

SONY®

NTSC

BETACAM SX™

Digital Video Cassette Player

DNW-A22



The Sony Betacam SX™ System achieves superior picture quality, faster editing, increased system flexibility, and greater productivity in every aspect of news gathering and production compared to conventional analog systems.

The Betacam SX format is the next generation Betacam® format, drawing on the long experience of Sony in serving the ever-changing, real-world needs of the broadcast community. Complying with a compression algorithm of MPEG2 4:2:2 Profile at Main Level (MPEG2 4:2:2P@ML), the Betacam SX system brings all the way benefits of digital technology to the broadcast industry.

The DNW-A22 Digital Video Cassette Player is especially designed for easy integration into current analog Betacam systems, providing the superb picture quality and cost-efficiency of the Betacam SX format. Furthermore, the DNW-A22 has the capability to play back tapes recorded in the current analog Betacam and Betacam SP® formats, which yields a logical, cost-efficient migration path towards a totally digital environment.

Features

High Picture Quality of MPEG2 4:2:2P@ML

The DNW-A22 Digital Video Cassette Player delivers the superb digital picture quality of the Betacam SX format, recording 8-bit, 4:2:2 component digital signals using an advanced compression algorithm.

The robust compression algorithm of the Betacam SX format results in a reduced bit rate of 18Mbps for the video signal, achieving greater efficiency in transmitting the signal from the field to the station and in storage onto disk.

Betacam SX picture quality exceeds that of Betacam SP format, maintaining broadcast-quality pictures with excellent luminance detail and improved color resolution. The Betacam SX recording format also preserves 507 active lines per frame as well as vertical blanking signal information and supports 4-channel, 16-bit/48kHz digital audio.

Analog Playback Capability

The DNW-A22 has the capability to play back analog Betacam and Betacam SP recordings made on oxide or metal particle tape. This analog playback capability maintains the long-term value of existing analog tape archives and enables existing Betacam SP camcorders to be used for acquisition.

Long Playing Time

Both S-size cassettes and L-size cassettes can be used with the DNW-A22. A single S-cassette provides up to 62 minutes of playback time while an L-cassette provides up to 194 minutes.

Simple, User-friendly Operation

The DNW-A22 provides simple operation from the control panel, with a familiar Jog/Shuttle dial to give editors a "hands-on" feel.



DNW-A22 Front Panel

High-speed Picture Search

High-speed picture search is available in shuttle mode at up to 50 times normal play speed in both forward and reverse directions.

Audio Monitoring

A matrix of push buttons is provided on the front panel for switching the channel of audio monitoring. Each of the four playback channels can be switched to either the left or right monitor outputs.

525/60 or 625/50 Versatility

Composite output of the DNW-A22 is switchable from 525/60 to 625/50. When playing back Betacam SX tape, the DNW-A22 operates in 625/50 mode without an external adaptor. This flexibility enables the DNW-A22 to perform in international environments.

Adjustment Free Operation

The DNW-A22 incorporates an Automatic Alignment System to maximize the accurate reproduction of digital data. An Automatic RF Equalizer optimizes the gain and phase of off-tape RF signals. These automatic systems minimize the need for time-consuming manual equalization and servo system adjustments, which can lower maintenance costs.

Easy Maintenance

A self-diagnostic system advises of malfunctions within the player. The DNW-A22 also incorporates the Sony Interactive Status Reporting (ISR) feature to provide precise reporting on errors/warnings on the equipment, thereby enabling engineers to take appropriate action to correct the situation. In addition, the drum assembly has been designed to achieve easy, low-cost maintenance and to simplify both mechanical and electric alignment after drum replacement.

System Interface

Analog Composite Output

The DNW-A22 is equipped with two analog composite outputs including one monitor output with character superimposition.

