



eyeheight



FP-9c

canalettoCP colour panel

user manual

Table of Contents

1 System Overview	4
2 Installation	5
2.1 The I-Bus (Sometimes called the can-bus)	5
2.1.1 I-Bus pin-out.	5
2.1.2 What cable do I use?	5
2.1.3 Must I terminate the network?.....	5
2.1.4 How do I cable I-bus items together?.....	5
2.1.5 What are the other pins on the 9 way D-type for?.....	5
2.2 Connections to a canalettoCP colour control panel	6
2.3 Associated Equipment for the canalettoCP control panel	6
3 Control Panel	7
4 Operation	9
4.1 CanalettoCP colour control panel set-up menus.....	9
4.2 Operational Menus.....	14

Table of Figures

Figure 1 – Typical Connection Diagram	6
Figure 2 - canaletto Colour Control Panel	8

I System Overview

This manual describes the function of the canalettoCP colour panel (FP-9c). The canalettoCP colour panel is designed to provide a simple, intuitive method of controlling the canalettoCP colour correction system. It gives individual, colour coded control of R, G, and B Gain, lifts and Gamma thus enabling the user to make full use of the colour correction.

- Simple individual control of RGB gain, lift and master gamma.
- Overall luma and chroma gain.
- Overall hue correction.
- Adjustable legalisation levels.
- 6 user memories.

2 Installation

2.1 The I-Bus (Sometimes called the can-bus)

ALL eyeheight systems are linked together using a control network called the I-BUS. This is a hub-less 2-wire network. Every eyeheight item **MUST** be connected to this 2-wire network for them to communicate with each other. The I-Bus connection is on a 9-way D-Type connector, usually male.

2.1.1 I-Bus pin-out.

The I-bus pin-out is as follows:

Pin 1 and 5	Ground 0V
Pin 2	I-Bus-
Pin 7	I-Bus+

Table 1 Basic I-Bus pin-out on a 9-way D-type connector.

2.1.2 What cable do I use?

The very best cable to use is the same cable you would use for cabling AES-2 digital audio (digital audio twisted pair). We find that this makes a very robust network, which will work reliably at distances up to 250meters. You can use a CAT-5E pair but this will only work up to 50meters. The Shield for the pair should be connected to ground.

2.1.3 Must I terminate the network?

The answer to this is **YES** the network **MUST** be terminated for reliable operation. Both ends of your cable must be terminated each with a 100ohm resistor.

2.1.4 How do I cable I-bus items together?

The best way is to loop a single cable from the first item to the next and so on until the last item is cabled. This results in a single run with no "spurs" meaning the two ends of the cable are clearly identifiable as the place to put the termination resistors. Avoid "Star" type of cabling.

2.1.5 What are the other pins on the 9 way D-type for?

The other pins are for remote power. The pin-out is given below

Pin 1,5	Ground 0V
Pin 4,9	Remote Power (+13V 1 Amp)

Table 2 - Power pins on the I-bus connector.

2.2 Connections to a canalettoCP colour control panel

The diagram below shows the typical connections to the fp-9c.
The cable connecting the fp-9c

