

**DFS-700P**  
DME Switcher

Endless  
Imagination.  
Unlimited  
Creativity.



this is not a rehearsal.

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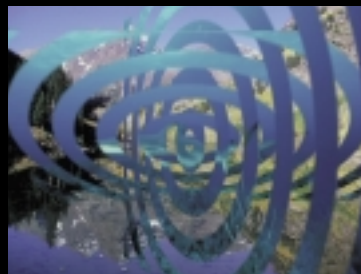
**SONY**

# Powerful Digital Performance at your Fingertips

What happens when you put superb digital effects and an advanced digital switcher together in a perfectly compact package? You get the Sony DFS-700P - an ideally proportioned, easy-to-operate switcher incorporating the latest digital multi effects. Offering the precision of full component digital processing, all the creativity of hundreds of preset special effects, and the flexibility of 16:9 or 4:3 operation, the DFS-700P is your promise of top-flight productivity. Cost-effective yet extremely versatile, Sony's DFS-700P will open up new horizons in digital television performance.



DME Switcher - DFS-700P



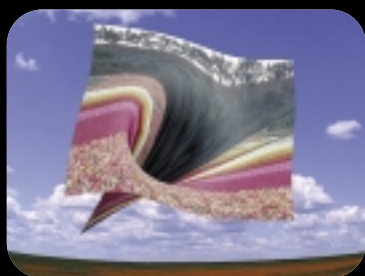
# Quality by Digitization

## Digital signal processing

The world is moving into digital broadcasting. And if you're using the DFS-700P, it's a great start as it will prepare you for any requirement. Digital broadcasting depends on digital component signals which is why the DFS-700P is built around full digital component processing from input to output at 4:2:2:4 (video and key). In this way, the DFS-700P delivers the quality you'll need for digital television broadcasting, digital satellite, DVD and a variety of video content creation.

The built-in chroma keyer and downstream keyer offer full digital signal processing to satisfy the most demanding production needs.

## Bridge to Digital



## Wide range of inputs and outputs including SDI

Whether analogue or digital, the DFS-700P accommodates a wide range of signal input/output requirements. The system comes with eight standard inputs - four SDI\* and four analogue component. With the optional BKDF-701 or BKDF-702P boards, you can add eight or four inputs, making the total number of inputs 16 or 12 respectively, any eight of which can be freely assigned to the control panel. Four SDI and four analogue component are added with the BKDF-701, and four composite (PAL or Y/C) are added with the BKDF-702P. The system also includes a complete range of outputs: two SDI, two analogue component, two analogue composite, and two Y/C. This means you can configure the DFS-700P to match existing equipment and anticipate your future needs!

\*SDI (Serial Digital Interface): serial component digital signal (270Mb/s)

## No need for external A/D converters

Some digital equipment requires expensive and cumbersome external analogue-to-digital/digital-to-analogue converters. But that's something you never have to worry about with the DFS-700P. Just take out your analogue switcher and drop in the DFS-700P. It's the simple, easy, cost-effective upgrade that transforms a tired, old analogue system into a creative, digital powerhouse.

## The perfect companion for Sony digital VTRs and servers

Maybe you're considering a digital production system with DVCAM, Betacam SX, MPEG IMX or Digital Betacam recorders or the Sony MAV-555 server. Whichever format you choose, the DFS-700P will complement it perfectly. With this unit, you get full compatibility with analogue machines, plus superb component digital performance to maintain digital VTR picture quality. Starting with the DFS-700P is a cost-effective first step. You can then gradually add Sony digital video cameras, VTRs and servers at your own pace to build an all-powerful, all-digital system!



# Speed is Power



## Fast response for more productivity

If you've ever been held back by the "rendering" and "processing time" of non-linear editing systems, you'll come to appreciate the performance of DFS-700P. This is a real-time system, capable of delivering true 3D, page turns and effects in an instant. So there's no drumming your fingers, no looking at your watch, no running for coffee. Operation is also very easy. Addition of optional boards and software gives you over 800 pre-programmed special effects that you can recall with the numeric keypad. Power-packed yet extremely user-friendly, that's what the DFS-700P is all about.

## Ergonomic control panel

From simple switching to complex effects, the ergonomic control panel makes everything easy. The layout is straightforward and streamlined for maximum efficiency. As a result, the DFS-700P is a perfect tool for EFP and remote live broadcasting, where split-second timing and instant response are absolute necessities.





