout and print out the images using the Layout and Print Tool that is installed from the supplied CD. This section only describes the basic printing method. For more details on how to use it, see the Operation Manual for the Layout and Print Tool.

The following image formats can be used in Layout and Print Tool.

- PNG (.png)
- Bitmap (.bmp)
- JPEG (.jpg)
- TIFF (.tif)

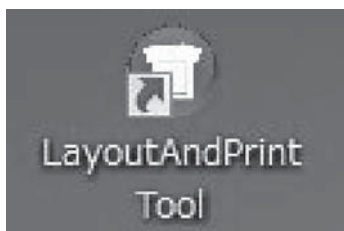


Note

Some TIFF format images are not supported.

Starting Layout and Print Tool

[1]



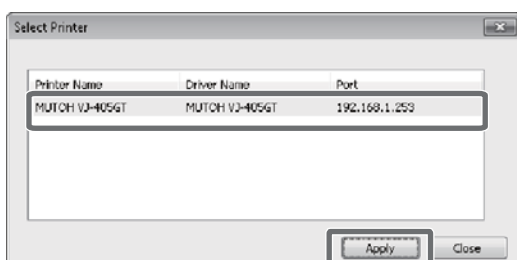
Windows 8 / Windows 8.1

On the [Start] screen, click [Desktop].
Double-click the Layout And Print Tool icon on the desktop.

Windows 10 / 7 / Vista

Double-click the Layout And Print Tool icon on the desktop.

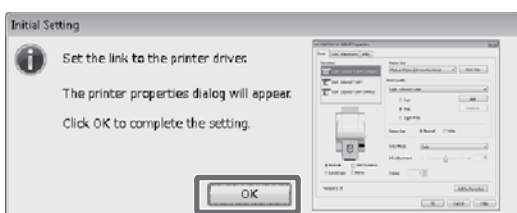
[2]



When starting up for the first time, the printer driver selection screen is displayed.

- Click a printer driver to select it, then click [Apply].
- The confirmation screen in step 3 is displayed only if you have never performed printer driver settings.

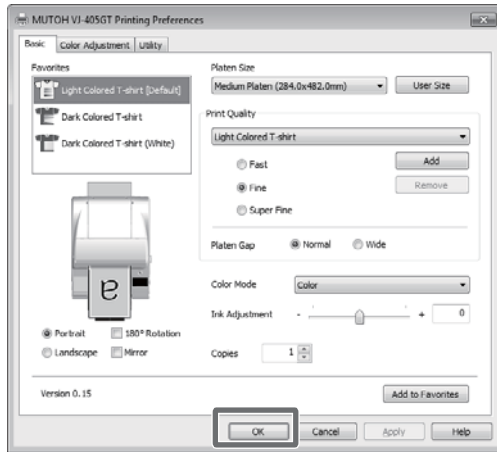
[3]



Click [OK] on the confirmation screen.

- The printer properties screen is opened.

[4]



Click [OK].

- The Layout and Print Tool is opened.

Printing in color (CMYK)

[1]



Select the platen size to be used in printing.


[2]



Select the image to be used in printing.

[3]



Click the  button, and apply the image to the T-shirt.

[4]



Adjust the position of the image. You can adjust it the following ways.

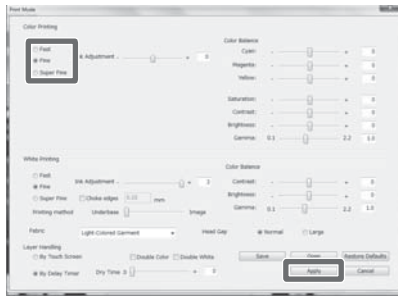
- Move it to any position using the mouse.
- Click the layout buttons (A in the figure on the left).
- Directly input the values (B in the figure on the left).

[5]



Click [Print Mode Setting].

[6]



Choose print mode, and click [Apply].

