



vista

SDI mix/wipe processor

user manual

Table of Contents

1 System Overview	4
1.1 The vista Product	4
1.2 Applications for the vista	4
1.3 Included Equipment for the vista	5
1.3.1 Chassis	5
1.3.2 Control Surface	6
1.4 Optional Equipment for the vista	6
2 Installation	8
2.1 Installation of the vista product	8
3 Operation	10
3.1 VP-10 Control of the vista	10
3.1.1 Transition Type	10
3.1.2 Manual Transition	10
3.1.3 Automatic Transition	10
3.2 Menu Control of the vista (optional)	10
3.3 Operational Menus for the vista	11
4 Technical Appendix	21
4.1 Technical Specification for the vista	21

Table of Figures

Figure 1-1 vista configured with a router to provide expanded inputs	5
Figure 1-2 vista maxiBox chassis	5
Figure 1-3 VP-10 T-Bar control surface.....	6
Figure 1-4 flexiPanel (FP-9)	7
Figure 1-5 deskPanel (FP-10) show with vista VP-10 control panel.....	7
Figure 2-1 I-Bus Connections & Termination	8
Figure 2-2 vista Connections.....	9

I System Overview

This manual describes the function of the vista. This unit is a broadcast quality standard definition 2 input mix/wipe with Program and Preview outputs with full 10 bit processing.

I.1 The vista Product

The vista is an A/B (2-Input) SDI Mixer/Wipe/Cut unit that will output a variety of transitions commonly used in transmission and post-production. The main features are as follows:

- A/B Mix transitions
- A/B Wipe transitions with up to 8 wipe patterns and soft borders
- A/B Cut Transitions
- Programmable (Auto) or manual transitions
- Preview Output with safe area generator built in
- Up to +/-18uS user definable synchronisation window for A/B Inputs
- Transparent to all embedded signals
- Automation controllable
- CRC re-insertion
- 6 user memories.

I.2 Applications for the vista

Applications for the vista include the following:

- Small Presentation systems
- Telecine suites, grading wipes
- Offline duplication suites, top and tailing
- A/B Split screen

The vista will be used in a situation where any A/B mix or wipe transitions are used. Normally the A and B inputs will be fed from a routing switcher to obtain the maximum functionality.

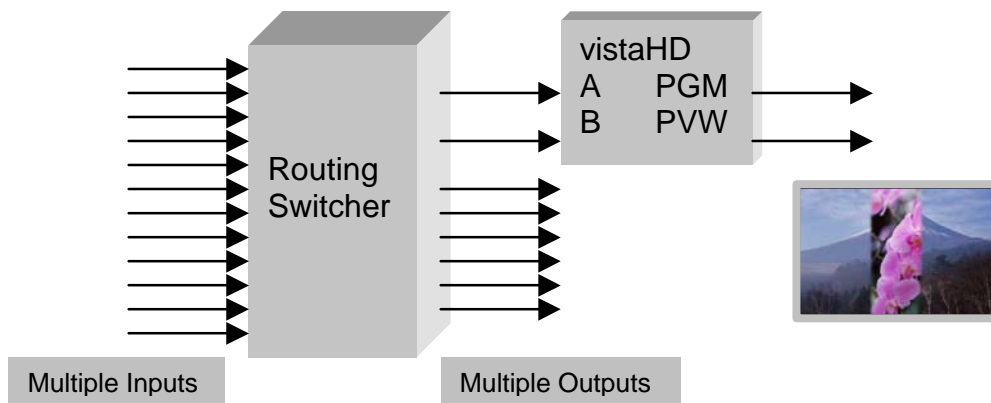


Figure 1-1 vista configured with a router to provide expanded inputs

I.3 Included Equipment for the vista

The vista is a complete system and comes preinstalled and configured.

I.3.1 Chassis

The 1RU chassis is called a maxiBox this holds the vista processing module.



Figure 1-2 vista maxiBox chassis

I.3.2 Control Surface

The vista comes configured to operate directly from a simple VP-10 T-Bar control surface.

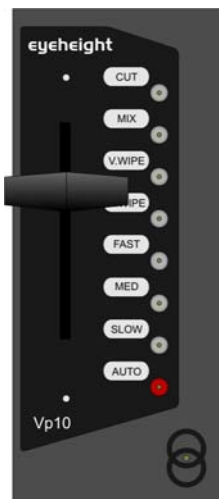


Figure 1-3 VP-10 T-Bar control surface

This surface provides easy button access to the standard operating modes of the vista.

The buttons on the VP-10 are assigned as follows:-

1. CUT
2. MIX
3. H. WIPE
4. V. WIPE
5. FAST
6. MED
7. SLOW
8. AUTO

The T-Bar handle provides manual control of the transition.