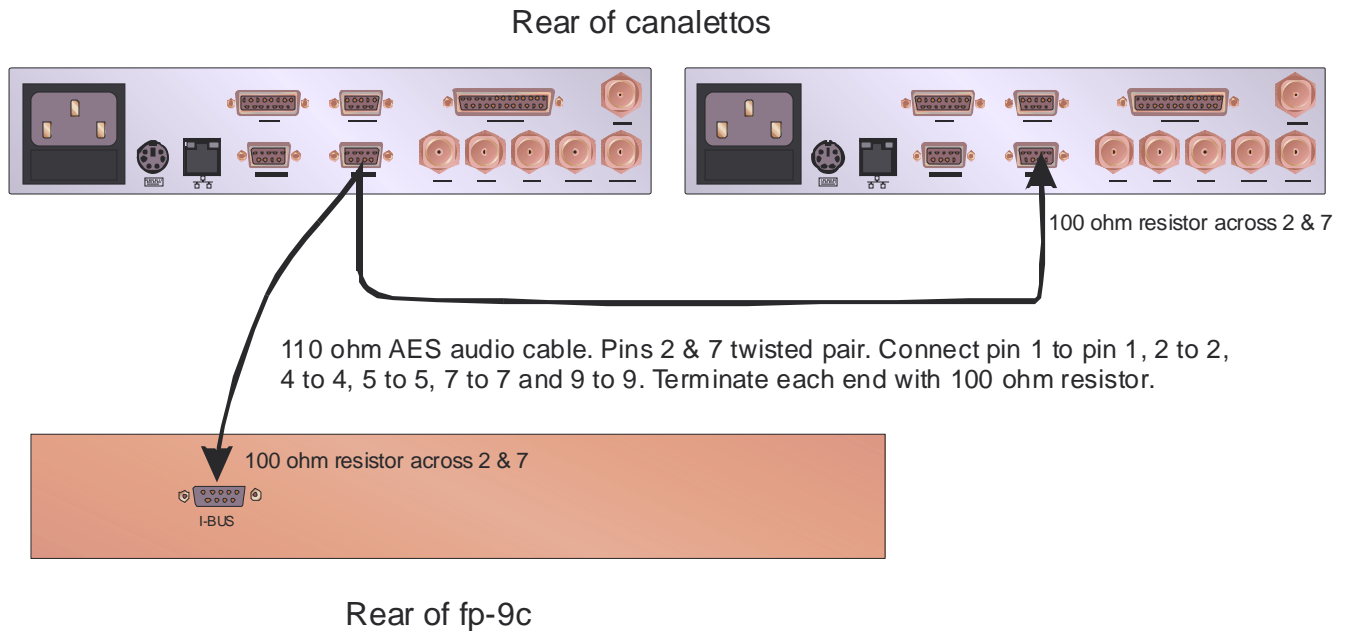


Figure 1 – Typical Connection Diagram

2.3 Associated Equipment for the canalettoCP control panel

The colour control panel can control one selected canalettoCP from up to sixteen (16) canalettoCP colour correctors connected on the I-Bus. It will only find, and work with the canalettoCP, it will not find or work with non-CP versions of canalettos. It will work with SD, HD or MD versions of the canalettoCPs.

3 Control Panel

Figure 2 shows the canalettoCP colour control panel.

1 – Gain Button

Pressing this button selects the Red, Green, Blue and Luma Gain menus.

2 – Lift Button

Pressing this button selects the Red, Green Blue Grade lift and Luma lift menus.

3 - Gamma Button

Pressing this button selects the Red, Green , Blue and Master Gamma menus.

4 – Utilities Button

Pressing this button selects the top level of the Utility menus.

5 – Memories

Pressing this button selects the Memory menus. Repeatedly depressing this button steps through the Memory menus.

6 – Setup

Pressing this button puts the panel into Setup mode. Press the “EXIT” menu button to exit back to the last selected menu set.

7 – R Control

Turning this alters the value selected in the “R” menu window. Pressing it in will reset the current value to the default value

8 – G Control

Turning this alters the value selected in the “G” menu window. Pressing it in will reset the current value to the default value

9 – B Control

Turning this alters the value selected in the “B” menu window. Pressing it in will reset the current value to the default value

10 – M Control

Turning this alters the value selected in the “Master” menu window. Pressing it in will reset the current value to the default value

11 – R, G, B and Master Menus

These display the Red, Green, Blue and Master values. Pressing these menu buttons when the Utilities menus or Memory menus are displayed selects the displayed action. When the Gain, Lift or Gamma menus are displayed, pressing these menu buttons will alter the displayed value in the same way as turning the R, G, B or Master controls.



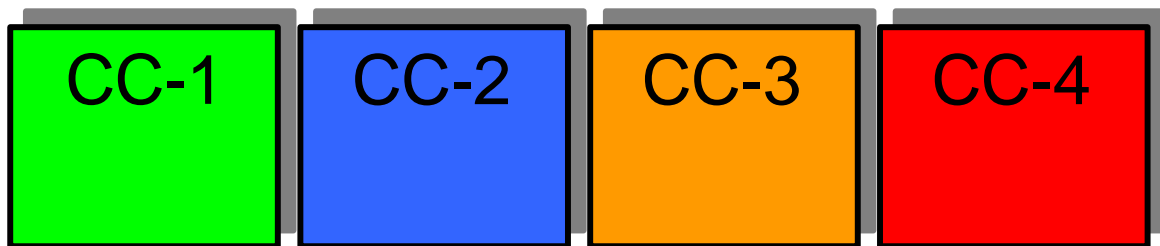
Figure 2 - canaletto Colour Control Panel

4 Operation

4.1 CanalettoCP colour control panel set-up menus

Pressing the Setup Button will select the Setup menus.

Pressing Setup **again at ANY point** will take you back to the operation of your currently selected colour corrector.