- Fast: Mode for faster print speed. (600 x 600 dpi)
- Fine: Mode for standard performance. (600 x 1,200 dpi)
- Super Fine: Mode for better image quality. (1,200 x 1,200 dpi)

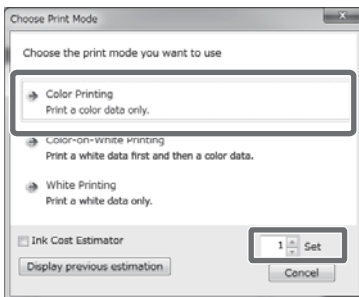
[7]



Click the [Print] button.

- The print dialog is displayed.

[8]



Enter the set value, and then click the [Color Printing] button.

- Printing will start.

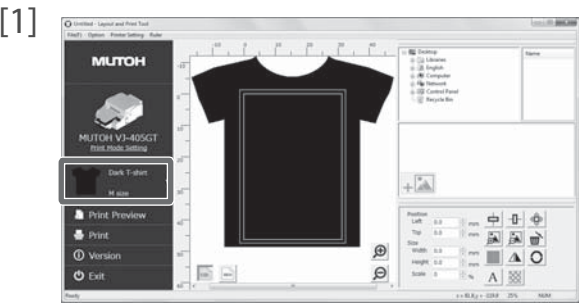
Note

- If an obstruction error has occurred due to the textile expanding while printing, see the following.
["When an obstruction error has occurred during printing" on page45](#)
- After printing, make sure you perform post-treatment.
["Post-treatment" on page46](#)
- The file name of the data that is being printed is displayed on the printer's touch panel.

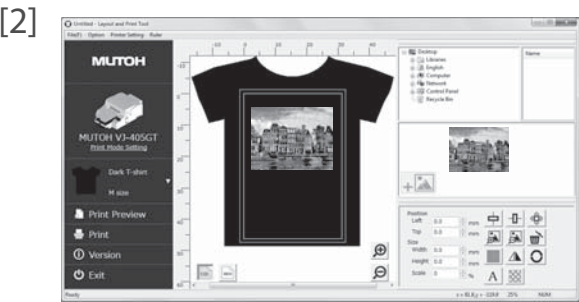
Important!

**Do not open or close the cartridge covers during printing or cleaning.
The ink level may be detected erroneously, or indicated as zero.**

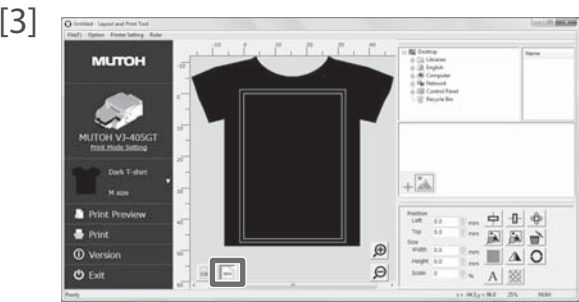
Printing white



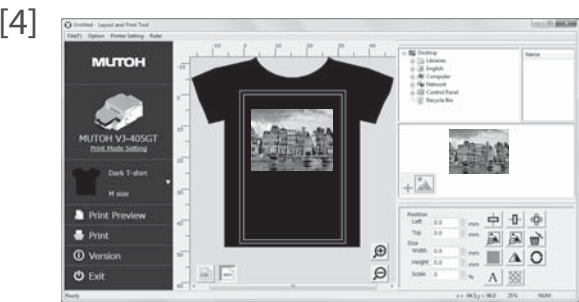
When using dark-colored T-shirts, select [Dark Colored T-shirt], during selecting platen size to be used for printing.



- When performing [Color-on-White Printing], select and place an image in the same procedure as for the color printing.
- When performing [White Printing], proceed to step 3 without placing an image.



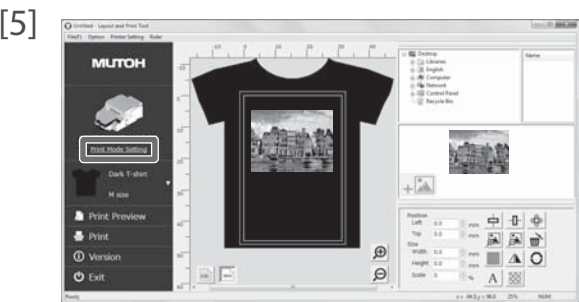
- Click the [View White] button.
- The editing screen for white printing is displayed.



