

# SONY



## UP-X898MD

Hybrid Graphic Printer

## UP-D898MD

Digital Graphic Printer



The UP-X898MD and UP-D898MD are compact medical grade black and white digital printers designed to be integrated into both analog and digital medical imaging environments such as mobile C-arm, cardiac catheterization laboratory and digital ultrasound systems.

The high quality thermal print engine can produce hard copy prints of still images captured by these systems for use in patient records and referrals.\*<sup>1</sup> For even greater convenience, printed still images can also be stored to a connected USB flash drive.\*<sup>2</sup>

These printers are successors to the popular Sony UP-897MD and UP-D897 of medical printers. Redesigned and upgraded, it offers several operational and ergonomic enhancements while retaining the same space-saving footprint and easy integration into medical carts. Usability is further enhanced by an enlarged LCD display panel and joystick for intuitive menu navigation.

Both models are capable of delivering high-quality black & white prints in less than two seconds. Advanced thermal printing technology delivers photo quality results using widely available Sony's print media.

The UP-X898MD can accept both analog video and digital signal inputs, while the UP-D898MD accepts digital signal inputs only.

\*1 The images printed from the UP-X898MD and UP-D898MD are not to be used for diagnosis.

\*2 This feature is only available on the UP-X898MD.



## Products Overview

	UP-X898MD	UP-D898MD
Roll Paper Width	110 mm (4 3/8 inches)	
USB Flash Drive Storage	●	
Analog Video Input	●	
USB Connector (For medical device connection)	●	●



## Key Features

### High quality printing

Advanced thermal printing technology enables photo-quality black & white prints with a high resolution up to approximately 325 dpi and grey levels up to 256 steps.

### A6 prints in less than two seconds

While operating in high speed mode, these printers can produce A6-size prints in approximately 1.9 seconds (when used with UPP-110HG or UPP-110S print media).

### Accepts both digital and analog video input signals

A choice of analog composite video\*<sup>3</sup> and digital inputs allows flexible use with a wide range of modality devices.

### USB flash drive storage\*<sup>4</sup>

The UP-X898MD can automatically store printed images from both USB and Video inputs onto a connected USB flash drive.

### Compact, space-saving design

Measuring 88mm (H) x 154 mm (W) x 240 mm (D), these printers have the same space-saving design as the predecessors for easy, flexible integration into medical carts.

### Enhanced operability

Building on the success of the popular UP-897MD and UP-D897, the these printers feature an enlarged LCD panel that displays printer settings, selected paper type and advisory messages. An intuitive joystick control allows speedy menu navigation, while the new Auto Lock mode prevents unintentional changes to print settings.

Volume Knob

Joystick (Menu lever)

LCD Panel



Front Panel

### Hard copy reference of print settings

For convenient reference, selected settings (Brightness, Contrast, Gamma and Sharpness) can optionally be printed in a blank space on the print paper.

## Uses widely available print media

Sony offers a choice of three high quality, widely available thermal print media types to meet the needs of different applications. Choose from the UPP-110HD, UPP-110S, or the UPP-110HG High Glossy Printing Paper that produces glossy, long-lasting near-photo quality prints.

## Wide PC compatibility

For maximum flexibility, a wide range of PC drivers are provided for Windows XP, Vista, 7 and 8 (32/64bit).

## Quick guide print

Quick instruction guides for different print operations can be selected via the front control panel. They can be printed out for easy reference without needing to refer to the user manual. \*5

## Compliance with Medical Safety Standards\*6

This device is compliant and certified for IEC 60601-1 and product safety standards in the U.S.A., Canada and Europe.

\*3 Analog input is only available on the UP-X898MD.

\*4 This feature is only available on the UP-X898MD.

\*5 English only.

\*6 Registration status as a medical device may vary, depending on country.

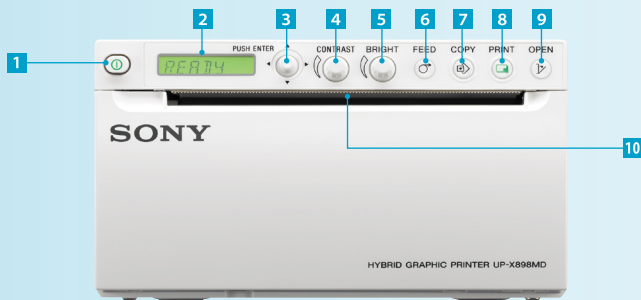
For more details, please contact your nearest Sony office or an authorized dealer.

