LCD Racks Monitor

PRM-483A

MULTI-CHANNEL LCD MONITOR

User's Manual

postium™

Contents

PRM-483A

Warning

· Always use set voltage.
  - DC 12V
· If liquid is spilled on or impacts this product, please disconnect the product immediately and seek professional help before continued use.
· Keep unit disconnected during extended periods of disuse.
· Keep unit in a well-ventilated place to prevent overheating.
· Do not install the product near any heat-generating equipment.
  Also, keep the product out of direct sunlight or dusty areas.
· Only clean the product with a noncommercial, mild and neutral detergent.
· When transporting the product, make use of its original packaging for safer carriage.

FCC (Federal Communications Commission)

This equipment has been tested and found to comply with the limits for class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interface when the equipment is operated in a commercial environment.
This equipment generates, uses, and can radiate radio frequency energy, and if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential to correct the interference at his own expense

⚠**Warning!!** : Change or modifications not expressly approved by the manufacturer responsible for compliance void the user's authority to operate the equipment.

Disposal of Old Electrical & Electronic Equipment
(Applicable in the European Union and other European countries with separate collection systems)

This symbol on the product or on its packing indicates that this product shall not be treated as household waste. Instead it shall be handed over to the applicable collection point for the recycling of electrical and electronic equipment. By ensuring this product is disposed of correctly, you will help prevent potential negative consequence for the environment and human health, which could otherwise be caused by inappropriate waste handling of this product. The recycling of materials will help to conserve natural resources.

Features

Multi-Format PRM-483A Series unit has the following features:

· **Compatible with varied SDI Signals**
The product is compatible with varied SDI signal
- 480i, 576i, 720p, 1035i, 1080i, 1080p, 1080psf, 2K

· **Compatible with varied Composite Signals**
- NTSC, PAL, SECAM

· **WaveForm/VectorScope/Audio Level Meter**
Waveform & Vector Scope available for SDI Signals
Embedded Audio Level Meter

· **BLUE ONLY/MONO**

· **H/V delay**

· **Wide Variety of Markers & Safety Areas**
Center Marker, Safety Area Marker, Aspect Marker, Display Size(Scan)

· **Pixel To Pixel**
Provides both full screen and unscaled native image.

· **Wide Screen/LED Backlight**

· **24Bit RGB Interface Panel**

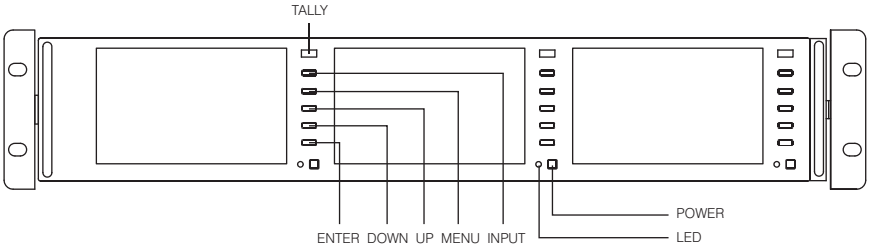
· **DC Compatible**
The product is powered by normal 12V source.

· **Remote control function**
Simple remote controllability with single cable connection, no additional modules required

· **Additional Features**
Active Loop Through/SDI, 300:1 contrast ratio, 350 cd/m2 brightness, OSD user interface, Rack Mountable

Name & Function of Each Part

<FRONT>



· **[INPUT] button**
Used to select SDI A / SDI B / COMPOSITE Input (Rotation)

· **[MENU] button**
Used to activate the OSD menu.

· **[UP] button**
Used to navigate menu during OSD menu activation. It may also be used to toggle clockwise through 1:1 quadrants in native scan mode

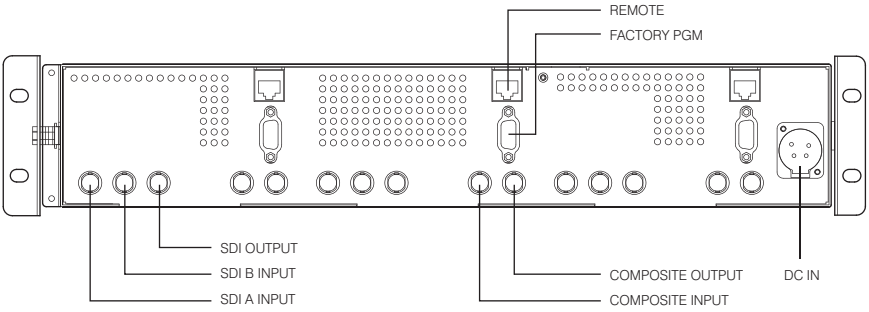
· **[DOWN] button**
Used to navigate menu during OSD menu activation. It may also be used to toggle counterclock wise through 1:1 quadrants in native scan mode

