

Feature Descriptions

Superb Picture Quality

The DFS-700/700P uses full bandwidth component 4:2:2/8-bit digital processing. Signals can be processed from virtually any video source without compromise in image quality. The standard SDI I/O capability further ensures that signals from these sources are input and output to the DFS-700/700P with no quality loss. Digital processing makes the DFS-700/700P an excellent choice for use with all VTRs and DDRs ranging from Betacam SP™ and DVCAM™, up to Betacam SX™, Digital BETACAM™ formats and servers such as MAV-555. With standard up stream title key and DSK, the DFS-700/700P also operates with 8-bit/full-bandwidth, providing a high level of performance in keying quality thus providing outstanding linearity for keyed images. The DFS-700/700P is an ideal budgetary choice for high quality productions, and provides all the advantages of a total 4:2:2:4 component digital environment.



**4:2:2:4 Signal Processing
from Input to Output**



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Signal Format Agility

The DFS-700 is extremely versatile in its input and output capability. Both inputs and outputs are available in analog composite, S-video, analog component and SDI component digital signal formats. This no glue required, flexible format ability, allows the mixed use of different signal types and eliminates the need for space consuming and expensive signal conversion products.

As standard, the DFS-700/700P comes equipped with eight external inputs (primary inputs), four SDI and four analog component. By use of the appropriate option board (BKDF-701 or BKDF-702), a maximum of 16 inputs can be supported.

The DFS-700/700P is very flexible in that any eight of these inputs can be individually assigned to any of the eight cross points on the control panel. This is easily achieved through the DFS-700's software menus. This feature not only relieves the operator from re-wiring the system for a specific set up but also makes the addition and swapping of equipment very easy.

With the DFS-700/700P, an operator can configure a system exactly as desired—no matter the application.

	w/o options	+ BKDF-701	+ BKDF-702
SDI	4	8	4
Component	3	7	3
Component or RGB	1	1	1
S-video or Composite	0	0	4
Total	8	16	12



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Creative Power with Integrated Digital Effects

The ever-evolving world of Live television production, editing, multi-media, and internet Web Casting, along with other advanced video productions, has created an even stronger need for more powerful and creative effects. The DFS-700/700P is ideally suited to deliver the dynamic effects that will catch the viewer's attention and make them take notice of your production, regardless of the application. The DFS-700/700P responds to this demand with its powerful, eye-catching but easy to use effects.

In addition to a wide variety of switcher effects, including shaped and rotary wipes, the DFS-700/700P offers a wide array of creative digital effects to suit your production needs even in the most demanding of situations and environments. Effects ranging from 2D and 3D linear and non-linear effects to the most advanced 3D polygon mapping effects are delivered with the DFS-700/700P at an affordable price that will blow your socks off. Even the most sophisticated effects can be executed without the need for complex effect programming.

When you add the optional BKDF-711 Dual Channel board and BKDF-712 3D Mapping Board, there are over 700 stunning preset effects such as digital SPARKLE™, two-channel intersections, bricks, slabs and 3D Mapping as just some examples.

Most preset effects can be user modified in appearance or operation and enhanced by adding standard trails, lighting and shadows. For added flexibility in operation, you can also create your own custom user effects. The DFS-700/700P can deliver no matter how complex your need may be.

	W/O option	With BKDF-711	With BKDF-712	With BKDF-711/712
Standard 2D Wipes	YES	YES	YES	YES
Standard 3D Wipes	YES	YES	YES	YES
Standard Modify Effects	YES	YES	YES	YES
Digital Sparkle Effects	YES	YES	YES	YES
2-ch DME Effects	—	YES	—	YES
3D Mapping Effects	—	—	YES	YES
3D Brick, Three-picture Multi-cube	—	—	—	YES
Total Effects	474	167	102	6

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Standard Digital SPARKLE Effects

Digital SPARKLE effects brings a new level of creative opportunities to users of the DFS-700/700P. These are provided as a standard feature and include Ripple, Burst, Swirl, Melt, Lens, Explosion, Warp, Ring, Wave and Flag effects.



