Hybrid Graphic Printer

Instructions for Use

C € UP-990AD UP-970AD

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.

THIS APPARATUS MUST BE EARTHED.

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 unplug the power plug.

Symbols on the products



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



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



Refer to the operating instructions

Follow the directions in the operating instructions for parts of the unit on which this mark appears.

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.

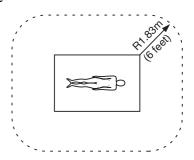
For the customers in Canada

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

For the customers in the U.S.A. and Canada

Both the UP-990AD and the UP-970AD Hybrid Graphic Printers are Non-Patient Equipment. These units cannot be used in the vicinity of patients.

* Patient Vicinity



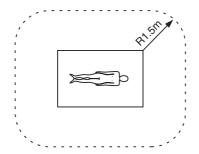
When you use this product connected to 240V single phase, be sure to connect this product to a center tapped circuit

Important safeguards/notices for use in the medical environments

 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 IEC 60601-1-1. 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.

This unit can not be used in the patient environment.

* Patient Environment



- 3. Do not touch the patient simultaneously while you are contacting with this 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. The leakage current could increase when connected to other equipment.
- 6. 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 power cord 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-990AD/UP-970AD needs special precautions regarding EMC and needs to be installed and put into service according to the EMC information provided in this instructions for use.
- The portable and mobile RF communications equipment such as cellular phones can affect the UP-990AD/UP-970AD.

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-990AD/UP-970AD.

	Guidance and manufacturer's declaration-electromagnetic emissions				
The UP-990AD/UP-970AD is intended for use in the electromagnetic environment specified below. The customer or the user of the UP-990AD/UP-970AD should assure that it is used in such an environment.					
Emission test	Compliance	Electromagnetic environment-guidance			
RF emissions		The UP-990AD/UP-970AD uses RF energy only for its			
CISPR 11	Group 1	internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.			
RF emissions	01 5	The UP-990AD/UP-970AD is suitable for use in all			
CISPR 11	Class B	establishments, including domestic establishments and those directly connected to the public low-voltage power			
Harmonic emissions	Olean A	supply network that supplies buildings used for domestic purposes.			
IEC 61000-3-2	Class A				
Voltage fluctuations/ flicker emissions	Complies				
IEC 61000-3-3					

Warning

If the UP-990AD/UP-970AD 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-990AD/UP-970AD is intended for use in the electromagnetic environment specified below. The customer or the user of the UP-990AD/UP-970AD should assure that it is used in such as environment.

Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment-guidance
Electrostatic discharge (ESD)	±6 kV contact	±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 %.
IEC 61000-4-2	±0 KV all	TO KV all	be at least 30 %.
Electrical fast transient/burst	±2 kV for power supply lines	±2 kV for power supply lines	Mains power quality should be that of a typical commercial or hospital environment.
IEC 61000-4-4	±1 kV for input/ output lines	±1 kV for input/ output lines	
Surge	±1 kV differential mode	±1 kV differential mode	Mains power quality should be that of a typical commercial or hospital environment.
IEC 61000-4-5	±2 kV common	±2 kV common	inospital ortifornional
	mode	mode	
Voltage dips, short interruptions and voltage variations on power supply input lines IEC 61000-4-11	$<5\% \ U_{\rm T}$ $(>95\% \ {\rm dip\ in\ } U_{\rm T})$ for 0.5 cycle $40\% \ U_{\rm T}$ $(60\% \ {\rm dip\ in\ } U_{\rm T})$ for 5 cycles $70\% \ U_{\rm T}$ $(30\% \ {\rm dip\ in\ } U_{\rm T})$ for 25 cycles $<5\% \ U_{\rm T}$ $(>95\% \ {\rm dip\ in\ } U_{\rm T})$ for 5 sec	$<5\% \ U_{\rm T}$ (> 95% dip in $U_{\rm T}$) for 0.5 cycle 40% $U_{\rm T}$ (60% dip in $U_{\rm T}$) for 5 cycles 70% $U_{\rm T}$ (30% dip in $U_{\rm T}$) for 25 cycles $<5\% \ U_{\rm T}$ (> 95% dip in $U_{\rm T}$) for 5 sec	Mains power quality should be that of a typical commercial or hospital environment. If the user of the UP-990AD/UP-970AD requires continued operation during power mains interruptions, it is recommended that the UP-990AD/UP-970AD be powered from an uninterruptible power supply or a battery.
Power frequency (50/60Hz) magnetic field	3 A/m	3 A/m	Power frequency magnetic fields should be at least characteristic of a typical location in a typical commercial or hospital environment.
NOTE: 11- is the a c	mains voltage prior	to application of the t	level tevel
NOTE: U_T is the a.c. mains voltage prior to application of the test level.			

5

Guidance and manufacturer's declaration - electromagnetic immunity

The UP-990AD/UP-970AD is intended for use in the electromagnetic environment specified below. The customer or the user of the UP-990AD/UP-970AD should assure that it is used in such as 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-990AD/UP-970AD, including cables, than the recommended separation distance calculated from the equation appliance to the frequency of the transmitter.
			Recommended separation distance
Conducted RF	3 Vrms	3 Vrms	$d = 1.2 \sqrt{P}$
IEC 61000-4-6	150 kHz to 80 MHz		
Radiated RF	3 V/m	3 V/m	$d = 1.2 \sqrt{P}$ 80 MHz to 800 MHz
IEC 61000-4-3	80 MHz to 2.5 GHz		$d = 2.3 \sqrt{P}$ 800 MHz to 2.5 GHz
			Where <i>P</i> is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and <i>d</i> 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.

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

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-990AD/UP-970AD is used exceeds the applicable RF compliance level above, the UP-990AD/UP-970AD should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as reorienting or relocating the UP-990AD/UP-970AD.

Recommended separation distances between portable and mobile RF communications equipment and the UP-990AD/UP-970AD

The UP-990AD/UP-970AD is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the UP-990AD/UP-970AD can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (Transmitters) and the UP-990AD/UP-970AD 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 $d = 2.3 \sqrt{P}$			
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 law in the relative area or country and the regulation in the relative hospital.

Warning on power connection

Use a proper power cord for your local power supply.

- 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 connection for medical use

Please use the following power supply cord. With connectors (plug or female) and cord types other than those indicated in this table, use the power supply cord that is approved for use in your area.

	United States and Canada
Plug Type	HOSPITAL GRADE*
Cord Type	Min.Type SJT Min.18 AWG
Minimum Rating for Plug and Appliance Couplers	10A/125V
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'.

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.

Table of Contents

Getting Started	
Overview	9
Location and Function of Parts and Contro	
UP-990AD	
UP-970AD	11
Paper	13
Paper You Can Use	
Loading Paper in the Unit	13
Analog Mode	
Connections	16
Adjustments and Settings Using the Menu.	17
Menu Flow	
Menu List	
Basic Menu Operations	
Registering Menu Settings	
Printing the Menu List	25
Printing	26
Starting a Print Job	26
Selecting the Printing Direction and Size	
Adjusting the Contrast and Brightness	29
Digital Mode	
Connections	30
Connecting to the USB Connector	30
Installing the Printer Driver	30
Adjustments and Settings Using the Menu.	30
Menu Flow	31
Menu List	33
Basic Menu Operations	35
Registering Menu Settings	
Printing the Menu List	36
Printing	37
Starting a Print Job	37
Adjusting the Contrast and Brightness	38

Others	
Precautions	39
On Safety	39
On the Printer Carriage	
On Installation	
Maintenance	40
Cleaning the Cabinet	40
Cleaning the Thermal Head	
Cleaning the Platen Roller	41
Specifications	41
UP-990AD	41
UP-970AD	
Troubleshooting	44
Frror Messages	

Overview

Stable, high-quality printing

- Capable of high-resolution images of 12.8 dots/mm.
- 8-bit processing provides monochrome printing with up to 256 shades of gradation.

A variety of printing modes

Single-picture mode



Side mode



Reverse mode



Multi-picture mode



A change of settings makes available an even greater number of print modes (see page 26).

Storing print modes

Store often used print modes as submenu values for subsequent instant recall.

Supports both analog and digital input

- Prints NTSC and PAL color video signals as well as EIA and CCIR monochrome video signals.
- Compatible with Hi-Speed USB (USB 2.0 compatible).

Auto cut function (UP-990AD only)

Automatically cuts the paper when printing completes.

Printing to film (UP-990AD only)

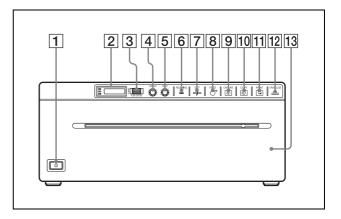
The UP-990AD can print on transparent film using UPT-210BL (separately sold).

Location and Function of Parts and Controls

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

UP-990AD

Front Panel



①Power on/off Switch (page 13, 23, 26, 35, 37, 40)

Press to turn ON the printer. The LCD display backlight as well as the CUT, FEED, COPY, and PRINT buttons light.

* When set to digital mode, the PRINT button does not light.

Printer window display (LCD: liquid crystal display) (page 18, 26, 31, 37)

The back light lights in green when the unit operates normally. Also, in normal operation, the paper currently selected is indicated by the pointer on the LCD.

For detailed information on the paper, see "Installing the Printer Driver" on page 30 and "Paper currently selected" on page 26 and 37. If an error occurs, a corresponding alarm message is displayed.

During menu operations, menu items and settings are displayed.

3 Jog dial (page 24, 35, 40)

Used to make menu operations.

4 CONTRAST (contrast) control (page 29) Adjusts the contrast of the printouts.

5 BRIGHT (brightness) control (page 29) Adjusts the brightness of the printouts.

6 RECEIVING lamp

Lights when the printer receives print data from a PC.

7 -J-CUT button (page 26, 37)

Press to cut the completed print using the internal paper cutter.

8 FEED button (page 14, 26, 37)

Hold down to feed paper. While a print job is in progress, press to cancel the print job.

9 ⊙ CAPTURE button (page 27)

In the multi-picture mode, press to store the print image in memory.

This function is not available in the single-picture mode.

Note

This function is available only in the analog mode.

