SONY

4-746-454-**14**(1)
2024-01

Digital Color Printer

Instructions for Use

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

UP-D25MD

CE UK CA

Indications for Use/Intended Use

The Sony UP-D25MD printer is a compact, medical grade color printer that can accept digital signal input. It is designed to be integrated into medical imaging systems such as ultrasound, cardiac catheterization laboratory, endoscopy camera processor and other compatible medical imaging systems and produce hard copy prints of still images captured by these systems for the patient record or for referrals.

Notes

- Output images from this equipment cannot be used for diagnostic use.
- This equipment is for medical professionals.
- This equipment is intended for use in medical environments, such as clinics, examination rooms, and operating rooms.

WARNING

To reduce the risk of fire or electric shock, do not expose this equipment 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.

WARNING

To avoid the risk of electric shock, this equipment must only be connected to a supply mains with protective earth.

WARNING

To disconnect the main power, unplug the power plug.
When installing the unit, incorporate a readily accessible disconnect device in the fixed wiring, or connect the power plug to an easily accessible socket-outlet near the unit.
Do not position the ME equipment where it is difficult to unplug the power plug.
If a fault should occur during operation of the unit, operate the disconnect device to switch the power supply off, or disconnect the power plug.

For customers in the U.S.A.

Caution

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

℞
ONLY

Symbols on the product

Consult the instructions for use
Follow the directions in the instructions for use for parts of the unit on which this symbol appears.

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

This symbol indicates the Importer, and appears next to the Importer's name and registered office address.

This symbol indicates the European Community representative, and appears next to the European Community representative's name and address.

This symbol indicates the UK Responsible Person, and appears next to the UK Responsible Person's name and address.

This symbol indicates the Swiss authorized representative, and appears next to the Swiss authorized representative's name and address.

This symbol indicates the medical device in the European Community.

This symbol indicates the date of manufacture.

This symbol indicates the serial number.

This symbol indicates the Unique Device Identifier (UDI), and appears next to the bar code representation of the Unique Device Identification.

This symbol indicates the equipotential terminal which brings the various parts of a system to the same potential.

Storage and transport temperature
This symbol indicates the acceptable temperature range for storage and transport environments.

Storage and transport humidity
This symbol indicates the acceptable humidity range for storage and transport environments.

Storage and transport pressure
This symbol indicates the acceptable atmospheric pressure range for storage and transport environments.

For accessories

This symbol indicates the batch code.

This symbol indicates “Do not reuse”.

For 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.

For customers in Canada

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

For customers in the U.S.A and Canada

When you use this product connected to 240 V single phase, be sure to connect this product to a center tapped circuit.

For customers in Europe

Any serious incident that has occurred in relation to the device should be reported to the manufacturer and the competent authority of the Member State in which the user and/or patient is established.

Important safeguards and notices for use in the medical environments

1. All devices connected to the unit must be certified or compliant according to IEC 60601-1, IEC 60950-1, IEC 62368-1 and IEC 60065 standards and other IEC/ISO standards applicable to the devices.

2. Furthermore, the system as a whole must comply with IEC 60601-1 standards. All peripheral devices connected to the signal input/output sections of the unit constitute the medical-use system, and therefore, the user is responsible for ensuring that the system as a whole complies with IEC 60601-1 standards. If in doubt, consult qualified Sony service personnel.

3. Connecting the unit to other devices may increase the leakage current.

4. For all peripheral devices connected to the unit that operate on commercial power supplies and do not comply with IEC 60601-1 standards, incorporate an isolation transformer that complies with IEC 60601-1 standards and connect to the commercial power supply via the transformer.

5. The unit generates, uses, and may radiate radio frequency energy. If it is not installed and used in accordance with the instruction manual, it may cause interference on other devices. If the unit causes interference (which can be determined by disconnecting the power cord from the unit), try the following.
   – Relocate the unit with respect to the affected devices.
   – Connect the unit and the affected devices to different branch circuits.
   For more information, consult qualified Sony service personnel.
   (Applicable standard: IEC 60601-1-2)

Important EMC notices for use in medical environments

- The UP-D25MD 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 UP-D25MD is intended for use in a professional healthcare facility environment.
- Portable and mobile RF communications equipment, such as cellular phones, can affect the UP-D25MD.

Warning

- Portable RF communications equipment should be used no closer than 30 cm (12 inches) to any part of the UP-D25MD. Otherwise, degradation of the performance of this equipment could result.
- If the UP-D25MD will be used adjacent to or stacked with other equipment, normal operation of the UP-D25MD under such configurations should be verified via observation.
- 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-D25MD.

<table>
<tr><th colspan="3">Guidance and manufacturer's declaration – electromagnetic emissions</th></tr>
<tr><td colspan="3">The UP-D25MD is intended for use in the electromagnetic environment specified below. The customer or the user of the UP-D25MD should assure that it is used in such an environment.</td></tr>
<tr><td>Emission test</td><td>Compliance</td><td>Electromagnetic environment – guidance</td></tr>
<tr><td>RF emissions

CISPR 11</td><td>Group 1</td><td>The UP-D25MD 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.</td></tr>
<tr><td>RF emissions

CISPR 11
CISPR 32</td><td>Class B</td><td rowspan="3">The UP-D25MD 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.</td></tr>
<tr><td>Harmonic emissions

IEC 61000-3-2</td><td>Class A</td></tr>
<tr><td>Voltage fluctuations/
flicker emissions

IEC 61000-3-3</td><td>Complies</td></tr>
</table>

Guidance and manufacturer's declaration – electromagnetic immunity			
The UP-D25MD is intended for use in the electromagnetic environment specified below. The customer or the user of the UP-D25MD should assure that it is used in such an environment.			
Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment – guidance
Electrostatic discharge (ESD) IEC 61000-4-2	±8 kV contact ±15 kV air	±8 kV contact ±15 kV air	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, a relative humidity of at least 30% is recommended.
Electrical fast transient/burst IEC 61000-4-4	±2 kV for power supply lines ±1 kV for input/ output lines	±2 kV for power supply 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	±1 kV differential mode ±2 kV common mode	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	0% U_T (100% dip in U_T) for 0.5/1 cycles [a] 40% U_T (60% dip in U_T) for 5 cycles 70% U_T (30% dip in U_T) for 25/30 cycles [a] (for 0.5 sec) 0% U_T (100% dip in U_T) for 250/300 cycles [a] (for 5 sec)	0% U_T (100% dip in U_T) for 0.5/1 cycles [a] 40% U_T (60% dip in U_T) for 5 cycles 70% U_T (30% dip in U_T) for 25/30 cycles [a] (for 0.5 sec) 0% U_T (100% dip in U_T) for 250/300 cycles [a] (for 5 sec)	Mains power quality should be that of a typical commercial or hospital environment. If the user of the UP-D25MD requires continued operation during power mains interruptions, it is recommended that the UP-D25MD be powered from an uninterruptible power supply or a battery.
Power frequency (50/60 Hz) magnetic field IEC 61000-4-8	30 A/m	30 A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.
Proximity magnetic fields IEC 61000-4-39	65 A/m 134.2 kHz Pulse modulation 2.1 kHz 7.5 A/m 13.56 MHz Pulse modulation 50 kHz	65 A/m 134.2 kHz Pulse modulation 2.1 kHz 7.5 A/m 13.56 MHz Pulse modulation 50 kHz	Proximity magnetic fields of the UP-D25MD 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.			
a For example, 10/12 means 10 cycles at 50 Hz or 12 cycles at 60 Hz.			

Guidance and manufacturer's declaration – electromagnetic immunity			
The UP-D25MD is intended for use in the electromagnetic environment specified below. The customer or the user of the UP-D25MD should assure that it is used in such an environment.			
Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment – guidance
			Portable and mobile RF communications equipment should be used no closer to any part of the UP-D25MD, including cables, than the recommended separation distance calculated from the equation appliance to the frequency of the transmitter. **Recommended separation distance**
Conducted RF IEC 61000-4-6	3 Vrms 150 kHz to 80 MHz outside ISM bands [c]	3 Vrms	$d = 1.2 \sqrt{P}$
	6 Vrms 150 kHz to 80 MHz in ISM bands [c]	6 Vrms	
Radiated RF IEC 61000-4-3	3 V/m 80 MHz to 2.7 GHz	3 V/m	IEC 60601-1-2: 2007 $d = 1.2 \sqrt{P}$ 80 MHz to 800 MHz $d = 2.3 \sqrt{P}$ 800 MHz to 2.5 GHz IEC 60601-1-2: 2014 + A1: 2020 $d = 2.0 \sqrt{P}$ 80 MHz to 2.7 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 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-D25MD is used exceeds the applicable RF compliance level above, the UP-D25MD should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as reorienting or relocating the UP-D25MD.

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

c The ISM (industrial, scientific and medical) bands between 150 kHz and 80 MHz are 6.765 MHz to 6.795 MHz; 13.553 MHz to 13.567 MHz; 26.957 MHz to 27.283 MHz; and 40.66 MHz to 40.70 MHz.

Recommended separation distances between portable and mobile RF communications equipment and the UP-D25MD

The UP-D25MD is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the UP-D25MD can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the UP-D25MD 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				
	IEC 60601-1-2 : 2007			IEC 60601-1-2 : 2014 + A1: 2020	
	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 $d = 2.3\sqrt{P}$	150 kHz to 80 MHz $d = 1.2\sqrt{P}$	80 MHz to 2.7 GHz $d = 2.0\sqrt{P}$
0.01	0.12	0.12	0.23	0.12	0.20
0.1	0.38	0.38	0.73	0.38	0.63
1	1.2	1.2	2.3	1.2	2.0
10	3.8	3.8	7.3	3.8	6.3
100	12	12	23	12	20

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.

