



# Multi Format Broadcast LCD Monitor

Operation Manual\_v1.0

Full HD LCD Grade 1 Monitor  
XVM-325W



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## 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

**CAUTION:** Change or modifications not expressly approved by the manufacturer responsible for compliance could 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.

# 1. Caution

- **Always use set voltage.**
- **AC 100 ~ 240V (1.6A/50~60Hz)**
- All operating instructions must be read and understood before the product is operated.
- These safety and operating instructions must be kept in safe place for future reference.
- All warnings on the product and in the instructions must be observed closely.
- All operating instructions must be followed.
- Do not use attachments not recommended by the manufacturer. Use of inadequate attachments can result in accidents.
- This product must be operated on a power source specified on the specification label. If you are not sure of the type of power supply used in your home, consult your dealer or local power company. For units designed to operate on batteries or another power source, refer to the operating instructions.
- The power cords must be routed properly to prevent people from stepping on them or objects from resting on them. Check the cords at the plugs and product.
- Do not overload AC outlets or extension cords. Overloading can cause fire or electric shock.
- Never insert an object into the product through vents or openings. High voltage flows in the product, and inserting an object can cause electric shock and/or short internal parts. For the same reason, do not spill water or liquid on the product.
- Do not attempt to service the product yourself. Removing covers can expose you to high voltage and other dangerous conditions. Request a qualified service person to perform servicing.
- If any of the following conditions occurs, unplug the power cord from the AC outlet, and request a qualified service person to perform repairs.
  - a. When the power cord or plug is damaged.
  - b. When a liquid was spilled on the product or when objects have fallen into the product.
  - c. When the product has been exposed to rain or water.
  - d. When the product does not operate properly as described in the operating instructions.

Do not touch the controls other than those described in the operating instructions. Improper adjustment of controls not described in the instructions can cause damage, which often requires extensive adjustment work by a qualified technician.
  - e. When the product has been dropped or damaged.
  - f. When the product displays an abnormal condition. Any noticeable abnormality in the product indicates that the product needs servicing.
- In case the product needs replacement parts, make sure that the service person uses replacement parts specified by the manufacturer, or those with the same characteristics and performance as the original parts. Use of unauthorized parts can result in fire, electric shock and/or other danger.
- Upon completion of service or repair work, request the service technician to perform safety checks to ensure that the product is in proper operating condition.

# 1. Caution

- When mounting the product on a wall or ceiling, be sure to install the product according to the method recommended by the manufacturer.
- Unplug the power cord from the AC outlet before cleaning the product. Use a damp cloth to clean the product. Do not use liquid cleaners or aerosol cleaners.
- Unplug the power cord from the AC outlet if you do not use the product for considerably long time.
- Do not use the product near water, such as bathtub, washbasin, kitchen sink and laundry tub, swimming pool and in a wet basement.
- Keep the product away from direct rays of the Sun-light.
- Do not place the product on an unstable cart, stand, tripod or table. Placing the product on an unstable base can cause the product to fall, resulting in serious personal injuries as well as damage to the product. Use only a cart, stand, tripod, bracket or table recommended by the manufacturer or sold with the product. When mounting the product on a wall, be sure to follow the manufacturer's instruction. Use only the mounting hardware recommended by the manufacturer.
- When relocating the product placed on a cart, it must be moved with the utmost care. Sudden stops, excessive force and uneven floor surface can cause the product to fall from the cart.
- The vents and other openings in the cabinet are designed for ventilation. Do not cover or block these vents and openings since insufficient ventilation can cause overheating and/or shorten the life of the product. Do not place the product on a bed, sofa, rug or other similar surface, since they can block ventilation openings. This product is not designed for built-in installation; do not place the product in an enclosed place such as a bookcase or rack, unless proper ventilation is provided or the manufacturer's instructions are followed.
- The LCD panel used in this product is made of glass. Therefore, it can break when the product is dropped or applied with impact. Be careful not to be injured by broken glass pieces in case the LCD panel breaks.
- Keep the product away from heat sources such as radiators, heaters, stoves and other heat generating products (including amplifiers).

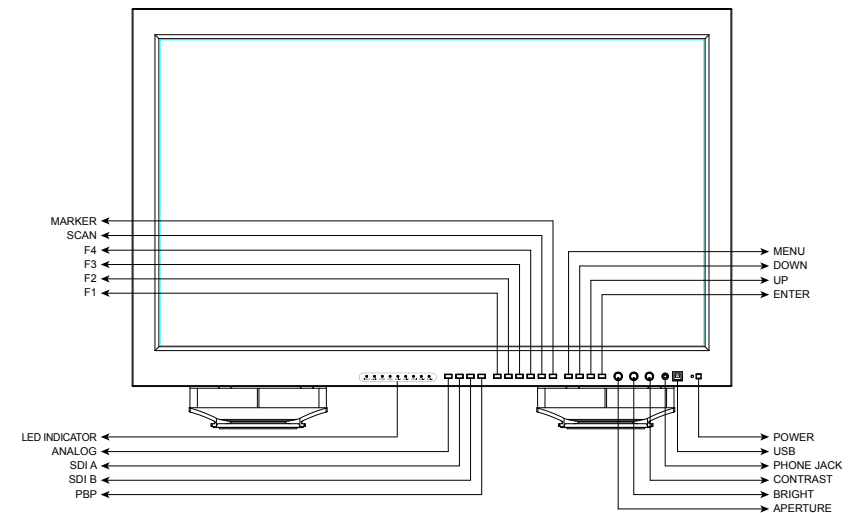
## 2. Main Features

### XVM Series have the following features:

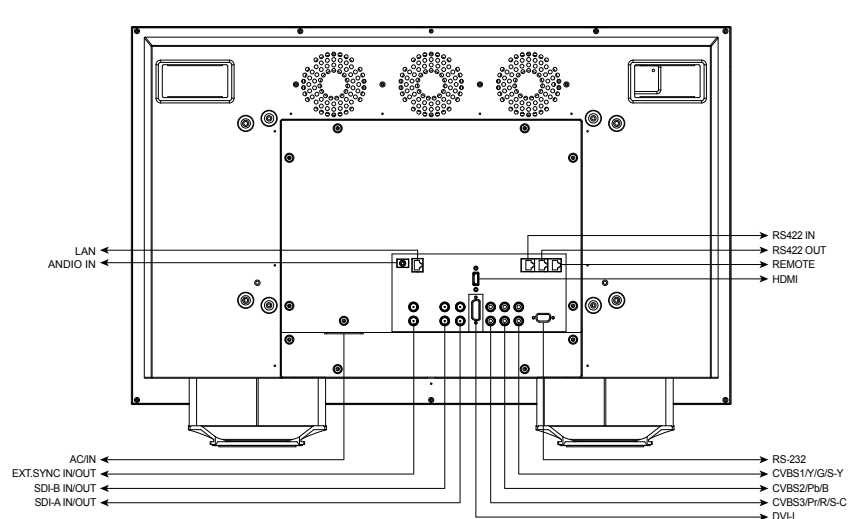
- **Compatible with varied SDI signals**
  - This product is compatible with various SDI Signals : 480i, 576i, 720p, 1080i, 1080p, 1080psF (SDI A, B 2 channels are compatible).
- **Compatible with varied Analog signals**
  - This product is compatible with various Analog signals - Composite, S-Video, Component, RGB, etc.
- **All-in-one type system**
  - Slim and all-in-one type monitor that requires no other accessory, for optimized space utilization.
- **Wide Screen compatible**
  - Wide Screen for easier monitoring conditions.
- **Remote control function**
  - This product can be remote controlled simply with cable connection without additional peripheral equipment attached to the unit.
- **DVI/HDMI(HDCP) function built-in**
  - DVI(Analog), DVI(Digital) and HDMI(HDCP) Inputs are available without any other accessory.
- **RS422/UMD feature support**
  - This product supports protocols provided by TVLogic or a TSL protocol.
- **RS232 support**
  - Supports color-calibration through serial communication.
- **Ethernet & USB support**
  - Supports Ethernet connection for program download and remote control.
  - Supports USB connection for program download.
- **Dual link support**
  - Supports Dual link YCbCr/RGB 4:4:4 and YCbCr 4:2:2 formats.
- **3G support**
  - Supports 3G A/B formats.
- **AC Power compatible**
  - This product is powered by normal AC source.
- **Additional features**
  - Wide Viewing Angle, Active Loop Through (SDI), VESA Mounting Standard, 1300:1 contrast ratio, 500cd/m<sup>2</sup> and User Interface.