10 © COPY button (page 28)

In the multi-picture mode, use this button to print images stored in memory (with the CAPTURE button) side by side on a single sheet.

In the single-picture mode, press to print another copy of the last printed image.

In either mode, press once to print only the number of prints set in the "QTY" menu.

11 PRINT button

Prints the image currently displayed on the video monitor. The image displayed when you press the PRINT button is stored in memory.

Note

This function is available only in the analog mode.

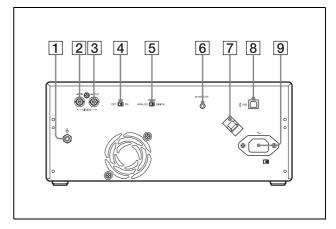
| 12 | OPEN/CLOSE button (page 14, 26, 37)

Press to open or close the paper door. While a print job is in progress, press to cancel the print job.

13 Paper door

Open to install and replace printing paper, and to clean the head and platen roller. Use the OPEN/CLOSE button to open or close the paper door.

Rear Panel



Used to connect to the equipotential plug to bring the various parts of a system to the same potential. Refer to "Important safeguards/notices for use in the medical environments" on page 2.

2 SVIDEO IN (input) connector (BNC type)

Connect to the video output connector of the video equipment.

Connect to the video input connector of the video monitor. The output signal depends on the setting of the "VIDEO" item of the menu.

4 75 Ω select switch

ON: When nothing is connected to the VIDEO OUT connector, set the switch to this position. OFF: When a video monitor or other video equipment is connected to the VIDEO OUT connector, set the switch to this position.

5 ANALOG/DIGITAL switch

Press to switch between analog and digital modes. Turn the printer off before switching.

6 ☑ REMOTE connector (page 16)

Connects the RM-91 remote control unit for controlling print operation from a distance.

| 7 | USB Cable Clamper

Holds and secures the USB cable connected to the USB port.

8 Y USB connector (4-pin connector)

Use the supplied USB cable to connect a PC with a USB (USB 2.0 compliant) interface to this connector.

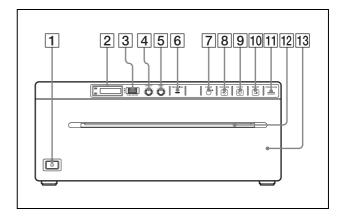
$9 \sim AC$ IN connector

Use a proper power cord for your local power supply (not supplied).

Refer to "Warning on power connection" on page 7 and "Warning on power connection for medical use" on page 7.

UP-970AD

Front Panel



①Power on/off Switch (page 13, 23, 26, 35, 37, 40)

Press to turn ON the printer. The LCD display backlight as well as the FEED, COPY, and PRINT buttons light.

* When set to digital mode, the PRINT button does not light.

2 Printer window display (LCD: liquid crystal display) (page 18, 26, 31, 37)

The back light lights in green when the unit operates normally. Also, in normal operation, the paper currently selected is indicated by the pointer on the LCD.

For detailed information on the paper, see "Installing the Printer Driver" on page 30 and "Paper currently selected" on page 26 and 37. If an error occurs, a corresponding alarm message is displayed.

During menu operations, menu items and settings are displayed.

3 Jog dial (page 24, 35, 40)

Used to make menu operations.

4 CONTRAST (contrast) control (page 29) Adjusts the contrast of the printouts.

5 BRIGHT (brightness) control (page 29)
Adjusts the brightness of the printouts.

6 RECEIVING lamp

Lights when the printer receives print data from a PC.

8 ⊕ CAPTURE button (page 27)

In the multi-picture mode, press to store the print image in memory.

This function is not available in the single-picture mode.

Note

This function is available only in the analog mode.

9 © COPY button (page 28)

In the multi-picture mode, use this button to print images stored in memory (with the CAPTURE button) side by side on a single sheet.

In the single-picture mode, press to print another copy of the last printed image.

In either mode, press once to print only the number of prints set in the "QTY" menu.

10 PRINT button

Prints the image currently displayed on the video monitor. The image displayed when you press the PRINT button is stored in memory.

Note

This function is available only in the analog mode.

Press to open or close the paper door. While a print job is in progress, press to cancel the print job.

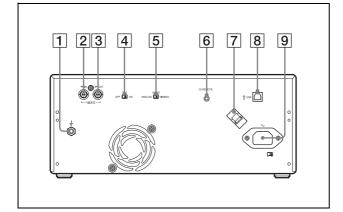
12 Paper Cutter

Cut the paper as each image is printed.

13 Paper door

Open to install and replace printing paper, and to clean the head and platen roller. Use the OPEN/CLOSE button to open or close the paper door.

Rear Panel



1 ♦ Equipotential terminal

Used to connect to the equipotential plug to bring the various parts of a system to the same potential. Refer to "Important safeguards/notices for use in the medical environments" on page 2.

2 SVIDEO IN (input) connector (BNC type)

Connect to the video output connector of the video equipment.

Connect to the video input connector of the video monitor. The output signal depends on the setting of the "VIDEO" item of the menu.

4 75 Ω select switch

ON: When nothing is connected to the VIDEO OUT connector, set the switch to this position. OFF: When a video monitor or other video equipment is connected to the VIDEO OUT connector, set the switch to this position.

5 ANALOG/DIGITAL switch

Press to switch between analog and digital modes. Turn the printer off before switching.

6 ☑ REMOTE connector (page 16)

Connects the RM-91 remote control unit for controlling print operation from a distance.

| 7 | USB Cable Clamper

Holds and secures the USB cable connected to the USB port.

8 Y USB connector (4-pin connector)

Use the supplied USB cable to connect a PC with a USB (USB 2.0 compliant) interface to this connector.

$\boxed{9}$ \sim AC IN connector

Use a proper power cord for your local power supply (not supplied).

Refer to "Warning on power connection" on page 7 and "Warning on power connection for medical use" on page 7.

Paper

Use only Sony UPP-210SE/210HD/UPT-210BL 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

Print paper characteristics are as follows.

Print Characteristics	Paper Type
TYPE I (Normal)	UPP-210SE
TYPE II (High Density)	UPP-210HD
TYPE III (Thermal film)	UPT-210BL

Note

The UP-970AD model cannot use UPT-210BL.

Notes on storing and handling paper



Do not re-use

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

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 you hands could cause pictures to blur.
- After removing the label from the leading edge of the paper, pull the paper out 15~20 cm (about 6~8 in.) before printing. Label adhesive remaining on the paper could spoil a picture.

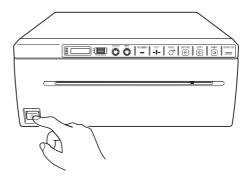
Storing printouts

- 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-sides tape or a water base adhesive.
- Do not incinerate waste printer paper.

Loading Paper in the Unit

Notes

- Do not touch the print surface of thermal printing paper when loading paper. The fingerprints, perspiration and creases that may result will lower the print quality.
- Use only UPP-210 series or UPT-210BL printing paper (page 13).
- Make the menu settings required by the loaded paper type (page 21, 34).
- **1** Press the power on/off switch to turn the unit on.

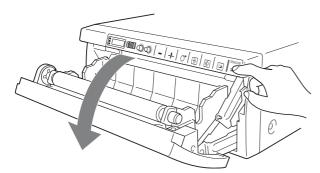


The LCD display shows the message "SONY UP-990AD" for the UP-990AD and "SONY UP-970AD" for the UP-970AD.

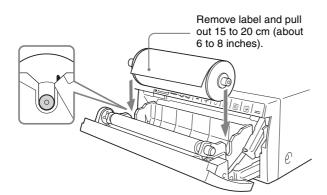
Notes

- The LCD display backlight lights in amber and shows the message "EMPTY" when no printing paper is loaded.
- The LCD display backlight lights in amber and shows the message "DOOR" when the paper door is open.
- When set to analog mode, the LCD display shows the message "NOINP" if there is no video signal input.

2 Press the OPEN/CLOSE button to open the paper door.



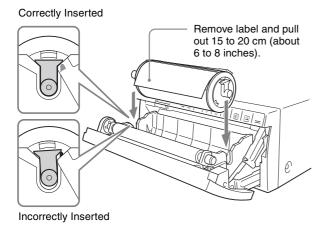
Place the printing paper roll on the tray.
Using UPP-210SE/210HD



Place the paper with the heat sensitive side facing up. The printer will not print if the paper is reversed.

Using UPT-210BL thermal film

 Cannot be used with the UP-970AD. Doing so may cause a malfunction.

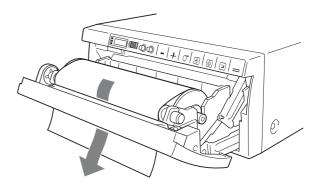


Place the paper with the heat sensitive side facing up. The printer will not print if the paper is reversed.

4 Insert the paper into the groove of the paper tray and pull it out through the paper exit.

Note

Place the paper near the center of the groove of the paper tray (inside of the guide). Note that paper jams may occur if the paper is placed at the edge of the groove of the paper tray.



Note

Pull out the printing paper to remove any slack and possible creases.



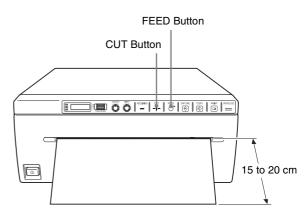
Press the OPEN/CLOSE button to close the paper door.

You can also push the paper door to close it.

6 Remove paper leading edge.

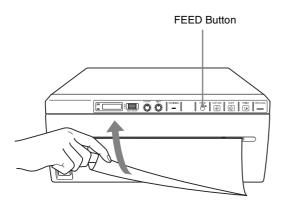
UP-990AD

After loading paper, press the FEED button to feed out 15 to 20 cm (6 to 8 inches) of paper and press the CUT button to remove it.



UP-970AD

After loading paper, press the FEED button to feed out 15 to 20 cm (6 to 8 inches) of paper. Then use the paper cutter to remove it. Be careful not to touch the paper cutter when cutting the paper.