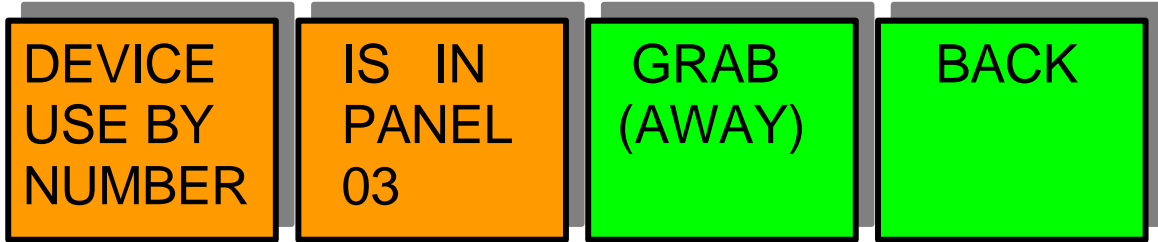


The above is a possible representation of what will be displayed when the SET-UP button is first pressed. The user is invited to press buttons CC-1 to CC-4. These will select the appropriate colour corrector 10→4. The Colour of the button has a very specific meaning. These are the possibilities:

GREEN - This means that colour corrector number 1 (CC-1) is selected currently to THIS panel. Pressing SET-UP or THIS button will return to operating this colour corrector. If the user Presses AND KEEPS PRESSED a green button (like CC-1) then the button will turn BLUE. This indicates that the user has now freed the colour corrector for use at another panel.

BLUE - This means that this colour corrector is currently FREE and available for acquisition by this panel. Pressing this button in the above situation will change from the operation of CC-1 to CC-2.

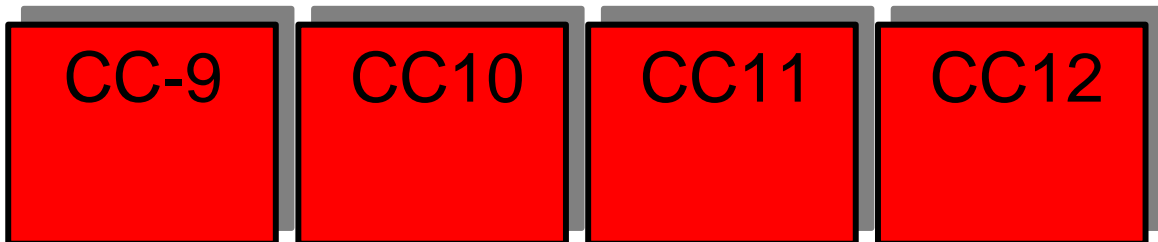
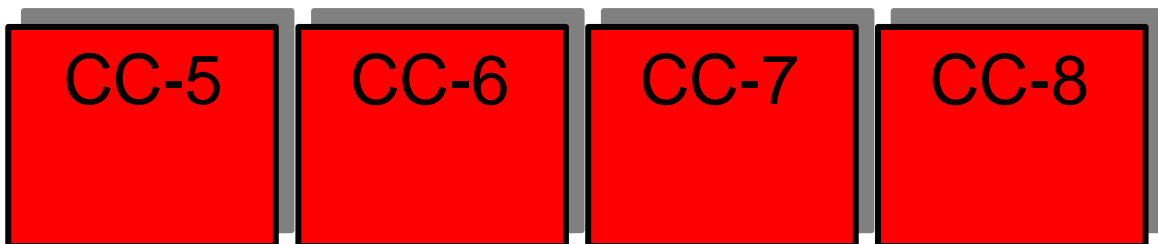
ORANGE - This means that this colour corrector (CC-3) is currently in use by another panel. You can still press this and you will be invited to choose the following options:

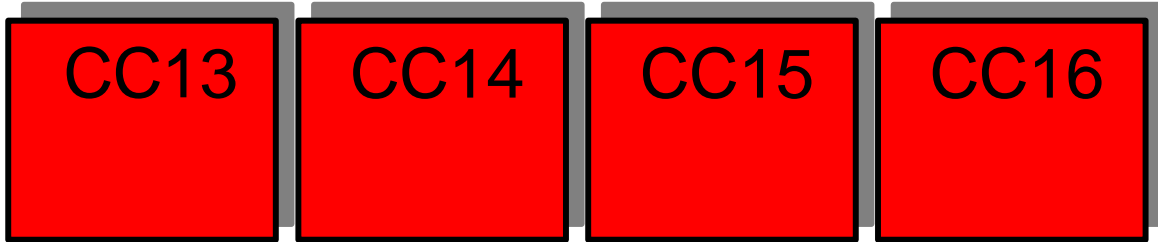


The user may grab the colour corrector away from the previous user. The previous user will then LOSE control of their colour corrector and will need to acquire a new one using SET-UP.

RED - This means that this colour corrector (CC-4) does not exist and cannot be acquired.

FURTHER COLOUR CORRECTORS - By rotating the “**R**” rotary control, further colour correctors can be accessed. Up to 16 can be accessed this way. Unless you have a large multi channel Canaletto system, most of these will be unavailable, (red).





FURTHER MAINTAINANCE UTILITIES - By rotating the “**R**” rotary control one step further takes the user to the maintenance facilities. These are as follows:



MAINTAIN CC SYSTEM – Pressing this LCD button will begin a system scan which will search for all the colour correctors connected to your system. Typically this will come up with the following:



Meaning that CC-1 has been found. You may then, **Rotate the “G” control** to change this colour corrector channel number from 1→16. This may turn **RED**, if there is already a colour corrector with this channel number. While this unit is found, **the LED on the front of the colour corrector evolution chassis will flash Orange**. This identifies the chassis that the panel has found.

