FOR.A ®
INNOVATIONS IN VIDEO
and AUDIO TECHNOLOGY

1.5M/E Video Production Switcher
VPS-715 "1.5M/E GINGA"

*Touch panel display is optional

Another Big Bang

VPS-715 is a 1.5M/E analog/digital mixed video switcher. The VPS-715 features the same functions and concept of the VPS-700 in a 1.5M/E configuration. The easy-to-use control panel and various functions enable efficient operation.

■ Multi Layer & Multi DVE

All inputs have independent 2D DVEs (option), making it equivalent to a monstrous 32-channel DVE. Mix/Effect (M/E) transitions are combined by two independent pre-combiners, and two-channel combined outputs can be assigned to the PGM and PST buses. This means that all videos that are input to the switcher can be combined and displayed at one time. This video representation delivers dramatic impact unattainable with previous video switchers.

VPS-715 Main Features

■ *Analog/Digital Mixed Switcher*

All inputs in the VPS-715 include a frame synchronizer (FS) that enables asynchronous input. It also features a freeze frame function using FS memory and still store, can display video captured by M/E as still video for each input, and can display CG images that were created elsewhere. Basic input includes eight SD-SDI channels, and SDI input or analog input are also available as an option. As a digital/analog mixed switcher, the VPS-715 supports expansion up to 16 inputs. Basic output provides a total of eight channels: two PGM channels, PREV, Clean, M/E PGM, M/E PREV, and two AUX channels. Available options include eight SDI outputs (in four-output units) or four analog outputs (in two-output units for composite). The PREV and Clean output channels can also be used as KEY OUT, and the AUX outputs including the additional outputs can be freely assigned for enabling output of the required video from a selected terminal.

■ *1.5M/E Bus*

The VPS-715 incorporates an Mix/Effect (M/E) bus that enables cut, mix, wipe, and DVE transitions. A Program/Preview (P/P) bus is also included for allowing cut and mix transitions in later stages.

VPS-715 control panel

■ *Compact Main Unit*

The main unit includes up to 16 inputs and 16 outputs, FS function, still stores, Proc Amp, clip function, DVEs, keyers, and a variety of other functions all in a 3 RU-size unit. Support for a redundant power supply is also standard in the main unit and control panel of VPS-715.

VPS-715 main unit

■ *Input DVE Card (Pre-combiner)*

2D DVE functions are added to all 16 inputs. The position, size and rotation of each input can be adjusted, borders can be added, and the transparency can be set. The input DVE card has a pre-combiner function where inputs can be assigned as an M/E bus or key source. Also, up to 2 cards can be installed for enabling transitions to another image from each card's combined output image.

■ *Flash Recorder Function*

VPS-70FR flash recorder card (option) can be used to enable recording and playback of uncompressed SD video. Up to two cards can be installed (the slot is shared with the VPS-70DS). A single card enables a maximum recording time of 120 seconds and simultaneous playback of video with key channel for two channels. Various types of playback are also supported, including regular playback, reverse playback, loop control, and trigger control. In addition, recorded video is stored in memory so that it remains saved even when the power is turned off. This eliminates the need to reload at each startup.

■ *Proc Amp/Clip Function*

A process amplifier and white clip function are provided for each input as standard. This enables levels and other adjustments within the switcher without the need for peripherals.

■ *Powerful Still Store Functions*

A standard FS memory is used in the VPS-715 video input for enabling freezing of video. In addition, captured images and CG images saved to the internal storage can be assigned to two M/E bus buttons as still images separate from the input video.

■ *6 Keyers*

6 keyers are available in the standard configuration, and 4 keyers can select from cut, mix, wipe, and DVE transitions. The 2 DSKs enable cut and mix transitions. All keyers incorporate chroma keys using the 4:4:4 process and can perform masking with wipe patterns, edge and shadow effects, and key channel effects with assigned DVEs.

■ 16-Button Control Panel

The control panel was designed for optimal ease of operation with 16 bus buttons, direct access buttons for various functions, a 3-axis joystick, parameter display, and other controls arranged in an easy-to-use layout. A convenient touch panel controller (option) is also available.