Note

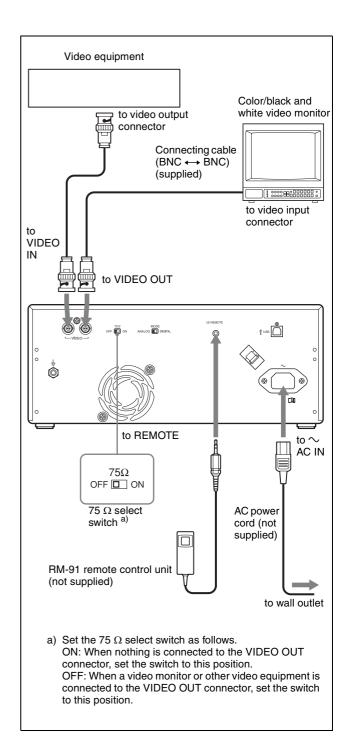
To use UPT-210BL after printing with UPP-210SE/HD, clean the head before printing as fine horizontal stripes may otherwise appear on the paper.



Connections

Notes

- Turn off the power to each device before making any connections.
- Connect the AC power cord last.
- After completing connections, switch to the analog mode before turning on the printer.
- The printer will not print images imported via the USB terminal.



Adjustments and Settings Using the Menu

You can carry out adjustments and settings to meet your requirements. Those settings and adjustments are retained even if the unit is turned off.

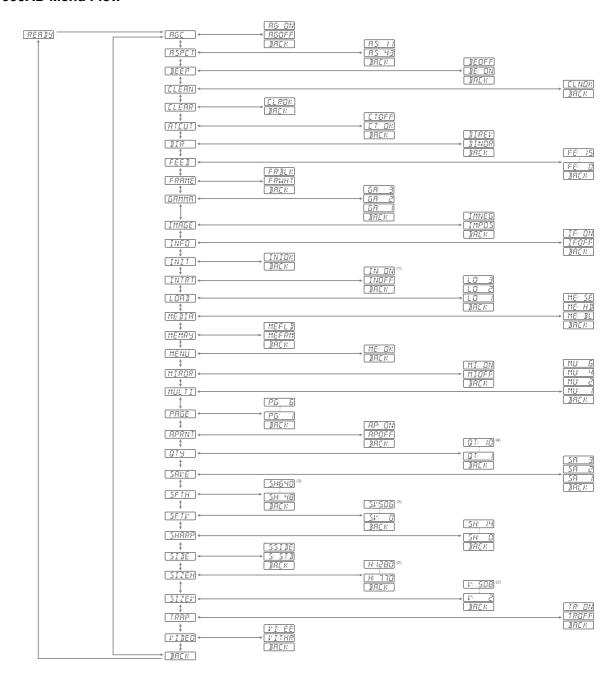
You can set up the unit according to its intended purpose, connected equipments or your individual preferences.

You can store up to three settings as a set of user settings.

Menu Flow

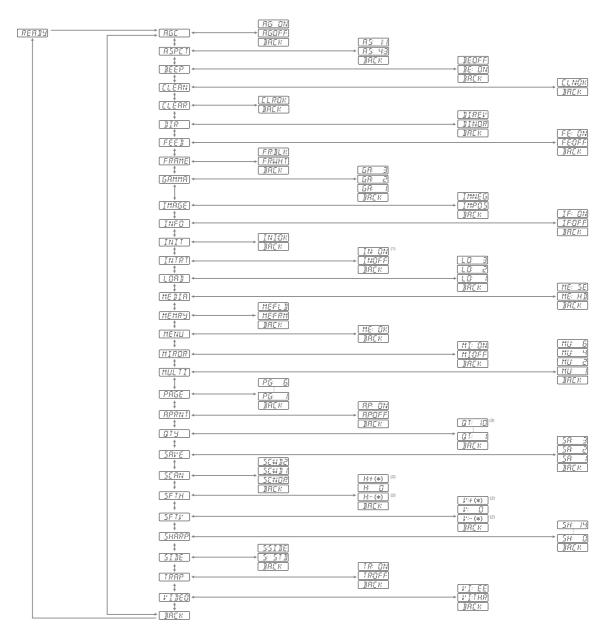
The contents displayed on the LCD changes in sequence as you turn the jog dial as shown in the following menu flow chart, and you can make the settings for each menu item.

UP-990AD Menu Flow



- (1): The single picture mode and multi-picture mode provide different functions. For details, see "Menu List".
- (2): The "SIZE.H", "SIZE.V" settings and the signal system of the image to be captured determine the values you can set with the Jog dial.
- (3): The "SFT.H", "SFT.V" settings and the signal system of the image to be captured determine the values you can set with the Jog dial.
- (4): The values you can set with the Jog dial in the analog mode are different from those in the digital mode.





- (1): The single picture mode and multi-picture mode provide different functions. For details, see "Menu List".
- (2): The "SCAN" settings and the signal system of the image to be captured determine the values you can set with the Jog dial.
- (3): The values you can set with the Jog dial in the analog mode are different from those in the digital mode.

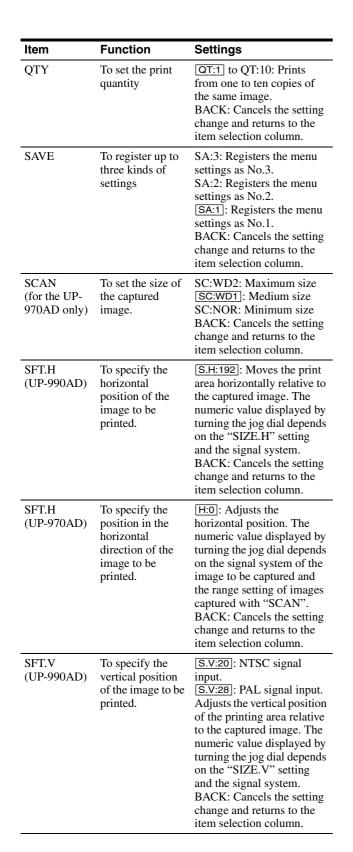
Menu List

This section describes the menus displayed as you turn the jog dial. The setting surrounded by indicates the factory setting.

Item	Function	Settings
AGC	To adjust the input signal to the optimum printing level	AG:ON: Adjusts the input signal to the optimum level, when the printout image appears too dark or too light. AG:OFF: Normally select this setting. BACK: Cancels the setting change and returns to the item selection column.
ASPCT ^{a)}	To select the aspect ratio	AS:1:1: Prints a video signal with an aspect ratio of 1:1. AS: 4:3: Normally select this setting. BACK: Cancels the setting change and returns to the item selection column
BEEP	To turn operation tones ON and OFF. Error tones sound regardless of setting.	BE: OFF: The operation tone does not sound. BE: ON: The operation sounds. BACK: Cancels the setting change and returns to the item selection column.
CLEAN	To start head cleaning	CLN: OK]: Starts the head cleaning. Be sure to use the supplied cleaning sheet. BACK: Cancels the head cleaning and returns to the item selection column.
CLEAR	To delete images stored in memory.	CLR: OK: Deletes all images stored in memory. BACK: Cancels CLEAR and returns to the item selection column.
AT.CUT (UP-990AD only function)	To turn on and off automatic cutting of completed prints.	CT:OFF: Cuts the paper when the CUT button is pressed. CT:ON: Cuts the paper automatically. BACK: Cancels the setting change and returns to the item selection column.
DIR b)	To select whether the top or bottom of the screen is to be printed first	DI: REV: Starts to print in the reverse direction (from the top of the screen). DI: NOR: Starts to print in the normal direction (from the bottom of the screen). BACK: Cancels the setting change and returns to the item selection column.

Item	Function	Settings
FEED (UP-990AD)	To set the top and bottom margin of a print.	FE: 0 to FE:15: Sets the margin to one of 16 steps from 0 to 15. An increase of one step increases the top and bottom margin by 5 mm. The top and bottom margin can be increased to 75 mm. The "0" setting is the default value, which still provides a narrow margin between two images. BACK: Cancels the setting change and returns to the item selection column.
FEED (UP-970AD)	To select the paper feed method used after printing.	FE: ON: Increases the margin between prints. FE:OFF: Sets when reducing the margin or when printing multiple images on the same sheet. This reduces the margin between images allowing you to print more images per roll. However, with this setting, the FEED button must be pressed before cutting the paper. BACK: Cancels the setting change and returns to the item selection column.
FRAME	To select the color of the frame between images in multi-picture mode.	FR:BLK: Sets the frame color to black. FR:WHT: Sets the frame color to white. BACK: Cancels the setting change and returns to the item selection column.
GAMMA	To select the tone of the printouts (density gradation)	GA:3: TONE 3 Hard gradation GA:2: TONE 2 Soft GA:1]: TONE 1 Standard gradation BACK: Cancels the setting change and returns to the item selection column.
IMAGE	To set the printout to either positive printout or negative printout	IM:NEG: Makes negative printouts. [IM:POS]: Makes normal printouts. BACK: Cancels the setting change and returns to the item selection column.
INFO	To select whether or not the print conditions (such as contrast, bright, gammas and sharpness information) are printed under the image	IF:ON: Prints the information. [F:OFF]: Does not print the information. BACK: Cancels the setting change and returns to the item selection column.