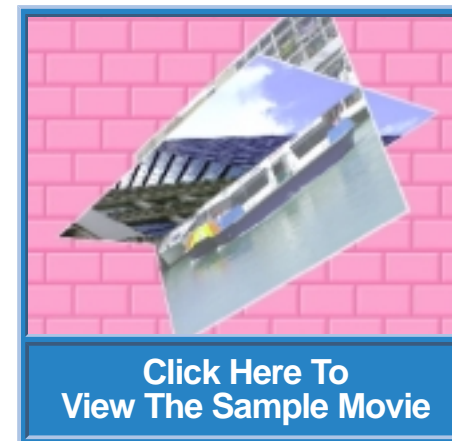
[Click Here To View The Sample Movie](#)

Optional Two-channel DME Effects

By installing the optional BKDF-711 2nd Channel DME board, the DFS-700/700P offers professional touch two-channel effects, traditionally available only on the most expensive systems. In two-channel mode, effect processing is applied

separately to two different inputs, which are then placed over a live background, an image captured in the standard frame memory, or one of the attractive patterns generated from the DFS-700's internal matte generator. These include such effects as push-in, push-out, two-channel picture-in-picture (Duality™), two-channel intersect, two-channel page turn, and two-sided brick effects.

The optional BKDF-711 also adds a second key channel to the DFS-700/700P so that two keys (either chroma key or title key) can be inserted simultaneously, making a total of three key channels available including the DSK.



[Click Here To View The Sample Movie](#)

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Optional 3D Polygon Mapping Effects

With the optional BKDF-712 3D Video Mapping Effect Board, stunning 3D Polygon Mapping Effects are possible. The DFS-700/700P achieves such effects not only at an affordable price but also through extreme ease of operation. Effects such as 3D cubes, 3D explosion, 3D vase and 3D page turns are available—3D beveled edge effects included in this option introduce another unsurpassed level of creativity to your productions.

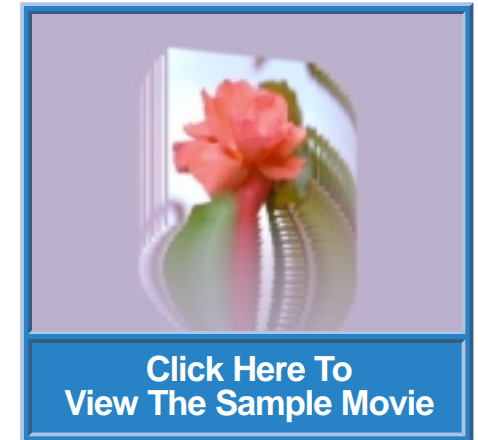


Standard Lighting/Trail

Lighting and trail are available on the DFS-700/700P as standard. These are useful functions for embellishing and making effects even more attractive. Spot lighting, Line lighting and Plane lighting are supported. The trail function offers a variety of trail types including Galaxy, Snow, Hard Star.



Lighting



Trail

Feature Descriptions



Standard Auto Crop Feature

The DFS-700/700P includes an image crop feature to smooth picture edges in situations where they become jagged such as when the size of the image is reduced. The crop feature has an AUTO mode which crops the picture edges according to preset values and a MANUAL mode in which the operator can crop edges by setting the top/bottom and left/right crop positions.

Standard Anti-Aliasing Low Pass filter

Prior to the DFS-700/700P, complex DME effects created with the more to affordable systems often had a problem if high frequency harmonics, known as 'aliasing noise' were not appropriately processed. This phenomenon is commonly seen when applying an effect, which reduces the size of an image. The DFS-700/700P incorporates a low pass aliasing filter to prevent the generation of such noise. The filter constantly adjusts and optimizes the video bandwidth in accordance to the reduced image size and discards the unnecessary high frequency component, thus eliminating unwanted aliasing noise.

Full Featured Switcher Functions

The DFS-700/700P adds a refined set of switcher features, extending its use even into simple broadcast applications.

Ergonomic and Rugged Control Panel Included with the System

The DFS-700 control panel is designed for quick access to each function. The control keys and knobs are laid out in an intuitive manner that provides unsurpassed operational comfort for both experienced users and newcomers to the DFS-700 system. A sophisticated 'delegation system' has been adopted for the internal auxiliary busses of the DFS-700 to simplify source selection for several internal signal routing functions as well as keeping the control panel very compact. The menu driven set up system is also configured to facilitate instant access to each control parameter.

From simple switching to the creation of complex effects, ease of operation is possible with the DFS-700/700P.

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Standard Auto Chroma Keying

The DFS-700/700P offers a high quality 4:2:2 chroma keyer. An auto chroma key function is supported as standard, allowing clean chroma keys to be instantly set up through a single key stroke.

Manual chroma key adjustments can be made to achieve further precision in chroma key effects. The DFS-700/700P comes further equipped with a color cancel function which plays a vital role in keeping chroma key edges extremely clean, by canceling the foreground key color should it appear around the periphery of the key on the background.

Installation of the BKDF-711 option provides an additional chroma key channel.

Both switcher and DME effects can be applied to chroma keys.

