

Digital Graphic Printer

Instructions for Use



UP-D711MD

Before operating the unit, please read this manual thoroughly and retain it for future reference.

Owner's Record

The model and serial numbers are located at the rear. Record these numbers in the space provided below. Refer to these numbers whenever you call upon your Sony dealer regarding this product.

Model No. _____

Serial No. _____

WARNING

To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.

To avoid electrical shock, do not open the cabinet. Refer servicing to qualified personnel only.

No modification of this equipment is allowed.

Symbols on the products



Consult the Instructions for Use

Follow the directions in the Instructions for Use for parts of the unit on which this mark appears.



This symbol indicates the manufacturer, and appears next to the manufacturer's name and address.

For the customers in the U.S.A.

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.

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

All interface cables used to connect peripherals must be shielded in order to comply with the limits for a digital device pursuant to Subpart B of Part 15 of FCC Rules.

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

**Rx
ONLY**

Caution

Federal law (United States of America) restricts this device to sale by or on the order of a licensed healthcare practitioner.

For the customers in Canada

CAN ICES-3 (A)/NMB-3(A)

This unit has been certified according to Standard CAN/CSA-C22.2 No.60601-1.

Important safeguards/notices for use in the medical environments

1. All the equipments connected to this unit shall be certified according to Standard IEC60601-1, IEC60950-1, IEC60065 or other IEC/ISO Standards applicable to the equipments.
2. Furthermore all configurations shall comply with the system standard IEC60601-1-1. Everybody who connects additional equipment to the signal input part or signal output part configures a medical system, and is therefore, responsible that the system complies with the requirements of the system standard IEC60601-1-1. If in doubt, consult the qualified service personnel.
3. The leakage current could increase when connected to other equipment.
4. For this particular equipment, all accessory equipment connected as noted above, must be connected to mains via an additional isolation transformer conforming with the construction requirements of IEC60601-1 and providing at least Basic Insulation.
5. This equipment generates, uses, and can radiate radio frequency energy. If it is not installed and used in accordance with the instruction manual, it may cause interference to other equipment. If this unit causes interference (which can be determined by unplugging the DC cable from the unit), try these measures: Relocate the unit with respect to the susceptible equipment. Plug this unit and the susceptible equipment into different branch circuit. Consult your dealer. (According to standard IEC60601-1-2 and CISPR11, Class B, Group 1)

Important EMC notices for use in the medical environments

- The UP-D711MD needs special precautions regarding EMC and needs to be installed and put into service according to the EMC information provided in the instructions for use.
- The portable and mobile RF communications equipment such as cellular phones can affect the UP-D711MD.

Warning

The use of accessories and cables other than those specified, with the exception of replacement parts sold by Sony Corporation, may result in increased emissions or decreased immunity of the UP-D711MD.

Guidance and manufacturer's declaration-electromagnetic emissions		
The UP-D711MD is intended for use in the electromagnetic environment specified below. The customer or the user of the UP-D711MD should assure that it is used in such an environment.		
Emission test	Compliance	Electromagnetic environment-guidance
RF emissions CISPR 11	Group 1	The UP-D711MD uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
RF emissions CISPR 11	Class B	The UP-D711MD is suitable for use in all establishments, including domestic establishments and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes.
Harmonic emissions IEC 61000-3-2	Not applicable	
Voltage fluctuations/flicker emissions IEC 61000-3-3	Not applicable	


Warning

If the UP-D711MD should be used adjacent to or stacked with other equipment, it should be observed to verify normal operation in the configuration in which it will be used.

Guidance and manufacturer's declaration - electromagnetic immunity			
The UP-D711MD is intended for use in the electromagnetic environment specified below. The customer or the user of the UP-D711MD should assure that it is used in such as environment.			
Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment-guidance
Electrostatic discharge (ESD) IEC 61000-4-2	±6 kV contact ±8 kV air	±6 kV contact ±8 kV air	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30%.
Electrical fast transient/burst IEC 61000-4-4	±2 kV for power supply lines ±1 kV for input/output lines	±1 kV for input/output lines	Mains power quality should be that of a typical commercial or hospital environment.
Surge IEC 61000-4-5	±1 kV line(s) to line(s) ±2 kV line(s) to earth	Not applicable	Mains power quality should be that of a typical commercial or hospital environment.
Voltage dips, short interruptions and voltage variations on power supply input lines IEC 61000-4-11	< 5% U_T (> 95% dip in U_T) for 0.5 cycle 40% U_T (60% dip in U_T) for 5 cycles 70% U_T (30% dip in U_T) for 25 cycles < 5% U_T (> 95% dip in U_T) for 5 sec	Not applicable	Mains power quality should be that of a typical commercial or hospital environment. If the user of the UP-D711MD requires continued operation during power mains interruptions, it is recommended that the UP-D711MD be powered from an uninterruptible power supply or a battery.
Power frequency (50/60 Hz) magnetic field IEC 61000-4-8	3 A/m	3 A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.
NOTE: U_T is the a.c. mains voltage prior to application of the test level.			

Guidance and manufacturer's declaration - electromagnetic immunity

The UP-D711MD is intended for use in the electromagnetic environment specified below. The customer or the user of the UP-D711MD should assure that it is used in such as environment.

Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment-guidance
Conducted RF IEC 61000-4-6	3 Vrms 150 kHz to 80 MHz	3 Vrms	Portable and mobile RF communications equipment should be used no closer to any part of the UP-D711MD, including cables, than the recommended separation distance calculated from the equation appliance to the frequency of the transmitter. Recommended separation distance $d = 1.2 \sqrt{P}$
Radiated RF IEC 61000-4-3	3 V/m 80 MHz to 2.5 GHz	3 V/m	$d = 1.2 \sqrt{P}$ 80 MHz to 800 MHz $d = 2.3 \sqrt{P}$ 800 MHz to 2.5 GHz Where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and d is the recommended separation distance in meters (m). Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey, ^a should be less than the compliance level in each frequency range. ^b Interference may occur in the vicinity of equipment marked with the following symbol: 

NOTE 1: At 80 MHz and 800 MHz, the higher frequency range applies.

NOTE 2: These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

^a Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the UP-D711MD is used exceeds the applicable RF compliance level above, the UP-D711MD should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as reorienting or relocating the UP-D711MD.

^b Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 3 V/m.

Recommended separation distances between portable and mobile RF communications equipment and the UP-D711MD

The UP-D711MD is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the UP-D711MD can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the UP-D711MD as recommended below, according to the maximum output power of the communications equipment.

Rated maximum output power of transmitter W	Separation distance according to frequency of transmitter m		
	150 kHz to 80 MHz $d = 1.2 \sqrt{P}$	80 MHz to 800 MHz $d = 1.2 \sqrt{P}$	800 MHz to 2.5 GHz $d = 2.3 \sqrt{P}$
0.01	0.12	0.12	0.23
0.1	0.38	0.38	0.73
1	1.2	1.2	2.3
10	3.8	3.8	7.3
100	12	12	23

For transmitters rated a maximum output power not listed above, the recommended separation distance d in meters (m) can be estimated using the equation applicable to the frequency of the transmitter, where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer.

NOTE 1: At 80 MHz and 800 MHz, the separation distance for the higher frequency range applies.

NOTE 2: These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

Caution

When you dispose of the unit or accessories, you must obey the laws in the relative area or country and the regulations in the relative hospital regarding environmental pollution.

For the customers in Europe

This product has been manufactured by or on behalf of Sony Corporation, 1-7-1 Konan Minato-ku Tokyo, 108-0075 Japan. Inquiries related to product compliance based on European Union legislation shall be addressed to the authorized representative, Sony Deutschland GmbH, Hedelfinger Strasse 61, 70327 Stuttgart, Germany. For any service or guarantee matters, please refer to the addresses provided in the separate service or guarantee documents.



India only

Disposal of Old Electrical & Electronic Equipment (Applicable in Republic of India)

This symbol indicates that this product shall not be treated as household waste **and may not be dropped in garbage bins.**

Product owners are advised to deposit their product at the nearest collection point for the recycling of electrical and electronic equipment.

Your co-operation shall facilitate proper disposal & help prevent potential negative consequences/hazards to the environment and human health, which could otherwise be caused by inappropriate waste disposal **including**

improper handling, accidental breakage, damage and/ or improper recycling of e-waste. The recycling of materials will help to conserve natural resources.

For more detailed information about recycling of this product, please contact your local civic office, your household waste disposal service provider or the store where you made the purchase. You may contact our company's toll free number in India for assistance.

This product complies with the "India E-waste Rule 2011". The E-waste Rules, 2011 is an Indian directive aimed at reducing the harmful environmental impact of waste electrical equipment by restricting the use of known hazardous substances. As of 1st May 2012, new electrical and electronic equipment introduced into the market may no longer contain the following chemicals or its specified maximum concentration levels: Lead, Mercury, Hexavalent Chromium, Polybrominated Biphenyls (PBB) or Polybrominated Diphenylethers (PBDE) - in concentrations exceeding 0.1 weight % and Cadmium - 0.01 weight %, except of exemptions set in Schedule 2 of the aforesaid Rule.

For the customers in the U.S.A.

SONY LIMITED WARRANTY - Please visit <http://www.sony.com/psa/warranty> for important information and complete terms and conditions of Sony's limited warranty applicable to this product.

For the customers in Canada

SONY LIMITED WARRANTY - Please visit <http://www.sonybiz.ca/pro/lang/en/ca/article/resources-warranty-product-registration> for important information and complete terms and conditions of Sony's limited warranty applicable to this product.

For the customers in Europe

Sony Professional Solutions Europe - Standard Warranty and Exceptions on Standard Warranty. Please visit <http://www.pro.sony.eu/warranty> for important information and complete terms and conditions.

For the customers in Korea

SONY LIMITED WARRANTY - Please visit <http://bpeng.sony.co.kr/handler/BPAS-Start> for important information and complete terms and conditions of Sony's limited warranty applicable to this product.

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Overview

Quiet, High Quality, Fast Printing

- Employs a thin thermal head with a built-in high speed drive IC, capable of high resolution images of 11.8 dots/mm.
- Print speeds of approximately 1 high quality image (896 × 1196 dots (approx. 76 × 101mm)) every 5 seconds when the “High Speed Print Mode” checkbox is on.
- Standard image memory capable of handling and printing images up to 896 × 2688 dots (approx. 76 × 227mm).
- Monochrome printing with up to 256 shades of gradation.

USB interface

The unit is equipped with a USB connector which complies with the USB specification.