I.4 Optional Equipment for the vista

While the vista is designed to offer a complete system it is also possible to extend the functionality through the addition of further modules. The available modules are:-

- A 1RU control surface that fits on the Front of a maxiBox. This is called a flexiPanel (Order code FP-9) and provides access to the control and configuration menus as detailed in section 3.

- A desk mounting control surface (Order code FP-10). This is a 4RU version of the FP-9 above designed to be desk mounted and is mechanically compatible with the vista VP-10 control panel.
- An additional processing unit and VP-10 control surface (Order code vista-HD-CH2) to expand the vista to provide a second independent mix/wipe channel.



Figure 1-4 flexiPanel (FP-9)



Figure 1-5 deskPanel (FP-10) show with vista VP-10 control panel

2 Installation

2.1 Installation of the vista product

The unit is already pre-installed in a maxiBox (MX-9) with a T-bar manual transition/control unit (VP-10). The VP-10 is used to control the vista and is mounted remotely from the MX-9.

There is an option to add a flexiPanel (FP-9) or Desktop Panel (FP-10) for access to additional features. This option means the vista may be operated using a FP-9 flexiPanel locally mounted. For a more operational environment the vista may be supplied with a desk mounting FP-10 unit along with the standard VP-10 Desk mounting Video T-Bar. For detailed information on connecting remote panels refer to the section "Connection of Remote Panels to a flexiBox" in the GeNETics Hardware Installation Guide.

Below is shown a typical system consisting of a vista in a flexiBox controlled by an FP-10 and a VP-10.

maxiBox rear



**

Connect Pins 1,2,4,7,9 from chassis to panels (1:1). Use twisted pair AES Digital Audio cable for pins 2 and 7. Pins 1,4,9 carry power 0.5 Amp, 13V. Use cable with a least a 1 amp rating for pins 1,4,9. Cable length should not exceed 250m.



Optional FP-9 or FP10



I-Bus pins 2 & 7

** The I-BUS Network requires terminating with 100 Ohms at each extreme end of the network. Ensure that this is done either by an external 100 ohm resistor OR ONE Panel/Product at each end has the termination set. See the "Genetics User Guide" Under the sections "Flexipanel Power/I-BUS Jumpers". For the 4RU Panels see "4RU Panel (FP-10) Jumpers for I-BUS" and "4RU Panel (VP-10, SW-10, AP-10) Jumpers for I-BUS". Alternatively The termination can be set on a Product (ie the MW-2 module). Information about this is given in this manual.

Figure 2-1 I-Bus Connections & Termination

A diagram of the vista I/O connector is shown below.

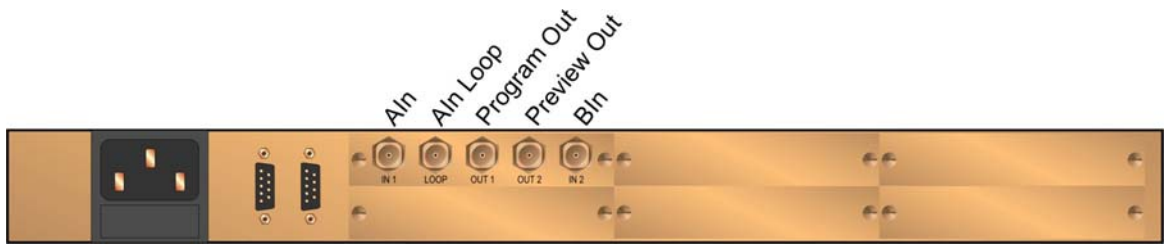


Figure 2-2 vista Connections

3 Operation

3.1 VP-10 Control of the vista

The simplest way to control the vista is via the VP-10 T-Bar control surface provided as part of your vista system. The vista transition can be controlled either manually, using the T-Bar, or by using an automatic transition.

3.1.1 Transition Type

The vista is capable of four types of transition, CUT, MIX, HORIZONTAL WIPE, VERTICAL WIPE and the type of transition is selected using the top four buttons on the VP-10. Once a transition type has been selected that type is applied to both manual and automatic transitions. To change the transition type press the corresponding button. Changes to the transition type are disabled while a transition is in progress. This applies to manual and automatic transitions.

3.1.2 Manual Transition

Manual transitions are controlled using the T-Bar. CUT transitions occur at the end of the T-Bar transition. The LED's at either end of the T-Bar light to indicate that the T-Bar is parked at that end i.e. the transition is complete. Both LED's flash to indicate that a manual transition is in progress.