· **[ENTER] button**
Used to confirm a chosen value (or mode) within the OSD menu. Also, this can be used to control the position of Waveform in small size.

· **[POWER] button**
Power On/Off button.
If the signal is normal, LED lights in Green. If the signal is unsupported or disconnected, LED flashes in Yellow.

· **TALLY**
LED indicating monitor's current status using optional Remote.

<REAR>



· **REMOTE (RJ-45)**
Connection for remote control of monitor.

· **SDI A-IN (BNC)**
SDI A signal input terminal

· **SDI B-IN (BNC)**
SDI B signal input terminal

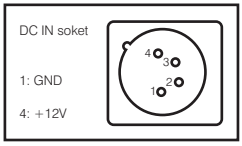
· **SDI-OUT (BNC)**
SDI signal output terminal

· **COMPOSITE INPUT (BNC)**
COMPOSITE signal input terminal

· **COMPOSITE OUTPUT (BNC)**
COMPOSITE signal output terminal

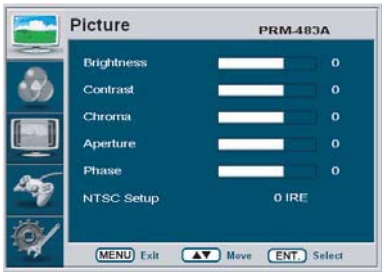
· **FACTORY PGM (15 pins)**
Input connector for FACTORY PGM allowing for firmware updates.

· **DC IN (XLR, 4 pins)**
Used to supply DC power; 12V



OSD Menu Organization & Adjustment

[1] MAIN - Picture



· **Brightness**
This Item controls the degree of brightness.

· **Contrast**
This item controls the contrast ratio.

· **Chroma**
This item controls saturation.

· **Aperture**
This item controls the picture sharpness.

· **Phase**
This item controls Phase value (Hue).
#This function is only available in Composite Input.

· **NTSC Setup**
This item sets IRE value in NTSC mode between 0 IRE and 7.5 IRE.
#This function is only available in Composite NTSC Input.

[2] MAIN - Color

· **Color Temp**

This item controls Color Temperature with presets of 3200K, 5600K, 6500K, 9300K and User1, User2, User3 mode.

· **User**

On User Mode, the user may select and control R, G, & B GAIN, BIAS values by using the [UP]/[DOWN]/[ENTER] buttons.

· **Color Copy**

In User Mode, user can copy the preset of 3200K, 5600K, 6500K or 9300K to make the custom adjustment by using the Up/Down/Enter buttons.

[3] MAIN - Marker

· **Marker**

Used to show MARKER on the screen. The type of marker at work may be selected on the other menu.

#This feature disables when the H/V Delay or Pixel to Pixel mode is activated.

· **Line Marker**

This selects the marker type when the Line Marker is displayed on the screen.
Compatible Line MARKER types are as follows:

MODE	Line Marker CLASS
HD **SD 16:9**	16:9, 4:3, 4:3 ON AIR, 15:9, 14:9, 13:9, 1.85:1, 2.35:1, 1.85:1 & 4:3
SD 4:3	16:9

· **Center Marker**

This item displays the Center Marker on the screen.

· **Safety Area**

This item controls the size of the Safety Area between 80%, 85%, 88%, 90%, 93% and 100%.

· **Marker Mat**

This item darkens the area outside of Line Marker setting area. The degree of the matte is between OFF(0) and (7).
The higher the number the darker Line Marker the matte becomes.

· **Marker Color**

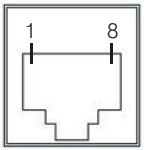
This item controls Marker color. Selectable colors are white, gray, black, red, green and blue.