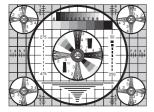
Item	Function	Settings		Item	Function	Settings
INIT	To return (initialize) all menu items to their factory defaults.	INI:OK: Returns all settings to their factory defaults. BACK: Cancels initialization and returns to the item selection column.		MEMRY	To select the memory mode	ME:FLD: When printing fast-moving images (such as a ball being thrown), the printout may be blue. If this happens, select this setting. [ME:FRM]: Normally select this setting.
INTRT	To select operation performed when printing of the	In single picture mode IN:ON: Stops printing when the PRINT button is pressed during printing and				BACK: Cancels the setting change and returns to the item selection column.
	current image is interrupted.	starts printing the image captured at the instant you pressed the PRINT button. [IN:OFF]: Printing does not stop even if the PRINT	starts printing the image captured at the instant you pressed the PRINT button. IN:OFF: Printing does not	MENU	To print the menu settings currently selected	ME:OK: Prints the menu list currently set. BACK: Cancels printing and goes back to its item column.
		button is pressed during printing. When printing of the current image ends, the unit prints the image captured at the instant you pressed the PRINT button. In multi-picture mode IN:ON: Stops printing when the CAPTURE button is pressed during printing. The image captured at the instant you pressed the CAPTURE button is inserted at the location indicated by flashing. IN:OFF: Disables the interruption of printing or image capture, even if the CAPTURE button is pressed during printing. BACK: Cancels the setting change and returns to the		MIROR	To print mirror images.	MI:ON: Prints mirror images. MI:OFF]: Prints normal images not mirror images. BACK: Cancels the setting change and returns to the item selection column.
				MULTI	To specify the number of images to be printed on one sheet of the printout	MU:6: Prints six images on one sheet of the printout (six reduced images). MU:4: Prints four images on one sheet of the printout (four reduced images). MU:2: Prints two images on one sheet of the printout (two reduced images). MU:1: Prints one full-size image. BACK: Cancels the setting change and returns to the item selection column.
LOAD	To load the registered settings	item selection column. LO:3: Loads the "SA:3" settings registered using the "SAVE" menu item. LO:2: Loads the "SA:2" settings registered using the "SAVE" menu item. [LO:1]: Loads the "SA:1" settings registered using the "SAVE" menu item BACK: Cancels the setting change and returns to the item selection column.		PAGE (These menu settings are not available when "MU:2" to "MU:6" is selected in "MULTI".)	Each time you press the PRINT button, the image is stored in memory. Up to 6 images can be stored. You can select the desired image from 6 kinds of images stored in memory and make a printout.	PG:1 to PG:6: Prints by selecting the desired ONE image from among images 1 to 6 and pressing the COPY button. BACK: Cancels the setting change and returns to the item selection column.
MEDIA	To select the type of paper	ME:HG: Uses UPP-210SE. [ME: HD]: Uses UPP- 210HD. ME:BL: Uses UPT-210BL. However, the UP-970AD model cannot use UPT- 210BL. BACK: Cancels the setting change and returns to the item selection column.		A.PRNT	To turn on and off automatic printing in multipicture mode.	A.P:ON: Automatically prints when all the images of the selected multi-picture mode are captured without the need to press the COPY button. [A.P:OFF]: Prints images when the COPY button is pressed. BACK: Cancels the setting change and returns to the item selection column.



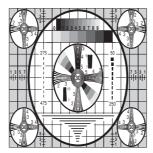
Item	Function	Settings
SFT.V (UP-970AD)	To specify the position in the vertical direction of the image to be printed.	V:0]: Adjusts the vertical position. The numeric value displayed by turning the jog dial depends on the signal system of the image to be captured and the range setting of images captured with "SCAN". BACK: Cancels the setting change and returns to the item selection column.
SHARP	To adjust the sharpness of the printout	SH:0 to SH:14: You can set the sharpness to any of 15 steps from 0 to 14. A higher number indicates greater sharpness. A setting of "0" indicates that the function is off, which is also the default value. BACK: Cancels the setting change and returns to the item selection column.
SIDE c)	To select the direction in which the image is to be printed	S:SIDE: Prints the image rotated by 90 degrees counterclockwise. S:STD: Prints the image in the same direction as that displayed on the monitor. BACK: Cancels the setting change and returns to the item selection column.
SIZE.H (for the UP- 990AD only)	To set the number of dots in the horizontal direction of the printed image.	H: 1202]: NTSC signal input. H: 1202]: PAL signal input. Changing the value increases or decreases the number of horizontal dots to the right of the fixed left edge of the image. BACK: Cancels the setting change and returns to the item selection column.
SIZE.V (for the UP- 990AD only)	To set the number of dots in the vertical direction of the printed image.	V:480: NTSC signal input. V:574: PAL signal input. Adjusts the vertical position of the bottom edge with respect to the fixed top edge of the image. BACK: Cancels the setting change and returns to the item selection column.
TRAP	To select the input signal to be printed	TR:ON: Prints the color signal. TR:OFF]: Prints the black and white signal. BACK: Cancels the setting change and returns to the item selection column.

Item	Function	Settings
VIDEO	To select the video signal output from the VIDEO OUT connector on the rear panel	VI:EE: Outputs the signal after it is processed by the printer. VI:THR]: Outputs the signal directly without processing. BACK: Cancels the setting change and returns to the item selection column.
BACK	To exit menu mode	Select this item and press the jog dial to exit the menu mode.

a) The aspect ratio is as follows.

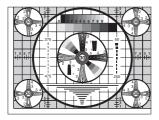


When AS:4:3 is selected

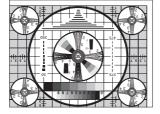


When AS:1:1 is selected

b) The printing direction is as follows.



When DI:NOR is selected



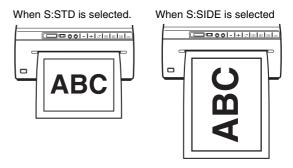
When DI: REV is selected

c) The print direction of the images printed is as follows.

Image displayed on the monitor



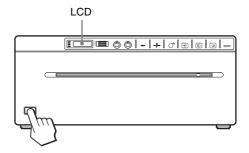
Printouts



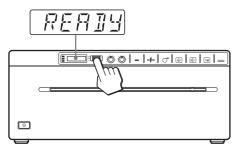
Basic Menu Operations

This section describes the basic menu operation which are common to each menu, taking "How to set the printing direction" as an example.

Press the power on/off switch to turn the unit on. The back light on the LCD lights in green.



2 Confirm that "READY" is displayed on the LCD, and press the jog dial.

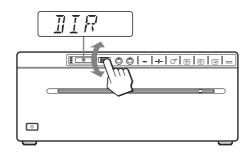


The unit enters the menu mode.

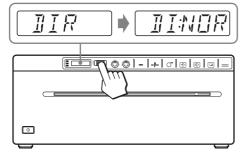
When you perform a menu operation for the first time after you purchase the unit, the top item of the "AGC" menu is displayed.

If you have performed a menu operation already, the item that you set last is displayed.

3 Display "DIR" by turning the jog dial up or down.



4 Press the jog dial.

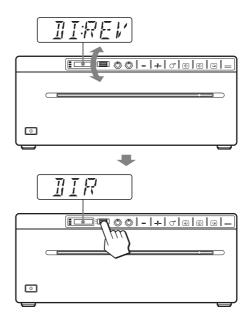


The unit enters the mode in which you can select the printing direction.

"DI:NOR," which is the factory setting, is displayed on the LCD. "DI:NOR" is the currently selected setting.

In this menu operation, you will change the setting to "DI:REV."

5 Display "DI:REV" in the LCD by turning the jog dial up or down, and then press the jog dial.



"DI:REV" is registered as the printing direction. "DIR" reappears on the LCD.

Note

If about 20 seconds elapse without making any menu operation after you have displayed the menu item or setting, the display returns to "READY" on the LCD and the unit exits the menu mode. In such a case, the setting of "DIR" is not changed.

To cancel the setting

- **1** Display "BACK" by turning the jog dial in step 5.
- **2** Press the jog dial.
 The display on the LCD returns to "DIR."

To continue menu operations

Make settings by repeating steps 3 to 5.

To end the menu operation

- **1** Display "BACK" by turning the jog dial after performing the operation of step 5.
- Press the jog dial.
 The unit exits the menu mode.

Menu lock function

If the message "LOCK" is displayed and you hear the alarm sound when you press the jog dial, the jog dial is disabled because the menu operation function is locked. If you want to perform a menu operation, contact the nearest authorized dealer.

Registering Menu Settings

You can store up to three sets of settings made using the menu, and you can load the desired setting when needed. The unit retains these settings even if you turn off the power.

Note

When you use the unit for the first time after you purchase it, factory settings are registered in all three of the stored selections.

Registering new settings

- Make all of the required settings.
- Display "SAVE" by turning the jog dial, and then press the jog dial.
- Display the desired number by turning the jog dial, and then press the jog dial, again. The settings made in step 1 are registered in the number selected in step 3.

Loading the desired settings

You can load the desired settings and make printouts with the loaded settings.

- Confirm that "READY" is displayed on the LCD, and press the jog dial.
- 2 Display "LOAD" by turning the jog dial, and then press the jog dial again.
- Display the number corresponding to the desired settings, and then press the jog dial. Settings corresponding to the number selected in step 3 are loaded.

When you change the loaded settings

The unit operates according to the changed settings. In this case, the unit operates according to these settings until you load another set of settings, even if you turn off the unit. When you load another group of settings, the settings loaded previously are cleared.

To retain previously loaded settings

Example: Settings registered as "SA:1" are loaded and settings are to be changed. To retain the original settings of "SA:1" and to register the new settings as "SA:2," proceed as follows.

- Load the settings of "LO:1" following the procedure for loading the desired settings.
- 2 Change the loaded settings as required.
- Select "SA:2" following procedure for registering the settings.
- Press the jog dial. The settings, changed in step 2, are registered as "SA:2" (No.2).

Printing the Menu List

You can make a printout of the current menu settings.

- Press the jog dial. The menu item you changed last is displayed.
- Display "MENU" by turning the jog dial, and then press the jog dial.
- Display "ME:OK" by turning the jog dial and then press the jog dial. The unit starts printing the current menu settings. MENU is displayed on the LCD.
- Display "BACK" by turning the jog dial, and then press the jog dial. The unit returns to the normal printing mode.



Printing

Before Starting a Print Job

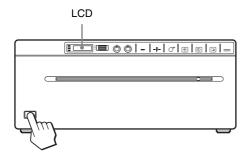
Always check the following points:

- Unit connected correctly? (page 16)
- Paper loaded correctly? (page 13)
- Menu settings and menu adjustments done correctly? (page 17)
- Video source being input?

Starting a Print Job

You can set up the printing direction, image size, all sorts of settings for printing, using the menu. This section describes operations after completing all sorts of settings using the menu.

Press the power on/off switch to turn the unit on. The back light on the LCD lights in green, and "READY" is displayed on the LCD.



- 2 Start the video source.

 This operation is done using the controls of the video equipment which you are using as a source.
- Press the PRINT button when the image you want to print is on the video monitor.

 The image displayed at the instant you press the PRINT button is captured into memory and is printed out immediately. Up to 6 captured images are stored in memory. When captured image exceeds 6, the oldest data is overwritten with the latest one in sequence.

When the message is displayed on the LCD

If a problem occurs, the back light on the LCD lights in umber and the error message stating the problem is displayed on the LCD.