Guidance and manufacturer's declaration – electromagnetic immunity					
The UP-D25MD is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. Portable RF communications equipment should be used no closer than 30 cm (12 inches) to any part of the UP-D25MD. Otherwise, degradation of the performance of this equipment could result.					
Immunity test	Band [a]	Service [a]	Modulation	IEC 60601 test level	Compliance level
Proximity fields from RF wireless communications equipment IEC 61000-4-3	380 – 390 MHz	TETRA 400	Pulse modulation 18 Hz	27 V/m	27 V/m
	430 – 470 MHz	GMRS 460 FRS 460	FM ±5 kHz deviation 1 kHz sine	28 V/m	28 V/m
	704 – 787 MHz	LTE Band 13, 17	Pulse modulation 217 Hz	9 V/m	9 V/m
	800 – 960 MHz	GSM 800/900 TETRA 800 iDEN 820 CDMA 850 LTE Band 5	Pulse modulation 18 Hz	28 V/m	28 V/m
	1,700 – 1,990 MHz	GSM 1800 CDMA 1900 GSM 1900 DECT LTE Band 1, 3, 4, 25 UMTS	Pulse modulation 217 Hz	28 V/m	28 V/m
	2,400 – 2,570 MHz	Bluetooth WLAN 802.11 b/g/n RFID 2450 LTE Band 7	Pulse modulation 217 Hz	28 V/m	28 V/m
	5,100 – 5,800 MHz	WLAN 802.11 a/n	Pulse modulation 217 Hz	9 V/m	9 V/m
NOTE: These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.					
a For some services, only the uplink frequencies are included.					

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.

Warning on power connections

Use a proper power cord for your local power supply.

1. Use the approved Power Cord (3-core mains lead) / Appliance Connector / Plug with earthing-contacts that conforms to the safety regulations of each country if applicable.
2. Use the Power Cord (3-core mains lead) / Appliance Connector / Plug conforming to the proper ratings (Voltage, Ampere).

If you have questions on the use of the above Power Cord / Appliance Connector / Plug, please consult a qualified service personnel.

Warning on power connections for medical use

Customers in the U.S.A. and Canada should use the following type of power cord.
Customers in other countries or regions should use the power cord prescribed by their country or region.

	U.S.A. and Canada
Plug type	HOSPITAL GRADE*
Cord type	Min. Type SJT
	Min. 18 AWG
Minimum rating for plug and appliance couplers	10 A / 125 V
Safety approval	UL Listed and CSA

* Note: Grounding reliability can only be achieved when the equipment is connected to an equivalent receptacle marked “Hospital Only” or “Hospital Grade”.

Caution

Do not use the device in a MR (Magnetic Resonance) environment.
It may cause a malfunction, fire, and unwanted movement.

For the customers in the U.S.A.

SONY LIMITED WARRANTY - Please visit 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 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 Europe

Sony Europe B.V. - Standard Warranty and Exceptions on Standard Warranty. Please visit https://pro.sony/support-services/primesupport/support-professional-solutions-europe-standard-product-warranty for important information and complete terms and conditions.

For the customers in Korea

SONY LIMITED WARRANTY - Please visit https://pro.sony/ko_KR/support-services for important information and complete terms and conditions of Sony’s limited warranty applicable to this product.

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Introduction

Preparation

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Miscellaneous

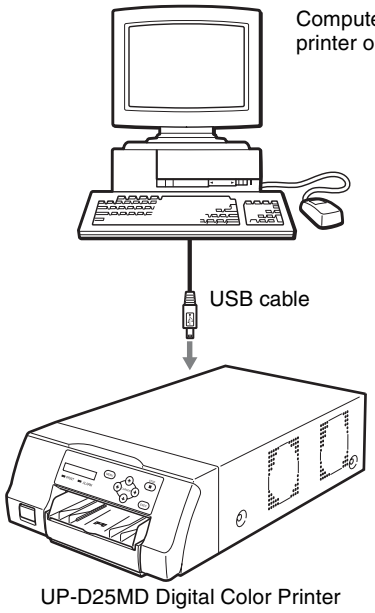
Features

The UP-D25MD is a digital color printer that prints image data from a computer or other source at A6 size. It prints images by pressing a thermal head, heated according to the input image data, against a dedicated ink ribbon coated with sublimation ink, transferring the ink onto special thermal printing paper.

The UP-D25MD has the following features.

- High picture quality and high print resolution
  Prints full color (16.7 million colors, 256 gradations for each color) at high resolution (approximately 423 dpi precision head).

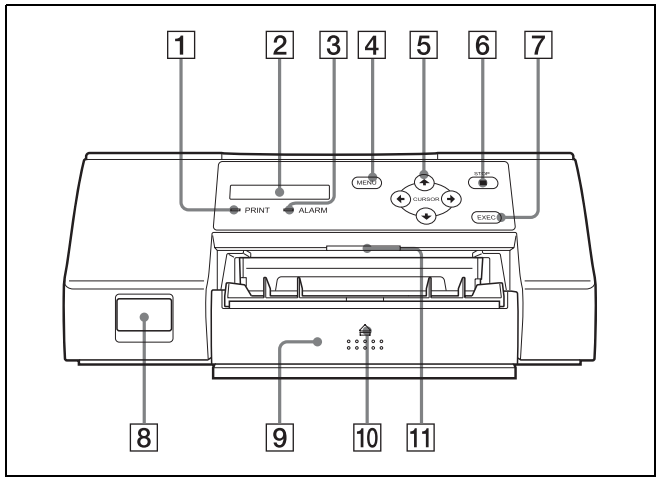
System Configuration



UP-D25MD Digital Color Printer

Location and Function of Parts and Controls

Front



1 **PRINT indicator**
Lights while printing is in progress.

2 **LCD display**
Displays printer status, error messages, and menus.

3 **ALARM indicator**
Lights when an error such as a paper jam occurs.

4 **MENU button**
Press this button to display the menu or to return to the main screen from the menu.

5 **Directional buttons (←, →, ↑, ↓)**
Use these buttons to select menu items and change settings.

6 **■ STOP button**
Press this button to stop a continuous printing operation. Printing stops once the current item is finished printing.

7 **EXEC button**
Use this button to confirm a menu setting.

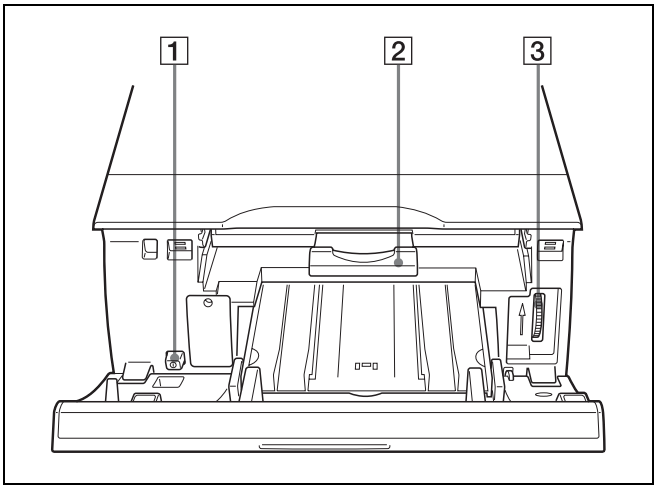
8 **⏻ POWER switch**
Use this switch to turn the printer on or off.

9 **Paper feed tray (page 16)**
Load paper in this tray. Printouts stack in the tray above.

10 **⏏ (eject) mark**
Press here to eject the paper feed tray.

11 **Tray light**
Illuminates the output tray. (You can configure the setting for this.) (page 21)

Inside the Ribbon Door Panel

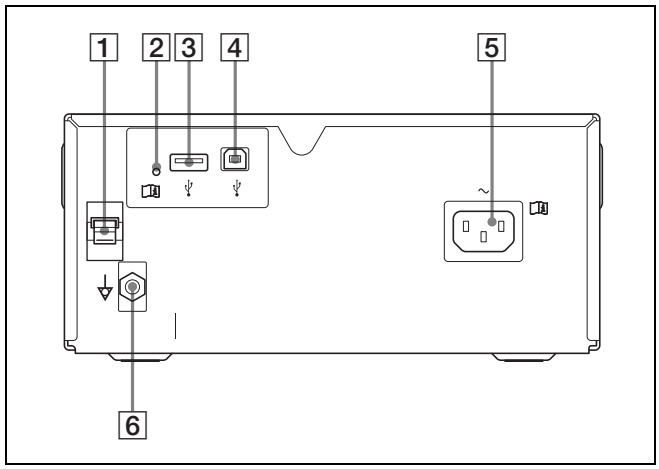


1 **① POWER switch**
Use this switch to turn the printer on or off. This switch functions even while the ribbon door panel is open.

2 **Ribbon tray (page 15)**
Load the ink ribbon in this tray.

3 **Dial (page 30)**
Use this dial to clear paper manually when an internal paper jam occurs.

Rear



1 **USB cable stopper (page 13)**
Secures the USB cable to prevent it from being disconnected.

2 **OPTION terminal indicator**
Flashes if an unsupported device is connected.

3 **OPTION terminal (type A)**
Used for supplying power to optional accessories.

Warning

Using this unit for medical purposes
This connector is not isolated.
Do not connect any device other than a UPA-WU10 Wireless Print System powered exclusively by the electric supply from the unit.
When a device that uses an alternating current is connected, current leakage from the device may result in an electric shock to the patient or operator.

4 **USB connector**
Connects to a computer equipped with a Hi-Speed USB (USB 2.0 compliant) interface.

Note

Use the supplied USB cable when connecting.

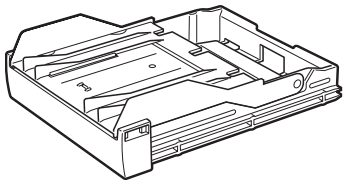
5 **AC IN connector (page 13)**
Connects to the power cord.

6 **Equipotential ground terminal connector**
Connects to a ground (equipotential) plug to bring the various parts of the system to the same potential.

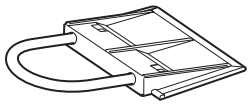
Supplied Accessories

This printer is packed with the following accessories. Check that nothing is missing from your package.

