

**SONY**<sup>®</sup>

NTSC

Digital Videocassette Recorder

# DSR-20MD





# Medical Applications

## Compact Size and High Mobility

### Compact and Light Weight

The DSR-20MD is both lightweight and compact. Weighing only 5 kg, it fits comfortably on a medical cart, while two units mount side-by-side in a 19-inch equipment rack and occupy just two units of rack height.

### AC/DC Operation

The DSR-20MD has inputs for both AC and DC power. It performs as well mounted in an equipment rack and operated on AC power as it does when connected to a 12 V battery and moved from location to location.

\* The DSR-20MD can be used for outdoor applications, but is designed for stationary use. Vibration resistance is not guaranteed.

## Powerful Features

### Frame Still Picture

For detailed inspection of individual images, the DSR-20MD provides frame still pictures. When in its still mode (Playback Pause), the picture is shown as a complete frame, which provides high vertical resolution.

### Index Picture Search

The DSR-20MD is capable of searching for tape index points. These points are automatically recorded on a DV CAM tape as in-point marks at the start of every recording. As well as being able to search for index points, the DSR-20MD can also search for the photo data recorded on cassettes by Sony DSR-200AP or DSR-PD100P camcorders, or for the point where the recording date has been changed.

## Versatile Interfaces

### Foot Switch

An optional wired Foot Switch, such as a Sony FS-20, can be connected to a DSR-20MD. The user then has hands-free control of Pause and Record modes.

### RS-232C

With its RS-232C interface, the basic functions of a DSR-20MD can be controlled from a PC or video editing equipment.

\* Operation using RS-232C is dependent on third party system developers.

- A **Control S** port is provided for control from an optional DSRM-10 Wired Remote Control Unit.
- A **LANC** connector allows editing to be carried out using an editing controller with a LANC interface.
- The **RMT-DS20 Wireless Remote Commander** is supplied with the DSR-20MD.



## Other Features

### External Sync Input for Synchronized Playback

The DSR-20MD has an external reference input for playback synchronization with other VTRs\*. This is convenient when a number of machines are played back in turn, or when a DSR-20MD is one of a number of playback sources in an editing system.

\*DSR-20MD is locked to the V-sync only.

### Auto Repeat Function

When this mode is set to Repeat, the DSR-20MD rewinds a cassette to the beginning of the tape and starts playing back the program the moment power is turned on. Then, just after it reaches the end of the tape, the first complete blank portion or the first index point, it automatically rewinds the tape and starts playing back the same segment again.

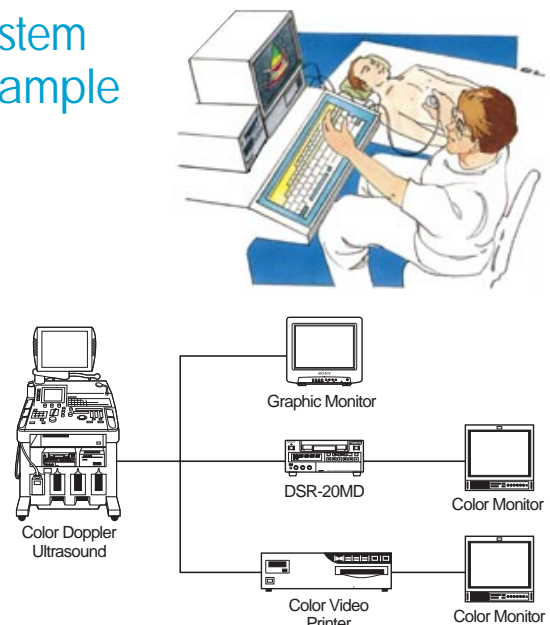
### Power-on Recording

The DSR-20MD can make recordings at specific times by controlling the power with an external time switch. When the TIMER switch on the front panel is set to REC, the DSR-20MD automatically starts recording as soon as the timer switches the power on.

### Compliance with Medical Safety Regulations

The DSR-20MD is UL listed for the UL-2601 medical safety regulation for safety operations.