Message	Cause and remedy
EMPTY	Paper is not loaded. Load paper.
DOOR	The paper door is open. Close the paper door.
NOINP	There is no video signal input. Input a video signal.

When the unit stops printing during 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 message "COOL" is displayed on the LCD. Leave the unit until the head cools down and this message disappears.

To cancel a print job in progress

To cancel a print job in progress, press the OPEN/CLOSE button, FEED button or CUT button.

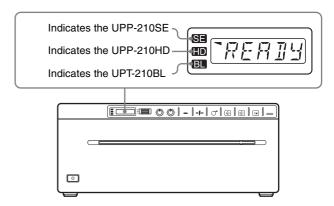
To feed paper

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.

Paper currently selected

You can confirm the paper currently selected on the LCD. The pointer points to the paper currently selected. In the following figure, the currently selected paper is the UPP-210SE paper.

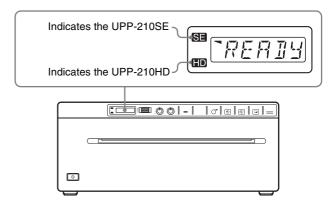
UP-990AD



Note

If "CT:ON" is selected in the "AT.CUT" menu, quickly remove the prints that have been cut. Otherwise, the cut prints may block the paper exit and cause a paper jam to occur.

UP-970AD



If the printout image is blurred

A rapidly moving image may be blurred when printed. Should this occur, make a printout with "ME:FLD" selected in the "MEMRY" menu item.

Printing images stored in memory

Each time you press the PRINT button, the image is stored in memory. After 6 images have been stored, the oldest image data is overwritten with the newest captured image in sequence. There are always 6 images stored in memory. You can load the desired one from among them and print it using the menu.

- 1 Select "PAGE" from among the menu items. For detailed information on menu operation, see "Basic Menu Operations" on page 23.
- Press the jog dial.
 "PG:1" is displayed on the LCD, and the image printed last is displayed on the monitor.
- **3** Display the image that you want to print by turning the jog dial up or down.
- 4 Press the jog dial.
 The image selected in step 3 is loaded.
- Fress the COPY button.
 The image selected in step 3 is printed.

Printing two, four or six images on one sheet

Use "MULTI" item of the menu to capture and print two to six different images on one sheet.

- 1 Set "MULTI" item of the menu to "MU:2" "MU:6", according to the number of images you want to print on one sheet.
- **2** Turn the Jog dial to display the BACK menu and press the Jog dial.

The LCD display switches to the multi-picture mode.

When "MU:2" is selected:

 $M.2:\underline{1}\ 2$: 1 indicates that "1" flashes.

Press the CAPTURE button in step 3 of "Starting a Print Job" in the section "Analog mode" (page 26). This captures the displayed image assigning it the flashing number.

The next available number flashes in the LCD display.

When "MU:2" is selected:

M.2:1 2 : The captured image is assigned "1" and "2" starts flashing.

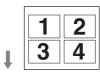
Press the CAPTURE button again to capture any displayed image.

When the "A.PRINT" menu is ON, printing starts automatically as soon as the number of images specified by "MU:(2/4/6)" is captured. When the menu is OFF, press the COPY button to start printing.

Capturing two images ("MU:2 selected in "MULTI")



Capturing four images ("MU:4 selected in "MULTI")



Capturing six images ("MU:6 selected in "MULTI")



"IF:ON" selected in "INFO" menu

In multi-picture mode, if "IF:ON" is selected in the "INFO" menu, information about the last captured image is printed in the margin.

Example: If "MULTI" is set to "MU:6" and six images are captured, "IMAGE:6" is printed in the margin as the information for that image.

1	2	
3 4		
5 6		
IMAGE:6		
[Image		
Information]		

Making Copies of the Last Printout

Press the COPY button. The unit makes a copy of the last printout. Each press of the COPY button prints the number of images set in the "QTY" menu.

Note

If you press the COPY button immediately after turning the power on, the alarm buzzer will sound as nothing is stored in memory.

To make multiple copies of the same printout

Press the COPY button as many times as necessary while copying the first printout. With each press of the COPY button, a buzzer sounds and the number of images set in the "QTY" menu is printed.

To interrupt copying

To cancel a print job in progress, press the OPEN/CLOSE button, FEED button or CUT button.

To make copies in different directions

You can copy the image stored last in a different direction. Before pressing the COPY button, select the printing direction.

To print from a remote location

If a Remote Control Unit RM-91 is connected to the REMOTE connector on the rear panel, you can make printing start at a short distance from the unit by pressing the remote switch.

Single-picture mode

When an image you want to print appears, press the remote switch.

A screenshot of that instant is printed and saved in memory. Up to six screenshots can be saved. Any new screenshots beyond six will overwrite one of the originally captured images.

Multi-picture mode

When an image you want to capture appears, press the remote switch to save a screenshot of that instant in memory.

Printing starts automatically when the number of images set in the "MULTI" menu have been captured.

Note

Even if "IN:ON" is selected in the "INTRT" menu, pressing the remote switch performs the same action as pressing the PRINT button or CAPTURE button in each mode.

Selecting the Printing Direction and Size

Use the following menu items to select printing direction and size.

- SIDE: Selects the printing direction of the image.
- SFT.H, SFT.V: Selects the horizontal or vertical printing position.
- SIZE.H, SIZE.V (for the UP-990AD only): Configures the width or height of the captured image.
- SCAN (for the UP-970AD only): Selects one of three available size settings for the captured image.

Selecting the printing direction

You can select the printing direction using the "SIDE" menu item.

To print in the same direction as the one displayed on the video monitor

Select "S:STD" from "SIDE."

To print the image rotated by 90 degree counterclockwise

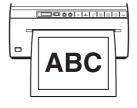
Select "S:SIDE" from "SIDE."

Image displayed on the video monitor

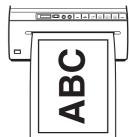


Printouts

When "S:STD" is selected



When "S:SIDE" is selected



Determining image size

(Model UP-990AD)

Change the value for the "SIZE.H" menu item to configure the width settings of the captured image, and change the value for the "SIZE.V" menu item to configure the height settings.

(Model UP-970AD)

Use the "SCAN" menu item to select one of three size settings for the captured image.

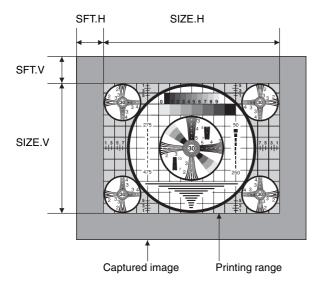
To set the range of the image to be printed

(Model UP-990AD)

Use "SFT.H" and "SFT.V" menu item to set the vertical and horizontal range of the image to be printed. A change in "SIZE.H" and "SIZE.V" values changes the

upper limit of the "SFT.H" and "SFT.V" range.

The approximate position of the printing range is shown on the monitor.

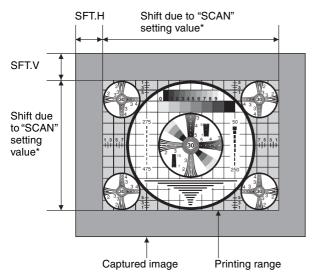


(Model UP-970AD)

You can set the printing range vertically and horizontally using "SFT:V" and "SFT.H" menu items.

Also, "0" is the default position when setting the shift with "SFT.H" and "SFT.V". The value is negative when the default position is shifted to the left (i.e., when "SFT.V" is increased). And the value is positive when the default position is shifted to the right (i.e., when "SFT.V" is decreased).

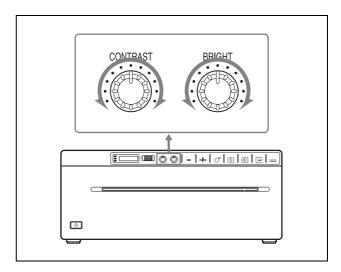
The approximate position of the printing range is shown on the monitor.



* Depending on the "SCAN" value, there are three possible printing ranges. For details, refer to "Menu List."

Adjusting the Contrast and Brightness

You can adjust the contrast and brightness of the unit using the CONTRAST control and BRIGHT control on the front panel.



To adjust the contrast

You can adjust the contrast of printouts using the CONTRAST control.

To make the contrast stronger: Turn the CONTRAST control clockwise.

To make the contrast weaker: Turn the CONTRAST control counterclockwise.

To adjust the brightness

You can adjust the brightness of printouts using the BRIGHT control.

To make the image brighter: Turn the BRIGHT control clockwise.

To make the image darker: Turn the BRIGHT control counterclockwise.

Note

When the menu operation function is locked, CONTRAST and BRIGHT controls are also disabled in addition to the jog dial. If you want to use the CONTRAST and BRIGHT controls, contact the nearest authorized dealer.



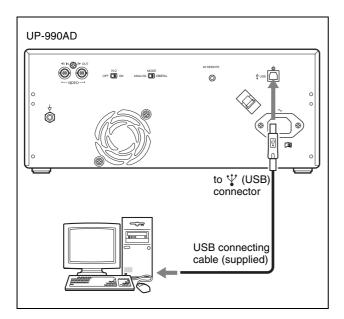
Connections

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

Notes

- Before connecting the unit to the computer, turn off the unit, computer, monitor, and all peripheral devices connected to the computer.
- Before connecting the unit to the computer, disconnect the power cord from the unit. Connect the power cord to the unit only after connecting the unit and the computer.
- Follow the connection procedures described in the computer manual.
- Make sure that the cables are connected securely at both ends.
- After completing connections, switch to the digital mode before turning the power on.
- The printer will not print images imported via the VIDEO IN connector.
- 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 hub.
- Two or more units cannot be connected to a single computer.

Connecting to the USB Connector



Installing the Printer Driver

Install the printer driver provided with the printer. For detailed instructions about how to install the unit driver, refer to the Readme.txt file included on the supplied CD-ROM disc.

Adjustments and Settings Using the Menu

You can carry out adjustments and settings to meet your requirements. Those settings and adjustments are retained even if the unit is turned off.

