# **MUTOH**

# XPJ-1462UF Safety Precautions

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# Introduction

### **Important Notice**

### 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.

This system (including the housing and safety device) is a Class 2 laser product.

Laser specifications of this system (including the housing)

Wavelength: 655 nm, maximum output: 1mW or less, pulse duration: 3.0 µw

Complies with IEC 60825-1 Edition 3.0 (2014-05-15).

Complies with FDA performance standards for laser products except for deviations pursuant to Laser notice No.56 dated May 8, 2019.

### **CAUTION**

Use of controls or adjustments or performance of procedures other than those specified herein may result in radiation exposure.

# Safety guidelines

When using this product, you must follow the safety precautions provided in this document to avoid the risks to person and damage to property. Keep this document and the printer's operation manual at hand near the printer for quick reference.

### Restrictions

### **Trained operator only**

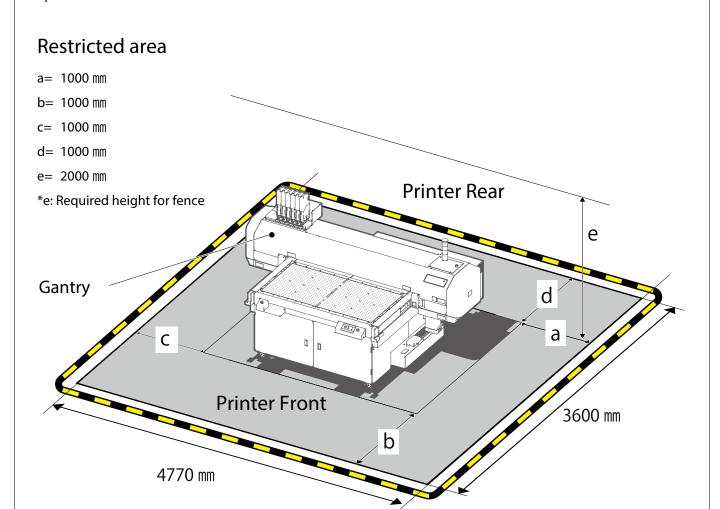
Parts of this product has following risks:

- · hot surface
- moving parts that can be dangerous if a part of the body gets caught
- · emits UV light hazardous to human health

Only operators who have received adequate training by MUTOH or by trained operator are allowed to operate this product.

### Limited access area

- The access to the following area is restricted to an operator who has received adequate training by MUTOH and by trained operator.
- This product must be installed in a room or the area surrounded by fence or partition where only properly trained operators can enter.



# **Symbols**

In this document, the following symbols are used for the instructions that must be followed to avoid risk of harm to human health or damage to the property. Please read and understand the meaning of each symbol and ensure the proper use of the printer.

### Warnings and cautions

<b>!</b> Warning	Failure to follow the instructions could result in serious injury or death.
<b>!</b> Caution	Failure to follow the instructions could result in minor injury or damage to the product.

### Actions that must be avoided or Instructions that must be followed

Indicates an action that must be avoided.  A black symbol in the sign indicates the prohibited action.				
0	Indicates an important instruction that must be followed.  A symbol in the sign indicates the instruction must be followed.			

### Other symbols

<b>◯</b> Important!	Provides information that require special attention or should be followed.
<b>◯</b> Note	Provides supplemental or reference information.
Æ	Indicates the link to the reference section.



For the name of each part marked with warning or caution symbols, see "Before Use" on the XPJ-1642UF operation manual.