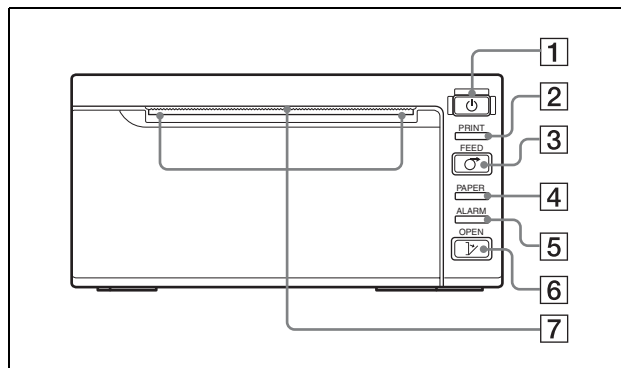
Easy Paper Loading

Free access to the door allows you to drop paper into the unit for easy loading.


Location and Function of Parts and Controls

For more details, see the referenced page numbers enclosed in parentheses ().

Front Panel



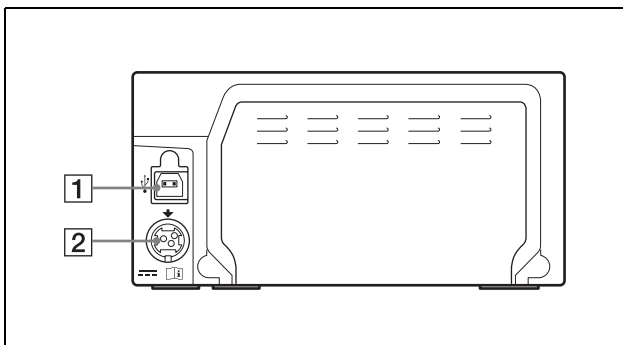
- 1** **On/standby switch**
 On/standby lamp
(13, 15, 17)
Press to turn the unit on (On/standby lamp lights).
- 2** **PRINT lamp**
Lights while printing.
- 3** **FEED button (14, 15)**
Hold down to feed paper.
The paper will only feed when the button remains pressed.
If insufficient paper has been fed after printing, press the button for a short time to feed extra paper.
For details on feeding paper after printing, see “Setup Guide.”
Press to cancel a print job that is currently in progress.
- 4** **PAPER lamp**
Lights when the paper is not set in the tray correctly or if the tray is empty.
- 5** **ALARM lamp**
Lights when the door is open or if a problem occurs in the printer.
- 6** **OPEN button (13)**
Press to open the door.
Press and hold down this button all the way, to open the door.


- 7**  **Paper cutter**
Cuts the paper as each image is printed.

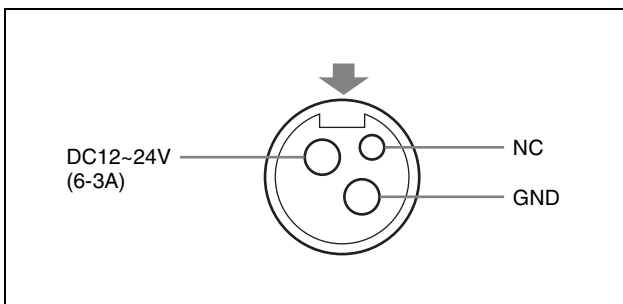
About the lamp indicators

The lamp lights or blinks to show the state of the printer.
For details, see “Lamp Indicators” (page 20)

Rear Panel



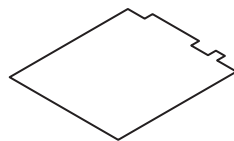
- 1**  **USB connector (11)**
Connects to a computer equipped with a USB interface.
Do not use a USB cable longer than 3 meters.
- 2** **DC connector**
Use a Hosiden–manufactured connector to connect.
Part no: TCP8927-53
Wire rod: For voltages above 60V at max. The wire rod’s rating must be more than 7A.



Connect the DC connector to the unit, then supply the power source to the unit.
To remove the DC connector, disconnect the power source first, then remove the DC connector.
Do not touch the DC connector pin and a patient at the same time.
A voltage of 12 to 24 V is applied to the DC connector pin and may have a harmful effect on the patient.

Checking the accessories

Check the accessories.
Thermal head cleaning sheet (1)



Before Using this Printer (1)
CD-ROM (1)
Service Contact List (1)

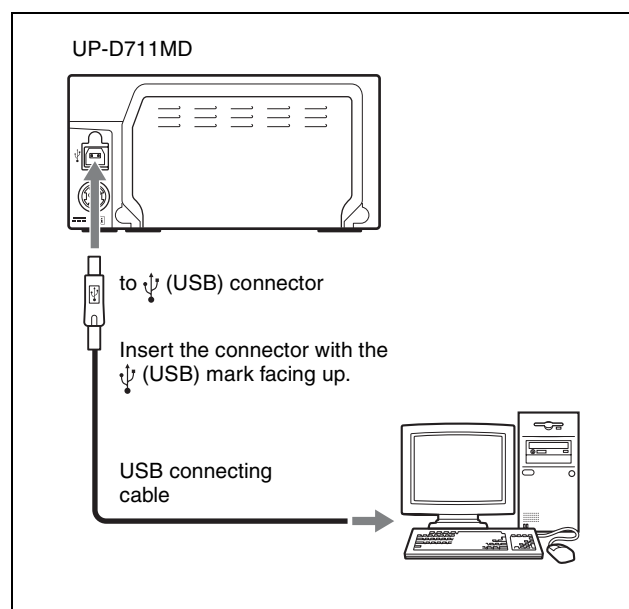
Connections

With the DC cable disconnected from the external power supply, connect the USB connecting cable between the unit and computer, then connect the DC cable. For details about the unit connection, refer to the manuals for the computer or other peripheral devices.