# 3. Controls & Functions

## XVM-325W : FRONT



## XVM-325W : REAR



# 3. Controls & Functions

## FRONT

- **[VIDEO] lamp**
  - Used when COMPOSITE INPUT is selected.
- **[S-VID] lamp**
  - Used when S-VIDEO INPUT is selected.
- **[COMP] lamp**
  - Used when COMPONENT INPUT is selected.
- **[RGB] lamp**
  - Used when RGB INPUT is selected.
- **[DVI-A] lamp**
  - Used when DVI ANALOG INPUT is selected.
- **[DVI-D] lamp**
  - Used when DVI DIGITAL INPUT is selected.
- **[HDMI] lamp**
  - Used when HDMI INPUT is selected.
- **[SDI-A] lamp**
  - Used when SDI-A INPUT is selected.
- **[SDI-B] lamp**
  - Used when SDI-B INPUT is selected.
- **[ANALOG] button/lamp**
  - Used to select desired Analog Input. Press the button to activate the analog input menu selection, then use UP and DOWN button to select desired input.
- **[SDI-A] button/lamp**
  - Used to select SDI-A input.
- **[SDI-B] button/lamp**
  - Used to select SDI-B input.
- **[PBP] button/lamp**
  - Used to select PBP(Picture-by-Picture) function.
- **[F1] (In Single Mode) button/lamp**
  - This Functions button is used to activate the feature selected in "System- KEY FUNCTION 1 " menu.
- **[F1](In Multi Mode) button**
  - Used to select a display in Multi Mode.
- **[F2] button/lamp**
  - This Functions button is used to activate the feature selected in "System- KEY FUNCTION 2 " menu.
- **[F3] button/lamp**
  - This Functions button is used to activate the feature selected in "System- KEY FUNCTION 3 " menu.
- **[F4] button/lamp**
  - This Functions button is used to activate the feature selected in "System- KEY FUNCTION 4 " menu.
- **[SCAN] button/lamp**
  - Used to change the Scan mode. The mode is changed as the following sequence.  
OVER SCAN -> ZERO SCAN -> UNDER SCAN  
-> 2:1 SCAN -> 1:1 SCAN -> FIT WIDTH -> USER ASPECT
- **[MARKER] button/lamp**
  - Used to activate or inactivate the marker. The desired aspect ratio can be displayed on the screen properly when the type of marker selected from the main menu.
- **[MENU] button**
  - Used to activate the OSD menu.
- **[DOWN] button**
  - Used to move down within the menus during OSD menu activation and also decrease the value of the selected feature.
- **[UP] button**
  - Used to move up within the menus during OSD menu activation and also increase the value of the selected feature.



## 3. Controls & Functions

### FRONT

- **[ENTER] button**
  - Used to confirm a chosen value (or mode). It may also be used to control the VOLUME value during OSD menu inactivation.
- **[STANDBY] lamp**
  - It affords power supply, which may be indicated by indication lamp. The lamp is RED during power supply and GREEN during system is in operation. In case of power cut and sudden shut off of the power, our monitor keep previous setup stage.
- **[POWER] button**
  - Used to turn power on and off.
- **[USB]**
  - The USB port for easy firmware updates.
- **[PHONE JACK]**
  - Used to Stereo Audio Output through Phone Jack.
- **[CONTRAST]**
  - Used to adjust the contrast.
- **[BRIGHT]**
  - Used to adjust the degree of brightness.
- **[APERTURE]**
  - Used to adjust the picture sharpness.

### REAR

- **[RS422 IN/OUT] (RJ-45)**
  - Used to control the monitor with protocol provided by TVLogic or to support TSL protocol.
- **[REMOTE] (RJ-45)**
  - Provides connection to control equipment for external monitor control.
- **[HDMI(HDCP)] (HDMI)**
  - Signal input terminal for HDMI signal.
- **[RS-232]**
  - Factory program port used for automatic alignment.
- **[CVBS1/Y/G/S-Y] (BNC)**
  - Signal input terminal used to feed the monitor COMPOSITE 1, S-VIDEO Y, COMPONENT Y and RGB G signals.
- **[CVBS2/Pb/B] (BNC)**
  - Signal input terminal used to feed the monitor COMPOSITE 2, RGB B and COMPONENT Pb signals.
- **[CVBS3/Pr/R/S-C] (BNC)**
  - Signal input terminal used to feed the monitor COMPOSITE 3, S-VIDEO C, COMPONENT Pr and RGB R signals.
- **[DVI-I]**
  - Signal input terminal for DVI ANALOG or DVI DIGITAL signal.
- **[LAN]**
  - Ethernet port for easy firmware updates and remote control.
- **[AUDIO IN] (Phone Jack)**
  - External Audio in for Stereo Speaker out.

## 3. Controls & Functions

### REAR

- **[AC IN]**
  - Used to supply AC power; 100V~240V input range.
- **[EXT.SYNC IN/OUT]**
  - External sync signal input/output terminal for external sync.
- **[SDI-B IN] (BNC)**
  - HD/SD SDI signal input terminal for SDI B.
- **[SDI-B OUT] (BNC)**
  - HD/SD SDI signal output terminal for SDI B.
- **[SDI-A IN] (BNC)**
  - HD/SD SDI signal input terminal for SDI A.
- **[SDI-A OUT] (BNC)**
  - HD/SD SDI signal output terminal for SDI A.
- **[Information]**
  - Input VIDEO connection method.

Connector	Composite	Component		S-Video
1	CVBS1	Y	G	Y
2	CVBS2	Pb	B	No Con.
3	CVBS3	Pr	R	C

<Warning!!>

When using the product make sure to ground before connecting the input signal line.  
The unit may not operate properly if the input line is connected before the GND is connected.

## 4. Menu Tree & Adjustment

### [1] Menu Tree

● The product may be controlled and set system-wise through OSD displayed on the screen.



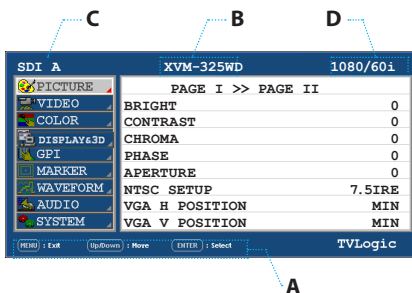
### [2] Menu Control

● You may control various functions using MENU, UP/DOWN and ENTER buttons on the bottom front of the monitor.