# **Electrical shock hazard / Fire hazard**

# **Marning**

0	Do not install this product in a location with high humidity and dust. This could result in an electrical shock or fire.	0	Make sure to use a designated power soket.
0	<b>Do not use a damaged power cord.</b> This could result in an electrical shock or fire.	0	Plug the power cord into the wall outlet.  Do not use power strips. This could result in fire.
	Do not connect or disconnect the power plug with wet hands. This could result in an electrical shock.	•	Plug the power cords into the wall outlet that has the earth connection and make sure to connect the earth.  If the earth is not connected, an electrical shock or fire may occur.
0	Do not connect an earth wire to the following places:  Gas pipe It has potential risks of fire and explosion.  Earth wire of telephone cables or lighting rods Large current may flow when the lightning	0	Make sure to connect an earth wire to the earth connection that meets the following requirements:  • Earth terminal of power socket  • An earth wire with a copper plate which is buried at 650 mm or more in the ground.
	strikes.  • Water pipe or faucet  It may not work properly if a plastic pipe is connected to the pipe.		Keep ink away from fire or heat source and store in a cool, dark place. Avoid risk of fire.
$\Diamond$	Do not insert or drop metal or flammable objects into the printer through openings such as vent.  This could result in an electrical shock or fire.	0	Be sure to use the designated power cords.  • Failure to do so could result in an electrical shock or fire.  • For the designated power cord, please
$\Diamond$	Do not block the vent on the product with cloth or other materials.  If covered, the inside the product gets hot, resulting in fire.		contact your local MUTOH dealer.  The power cord should have the protective ground terminal and make sure to plug in securely.
	<b>Never open the covers securing with screws.</b> This could result in an electrical shock or damage to the printer.		<ul> <li>Use the power cords which meet the safety standard, voltage and plug shape of the country to use this product.</li> </ul>
$\Diamond$	Ensure that no moisture enters the product. This could result in an electrical short circuit.	0	Make sure to follow the instructions on this guide to connect the power cord or cables.  Failure to do so could result in fire.
$\Diamond$	If foreign objects or liquid accidentally entered the lit could result in an electrical shock or fire. Immediately power off the printer and disconnect the customer support		



Follow the precautions below when handling the power cord.

- · Do not modify power cords.
- Do not place heavy objects on power cords.
- Do not bend, twist, or pull on power cords.
- Do not route power cords near heating equipment.



Follow the precautions below when handling the power plug.

- · Do not allow dust or foreign objects to accumulate around the power plug.
- Firmly insert the power plug into the wall outlet.

### Installation





Choose the location which satisfies the requirements below:

- The floor must be level.
- Avoid vibration from the neighboring devices.
- · Low humidity and free from dust.
- Less chance of temperature and humidity changes.
- · Avoid direct sunlight.
- · Avoid water.
- · Avoid direct air onto the printer.
- · Low levels of electromagnetic waves.



This equipment is not suitable for use in locations where children are likely to be present.



### Keep the work area well-ventilated.

Odor of UV ink could have adversely impact on

If you experience headache, fatigue or dizziness, stop your work and immediately get to fresh air. If nausea persists, seek medical advice.



The floor where the product is installed must be able to support heavy loads. The weight of this product will be over 500 kg (including jig, ink, waste ink, media)



### Caution



Next to the UV-LED lamp in the printer, there may be other sources of UV light present in the working environment: sunlight or any form of artificial light. To avoid printer damage (nozzle clogs, operation faults to the maintenance station, print head damage..) caused by unintentional curing by UV light sources present in the working area, please follow these guidelines:

- · Do not install the product in direct sunlight. Make sure to keep the front cover closed unless necessary to open it.
- Do not remove the cover. Do not modify this product.

The warranty does not cover if the product has been modified or disassembled.



Minimum three people are required for moving this product. When moving, keep this product level.



### Do not tilt or turn the product upside down.

The ink inside the printer may spill. MUTOH cannot guarantee that the printer can run properly.

# **Handling**

# Warning

0	While the printer is in operation, make sure to wear UV protective glasses, mask, gloves and protective clothing, and follow these instructions:  Do not stare at the UV-LED lamp. This may cause damage to eyes.  Avoid direct skin exposure to UV light.  This may cause inflammation.	$\Diamond$	Do not sit on or place heavy objects on the product. Failure to do so may result in injury from a fall.		
		$\Diamond$	<b>Do not touch the moving parts.</b> This may cause injury or damage to the product.		
0	In case you need to move the printer after ink was filled, move it slowly to avoid impact and risk of ink leakage.	$\Diamond$	<b>Do not sit on the vacuum table.</b> This could deform the table.		