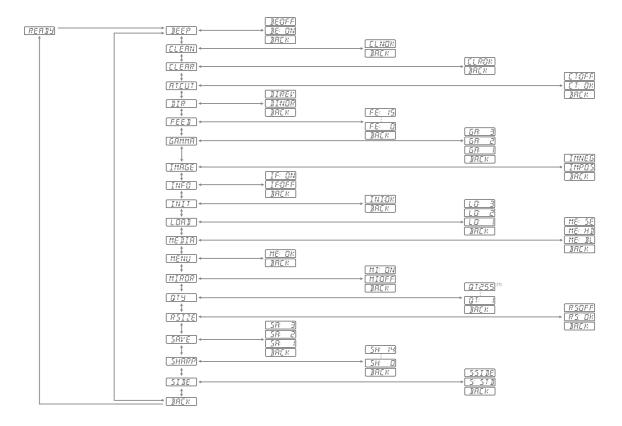
You can set up the unit according to its intended purpose, connected equipments or your individual preferences.

You can store up to three settings as a set of user settings.

Menu Flow

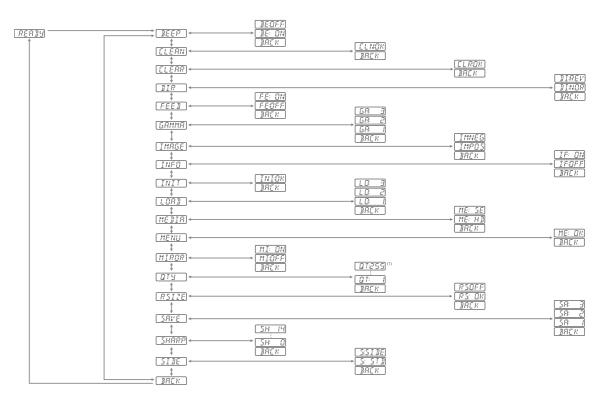
The contents displayed on the LCD changes in sequence as you turn the jog dial as shown in the following menu flow chart, and you can make the settings for each menu item.

UP-990AD Menu Flow



(1): The values you can set with the Jog dial in the analog mode are different from those in the digital mode.





(1): The values you can set with the Jog dial in the analog mode are different from those in the digital mode.

Menu List

This section describes the menus displayed as you turn the jog dial. The setting surrounded by indicates the factory setting.

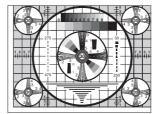
Item	Function	Settings
ВЕЕР	To turn operation tones ON and OFF. Error tones sound regardless of setting.	BE: OFF: The operation tone does not sound. BE: ON: The operation sounds. BACK: Cancels the setting change and returns to the item selection column.
CLEAN	To start head cleaning	CLN: OK]: Starts the head cleaning. Be sure to use the supplied cleaning sheet. BACK: Cancels the head cleaning and returns to the item selection column.
CLEAR	To delete images stored in memory.	CLR: OK: Deletes all images stored in memory. BACK: Cancels CLEAR and returns to the item selection column.
AT.CUT (UP-990AD only function)	To turn on and off automatic cutting of completed prints.	CT:OFF: Cuts the paper when the CUT button is pressed. CT:ON: Cuts the paper automatically. BACK: Cancels the setting change and returns to the item selection column.
DIR ^{a)}	To select whether the top or bottom of the screen is to be printed first	DI: REV: Starts to print in the reverse direction (from the top of the screen). DI: NOR: Starts to print in the normal direction (from the bottom of the screen). BACK: Cancels the setting change and returns to the item selection column.
FEED (UP-990AD)	To set the top and bottom margin of a print.	FE: 0 to FE:15: Sets the margin to one of 16 steps from 0 to 15. An increase of one step increases the top and bottom margin by 5 mm. The top and bottom margin can be increased to 75 mm. The "0" setting is the default value, which still provides a narrow margin between two images. BACK: Cancels the setting change and returns to the item selection column.

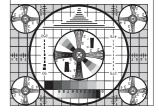
Item	Function	Settings
FEED (UP-970AD)	To select the paper feed method used after printing.	FE: ON]: Increases the margin between prints. FE:OFF: Sets when reducing the margin or when printing multiple images on the same sheet. This reduces the margin between images allowing you to print more images per roll. However, with this setting, the FEED button must be pressed before cutting the paper. BACK: Cancels the setting change and returns to the item selection column.
GAMMA	To select the tone of the printouts (density gradation)	GA:3: TONE 3 Hard gradation GA:2: TONE 2 Soft GA:1]: TONE 1 Standard gradation BACK: Cancels the setting change and returns to the item selection column.
IMAGE	To set the printout to either positive printout or negative printout	IM:NEG: Makes negative printouts. [IM:POS]: Makes normal printouts. BACK: Cancels the setting change and returns to the item selection column.
INFO	To select whether or not the print conditions (such as contrast, bright, gammas and sharpness information) are printed under the image	IF:ON: Prints the information. [IF:OFF]: Does not print the information. BACK: Cancels the setting change and returns to the item selection column.
INIT	To return (initialize) all menu items to their factory defaults.	INI:OK: Returns all settings to their factory defaults. BACK: Cancels initialization and returns to the item selection column.
LOAD	To load the registered settings	LO:3: Loads the "SA:3" settings registered using the "SAVE" menu item. LO:2: Loads the "SA:2" settings registered using the "SAVE" menu item. [LO:1]: Loads the "SA:1" settings registered using the "SAVE" menu item BACK: Cancels the setting change and returns to the item selection column.

Item	Function	Settings
MEDIA	To select the type of paper	ME:HG: Uses UPP-210SE. [ME: HD]: Uses UPP- 210HD. ME:BL: Uses UPT-210BL. However, the UP-970AD model cannot use UPT- 210BL. BACK: Cancels the setting change and returns to the item selection column.
MENU	To print the menu settings currently selected	ME:OK: Prints the menu list currently set. BACK: Cancels printing and goes back to its item column.
MIROR	To print mirror images.	MI:ON: Prints mirror images. MI:OFF]: Prints normal images not mirror images. BACK: Cancels the setting change and returns to the item selection column.
QTY	To set the print quantity	QT:1 to QT:255: Prints from 1 to 255 copies of the same image. BACK: Cancels the setting change and returns to the item selection column.
RSIZE	To adjust the size of the image to the size of the printing paper.	RS:OFF: prints the image as it appears on the display. RS:ON: Magnifies the image to the size of the printing paper. BACK: Cancels the setting change and returns to the item selection column.
SAVE	To register up to three kinds of settings	SA:3: Registers the menu settings as No.3. SA:2: Registers the menu settings as No.2. [SA:1]: Registers the menu settings as No.1. BACK: Cancels the setting change and returns to the item selection column.
SHARP	To adjust the sharpness of the printout	SH:0 to SH:14:You can set the sharpness to any of 15 steps from 0 to 14. A higher number indicates greater sharpness. A setting of "0" indicates that the function is off, which is also the default value. BACK: Cancels the setting change and returns to the item selection column.

Function	Settings
To select the direction in which the image is to be printed	S:SIDE: Prints the image rotated by 90 degrees counterclockwise. S:STD: Prints the image in the same direction as that displayed on the monitor. BACK: Cancels the setting change and returns to the item selection column.
To exit menu mode	Select this item and press the jog dial to exit the menu mode.
	To select the direction in which the image is to be printed To exit menu

a) The printing direction is as follows.





When DI:NOR is selected

When DI: REV is selected

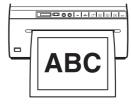
b) The print direction of the images printed is as follows.

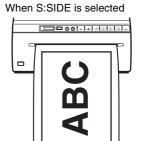
Image displayed on the monitor



Printouts

When S:STD is selected.

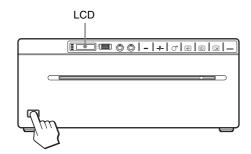




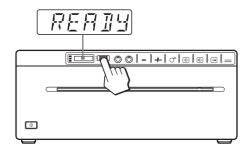
Basic Menu Operations

This section describes the basic menu operation which are common to each menu, taking "How to set the printing direction" as an example.

Press the power on/off switch to turn the unit on. The back light on the LCD lights in green.



2 Confirm that "READY" is displayed on the LCD, and press the jog dial.

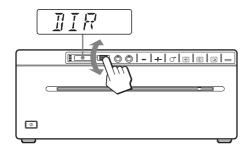


The unit enters the menu mode.

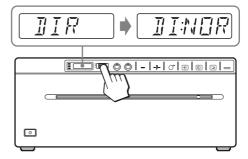
When you perform a menu operation for the first time after you purchase the unit, the top item of the "BEEP" menu is displayed.

If you have performed a menu operation already, the item that you set last is displayed.

3 Display "DIR" by turning the jog dial up or down.



4 Press the jog dial.

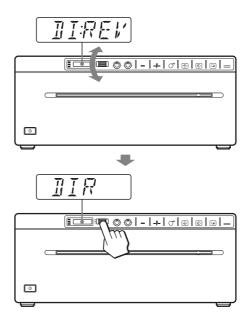


The unit enters the mode in which you can select the printing direction.

"DI:NOR," which is the factory setting, is displayed on the LCD. "DI:NOR" is the currently selected setting.

In this menu operation, you will change the setting to "DI:REV."

5 Display "DI:REV" in the LCD by turning the jog dial up or down, and then press the jog dial.



"DI:REV" is registered as the printing direction. "DIR" reappears on the LCD.

Note

If about 20 seconds elapse without making any menu operation after you have displayed the menu item or setting, the display returns to "READY" on the LCD and the unit exits the menu mode. In such a case, the setting of "DIR" is not changed.

To cancel the setting

- **1** Display "BACK" by turning the jog dial in step 5.
- Press the jog dial.
 The display on the LCD returns to "DIR."

To continue menu operations

Make settings by repeating steps 3 to 5.

To end the menu operation

- 1 Display "BACK" by turning the jog dial after performing the operation of step 5.
- Press the jog dial.
 The unit exits the menu mode.

Menu lock function

If the message "LOCK" is displayed and you hear the alarm sound when you press the jog dial, the jog dial is disabled because the menu operation function is locked. If you want to perform a menu operation, contact the nearest authorized dealer.

Registering Menu Settings

You can store up to three sets of settings made using the menu, and you can load the desired setting when needed. The unit retains these settings even if you turn off the power.