3.1.3 Automatic Transition

Automatic transitions are controlled by the bottom four buttons on the VP-10. FAST, MED, SLOW set the transition time for the automatic transition to 50, 25 and 12 fields respectively. Transition time has no effect on a CUT transition. The bottom button (AUTO) starts the selected transition or in the case of a CUT transition causes the mixer to CUT immediately.

3.2 Menu Control of the vista (optional)

When an optional FP-9 or FP10 control panel is added to the vista system it is possible to control all aspects of the units operation. The 1RU flexiPanel (FP-9) and the 4RU flexiPanel (FP-10) have identical manual control ability. (The FP-10 is simply a desktop version of the FP-9).

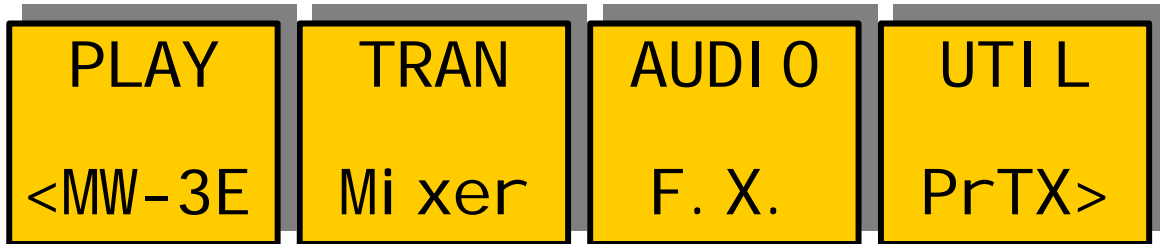
When used with a FP-9 or FP-10 the vista is, as are all genetics modules, controlled using a set of **menus**. Each of these menus contains up to 3 parameters that are adjusted using the rotary 'digipots'. The Menus define all of the adjustable operational parameters in the vista. Pressing the rotary 'digipots' brings the parameter to its default value. Device selection is done using the device select switches which, when pressed, will offer the name of the device in the LCD Window. Modules can be acquired and then de-acquired using the set-up switch. For a full description of the operation philosophy of the GeNETics system refer to the "geNETics User Guide" (section "Operation of the FlexiPanel")

A full list of the Menus and their functions are given in the following section

3.3 Operational Menus for the vista

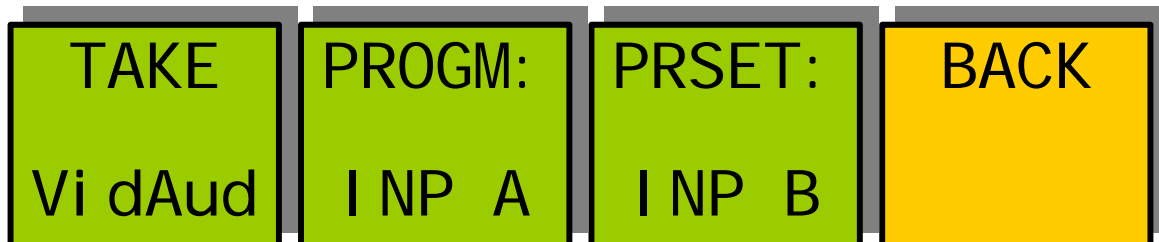
The vista uses the same menus as the MW-3E and iris products. These products support embedded audio mixing. As the vista does not support embedded audio all audio menus should be ignored.

Menus 00-03 Top Level Menus



Menu Num.	Heading	Automation	Function
00	PLAY	none	Go To the main Play menus (4-7)
01	TRAN	none	Go To the main Video menus (8-23)
02	AUDIO	none	Go To the main Audio menus (24-31)
03	UTIL	none	Go To the main Utility menus (32-63)

Menus 04-07 PLAY Menu



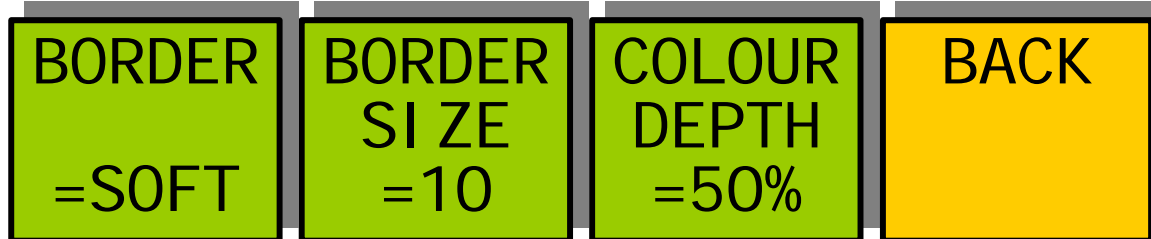
Menu Num.	Heading	Automation	Function
04	TAKE	1=take B 2=take A	This Causes the Auto Transition to occur.
05	PROGM	0=In A 1=In B 2=Matte 3=Black	This Shows the currently selected "On-air" Source. A,B matte or black (matte and black are internal sources)
06	PRSET	0=In A 1=In B 2=Matte 3=Black	This Shows the Next selected "On-air" Source. A,B matte or black (matte and black are internal sources)
07	BACK	none	Go To the Top Level Menus