Standard Color Correction

Color correction is also supported on the DFS-700/700P. This feature is essential when the color balance of your acquisition footage is not correct, or to intentionally recolor images to enhance the scene. Precise YUV and gamma

color correction can easily be performed for the selected input signal connected to the DFS-700/700P.

Standard Frame Memory

A frame memory is available on the DFS-700/700P to store still images from any external or internal source. The frame memory image can be captured either in frame or in field mode. Once stored in the frame memory, the still image can easily be used for an effect transition, a key source/fill or even for the third layer of 3D mapping effects.

BKDF-702/702P Frame Synchronizers and Standard Auto Timing

Frame synchronizers are provided for each analog composite and Y/C input. This not only makes it possible to use footage from VTRs without TBCs, but also eliminates the need to time analog composite and Y/C inputs.

SDI and analog component inputs must be referenced to a gen-lock source (provided by the DFS-700/700P) and are automatically timed when entered into the DFS-700/700P.

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Live Use Applications

Special consideration has been given to all functions of the DFS-700/700P expressly for the purpose of extending its use to live applications ranging from small studio to OB environments.

Direct Crosspoint Switching

The DFS-700/700P allows operators to instantly switch from source to source by directly pressing the appropriate button on the background bus.

Look Ahead Preview Functions

The DFS-700 comes equipped with a preview output to view the next video source to be put to air. The preview output can be seen simultaneously with the program output when two monitors are connected.

Since DSK can also be viewed on the preview output when the DSK preview button on the control panel is pressed, you can conveniently setup keys before placing them to air.

Background Transition

Program Monitor



Preview Monitor

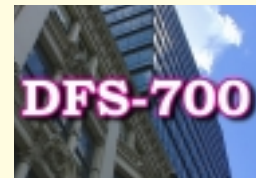


DSK Transition

Program Monitor



Preview Monitor



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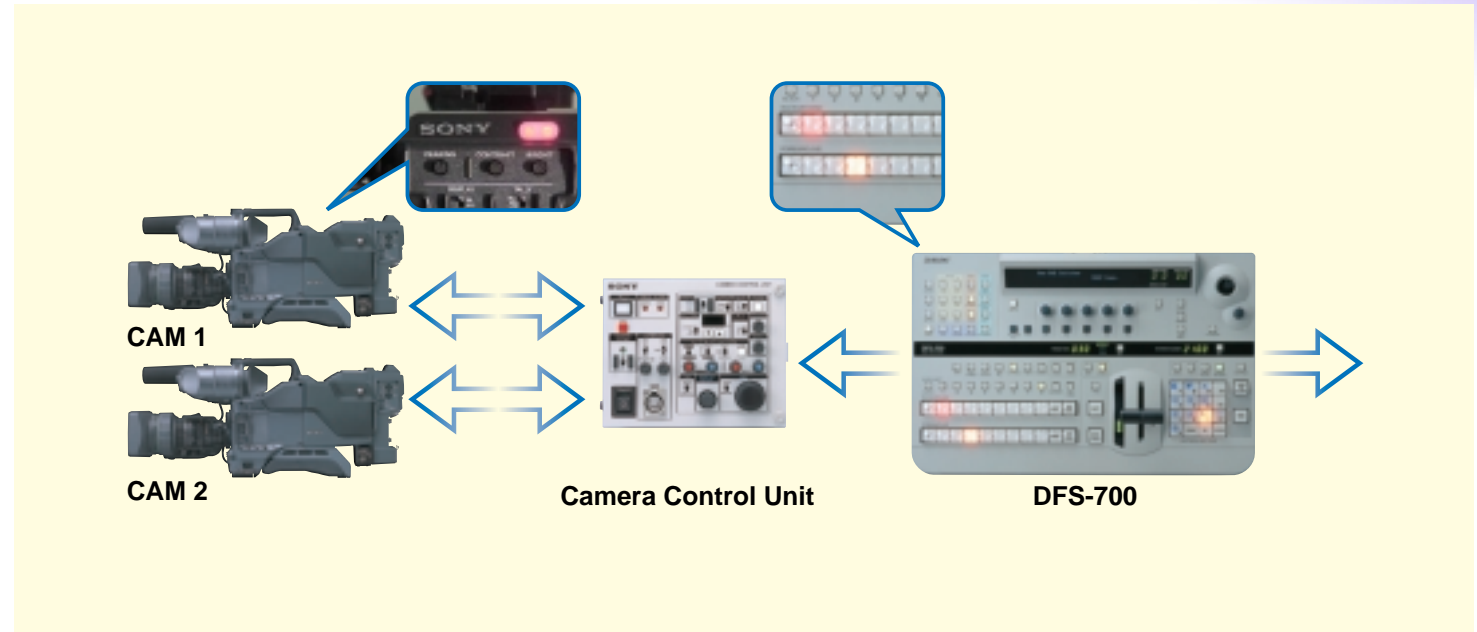


Standard Tally Output

In live and studio environments it is essential to know which camera is contributing to the program output. The DFS-700/700P satisfies this need by providing a Tally output.