Paper feed tray (1)



Stopper (1)



USB cable 1-824-211-41 (SONY) (1)
Before Using This Printer (1)
Thermal head cleaning cartridge (1)

CD-ROM (printer driver/Instructions for use) (1)
Software License Agreement (1)
Service Contact List (1)
Information for Customers in Europe (1)

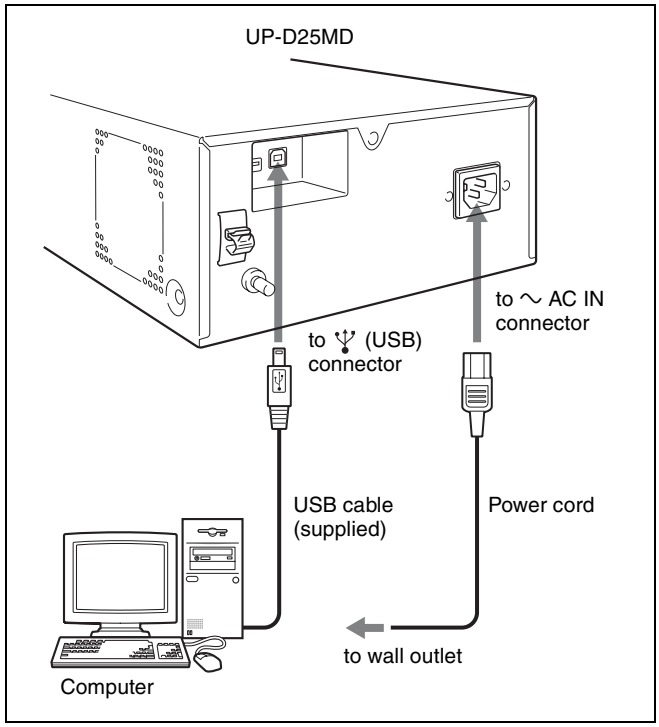
Notes

- Retain the original carton and packing materials in case you have to transport this unit in the future.
- When transporting the printer, remove the ink ribbon and paper feed tray, and lock the internal thermal head. For details, see “Transportation” on page 24.

Connections

After connecting the supplied USB cable to the printer and the computer, connect the power cord. For details about the printer connection, refer to the manuals for the computer or other peripheral devices.

USB Port Connection



WARNING

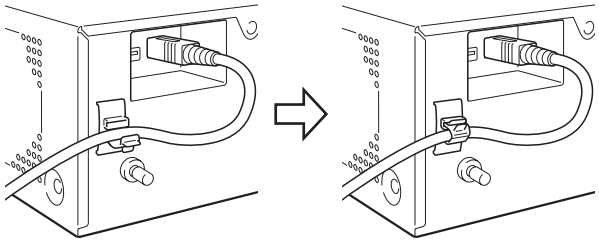
Using this unit for medical purposes

The connectors on this unit are not isolated.
Do not connect any device other than one which conforms to IEC 60601-1 standards.
When an information technology device or AV device that uses an alternating current is connected, current leakage may result in an electric shock to the patient or operator. If use of such a device is unavoidable, isolate its power supply by connecting an isolation transformer, or by connecting an isolator between the connecting cables. After implementing these measures, confirm that the reduced risk now conforms to IEC 60601-1 standards.

Securing the USB cable

After you connect the USB cable to the printer, it is recommended that you use the cable stopper to secure the

USB cable to prevent it from being accidentally disconnected.



Notes

- Follow the connection procedures described in the computer manual.
- Make sure that the USB cable is connected securely at both ends.
- The supplied printer driver does not support network printing.
- Printer operation is not guaranteed for USB hub connections.

Installing the Printer Driver

For computers running on Windows 2000/ 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 7/8

Before connecting the printer, install the supplied printer driver on 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 the Standby (Suspend) or Sleep modes while the printer is turned on, because this may cause the printer to stop operating properly.

Before Printing

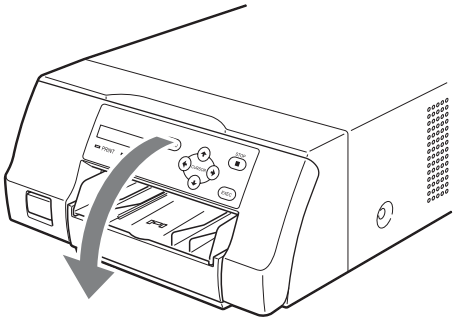
Once the printer is connected to the computer (page 13), you must load the paper and the ink ribbon as described below before you can actually begin printing.

Loading the Ink Ribbon

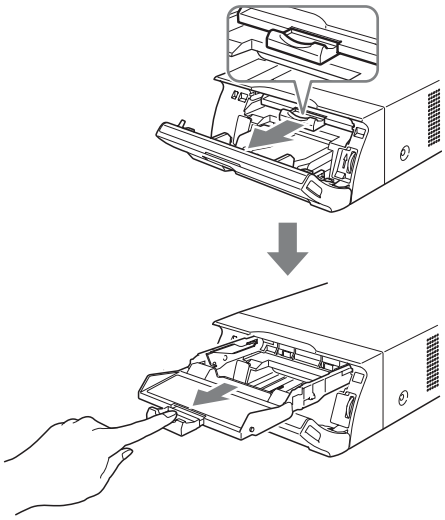
Note

When using the printer for the first time, the thermal head may be set to its transport position. Be sure to turn on the printer and release the head from its transport position before removing the ribbon tray.
Do not open the ribbon door panel if "WAIT" appears on the LCD display.

1 Open the ribbon door panel.

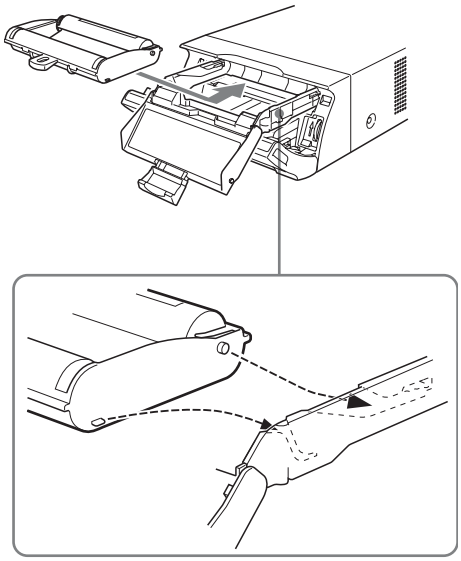


2 Pull the ribbon tray straight out of the printer.



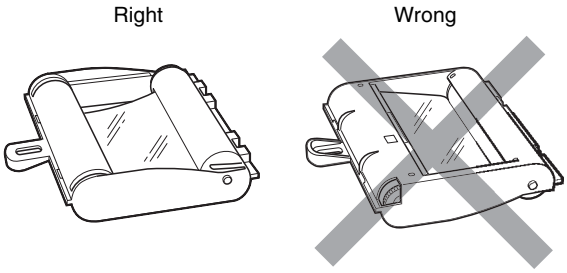
3 Load the ink ribbon.

① Align the two pegs on each side of the ink ribbon with the slots on the ribbon tray.

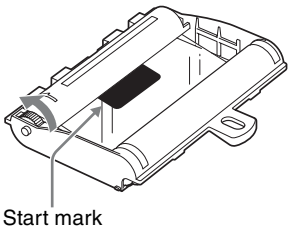


Notes

- Make sure to load the ink ribbon with the front and back oriented correctly.



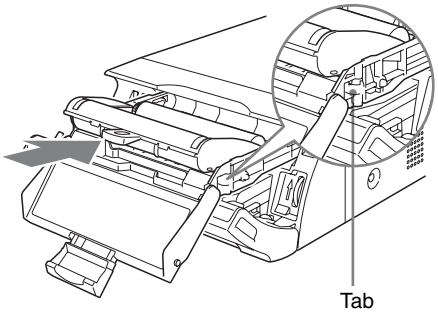
- Before loading the ink ribbon, make sure to position the start mark as shown below and remove any slack by turning the gear in the direction of the arrow.



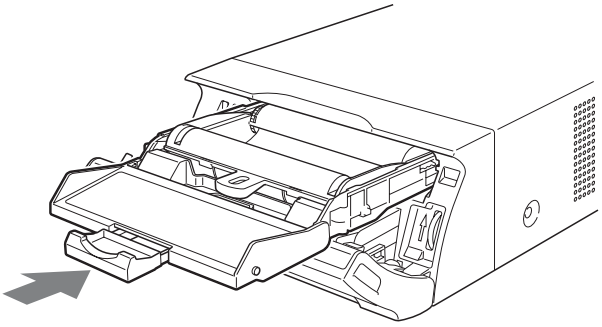
② Slide the ink ribbon straight into the ribbon tray until completely inserted.

Note

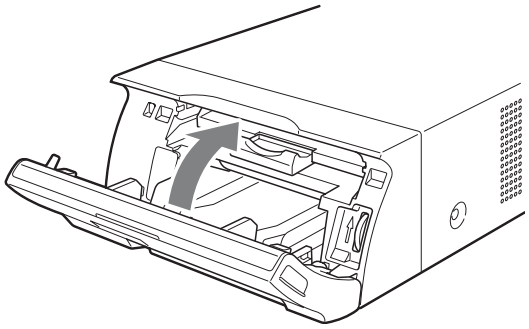
Do not touch the white tabs on the sides of the ribbon tray. Doing so may result in improper loading of the ink ribbon.



4 Slide the ribbon tray straight into the printer until completely inserted.



5 Close the ribbon door panel.

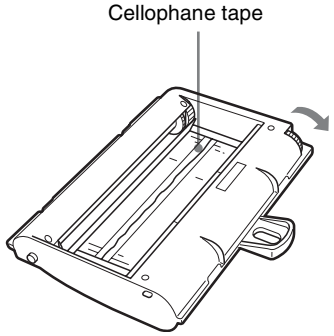


Removing the Ribbon Tray

To remove the ribbon tray when replacing the ink ribbon, for example, pull the tray straight out.

If the ink ribbon tears during use

Cellophane tape, etc., can be used to repair a torn ink ribbon so that the remainder of the ribbon can be used.