### [3] Menu Control Sequence

1. Press MENU button to activate the OSD menu on the screen.
2. Move to a desired sub-menu with the UP/DOWN button.
3. After selecting a sub-menu, press ENTER button to select an item with UP/DOWN button.
4. Press ENTER button to select the desired item. (The selected sub-menu will be highlighted.)
5. Press ENTER button to save the new value after adjusting the value with UP/DOWN button.
6. Press MENU button once to return to previous menu and if there is no previous menu, the OSD menu will be removed from the screen.
7. To view next page in the sub menu, press ENTER button at PAGE I >> PAGE II.

### [4] Main Menu Window information



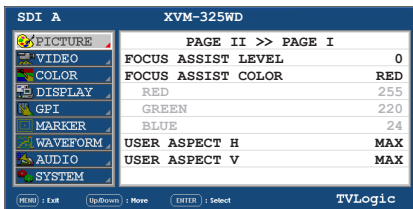
- A. MENU, UP/DOWN, ENTER Button Status.  
B. Model name(XVM-325W).  
C. Current input signal.  
D. Current input signal resolution.

# 5. Menu Operations

## [1] PICTURE



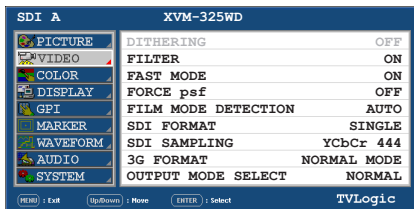
- **BRIGHT**
  - Used to set the brightness level from -100 to 100.
- **CONTRAST**
  - Used to set the contrast level from -100 to 100.
- **CHROMA**
  - Used to set the saturation level from -50 to 50.
- **PHASE**
  - Used to set the phase(hue) level from -50 to 50.
  - Activates only in Analog signal input.
- **APERTURE**
  - Used to set the picture sharpness level from 0 to 25.
- **NTSC SETUP**
  - Used to set the black level of NTSC video as 0(zero setup) or 7.5 IRE.
  - Activates when NTSC video signal is input through COMPOSITE 1/2/3 or S-VIDEO terminal.
- **VGA H POSITION**
  - Used to set the VGA H position from -15 to 15. Only Available in DVI Analog mode.
- **VGA V POSITION**
  - Used to set the VGA V position from -10 to 10. Only Available in DVI Analog mode.



- **FOCUS ASSIST LEVEL**
  - Used to set the edge difference value between the edges in an image.
  - Available values are from 0 to 100. Larger value means more sophisticated detail detection.
  - Designated color is displayed when the difference of the edges exceeds the previously set value.
  - This features is available only when the FOCUS ASSIST mode is selected.
- **FOCUS ASSIST COLOR**
  - Used to select the color of FOCUS ASSIST.
  - Available values are red, green, blue and user.
- **RED**
  - Used to adjust the Red value from 0 to 255. Activates only when the FOCUS ASSIST COLOR is set to USER.
- **GREEN**
  - Used to adjust the Green value from 0 to 255. Activates only when the FOCUS ASSIST COLOR is set to USER.
- **BLUE**
  - Used to adjust the Blue value from 0 to 255.
  - Activates only when the FOCUS ASSIST COLOR is set to USER.
- **USER ASPECT H**
  - Used to set the Horizontal size of the screen. Activates only when the Scan mode is set to USER ASPECT.
- **USER ASPECT V**
  - Used to set the Vertical size of the screen. Activates only when the Scan mode is set to USER ASPECT.

# 5. Menu Operations

## [2] VIDEO



### ● DITHERING

- This item enables dithering to 10 bits. (Not supported in this model)

### ● FILTER

- This item toggles the 4:4:4 video processing filter On/Off for smoother transition between colors.

### ● FAST MODE

- Used to minimize the de-interlacing processing time delay and improves the quality of fast moving and fine details under interlaced format.
- Since the function of this feature is to minimize the de-interlacing delays, it will not be effective under progressive format.
- Feature bypasses deinterlacer, playing back 2 full fields per frame. Also reduces signal processing delay for reduced audio/video delay.

### ● FORCE psf

- Used to force psf mode for psf signals, overriding the automatic psf detection.
- If this feature is turned off, the unit checks for the psf signal first, then searches for the remaining modes.

### ● FILM MODE DETECTION

- This item toggles Film Mode ON/OFF.

### ● SDI FORMAT

- Used to select the SDI input format between Single link and Dual link.

### ● SDI SAMPLING

- Used to select input SDI sampling mode in Dual link.
- Available modes are YCbCr 4:4:4, RGB 4:4:4 and YCbCr 4:2:2.

### ● 3G FORMAT

- Used to select input format of SDI 3G A/B support(NORMAL MODE, A 444 10BIT\_YCbCr, A 444 10BIT\_RGB, A 444 12BIT\_YCbCr, A 444 12BIT\_RGB, A 422 12BIT\_YCbCr, B 444 10/12BIT\_YCbCr, B 444 10/12BIT\_RGB, B 422 12BIT\_YCbCr, B 422 10BIT\_YCbCr, 60P).

### ● OUTPUT MODE SELECT

- Used to select the luminance range in SDI MODE between FULL(255) and NORMAL(235).

### ● INPUT FORMAT SELECT

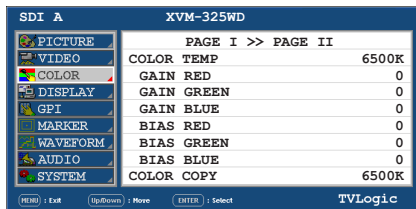
- Used to select input format between RGB and YPbPr. Available only in HDMI mode.

### ● RGB INPUT MODE

- Used to select luminance value between RGB255 and RGB235. Available only in DVI-DIGITAL and HDMI modes.

# 5. Menu Operations

## [3] COLOR



### ● COLOR TEMP

- Used to control color temperature and allow instant access to preset color temperature settings.
- Available values are 3200K, 5000K, 5600K, 6500K, 9300K and CUSTOM 1/2/3.
- In CUSTOM1/2/3 mode, user can define custom RGB GAIN and BIAS values.

### ● GAIN RED

- Used to control red color.
- The value is selectable between Min(-255) and MAX(255).
- Adjusts red color of bright section.
- Only available in CUSTOM 1/2/3 mode.

### ● GAIN GREEN

- Used to control green color.
- The value is selectable between Min(-255) and MAX(255).
- Adjusts green color of bright section.
- Only available in CUSTOM 1/2/3 mode.

### ● GAIN BLUE

- Used to control blue color.
- The value is selectable between Min(-255) and MAX(255).
- Adjusts blue color of bright section.
- Only available in CUSTOM 1/2/3 mode.

### ● BIAS RED

- Used to adjust black level to control red color.
- The value is selectable between Min(-50) and MAX(50).
- Adjusts red color of dark section.
- Only available in CUSTOM 1/2/3 mode.

### ● BIAS GREEN

- Used to adjust black level to control green color.
- The value is selectable between Min(-50) and MAX(50).
- Adjusts green color of dark section.
- Only available in CUSTOM 1/2/3 mode.

### ● BIAS BLUE

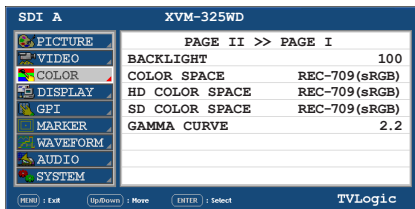
- Used to adjust black level to control blue color.
- The value is selectable between Min(-50) and MAX(50).
- Adjusts blue color of dark section.
- Only available in CUSTOM 1/2/3 mode.