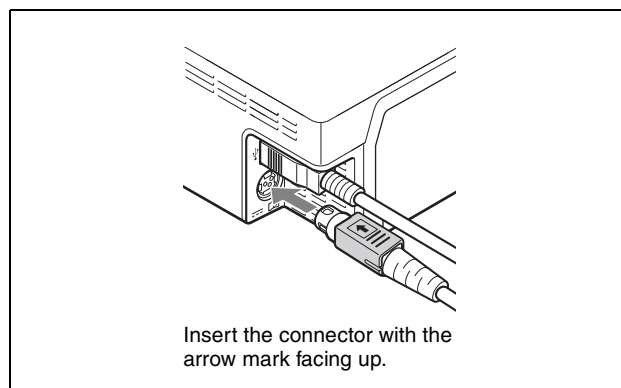
Notes

- Make sure that the USB cable is connected securely at both ends.
- Make sure that the DC cable is connected securely until it is locked.
- The unit drive software provided with the unit is not suitable for using the unit connected to a network.
- Printer operation is not guaranteed when connecting to the computer using the USB cable via a USB hub.
- Use a DC 12 V – DC 24 V power supply with at least 72 W, for the unit.
(DC12V 6A or greater, DC24V 3A or greater)
- Before connecting or disconnecting the DC cable, be sure to turn the external power supply off. Otherwise damage to the unit may result.

Connecting to the USB Connector



Connecting the DC Cable



Installing the Printer Driver

For computers running on Windows XP/Windows Vista

After connecting the printer to your computer, turn on the printer. For details on installation, refer to the installation guide and Readme file included on the supplied CD-ROM.

For computers running on Windows 7

Before connecting the printer, install the supplied printer driver onto your computer. For details on installation, refer to the installation guide and Readme file included on the supplied CD-ROM.

Note

Do not allow the connected computer to enter Standby (Suspend) or Sleep mode while the printer is turned on, as this may cause the printer to stop operating properly.

Paper

Use only Sony UPP-84S/84HG paper designed for use with this unit. High print quality cannot be guaranteed if any other paper is used with this unit, and such paper could damage the unit.

Paper You Can Use

Paper characteristics are as follows.

Print Characteristics	Paper Type
Normal	UPP-84S
High Glossy	UPP-84HG

Notes on storing and handling paper



Do not re-use

Doing so may result in malfunction and negatively affect printing results.

For the customers in Europe

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Storing unused paper

- Store unused paper at a temperature below 30°C (86°F) in a dry location that is not exposed to direct sunlight.
- Do not store unused paper near volatile liquids or allow the paper to contact any organic volatile liquid, cellophane tape, or any compound of vinyl chloride.

Loading paper

- Handle the paper carefully when loading to avoid touching the printing surface with your fingers. Perspiration or oil from your hands could cause pictures to blur.
- After removing the sheet from the leading edge of the paper, pull the paper out about 15 cm (6 in.) before printing. Sheet adhesive remaining on the paper could spoil a picture.

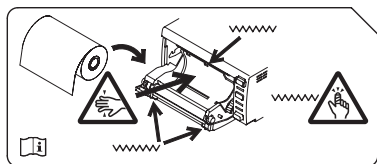
Storing printouts

- To prevent printouts from fading or changing color, store them in a cool, dry location where the temperature is not higher than 30°C (86°F).
- Store printouts in a polypropylene pouch or between sheets of paper that contain no plastic.
- Do not store printouts where they will be exposed to direct sunlight or high humidity.

- Do not store printouts near volatile liquids or allow the prints to contact any organic volatile liquid, cellophane tape, or any compound of vinyl chloride.
- To prevent fading, do not stack printouts on or under a diazo copy sheet.
- To mount printouts on another sheet of paper, use double-sided tape or a water base adhesive.

Loading Paper in the Unit

When loading paper in the unit, be sure to note the caution graphic symbols on the unit.



Caution

A paper cutter is mounted with the unit. When loading paper, be careful not to touch the paper cutter. Touching the paper cutter may cause injury.



Caution

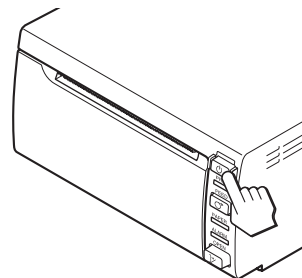
Do not insert your finger into the back of the paper tray. Your finger may become stuck in an internal gap, which may lead to injury.

Notes

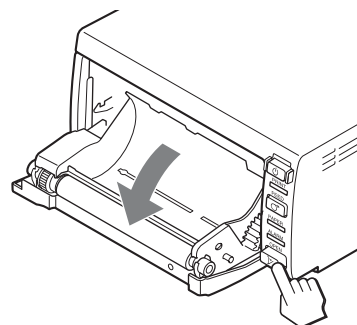
- Before loading paper in the unit, see “Paper” (page 12).
- Always handle paper carefully when loading to avoid adversely affecting the quality of the printouts. Never bend or crease the paper and never touch the printing surface with your fingers. Fingerprints perspiration can blur printing.
- Do not use any paper other than UPP-84S/84HG paper. (page 12)
- Confirm that the printer driver paper type settings are suitable for the paper to be used.
- You can check the currently selected paper on the printer driver display.
For more details, see “Setup Guide.”