NOTE: If the colour correction units are **CC-2cp** units these are not capable of being re-allocated to different CC numbers. These units are automatically allocated as follows:

If the units are in Box #1 (chassis #1) then:

Slot1 = CC-1

Slot2 = CC-2

Slot3 = CC-3

Slot4 = CC-4

Slot5 = CC-5

Slot6 = CC-6

If the units are in Box #2 (chassis #2) then:

Slot1 = CC-7

Slot2 = CC-8

Slot3 = CC-9

Slot4 = CC-10

Slot5 = CC-11

Slot6 = CC-12

If the units are in Box #3 (chassis #3) then:

Slot1 = CC-13

Slot2 = CC-14

Slot3 = CC-15

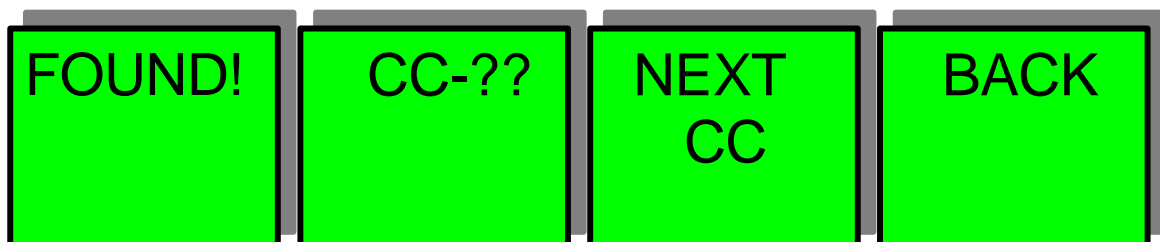
Slot4 = CC-16

You cannot change the allocation except by physically moving the card into a different slot in the chassis.

NEXT – Pressing this will look for the next available colour corrector, and so on.

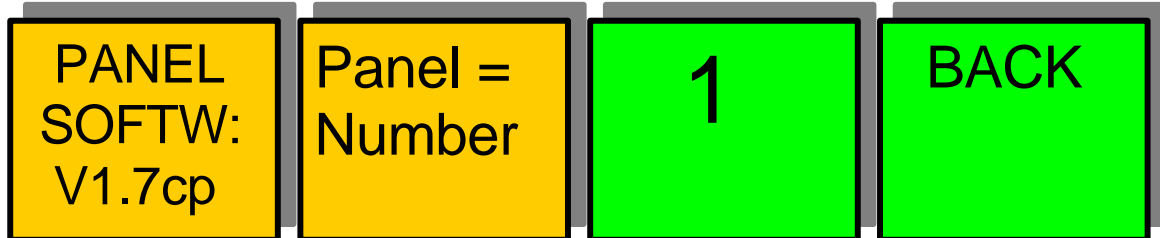
BACK – Pressing this will take you back to the system configuration area menu.

NOTE FOR NEW COLOUR CORRECTORS – New colour correctors may be delivered as CC-16 or in some cases may be “hidden” initially. If the CC is “hidden” then keep pressing “NEXT CC” until the “hidden” unit is found. Initially it will display the following:



After which it will display the unit as CC-9. The user is then invited to change this number as appropriate using the “**G**” rotary control.

MAINTAIN PANELS – Pressing this button will display the following:



The user is then invited to change this panel number as appropriate using the “**B**” rotary control. The panel software version is also found in the first LCD window.

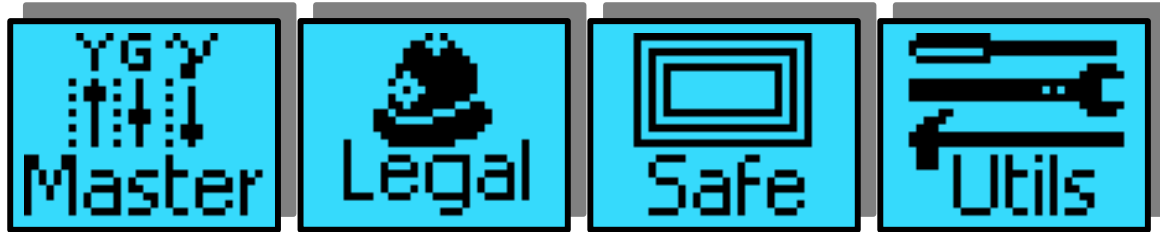
IMPORTANT NOTE – NO TWO PANELS MAY HAVE THE SAME PANEL NUMBER.

BACK – Pressing this will take you back to the system configuration area menu.