### ● COLOR COPY

- Used to copy the R/G/B Gain value of pre-stored color temperature settings.
- In CUSTOM mode, find and select the color temperature to be used by using UP/DOWN button and press ENTER button to copy and apply the Gain Value to GAIN RED, GAIN GREEN, GAIN BLUE.
- Only available in CUSTOM 1/2/3 mode.

## 5. Menu Operations

### [3] COLOR



- **SD COLOR SPACE**

- Auto Color Space selection mode for SD signal input.

- **GAMMA CURVE**

- Used to change the Gamma Curve from 1.0 to 3.0.
- 1.0 .....3.0 (0.1 STEP CONTROL)

- **BACK LIGHT**

- Used to control LCD Panel's brightness.
- Available values are from 10 to 255.

- **COLOR SPACE**

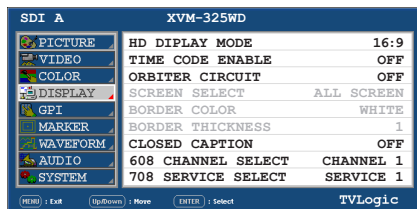
- Used to select Color Space.
- Available modes are NATIVE COLOR, REC-709(sRGB), SMPTE-C, EBU, D-CINEMA and USER.

- **HD COLOR SPACE**

- Auto Color space selection mode for HD Signal input.

# 5. Menu Operations

## [4] DISPLAY



### ● HD DISPLAY MODE

- Used to control the display ratio of HD mode. Available values are 16:9, 1.85:1 and 2.35:1.

### ● TIME CODE ENABLE

- Used to display the Time Code.
- Available modes are VITC, LTC and OFF.

### ● ORBITER CIRCUIT

- Used to prevent image sticking effect on LCD Panels when signal input is used. The user may decide number of pixels to move.
- The number of pixels should be within range between MIN(0) and MAX(100). Moving speed is 10 minutes per one pixel line.

### ● SCREEN SELECT

- Used to control the individual screens(1 or 2) or full screen (both) in PBP Mode.
- Screen selection order: ALL SCREEN -> SCREEN 1 -> SCREEN 2

### ● BORDER COLOR

- Used to select the border line color between the screens in PBP Mode.

### ● BORDER THICKNESS

- Used to select the thickness of the border lines the screens in PBP Mode.

### ● CLOSED CAPTION

- Used to select Closed Caption.
- Available modes are OFF, 708, 608(LINE21) and 608(ANC).
- \* 608 : CEA-608-B, 708 : CEA-708-C standard display only

### ● 608 CHANNEL SELECT

- Used to select Closed Caption 608 channel.
- Supports CC1~CC4.

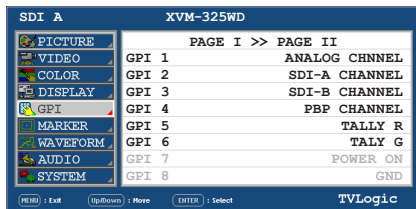
### ● 708 CHANNEL SELECT

- Used to select Closed Caption 708 channel.
- Supports SERVICE 1~SERVICE 6.



# 5. Menu Operations

## [5] GPI



● This product provides a REMOTE CONTROL mode. The user may connect RJ-45 jack to the REMOTE terminal on the rear of the unit and designate a function for each pin.

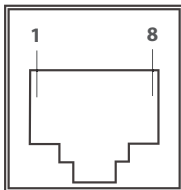
- The default settings are as follows:  
 PIN 1 : ANALOG CHANNEL  
 PIN 2 : SDI-A CHANNEL  
 PIN 3 : SDI-B CHANNEL  
 PIN 4 : PBP CHANNEL  
 PIN 5 : TALLY R  
 PIN 6 : TALLY G  
 PIN 7 is POWER ON/OFF use only, PIN 8 is GND

- Use the ENTER button and UP/DOWN button to set the desired function.

Menu Classification	Settable Values
PIN 1~6	NONE, ANALOG CHANNEL, SDI-A CHANNEL, SDI-B CHANNEL, PBP CHANNEL, TALLY R, TALLY G, UNDER SCAN, 1:1 SCAN, ASPECT, H/V DELAY, BLUE ONLY, MONO, 16:9 MARKER, 4:3 MARKER, 4:3 ON AIR MARKER, 15:9 MARKER, 14:9 MARKER, 13:9 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%, 708, 608(LINE21), 608(ANC), OP47
PIN 7	POWER ON/OFF CONTROL
PIN 8	GND

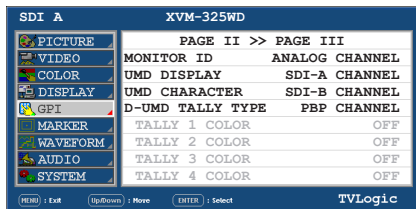
### REMOTE (RJ-45)

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



# 5. Menu Operations

## [5] GPI



### ● MONITOR ID

- Used to set the ID of each monitor for the TVLogic control protocol or DYNAMIC UMD using RS-422/485 communication.
- Available values are between 0 ~ 99.

### ● UMD DISPLAY (Under Monitor Display)

- Used to set input source ID mode.
- Available modes are UMD, ANC, D-UMD(S-8C), D-UMD(S-16C), D-UMD(D-8C) and OFF.
- If UMD menu is selected, characters or tally data in the black bar displays on the bottom of the screen. The vertical aspect ratio of the image changes on the screen as the bar on the bottom of screen appears.
- In the USER ASPECT mode, the UMD bar displays semi-transparently and the screen keeps its USER ASPECT ratio.
- \* UMD : Displays user customized 8 characters on screen.
- \* ANC : Displays characters embedded in SDI signal.
- \* D-UMD(S-8C) : Displays incoming data of 8 characters and tally signal from TSL protocol (V3.1).
- \* D-UMD(S-16C) : Displays incoming data of 16 characters and tally signal from TSL protocol (V3.1).
- \* D-UMD(D-8C) : Displays incoming data of two pairs of 8 character strings and tally signals from TSL protocol (V3.1).

### ● UMD CHARACTER

- Used to customize the characters for UMD.
- Alphabets, numbers and special symbols are available. (Max. 8 characters)

### ● D-UMD TALLY TYPE

- Tally type configuration setting in D-UMD(D-8C), UMD Display.
- Configuration values are DEFAULT, USER COLOR, CHARACTER, BG.COLOR, USER TALLY, USER CHAR and USER BG.

### ● TALLY1 COLOR / TALLY2 COLOR / TALLY3 COLOR / TALLY4 COLOR

- Used to set the color of each TALLY 1, TALLY 2, TALLY 3 and TALLY 4.
- Available colors are RED, GREEN and YELLOW.
- B0:0 B1:0 / B0:1 B1:0 / B0:0 B1:1 / B0:1 B1:1 (OFF, WHITE, RED, GREEN, BLUE, YELLOW, CYAN, MAGENTA)
- Activates only when the D-UMD TALLY TYPE is set to USER TALLY, USER CHAR or USER BG.
- Available values are OFF, WHITE, RED, GREEN, BLUE, YELLOW, CYAN and MAGENTA.