 # Line Marker, Center Marker and Safety Area functions are operates only after activating the MARKER function by setting to 'On' the Marker menu.

[4] MAIN - Remote

REMOTE (RJ-45)

1: Pin1
2: Pin2
3: Pin3
4: Pin4
5: Pin5
6: Pin6
7: Pin7
8: GND



· **Pin1 ~ Pin6**

The user may connect RJ-45 jack to the remote terminal on the rear of the unit and designate a function for each pin.

The selectable functions are as follows:

Menu Classification	Settable Values
PIN 1~6	ANALOG CHANNEL, DIGITAL A CHANNEL, DIGITAL B CHANNEL TALLY RED, TALLY GREEN BLUE ONLY UNDERSCAN ASPECT HVDELAY 16:9 MARKER, 15:9 MARKER, 14:9 MARKER, 13:9 MARKER, 4:3 MARKER, 4:3 ON AIR MARKER, 1.85:1 MARKER, 2.35:1 MARKER, 1.85:1 & 4:3 MARKER CENTER MARKER SAFETY AREA 80%, SAFETY AREA 85%, SAFETY AREA 88%, SAFETY AREA 90%, SAFETY AREA 93%, SAFETY AREA 100%

· **Pin7**

PIN7 is for POWER ON/OFF use only.

[5] MAIN - System [page1]

· **System Default**

User can use the System Default menu to initialize the values of the monitor.

· **WaveForm**

This item controls the Waveform or Vector Scope.

· **WaveForm Size**

This item controls the size of Waveform or Vector Scope.

· **WaveForm Position**

This item controls the position of Waveform or Vector Scope between Right, Center and Left.

#In normal display, press Enter button to activate this feature.

#This feature can be activated in small size mode only.

· **WaveForm Blending**

This item activates the blending of Waveform or Vector Scope.

#This feature activates automatically if WaveForm overlaps with OSD.

#This feature can be activated in small size mode only.

· **Audio Level Meter**

This item set embedded audio group selects Off, G1+G2, G2+G3, G3+G4, G1+G3, G1+G4, G2+G4 to activate Audio Level Meter.

· **Time Code**

This item activates the Time Code. Select between VITC or LTC.

#Menus or features which are related with WaveForm enables in SDI input mode only.

[6] MAIN - System [page2]

· **Source ID**

This item is used to activate the Source ID display by selecting BG Type or Char Type.

· **Source ID Character**

This item is used to customize the Source ID display. (A~Z, a~z, 0~9 and special characters)

· **Source ID Position**

This item controls the position of Source ID display. (Top-left, Top-center, Top-right, Bottom-right, Bottom-center, Bottom-left)

· **Source ID Color**

This item is used to change the color of Source ID display by selecting black, white, red, green, blue or yellow.

· **Scan**

This item controls to transfer from ZERO SCAN mode to Pixel To Pixel mode.
Mode changes in the order of Zero Scan -> Over Scan -> Pixel To Pixel -> Zero Scan.

#In Pixel to Pixel mode, Marker feature and menu disable automatically.
#In Pixel to Pixel mode, pressing Enter button rotates the position of display.

· **Aspect Ratio**

This item toggles aspect ratio in SD from standard to anamorphic.
SD signal only (Disables automatically in any other signal including No signal)

· **HV Delay**

This item activates the HV Delay mode.
#In HV Delay mode, Marker feature and menu disable automatically.

#Activating Internal Pattern disables Scan, Aspect Ratio and HV Delay.

[7] MAIN - System [page3]

· **Blue & Mono**

You may remove R(red) and G(green) from the input signal and play the screen only with B(blue) signal. Menu may be set to 'Mono' to change the screen to MONO mode. (This mode uses only Luminance value.)

· **Back Light**

This item controls the LED backlight setting. The value should be within range between MIN(0) and MAX(25).

· **Internal Pattern**

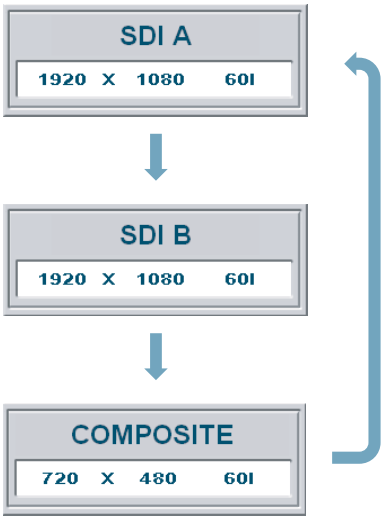
This item is used to activate the Internal Pattern of 100% White or 100% Color Bar.