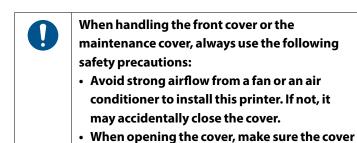


### Caution



### When cleaning, follow these precautions:

- Make sure to wear protective equipment (gloves, goggles or eye protection, protective clothing, mask).
- Always follow the steps to perform maintenance. When moistening the surface of nozzles, do not use the cleaning stick already used to clean around the print head, the cleaning wiper or around the capping unit. Doing so may result in damage to the print head.
- Always use a new cleaning stick and dampen it with designated maintenance cleaner. Do not use other type of maintenance cleaner. It may cause nozzle clogging.
- Do not touch the tip of a cleaning stick with fingers.
  - If finger oil gets on the stick, it will damage the print head.
- Do not reuse a cleaning stick. Dust sticking to the stick will cause damage to the print head.
- Never touch the print head nozzles when Do not touch the cleaning wiper and the print cleaning around the print head. head capping station with bare hands when cleaning the wiper. This could damage the print head. If finger oil gets on this, head cleaning cannot be performed properly. Before moving this printer, always empty the Do not use volatile chemicals such as thinner, waste ink tank even moving short distance. benzine or alcohol for cleaning. Failure to do so may result in damage to the This will damage the paint on the printer. product.



does not hit anyone or anything.



When loading a new media, make sure to place it on an appropriate position and input correct media information.

If wrong information is entered, the printer can print on an unintended position on the table. UV ink sticking on the table will be cured by UV lamp and will not be removed from the table.



Make sure the print is completely cured before touching. If you are not sure, wear gloves to avoid skin or clothing contact with ink.



Do not attempt the following actions during ink charging:

- Power off the printer.
- Disconnect the power cord.
- Open the front cover or the maintenance cover.
- Move the printer.



### Ink and waste fluid





The safety concerns involved with using and handling of UV curable ink and waste fluid are detailed in the Safety Data Sheets (SDS). Please carefully read these sheets before handling these liquids.



Store ink bags and waste fluids in a cool, dark place and avoid direct sunlight.

**Keep away from** 

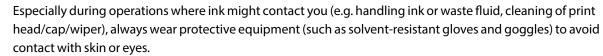
- children's reach
- fire and heat



Wear protective equipment (gloves, goggles or eye protection, protective mask, protective clothing) when handling ink.



• Do not touch uncured UV ink with bare hands.





 Two types of gloves are supplied with the printer. To avoid ink penetration, please wear rubber gloves (white) over polyethylene gloves (pink). If these gloves are not available, butyl rubber gloves are recommended.



- If ink gets on skin, immediately wash with soap and plenty of water for 15 minutes. Seek medical advice/ attention if irritation or inflammation are present.
- If ink gets in eyes, flush eyes with plenty of water for 15 minutes and seek medical advice/attention immediately.
- If swallowed, rinse mouth immediately and do not induce vomiting. Seek medical advice/attention.



· You are obligated to properly dispose of ink and waste fluid collected from the printer in compliance with Wastes Disposal and Public Cleansing Act and local ordinances.

Delegate disposal to an industrial waste disposal contractor.

- · Waste fluid from this printer is harmful to aquatic organisms. Do not allow it to reach sewage or natural water systems.
- Use a HDPE container with light blocking properties to store waste liquid.
- When storing waste fluid for a long time, slightly loosen the cap on the container to allow air. Do not tightly close it.
- Do not mix waste ink with any other chemical substances, not even in small amounts.

When mixed with other chemicals (e.g. oxidants), heating may occur.





Follow these precautions when handling ink



Use of non-designated ink could cause printer failure. Mutoh does not cover the cost of repair caused by such use.



• Do not drop or hit

This could lead to ink leakage.



Follow these instructions when handling ink bags:

- Let an ink bag rest in the work area for at least 3 hours to warm up to room temperature before use.
- · Agitate ink by ink bag inversion before loading it in the printer. Ink agitation is also required when an message is prompted on the printer control panel.
- Agitate ink in an ink bag when the message prompted on the control panel.





Use inks within its shelf life.