## 5. Menu Operations

### [5] GPI

#### <Dynamic UMD Protocol (TSL V3.1)>

\* Transmission (18 Byte) (PC or Device -> Monitor)

HEADER (1 BYTE)	CONTROL BYTE(1 BYTE)	DISPLAY DATA (16 BYTE)
--------------------	-------------------------	---------------------------

\* **[HEADER]** : Display address (0~126) + 80 hex.

\* **[CONTROL BYTE]**

**bit 0 : Tally 1 (1=on, 0=off)**

**bit 1 : Tally 2 (1=on, 0=off)**

**bit 2 : Tally 3 (1=on, 0=off)**

**bit 3 : Tally 4 (1=on, 0=off)**

bit 4 : bright data (Not used)

bit 5 : bright data (Not used)

bit 6 : reserved (Not used)

bit 7 : cleared to 0 (Not used)

\* **[DISPLAY DATA]** : 16 displayable ASCII characters.

Tally1

CHANNEL1

Tally2

Tally3

CHANNEL1





Tally4

## 5. Menu Operations





### [5] GPI

#### ● Tally Type - Default

- S-8C(Single 8 Character) & S-16C(Single 16 Character)

Bit 1 (Tally2)	Bit 1 (Tally1)	Operation
0	0	
0	1	
1	0	
1	1	

- D-8C(Dual 8 Character)

Bit 1 (Tally4)	Bit 1 (Tally3)	Operation
0	0	
0	1	
1	0	
1	1	

#### ● D-UMD TALLY TYPE – USER COLOR

- Color selections between TALLY1 ~ TALLY4.

The following appearance of UMD DISPLAY is set as D-UMD(D-8C), D-UMD TALLY TYPE and TALLY1 ~ TALLY4 COLOR.

D-UMD TALLY TYPE

TALLY1 COLOR

TALLY2 COLOR

TALLY3 COLOR

TALLY4 COLOR

USER COLOR

RED

GREEN

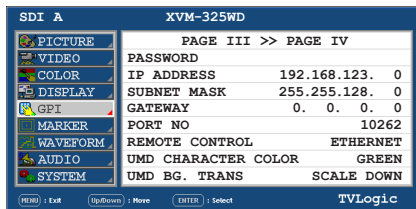
RED

YELLOW

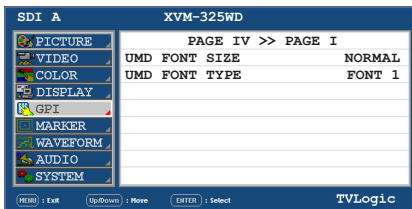


# 5. Menu Operations

## [5] GPI



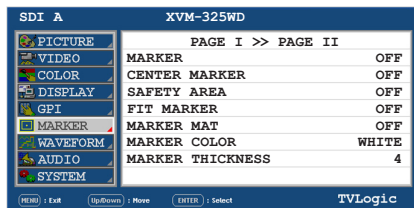
- **PASSWORD**
  - Used to set password for download the program via Ethernet. The password set for the monitor must match with the password for the download program.
- **IP ADDRESS**
  - Used to set the IP address connected to a Monitor.
- **SUBNET MASK**
  - Used to set the SUBNET MASK connected to a Monitor.
- **GATEWAY**
  - Used to set the GATEWAY connected to a Monitor.
- **PORT NO**
  - Used to set the port number. Default port number is 10262.
- **REMOTE CONTROL**
  - Used to set the port for Remote Control. (ETHERNET, RS-422)
- **UMD CHARACTER COLOR**
  - Used to set the color of UMD character.
  - Available colors are WHITE, RED, GREEN, BLUE, YELLOW, CYAN and MAGENTA.
- **UMD BG. TRANS**
  - Used to set the transparency of the UMD background.
  - Available values are SCALE DOWN, OPAQUE, 50%, 90% and 100%.



- **UMD FONT SIZE**
  - This function adjusts the size of UMD FONT.
  - Available modes are SMALL, NORMAL and LARGE.
- **UMD FONT TYPE**
  - This function sets the Type of UMD FONT.
  - Available font types are FONT 1, FONT 2 and FONT 3.

# 5. Menu Operations

## [6] MARKER



### ● MARKER

- Used to select the marker type when the MARKER is displayed on the screen.
- Activates only by pressing the MARKER button on the front of the monitor.
- Compatible MARKER types are as follows:

MODE	MARKER CLASS
HD	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, 4:3 ALT 16:9, 16:9 ALT 14:9, 16:9 ALT 4:3, AFD, USER
SD 16:9	
SD 4:3	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, 4:3 ALT 16:9, 16:9 ALT 14:9, 16:9 ALT 4:3, AFD, USER

If AFD is selected, the embedded Aspect ratio signal in the video signal will be extracted and displayed as a marker.

### ● CENTER MARKER

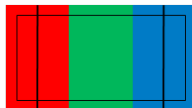
- Used to display the CENTER MARKER on the screen. This function operates only after activating the MARKER function by pressing the MARKER button on the front of the monitor.

### ● SAFETY AREA

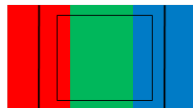
- Used to select to display and control the size of the SAFETY AREA.
- Available types are 80%, 88%, 90%, 93%, 100%, EBU ACTION 16:9, EBU GRAPHIC 16:9, EBU ACTION 14:9, EBU GRAPHIC 14:9, EBU ACTION 4:3 and EBU GRAPHIC 4:3.
- This function operates only after activating the MARKER function by pressing the MARKER button on the front of the monitor.

### ● FIT MARKER

- Used to activate the FIT MARKER function.
- With FIT MARKER "ON", the safety area is displayed relative to the marker in use. With FIT MARKER "OFF", the safety area is displayed relative to the incoming source.
- FIT MARKER ON/OFF displays as shown below.



- MARKER : 4:3
- SAFETY AREA : 90%
- FIT MARKER : OFF



- MARKER : 4:3
- SAFETY AREA : 90%
- FIT MARKER : ON

### ● MARKER MAT

- This item darkens the area of the outside of MARKER setting area. The degree of darkness is between OFF(Transparency) and 7(Black). The higher the number, the darker MARKER border becomes.

### ● MARKER COLOR

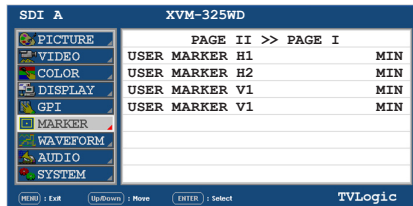
- Used to control the color of MARKER lines.
- Available colors are white, gray, black, red, green and blue.

### ● MARKER THICKNESS

- This item controls the thickness of the MARKER lines. The degrees of thickness are between 1 and 7.

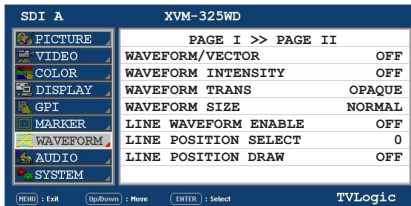
# 5. Menu Operations

## [6] MARKER



- **USER MARKER H1**
  - Used to control the position of the first user defined horizontal marker line.
  - Marker option USER needs to be selected.
- **USER MARKER H2**
  - Used to control the position of the second user defined horizontal marker line.
  - Marker option USER needs to be selected.
- **USER MARKER V1**
  - Used to control the position of the first user defined vertical marker line.
  - Marker option USER needs to be selected.
- **USER MARKER V2**
  - Used to control the position of the second user defined vertical marker line.
  - Marker option USER needs to be selected.