## System Example



## Optional Accessories



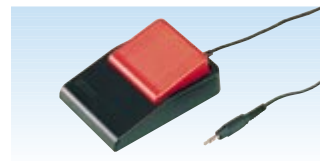
DVCAM Digital Camcorder  
**DSR-PD100A**



DVCAM Video Walkman® Recorder  
**DSR-V10**



Edit Adaptor  
**DSRM-E1**



Foot Switch  
**FS-20**



Remote Control Unit  
**DSRM-10**



i.LINK Cable (1.5 m/3.5 m)  
**VMC-IL4415/IL4435/  
IL4615/IL4635**



LANC Cable  
**VK-820**



DC Power Cord  
**CCDD-X2**



Digital Video Cassette (Mini size)  
**PDVM-12ME/22ME/32ME/40ME**

Digital Video Cassette (Standard size)  
**PDV-34ME/64ME/94ME/  
124ME/184ME**



Digital Video Cassette (Non IC type/Mini size)  
**PDVM-32N/40N**

Digital Video Cassette (Non IC type/Standard size)  
**PDV-64N/124N/184N**

## Specifications

GENERAL		Audio outputs	
Video signal standard	EIA standards, NTSC color	RCA pin (x2) (stereo L, R)	2 Vrms(full bit) L: CH1, CH3 or CH1/3 mix R: CH2, CH4 or CH2/4 mix
Power requirement	AC: 120 V, 50/60 Hz DC: 12 V	<b>Digital inputs/output</b>	
Power consumption	AC: 28 W DC: 2.0 A	i.LINK (DV IN/OUT)	(4-pin x1) IEEE1394 based
Operating temperature	5 °C to 40 °C (41 °F to 104 °F)	<b>OTHERS</b>	
Storage temperature	-20 °C to 60 °C (-4 °F to 140 °F)	LANC	Stereo mini-mini jack (x1)
Mass	Approx. 5.0 kg (11 lb)	DC IN	12 V XLR 4 pin (x1)
Dimensions	Approx. 212 (W) x 98 (H) x 395 (D) mm (8 3/8 x 3 7/8 x 15 5/8 inches) (including external projections)	Control S	Stereo mini jack (IN x1)
Tape speed		Headphone jack	Stereo mini (x1)
DVCAM mode	28.2 mm/s	RS-232C	D-sub 9 pin, male (x1)
DV SP playback mode	18.79 mm/s	Foot switch	Stereo mini Jack (x1)
Recording/Playback time		Equal potential terminal	(x1)
Standard cassette:	184 min. with a PDV-184ME/184N	<b>SUPPLIED ACCESSORIES</b>	
Mini cassette:	40 min. with a PDVM-40ME/40N	RMT-DS20 wireless remote commander (x1) AC power cord (x1) Cleaning cassette (x1) Operation manual (x1)	
Tape rewind time	Less than 2 min. with a PDV-184ME/184N	<b>OPTIONAL ACCESSORIES</b>	
Search speed (via RMT-DS20 or DSRM-10)	-2, -1, -1/5, -1/10, Still, 1/10, 1/5, 1, 2, Cue/Review (10 or 15 times)	DSRM-10 remote control unit FS-20 foot control unit CCDD-X2 DC power cord	
<b>SIGNAL INPUTS AND OUTPUTS</b>		<b>OPTIONAL CONSUMER ACCESSORIES</b>	
<b>Video inputs</b>		VMC-IL4415/4435/4615/4635/4406 i.LINK cables VK-820 LANC cable	
Composite (BNC x1)*	1.0 Vp-p, 75 Ω, unbalanced, sync negative	<b>VIDEOCASSETTES</b>	
S-Video (4-pin mini DIN x1)	Y: 1.0 Vp-p, 75 Ω, unbalanced, sync negative C: 0.286 Vp-p (subcarrier burst), 75 Ω, unbalanced	PDVM-12ME/22ME/32ME/40ME (Mini size) PDV-34ME/64ME/94ME/124ME/184ME (Standard size) PDVM-32N/40N (Non-IC type/Mini size) PDV-64N/124N/184N (Non-IC type/Standard size)	
<b>Audio inputs</b>			
RCA pin (x2) (stereo L, R)	2 Vrms (full bit)		
<b>Video outputs</b>			
Composite (BNC x1, BNC for monitor OUT x1)	1.0 Vp-p, 75Ω, unbalanced, sync negative		
S-Video (4-pin mini DIN x1)	Y: 1.0 Vp-p, 75 Ω, unbalanced, sync negative C: 0.286 Vp-p (subcarrier burst), 75 Ω, unbalanced		

\*Shared with the External Sync IN

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