

# SONY®

Digital Medical Printer

# UP-D70XR



Image capture and analysis are vital to the use of nuclear, MRI, CT scan and radiation systems in medicine. The new Sony UP-D70XR Digital Medical Printer is designed to achieve optimum print quality from digital medical modalities with both colour and greyscale outputs.

X-ray images are reproduced superbly by the new Sony UPT-730BL Blue Thermal Transparent Film, because of its high density and high transparency. Alternatively, you can print by using a UPC-8810 Colour Printing Pack, which provides over 16 millions colour tones to give photo-realistic quality.

The UP-D70XR complies with the DICOM standard (with an optional UPA-D3 Digital Print Server) and can be connected to the DICOM network solution.

Using Sony dry processing technology, the UP-D70XR is environmental friendly. It does not use liquid chemicals, so there are no problems with chemical waste. This feature makes installation of the UP-D70XR very flexible, with no drainage required it can be placed in any convenient location.

With its outstanding, high quality images and superb colour reproduction, the UP-D70XR can be used for any medical/scientific application or radiology solutions with a digital interface, and for archiving or educational purposes.

## Features

### Superb image quality reproduction

- **Blue Thermal Transparent Film**

X-ray images are clearly reproduced on the new UPT-730BL Blue Thermal Transparent Film. An optical density of 3.0 can be realised with this film, which is equivalent to conventional silver halide X-ray film.

Moreover, the haze of the film is approximately 25%\* which doesn't interfere with the analysis of X-ray images.

\* Transparency measured with a haze meter.



UPT-730BL

- **Colour image reproduction**

Incorporating Sony dye sublimation printing technology, the UP-D70XR Digital Medical Printer provides photo-realistic quality prints that have more than 16 million colour tones. It gives natural, continuous-tone images, by combining the innovative PQC (Picture Quality Control) system for precise image reproduction with an easy-to-use grey balance adjustment function in the printer. Reliable and cost-effective lamination media is provided by using optional UPC-740 Self-laminating Colour Printing packs.





### High-speed printing

Time can be critical when printing out images in medical applications. The UP-D70XR prints X-ray images out in just 44 seconds (using UPT-730BL Blue Thermal Film). Colour A4 size image is printed out in approximately 85 seconds (in 300 dpi mode) or 55 seconds (in 150 dpi mode). It takes approximately 115 seconds when you print on lamination media, which has the advantage of greater durability.

### Medical regulations

The UP-D70XR complies with the following safety standards that are applicable to medical devices;  
EN 60 950, EN 60 601-1, MDD, CE mark

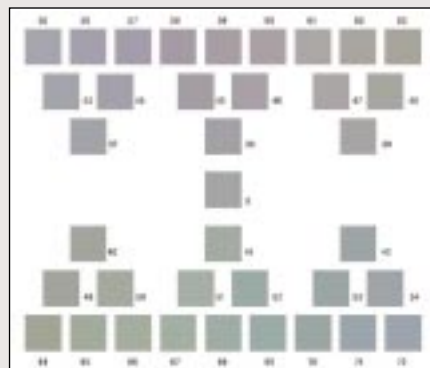
### DICOM\* network

The UP-D70XR is easy to incorporate into a DICOM network by utilising the optional UPA-D3 Digital Print Server. The UPA-D3 incorporates DICOM 3.0 compliant software to provide multimodality connectivity between DICOM compliant medical image equipment and the UP-D70XR, as well as other selected Sony digital printers. It is possible to daisy chain up to six printers and receive data or commands on TCP/IP protocols. The function of Background Grey Level can be operated within the network.

\* DICOM (the Digital Imaging Communication in Medicine) is standardised by ACR (The American College of Radiology) and NEMA (the National Electrical Manufacturers Association).

### Grey balance adjustment

Using the grey balance chart that can be printed by the UP-D70XR, the grey tones can be corrected when you need to fine tune the grey balance.



Gray balance adjustments

### Detachable dust filter

A detachable dust filter is provided to prevent the cooling fan from drawing dust into the printer, which could otherwise cause problems with colour spots when images are printed out.

### Environmentally friendly

The UP-D70XR is based on Sony dry technology which requires neither liquid chemicals nor the use of heavy metals, such as silver, in the print media. This eliminates problems with disposing of chemical waste. This printer also complies with the Energy Star Program, with a power consumption in stand-by mode of less than 30 W.

\* The Energy Star Label does not indicate quality or service assurance.