Menus 08-11 VIDEO Transition Set-up Menus (NEXT for more)



Menu Num.	Heading	Automation	Function
08	TRANS	0=Mix 1=Wipe 2=Cut 3=Cut-Cut 4=Cut-Fade 5=Fade-Cut 6=Fade-Fade	This sets the transition type between Mix, Wipe and Cut and “U” and “V” fade types. “U” and “V” fades Transition to either “Black” or “Matte” and then “Hold” for a period before then transitioning to the Preset Source.
09	TIME	Menu Level “A” 1-200 Menu Level “B” 1-200	Press this button and the two digipots indicated by the lit LED’s will change the transition time (in fields - Tr) and the Hold time (in fields – Hd). The Hold time is the time that the “U” and “V” fades stay on Black (Or Matte).
10	WIPE (Pattern)	0=Vertical 1=Horiz 2=Vert Curtain 3=Horiz Curtain 4=Diagonal 5=Diamond 6=Arrow Left 7=Arrow Up	This shows a representation of the shape of the currently selected Wipe Transition.
11	BACK	none	Go To the Top Level Menus

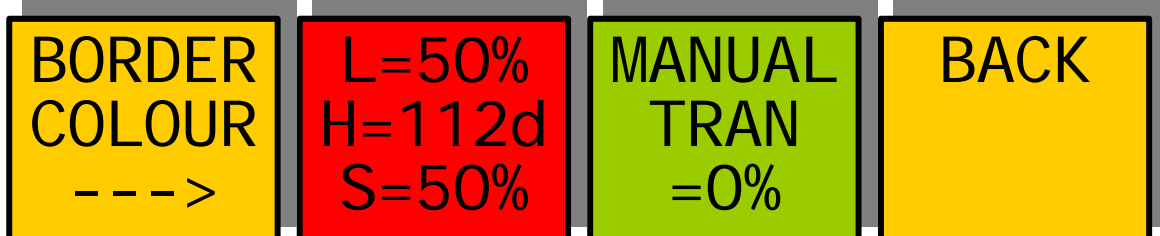
Menus 12-15 VIDEO Transition Set-up Menus (NEXT/PREV to navigate)



Menu Num.	Heading	Automation	Function
12	BORDER	0=Off 1=Soft 2=Colour 3=Soft&Col	This selects the Type of Border on the Wipe edge between; No Border, Soft, Coloured and Soft and coloured.
13	BORDER SIZE	1-49	This sets up the Wipe Border Size between “1” (min) and “49”, (max)

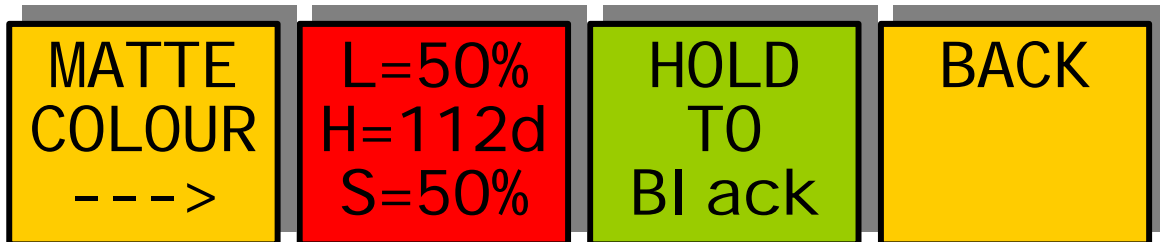
14	COLOUR DEPTH	0-511	This represents the amount of colour in the border when the "Soft and coloured" border option is selected. (0-100%)
15	BACK	none	Go To the Top Level Menus

Menus 16-19 VIDEO Transition Set-up Menus (NEXT/PREV to navigate)



Menu Num.	Heading	Automation	Function
16	BORDER COLOUR	NONE	Points to adjacent menu for information only.
17	L= H= S=	Menu Level "A" 0-255 (L) Menu Level "B" 0-255 (H) Menu Level "C" 0-255 (S)	Press this button and the three digipots indicated by the lit LED's will change the Luma, Hue and Saturation of the border colour.
18	MANUAL TRAN	0-799	This will manually move the Transition point between PGM and PST. (0-100%)
19	BACK	none	Go To the Top Level Menus