Select the image and perform layout in the same way as with color printing.

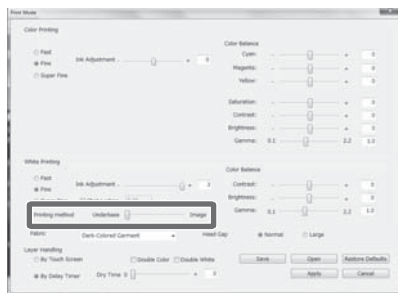
Note

- This application has separate areas for editing color printing and white printing. Edit the data for color printing and the data for white printing separately.
- The data for white printing is displayed in color until printing.



Click [Print Mode Setting].

[6]



Change the slider of [Printing method] under [White Printing] depending on purposes of the white printing.

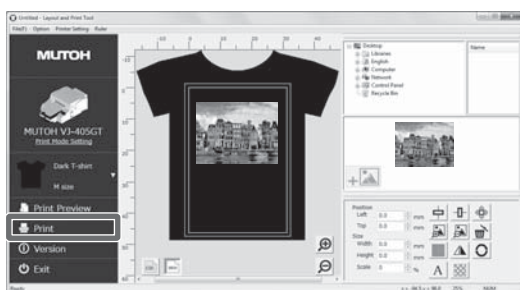
- Underbase: Use this setting when printing the underbase in white.
- Image: Use this setting when printing a tone-image in white.
- In-between underbase and image: Use this setting when reducing amount of white ink.

[7]



Click [Apply].

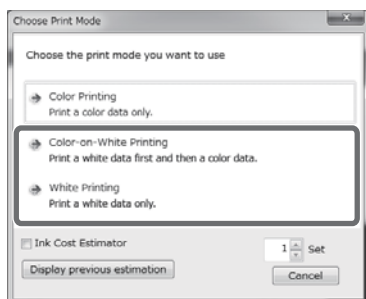
[8]



Click the [Print] button.

- The print dialog is displayed.

[9]



Click the [Color-on-White Printing] or the [White Printing] button.

- Printing starts.



Note

- If an obstruction error has occurred due to the textile expanding while printing, see the following.
["When an obstruction error has occurred during printing" on page45](#)
- After printing, make sure you perform post-treatment.
["Post-treatment" on page46](#)
- The file name of the data that is being printed is displayed on the printer's touch panel.

When an obstruction error has occurred during printing

During printing, the heat may cause the textile to expand, causing an obstruction error. In such a case, either lower the height and continue printing, or cancel printing.

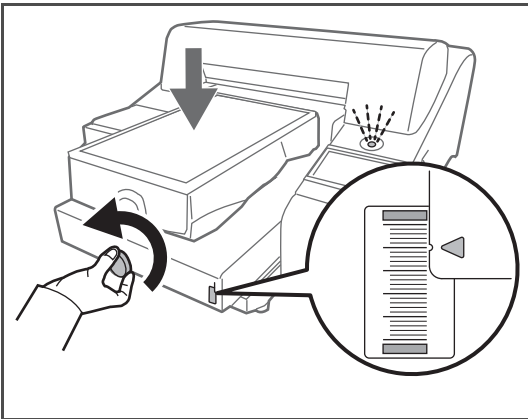
[1]



Check the error screen.

- If you will continue printing, proceed to step 2.
- If you will cancel printing, tap [No].

[2]



Turn the table up-down dial to lower the table.

- Check the scale on the right edge of the table and lower the table little by little so that the gap between the print head and the garment is not too wide.
- Lower it until the sub power button stops flashing.



Note

- One scale is 1 mm.
- When the gap between the print head and the garment becomes wide, print quality declines.
Bring the print head and the garment very close together.

[3]



Tap [OK].

- The printer restarts printing.