SOFTWARE VERSIONS – Pressing this will return all the software and firmware versions of the currently selected colour corrector. You may be asked for this if you have any issues with the unit.

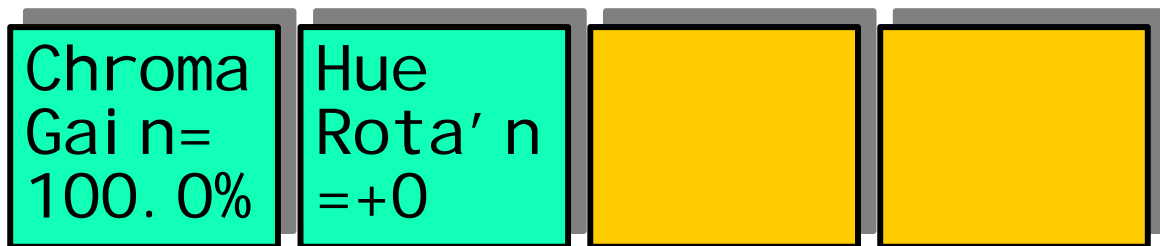
4.2 Operational Menus

Menu 00-03: Top level controls



Menu Num.	Heading	Automation	Function
0	Master	N/A	Pressing this button will select the Chroma control menus. [Menus 04-07]
1	Grade	N/A	Pressing this button will select the Legaliser control menus. [Menus 8-11]
2	Utils	N/A	Pressing this button will select the Safe Area control menus. [Menus 20-23]
3	Memory	N/A	Pressing this button will select the Utility menus. [Menus 44-47]

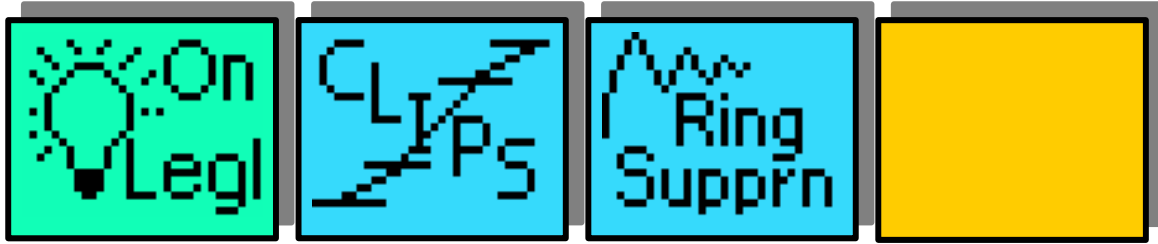
Menu 04-07: Chroma control menus



Menu Num.	Heading	Automation	Function
4	Chroma Gain (0 to 199.7%)	0 to 511 default is 256 (=100.0%)	This option sets the Chroma gain.
5	Hue Rota'n (-180 to +180)	-512 to +511 default is 0	This option sets the Hue rotation.
6	Blank		

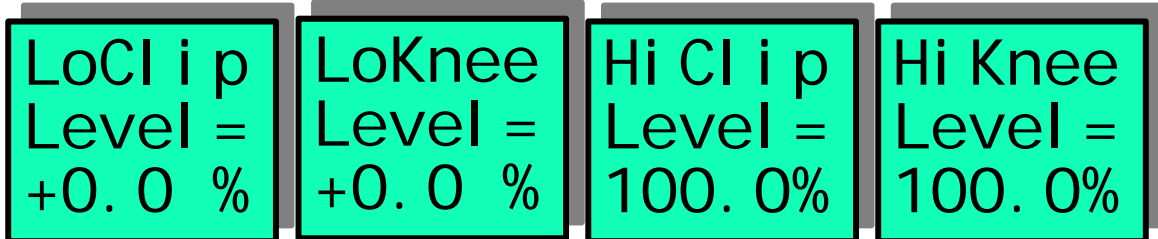
7	Blank		
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Menu 08-11: Legaliser control menus



Menu Num.	Heading	Automation	Function
8	Legalr	0=Off,1=On Default is On	Pressing this will turn the legaliser on or off.
9	CLIP menu	N/A	Pressing this button will select the legaliser clip control menus. [Menus 12-15]
10	RING menu	N/A	Pressing this button will select the legaliser ring control menus. [Menus 16-19]
11	Blank		

Menu 12-15: Clip control menus.



Menu Num.	Heading	Automation	Function
12	LoClip Level -7.1 to +50.8%	1 to 511, default is 64 (=0.0%)	This option sets the level of the low clip point.
13	LoKnee Level -7.1 to +50.8%	1 to 511, default is 64 (=0.0%)	This option sets the level of the low knee point.
14	HiClip Level 50.9 to 109%	512 to 1022, default is 943	This option sets the level of the high clip point.