Wind the ink ribbon until the cellophane tape is no longer visible by turning the gray gear at the winding end in the direction of the arrow. (Make sure the ink ribbon does not sag.)

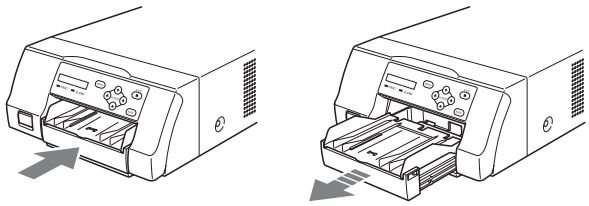
Loading the Paper

Follow the steps below to load paper into the paper feed tray and to insert the tray into the printer.
When using the printer for the first time, begin with step 2.

Notes

- Be careful not to touch the print side of the paper.
- Use only the recommended paper for this printer. Other types of paper may cause printer malfunctions, such as paper jams. For details about compatible ink ribbons and paper, see “Ink Ribbon and Paper” on page 26.
- When the message “CHANGE RBN” appears on the LCD display, the ink ribbon is used up. Replace the ribbon and load the printer with new paper.
- Be careful when inserting and removing the paper feed tray, because it may cause the printer to shift position and fall.

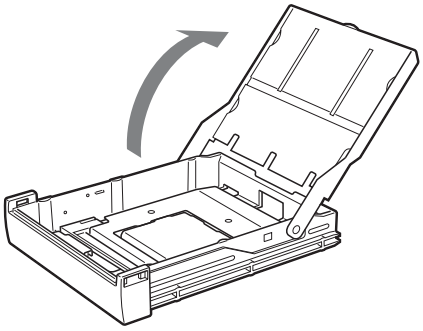
1 Press the ⏏ mark on the paper feed tray to eject the tray.



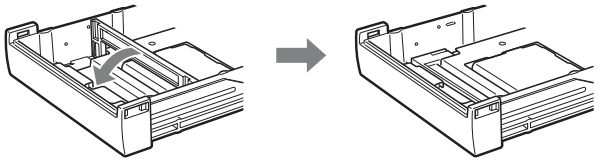
2 Open the lid of the paper feed tray, and load the paper and protective sheet together with the print side facing up.

When using printing pack UPC-21L

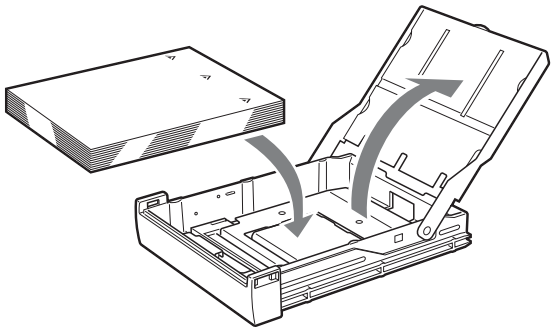
① Open the paper feed tray.



② If the paper feed tray partition is raised, lower it.

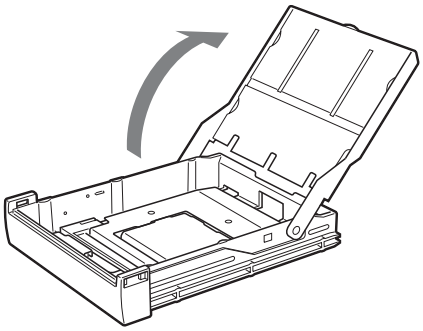


③ Neatly stack and load the paper in the paper feed tray, aligning the "▲" mark on the protective sheet with the "△" mark inside the tray.

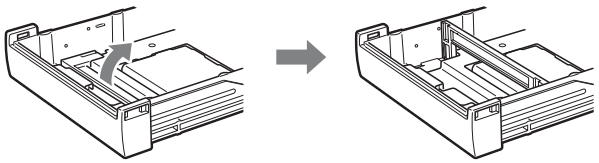


When using printing pack UPC-21S

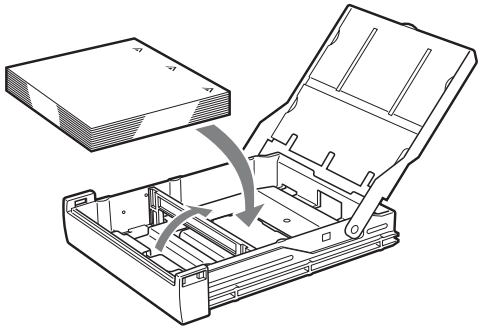
① Open the feed tray.



② If the paper feed tray partition is lowered, raise it.



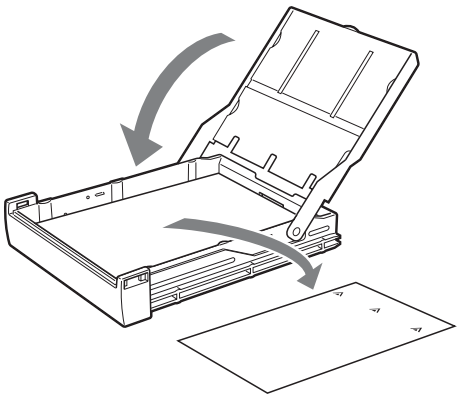
③ Neatly stack and load the paper in the paper feed tray, aligning the "▲" mark on the protective sheet with the "△" mark inside the tray.



Notes

- When the paper runs out, do not just add more paper. Replace both the paper and the ink ribbon. Replenishing the paper midway may cause a paper jam.
- When handling the paper, do not touch the print side. Fingerprints and dust may adhere to the print side and soil it. To prevent the print side from becoming soiled, handle the paper with the protective sheet (with printed "▲▲▲" marks) attached.
- Load the paper properly so that it fits completely in the paper feed tray. If the paper is bent, it will protrude from the paper feed tray and may not feed properly. Make sure to handle each ream of paper by the protective sheet and to remove any bends in the paper before using it.
- Do not put a mixture of different types of paper in the paper feed tray.

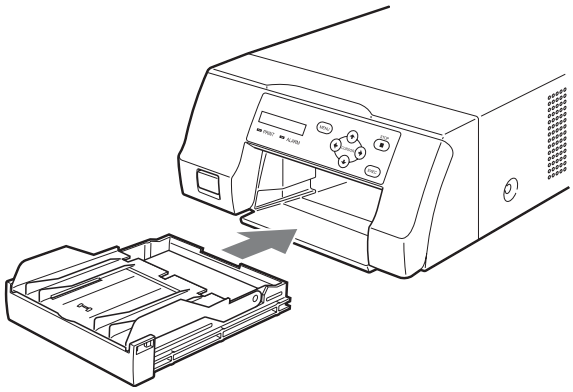
3 Remove the protective sheet and close the lid.



Note

Make sure to keep the protective sheet after removing it. The reverse side of the protective sheet (without printing), can be used as a cleaning sheet to clean the thermal head. For details about cleaning, see "Cleaning the thermal head" on page 25.

4 Insert the paper feed tray into the printer until it clicks into place.



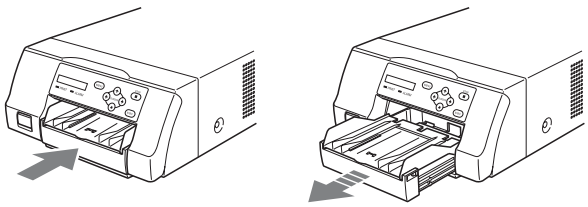
Notes

- If the paper feed tray cannot be completely inserted in the printer, check the tray insertion area and remove any paper found there.
- Do not allow more than 10 printouts to accumulate. Leaving too many printouts in the output tray could cause a paper jam.

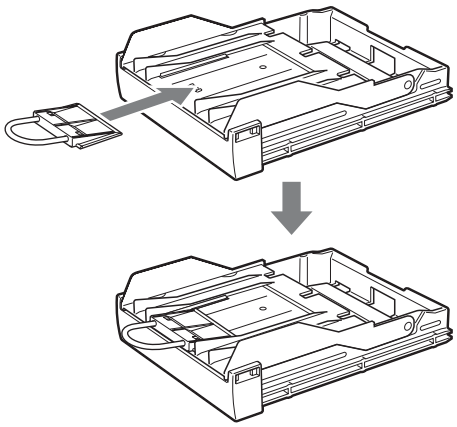
Attaching the Stopper

When multiple printouts are ejected, the printouts that accumulate on the paper feed tray may fall out. To prevent this, attach the stopper to the paper feed tray.