Note

When you use the unit for the first time after you purchase it, factory settings are registered in all three of the stored selections.

Registering new settings

- **1** Make all of the required settings.
- **2** Display "SAVE" by turning the jog dial, and then press the jog dial.
- Display the desired number by turning the jog dial, and then press the jog dial, again.

 The settings made in step 1 are registered in the number selected in step 3.

Loading the desired settings

You can load the desired settings and make printouts with the loaded settings.

- 1 Confirm that "READY" is displayed on the LCD, and press the jog dial.
- 2 Display "LOAD" by turning the jog dial, and then press the jog dial again.

3 Display the number corresponding to the desired settings, and then press the jog dial. Settings corresponding to the number selected in step 3 are loaded.

When you change the loaded settings

The unit operates according to the changed settings. In this case, the unit operates according to these settings until you load another set of settings, even if you turn off the unit. When you load another group of settings, the settings loaded previously are cleared.

To retain previously loaded settings

Example: Settings registered as "SA:1" are loaded and settings are to be changed. To retain the original settings of "SA:1" and to register the new settings as "SA:2," proceed as follows.

- 1 Load the settings of "LO:1" following the procedure for loading the desired settings.
- **2** Change the loaded settings as required.
- **3** Select "SA:2" following procedure for registering the settings.
- 4 Press the jog dial.
 The settings, changed in step 2, are registered as "SA:2" (No.2).

Printing the Menu List

You can make a printout of the current menu settings.

- 1 Press the jog dial.

 The menu item you changed last is displayed.
- **2** Display "MENU" by turning the jog dial, and then press the jog dial.
- Display "ME:OK" by turning the jog dial and then press the jog dial.

 The unit starts printing the current menu settings.

 MENU is displayed on the LCD.
- 4 Display "BACK" by turning the jog dial, and then press the jog dial.
 The unit returns to the normal printing mode.

Printing

Before Starting a Print Job

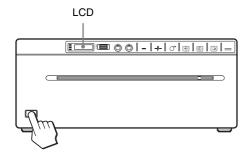
Always check the following points:

- Unit connected correctly? (page 30)
- Paper loaded correctly? (page 13)
- Menu settings and menu adjustments done correctly? (page 30)

Starting a Print Job

You can set up the printing direction, image size, all sorts of settings for printing, using the menu. This section describes operations after completing all sorts of settings using the menu.

Press the power on/off switch to turn the unit on. The back light on the LCD lights in green, and "READY" is displayed on the LCD.



2 Print the image using the application software.

When the message is displayed on the LCD

If a problem occurs, the back light on the LCD lights in umber and the error message stating the problem is displayed on the LCD.

Message	Cause and remedy
EMPTY	Paper is not loaded. Load paper.
DOOR	The paper door is open. Close the paper door.

When the unit stops printing during 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 message "COOL" is displayed on the LCD. Leave the unit until the head cools down and this message disappears.

To cancel a print job in progress

To cancel a print job in progress, press the OPEN/CLOSE button, FEED button or CUT button.

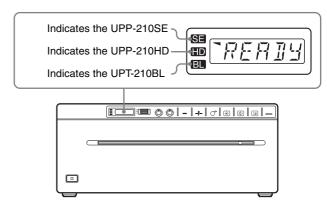
To feed paper

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.

Paper currently selected

You can confirm the paper currently selected on the LCD. The pointer points to the paper currently selected. In the following figure, the currently selected paper is the UPP-210SE paper.

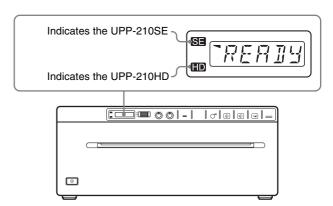
UP-990AD



Note

If "CT:ON" is selected in the "AT.CUT" menu, quickly remove the prints that have been cut. Otherwise, the cut prints may block the paper exit and cause a paper jam to occur.

UP-970AD



Making Copies of the Last Printout

Press the COPY button. The unit makes a copy of the last printout. Each press of the COPY button prints the number of images set in the "QTY" menu.

Note

If you press the COPY button immediately after turning the power on, the alarm buzzer will sound as nothing is stored in memory.

To make multiple copies of the same printout

Press the COPY button as many times as necessary while copying the first printout. With each press of the COPY button, a buzzer sounds and the number of images set in the "QTY" menu is printed.

To interrupt copying

To cancel a print job in progress, press the OPEN/CLOSE button, FEED button or CUT button.

To make copies in different directions

You can copy the image stored last in a different direction. Before pressing the COPY button, select the printing direction.

Selecting the printing direction

You can select the printing direction using the "SIDE" menu item.

To print in the same direction as the one displayed on the video monitor

Select "S:STD" from "SIDE."

To print the image rotated by 90 degree counterclockwise

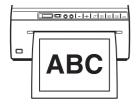
Select "S:SIDE" from "SIDE."

Image displayed on the video monitor



Printouts

When "S:STD" is selected



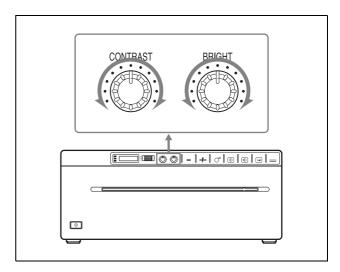


To print an enlarged copy of the captured image

Set the "RSIZE" menu item to on to magnify the captured image to the size of the selected printing paper size.

Adjusting the Contrast and Brightness

You can adjust the contrast and brightness of the unit using the CONTRAST control and BRIGHT control on the front panel.



To adjust the contrast

You can adjust the contrast of printouts using the CONTRAST control.

To make the contrast stronger: Turn the CONTRAST control clockwise.

To make the contrast weaker: Turn the CONTRAST control counterclockwise.

To adjust the brightness

You can adjust the brightness of printouts using the BRIGHT control.

To make the image brighter: Turn the BRIGHT control clockwise.

To make the image darker: Turn the BRIGHT control counterclockwise.

Note

When the menu operation function is locked, CONTRAST and BRIGHT controls are also disabled in addition to the jog dial. If you want to use the CONTRAST and BRIGHT controls, contact the nearest authorized dealer.

On Safety

- 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.
- Unplug the unit from the wall outlet if you will not be using it for a long time. Disconnect the power cord by grasping the plug. Never pull the cord itself.
- Do not disassemble the cabinet. Refer servicing to qualified personnel only.
- Connect the power plug of the unit to a wall outlet with a protective earth terminal. The safety earth should be properly established.

Caution on the paper cutter

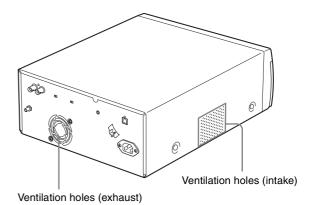
A paper cutter is mounted with the UP-970AD. When loading a paper or cleaning the UP-970AD, be careful not to touch the paper cutter. Touching the paper cutter may cause injury.

On the Printer Carriage

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

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 install the unit near heat sources. Avoid locations near radiators or air ducts, or places subject to direct sunlight or excessive dust, humidity, mechanical shock or vibration.
- Provide adequate air circulation to prevent heat buildup. Do not place the unit on surfaces such as rugs, blankets, etc., or near materials such as curtains and draperies.
- To prevent internal heat built-up, leave enough room around the printer for air to circulate through the ventilation holes (intake) on the left hand side and the ventilation holes (exhaust) on the rear of the cabinet.



• 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.

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

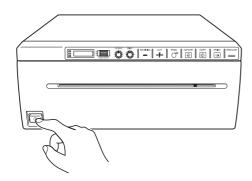
If the printout is dirty or white stripes appear on the printouts, clean the thermal head using the cleaning sheet supplied.

Carry out the head cleaning operation using the menu.

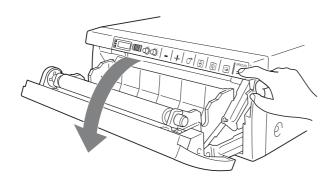
Note

A paper cutter is mounted with the UP-970AD. When cleaning the thermal head, be careful not to touch the paper cutter. Touching the paper cutter may cause injury.

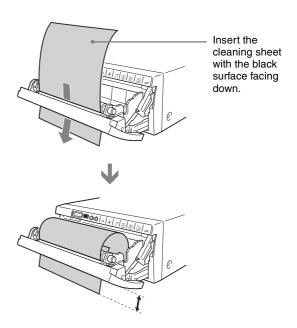
1 Press the power on/off switch to turn the unit on.



2 Press the OPEN/CLOSE button to open the paper door.



Insert the supplied cleaning sheet, with the black surface facing down, into the groove of the paper tray so that a small portion of the front edge of the sheet sticks out of the paper exit.



- **4** Press the OPEN/CLOSE button to close the paper door.
- Fress the jog dial.
 The menu item changed last is displayed.
- **6** Display "CLEAN" by turning the jog dial, and then press the jog dial.
- 7 Confirm that "CLN:OK" is displayed, and then press the jog dial.

 The unit starts cleaning the thermal head.
 "CLEAN" is displayed on the LCD.
 When the cleaning sheet stops and the alarm sounds, the cleaning is completed.
- **8** Press the OPEN/CLOSE button to open the paper door and remove the cleaning sheet.
- **9** Press the OPEN/CLOSE button to close the paper door.

Note

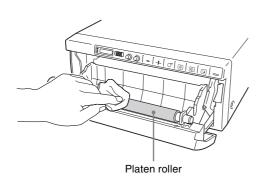
Clean the thermal head only when necessary. If you clean the thermal head too frequently, it may cause a malfunction.

Cleaning the Platen Roller

If the paper cannot be ejected smoothly after printing, the platen roller may be dirty.

In such a case, clean the platen roller with a soft cloth moistened with a damp clothe soaked in water and a mild detergent.

- 1 Press the power on/off switch to turn the unit on.
- 2 Press the OPEN/CLOSE button to open the paper
- Clean the platen roller gently with a damp clothe soaked in water and a mild detergent.



Notes

- After the surface of the platen roller wiped has been dried completely, turn the platen roller to clean another portion.
- Turn the platen roller with hands.
- The UP-970AD is provided with a paper cutter. Take proper care to avoid cutting yourself.
- Press the OPEN/CLOSE button to close the paper door.