5. Printing image data from another application software

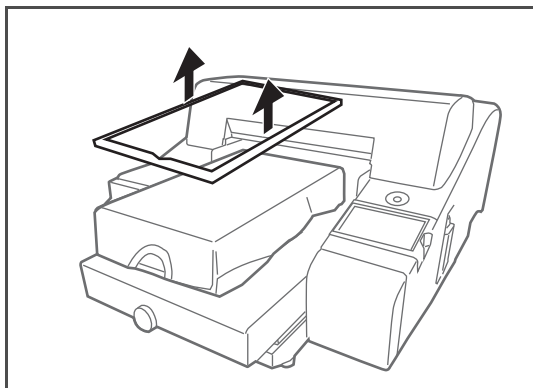
You can also print from an imaging application other than the Layout and Print Tool.
For the details, see the operation manual.

 [VJ-404GT/405GT Operation Manual](#) "Printing image data from another application software" on page 58

Post-treatment

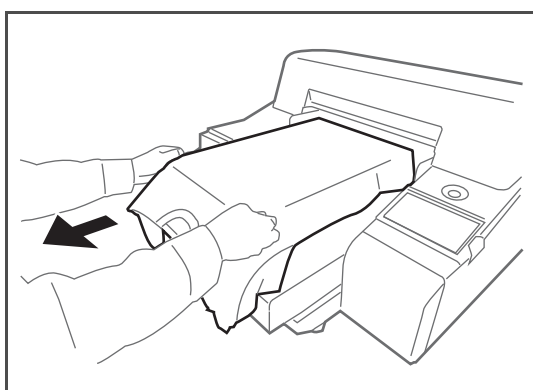
After printing, you have to use the heat press to dry and adhere the ink. Do not touch the printed surface until post-treatment is complete.

[1]



Remove the frame.

[2]



Remove the T-shirt.



Note

The ink will stick to you if you touch it, as the ink has not dried yet.


Be careful not to touch the ink.

If the ink gets stuck on your skin, respond with the first-aid method described on the ink's safety data sheet (SDS).

[3]

Use the heat press to dry and adhere the ink.

 ["Using the heat press" on page34](#)

 ["Ink adherence conditions \(with heat press\)" on page34](#)




Note

Mutoh recommends to apply heat press within 5 minutes after printing.



Important!

- **When work is finished for the day, clean each part as necessary while referencing the dedicated ink caution sheet.**
- **If you want to finish operations, put the printer in sleep mode; do not turn off the printer.**


 ["Sleep mode" on page47](#)

Sleep mode

When not using this printer, make sure you put the printer into sleep mode. If you do not put the printer into the sleep mode, the ink in its interior could settle out and/or coagulate, causing poor image quality or printer failure. If you set the printer's sleep mode, the printer automatically performs the following operations at regular time intervals:

- Head cleaning
- White ink line circulation

Important!

- To continue the sleep mode, perform the following:
 - Agitate the white ink cartridge (Once a day).
If you are unavailable to do it during weekend or holidays, make sure to agitate the white ink cartridge before using the printer next time.
 - Check the remaining ink, and if “* ink low” (* indicates the ink color) is displayed, replace the ink cartridge.
 - Please clean the cleaning wiper, the cap, and the area around the print head (Once a week).
- Please use this product at least once per week. Leaving the printer unused for long periods of time can cause nozzle clogging in the print head and unit failures.
- If the printer is not to be used for long periods of time (more than a week), store it with the cleaner charged.
 Operation Manual “Transporting and long-term storage” on page 122

Steps

[1] Make sure that the printer's operating condition is as follows:

- The front cover and the cartridge covers are closed.
- The remaining ink level is sufficient.
- The waste ink bottle has enough space.

Important!

If the printer will remain in sleep mode for a long period of time, first empty the waste fluid bottle. Once it is empty, reset the waste fluid counter.

[2]



Tap the [MAINTENANCE] menu.

[3]



Tap the [Sleep Mode] key.

- The confirmation dialog will appear.


[4]



Tap [Yes].

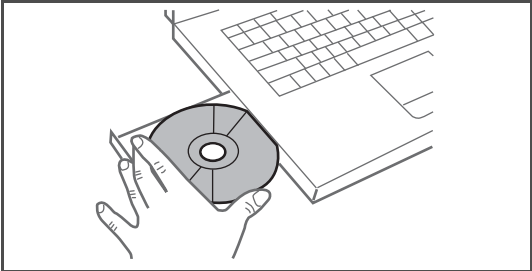
- The table will move to the eject position.
- The sleep mode will start.
- To wake up from sleep mode, turn on the sub power button.