Loading Paper

- 1 Press the On/standby switch to turn the unit on. The On/standby lamp lights green. The PAPER lamp lights orange if no paper is loaded.



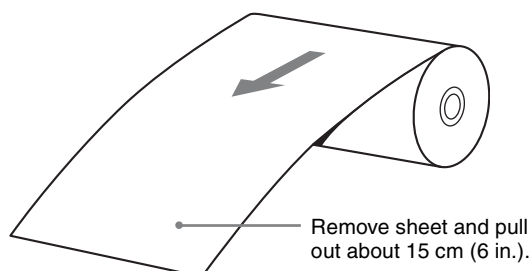
- 2 Press the OPEN button to open the door.



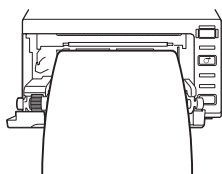
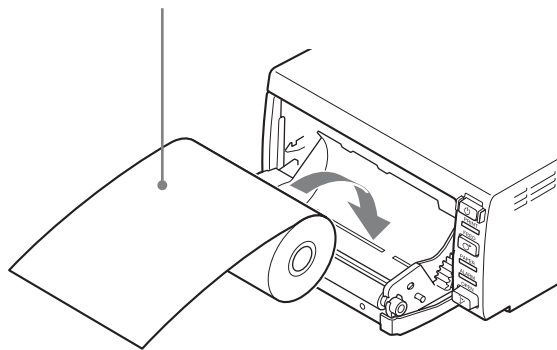
- 3 Remove the sheet from the leading edge of the paper, pull out about 15 cm (6 in.) of the paper, and then set the paper roll in the paper tray.

Note

To avoid exposing the paper to dust, dirt, etc. always handle it carefully when removing from its package and loading it in the unit. Paper exposed to dirt or dust cannot be used for printing.

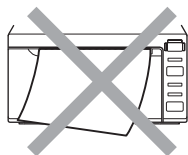
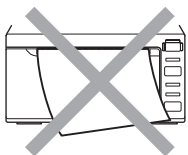
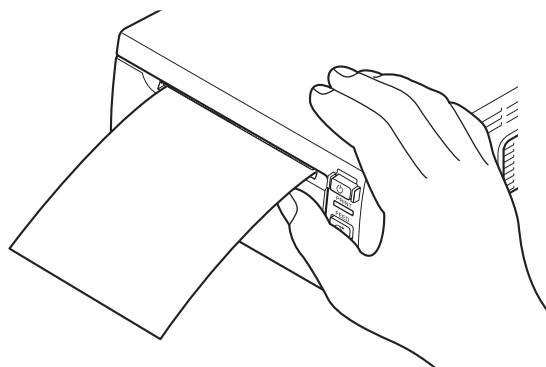


Load the paper with the printing side (heat sensitive side) up. Printing is not possible if the paper is reversed.



Make sure that the paper is set straight.

4 Close the door and press on it to shut it.



Notes

- Make sure that the paper is loaded straight. If it is skewed, this could cause the paper to jam.
- If you did not pull out enough paper in step 3, press the FEED button on the operation panel to feed some more paper out of the unit without pulling out the paper.



Printing

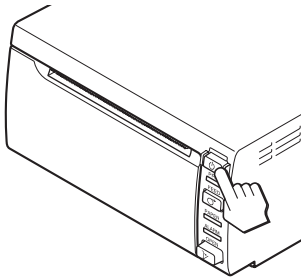
Before Starting a Print Job

Always check the following points:

- Unit connected correctly? (page 11)
- Printer driver installed? (page 11)
- Paper loaded correctly? (page 13)
- Printer driver settings done correctly? (Setup Guide)

Starting a Print Job

- 1 Press the  On/standby switch to turn the unit on. The  On/standby lamp lights green.



- 2 Execute the print job with the application software.

If the unit stops printing during prolonged printing

When printing almost black images continuously, the thermal head protection circuit may shut down the unit to prevent the thermal head from overheating. In such a case, the PRINT lamp blinks slowly.

Leave the unit until the head cools down and the PRINT lamp lights.

Canceling a Print Job

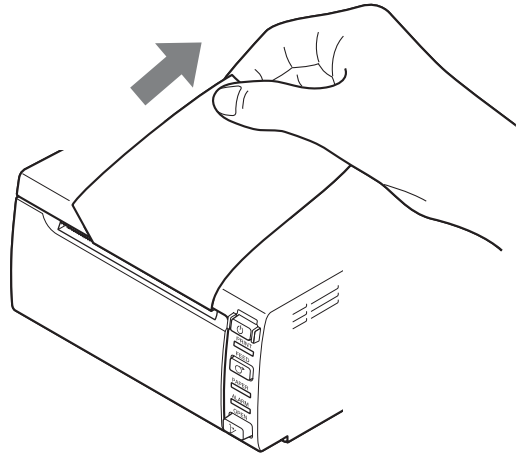
To cancel a print job in progress, press the FEED button.