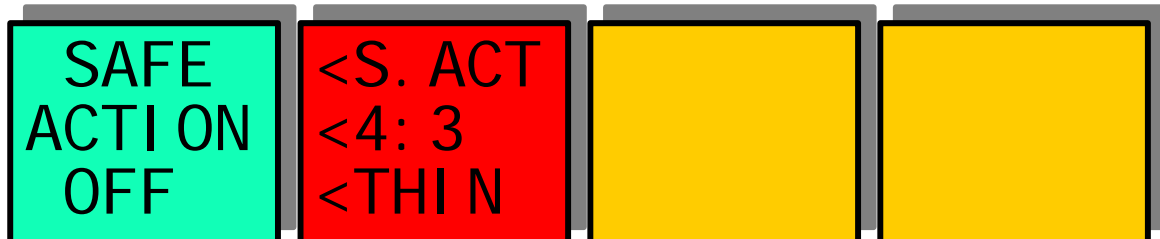
		(=100%)	
15	HiKnee Level 50.9 to 109%	512 to 1022, default is 943 (=100%)	This option sets the level of the high knee point.

Menu 16-19 Ring control menus



Menu Num.	Heading	Automation	Function
16	Ring Supr'n	0=Off, 1=Auto,2=Man Default is Off	Pressing this will select the mode of the ring suppression, off, automatic or manual.
17	LoRing Threshold -6.8 to +51.2%	0 to 511 default is 60 (- 0.0%)	This option sets the level of the low ring threshold point.
18	HiRing Threshold 50.9% to 109%	512 to 1023 default is 944 (=100%)	This option sets the level of the high ring threshold point.
19	Blank		

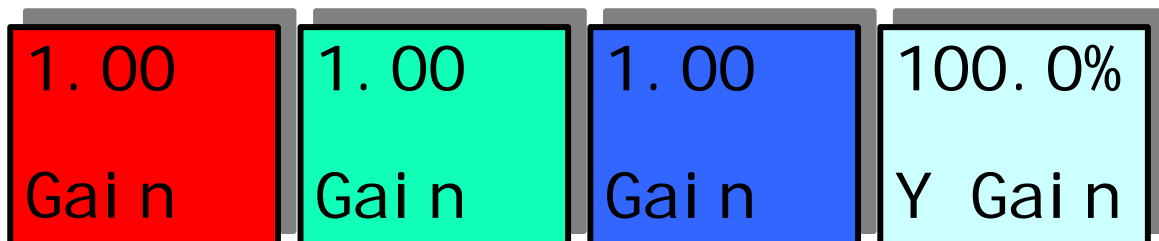
Menu 20-23: Safe area menus



Menu Num.	Heading	Automation	Function
20	SAFE ACTION	0=on 1=off	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.
21	None	<p>Level "A" 0=S.Action 1=S.Capt. 2=DigEdge 3=An Edge</p> <p>Level "B" 0=4:3 1=16:9 2=16p4:3 3=16p149 4=43p16:9</p> <p>Level "C" 0=Thin 1=Thick 2=Shade 3=Black</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 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</p> <p><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"</p>
22	Blank		
23	Blank		

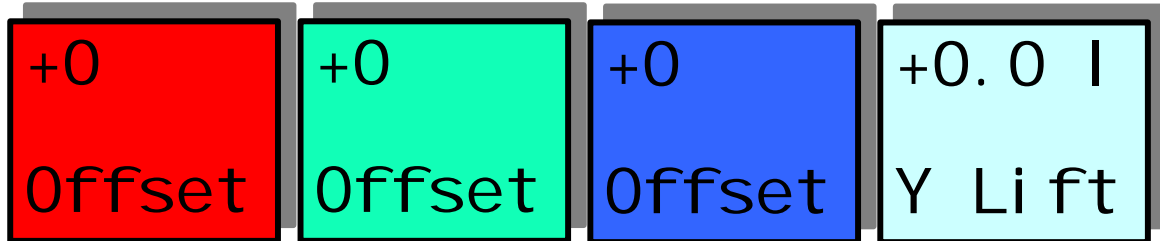
Menu 24-27: Grade gain control menu.



Menu Num.	Heading	Automation	Function
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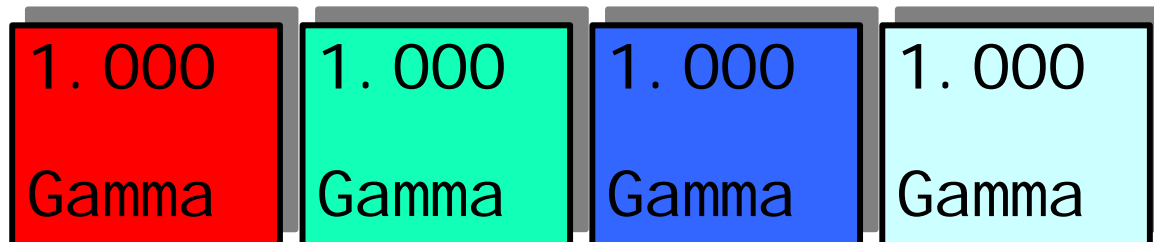
24	Red Gain 0 to 16	0 to 4096 default is 256 (=1.00)	This option sets the Red gain.
25	Green Gain 0 to 16	0 to 4096 default is 256 (=1.00)	This option sets the Green gain.
26	Blue Gain 0 to 16	0 to 4096 default is 256 (=1.00)	This option sets the Blue gain.
11	Y Gain	0 to 511 default is 256 (=100%)	This option sets the Luma gain.