 **Important!**

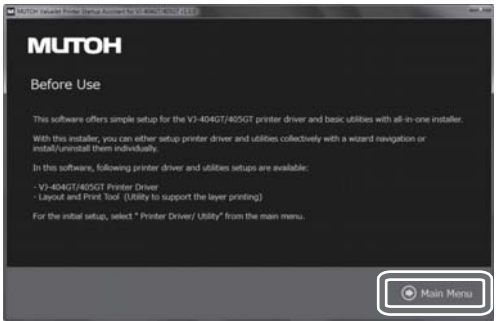
- If a message appears on the touch panel after the printer wakes from sleep mode, follow the instruction on the panel to agitate the ink cartridge.
- When an error occurs while in sleep mode, the sub power button flashes rapidly. In such cases, follow the instructions on the following page:
 Operation Manual “Error messages during regular operation and possible solutions” on page 139


Viewing the manuals

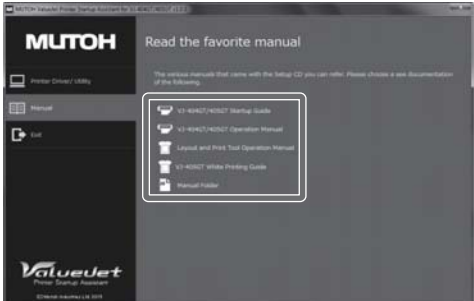
To view the manuals in the accessory CD, perform the following procedure.

- [1] 

Set the accessory CD in the computer's CD/DVD drive.

 - The setup wizard will start automatically.
 - If it does not start automatically, right-click on the CD/DVD drive icon to open it, and double-click VjTotalnst.exe.
- [2] 

Click [Main Menu].
- [3] 

Click [Manual].
- [4] 

Click the manual you want to read.

Important Notices

For Users in Europe



The CE marking is a mandatory European marking for certain product groups to indicate conformity with the essential health and safety requirements set out in European Directives.

By affixing the CE marking, the manufacturer, his authorized representative, or the person placing the product on the market or putting it into service ensures that the item meets all the essential requirements of all applicable EU directives and that the applicable conformity assessment procedures have been applied.

For Users in the United States

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules.



These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.



Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

About the safety notices

Signification of WARNING and CAUTION

 WARNING	Used for dangerous situations where death or serious injury may be caused.
 CAUTION	Used for dangerous situations that may cause slight or medium injury, or when all or parts of products are damaged.

Meaning of symbols

Warning symbol	Meaning
	Indicates "prohibited" operations.
	Indicates "required" operations.



Note

For names of each part in the safety displays, see the "Introduction" in the Operation Manual.

Electric Shocks / Short-circuits / Fires

WARNING



Do not install the printer in a location with much humidity or dust.
Doing so could cause electric shocks or fires.



Do not use a damaged power cable.
It could cause electric shocks or fires.



Do not insert or unplug the power plug when your hands are wet.
It could cause an electric shock.



Do not connect the ground line in the following locations.

- Gas pipe
It could cause ignition or an explosion.
- Telephone ground line or lightning rod
A massive current could flow if hit by lightning.
- Water pipe or faucet
If part of the pipe is made of plastic, it will not act as a ground.



Do not insert or drop any metal or flammable materials into the product from the open sections such as the vent.
It could cause an electric shock or fire.



If foreign materials or liquid, such as water, gets inside the product, do not use the product.
It could cause an electric shock or fire.
Immediately turn the power button off, pull the power plug from the outlet, and contact customer support.



Be sure to use the specified power source.
If you use a power source other than the one specified, it could cause electric shocks or fires.



Plug in the power cord directly to the power outlet.
Do not use a power strip or the like.
It could cause heat and fires.



Be sure to use a grounded dedicated outlet for the power source, and connect the ground line.
Not connecting the ground line could cause electric shocks or fire.



Wire each cord (cable) as instructed in this document.
Mistaken wiring could cause fires.



Be sure to use the specified power cable.