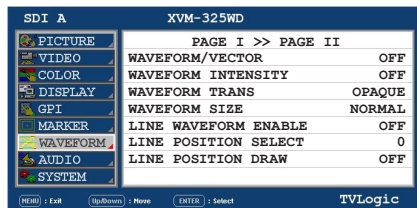
## [7] WAVEFORM



- **WAVEFORM/VECTOR**
  - Used to set the Waveform and Vectorscope.
  - This feature is available in SDI, COMPOSITE 1/2/3, S-VIDEO, COMPONENT modes.
  - Selectable features: OFF, WAVEFORM, VECTOR, YCbCr, MODE 1(WAVEFORM + VECTORY), MODE 2(VECTOR + Y/Cb/Cr), WIDE-Y
  - Displays on the bottom right of the screen and moves above the UMD, if UMD feature is selected.
  - \* **WAVEFORM** : Displays the shape and form of luminance level of a signal.
  - \* **VECTOR** : Displays color components B-Y and R-Y of the input signals on the XY axis. HD and SD inputs are classified into two kinds, depending on the input. 100% and 75% scales indicated on a display.
  - \* **Y/Cb/Cr** : Displays each Waveform for elements of the luminance and Cb/Cr of the input signal.
  - \* **RGB** : Displays each Waveform for elements of the Red, Green and Blue of the input signal.
  - \* **MODE 1** : Displays Waveform and Vectorscope simultaneously.
  - \* **MODE 2** : Displays Vectorscope and Y/Cb/Cr Waveform simultaneously.
  - \* **MODE 3** : Displays Vectorscope and RGB Waveform simultaneously.
  - \* **WIDE-Y** : Displays stretched luminance components of the input signal to fit width of the screen on the bottom of the monitor

# 5. Menu Operations

## [7] WAVEFORM

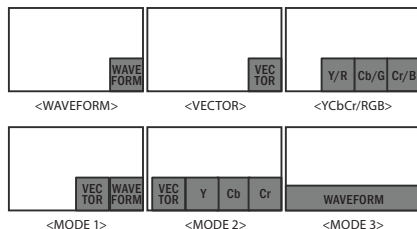


### ● LINE SELECT POSITION

- In WAVEFORM/VECTOR, use the Up/Down button to select User's desired line.

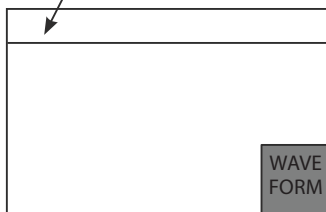
### ● LINE SELECT DRAW

- ON/OFF the line indication for line select feature.  
- Activates only when the LINE SELECT ENABLE feature is enabled.  
- When this item is set to OFF, the Line Waveform still displays if LINE WAVEFORM is enabled.



Position changes if the value changes in LINE SELECT option and the waveform of the selected position displays.

**WAVEFORM/VECTOR : WAVEFORM**  
**LINE POSITION SELECT : ON**  
**LINE POSITION DRAW : ON**



### ● WAVEFORM INTENSITY

- Used to control the brightness of the WAVEFORM/VECTOR display.  
- Available values are between 0 ~ 30. The higher the number the brighter the Waveform will be.

### ● WAVEFORM TRANS

- Used to control the transparency level of the WAVEFORM/VECTOR.  
- Available values are OPAQUE and TRANS.  
\* If the option is set to OPAQUE, the main OSD will overlap with the WAVEFORM/VECTOR. However, it will automatically display it as transparent and goes back to opaque if the main OSD disappears.

### ● WAVEFORM SIZE

- Used to control the size of WAVEFORM/VECTOR.  
- Available modes are NORMAL and LARGE.

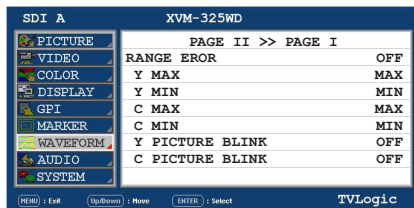
### ● LINE SELECT ENABLE

- This item is utilized to display the entire data or one line data on the waveform.



# 5. Menu Operations

## [7] WAVEFORM



### ● Y PICTURE BLINK

- Used to set selections of image that exceeds Y MAX and Y MIN to blink.

### ● C PICTURE BLINK

- T Used to set selections of image that exceeds C MAX and C MIN to blink.

### ● RANGE ERROR

- Used to display the values of Y MAX, Y MIN, C MAX, C MIN, Y PICTURE BLINK and C PICTURE BLINK on the screen.

- Selected values in Y MAX, Y MIN, C MAX, C MIN are indicated in WAVEFORM/VECTOR or Y/Cb/Cr.

- If Y PICTURE BLINK or C PICTURE BLINK is enabled, the section of image that exceeds the selected values of Y MAX, Y MIN, C MAX and C MIN blinks.

### ● Y MAX

- Used to set the maximum luminance level.

- Available values are between 1 ~ 127.

Exceeded selection displays on the top portion of the Waveform or display.

### ● Y MIN

- Used to set the minimum luminance level.

- Available values are between 1~ 127.

Exceeded selection displays on the top portion of the Waveform or display.

### ● C MAX

- Used to set the maximum chroma level.

- Available values are between 1 ~ 127.

Exceeded selection displays on the top portion of the Waveform or display.

### ● C MIN

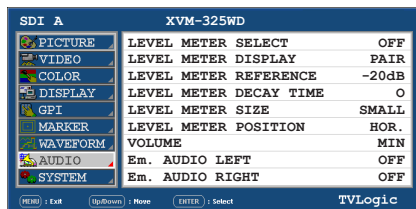
- Used to set the minimum chroma level.

- Available values are between 1 ~ 127.

Exceeded selection displays on the top portion of the Waveform or display.

# 5. Menu Operations

## [8] AUDIO



### ● LEVEL METER SELECT

- Used to control the Embedded Audio Level Meters.

- Available modes are OFF, G1+G2, G2+G3, G3+G4, G1+G3, G1+G4, G2+G4 and 16CH.

- If Main Menu window activates, the level meter displays semi-transparent even if [LEVEL METER SIZE] menu is set to Normal. It returns to normal when the Main Menu window is deactivated.

### ● LEVEL METER DISPLAY

- Used to control display method of Audio Level Meters.

- Available modes are Pair and Group.

### ● LEVEL METER REFERENCE

- Used to set audio level default.

- Available values are -18dB and -20dB.

- Audio within selected value is displayed in green and exceeded audio level is displayed in yellow.

- Audio exceeding -4dB is displayed in red.

### ● LEVEL METER DECAY TIME

- Used to set the reduction time of the maximum indication of audio signals.

- Available values are form 0 to 31. Larger values indicate a longer time to display.

### ● LEVEL METER SIZE

- Used to control the size of the Audio Level Meters.

- Available modes are SMALL, SMALL TRANS, NORMAL, NORMAL TRANS, LARGE and LARGE TRANS.

- In SMALL, NORMAL and LARGE modes, the Audio Level Meter appears opaque.

- In SMALL TRANS., NORMAL TRANS and LARGE TRANS modes, the Audio Level Meter appears semitransparent.

### ● LEVEL METER POSITION

- Used to control the position of the Audio Level Meters.

- Available values are HOR, VER and BOT.

\*16 CH(HOR.): Displays each 8 channel audio level meter horizontally on top left and right.

\*16 CH(VER.): Displays each 8 channel audio level meter vertically on center left and right.