1 Press the ⏏ mark area of the paper feed tray, and remove the tray.



2 Fit the stopper into the two slits on the lid of the paper feed tray, and insert it all the way in.



Note

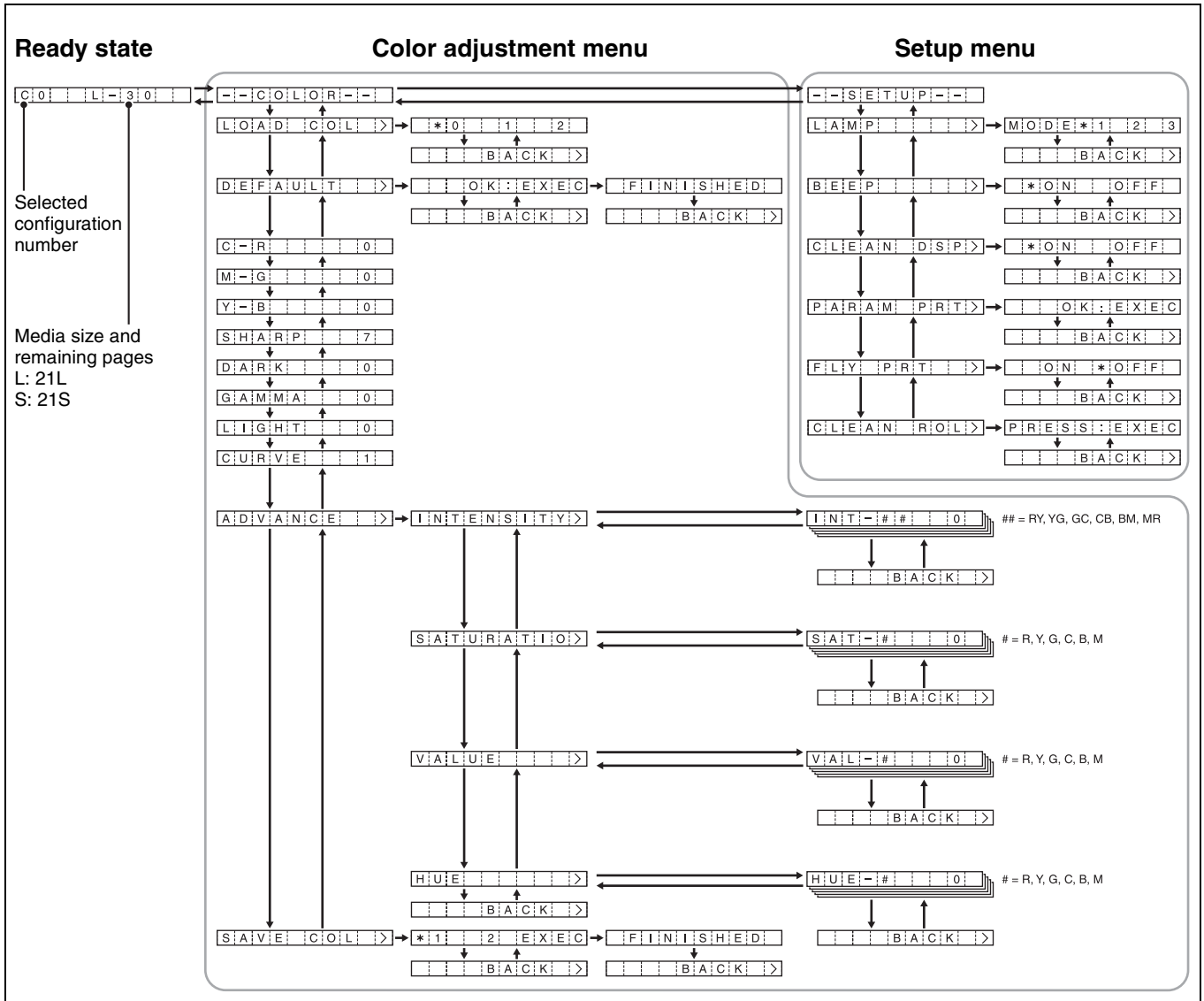
Do not pull on the metallic portion of the stopper.

Adjustments and Settings on the Menu

The menu allows you to adjust the color of prints and configure printer settings to suit your printing needs. Configured settings are stored even when the printer is turned off, and up to two user-defined color adjustment configurations can be saved.

Menu Structure

When the LCD display is in the ready state, pressing the MENU button displays the menu.
With the menu displayed, each setting can be selected and configured with the directional buttons (←, →, ↑, ↓).
Press the MENU button while the menu is displayed to return the LCD display to the ready state.
The menu is structured as follows.



Button operations for menus

- Press ← or → to switch between menus, and press ↑ or ↓ to switch between setting items in menus. If you press ↑ (or ↓) at the first (or last) item in a menu, you will jump to the last (or first) item of that menu.
- If [>] appears at the right of a menu item, pressing → displays the sub-item for that menu. If [BACK>] is displayed, however, pressing → returns you to the previous item level for that menu.
- When setting values are displayed, pressing ← or → changes the values.

Menu List

Descriptions of the settings available for each menu item are listed below.
Default settings appear in **bold**.

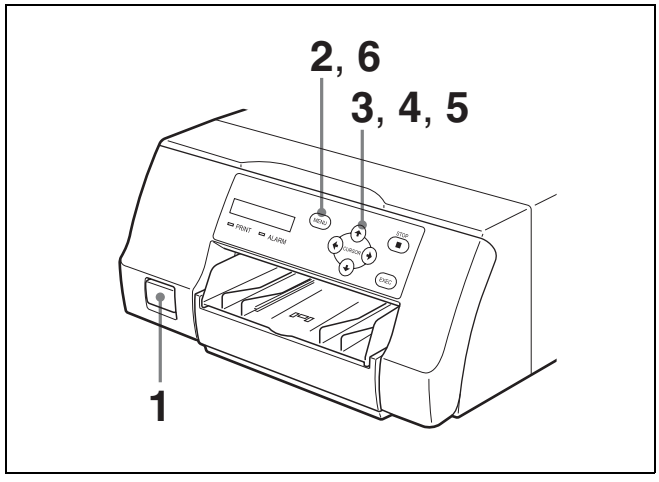
COLOR Menu

Item	Description	Settings
LOAD COL	Loads a saved color configuration.	**0** Value set by the printer driver (Display only. The printer driver setting is applied for printing.). 1 User setting 1 saved with [SAVE] (The color adjustment set by the printer driver is disabled, and the color configuration saved on the printer is used.) 2 User setting 2 saved with [SAVE].
DEFAULT	Resets the settings for color configurations 1 and 2 to the default values.	Press the EXEC button to confirm.
C-R (Cyan - Red)	Higher values add red to prints. Lower values reduce red and add cyan (light blue).	Adjustable in 65 steps, ranging from –32 to 32. 0 is the standard value. Adjustment range: –32 ~ **0** ~ 32
M-G (Magenta - Green)	Higher values add green to prints. Lower values reduce green and add magenta (pink).	Adjustable in 65 steps, ranging from –32 to 32. 0 is the standard value. Adjustment range: –32 ~ **0** ~ 32
Y-B (Yellow - Blue)	Higher values add blue to prints. Lower values reduce blue and add yellow.	Adjustable in 65 steps, ranging from –32 to 32. 0 is the standard value. Adjustment range: –32 ~ **0** ~ 32
SHARP (Sharpness)	Adjusts the image contours. The larger the value, the sharper the image contour.	Can be adjusted in 15 gradations. 7 is the standard value. Adjustment range: 0 ~ **7** ~ 14
DARK	Adjusts the level of dark areas.	Can be adjusted in ±32 gradations. 0 is the standard value. Adjustment range: –32 ~ **0** ~ 32
GAMMA	Adjusts the level of intermediate colors.	Can be adjusted in ±32 gradations. 0 is the standard value. Adjustment range: –32 ~ **0** ~ 32
LIGHT	Adjusts the level of light areas.	Can be adjusted in ±32 gradations. 0 is the standard value. Adjustment range: –32 ~ **0** ~ 32
CURVE	Switches the tone curve.	**1** Standard 2 High contrast 3 Low contrast
ADVANCE	Configures detailed color settings.	
INTENSITY	Adjusts the intensity of each color.	Can be adjusted in ±32 gradations. 0 is the standard value. Adjustment range: –32 ~ **0** ~ 32 R-Y: Colors from red to yellow Y-G: Colors from yellow to green G-C: Colors from green to cyan (light blue) C-B: Colors from cyan (light blue) to blue B-M: Colors from blue to magenta (pink) M-R: Colors from magenta (pink) to red
SATURATIO (Saturation)	Adjusts the saturation of each color.	Can be adjusted in ±32 gradations. 0 is the standard value. Adjustment range: –32 ~ **0** ~ 32
VALUE	Adjusts the brightness of each color.	Can be adjusted in ±32 gradations. 0 is the standard value. Adjustment range: –32 ~ **0** ~ 32
HUE	Adjusts the hue of each color.	Can be adjusted in ±32 gradations. 0 is the standard value. Adjustment range: –32 ~ **0** ~ 32
SAVE COL	Saves the color configuration in the color adjustment menu. Two different color configurations can be saved.	**1** Saves the configuration as user setting 1. 2 Saves the configuration as user setting 2. A color configuration cannot be saved for setting 0, because it is the printer driver setting.

SETUP Menu

Item	Description	Settings
LAMP	Sets the operation of the output tray indicator.	**MODE 1** Ready (OFF) → Receiving image (flashing) → Printing (OFF) → Ejecting (ON) → Ejecting finished (OFF) MODE 2 Always ON MODE 3 Always OFF
BEEP	Turns the button operation beep and the printing error alarm on or off.	**ON** Printer sounds are turned on. OFF Printer sounds are turned off.
CLEAN DISP	Sets the cleaning message display function.	**ON** Displays a message on the LCD display when head cleaning is recommended. OFF Does not display a message even when head cleaning is recommended.
PARAM PRT	Prints a list of the current printer settings.	Press the EXEC button to execute printing (page 22).
FLY PRT	Sets the timing at which to begin printing operations.	ON Paper begins feeding at the same time image data is received from the computer. **OFF** Paper begins feeding after all image data is received from the computer.
CLEAN ROL	Executes manual paper feed roller cleaning.	Press the EXEC button to execute manual cleaning (page 26).

Using the Menu



1 Press the ⏻ POWER switch to turn on the printer.

The backlight on the LCD display lights green, and the PRINT and ALARM indicators and tray light light simultaneously before turning off.

2 Confirm that the LCD display is in the ready state (“C0 L-30,” etc.), and then press the MENU button.

3 Press ← or → to select a menu ([COLOR] or [SETUP]).

4 Press ↑ or ↓ to select an item.

5 Press ← or → to select a setting.

6 Finish configuring settings, and then press the MENU button.
The LCD display returns to the ready state.

Saving Color Adjustment Settings

Settings that are configured on the color adjustment menu can be saved and then loaded again later when needed. Up to two different color configurations can be saved.

To save a color configuration

1 Press the MENU button.

2 Press ← or → to select [COLOR].

3 Press ↑ or ↓ to select items (C-R, M-G, Y-B, SHARP, DARK, GAMMA, LIGHT, CURVE, or ADVANCE) in the color adjustment menu and change the desired settings.

