



Battery not included.

Professional Hard Disk Unit PHU-220R

220GB Professional Hard Disk Unit for XDCAM[®] solid state memory card camcorders.



Docks Directly to XDCAM EX[™] Camcorders.

As the XDCAM EX camcorder product line continues to evolve so does the Sony Professional Media that supports it. Introducing the new PHU-220R Professional Hard Disk Unit, the successor to the PHU-120R.

Offers Superior Cost Per GB.

Since the initial release of the Professional Hard Disk Unit in 2008 users have found the Professional Hard Disk Unit to be required gear to take along as a low cost per gigabyte backup. The PHU-220R offers peace of mind when faced with unexpected variables that could potentially leave you short of SxS memory cards or the ability to offload content to a computer hard drive.

Backup SxS Clips to PHU via the Camcorder.

A unique function of the XDCAM EX camcorders is the ability to copy content from one SxS slot to the other, without the need for a computer. At 220GB capacity more than seven 32GB SxS cards, recorded in the HQ mode, can be copied to the Professional Hard Disk Unit.

Enables Record Times Over 12 hours.

Imagine having the luxury to set the camcorder on a tripod and continuously record² for more than 12 hours in the same high quality (HQ) mode you are accustomed to with your XDCAM EX camcorder. As a secondary camera at a wedding, for a long award ceremony at a sales conference or convention, for legal depositions and hearings, or wildlife capture, there will always be a time where extended record times are needed. The PHU-220R equips you with that capability.

Record Times

HD/SD	Mode		Audio Format	Record Times ¹	
				220GB ²	73GB x 3 ³
HD	HQ	35Mbps (VBR)	Linear PCM 16 bit/48 kHz 2 CH	730min	243min
	SP	25Mbps (CBR)		950min	317min
SD	DVCAM	25Mbps (CBR)		890min	297min

¹ Recording time may vary depending on usage conditions.

² Compatible with XDCAM EX camcorders: PMW-EX1R; PMW-320/350/500 (FAT Mode only); PMW-F3 or later models. Approximately 12 hours continuous record on a single battery charge with optional BP-U30 battery pack.

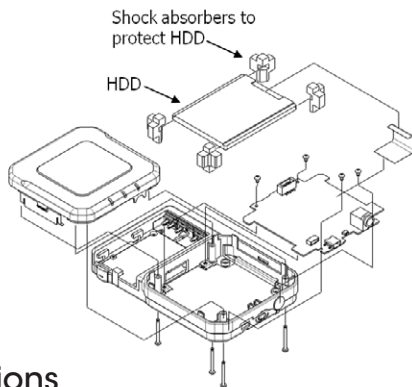
³ Use of the DRIVE SELECT switch is required to change drive partitions to achieve maximum record time.

Professional Hard Disk Unit PHU-220R Features.

- **Cybercapture™ Technology.** In the event of vibration or shock, or the unit is operated in a low temperature environment, Cybercapture technology enables the hard disk drive to optimize the read/write process of A/V data by maintaining a constant data transfer to the HDD, resulting in less dropped frames. The transfer rate on outer tracks of the hard disk is twice that of inner tracks. Cybercapture technology uses inner and outer tracks equally during recording to sustain the data transfer rate.
- **Shock Resistant.** The HDD protection mechanism in the PHU-220R can absorb shock to help protect the HDD from falls up to 1.5 meters high.³



- **Fall/Rollover Sensing.** When the 3-axis acceleration sensor "3G sensor" inside detects an acceleration change, the PHU-220R will park the heads of the HDD for data protection.
- **Shock Proof Memory.** Even when the heads are parked, recording will continue in a shock proof memory for up to 9 seconds.
- **DRIVE and MODE SELECT switches.** The unit can be recorded to using one or three partitions. The XDCAM EX camcorders PMW-EX1R, PMW-320/350/500, and PMW-F3 or later are compatible with either mode. The PMW-EX1, PMW-EX3, and PMW-EX30 are only compatible with the three partition (73GB x 3) mode.



Specifications

Interface	USB 2.0
Capacity	Approx. 200GB total or approx. 73GB x 3
User Capacity ¹	Total 220GB or approx. 73.3GB
Recording Time	Refer to chart above
Transfer Rate ²	Approx. 24MBps (190Mbps)
File System	FAT32, 32KB
Supported Operating Systems	Windows® 7, Windows Vista®, Windows Xp, Mac® OX (10.4 Or Later)
Power Requirements	DC IN 12V, Battery 14.4V
Power Consumption	Average Approx. 4W
Battery Operating Time	Approx. 12 hours in recording mode
Operating Temperature	32°F - 104°F (0°C - 40°C)
Storage Temperature	-4°F - 140°F (-20°C - 60°C)
Operating/Storing Humidity	8-90% (no condensation)
Operating Altitude	-300 - +5,000m, 1.04 atm - 0.5 atm (1054 hPa - 506 hPa)
Storage Altitude	-300 - +12,000m, 1.04 atm - 0.3 atm (1054 hPa - 304 hPa)
Shock Resistant ³	59" (150cm)
Weight	Approx. 220g / Shoe Adaptor approx. 87g
Dimensions	Unit only: Approx. 3.5 x 5.3 x 1.3" (89 x 135 x 32mm) Unit w/BP-U30: Approx. 3.5 x 5.3 x 2.3" (89 x 135 x 59mm) Shoe Adaptor: Approx. 1.9 x 1.4 x 1.5" (48 x 36 x 37mm)

For information on Sony's SxS Memory Cards and other recording media products, visit www.sony.com/promedia.
For information on Sony's complete XDCAM and XDCAM EX camcorder product offerings, visit www.sony.com/xdcam.

¹ User capacity may differ depending on hardware and usage.

² Transfer speed is dependent on hardware and usage.

³ This does not guarantee the unit or its contents are protected from damage.

Sony Electronics Inc.
1 Sony Drive
Park Ridge, NJ 07656
www.sony.com/promedia

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