\*16 CH(BOT.): Displays each 8 channel audio level meter vertically on bottom left and right.

### ● VOLUME

- Used to control the embedded audio output volume for the internal speakers of the monitor.

- Available values are between 0 ~ 30.

### ● Em. AUDIO LEFT

- Used to control embedded audio channel for left audio out of internal speaker and [AUDIO OUT] in the back of the monitor.

- In HDMI mode, HDMI audio output.

- Available values are OFF, CH 1 ~ CH 16 and Ext

### ● Em. AUDIO RIGHT

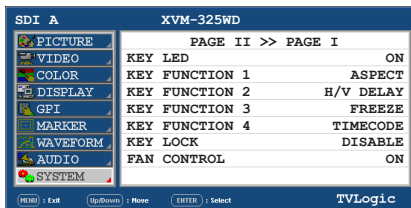
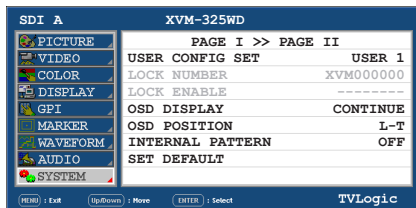
- Used to control embedded audio channel for right audio out internal speaker of the monitor.

- In HDMI mode, HDMI audio output.

- Available values are OFF, CH 1 ~ CH 16 and Ext.

# 5. Menu Operations

## [9] SYSTEM



### ● USER CONFIG SET

- Used to save and apply three kinds of user configuration.
- Available modes are USER1, USER2 and USER3.
- Effective items for each USER1, USER2 and USER3 settings are [MARKER] menu of MARKER, CENTER MARKER, SAFETY AREA, MARKER MAT and MARKER COLOR and [PICTURE] menu of , BRIGHT, CONTRAST, CHROMA, PHASE, APERTURE and NOISE REDUCTION

### ● LOCK NUMBER

- Lock number is product's serial number.

### ● LOCK ENABLE

- Factory use only.

### ● OSD DISPLAY

- Controls the OSD display time.
- Available values are 20 SEC, 6 SEC and CONTINUE.

### ● OSD POSITION

- Controls the OSD position.
- Available positions are CENTER, Top-Right(R-T), Bottom-Right(R-B), Bottom-Left(L-B) and Top-Left(L-T).

### ● INTERNAL PATTERN

- This item generates internal white pattern.
- The white level select between 0% and 100% (Per 5% increase or decrease)

### ● SET DEFAULT

- User can use SET DEFAULT menu to initialize to factory setting.
- Set default items are BRIGHT, CONTRAST, CHROMA, PHASE and APERTURE and set 0.

### ● KEY LED

- This item controls KEY LED ON/OFF.
- If the button with LED is pressed with the KEY LED Off, LED comes on but goes off after 5 seconds later.

### ● KEY FUNCTION 1

- User can select the function for [F1] button.
- Selectable Items : ASPECT, H/V DELAY, FREEZE, WAVEFORM, TIMECODE, CC SEL, ALM SEL., OUTPUT MODE, FAST MODE, FILTER, FORCE Psf, UMD, COLOR TEMP and BLUE ONLY.

### ● KEY FUNCTION 2

- User can select the function for [F2] button.
- Selectable Items : ASPECT, H/V DELAY, FREEZE, WAVEFORM, TIMECODE, CC SEL, ALM SEL., OUTPUT MODE, FAST MODE, FILTER, FORCE Psf, UMD, COLOR TEMP and BLUE ONLY.

### ● KEY FUNCTION 3

- User can select the function for [F3] button.
- Selectable Items : ASPECT, H/V DELAY, FREEZE, WAVEFORM, TIMECODE, CC SEL, ALM SEL., OUTPUT MODE, FAST MODE, FILTER, FORCE Psf, UMD, COLOR TEMP and BLUE ONLY.

### ● KEY FUNCTION 4

- User can select the function for [F4] button.
- Selectable Items : ASPECT, H/V DELAY, FREEZE, WAVEFORM, TIMECODE, CC SEL, ALM SEL., OUTPUT MODE, FAST MODE, FILTER, FORCE Psf, UMD, COLOR TEMP and BLUE ONLY.

### ● KEY LOCK

- This item locks all buttons on the front panel except power, input select, and menu buttons.

### ● FAN CONTROL

- This item toggles Fan Operation Control ON/OFF.

# 5. Menu Operations

## [9] SYSTEM

SDI A

XVM-325WD

PICTURE

VIDEO

COLOR

DISPLAY

GPI

MARKER

WAVEFORM

AUDIO

SYSTEM

PAGE III >> PAGE I

BOARD VERSION 0101 1306 4.00 9

	MAIN	PBP1	PBP2
BRIG :	0	0	0
CONT :	0	0	0
COLOR :	6500K	6500K	6500K
SCAN :	ZERO	OVER	OVER
ALM :	OFF	OFF	OFF

KEYPAD VERSION

MCU VERSION

FPGA VERSION

GPU VERSION

NEED : Exit

Up/Down : Menu

ENTER : Select

TVLogic

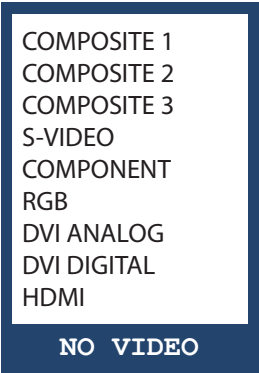
- INFORMATION
  - Displays board version and current status information.

## 6. Other Functions

### [1] ANALOG

● This product is capable of processing all input signals usable in ANALOG mode. The ANALOG input settings are as follows:

1. Press ANALOG button on the front of the product and activate the menu below.

A screenshot of the OSD menu for ANALOG input settings. The menu is displayed in a white box with a dark blue border. The options listed are: COMPOSITE 1, COMPOSITE 2, COMPOSITE 3, S-VIDEO, COMPONENT, RGB, DVI ANALOG, DVI DIGITAL, and HDMI. At the bottom of the box, the text "NO VIDEO" is displayed in white on a dark blue background.

COMPOSITE 1  
COMPOSITE 2  
COMPOSITE 3  
S-VIDEO  
COMPONENT  
RGB  
DVI ANALOG  
DVI DIGITAL  
HDMI

NO VIDEO

2. Use the UP/DOWN button to select desired input source and press the ENTER button to confirm.

3. Input signal resolution displays on the bottom of OSD menu.

4. Press ANALOG button again to remove the OSD menu from display.

5. Menu will be disappeared when time set is over from the screen

<Warning!!>

When using ANALOG mode, always check the input method and modify the setting as needed for optimized output results.

### [2] SCAN

● This product supports various scan modes.

● Press [SCAN] button on the front of the monitor to activate different scan modes.

1. Press [SCAN] button continuously to activate various scan modes.

- OVER SCAN -> ZERO SCAN -> UNDER SCAN  
-> 2:1 SCAN -> 1:1 SCAN -> FIT WIDTH -> USER ASPECT

2. Scan mode types are differed by connected signal.

- SDI, COMPONENT, RGB : OVER SCAN -> ZERO SCAN -> UNDER SCAN -> 2:1 SCAN -> 1:1 SCAN -> FIT WIDTH -> USER ASPECT  
- DVI ANALOG, DVI DIGITAL, HDMI : OVER SCAN -> ZERO SCAN -> 2:1 SCAN -> 1:1 SCAN -> USER ASPECT  
- COMPOSITE 1/2/3, S-VIDEO : OVER SCAN -> ZERO SCAN -> 2:1 SCAN -> 1:1 SCAN -> USER ASPECT

## 6. Other Functions

### [2] SCAN

3. The following represents the different types of scan mode. When a scan mode is selected, display skips the next mode if its required condition is not met.