4 Once the settings are configured, press ↑ or ↓ to select [SAVE COL].

5 Press ← or → to select a number (1 or 2) under which to save the color configuration.
Pressing ← or → changes the position of [*] on the LCD display. Move [*] to the left of the desired number. Up to two color configurations can be saved by selecting a different number for each configuration.
For details about the current color configuration, check the settings in the [COLOR] menu or print a list of printer settings. (page 22)

6 Press the EXEC button to save the color configuration.

7 Press the MENU button to return to the ready screen.

To load a color configuration

1 Press the MENU button.

2 Press ← or → to select [COLOR].

3 Press ↑ or ↓ to select [LOAD COL].

4 Press ← or → to select a configuration number.

Number	Description
0	The printer driver color settings are applied when printing.
1 or 2	The user-defined color adjustment settings saved under each configuration number are converted to internal printer settings for printing.

5 Press the MENU button to return to the ready screen.

Printing a List of Printer Settings

Follow the steps below to print a list of the current printer settings.

1 Press the MENU button.

2 Press ← or → to select [SETUP].

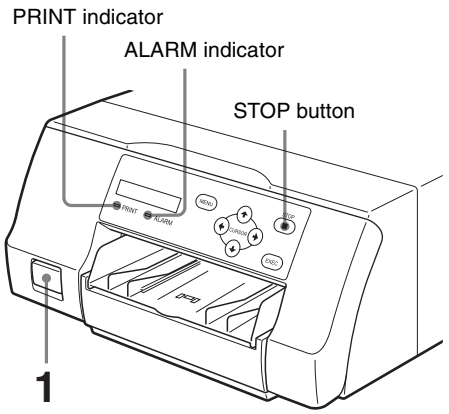
3 Press ↑ or ↓ to select [PARAM PRINT].

4 Press →, and then press the EXEC button.
A list of the current printer settings is printed.

Printing

Before printing

- Is the printer connected to a computer? (page 13)
- Have the ink ribbon and paper been properly loaded? (page 15)
- Has the printer driver been installed? (page 14)



1 Press the ⏻ POWER switch to turn on the printer.
The backlight on the LCD display lights green, and the PRINT and ALARM indicators and tray light light simultaneously before turning off.

2 Turn the computer on.

3 Using the computer, initiate a printing operation.
The PRINT indicator flashes while the image data is being received from the computer, and then remains steadily lit while printing is in progress.

Notes

- Although the paper being printed may come into view while printing is in progress, do not attempt to remove it until printing is complete.
- Do not turn off the printer while printing is in progress. Doing so may cause a paper jam.
- Do not open the ribbon door panel while printing is in progress. If the panel is opened, printing stops, and when the panel is closed again, the printer ejects the page that was printing and returns to the ready state.
- Do not open the ribbon door panel if "WAIT" appears on the LCD display. Internal printer processing is in progress.
- Although the printer can be set for continuous printing, if the printouts stack up and begin to bend, printing stops and the ALARM indicator lights. When this happens, remove the printouts from the output tray. The printing operation automatically resumes and the remaining images are printed.

- Do not allow more than 10 printouts to accumulate. Leaving too many printouts in the output tray could cause a paper jam.

When printing is disabled

Printing is disabled when the ribbon door panel is open or the ALARM indicator is lit.
For details, see “Explanation of Indicators” on page 29.

If the paper or ink ribbon runs out while printing

The printer terminates the printing operation. Once the new paper and ink ribbon are loaded, the printing operation automatically resumes and the remaining images are printed.

Canceling continuous printing

Press the STOP button. The current item finishes printing, and the printer enters the ready state once the printout is ejected.

Storing printouts

- Avoid storing printouts in a location subject to high temperatures, high humidity, or direct sunlight. Such conditions could result in fading.
- Do not stick tape on a printout. Also, do not let printouts come into contact with materials which contain plasticizers, such as erasers or desk mats.
- Do not allow volatile organic solvents, such as alcohol, to come into contact with printouts.

Precautions

In addition to the following precautions, be sure to refer to the safety warnings and notices at the beginning of this manual.

Safety

If "CLEAN HEAD" appears on the LCD display

The message "CLEAN HEAD" appears on the LCD display when the number of printed pages reaches 1,000 and it is time to clean the thermal head. For details about cleaning, see "Cleaning the thermal head" on page 25.
When the message "CLEAN HEAD" appears, you can cancel it by pressing any button on the front of the printer. The message reappears each time you turn the printer on until cleaning has been performed.
Also, the "CLEAN HEAD" message display setting can be turned on or off in the setup menu (page 21).

If "CLEAN ROLL" appears on the LCD display

If all paper in the paper feed tray is used up during a printing operation, the printer executes automatic paper feed roller cleaning. If the internal sensor detects an excessive amount of dust on the paper feed roller, "CLEAN ROLL" appears on the LCD display. In this case, perform manual paper feed roller cleaning. For details, see "Manual paper feed roller cleaning" on page 26.
The message about roller cleaning appears at the end of printing if the paper feeding power is low.

Installation

Avoid placing the unit in a location subject to:
- direct or excessive sunlight
- high humidity
- extremely high or low temperatures
- mechanical vibration
- excessive dust
- instability

For safety, do not place an object, such as a computer monitor, on top of the unit.

Caution

To prevent internal heat built-up, maintain sufficient space around the printer (at least 10 cm (4 in.)). Do not obstruct the ventilation holes on the sides of the printer.

Transportation

When transporting the printer, follow the steps below to remove all accessories and repack the unit in its original packaging. Transporting the printer with the accessories installed may damage the printer.

1 Remove the ink ribbon and paper feed tray.

2 Lock the internal thermal head.
① Press the ⏻ POWER switch to turn on the printer.
② Simultaneously press ←, →, and the MENU button.
The printer operation sound continues for approximately 2 seconds, and the message "WAIT" appears on the LCD display.
③ When the printer operation sound stops and the message "TRANS MODE" appears in the display, press the ⏻ POWER switch to turn off the printer.
The thermal head is locked.

To unlock the thermal head

Turn on the printer again. The thermal head unlocks, and the ink ribbon can be loaded.

When the printer will be inactive for a long time

- Press the ⏻ POWER switch to turn off the printer, and then disconnect the power cord.
- Remove the partially used paper and ink ribbon from the printer, reseal them in their original bags, and store them in a cool, dark location. Before unsealing and reusing the stored paper and ink ribbon, allow them to return to room temperature to prevent water condensation.

On condensation

- If the printer 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 quantities of moisture, condensation may form inside the printer. In such cases the printer will probably not work properly, and may even develop a fault if you persist in using it. If moisture condensation forms, turn off the power and leave the printer standing for at least one hour.
- If the printing pack is subjected to wide and sudden changes in temperature, condensation may form on the ink ribbon or paper inside. This will cause the printer to malfunction. Also, if the printing pack is used in this state, spots are likely to appear on the printout.

Cleaning the cabinet

Note

Before you clean the printer, be sure to turn off the power and disconnect the power cord.

When the cabinet becomes dirty

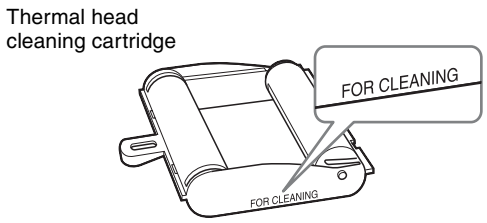
When solvents such as benzene or thinner, or acid, alkaline or abrasive detergent, or chemical cleaning cloths are used

on the printer surface, the surface finish may be damaged. Take care with respect to the following:

- Clean the printer surface with a 50 to 70 v/v% concentration of isopropyl alcohol or a 76.9 to 81.4 v/v% concentration of ethanol.
- Stubborn stains may be removed with a soft cloth such as a cleaning cloth lightly dampened with mild detergent solution and then cleaned using the above chemical.
- Do not use unnecessary force to rub the printer surface with a stained cloth. The printer surface may be scratched.
- Do not keep the printer surface in contact with a rubber or vinyl resin product for a long period of time. The surface finish may deteriorate or the coating may come off.

Cleaning the thermal head

If marks and stripes appear on printouts, clean the thermal head using the supplied thermal head cleaning cartridge and cleaning sheet.



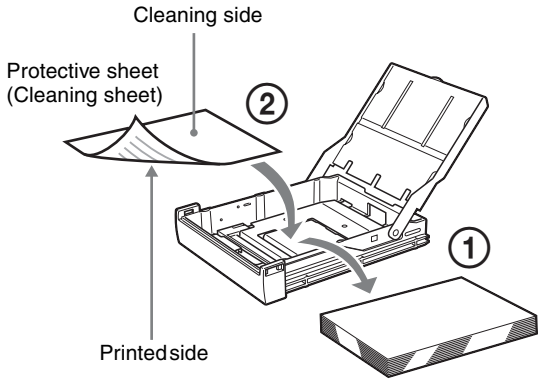
To maintain print quality, we recommend that you perform cleaning regularly and whenever you replace printing pack (when the printing pack in use runs out).
To perform cleaning on the thermal head, the reverse side of the protective sheet supplied with printing packs UPC-21S and UPC-21L can be used as a cleaning sheet.

1 Press the paper feed tray to eject it.
Remove all paper from the feed tray. Remove any paper remaining in the tray insertion area. ①

2 Turn over the protective sheet (the cleaning sheet) that was removed in step 3 of "Loading the Paper" (page 16), and load it in the paper feed tray with the reverse side (the unprinted side) facing up. ②

Note

Once a protective sheet has been used as a cleaning sheet, do not use it again.



3 Insert the paper feed tray into the printer.

4 Load the thermal head cleaning cartridge into the printer.
When an ink ribbon is loaded in the printer, remove it before loading the thermal head cleaning cartridge. The procedure is the same as loading an ink ribbon. For details, see "Loading the Ink Ribbon" on page 15.
Once the thermal head cleaning cartridge is loaded and the ribbon door panel is closed, the message "PRESS:EXEC" appears on the LCD display.

5 Press the EXEC button.
The cleaning operation begins.
During the cleaning operation, "CLEANING" appears on the LCD display.
After the cleaning sheet is ejected, "FINISH" appears on the LCD display and the cleaning operation finishes.