Feeding Paper

To feed paper, press the FEED button. The unit will continue to feed paper as long as you hold down the FEED button. Do not attempt to pull paper out of the unit with your hand.

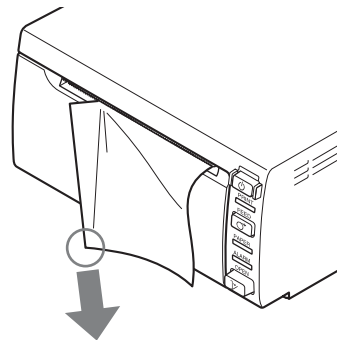
Cutting Paper

Hold the printer firmly, then pull the paper diagonally upwards and cut it as shown in the figure.



When the paper cutter on the bottom is used

Hold the bottom of the paper you want to cut and pull diagonally downwards to cut.




Note

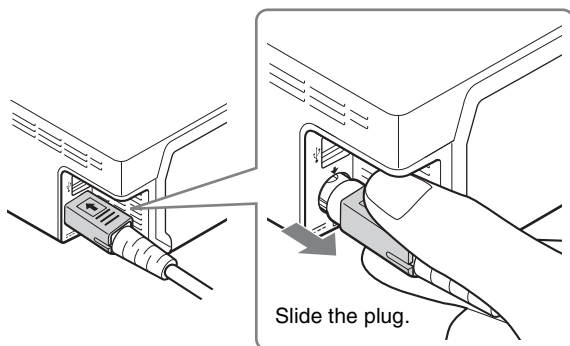
The paper cutter on the bottom is positioned at the left and right edges. If you attempt to cut the paper by holding the paper at its center, it may not be cut well.

Precautions

Notes on use

If the printer is not going to be used for a long time

- Press the  On/standby switch to turn off the printer and the external power supply, then disconnect the DC cable.
- After disconnecting the USB cable, disconnect the DC cable.
- Check the operating voltage before operation. Operate the unit only with a power source specified in “Specifications”.
- Stop operation immediately if any liquid or solid object falls into the cabinet. Unplug the unit and have it checked by qualified personnel.
- The DC cable has a lock. To disconnect, grasp the DC plug, then pull it.



- Do not damage the DC power cable.

On Safety

- Do not disassemble the cabinet. Refer servicing to qualified personnel only.

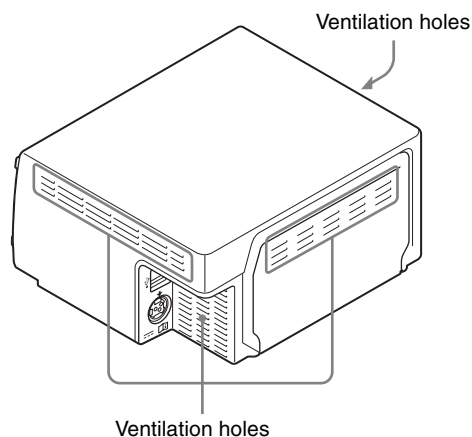
Caution on the paper cutter

A paper cutter is mounted with the unit. When loading a paper or cleaning the unit, be careful not to touch the paper cutter. Touching the paper cutter may cause injury.

On Installation

- Place the unit on a level and stable surface.
If you use the unit with placed on an uneven surface, malfunction of the unit is likely to occur.

- Do not place the unit in a location subject to strong light, such as a halogen lamp.
- Do not place the unit in an excessively hot or humid place. Avoid locations near radiators or air ducts, or places subject to direct sunlight or excessive dust, humidity, mechanical shock or vibration.
- In winter, humidity tends to be lower. It is recommended to use the unit in a place of at least 35% humidity.
- Provide adequate air circulation to prevent heat build-up. Do not place the unit on surfaces such as rugs, blankets, etc., or near materials such as curtains and draperies.
- If the unit is subjected to wide and sudden changes in temperature, such as when it is moved from a cold room to a warm room or when it is left in a room with a heater that tends to produce large amounts of moisture, condensation may form inside the unit. In such cases the unit will probably not work properly, and may even develop a fault if you persist in using it. If moisture or condensation forms, turn off the power and allow the unit to stand for at least one hour.
- To prevent internal heat built-up, leave a space (not less than 10 mm) around the printer.



On the Printer Carriage

- Do not impact the unit, or drop it.
- Do not carry or move the unit when the paper roll is placed in the unit. Doing so may cause a malfunction.

Maintenance

Cleaning the Cabinet

Use a wrung out damp cloth, or a damp cloth soaked in water and a mild detergent, to clean the cabinet surface. To avoid damaging the cabinet of the unit, never use alcohol, thinner, or any other type of organic solvent, or any type of abrasive cleaner, to clean the cabinet.

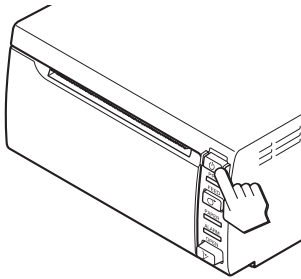
Cleaning the Thermal Head

If the printout is dirty or white stripes appear on the printouts, clean the thermal head using the cleaning sheet supplied.