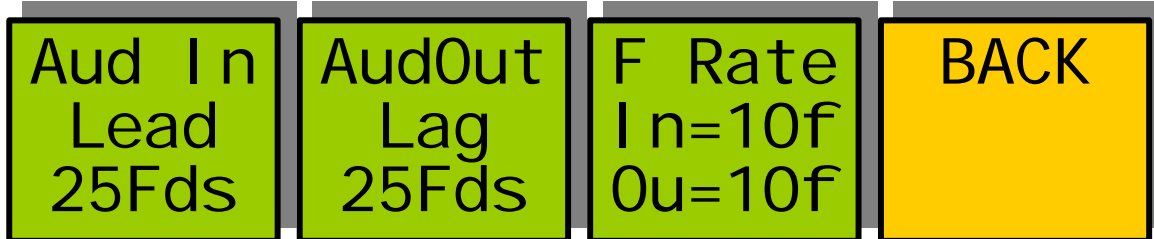
Menus 20-23 VIDEO Transition Set-up Menus (PREV for less)



Menu Num.	Heading	Automation	Function
20	MATTE COLOUR	none	Points to adjacent menu for information only.
21	L= H= S=	Menu Level "A" 0-255 (L) Menu Level "B" 0-255 (H) Menu Level "C" 0-255 (S)	Press this button and the three digipots indicated by the lit LED's will change the Luma, Hue and Saturation of the Matte colour.
22	Hold To	0=Black 1=Matte	This is the "Intermediate" source for

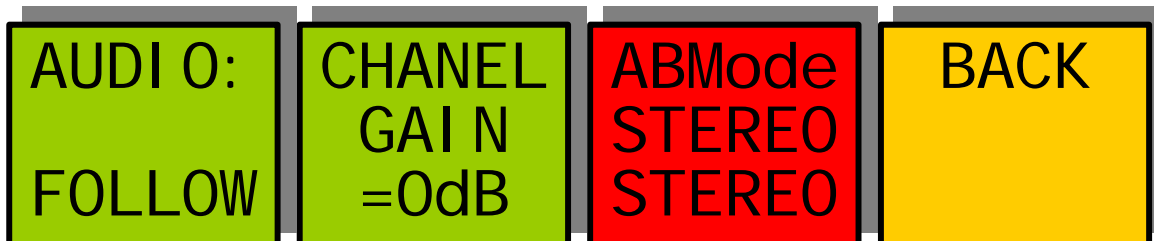
			the "U" and "V" Fades
23	BACK	none	Go To the Top Level Menus

Menus 24-27 Audio Set-up Menus (MW-3E/iris only) (NEXT for more)



Menu Num.	Heading	Automation	Function
24	Audio In Lead/Lag	-999→+999 fields	Changing this value will cause the next "IN" audio to either Lead or Lag the Video Transition by the set number of fields.
25	Audio Out Lead/Lag	-999→+999 fields	Changing this value will cause the next "OUT" audio to either Lead or Lag the Video Transition by the set number of fields.
26	Fade Rate	0→250 fields	Press this button and the two digipots indicated by the lit LED's will change the "In" and "Out" Fade rate for the Incoming and Outgoing Audio.
27	BACK	none	Go To the Top Level Menus

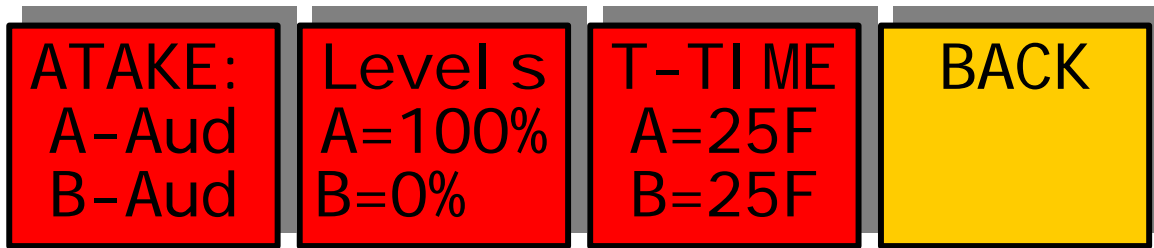
Menus 28-31 AUDIO Set-up Menus (MW-3E/iris only)(NEXT/PREV to navigate)