■ 6-channel 3D DVEs

In addition to the DVEs provided for each input channel, the VPS-715 also provides 6-channel 2.5D DVEs. The addition of a 3D warp module option enables usage of Ripple, Swirl, Slats, Page Turn and a wide variety of other warp effects and a total of 12 lighting effects. The result when combined with the input DVEs will even surpass your imagination.

■ Other Features

- 4 matte generators

- USB 1.1: 1 port on operation unit for support of memory devices (up to 2GB)

- Enables saving of 100 patterns of sequences containing 31 settable key frames

- 96-event memory can be recalled using 8 pages x 12 direct buttons

- Incorporates 3-serial port for control and other operations from an editing device

- Free assignment of 8 GPI inputs and 24 tally outputs

Options

VPS-70SDI:
4-input Digital Expansion Card
Each card enables an additional 4 SD-SDI inputs. It incorporates a frame synchronizer, still store, and process amplifier functions. Up to 2 cards can be installed.

VPS-70AI:
2-Input Analog Expansion Card
Each card enables an additional 2 analog composite inputs or 1 analog composite input and 1 analog component input. It incorporates a frame synchronizer, still store, and process amplifier functions. Up to 4 cards can be installed.

VPS-70SDO:
4-output Digital Expansion Card
Each card enables an additional 4 SD-SDI outputs. It also enables free assignment of outputs. Up to 2 cards can be installed.

VPS-70AO:
2-Output Analog Expansion Card
Each card enables an additional 2 analog composite outputs, or 1 analog composite output and 1 analog component output, or 1 RGB output. It also enables free assignment of outputs. Up to 2 cards can be installed.

VPS-70DS:
Input DVE Card (Pre-combiner)
This option adds DVE functions to each input. It features a 16-channel DVE and 2-channel combiner. Up to 2 cards can be installed.

VPS-70FR:
Flash Recorder Card
A single VPS-70FR flash recorder card enables playback of video with key channel for two channels. Up to two cards can be installed (the slos are shared with the VPS-70DS, and so a total of 2 of both cards can be installed.)

VPS-70WARP:
DVE Warp Engine Function
This option adds warp effects to the installed standard DVEs that are separate from the DVEs added by the Input DVE Card

VPS-70DPUA:
Touch Panel Display Unit
This option enables touch panel control of the various functions of the VPS-715. It presents the multi-layer and multi-DVE functions in an easy to understand and easily accessible operation.

VPS-70DPUIF:
Display Interface
This is a software package for connecting an external display to the VPS-715. It is required when connecting the VPS-70DPUA Touch Panel Display.

HVS-AUX8/16/32:
8/16/32-button AUX control panel
Up to 32 inputs are manageable. Connect up to 10 units with customizable assignment for each panel.