· **Firmware Version**

This item is the firmware version of the system.

· **License**

[8] INPUT Menu



· **PRM-483A Series unit is capable of processing varied Input signals Composite and SDI.**

· **Press [INPUT] button on the front of the monitor and activate the OSD menu as shown on the left.**
Select the input you desire by using the [INPUT] Button.

· **User can change and select the input mode by using this one simple button.**

If no image displays after selecting the desired input mode, check and make sure that your connection is not lose or disconnected.

Input resolution displays on the bottom of the OSD screen.

Other Functions

[1] PIXEL TO PIXEL

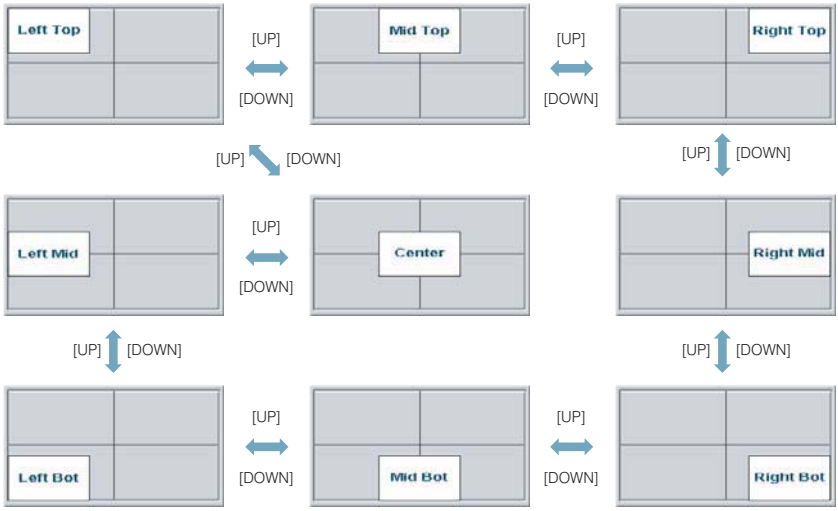
· PRM-483A monitor's Pixel to Pixel mode displays input signal without scaling.

· To activate the [Pixel to Pixel] mode, access the Scan menu in Syetem menu and select [Pixel to Pixel].

· In the [Pixel To Pixel] mode, use the [UP]/[DOWN] buttons to toggle between 1:1 scan sections

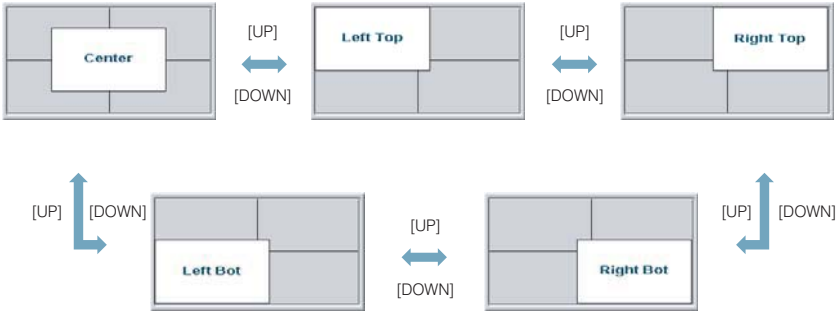
Input	Action Button	Available Modes
HD 1080i/1080p	[UP] (Clockwise)	Center -> Left Top ->Mid Top -> Right Top -> Right Mid -> Right Bottom -> Mid Bottom -> Left Bottom -> Left Mid -> Center -> ….
	[DOWN] (Opposite)	Center -> Left Mid -> Left Bottom -> Mid Bottom -> Right Bottom -> Right Mid -> Right Top -> Mid Top -> Left Top -> Center -> …

- OSD change



Input	Action Button	Available Modes
HD 720p	[UP] (Clockwise)	Center -> Left Top -> Right Top -> Right Bottom -> left Bottom -> Center -> …
	[DOWN] (Opposite)	Center -> Left Bottom -> Right Bottom -> Right Top -> Left Top -> Center -> ….