- If you use a power cable other than the one specified, it could cause electric shocks or fires.
Inquire at your sales solution regarding the specified cable.
- For your power cable, use one equipped with a protective grounding terminal, and insert it firmly into the outlet.
- Use a power cable that meets the safety rating, power voltage, and plug shape of the country where the product will be used.



Do not block the vent on the product with cloth or other material.
If you cover the vent, the product interior may get hot and cause a fire.

CAUTION



When handling the power cable, be careful of the following things.

- Do not modify the power cable.
- Do not place anything heavy on the power cable.
- Do not forcefully bend, twist, or pull the power cable.
- Do not place the power cable near any heater.



When handling the power plug, be careful of the following things.
Mistaken handling could cause fires.

- Do not insert the power plug if it is covered in foreign material, such as dust.
- Firmly insert the power plug all the way to the round base.



Be careful not to let moisture into this product.
The electrical circuits could short-circuit.



Never open any covers that are fixed down with screws.
Doing so could cause an electric shock or printer failure.



When installing the dedicated stand, be sure to turn the power off and unplug the power plug.
It could cause electric shocks.



If not using this product for a long period of time, be sure to remove the power plug from the outlet for safety.



Be sure to connect the ground line to a ground line the meets the following standards.

- Ground terminal of the power outlet
- Ground line of copper buried 650 mm or deeper

Installation

WARNING



Do not install this product in the following locations.
The product may tip over or fall, causing injury.

- On top of a shaky stand
- On an uneven place
- In a place affected by vibrations, such as from other machines

CAUTION



Do not tilt this product, prop it up against something, or set it upside down.
Doing so could cause the ink inside to leak.
Also, proper operation cannot be ensured after it is moved.



Keep this product level when moving it.



When unpacking or moving this product, be sure to work with four or more people.

Handling

WARNING



Do not climb on this product or place a heavy object on it.
The product may tip over or fall, causing injury.

CAUTION



When cleaning the cleaning wiper or around the print head, be careful of the following things.

- Wear gloves so that ink does not get directly on your hands.
- Do not reuse the clean stick.
It may damage the print head such as due to any attached dust.



When cleaning around the print head, be careful of the following things.

- Never touch the nozzle surface of the print head.
Doing so may damage the print head.
- Do not touch the tip of the clean stick with your hand.
Fat and oil from your fingers may adhere and may damage the print head.
- Never put water or the like on the tip of the clean stick.
Doing so may damage the print head.



When cleaning the cleaning wiper, be careful of the following things.

- Do not touch the cleaning wiper and head cap unit.
Fat and oil from your fingers may adhere and head cleaning may not be performed correctly.
- Be sure to use a clean stick, and soak the cleaning stick in the cleaning liquid.
If you use water on the clean stick, it could cause the print head to clog.



Do not use any volatile chemicals, such as thinner, gasoline, or alcohol.
Doing so could damage the printer.



Ventilate the workplace.
Not doing so may cause nausea or a fire hazard.

WARNING



The waste fluid that comes out of the printer is considered waste oil (waste ink) as industrial waste (among the 19 business items).

The Industrial Waste Treatment Act and local provisions require appropriate treatment of the waste fluid.

Contract a waste fluid treatment company to process the waste.



Do not mix the waste fluid with anything else. The waste fluid may harden.

CAUTION



When handling the ink cartridge, be careful not to let the ink get in your eyes or on your skin.

If the ink gets in your eye or on your skin, immediately wash it off with water.

If not, it could cause bloodshot eyes or light inflammation. Should any anomalies occur, immediately seek medical attention.



If using the ink cartridge for the first time, be sure to read the safety data sheet (SDS) before carrying out work.



Do not disassemble the ink cartridge.

Disassembling it may cause ink to get in your eyes or on your skin.