## Main Print Mode (Video input)

	Standard	Side
Normal (1 time)		
Small (0.5 times)		
Small (0.5 times, multi)		
2x zoom (2 times)		

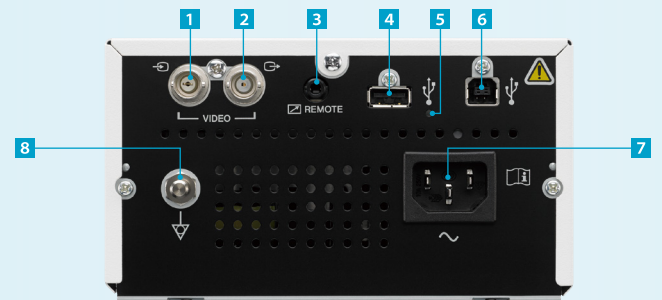
## Front and Rear Panels

UP-X898MD Front Panel



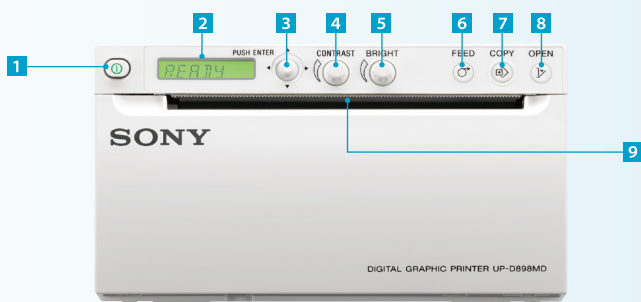
- |                                                        |                  |
|--------------------------------------------------------|------------------|
| 1 Power ON/OFF Switch                                  | 6 FEED button    |
| 2 Printer window display (LCD: liquid crystal display) | 7 COPY button    |
| 3 Menu lever                                           | 8 H PRINT button |
| 4 CONTRAST control                                     | 9 OPEN button    |
| 5 BRIGHT (brightness) control                          | 10 Paper cutter  |

UP-X898MD Rear Panel



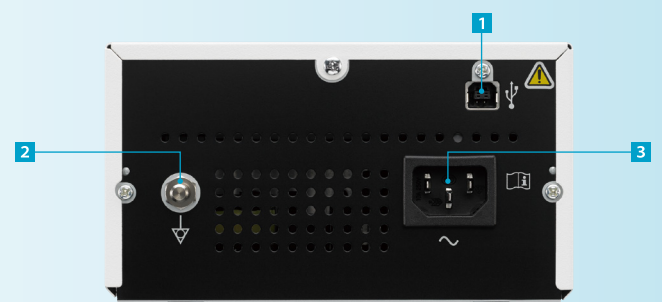
- |                                       |                               |
|---------------------------------------|-------------------------------|
| 1 VIDEO input connector (BNC type)    | 5 USB connector (type A) lamp |
| 2 VIDEO output connector (BNC type)   | 6 USB connector (type B)      |
| 3 REMOTE (remote commander) connector | 7 AC IN connector             |
| 4 USB connector (type A)              | 8 Equipotential terminal      |

UP-D898MD Front Panel



- |                                                        |                |
|--------------------------------------------------------|----------------|
| 1 Power ON/OFF switch                                  | 6 FEED button  |
| 2 Printer window display (LCD: liquid crystal display) | 7 COPY button  |
| 3 Menu lever                                           | 8 OPEN button  |
| 4 CONTRAST control                                     | 9 Paper cutter |
| 5 BRIGHT (brightness) control                          |                |

UP-D898MD Rear Panel



- |                                           |
|-------------------------------------------|
| 1 USB connector                           |
| 2 Equipotential ground terminal connector |
| 3 AC IN connector                         |