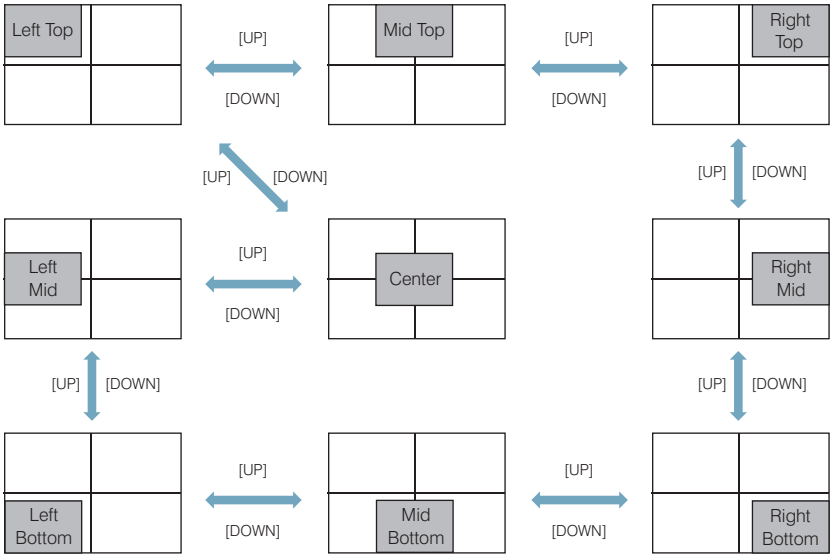
- OSD change



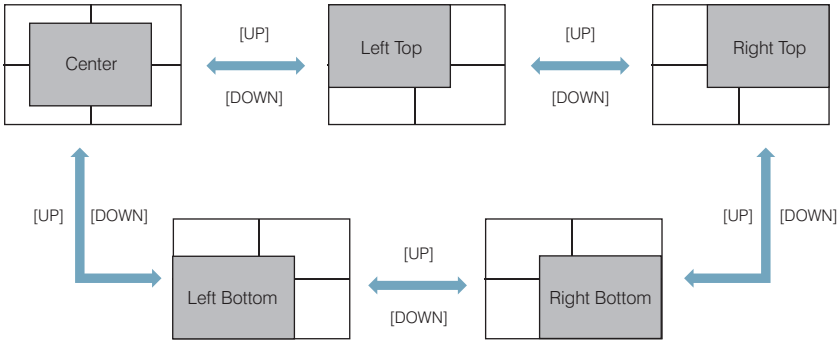
#Pixel To Pixel mode is not available in Graphic mode.

#Pixel To Pixel mode is available in SD mode, but 1:1 sections cannot be rotated through as with HD sources.

· Positions in HD Signal 1080i/1080p mode



· Position in HD Signal 720p mode

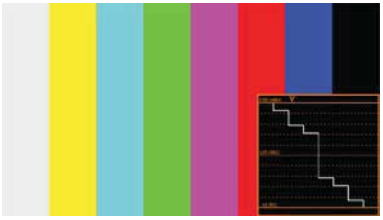


[2] Waveform

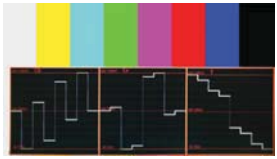
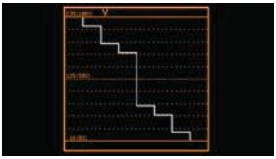
Small display : YCbCr → Y → Cb → Cr → Vector → off

Full display : Y → Cb → Cr → Vector → off

· Waveform

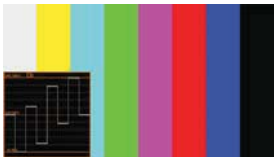
OFF	Waveform
	

· Waveform Size

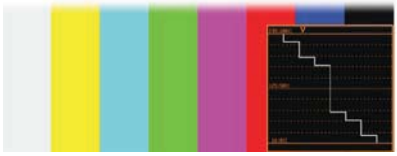
Small (Y)	Small (Cb, Cr, Y)	Full (Y)
		

If push the Input button (SDI-A ,SDI-B and Analog), Waveform full mode is change to small mode automatically.