Menu 12-15: Grade lift control menu.



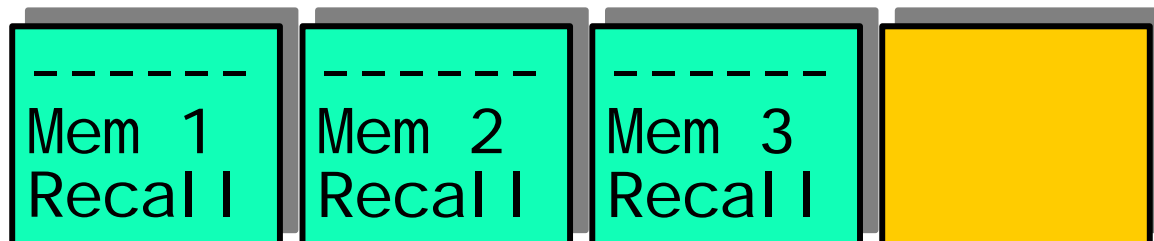
Menu Num.	Heading	Automation	Function
12	Red Offset -512 to +511	-512 to +511 default is 0	This option sets the Red offset.
13	Green Offset -512 to +511	-512 to +511 default is 0	This option sets the Green offset.
14	Blue Offset -512 to +511	-512 to +511 default is 0	This option sets the Blue offset.
15	Y Lift	-254 to +255 default is 0	This option sets the Luma lift.

Menu 16-19: RGB Gamma values.



Menu Num.	Heading	Automation	Function
16	Red Gamma	40 to 8191 default is 1024	This option sets the Red Gamma.
17	Green Gamma	40 to 8191 default is 1024	This option sets the Green Gamma.
18	Blue Gamma	40 to 8191 default is 1024	This option sets the Blue Gamma.
19	Master Gamma	40 to 8191 default is 1024	Altering this value will alter the current Red, Green and Blue values by the same amount.

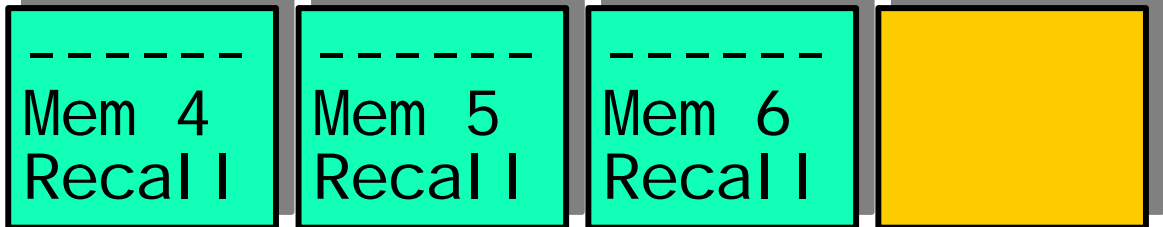
Menu 20-23: Memory Controls



Menu Num.	Heading	Automation	Function
20	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"
21	MEM2	1=Recall	Pressing this will recall Memory number 2.

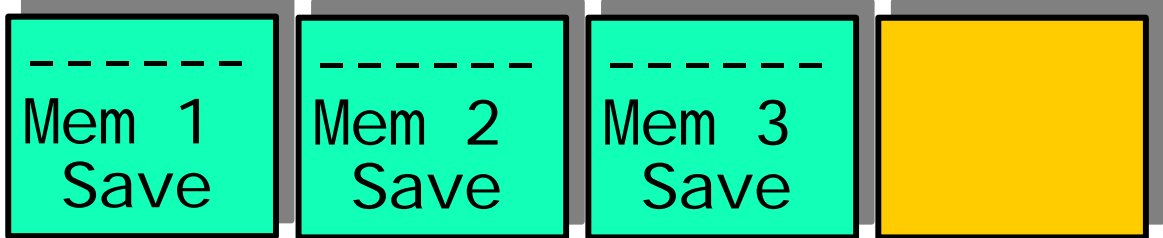
22	MEM3	1=Recall	Pressing this will recall Memory number 3.
23	Blank		