Audio Monitor Output

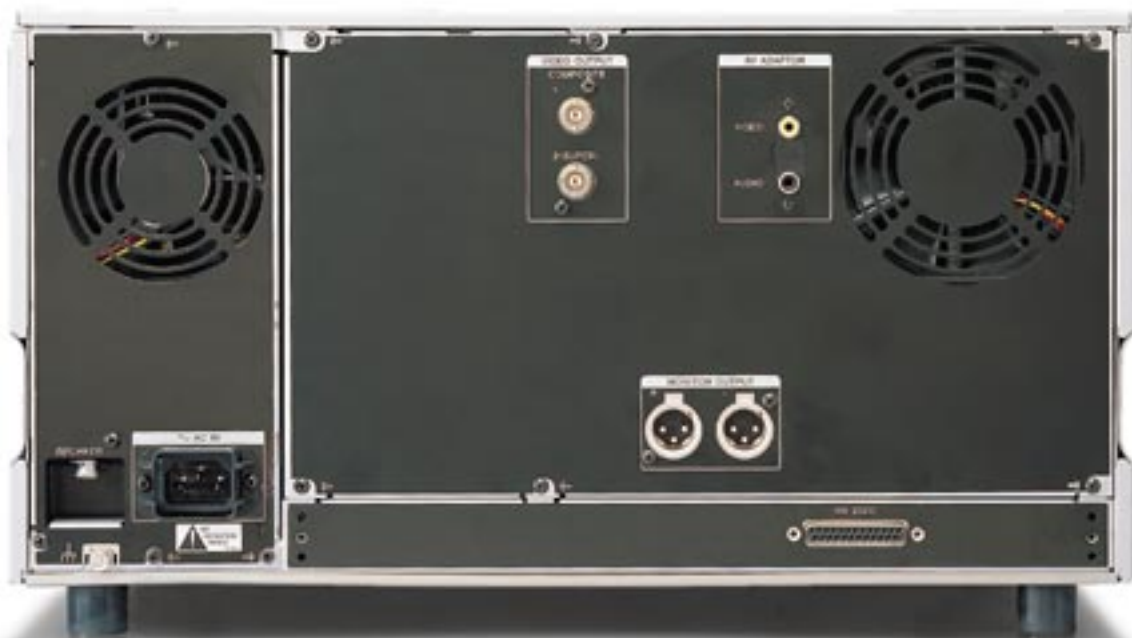
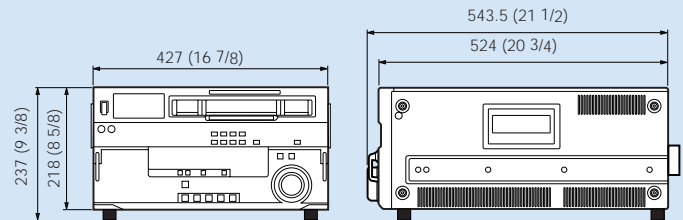
RF Adaptor Output

The DNW-A22 is equipped with video/audio/DC outputs for the optional RFU-89KB RF Adaptor. By using this RF adaptor, playback pictures can be easily monitored on an ordinary TV receiver.

RS-232C Remote Control

Various parameters can be set up and monitored via this port by using the Sony ISR system.

Dimensions



DNW-A22 Rear Panel

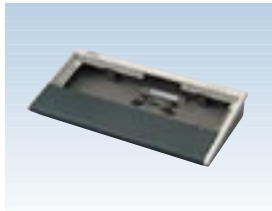
Specifications

General		
Power requirements		AC 100V to 240V, 50/60Hz
Power consumption		190W
Operating temperature		+5°C to +45°C (+41°F to +113°F)
Storage temperature		-20°C to +60°C (-4°F to +140°F)
Humidity		25% to 80% (relative humidity)
Mass		32kg (70 lb 7 oz)
Dimensions (W x H x D) (including feet)		427 x 237 x 524mm (16 7/8 x 9 3/8 x 20 3/4 inches)
Tape speed	Betacam SX playback	59.515mm/s
	Betacam playback	118.6mm/s
Digital playback time		Max. 194 min with BCT-194SXLA cassette
Fast forward/rewind time		Approx. 3 min with BCT-194SXLA cassette
Search speed range		±50 times normal playback speed
Servo lock time		0.5s or less (from standby on)
Load/unload time		6s or less
Signal outputs		
Video output	Analog composite	BNC (x2, including one character out), 1.0Vp-p, 75Ω
Audio output	Headphones	JM-60 stereo phone jack, ∞ to -12dBu at 8Ω load, unbalanced
	Monitor L/R	XLR-3-32 type (x2), +4dBu at 600Ω load, low impedance, balanced
RFU output	RFU video	Pin jack (x1), 1.0Vp-p, 75Ω, sync negative
	RFU audio	Pin jack (x1), -10dBu at 47kΩ, unbalanced
	RFU DC	Ø2.5 jack, +5V DC/GND
Others		
Remote	RS-232C	D-sub 25-pin (female), RS-232C interface
Supplied accessories		
PSW 4 x 16 screws for rack mounting		x 4
Operation manual		x 1
Maintenance manual (part 1)		x 1

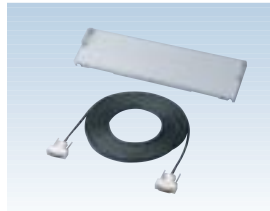
Optional Accessories



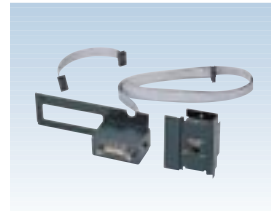
Control Panel
BKNW-120



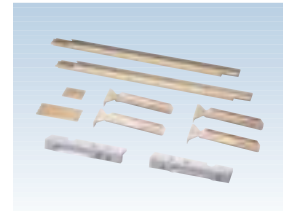
Control Panel case
BKNW-121



Control Panel Extension Kit
BKNW-122



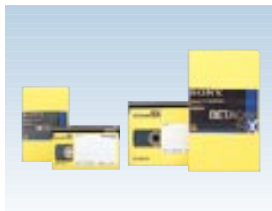
Modification Kit
BKNW-123



Rack Mount Kit
RMM-111



Remote Control Cable
RCC-B5G/10G/30G



Betacam SX Video Cassette
**BCT-12SX/22SX/32SX/
60SX/62SXLA**
(Small Cassette)
**BCT-64SXL/94SXL/
124SXL/184SXL/194SXL**
(Large Cassette)



Cleaning Cassette
BCT-D12CL



Cleaning Cassette
BCT-5CLN



RFU Adaptor Kit
RFU-89KB

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