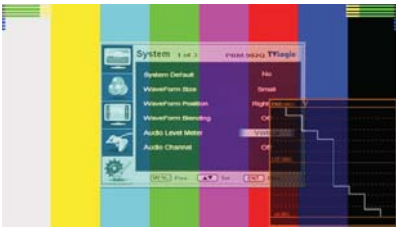
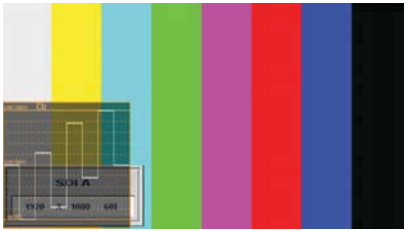
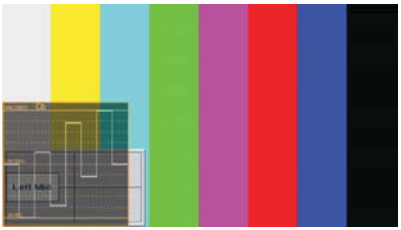
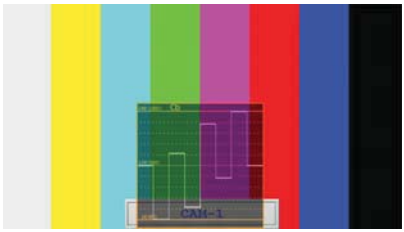
· Waveform Positions

Left	Center	Right
		

· Waveform Blending

OFF	ON
	

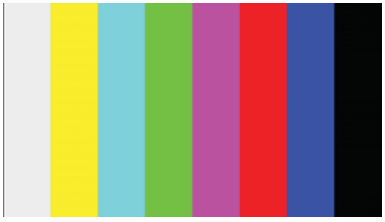
· Exception: If overlaps with OSD, blending activates automatically.

Main OSD	Info Window
	
Pixel To Pixel	**Source ID**
	

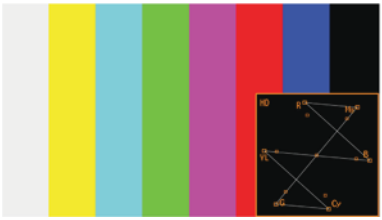
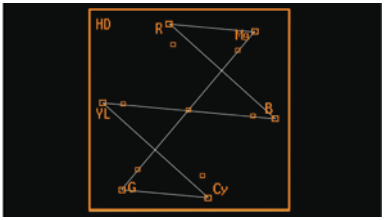
This function is only available with SDI Input.

[3] Vector Scope

·Vector Scope

Vector Scope OFF	Vector Scope ON
	

· Vector Scope Size

Small	Full
	

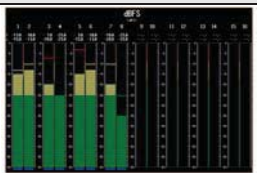
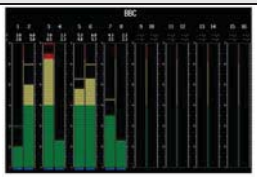
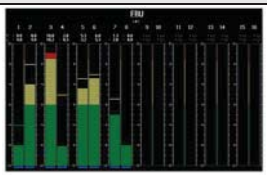
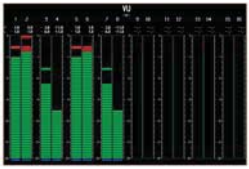
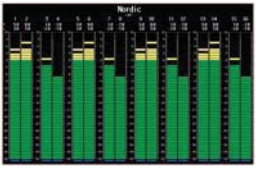
Vector Scope Position / Blending

: Refer to the Waveform position (P.18) and Waveform Blending (P.19)

This function is only available with SDI Input.

[4] Audio Level Meter

· Audio Level Meter

OFF	HORIZONTAL	VERTICAL
		
dBFS	**BBC**	**EBU**
		
VU	**Nordic**	
		

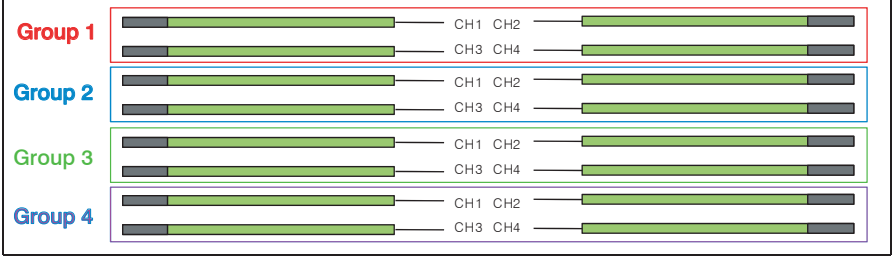
· Avoid Overlap

In full size WaveForm mode, WaveForm shifts down to avoid the overlap with Audio Level Meter.