Menu Num.	Heading	Automation	Function
28	AUDIO:	0=Follow 1=Seperate	If this is set to "Follow", the embedded audio mixing will follow the video mixing. If this is set to "Separate" the embedded audio is controlled by the transitions in next 4 menus only. Separate mode is used by Automation systems only to achieve split

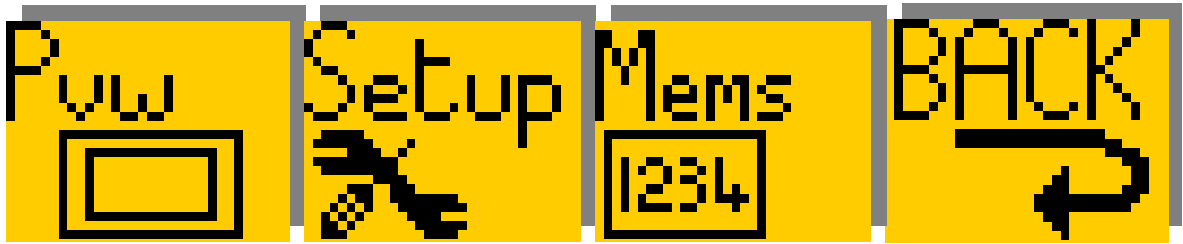
			video/audio transitions.
29	CHANEL GAIN	0=-12dB 1=-6dB 2=0dB 3=+6dB 4=+12dB 5=+18dB	This sets the overall gain on the Embedded Audio. This applies only for the MW-3E Module, which incorporates embedded audio mixing.
30	ABmode	0=Stereo 1=L<>R 2=L→LR 3=R→LR 4=Mono	Press this button and the two digipots indicated by the respective LED's will cause modification to the A and B embedded audio as follows: Stereo (No change) Left and Right Swapped Left to both Left and Right Right to both Left and Right Mono
31	BACK	none	Go To the Top Level Menus

Menus 32-35 AUDIO Set-up Menus (MW-3E/iris Automation only)(PREV for less)



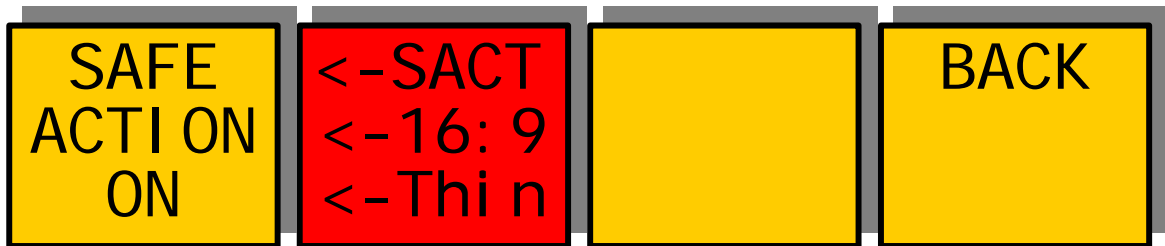
Menu Num.	Heading	Automation	Function
32	ATAKE:	Menu Level "A" 1=Take "A" Aud. Menu Level "B" 1=Take "B" Aud.	This menu is for Automation systems use only. This will start the A and B Embedded audio transition set by the next menus.
33	Levels	Menu Level "A" 0-1023 Menu Level "B" 0-1023	This sets the next audio level which will be achieved at the end of the transition started in the previous menu.
34	T-Time	Menu Level "A" 1-200 Menu Level "B" 1-200	This sets the transition time in video fields from the current audio level to the next audio level.
35	BACK	none	Go To the Top Level Menus

Menus 36-39 Utility Menu Nested Menu



Menu Num.	Heading	Automation	Function
36	Preview	none	Go To preview output menus (40-43)
37	Set-up	none	Go To system set-up menus (44-47)
38	Memories	none	Go To memory menus (48-51)
39	Back	none	Go To the main Utility menus (0-3)