# Be Creative

## The simplicity of pre-programmed effects

Some special effects systems require complex, tedious programming. Not the DFS-700P. With pre-programmed effect patterns, anyone can create artistic, impressive, amusing, or stunning visuals. You can concentrate on expressing your creativity - and let the DFS-700P work on the effects. Or if you like, you can execute partial modifications to the preset effect pattern and add your own, personal touch.



## Spectacular special effects

The DFS-700P draws on Sony's expertise in high-end non-linear image processing. This affordable system incorporates the groundbreaking effects and capabilities of Sony's landmark video editing products. Pre-programmed and ready-to-use effects include Fanta Trail and several features from Digital SPARKLE™ (such as ripple and swirl effects). Add optional boards and software, and you've got over 800 effects to choose from.



## 2-channel effects

Adding an optional second channel video board will add a professional touch with two-channel special effects, such as push-in, push-out, Duality™ effect (two-channel picture in picture), combined operations (two-channel intersect) and brick-like effect.



## 3-dimensional mapping

Three-dimensional special effects can be impressive but they can also be extremely difficult to use. The DFS-700P makes things easy. The optional 3D Mapping Board delivers 3D effects in a simple, ready-to-use format. Without wasting significant time on programming, you have easy access to 3D effects such as 3D cubes, 3D explosion, 3D vase, and 3D frames. Your productions become more exciting. And most importantly, you become more creative.

## Add-on Effects

The DFS-700P provides an even greater spectrum of effects with the optional BZDF-710 Add-on Effects software installed. Nearly 130 additional effects including Crystal Wipe, Multi Pillars and Polygon V-studio are available with this software upgrade option, which is easily loaded from a PC via a single USB connection.

\*To use the Add-on Effects software, the 2nd Channel DME board and 3D Video Mapping board must be installed



# Systematic Performance



## Switcher function

You can integrate the DFS-700P into an existing switcher system, as a powerful digital effects enhancement. But special effects are only part of the story. The integrated switcher functions of the DFS-700P include chroma keyer, Y/U/V colour correction, down stream keyer, fade-to-black, and frame memory.

## Editing interface

The DFS-700P also provides comprehensive interface with Sony editing controllers. For example, you can use the DFS-700P with Sony BVE-2000 and PVE-500 editors via the serial interface. As a post-production tool, the DFS-700P is an editor's dream.

## Live operation

The DFS-700P cross-point buttons offer broadcast-grade "feel" for extra durability in the most extreme applications. For live operation, the DFS-700P also offers Preview and Tally outputs.

## DME-LINK™

The powerful effects of the DFS-700P are easy to integrate into a high-end DVS switcher system. By installing the optional BZDF-701 DME-LINK software, DFS-700P snapshots can be controlled from the DVS-7000 Series switchers. As with the Add-on Effects software, this package is easily installed from a PC.

\*Only user program DME-LINK is supported

\*An Rx/Tx cross cable is required

## Perfect for any application

The DFS-700P is an amazingly powerful integrated switcher with digital multi effects - perfectly suited for newsrooms, post-production, field editing, small studios and outside broadcasting systems. It's the single, simple solution for today's demanding digital requirements.

# Specifications

General	
Model	DFS-700P
Power requirements	AC 220/240 V, 50/60 Hz
Operating voltage	AC 180 to 260 V, 47 to 63 Hz
Power consumption	200 W
Operating temperature	0 to 40 °C (32 to 104 °F)
Dimensions (W x H x D)	Control panel: 440 x 121 x 287 mm 17 1/4 x 4 3/4 x 11 1/4 inches Processor unit: 440 x 132 x 520 mm 17 1/4 x 5 1/4 x 20 1/2 inches
Mass	Control panel: 3 kg, 6 lb 10 oz Processor unit: 14 kg, 30 lb 14 oz