Audio Level Meter OFF	Audio Level Meter ON
	

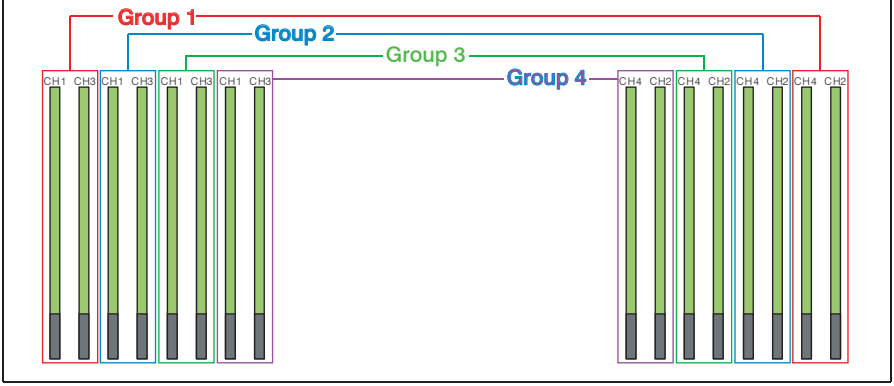
· Group & Channel

Group / Channel (Horizontal)

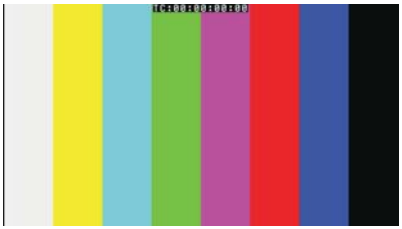
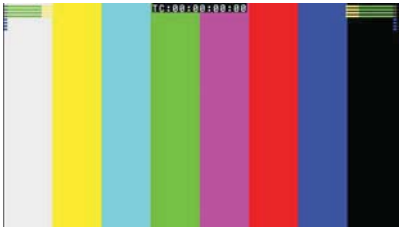
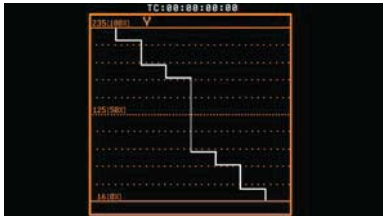


#This function is only available with SDI Input.

Group / Channel (Vertical)



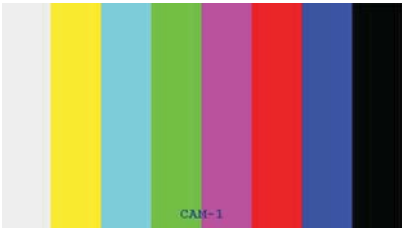
[5] Time Code

Time Code	Time Code + Audio Level Meter
	
Time Code + WaveForm Full Size	**Time Code + SourceID + WaveForm + Audio Level Meter**
	

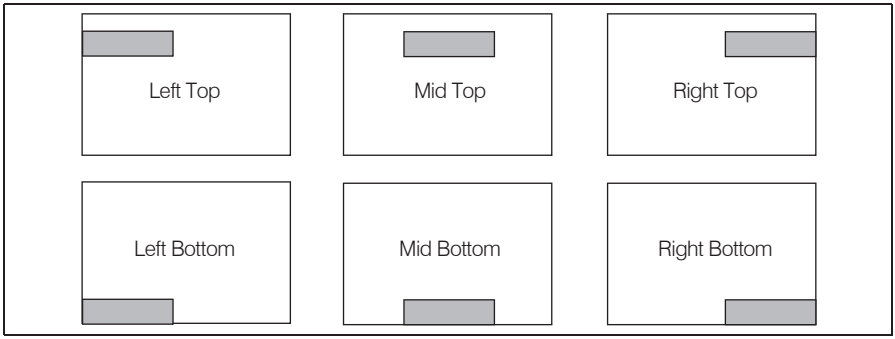
#This function is only available with SDI Input.