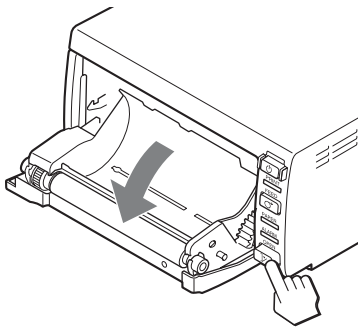
Note

A paper cutter is mounted with the unit. When attaching the head cleaning sheet, be careful not to touch the paper cutter. Touching the paper cutter may cause injury.

- 1 Press the  On/standby switch to turn the unit on.

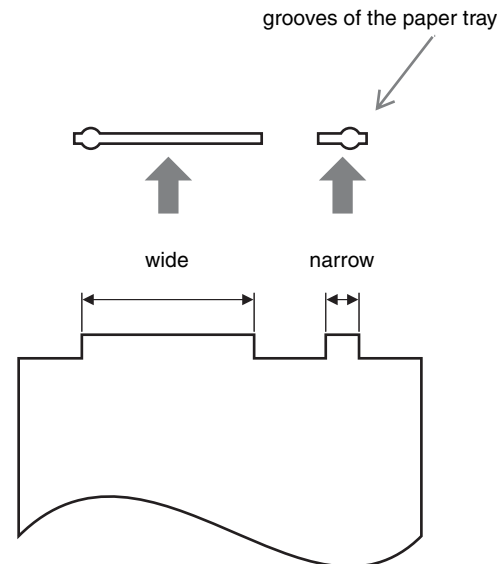
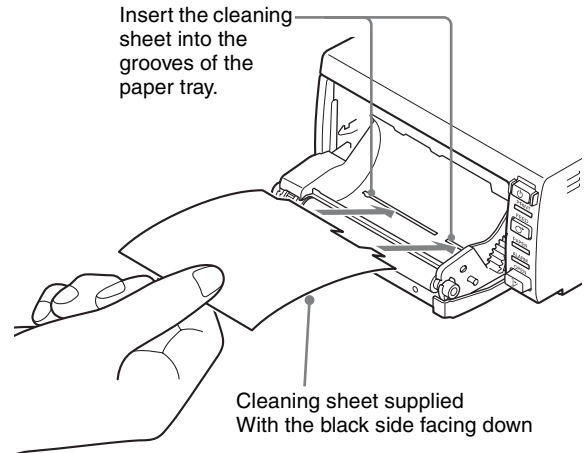


- 2 Press the OPEN button to open the door.



If the paper is loaded in the paper tray, remove it.

- 3 Insert the cleaning sheet, with the black surface facing down, into the groove of the paper tray.




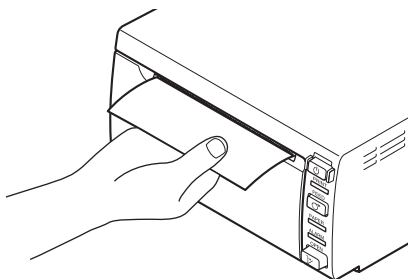
- 4 Close the door by pushing it.
- 5 Press and hold the FEED button until the PAPER lamp lights. The unit starts cleaning the thermal head. When the cleaning sheet stops and the alarm sounds, the cleaning is completed.
- 6 Press the OPEN button to open the door and remove the cleaning sheet.
- 7 Close the door by pushing it.

Note


Clean the thermal head only when necessary. If you clean the thermal head too frequently, it may cause a malfunction.

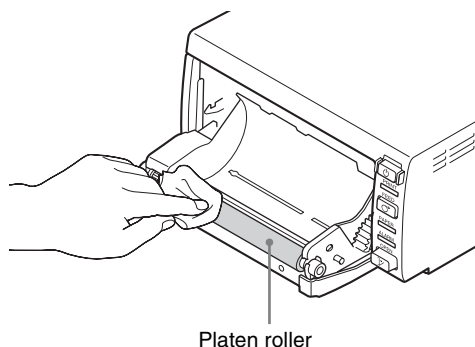
Cleaning the Platen Roller

When the surface of the platen roller gets dirty, paper will not be ejected smoothly after printing, resulting in paper jams and inconsistent print quality. The surface of the platen roller also may get dirty, which may make it difficult to cut paper with the cutter. Press the  On/standby switch to ON to turn the unit on, and then press the FEED button for a second or so to feed some more paper out of the unit. It is likely that the roller is getting dirty if paper is easily pulled out by hand.

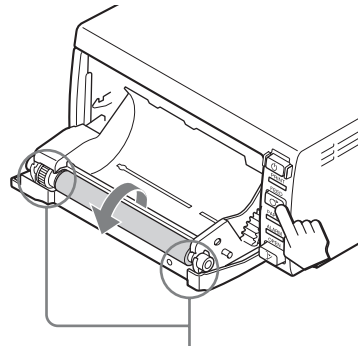


Clean the platen roller using a soft cloth moistened with ethyl alcohol when it becomes dirty.

- 1 Press the  On/standby switch to turn the unit on.
- 2 Press the OPEN button to open the door.
If the paper is loaded in the paper tray, remove it.
- 3 Clean the platen roller gently using a soft cloth moistened with ethyl alcohol.



- 4 Press and hold down the FEED button so that the platen roller turns automatically. Release the FEED button when the surface of the platen roller to be cleaned appears.



Be careful not to get your hand caught in the turning platen roller.

Caution

- Do not put your hand close to the platen roller while it is rotating. Your hand may become caught and suffer injury.