Note

Do not turn off the printer while "CLEANING" appears on the LCD display.

6 Remove the thermal head cleaning cartridge.
The thermal head cleaning cartridge can be used for future cleanings, so keep it in a safe place and do not discard it.

Notes

- The protective sheet that has been used as a cleaning sheet cannot be used again.
- The thermal head cleaning cartridge is reusable. Store it in package to protect it from dust and other particles.

Automatic paper feed roller cleaning

If all paper in the paper feed tray is used up during a printing operation, the printer executes automatic paper feed roller cleaning.
During the cleaning operation, “CLEANING” appears on the LCD display.
When the cleaning operation finishes, the paper feed tray is ejected automatically.

Notes

- Do not turn off the printer while “CLEANING” appears on the LCD display.
- When the cleaning operation finishes, the paper feed tray is ejected automatically.

Manual paper feed roller cleaning

If “CLEAN ROLL” appears on the LCD display, execute manual paper feed roller cleaning.

1 Press the paper feed tray to eject it.
Remove all paper from the feed tray. Remove any paper remaining in the tray insertion area.

2 Insert the empty paper feed tray into the printer.

3 Select “CLEAN ROL” in the setup menu (page 19) and press ➡.
The message “PRESS:EXEC” appears on the LCD display.

4 Press the EXEC button.
The manual paper feed roller cleaning operation begins and “CLEANING” appears on the LCD display.
When the cleaning operation finishes, the paper feed tray is ejected automatically.

Notes

- Do not turn off the printer while “CLEANING” appears on the LCD display.
- When the cleaning operation finishes, the paper feed tray is ejected automatically.
- Insert the empty paper feed tray into the printer. If the paper feed tray is not inserted, the printer may be damaged.

Ink Ribbon and Paper

Do not re-use
Doing so may result in malfunction and negatively affect printing results.

Color Printing Pack UPC-21S

Contains color ink ribbons and paper for 240 sheets worth of high-speed, high-sensitivity printing, including:
3 ink ribbons for 80 sheets worth of printing each
3 reams of paper (90 × 100 mm) with 80 sheets each

Color Printing Pack UPC-21L

Contains color ink ribbons and paper for 200 sheets worth of high-speed, high-sensitivity printing, including:
4 ink ribbons for 50 sheets worth of printing each
4 reams of paper (100 × 144 mm) with 50 sheets each

About the Color Printing Pack (UPC-21S/UPC-21L)

Notes

- When the paper runs out, replace both the paper and the ink ribbon.
- Use the ink ribbon and the paper in the carton as a set. Do not mix with other varieties of ink ribbon or paper.
- Since like other color dyes, the dyes used in this ink ribbon may discolor in time, the product will neither be replaced nor is a warranty against any color change given.

Storing paper

- Avoid storing paper in a location subject to high temperature or humidity, excessive dust, or direct sunlight.
- Remove the partially used paper and ink ribbon from the printer, reseal them in their original bags, and store them in a cool, dark location. Before unsealing and reusing the stored paper and ink ribbon, allow them to return to room temperature to prevent water condensation.

Notes for preserving your printouts

- Keep printouts in a dark and cool place.
- Be sure not to stick plastic tape onto the printout. Also avoid leaving a plastic eraser on top of the printout or putting the printout between objects which contain plasticizer (a desk mat, etc.)
- Be sure not to pour any alcohol or other volatile organic solvents onto the printouts.

Specifications

Power Requirements
100 V to 240 V ∼, 50/60 Hz
Input Current 1.7 A to 1.0 A
Operating Temperature
5 °C to 35 °C (41 °F to 95 °F)
Operating Humidity
20% to 80% (no condensation allowed)
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% (no condensation allowed)
Storage and Transport Pressure
700 hPa to 1,060 hPa
Dimensions Approx. 212 × 98 × 398 mm (w × h × d) (8 3/8 × 3 7/8 × 15 5/8 inches)
Weight Approx. 5.5 kg (12 lb 3 oz) (printer only)
Printing system Dye transfer sublimation thermal printing
Thermal head 423 dpi
Gradations 8-bit (256-level) processing each for yellow, magenta, and cyan
Picture elements
Full-image print using UPC-21S: 1,600 × 1,200 dots
Full-image print using UPC-21L: 2,100 × 1,600 dots
Printing time UPC-21S
Approx. 19 seconds (high speed print)
UPC-21L
Approx. 29 seconds (high speed print)
Interface Hi-Speed USB (USB 2.0 compliant)
Input connector AC IN (for power input)
Supplied accessories
Paper feed tray (1)
Stopper (1)
USB cable 1-824-211-41 (SONY) (1)
Before Using this Printer (1)
Software License Agreement (1)
Thermal head cleaning cartridge (1)
CD-ROM (printer driver/instructions for use) (1)
Service Contact List (1)
Information for Customers in Europe (1)
Optional accessories
UPC-21S Color Printing Pack: 240 sheets (80 sheets × 3)
UPC-21L Color Printing Pack: 200 sheets (50 sheets × 4)
Wireless Print System UPA-WU10*

* For about the availability of product, contact your Sony dealer.

Design and specifications are subject to change without notice.

Medical Specifications

Protection against electric shock:
Class I
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

Notes

- Always verify that the unit is operating properly before use. SONY WILL NOT BE LIABLE FOR DAMAGES OF ANY KIND INCLUDING, BUT NOT LIMITED TO, COMPENSATION OR REIMBURSEMENT ON ACCOUNT OF FAILURE TO PRINT CONTENT OF ANY TYPE OR LOSS OF DATA DUE TO FAILURE OF THIS UNIT OR ITS PRINTING MEDIA, ASSOCIATED SOFTWARE, EXTERNAL STORAGE, OR OTHER EXTERNAL DEVICE.
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Troubleshooting

If a problem appears, check the following troubleshooting guide first and perform whatever action is necessary to solve the problem. If the problem persists, turn off the printer and consult your Sony dealer.

Symptom	Possible causes and remedies
The printer does not print even though images are being sent from the computer.	• The ⏻ POWER switch is OFF. →Turn the ⏻ POWER switch ON. • The printer and computer are not connected properly. →Check the printer and computer connections (page 13).
The printer does not print.	The printer is in a state that does not allow printing for some reason. In such cases, the ALARM indicator on the ribbon door panel lights and an error message appears on the LCD display. →Refer to "Error messages" on page 29 and take the appropriate action.
Printed colors are faint.	The paper is loaded incorrectly. →Remove the paper and check that the front and back are oriented correctly before loading it again (page 16).
The ink ribbon does not load.	• You are trying to load an ink ribbon that is not compatible with this printer. →Load a compatible ink ribbon (page 26). • The thermal head is locked. →Turn on the printer. The thermal head unlocks, and the ink ribbon can be loaded. • The ink ribbon is not inserted in the correct position. →Insert the ink ribbon in the correct position.
The paper does not feed.	• The leading edge of the paper is folded. →Remove the paper with the folded leading edge from the paper feed tray. • The paper is not correctly oriented in the paper feed tray. →Check the paper orientation. For S-size paper, use the paper feed tray with the partition raised. • The paper feed roller are dirty. →Perform manual paper feed roller cleaning (page 26).
The printer ejects a blank sheet of paper, and then the ALARM indicator lights and the message "CHANGE RBN" appears on the LCD display.	The ink ribbon has been used up. →Replace the ink ribbon (page 15). Do not reuse the ejected paper.
There are marks and stripes on the print side.	The thermal head is dirty. →Perform thermal head cleaning (page 25).

Explanation of Indicators

The meanings of the indicators on the printer when they are on or flashing are described below.

Indicator		LCD display status	Meaning
PRINT	ALARM		
On → Off	On → Off	(Startup information)	The printer is starting up.
Off	Off	(Setting information)	The printer is ready.
Flashing	Off	RECEIVING	The printer is receiving images.
Flashing	Off	COOLING	The printer is adjusting the thermal head temperature.
Flashing	Off	HEATING	The printer is adjusting the thermal head temperature.
On	Off	FEED IN	Paper feeding is in progress.
On	Off	PRINT-Y/M/C/L	Printing is in progress.
On	Off	FEED OUT	Output is in progress.

Error messages

When an error occurs, a message describing the error appears on the LCD display. Each error message is described below, including the status of the PRINT and ALARM indicators when the error occurs, as well as possible causes and remedies for the error.

Indicator		LCD display status	Possible causes and remedies
PRINT	ALARM		
Off*	On	CLOSE DOOR	The ribbon door panel is open. →Close the ribbon door panel.
Off*	On	SET RIBBON	An ink ribbon has not been loaded. →Load an ink ribbon (page 15).
Off*	On	SET PAPER	• Paper has not been loaded. →Replenish the paper (page 16). • The paper feed tray is not inserted. →Insert the paper feed tray (page 16).
Off*	On	RMV PAPER	A paper jam occurred inside the printer. →Clear the jammed paper. The base plate is not attached. →Attach the base plate (page 31).
Off*	On	RMV PRINTS	The output tray is full of printouts. →Remove the printouts blocking the output tray. Printing resumes.
Off*	On	CHANGE RBN	The ink ribbon has been used up. →Load a new ink ribbon (ribbons cannot be reused). If a blank sheet of paper is ejected, do not reuse it (page 16).
Off	On	CHK RBN 33/34	The ink ribbon has torn. →Repair the ribbon with cellophane tape, etc. (page 16). If this message appears even though the ink ribbon is not torn, consult your Sony dealer.
Off	On	CHK PAP: RBN	The ink ribbon and paper are not correctly matched. →Use the ink ribbon and paper from the same printing pack (page 26).
Off	On	CHK RIBBON	An incompatible ink ribbon has been loaded. →Load a compatible ink ribbon.
Off**	On	CHK PAP 50 to 6F	A paper jam occurred inside the printer. →Clear the jammed paper.
Off	On	TR TEMP 10 to 1F	The thermal head temperature is abnormal. →Turn the printer off and then on again. If the error message persists, consult your Sony dealer.