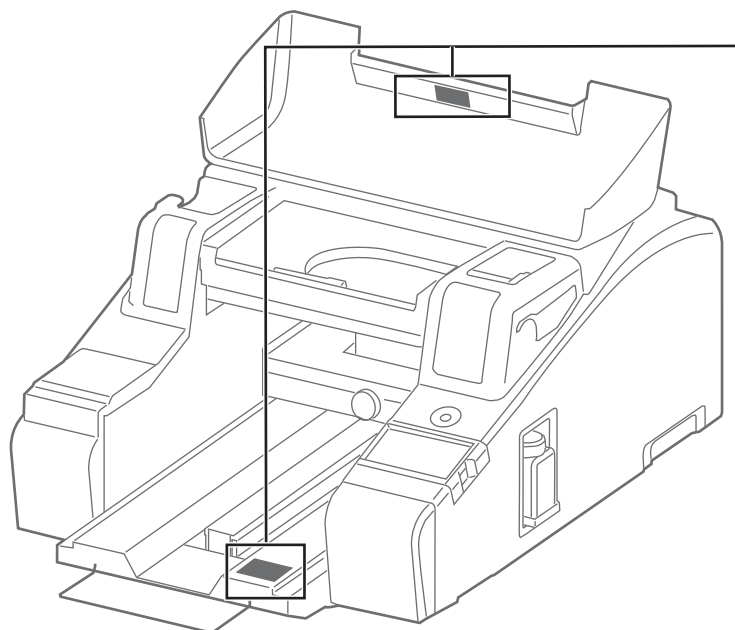


During ink charging, obey the following rules.

- Do not turn the product's power off.
- Do not unplug the power cable.
- Do not open the front cover.

Warning Labels

Warning labels are located in dangerous locations on this product. The labels describe the following contents. Be sure to obey them. If a label is peeled or becomes dirty, contact your sales agent for replacement.



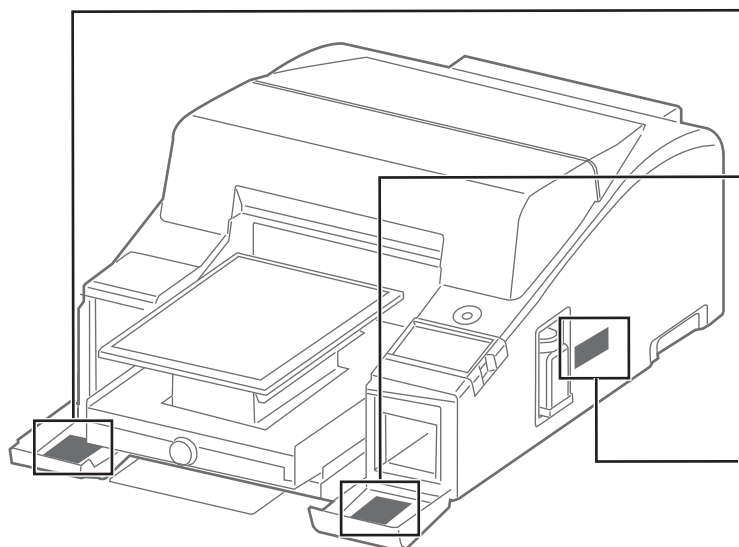
Pinch caution label

Be careful not to get your hand caught.

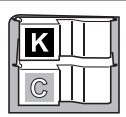
Operation Explanation Labels

Operation explanation labels are located in locations that require caution in operation. The labels describe the following contents.

