

**SONY**



# High Definition Medical Recorders

HVO-500MD and HVO-550MD Medical Grade HD Video Recorders



### The Solution for Simple, Clear, and Versatile Medical Recording.

Sony's recorders offer medical professionals flexibility, clarity, and enhanced productivity. The HVO-500MD and HVO-550MD medical grade HD video recorders are the ideal choice for recording and playing back extremely clear and detailed images of medical exams.

At a time when recording technology is a critical part of the medical workflow, these models offer high image quality for documenting procedures and reviewing cases, plus quick turnaround for sending information to colleagues or referring physicians. Both the HVO-500MD and the HVO-550MD (with DVD optical drive) feature MPEG-4 and AVC-HD video recording formats, USB, and network recording capabilities.

Users are able to simultaneously record to the internal hard drive and to either a USB storage drive or the DVD drive available on the HVO-550MD. The recorders' 500GB internal hard drive stores up to 194 hours of HD video or 348 hours of SD video and provides easy access to previously recorded cases. Both models support video inputs from SD and HD devices and use multiple compression rates for playback. And the slim compact design fits easily on most medical carts.

The Sony HVO-500MD and HVO-550MD Medical Digital Network Recorders are intended to record HD color/black and white video from ultrasound, digital X-ray, endoscopic, laparoscopic, and other compatible diagnostic imaging systems and minimally invasive surgical imaging systems. These medical grade network recorders can save recorded images to a portable USB drive, DVD-R optical disk (HVO-550MD model only) or to a compatible network server.

The recorded images can be used for sending to referring physicians or for documentation for the patient record, training or education. It is suitable for use in hospital radiology and operating rooms, diagnostic imaging centers, surgical centers, clinics, doctors' offices, and similar medical environments.



### High-Quality HD Recording

Records 720P HD video using MPEG-4 or AVC-HD, enabling smaller file sizes while maintaining extremely clear and detailed images. These formats provide playback compatibility with many DVD/Blu-ray™ players, including standard consumer models. Selectable bit rates offer added file size and quality control.

### Universal Connectivity and Compatibility

Accepts a wide range of video interfaces and signal types which enables compatibility and integration with virtually all radiology system manufacturers.

### Broad Support for Portable External Media

Built-in optical disc drive (on HVO-550MD only) supports DVD recording. Built-in optical disc drive (on HVO-550MD only) supports DVD recording. Front USB port will allow recording to removable media.

### High Capacity Recording

Robust 500GB internal hard drive stores more than 194 hours of HD video, while DVD media stores more than two hours of HD video per disc.



### Simultaneous Recording

Having the ability to record simultaneously to external media in addition to the internal hard disc drive adds convenience and improves workflow. Rather than take time to copy footage to external media after the completion of a procedure, users can burn a disc or save to a USB drive on the fly. This reduces the time needed for finalizing a recording to less than a minute.

### Disaster Recovery Capability

Since the recorder records to the USB or DVD simultaneously, as well as the built-in hard drive, all your data is saved on the internal hard drive, in the event of a power outage.

### Onscreen Menu

Among the user-friendly features is a clear, legible, and simple-to-use onscreen menu that gives you easy access to all options.

## HVO-500MD/HVO-550MD Technical Specifications

General	
Power requirements	+12V to +24V DC (supplied from AC-80MD AC adapter)
Input current	HVO-500MD: 3.2A to 1.6A HVO-550MD: 3.5A to 1.8A
Operating temperature	41°F to 104°F (5 °C to 40°C)
Operating humidity	20% to 80% [Maximum wet-bulb temperature: 86°F (30°C)] (no condensing)
Operating pressure	700 hPa to 1,060 hPa
Temperature range for storage	-4°F to + 140°F (-20°C to +60°C)
Humidity range for storage	20% to 90% [Maximum wet-bulb temperature: 86°F (30°C)] (no condensation)
Storage and transport pressure	500hPa to 1,60hPa
Mass	HVO-500MD: 6 lb. 6.3oz. (2.9kg) HVO-550MD: 7 lb. 0.8oz. (3.2kg)
Dimensions (W x D x H)	8 3/8 x 11 1/2 x 4 1/4 in (212 x 290 x 105.5 mm) (including protrusions)
Recording devices	
Internal hard disk drive	500GB
DVD (1), (HVO-550MD only)	Compatible media: DVD-R
Input connectors	
HDMI	Type A (1)
DVI-D (DVI 19-pin) (1)	TMDS (single link)
S-VIDEO	Mini DIN 4-pin type (1) Y: 1.0 Vp-p (75 Ω) Sync negative C (BURST): 0.286 Vp-p (75 Ω) (NTSC) C (BURST): 0.3 Vp-p (75 Ω) (PAL)
VIDEO	BNC type (1), Composite, 1.0 Vp-p (75 Ω), Sync negative
AUDIO (Stereo mini jack) (1)	1.4 Vrms (full bit), input impedance, 10 kΩ or higher, unbalanced
DC IN (DIN 3-pin)	AC adapter
Output connectors	
HDMI	Type A (1)
DVI-D (DVI 19-pin) (1)	TMDS 1 channel (single link)
S-VIDEO	Mini DIN 4-pin type (1) Y: 1.0 Vp-p (75 Ω) Sync negative C (BURST): 0.286 Vp-p (75 Ω) (NTSC) C (BURST): 0.3 Vp-p (75 Ω) (PAL)
VIDEO OUT	BNC (1), Composite, 1.0 Vp-p (75 Ω), Sync negative
AUDIO OUT	Stereo mini jack (1), 1.4 Vrms (full bit), load impedance 10 kΩ, unbalanced
Other interface	
USB 2.0	Type A (3), Type B (1)
Network	RJ-45 (1)1000 Base-T/100 Base-TX
RS-232C	D-Sub 9-pin (1)
Contact switch	Stereo mini jack (2)
MONITOR	RJ-45 type (1)
Equipotential connector	1
Supplied accessories	
Before Using This Unit (1), CD-ROM (Instructions for Use), Protocol Manual (1) Warranty Card (1), AC-80MD AC adaptor (1), AC-80MD Instructions for Use (1), Service Contact List (1)	
Optional accessories	
HVO Audio Kit (model # HVOAUDIOKIT), HVO Keyboard (model # HVOKEYBOARD), Foot Switch (FS24)	