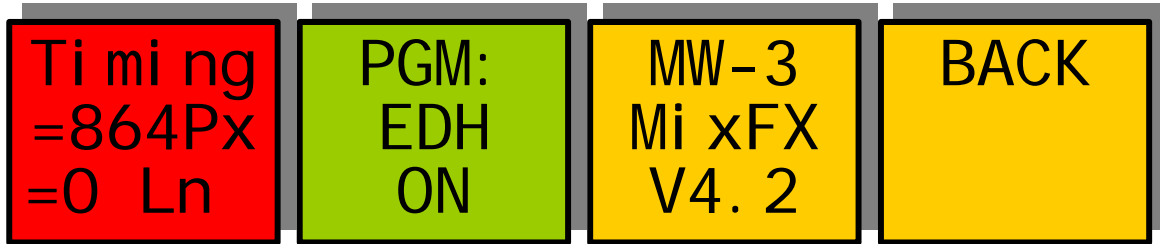
Menus 40-43 Utility Menu: Safe Area Gen



Menu Num.	Heading	Automation	Function
40	SAFE ACTION	None	This Switches on and off the currently selected area. Pressing the "Red" switch next to this one and adjusting the rotary digipots with the lighted green LED's chooses the Selected area.
41	None	<p>Menu Level "A"</p> <p>0=S.Action 1=S.Capt. 2=DigEdge 3=An Edge</p> <p>Menu Level "B"</p>	<p>When this button is pressed to "Green". The Three-line display in the window indicates the three options, which can be changed by adjusting the three rotary digipots A, B and C.</p> <p><u>Digipot A</u> Determines the basic Function Selects "Safe Action" option Selects "Safe Caption" option Selects "Digital Edge" option Selects the "An. Edge" option</p> <p><u>Digipot B</u> Determines the Screen Format</p>

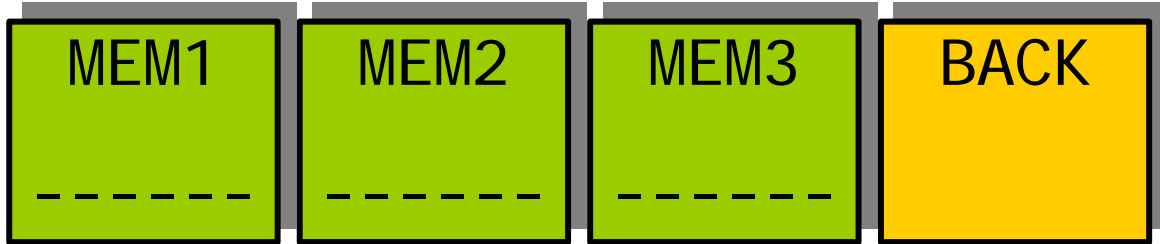
		Level "B" 0=4:3 1=16:9 2=16p4:3 3=16p149 4=43p16:9 Menu Level "C" 0=Thin 1=Thick 2=Shade 3=Black	Standard 4:3 Screen Standard 16:9 Screen 16:9 Shoot to protect 4:3 16:9 Shoot to protect 14:9 (*) 4:3 Shoot to protect 16:9 (*) (*) -- Not available in 525 <u>Digipot C</u> Determines the Style of Indicate Thin White lines are used Thick White lines are used Shade is used for "danger area" Black is used for "danger area"
42			
43	BACK	none	Go To the Top Level Menus

Menus 44-47 Utility Menus: Timing, EDH and S/W version



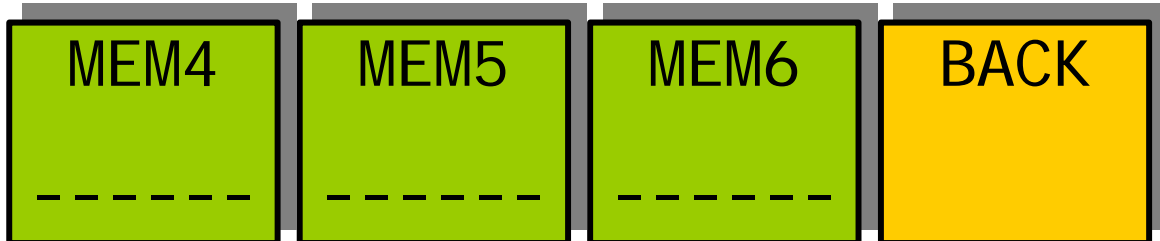
Menu Num.	Heading	Automation	Function
44	Timing	Menu Level "A" 0-1439 Menu Level "B" 0-624	Press this button and the two digipots indicated by the respective LED's will cause modification to the Pixel Timing (37nS per step) and Line Timing (64uS per step)
45	PGM:	0=EDH Off 1=EDH On	Re-insert EDH Control (Off/On)
46	Software	none	Shows the software version
47	BACK	none	Go To the Top Level Menus

Menus 48-51 Utility Menus: Memories (NEXT for more)