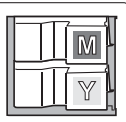
VJ-404GT



Slot 3
Slot 4



Slot 5
Slot 6



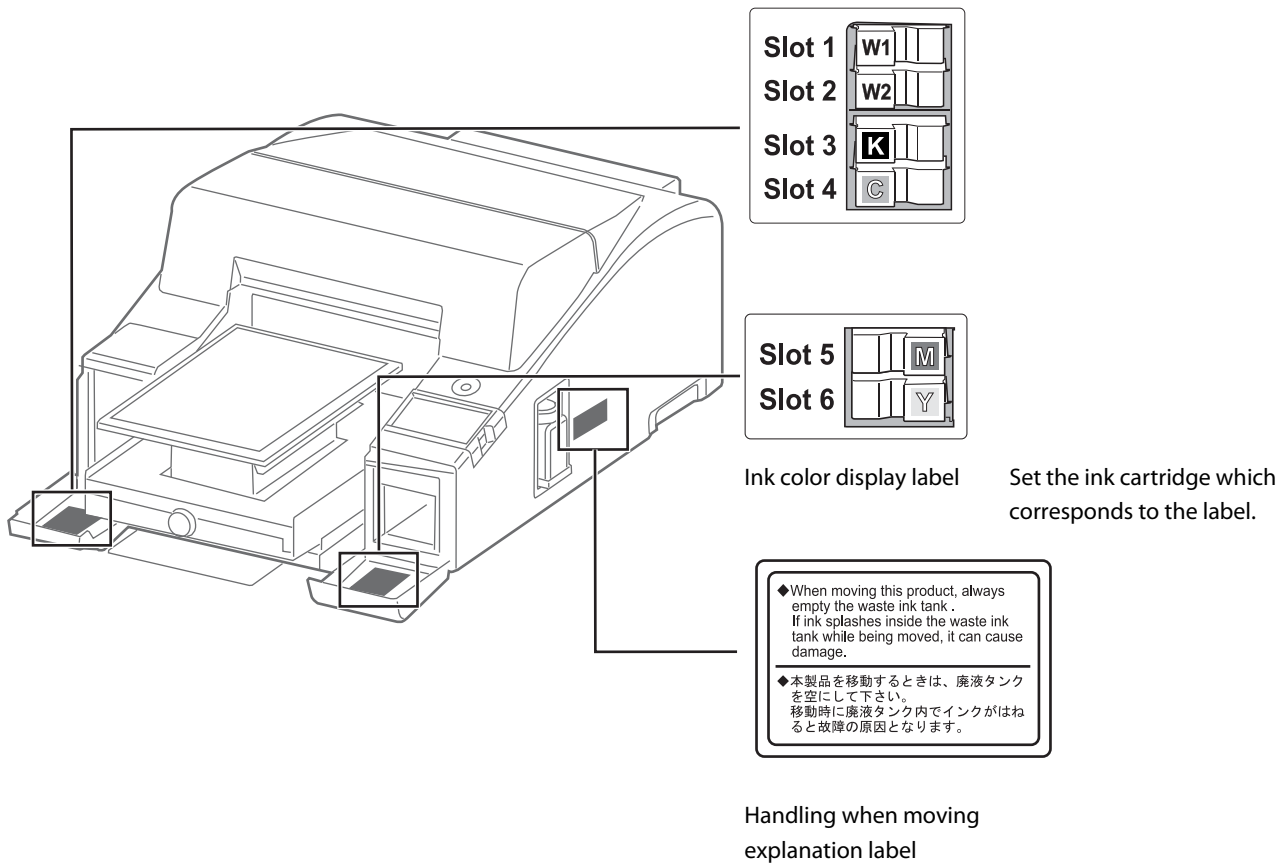
Ink color display label

Set the ink cartridge which corresponds to the label.

◆When moving this product, always empty the waste ink tank .
If ink splashes inside the waste ink tank while being moved, it can cause damage.

◆本製品を移動するときは、廃液タンクを空にして下さい。
移動時に廃液タンク内でインクがはねると故障の原因となります。

Handling when moving
explanation label



- The following marks are for China's safety standards.
- Depending on the printer model number, the label does not have these symbols.

	汉文	仅适用于海拔2000m以下地区安全使用。
	藏文	《2000m རུང་གི་འབྲས་ལོན་པའི་ཁོང་གི་རྒྱུ་མཉམ་པའི་ཆེད་དུ་བཟོས་ཀྱི་ཡི།》
	蒙古文	“ ᠳᠠᠨ ᠬᠠᠪ ᠶᠤᠩᠭ᠎ᠠ ᠶᠣᠸᠠ ᠵᠢᠳᠢᠭᠢ ᠬᠠᠵᠢᠪᠠᠷ 2000m doxroengz haenx ancienz sawjyungh. ”
	壮文	Dan hab yungh youq gij digih haijbaz 2000m doxroengz haenx ancienz sawjyungh.
	维文	دېڭىز يۈزىدىن 2000 مېتر تۆۋەن رايونلار دىلا بىخەتەر ئىشلەتكىلى بولىدۇ

MUTOH