## Specifications

<b>Printing Method:</b>	Dye-Sublimation Printing (Colour & B/W) Direct Thermal Printing (UPT-730BL)	
<b>Resolution:</b>	300 dpi / 150 dpi selectable	
<b>Gradation:</b>	256 levels each for Yellow, Magenta and Cyan	
<b>Effective Print Pixels:</b>	A4 Size: 300 dpi; 2,400 x 3,208 dots 150 dpi; 1,200 x 1,604 dots A4 Plus Size: 300 dpi; 2,550 x 3,508 dots 150 dpi; 1,275 x 1,754 dots	
<b>Print Area:</b>	A4 Size: 203.2 x 271.6 mm (8 x 10 3/4 inches) A4 Plus Size: 216 x 297 mm (8 5/8 x 11 3/4 inches)	
<b>Paper Size:</b>	A4 Size: 210 x 298 mm (8 1/4 x 11 3/4 inches) A4 Plus Size: 222 x 322.4 mm (8 3/4 x 12 3/4 inches)	
<b>Printing Time (Colour):</b>	<b>Standard</b>	<b>Laminating</b>
A4 Size:	300 dpi; approx. 85 s	approx. 115 s
	150 dpi; approx. 55 s	approx. 85 s
A4 Plus Size:	300 dpi; approx. 90 s	
	150 dpi; approx. 60 s	
<b>Printing Time (B/W):</b>	<b>Standard</b>	
A4 Size:	300 dpi; approx. 55 s	
	150 dpi; approx. 35 s	
<b>Printing Time (UPT-730BL):</b>	<b>Standard</b>	
A4 Size:	300 dpi; approx. 44 s	
<b>Memory:</b>	30 MB	
<b>Interface:</b>	SCSI, Centronics	
<b>Paper tray capacity:</b>	100 sheets (max.)	
<b>Power consumption:</b>	270 W (JC) (max.) 260 W (CE) (max.) Less than 30 W (stand-by mode)	
<b>Power requirements:</b>	AC 220 to 240 V, 50/60 Hz (CE)	
<b>Dimensions:</b>	493.8* (W) x 189 (H) x 468.8 (D) mm (19 1/2* x 7 1/2 x 18 1/2 inches) (*502.3 mm (19 3/4 inch) with fan filter)	
<b>Mass:</b>	19 kg (41 lb 14 oz)	
<b>Safety standards:</b>	UP-D70XR (CE)	EN60950, EN60601-1 MDD CE mark

### Supplied Accessories:

- Ink Ribbon Holder (1)
- AC Power Code (1)
- Fan Filter (1)
- Paper Tray (1)
- Paper Cover (1)
- CD-ROM\* (1)
- Bottom Cover (1)
- Operation Manual (1)
- Thermal Head Cleaning Kit
- \* Supplied Printer Driver software (CD-ROM)
  - printer Driver (SCSI, Centronics) for Windows for Work groups 3.11, Windows 3.1, Windows 95, Windows 98
  - Printer Driver (SCSI) for Windows NT 4.0
  - Chooser Driver for Mac OS
  - PhotoShop plug-in (SCSI, Centronics) for Windows for Work groups 3.11, Windows 3.1, Windows 95, Windows 98
  - PhotoShop plug-in (SCSI) for Windows NT 4.0
  - PhotoShop plug-in for Mac OS
  - Test chart data for grey balance calibration (TIFF and PhotoShop format)
  - ICC Profiles

Driver Software is also available at the following

URL: <http://www.sony.co.jp/DP-driver-E/>

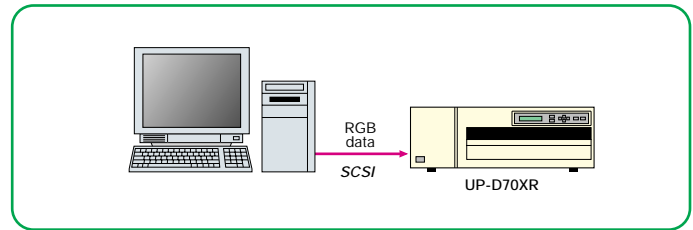
### Optional Accessories: DICOM Print Server UPA-D3

### Optional Print Packs:

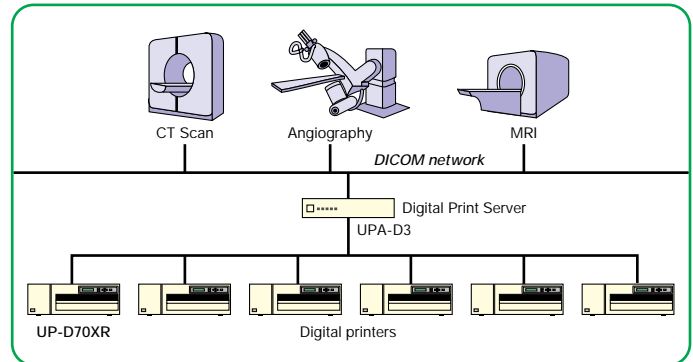
- A4 Size Colour Print Pack (100 prints) UPC-8810
- A4 Size B/W Print Pack (100 prints) UPC-8820
- A4 Size Self-laminating Colour Print Pack (72 prints) UPC-740
- A4 Size Thermal Blue Transfer Film (100 prints) UPT-730BL
- A4 Plus Size Colour Print Pack (100 prints) UPC-8817

## System configuration

### RGB Printing



### DICOM network



### Front Panel



### Rear Panel



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