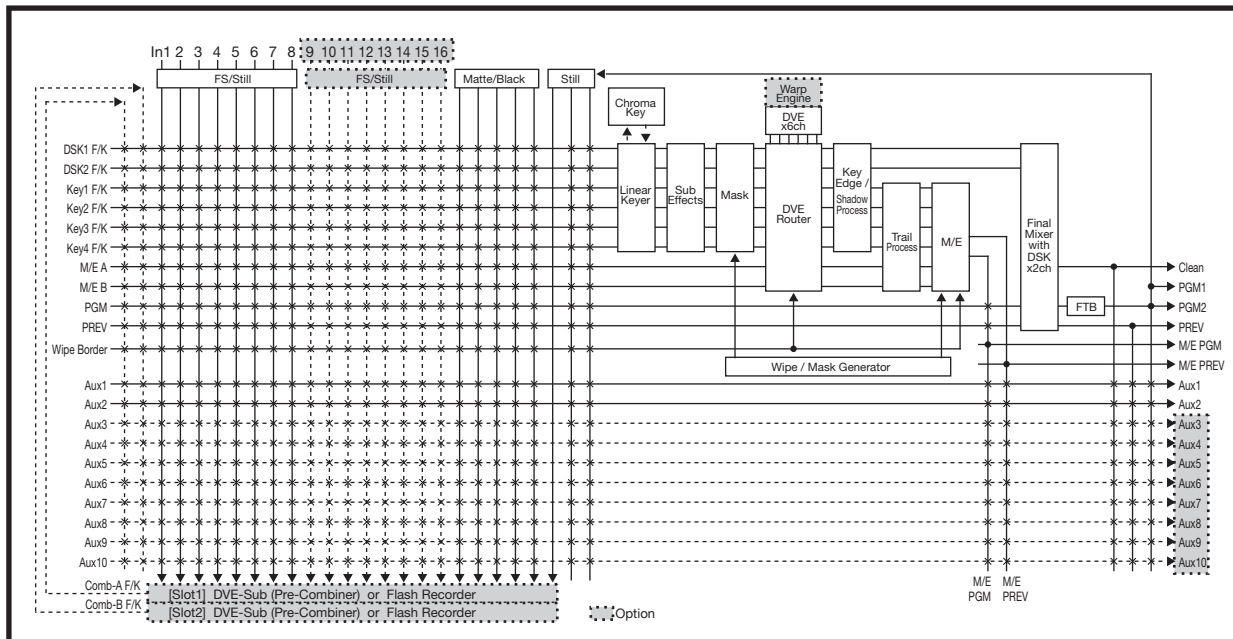### HVS-AUXRK:
AUX Panel Extension Kit
This kit enables separation and extension of the HVS-AUX8RK, HVS-AUX16 or HVS-AUX32 panel. Extension is possible up to 5 meters.

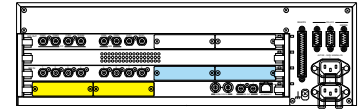VPS-70DPUA: Touch Panel Display Unit

VPS-715 control panel

■ Block Diagram

Specifications

Standard	525/60 (NTSC), 625/50 (PAL) (Selectable at menu)
Processing	4:2:2 digital component, 10-bit
Video Input	8 standard inputs, optionally expandable to 16 inputs
	Digital component: 270Mbps, 75Ω, BNC
Video Input (option)	Refer to right pattern
	SD-SDI: 270Mbps, 75Ω, BNC
	Analog component: Y: 1.0Vp-p, B-Y/R-Y: 0.7Vp-p, 75Ω, BNC
	Analog composite: 1.0Vp-p, 75Ω, BNC
Reference Input	BB: 0.429Vp-p (NTSC)/0.45Vp-p (PAL), 75Ω or Loopthrough, 1 input., BNC
Video Output	8 standard output (PGM x 2, PREV, Clean, M/E PGM, M/E PREV, AUX x 2), optionally expandable to 16 outputs
	Digital component: 270Mbps, 75Ω, BNC
Video Output (option)	Refer to right pattern
	SD-SDI: 270Mbps, 75Ω, BNC
	Analog component: Y: 1.0Vp-p, B-Y/R-Y: 0.7Vp-p, BNC
	Analog composite: 1.0Vp-p, 75Ω, BNC
	RGB: R/G/B: 1.0Vp-p, 75Ω, BNC
Reference Output	BB: 0.429Vp-p (NTSC)/0.45Vp-p (PAL), 75Ω or Loopthrough, 2 outputs, BNC
Quantization	Y: 10-bit, C: 10-bit, Key: 10-bit
I/O Delay	1H (When FS, edge/shadow and DVE not applied to output)
	Max. 4 frames
Interfaces	OU: Ethernet 10/100BASE-T, 1ea., RJ-45
	RS-422: 3ea., 9-pin D-sub (female) (one for editor)
	GPI IN/TALLY: 1ea., 37-pin D-sub (female) (8 inputs / 24 outputs)
Temperature / Humidity	5ºC - 40ºC / 30% - 90% (no condensation)
Power	100VAC - 240VAC ±10%, 50/60Hz
Consumption	Main unit: 200W
	Operation unit: 50W
Dimensions / Weight	Main unit: 430(W) x 132(H) x 425(D)mm, EIA3RU / Approx. 18kg
	Operation unit: 665(W) x 162(H) x 399(D)mm / Approx. 10kg
Accessories	Main unit: AC cords, Rack mount brackets, Redundant power supply (pre-installed)
	Operation unit: Operation manual, AC cord (Rack mount brackets are option)
Option	VPS-70SDI: 4-input digital expansion card
	VPS-70AI: 4-input analog expansion card
	VPS-70SDO: 4-output digital expansion card
	VPS-70AO: 2-output analog expansion card
	VPS-70DS: Input DVE card (pre-combiner)
	VPS-70FR: Flash Recorder card
	VPS-70WARP: DVE warp engine module
	VPS-70DPUIF: Display interface
	VPS-70DPUA: Touch panel display
	HVS-AUX8/16/32: 8/16/32-button AUX control panel
	HVS-AUXRK: AUX panel extender kit
	PC-3168-(10m): Connection cable