[6] Source ID

· Source ID

BG Type	Char Type
	

· Source ID Position



· Source ID Color

Black	White	Red	Green	Blue	Yellow
CAM-1	CAM-1	CAM-1	CAM-1	CAM-1	CAM-1

[7] MAIN - System [page3]

· Back Light
This item controls the LED backlight setting. The value should be within range between MIN(0) and MAX(50).

· AFD
This item activates the AFD mode. Selectable mode are Off, Aspect Mode and Marker mode.
This feature action in only SDI signal included AFD Data.
In Internal Pattern mode, this feature and menu disable automatically.

· Set ID
This item controls the Set ID setting for UMD. The value should be within range between 0 and 99.

· Closed Caption
This item controls closed caption ON/OFF.(708, 608(Line21), 608(ANC))

· Firmware Version
This item is the firmware version of the system.

· License

System Default Value

MEMU		Value
Picture	Brightness	0
	Contrast	0
	Chroma	0
	Aperture	0
	Phase	0
	NTSC Setup	7.5 IRE
Color	Color Temp	6500K
	Gain Red (1/2/3)	0
	Gain Green (1/2/3)	0
	Gain Blue (1/2/3)	0
	Bias Red (1/2/3)	0
	Bias Green (1/2/3)	0
	Bias Blue (1/2/3)	0
	Color Copy	6500K
Marker	Marker	Off
	Line Marker	Off
	Center Marker	Off
	Safety Area	Off
	Maker Mat	Off
	Marker Color	White
Remote	PIN 1	Analog Channel
	PIN 2	Digital A Channel
	PIN 3	Digital B Channel
	PIN 4	Tally R
	PIN 5	Tally G
	PIN 6	Blue Only
System [Page1]	System Default	No
	WaveForm	Off
	WaveForm Size	Small
	WaveForm Position	Right Bot
	WaveForm Blending	Off
	Audio Level Meter	Off
	Time Code	Off
System [Page2]	Source ID	Off
	Source ID Character	C A M – 1
	Source ID Position	Left Top
	Source ID Color	Black
	Scan	Zero Scan
	Aspect Ratio	16:9
	HV Delay	Off
System [Page3]	Blue & Mono	Off
	Back Light	20
	Internal Pattern	Off

Product Specification

Input (1 Screen)	2 x BNC	SDI 2 Channel Input
	1 x BNC	Composite Input
Output (1 Screen)	1 x BNC	SDI Channel (Active Through Out)
	1 x BNC	Composite Output (Internal Buffer Output)
Input Signal	Analog	Composite (1.0Vpp with Sync)
	HD-SDI	1.485 Gbps
	SD-SDI	270 Mbps
SDI Input Signal Formats	SMPTE-274	1080i (60/59.94/50)
		1080P (30/29.97/25/24/24sF/23.98/23.98sF)
	SMPTE-296M	720P (23.98/24/25/29.97/30/50/59.94/60)
	SMPTE-260M	1035i (60/59.94)
	SMPTE-125M	480i (59.94)
	ITU-R.BT.656	576i (50)
	2K Format	2048 x 1080 (23.98psf/24psf/23.98p/24p)
LCD	Size	4.8 inch
	Resolution	800 x 480 (15 : 9)
	Pixel Pitch	0.13(H) x 0.13(V) mm
	Color	16.7M (True), 24bit
	Viewing Angle	H : 130 degrees
		V : 110 degrees
	Luminance of White	350cd (center)
	Contrast	300 : 1
	Display Area	103.8 x 62.28 mm
Power		12V DC
Power Consumption (Approx.)		24 Watts
Operating Temperature		0℃ to 40℃ (32°F to 104°F)
Storage Temperature		-30℃ to 50℃ (-22°F to 122°F)
Main Body Dimensions (mm/inch)		438 x 79 x 67 (17.24 x 3.11 x 2.64)
Main Body Dimensions (With Rack Bracket)		497 x 88 x 67 (19.57 x 3.46 x 2.64)
Weight		2.1Kg / 4.62 lb
Accessory		DC Power Adapter

* Above specifications may be changed without notice

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