Specifications

UP-990AD

Power requirement

100 to 240 V AC, 50/60 Hz

Input current 2.4 A to 1.3 A max. at 25 °C

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

 $-20 \,^{\circ}\text{C}$ to $+60 \,^{\circ}\text{C}$ ($-4 \,^{\circ}\text{F}$ to $+140 \,^{\circ}\text{F}$)

Storage and transport humidity

20 % to 80 %

Storage and transport pressure

700 hPa to 1,060 hPa

Dimensions $316 \times 132.5 \times 305 \text{ mm (w/h/d)}$

 $(12 \ 1/2 \times 5/ \ 1/4 \times 12 \ 1/8 \ inches)$

8 kg (17 lb 10 oz) (printer only) Mass

Thin-film thermal head, 2,560 dots Thermal head

Gradation 256-level gradation (8-bit) EIA: $1,280 \times 508$ dots Resolution

CCIR: $1,280 \times 612$ dots

When "S:STD" is selected from Picture size

"SIDE"

EIA: $188 \times 143 \text{ mm}$ CCIR: 188 × 140 mm

When "S:SIDE" is selected from

"SIDE"

EIA: 249 × 190 mm CCIR: 252 × 188 mm

Printing speed About 8 sec./image

(at standard setting)

Picture memory Analog mode:

6 frames (800 k \times 8 bits per frame)

Digital mode:

 $3,414 \times 2,560$ dots max.

Input connector VIDEO IN (BNC type)

EIA or CCIR composite video signals 1.0 Vp-p, 75 ohms/high-impedance

(EIA/CCIR automatically

discriminated)

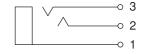
Output connector

VIDEO OUT (BNC type)

EIA or CCIR composite video signals 1.0 Vp-p, 75 ohm loop-through/EE

switchable

REMOTE connector (stereo mini jack)





- 1 GND
- 2 PRINT SIGNAL (TTL) Input of LOW pulse over 100 msec. initiates print.
- 3 PRINT BUSY (TTL) Goes HIGH during printing.

Addition of interface

USB (USB 2.0 compatible)

Accessories provided

Print media (1)

USB Cable 1-824-211-41 (Sony) (1)

BNC Cable 1-551-475-32 (Sony) (1)

Thermal head cleaning sheet (1)

Media label (1)

CD-ROM (Operating Instructions,

printer driver, printer driver install

guide) (1)

Software License Agreement (1)

Before Using this Printer (1)

Service Contact List (1)

UP-970AD

Power requirement

100 to 240 V AC, 50/60 Hz

Input current 2.4 A to 1.3 A max. at 25 °C

Operating temperature

5 °C to 35 °C (41 °F to 95 °F)

Operating humidity

20 % to 80 %

Operating pressure

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Storage and transport temperature

 $-20 \,^{\circ}\text{C}$ to $+60 \,^{\circ}\text{C}$ ($-4 \,^{\circ}\text{F}$ to $+140 \,^{\circ}\text{F}$)

Storage and transport humidity

20 % to 80 %

Storage and transport pressure

700 hPa to 1,060 hPa

Dimensions $316 \times 132.5 \times 305 \text{ mm (w/h/d)}$

 $(12 \ 1/2 \times 5/ \ 1/4 \times 12 \ 1/8 \ inches)$

8 kg (17 lb 10 oz) (printer only) Mass Thermal head Thin-film thermal head, 2,560 dots

Gradation 256-level gradation (8-bit) Resolution EIA: $1,280 \times 508$ dots

CCIR: 1.280×612 dots

Picture size When "S:STD" is selected from

"SIDE"

EIA: $190 \times 147 \text{ mm}$ CCIR: 190 × 142 mm

When "S:SIDE" is selected from

"SIDE"

EIA: 253 × 194 mm CCIR: 257 × 190 mm

Printing speed About 8 sec./image

(at standard setting)

Picture memory Analog mode:

6 frames (800 k \times 8 bits per frame)

Digital mode:

 $3,414 \times 2,560$ dots max.

Input connector VIDEO IN (BNC type)

EIA or CCIR composite video signals 1.0 Vp-p, 75 ohms/high-impedance (EIA/CCIR automatically

discriminated)

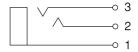
Output connector

VIDEO OUT (BNC type)

EIA or CCIR composite video signals 1.0 Vp-p, 75 ohm loop-through/EE

switchable

REMOTE connector (stereo mini jack)



- 2 PRINT SIGNAL (TTL) Input of LOW pulse over 100 msec. initiates print.
- 3 PRINT BUSY (TTL)
 Goes HIGH during printing

Addition of interface

USB (USB 2.0 compatible)

Accessories provided

Print media (1)
USB Cable 1-824-211-41 (Sony) (1)
BNC Cable 1-551-475-32 (Sony) (1)
Thermal head cleaning sheet (1)
Media label (1)
CD-ROM (Operating Instructions,

CD-ROM (Operating Instructions, printer driver, printer driver install guide) (1)

Software License Agreement (1) Before Using this Printer (1) Service Contact List (1)

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

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

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.
- SONY WILL NOT BE LIABLE FOR DAMAGES OF ANY KIND INCLUDING, BUT NOT LIMITED TO, COMPENSATION OR REIMBURSEMENT ON ACCOUNT OF THE LOSS OF PRESENT OR PROSPECTIVE PROFITS DUE TO FAILURE OF THIS UNIT, EITHER DURING THE WARRANTY PERIOD OR AFTER EXPIRATION OF THE WARRANTY, OR FOR ANY OTHER REASON WHATSOEVER.

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 15~20 cm (6~8 in.) and then release. (page 14)
Pressing the PRINT button or the COPY button does not print the image.	 Paper does not feed. →Power switched on? →Unit connected correctly? (page 16, 30) →Paper roll loose? (page 13) →Is an item other than "MU:1" selected in the "MULTI" menu? (page 21) →Is the ANALOG/DIGITAL switch position correct? Alarm sounds. →Paper loaded correctly? (page 13) →Has the thermal head overheated? The thermal head may overheat when the unit prints dark image continuously. Wait until the head cools down. →Is the video signal of the image input? →Is the "MEDIA" menu item set correctly? Paper feeds but printing does not start. →Paper loaded with the wrong side up? (page 13)
The PRINT and CAPTURE buttons do not light.	Is the ANALOG/DIGITAL switch set to the digital mode? →Switch to the analog mode.
Black borders or missing portions around the printout	Adjust the print area in the menu items.
Paper Jams	 Jammed paper visible? → Press the OPEN/CLOSE button to open the paper 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.

Symptom	Causes/remedies
Printouts dirty.	Thermal head dirty? → Use the head cleaning sheet provided with the unit to clean the thermal head. (page 40)
The unit stops printing while printing almost black images and the message "COOL" is displayed on the LCD.	When printing almost black images continuously, the thermal head protection circuit may shut down the unit to prevent the thermal head from overheating. Stop printing and allow the thermal head to cool.
White lines or small letters on the screen are not printed clearly.	Is "TR:ON" selected in the "TRAP" menu item for black and white input signals? →Select "TR:OFF" in "TRAP" when the input signal is a black and white signal. (page 22)
Small squares appear over the whole screen.	Is "TR:OFF" selected in the "TRAP" menu item for color input signals? →Select "TR:ON" in "TRAP" when the input signal is a color signal. (page 22)
The printout is too dark or too light.	 Is the 75 Ω select switch set correctly? Is the "MEDIA" menu item set correctly? (page 21, 34) Is the "GAMMA" menu item set correctly? (page 20, 33)
The printout seems stretched or enlarged.	Is "AS:1:1" selected in the "ASPCT" menu item? → Select "AS:4:3." (page 20)
The printing paper does not feed smoothly.	Is the platen roller dirty? →Clean the platen roller (page 41)
Jog dial does not operate menu.	 Is printing in progress? → Cancel printing, or wait until printing finishes. If set to digital mode, has the printing data been queued or paused on the computer end? → Cancel the queued print job, or wait until printing finishes.

Others

Error Messages

Messages appear on the LCD under the following conditions. Take the remedial actions shown next to the messages to correct the problem.

Messages	Description and remedy
DOOR	The paper door is open. → Press the OPEN/CLOSE button or push the paper door to lock it.
EMPTY	 There is no paper loaded. Paper has been used up. →Load some paper.
COOL	The protection circuit that prevents the thermal head from overheating has been activated. → Wait for the message to disappear. Printing will then resume automatically.
LOCK	The menu operation function is locked. The jog dial, CONTRAST control and BRIGHT control are disabled. → If you want to perform menu operations or use those controls, contact the nearest authorized dealer.
ERROR	An internal problem has occurred. → Contact the nearest authorized Sony dealer.
NOINP	No video signal is input. →Input a video signal.
ME:NG	The "MEDIA" menu item settings are not correct. → Check whether the "MEDIA" settings suit loaded printing paper. → The UP-970AD cannot use UPT-210BL. Use UPP-210SE or UPP-210HD printing paper.

Index

Α

Analog Mode 16

C

Connections 16, 30
connecting to the USB
connector 30
installing the printer driver 30
notes 16, 30

D

Digital Mode 30

Ε

Error messages 26, 37, 45

G

Getting Started 9

L

Location and function of parts and controls front panel 9, 11 rear panel 10, 12

M

Maintenance
cleaning sheet 40
cleaning the cabinet 40
cleaning the platen roller 41
cleaning the thermal head 40
Menu
basic operations 23, 35
list 20, 33
loading the menu settings 25, 36
menu flow 18, 31
printing the menu list 25, 36
storing the menu settings 25, 36

0

Overview 9

Р

Paper loading paper in the unit 13 notes on storing and handling 13 paper you can use 13 Precautions on installation 39 paper cutter 39 printer carriage 39 safety 39 Printer driver 30 Printing adjusting the brightness 29, 38 adjusting the contrast 29, 38 cancelling 26, 37 confirming paper 26, 37 determining image size 28 feeding paper 26, 37 making copies 28, 37 printing an enlarged 38 printing images stored in memory 27 printing multiple images 27 selecting the printing direction 28, 38 setting the range of the image 29 staring a print job 26, 37

S

Specifications 41

Т

Troubleshooting 44