Notes on Input Expansion

Digital/analog input expansion slots

Expansion with one of the VPS-70SDI or VPS-70AI
- VPS-70SDI: 4 SD-SDI inputs occupies one slot
- VPS-70AI: 2 composite inputs or 1 composite + 1 component input occupies one slot
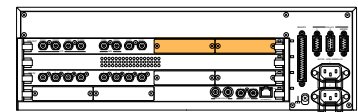
Analog input expansion slots

Expansion with the VPS-70AI only is possible.

The following combinations for the maximum expansion can be made as below.
- SD-SDI x 8 (STD) + Analog composite x 8
- SD-SDI x 8 (STD) + Analog composite x 4 + Analog component x 4
- SD-SDI x 8 (STD) + SD-SDI x 4 + Analog composite x 2 + Analog component x 2
- SD-SDI x 8 (STD) + SD-SDI x 8

*Expansion allows up to 16 inputs. Therefore, if two VPS-70SDI cards are added, the VPS-70AI cannot be added.

Notes on Output Expansion

Digital/analog output expansion slots

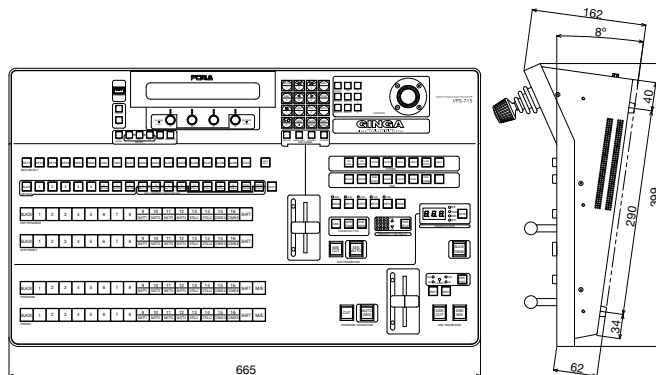Expansion with one of the VPS-70SDO or VPS-70AO
- VPS-70SDO: 4 SD-SDI outputs occupies one slot
- VPS-70AO: 2 composite outputs, or 1 composite + 1 component, or 1 composite + 1 RGB/SYNC output occupies one slot

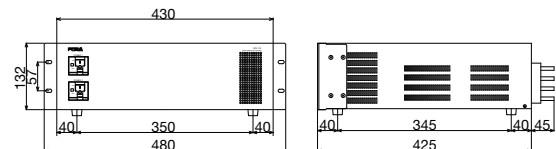The following combinations for the maximum expansion can be made as below.
- SD-SDI x 8 (STD) + Analog composite x 4
- SD-SDI x 8 (STD) + Analog composite x 2 + Analog component x 2
- SD-SDI x 8 (STD) + Analog composite x 2 + RGB/SYNC x 2
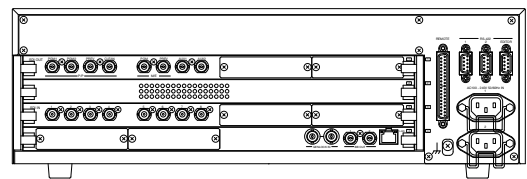- SD-SDI x 8 (STD) + SD-SDI x 8

External Dimensions

Operation Unit: External Dimensions

Main Unit: External Dimensions

Main Unit: Rear Panel