# Specifications

	UP-X898MD	UP-D898MD
Printing Method	Direct thermal printing	
Resolution	325 dpi	
Gradations	8 bits (256 levels) processing	
Picture Elements	Digital: 4,096 x 1,280 dots Video NTSC: 720 x 504 dots Video PAL: 720 x 604 dots	Digital: 4,096 x 1,280 dots
Picture Area	Digital: 320 x 100 mm/12 5/8 x 3 7/8 inch (Max) STD Video NTSC: 94 x 73 mm, Video PAL: 94 x 71 mm (WIDE1) SIDE Video-NTSC: 124 x 96 mm, Video-PAL: 127 x 96 mm (WIDE1)	320 x 100 mm (12 5/8 x 4 inches)
Paper Size	Paper width of 110 mm (4 3/8 inches)	
Printing Time	High-speed mode: Approx. 1.9 seconds/image (at standard setting) Normal speed mode: Approx. 3.3 seconds/image (at standard setting)	High-speed mode: Approx. 1.9 seconds/image (960 x 1,280 dots) Normal speed mode: Approx. 3.3 seconds/image (960 x 1,280 dots)
Picture Memory	Digital: 4,096 x 1,280 x 8 (bit) Video: 10 frame memories (850 k x 8 bits per frame)	Digital: 4,096 x 1,280 x 8 (bit)
Interface	USB terminal (type A) for USB flash drive (X1) Hi-Speed USB (USB 2.0) (x1) VIDEO INPUT: BNC type (x1) NTSC or PAL composite video signals 1.0 Vp-p, 75 ohms (NTSC/PAL automatically discriminated) VIDEO OUTPUT: BNC type (x1) Loop-through REMOTE: Stereo mini jack (x1)	Hi-Speed USB (USB 2.0) (x1)
Printer Driver Software	Microsoft Windows XP 32/64, Vista 32/64, 7 32/64, 8 32/64	
Power Requirements	AC 100 V to 240 V, 50/60 Hz	
Input Current	1.3 A to 0.6 A	
Operating Temperature	5°C to 40°C (41°F to 104°F)	
Operating Humidity	20% to 80% (no condensation allowed)	
Storage and Transport Temperature	-20°C to +60°C (-4°F to +140°F)	
Storage and Transport Humidity	20% to 80% (no condensation allowed)	
Dimensions (W x H x D)	154 x 88 x 240 mm (6 1/6 x 3 1/2 x 9 1/2 inches)	
Mass	2.5 kg (5 lb 8 oz)	
Safety Standards	(US/CA) ANSI/AAMI ES60601-1, UL 60601-1, UL 60950-1, CAN/CSA-C22.2 No.60601-1, CAN/CSA C22.2 No.601.1, CAN/CSA C22.2 No.60950-1 (EU) EN 60601-1, EN 60950-1 (CB) IEC 60601-1 (2nd/3rd Ed.), IEC 60950-1	
EMC Standards	(US/CA) FCC Part 15 Subpart-B Digital Device Class A, ICES-003 Class A Digital Apparatus (EU) EN 60601-1-2 (Class B), EN 55022 (Class B)+EN 55024, EN 61000-3-2+ EN 61000-3-3 (AU) AS/NZS CISPR22 (EN55022) Class B (JP) VCCI Class A, JIS C 61000-3-2 (KR) KN22, KN24 Class B	
EC Directive	(EU) MDD, EMC, LVD	
Supplied Accessories	Thermal head cleaning sheet (1), CD-ROM (1), Before Using this Printer (1), Service Contact List (1), USB Flash Drive Ex. Cable, Print media (UPP-110HG)	Thermal head cleaning sheet (1), CD-ROM (1), Before Using this Printer (1), Service Contact List (1)

## Optional Accessories



FS-24  
Foot Switch



RM-91  
Remote Commander

## Printing Paper



UPP-110HG  
Thermal Print Media (High Glossy)  
Paper size: 110 mm (W) x 18 m



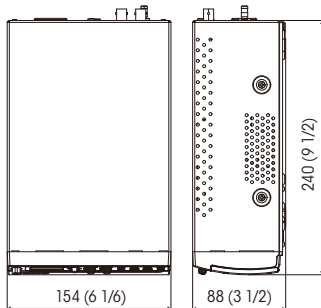
UPP-110HD  
Thermal Print Media (High Density)  
Paper size: 110 mm (W) x 20 m



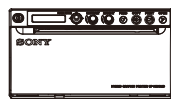
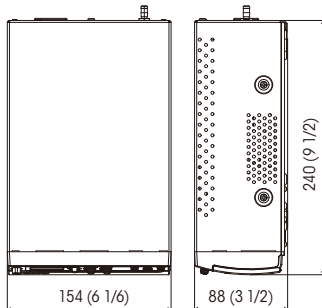
UPP-110S  
Thermal Print Media (Normal)  
Paper size: 110 mm (W) x 20 m

## Dimensions

UP-X898MD



UP-D898MD



Unit: mm (inches)

©2014 Sony Corporation. All rights reserved.  
Reproduction in whole or in part without written permission is prohibited.  
Features and specifications are subject to change without notice.  
The values for mass and dimension are approximate.  
Some images in this brochure are simulated.  
"SONY" and other marks are trademarks or registered trademarks of Sony Corporation.  
All other trademarks are the property of their respective owners.  
Registration status as a medical device may vary, depending on country.  
For more details, please contact your nearest Sony office or an authorized dealer.