- · Using an expired ink could result in damage to the printer.
- · When expired, replace with a new one even if ink remains in the ink bag.
- · Dispose of expired ink as industrial waste. Put the emptied ink bag in a plastic bag and dispose of it according to the local regulations.



### MUTOH recommends you to use genuine ink.

This printer is designed to deliver best performance by using MUTOH genuine ink. The use of non-genuine ink may affect the printer as well as print quality. This is not covered by the warranty.

# Leveling adjusters

Before powering on, make sure to lock the casters of this product using foot adjuster.

If casters are not locked, the printer could move while printing.

For how to adjust, see "Installation" on XPJ-1462UF Startup Guide.

## **Transporting or Moving the Product**

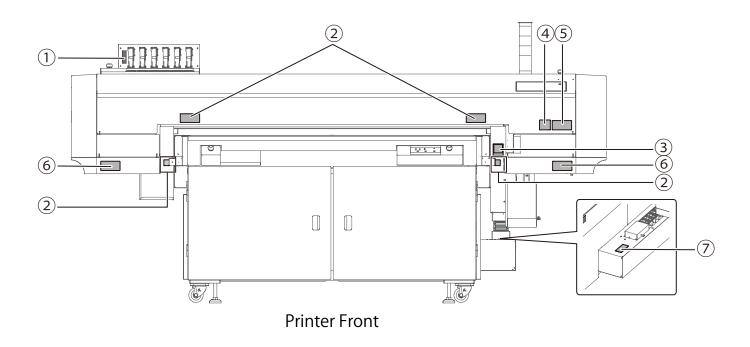


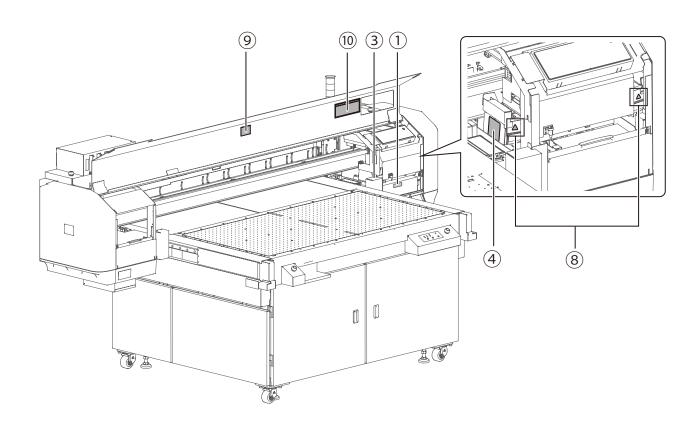
Before transporting or moving this product, use the protective and packaging materials and repack it in its original package, making sure it is protected from vibration or impact.

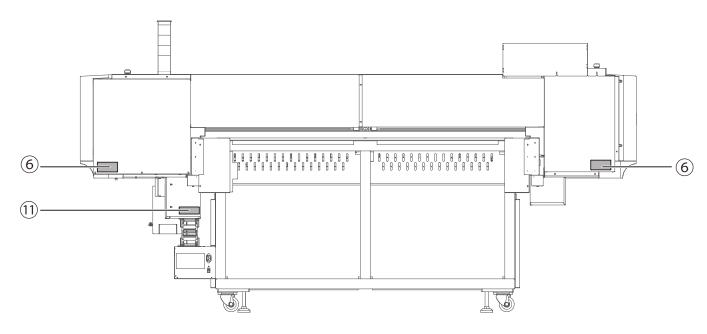
For transporting of this product, please contact your local MUTOH dealer.

# **Warning labels**

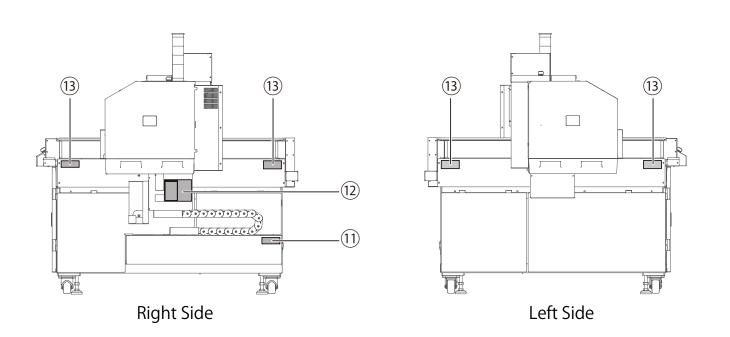
Warning labels are affixed to the hazardous area of the printer. Read and follow the instructions on the labels. In case the warning labels came off or get dirty, please contact your local MUTOH dealer for replacement.