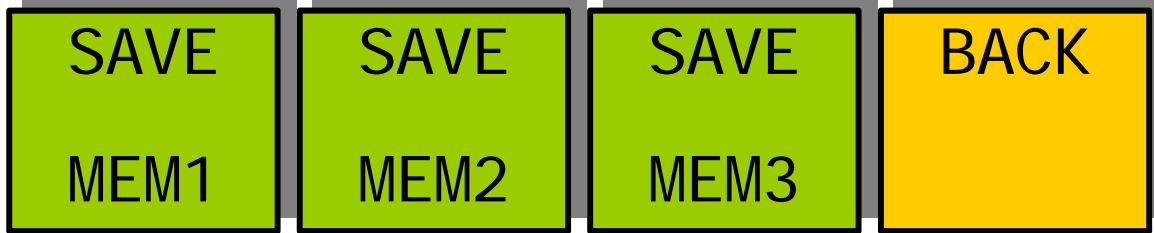
Menu Num.	Heading	Automation	Function
48	MEM1	1=Recall	Pressing this will recall Memory number 1. User Names can be programmed in to the memories using a keyboard. See “geNETics User guide”, section “Giving product Memories names”
49	MEM2	1=Recall	Pressing this will recall Memory number 2.
50	MEM3	1=Recall	Pressing this will recall Memory number 3.
51	BACK	none	Go To the Top Level Menus

Menus 52-55 Utility Menus: Memories (NEXT/PREV to navigate)



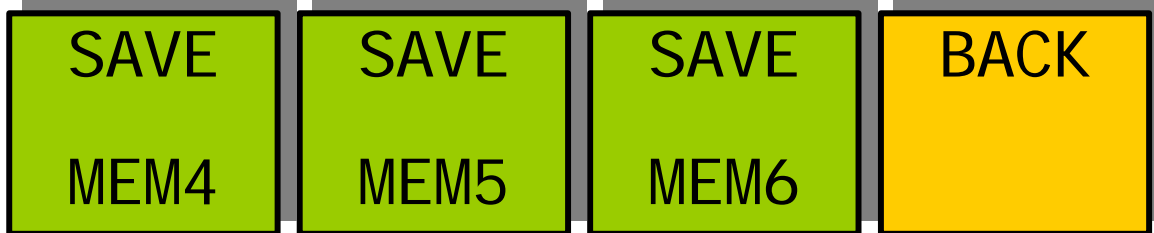
Menu Num.	Heading	Automation	Function
52	MEM4	1=Recall	Pressing this will recall Memory number 4.
53	MEM5	1=Recall	Pressing this will recall Memory number 5.
54	MEM6	1=Recall	Pressing this will recall Memory number 6.
55	BACK	none	Go To the Top Level Menus

Menus 56-59 Utility Menus: Memories (NEXT/PREV to navigate)



Menu Num.	Heading	Automation	Function
56	SAVE MEM1	1=Save	Pressing this will Save Memory number 1.
57	SAVE MEM2	1= Save	Pressing this will Save Memory number 2.
58	SAVE MEM3	1= Save	Pressing this will Save Memory number 3.
59	BACK	none	Go To the Top Level Menus

Menus 60-63 Utility Menus: Memories (NEXT/PREV to navigate)



Menu Num.	Heading	Automation	Function
60	SAVE MEM4	1= Save	Pressing this will Save Memory number 4.
61	SAVE MEM5	1= Save	Pressing this will Save Memory number 5.
62	SAVE MEM6	1= Save	Pressing this will Save Memory number 6.
63	BACK	none	Go To the Top Level Menus

Menus 64-67 Utility Menus: Memories (PREV for less)



Menu Num.	Heading	Automation	Function
64	Set As Pow On Memory	1=Set	Pressing this will set the current system set-up as the Power on memory default.
65	Recall Pow On Memory	1=Recall	Pressing this will recall The Power-on memory set up in the last menu.
66	Total Reset	1=Reset	Pressing this will cause a first Birthday of the unit. All current memories and settings will be lost.
67	BACK	none	Go To the Top Level Menu

Menus 64-67 Utility Menus: Memories (PREV for less)



Menu Num.	Heading	Automation	Function
64	Set As Pow On Memory	1=Set	Pressing this will set the current system set-up as the Power on memory default.
65	Recall Pow On Memory	1=Recall	Pressing this will recall The Power-on memory set up in the last menu.
66	Total Reset	1=Reset	Pressing this will cause a first Birthday of the unit. All current memories and settings will be lost.
67	BACK	none	Go To the Top Level Menu

4 Technical Appendix

4.1 Technical Specification for the vista

Number of Inputs	2
Type of Inputs	270Mbit Serial Digital Video Inputs 75 Ohm
Line Length	At least 200m PSF-1/3
Number of Outputs	3 Output BNC's
Type Of Outputs	270 Mbit Serial Digital Video Outputs, 75 Ohm, 800mV
Total Number Of BNC Connections	5, consisting of 2 Fixed Input and 3 outputs (1 active loop thru)
Current Consumption	<1A at 240Vac