

# SONY

## HVO-500MD (Full HD Version)

Full HD Medical Digital Recorder for USB and NAS external media



### Overview

Support modern workflows with simultaneous Full HD video recording to internal drive USB or NAS external media. Enjoy high image quality, safe recording and long record time, easy operation and flexible integration.

From patient records to education, training and referral to other physicians, modern medical workflows benefit from the increased convenience and detail offered by Full HD video recording.

The HVO-500MD (Full HD Version) Medical Digital Network Recorder has been designed for use in a wide range of clinical environments, including hospital radiology and operating rooms, surgical centres and doctors' offices.

Suitable for storing Full HD video from ultrasound, digital X-ray, endoscopic, laparoscopic and other compatible diagnostic and surgical imaging systems, the recorder offers extensive connection options with a wide range of current and legacy devices.

Extra security is provided by a pre-record function that ensures important moments are always captured during a 5-second window before the record button is pressed.

Compact, lightweight and silent in operation, the HVO-500MD (Full HD Version) stores Full HD or Standard Definition video on its high-capacity internal hard disk drive. Via simple menu selection, video can be recorded at the same time to an external USB drive or a network server. This simultaneous recording capability supports modern hospital workflow, providing an extra safeguard against the risk of losing valuable data.

The recorder is an ideal replacement for the DVO-1000MD. Sharing the same command set for control via RS-232C or USB, it offers a smooth migration from standard definition recording to a file-based Full HD workflow.

\* The HVO-500MD (Full HD Version) and HVO-550MD (Full HD Version) models are the same product as HVO-500MD and HVO-550MD respectively, but are upgraded versions to record in full HD.

The order codes for HVO-500MD (Full HD Version) is HVO-500MD/FHD and HVO-550MD (Full HD Version) is HVO-550MD/FHD

## Features

- **Full HD video recording**

Recording crisply-detailed Full HD video at up to 1080i, the HVO-500MD (Full HD Version) offers an improvement in image quality over Standard Definition recording devices such as the DVO-1000MD.

- **Simultaneous recording on internal HDD and external media**

To minimise the risks of accidental data loss, video files can be recorded onto the internal hard disk drive simultaneously with a connected USB drive or a network server.

- **Pre-record function ensures important moments are captured**

When activated, the pre-recording function starts recording five seconds before the recording impulse is triggered (via control button or remote interface), ensuring that important moments are always captured.

- **Wide range of interfaces and network data transmission**

The HVO-500MD (Full HD Version) is compatible with a wide range of modalities, including current HD as well legacy SD devices. Interfaces are provided for HDMI, DVI, composite video, S-Video and audio, as well as networked data transmission through CIFS to a centralised server.

- **Long recording time, even in Full HD at best image quality settings**

The recorder's high-capacity disk drive allows long video recordings without interruption, even in Full HD. A choice of three Image Quality settings (Standard/High/Best) permits between 60 and 194 hours of Full HD video recording (or between 158 and 348 hours of SD video). Each individual recording can be up to 24 hours long. Videos can be exported as either high quality AVCHD or PC-friendly MP4 files.

- **Compatible with DVO-1000MD commands**

The HVO-500MD (Full HD Version) shares the same command set as the Sony DVO-1000MD DVD recorder. This simplifies migration from the DVO-1000MD to benefit from HD recording as well as file-based workflows.

- **Compliance with Medical Safety Standards**

The recorder is compliant with and certified for IEC 60601-1 and product safety standards in the U.S.A., Canada and Europe. Registration status as a medical device may vary, depending on country. For more details, please contact your nearest Sony office or an authorised dealer.

## Technical Specifications

Recording Features	
● Recording Video Format	MPEG-4 AVC/H.264
● Recording Audio Format	AC-3/AAC LC
● Recording File Format	AVCHD/MP4
● Recording Media	Internal HDD (500GB), External USB Storage, Network (CIFS)
● Recording Resolution	1920x1080/50i, 1920x1080/59.94i, 1280 × 720/59.94p, 1280 × 720/50p, 720 × 480/59.94i, 720 × 576/50i,
● Recording Bit Rate (HD)	14Mbps (Best), 8Mbps (High), 4Mbps (Standard)
● Recording Bit Rate (SD)	5Mbps (Best), 3Mbps (High), 2Mbps (Standard)
● 3D Recording	-

Connectors	
● Input Connectors	HDMI (Type A) (1), DVI-D (DVI 19-pin) (1), S VIDEO (Mini DIN 4-pin type) (1), VIDEO (BNC type) (1) AUDIO (Stereo mini jack) (1) DC IN (DIN 3-pin)
● Output Connectors	HDMI (Type A) (1), DVI-D (DVI 19-pin) (1), S VIDEO (Mini DIN 4-pin type) (1), VIDEO (BNC type) (1) AUDIO (Stereo mini jack) (1)
● Other Interfaces	USB (Type A) (3), USB (Type B) (1), Network (RJ-45, 1000 Base-T/100 Base-TX) (1), REMOTE RS-232C (D-sub 9-pin) (1), REMOTE contact switch (stereo mini jack) (2) REMOTE MONITOR (RJ-45) (1), Equipotential

General	
● Power Requirements	+12 V to +24 V DC (supply from AC-80MD AC adaptor)
● Input current	3.2 A to 1.6 A
● Operating Temperature	5°C to 40°C (41°F to 104°F)
● Operating Humidity	20% to 80% (Maximum wet-bulb temperature: 30°C (86°F)) (no condensation)
● Operating Pressure	700 hPa to 1060 hPa
● Storage and transport temperature	-20°C to +60°C (-4°F to +140°F)
● Storage and transport humidity	20% to 90% (Maximum wet-bulb temperature: 30°C (86°F)) (no condensation)
● Storage and transport pressure	700 hPa to 1060 hPa
● Mass	2.9 kg (6 lb. 6.3 oz.)
● Dimensions (including longest protrusions)	212.0 × 287.7 × 105.5 mm (8 3/8 × 11 3/8 × 4 1/4 in.)
● Supplied Items	Before Using This Unit (1), CD-ROM (Instructions for Use, PROTOCOL MANUAL) (1), Warranty booklet (1), AC-80MD AC adapter (1), AC-80MD Instructions for Use (1), Service Contact List (1)