Printer Rear



\*With gantry in the center position

### Type of labels

### Name / Meaning







### **Personal Protective Equipment Label**

 Wear necessary protective equipment when handling ink.

(2)





### **Pinch Point Hazard Label**

- · Keep hands clear.
- Do not put your hands in the gap between the gantry and the table or put your hands on or into the moving parts.



(3)





### **Laser Safety Label**

• Laser radiation: Do not stare into beam.

4



### **UV Safety Label**

• UV light hazard: Avoid direct skin or eye exposure to light.

(5)



### **UV Protective Equipment**

• Wear UV protective goggles, long sleeves and long pants while operating printer.

(6)



### **Crush Hazard**

• Risk of crush injury. Keep away while printer is in operation.

(7)



### Do Not Step On

• Do not step on this surface. This may cause injury from falling or damage to the printer.

(8)



### **Hot Surface Hazard Label**

• Risk of burns. Do not touch this surface for 10 minutes after printing.

9



### **Steel Belt Caution**

• Do not touch this part to avoid injury.

(10)



### **Front Cover Caution**

Follow the instructions on this label.

(11)



### **Keep Hands Clear**

• Do not touch or put your hands or face closer to this part. Your body part may get trapped between the moving parts.

(12)



### Waste Ink Caution Label

 Avoid direct skin contact with waste ink. If on skin, follow the first aid instructions on the label.

13)

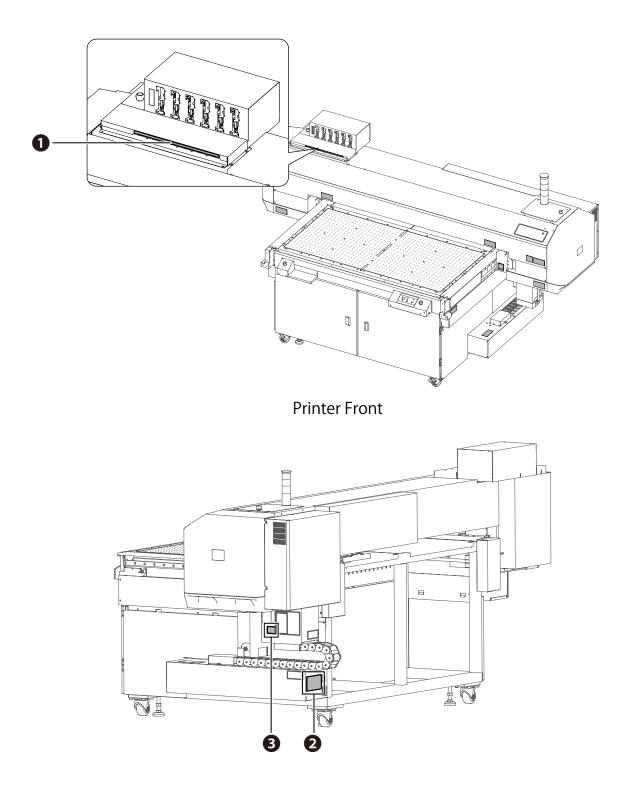


### **Moving Parts Crush Hazard**

· Keep body parts away from this area.

# **Instruction Labels**

Instruction labels are affixed where special attention for operating this product is required. The contents of each label are shown here.



Printer Rear

### Type of labels Name / Meaning





### **Ink Color Label**

• Make sure to match the color of the ink to the color on this label and insert an ink bag into the correct ink slot.

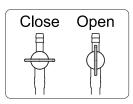




### **Rating Plate**

• Rating Plate provides the model number and serial number of the printer.