Notes

- After the surface of the platen roller wiped has been dried completely, turn the platen roller to clean another portion.
- Do not turn the platen roller with hands. Use the FEED button to turn it. To clean another part of the surface of the platen roller, go to the next step.
- A paper cutter is mounted with the unit. When loading a paper or cleaning the unit, be careful not to touch the paper cutter. Touching the paper cutter may cause injury.
- The platen roller is turning while you are pressing the FEED button. Be careful so that you have your fingers caught in the turning platen roller.
- Be sure to start cleaning only after the platen roller has stopped completely.

- 5 Repeat steps 3 and 4 until the platen roller becomes clean.
- 6 After the platen roller has been dried completely, close the door by pushing it.

Specifications

Power requirement

DC 12 V to 24 V

Input current 6 A to 3 A

Operating temperature

5 °C to 35 °C (41 °F to 95 °F)

Operating humidity

20% to 80%

Operating pressure

700 hPa to 1,060 hPa

Storage and transport temperature

-20 °C to +60 °C (-4 °F to +140 °F)

Storage and transport humidity

20% to 80%

Storage and transport pressure

700 hPa to 1,060 hPa

Dimensions

140 × 70 × 125 mm (w/h/d)
(5 5/8 × 2 7/8 × 5 inches) Not incl.
projecting parts

Mass

1 kg (2 lb 3.3 oz) (printer only)

Thermal head

Thin-film thermal head, 896 dots

Gradation

256-level gradation (8-bit)

Memory capacity

896 × 2688 × 8 (bit)

Picture size

75.7 × 227.1 mm (max.)

Printing speed

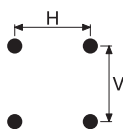
About 5 sec./image (896 × 1196 dots)
(High speed print mode)
About 8 sec./image (896 × 1196 dots)
(Normal speed print mode)

Picture elements

896 × 2688 dots (max.)

Dot density

H: 75.7 mm/896 dots = 0.085
V: 75.7 mm/896 dots = 0.085
Square dots



Interface

USB(full-speed)

Accessories provided

Thermal head cleaning sheet
(4-419-859-) (1)

CD-ROM (including multi-lingual
instructions for use, Readme and
printer driver) (1)

Before Using this Printer (1)

Service Contact List (1)

Optional accessories

Thermal Print Media: UPP-84S/84HG

Medical Specifications

Protection against harmful ingress of water:

Ordinary

Degree of safety in the presence of a flammable anesthetic mixture with air or with oxygen or nitrous oxide: Not suitable for use in the presence of a flammable anesthetic mixture with air or with oxygen or nitrous oxide

Mode of operation:

Continuous

The design and these specifications are subject to change without prior notification.

Notes

- Always verify that the unit is operating properly before use.
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
Troubleshooting

Before you call for service, please check the problems and solutions described below. If you cannot solve the problem, contact the nearest authorized dealer.

Symptom	Causes/remedies
First few prints spotted with small dots.	New paper roll just installed? →If a new roll of paper has just been loaded, paper dust may cause white spots in printed images. Press the FEED button and hold it down to feed about 15 cm (6 in.) and then release. (page 13)
Print job does not start.	<ul style="list-style-type: none"> Paper does not feed. →Power switched on? →Unit connected correctly? →Paper roll loosen? The PRINT lamp blinks slowly. →Thermal head temperature rising? When printing almost black images continuously, the temperature of the thermal head may rise. Leave the unit idle until the head cools down. Paper feeds but printing does not start. →Paper loaded with the wrong side up? (page 13)
Paper Jams	<ul style="list-style-type: none"> Jammed paper visible? →Press the OPEN button to open the door, remove the printout or the paper roll, and then gently pull the jammed paper out of the unit. Condensation collected in unit? →If the unit has just been brought into a warm room from a cold location, condensation may have formed inside the unit. Switch the unit off and let it set for 1 - 2 hours (until it warms to room temperature), then try printing again.
Printouts dirty.	<ul style="list-style-type: none"> Thermal head dirty? →Use the head cleaning sheet provided with the unit to clean the thermal head. (page 17) Platen roller dirty? →Clean the platen roller using a soft cloth moistened with ethyl alcohol. (page 18) Has print paper been installed at a slant? →Reload the print paper correctly, as a paper jam may result. (page 14)
The unit stops printing while printing almost black images continuously and the PRINT lamp blinks slowly.	When printing almost black images continuously, the printer may stop. This is the thermal head pauses to cool down. →Wait until the PRINT lamp lights.

Symptom	Causes/remedies
Paper is not fed smoothly.	Platen roller dirty? →Clean the platen roller. (page 18)

Lamp Indicators

Lamp	Status	Cause/remedies
 (green)	On	Startup status
PRINT (green)	On	Printing.
	Blinks	Receiving image data.
	Blinks slowly	Standing by until the thermal head is ready for printing. →Wait until the PRINT lamp lights. Printing resumes automatically.
PAPER (orange)	On	<ul style="list-style-type: none"> No paper is set. →Set paper into the printer. Paper finished. →Set new paper into the printer.
ALARM (orange)	On	<ul style="list-style-type: none"> Door open. →Close the door until it locks. Printer malfunction. →Press the  On/standby switch to turn the printer off, then press to turn it on again. If the error persists, press  On/standby switch to turn the unit off, then turn the external device off, disconnect the USB cable and the DC cable, then consult your Sony dealer.

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