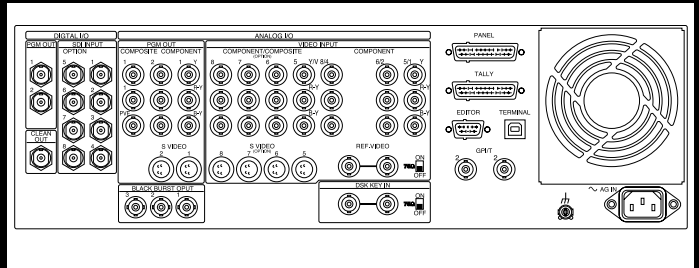
Input Signals	
VIDEO INPUTS	
SDI	BNC type x 4 270 Mb/s
Component	BNC type x 4 (Y/R-Y/B-Y) Y: 1.0 Vp-p, 75 Ω, Sync negative R-Y/B-Y: 0.525 Vp-p, 75 Ω
DSK KEY IN	BNC type x 2, Loop-through, 1.0 Vp-p, 75 Ω
REF VIDEO	BNC type x 2, Loop-through connection Sync: 0.3 Vp-p Burst: 0.3 Vp-p

Output Signals	
PGM OUT	
SDI	BNC type x 2 270 Mb/s
Component	BNC type x 2 (Y/R-Y/B-Y) Y: 1.0 Vp-p, 75 Ω, Sync negative R-Y/B-Y: 0.525 Vp-p, 75 Ω
Composite	BNC type x 2 Video: 1.0 Vp-p, 75 Ω, Sync negative
S-Video	DIN type x 2 (Y/C) Y: 1.0 Vp-p, 75 Ω, Sync negative C: 0.3 Vp-p at burst, 75 Ω
CLEAN OUT	BNC type x 1 SDI: 270 Mb/s
PREVIEW OUT	BNC type x 1, Composite Video: 1.0 Vp-p, 75 Ω, Sync negative
BLACK BURST OUT	BNC type x 3 Sync: 0.3 Vp-p, 75 Ω Burst: 0.3 Vp-p, 75 Ω

Signal Processing	
Sampling rate	Y: 13.5 MHz R-Y/B-Y: 6.75 MHz
Quantization	Y/R-Y/B-Y: 8 bits
Linearity (Composite output)	DG: Less than 3.5% (composite input) Less than 2% (component, S-Video input) DP: Less than 2.5° (composite input) Less than 1° (component, S-Video input)
Frequency response	0 to 5 MHz +0.5 dB/-1 dB
S/N	More than 50 dB (composite) More than 55 dB (component, S-Video)
Y/C delay	Less than 20 ns (component) Less than 50 ns (composite, S-Video)

Control Signals	
Editor	D-sub 9 pin x 1, RS-422A
GPI/T	BNC type x 2, TTL Level
Panel	D-sub 25-pin x 1
Tally	D-sub 25-pin x 1, Relay contact outputs x 8
Terminal	USB B-type

# Processor Unit: Rear Panel



# Optional Accessories

- BKDF-701** Digital/Analogue Input Board for NTSC/PAL
- BKDF-702P** Analogue Composite Input Board for PAL
- BKDF-711** 2<sup>nd</sup> Channel DME Board
- BKDF-712** 3D Video Mapping Effects Board
- BZDF-701** DME-LINK Software
- BZDF-710** Add-on Effects Software

## BKDF-701

With the BKDF-701, the following 8 inputs can be added to the standard 8 inputs of the DFS-700P, making the total number of inputs 16. During use, any 8 of the 16 inputs can be assigned to the control panel.

Input Signals	
SDI	BNC type x 4 270 Mb/s
Component	BNC type x 4 (Y/R-Y/B-Y) Y: 1.0 Vp-p, 75 Ω, Sync negative R-Y/B-Y: 0.525 Vp-p, 75 Ω

## BKDF-702P

With the BKDF-702P, the following 4 inputs (PAL or S-Video) can be added to the standard 8 inputs of the DFS-700P, making the total number of inputs 12. During use, any 8 of the 12 inputs can be assigned to the control panel.

Input Signals	
Composite	BNC type x 4 Video: 1.0 Vp-p, 75 Ω, Sync negative
S-Video	DIN type x 4 (Y/C) Y: 1.0 Vp-p, 75 Ω, Sync negative C: 0.3 Vp-p at burst, 75 Ω

## BKDF-711

The BKDF-711 adds a second Title Key including chromakey as well as a second channel of DME.

# Product Configuration

Processor unit, Control panel, D-sub 25-pin control cable (10 m), AC cord, Instruction manual



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