### **Drain Valve Label**

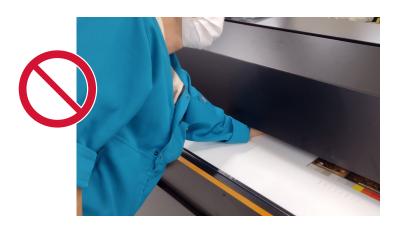
• The diagram shows the open or close position of the drain valve.

# Other possible risks

### The following danger may occur.

### Never put hands between the gantry and the top surface of the vacuum table.

• Your hands may get caught and injured.



### Never put hands between the gantry and the side surface of the vacuum table.

• Your hands may get caught and injured.



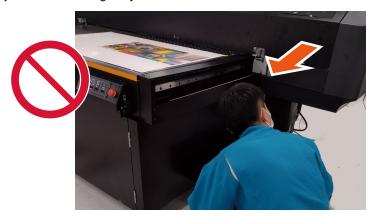
### Do not insert any object or put hands or face closer to the cable drag chain.

• Your hands may get trapped and injured.



### Keep away from the area that the gantry moves while printer is in operation.

• Parts of the body may be crushed and get injured.



### Do not look directly at UV light and touch around the UV-LED lamp.

- Wear UV protective glasses when operating this printer.
- When you sit on a chair while operating, make sure the vacuum table is not positioned at eye level. This is the height you will get most UV exposure from this product. Never look directly at UV light.
- Do not touch around the UV-LED lamp. It gets hot and you may get burn injury.

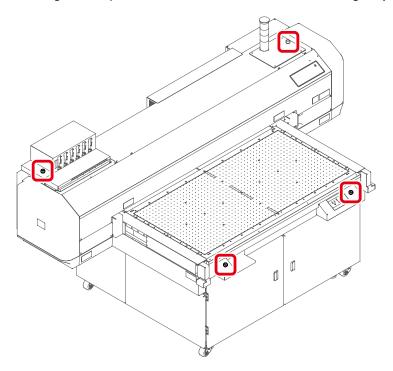


# **Emergency stop button**

This printer has four emergency stop buttons for safety measure.

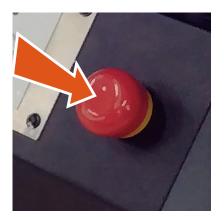
For detailed operating instructions, please refer to "Basic Instructions > Emergency Stop" in the operation manual of this product.

• two buttons on the front left and right of the printer and two buttons on both ends of the gantry.

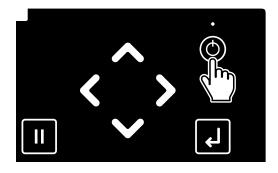


### How to operate

- 1 Press the emergency stop button.
  - The printer stops immediately.



- (2) [The message [Emergency Stop Reboot Printer] appears.
  - Press the Power button for more than two seconds.
  - The printer will restart and the startup message (including version number) will be displayed.



- The message [Release emergency stop button] appears.
  - To release the emergency stop state, turn the button to the right.



This message is not displayed when the emergency stop button is already released.



- The message [Releasing] appears.
  - The gantry goes up.
- (5) The message [Releasing] appears.
  - Once safety has been confirmed, use 🔨 / 💟 key to scrol through the menu and select [Confirm safety? Yes].
  - Tap 🚺 Enter key.
- 6 The message [Set media. then Tap [  $\land$  ] key] appears.
  - The printer is ready to print.

Customer's copy

### **Operator Consent Form**

By signing this document, you agree to the following	ıg	J:
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I agree that an operator is required to receive adequate safety training on this product (XPJ-1462UF) at the time of installation in accordance with this document "Safety Precautions", and only trained operators or those who have received training from the trained operator are allowed to use this product.

Date		
Company name	Representatives	
		Manufacturer's copy
Оре	erator Consent Form	
By signing this document, you agree to the foll	owing:	
I agree that an operator is required to receive	adequate safety training on this product	(XPJ-1462UF) at the time
of installation in accordance with this docume	ent "Safety Precautions", and only trained	d operators or those who
have received training from the trained operat	or are allowed to use this product.	
Date		
Company name	Representatives	