When selecting a camera input on the background bus, a tally signal is sent to the camera to light its tally lamps. Tally signals are available for all eight inputs assigned to the control panel.

During a transition or effect, tally signals are sent to all sources contributing to the program out.



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User Effects and Memory Functions

User Programmable Effects

In addition to its many spectacular pre-programmed effects, the DFS-700/700P offers powerful, but easy-to-setup user programmable effects.

These include linear programmable effects in which the image can be freely resized, positioned and rotated along the X/Y and Z-coordinates as well as non-linear programmable effects, which allow effects such as page turns and spheres to be modified. Both transition type effects and animation effects that stay on screen can be programmed.

A total of 40 manually created effects (20 linear type and 20 non-linear type) can be stored in the user memory for later use.

Snapshot Function

The DFS-700/700P allows a total of 100 different control panel setups to be instantly stored and recalled as so-called snapshots. These include control panel parameters such as border width/color, effect transition time, effect parameter values. The DFS-700/700P snapshots can also be recalled from a 9-pin editor connected to the DFS-700/700P, such as the PVE-500 or BVE-2000.

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Internal Signal Generators

The DFS-700/700P includes a total of five color matte generators for use as background mattes, border mattes, shadow mattes, DSK mattes and DSK border mattes.

Parameters including luminance, hue and saturation can be adjusted for each matte generator.

The background matte specifically allows the selection of 80 different embossed patterns, which are especially convenient for use. Color bars and Grid patterns can also be generated and used for adjusting monitors and other equipment.

Three black burst outputs are also provided to gen-lock external devices.

Compact Size

Despite its great power and flexibility, the DFS-700/700P processor unit is very compact in size - only 3-units high, allowing easy integration even where space is limited. The control panel is also compact and 19-inch rack mountable. Its compactness makes the DFS-700/700P an ideal replacement for conventional small-size broadcast analog switchers.



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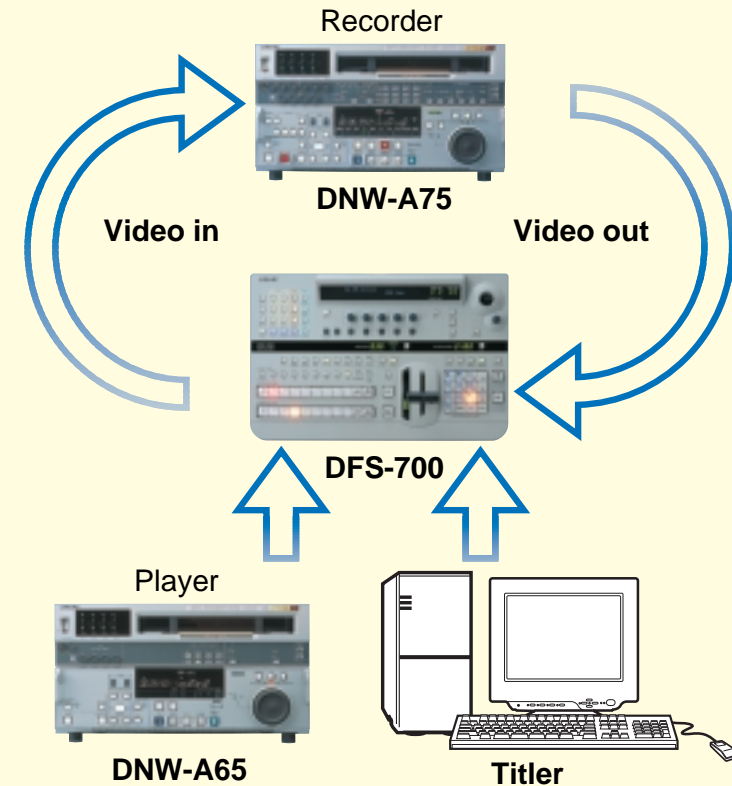
Editor Interface

The DFS-700/700P provides comprehensive interface with Sony edit controllers. Both RS-422 serial and GPI outputs are available on the DFS-700/700P, allowing integration with the Sony PVE/BVE series of edit controllers.

Pre-Read Edit Capability

Pre-read editing has established a firm position for performing simple edits such as small modifications to a finished program through a quick system setup. The DFS-700/700P offers the convenience of this feature when used with pre-read capable VTRs and editors.

Pre-Read Editing



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