Indicator		LCD display status	Possible causes and remedies
PRINT	ALARM		
Off	On	TR TEMP 20/ 21	The internal temperature of the printer is abnormal. →Turn the printer off and then on again. If the error message persists, consult your Sony dealer.
Off	On	TR HEAD 01 to 0F	The thermal head is malfunctioning. →Turn the printer off and then on again. If the error message persists, consult your Sony dealer.
Off	On	TR FAN 90 to 9F	A malfunction occurred with the printer's internal fan. →Turn the printer off and then on again. If the error message persists, consult your Sony dealer.
Off	On	SAVE ERR	An error occurred while saving settings to the printer. →Turn off the printer, and try saving the settings again after turning on the printer. If the error message persists, consult your Sony dealer.
Off	Flashing	WAIT	Paper from inside the printer is being ejected. →Wait a moment for the process to finish.
Off	On	WAIT	Internal printer processing is in progress. →Wait a moment for the process to finish.
Off	Off	CLEAN HEAD	Perform thermal head cleaning (page 25).
Off	On	CLEAN ROLL	Perform manual paper feed roller cleaning (page 26).
Off	On	SET TRAY	The paper feed tray is not inserted. →Insert the paper feed tray after removing any paper.

* On during continuous printing
** Lights only if 51 displayed.

When contacting your Sony dealer for assistance, be sure to provide the error message and numeric value (if appicable) that appears on the LCD display.

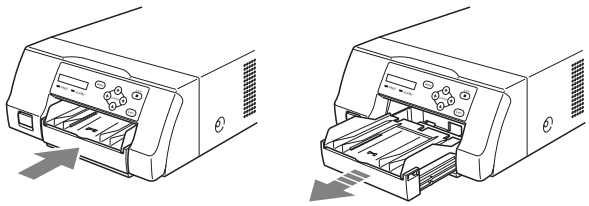
Clearing a Paper Jam

Once printing starts, if the ALARM indicator lights and any of the following messages appear on the computer monitor, it is possible that a paper jam has occurred inside the printer:

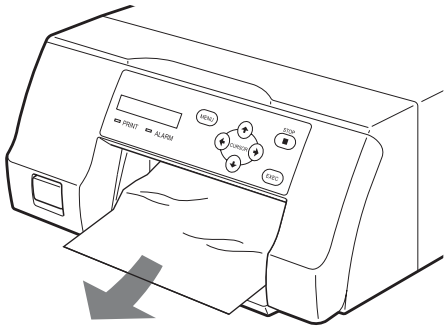
"A paper jam has occurred. Remove the jammed paper."
"A paper jam has occurred. Printing has stopped. Remove the jammed paper and then resume printing."
"There is a problem with a printer operation. Printing has stopped. Turn the printer off and then back on again, and then resume printing."

Follow the procedure described below to clear the jammed paper.

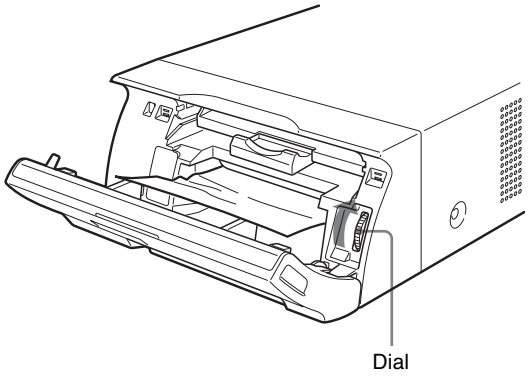
1 Press the ⏏ mark on the paper feed tray to eject the tray.



2 Clear any paper that jammed halfway.

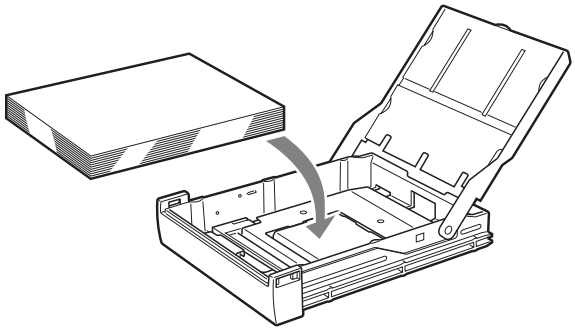


When the paper jam is deep inside the printer and cannot be cleared, open the ribbon door panel and turn the dial upward. This ejects the paper jammed deep inside.



If the paper jam cannot be cleared even by turning the dial, refer to "If a paper jam cannot be cleared" on page 31.

3 Load the paper properly.



Notes

- Do not reuse the paper removed in step 2.
- Only use paper from the printing packs recommended for this printer.

4 Insert the paper feed tray into the printer.

If a paper jam cannot be cleared

Follow the steps below to open the base plate on the printer and clear the paper jam.

Notes

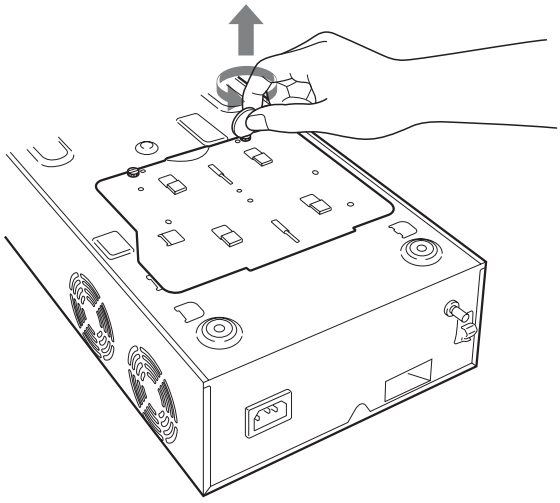
- Before clearing a paper jam with the following procedure, press the ⏻ POWER switch to turn off the printer, but also unplug the power cord from the wall outlet.
- Before turning over the printer, disconnect any connecting cables. Bending or twisting cables can damage them and may cause a fire hazard or an electric shock hazard.
- When it is necessary to touch internal printer parts to remove a paper jam inside the printer, be careful not to damage the internal parts.

1 Press the ⏻ POWER switch to turn off the printer, and then unplug the power cord and USB cable.

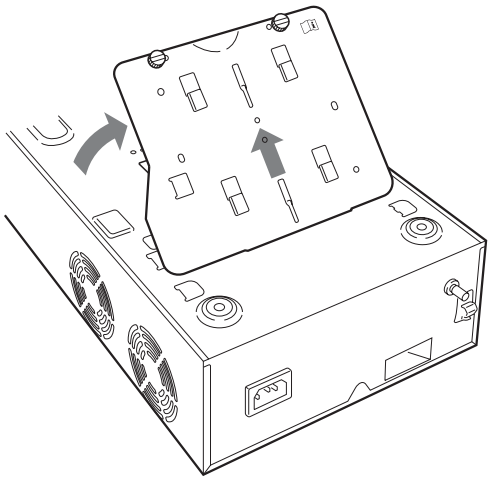
2 Eject the paper feed tray from the printer.

3 Turn the printer over.

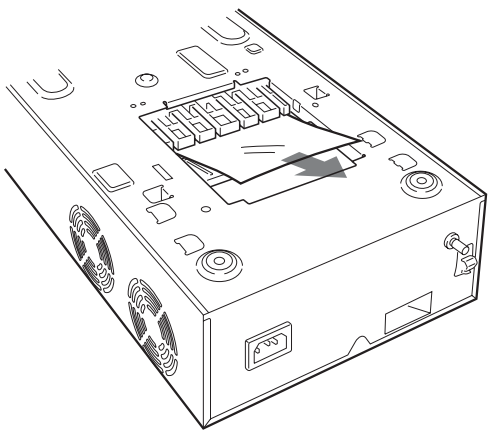
4 Using a flat tool, such as a coin, to remove the two screws securing the base plate.



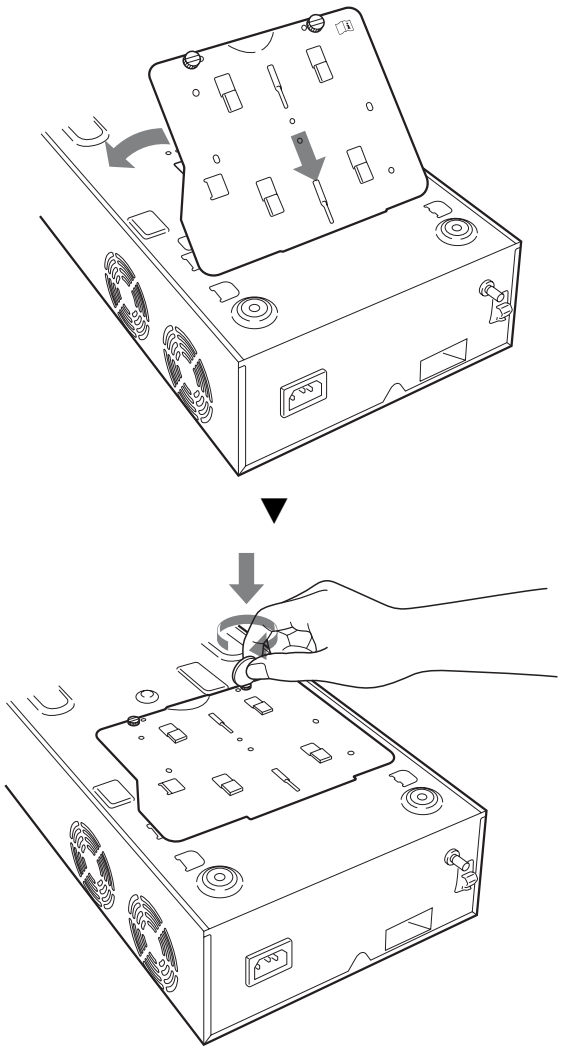
5 Lift up the base plate and remove it from the printer.



6 Carefully clear the jammed paper.



7 Reattach the base plate.



Caution

Be sure to reattach the base plate that was removed. The printer cannot print with the base plate removed.

If a paper jam still cannot be cleared

Consult your Sony dealer. Do not attempt to remove the paper by force.

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