Menu 24-27: Memory Controls



Menu Num.	Heading	Automation	Function
24	MEM4	1=Recall	Pressing this will recall Memory number 4.
25	MEM5	1=Recall	Pressing this will recall Memory number 5.
26	MEM6	1=Recall	Pressing this will recall Memory number 6.
27	Blank		

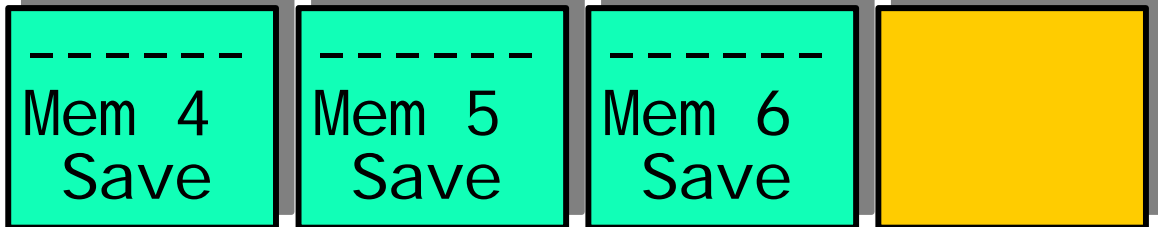
Menu 28-31: Memory Controls



Menu Num.	Heading	Automation	Function
28	Save Mem. 1	1= Save	Pressing this will Save Memory number 1.
29	Save Mem. 2	1= Save	Pressing this will Save Memory number 2.

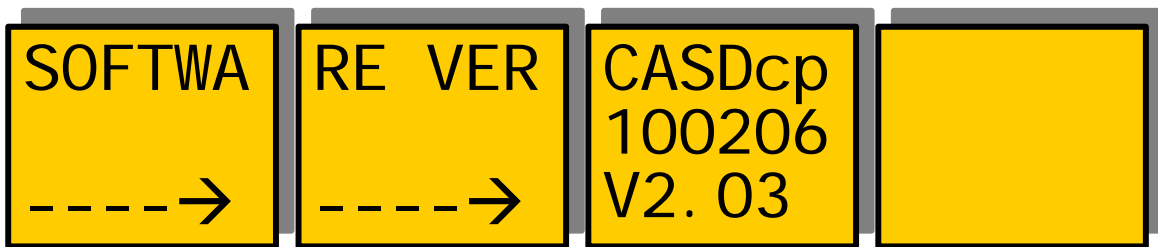
30	Save Mem. 3	1= Save	Pressing this will Save Memory number 3.
31	Blank		

Menu 32-35: Memory Controls



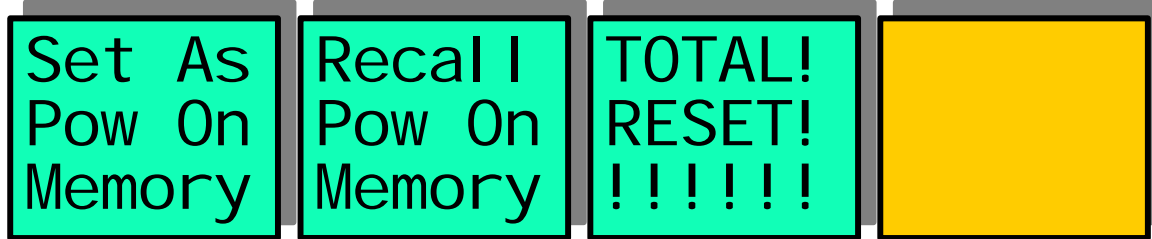
Menu Num.	Heading	Automation	Function
32	Save Mem. 4	1= Save	Pressing this will Save Memory number 4.
33	Save Mem. 5	1= Save	Pressing this will Save Memory number 5.
34	Save Mem. 6	1= Save	Pressing this will Save Memory number 6.
35	Blank		

Menu 36-39: Software version



Menu Num.	Heading	Automation	Function
36		N/A	Info
37		N/A	Info
38	Message	N/A	Info, the top line is product identifier, the middle is the date the software was last changed, and the last line is the software version.
39	Blank		

Menu 40-43: Reset and Power On Reset menus



Menu Num.	Heading	Automation	Function
40	Set As Pow On Memory	1=save	Pressing this will save the current set up as the power on default.
41	Recall Pow On Memory	1=Recall	Pressing this will recall the power on default settings.
42	TOTAL RESET	1=Reset	Pressing this will reset the system.
43	BACK	N/A	Pressing this button will take the user back to the main menu

Menu 44-47: Utils Menus



Menu Num.	Heading	Automation	Function
44	Software	N/A	Pressing this will select the software menus. [Menus 36-39]
45	Reset	1=Recall	Pressing this will select the Reset and Power On Reset menus. [Menus 40-43]
46	Blank		
47	Blank		