- OVER SCAN : Zooms in/out of the image to 96% of its original size without changing the aspect ratio of.

- ZERO SCAN : Zooms in/out of the image without changing the aspect ratio.

- UNDER SCAN : Zooms in/out of the image without changing the aspect ratio. Also, displays the data at the top of the horizontal blanking block.

- 2:1 SCAN : Magnifies the original image two times. This feature is available only when the size of the original image is 1/2 size or smaller than the screen size.

- 1:1 SCAN : 1:1 pixel mapping of original image. This feature is available only when the size of the original image is bigger than the screen size. Press [ENTER] button to rotate the position.

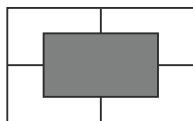
MID LEFT -> TOP LEFT -> TOP MID -> TOP RIGHT -> MID RIGHT -> BOT RIGHT -> BOT MID -> BOT LEFT

- FIT WIDTH : In SD mode, zooms in to fit width of the original image to the width of the screen without changing the aspect ratio.

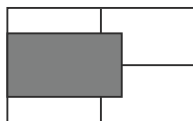
- USER ASPECT : Displays in user aspect ratio of HORIZONTAL and VERTICAL value that is selected under USER ASPECT item in [PICTURE] MENU.

- 3 X Z O O M : This feature is only available under PBP 16:9 mode and displays the image with 2 x zoom in.

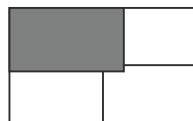
When "3 X ZOOM" message window appears, press [ENTER] button to activate vertical position control of image. Use [UP]/[DOWN] button to adjust the vertical position of image. Press [ENTER] button again to activate horizontal position control of image. Use [UP]/[DOWN] button to adjust the horizontal position of image.



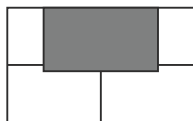
<MID CENTER>



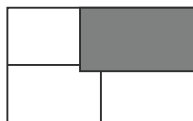
<MID LEFT>



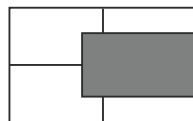
<TOP LEFT>



<TOP MID>



<TOP RIGHT>



<MID RIGHT>



<BOT RIGHT>



<BOT MID>



<BOT LEFT>

<Position change in 1:1 SCAN>

## 6. Button Functions

### [3] ASPECT

1. Four different aspect modes are available. When input signal is SDI -A/B, Composite 1/2/3 and Input Signal Format is SD :

1) 4:3 mode : Cuts left and right of the original image to fit to 4:3 aspect ratio.

2) 16:9 mode : Stretches the image in "1) 4:3 mode" to fit to 16:9 aspect ratio.

3) 4:3Ex : Extends the image vertically without altering the source image.

4) 16:9Ex : Stretches the image in "3) 4:3 mode(extend)" to fit to 16:9 aspect ratio.

NTSC and PAL signals are known to be 4:3 aspect ratio signals, but their aspect ratio is not exactly 4:3. Therefore, select "1) 4:3 mode" to display the exact 4:3 aspect ratio, select "3) 4:3 mode (extend)" to display the image without altering the source image.

\* ASPECT button lamp status: 1 - 1)/3) Off, 2 - 2)/4) : On.

2. When input signal is COMPOSITE 1/2/3, S-VIDEO, RGB, DVI ANALOG, DVI DIGITAL or HDMI mode, all "1 - 1),2),3),4)" display the image in 4:3 and 16:9 without altering the source image.

3. For the above aspect modes, ZERO SCAN is the standard scan mode. And, in the other scan modes, aspect ratio changes using the image in its selected scan mode.

### [4] PBP(Picture-by-Picture)

1. Press PBP button to activate the PBP function. Then the two images will be displayed in the monitor. In Normal Screen(when an individual screen is not selected in PBP mode), key function and OSD function apply for two images simultaneously.



\*\* PBP: Picture-by-Picture

TWO different multi screen formations are available. Press the PBP button to change the screen formation as shown in the above picture.

2. To control the individual image in multi screen, use the Screen F1 key to select the desired display then control the desired function. Selected image will be highlighted.



## 6. Other Functions

### [5] INPUT LIMIT FOR ANALOG (PBP MODE)

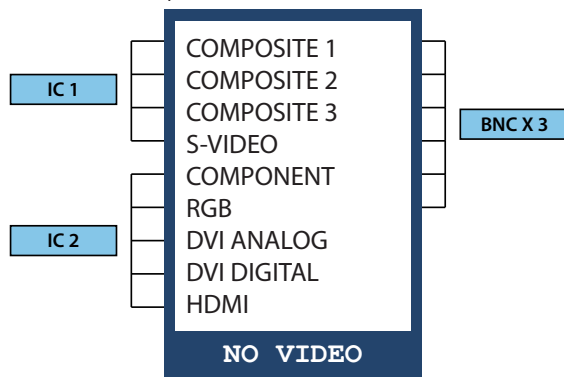
1. There is a limitation for Analog input in PBP Mode. (No limitation for SDI signals)

2. There are 3 BNC for the Analog inputs. So, if the BNCs or one of the BNCs is used for an Analog already, it cannot be used for another Analog input with the same BNC.

And as you see the picture below, there are 2 IC used for the signals.

If an IC is already used, another input for the same IC cannot be inputted.

3. For example, if a COMPOSITE1 is selected on SCREEN 2, and if you wish to display COMPOSITE 2 on SCREEN 1, then the COMPOSITE 1 on SCREEN 2 will be automatically changed to SDI A. Because the two COMPOSITE signals can be displayed at the same time.



	COMPOSITE 1	COMPOSITE 2	COMPOSITE 3	S-VIDEO	COMPONENT	RGB	DVI ANALOG	DVI DIGITAL	HDMI
COMPOSITE 1	O	X	X	X	X	X	O	O	O
COMPOSITE 2	X	O	X	X	X	X	O	O	O
COMPOSITE 3	X	X	O	X	X	X	O	O	O
S-VIDEO	X	X	X	O	X	X	O	O	O
COMPONENT	X	X	X	X	O	X	X	X	X
RGB	X	X	X	X	X	O	X	X	X
DVI ANALOG	O	O	O	O	X	X	O	X	X
DVI DIGITAL	O	O	O	O	X	X	X	O	X
HDMI	O	O	O	O	X	X	X	X	O



## 7. DVI Support Resolution

### DVI ANALOG / DIGITAL SUPPORT RESOLUTION

- DVI-ANALOG mode supports the following modes :

Resolution	Frequency
640 X 480	60Hz, 75Hz
720 X 400	70Hz
800 X 600	60Hz, 72Hz, 75Hz
1024 X 768	60Hz, 70Hz, 75Hz
1366 X 768	60Hz / 75Hz
1280 X 1024	60Hz / 75Hz
1600 X 1200	60Hz
1920 X 1080	60Hz

- DVI DIGITAL Graphic mode supports the following modes :

Resolution	Frequency
640 X 480	60Hz, 75Hz
800 X 600	60Hz, 72Hz, 75Hz
1024 X 768	60Hz, 70Hz, 75Hz
1366 X 768	60Hz / 75Hz
1280 X 1024	60Hz / 75Hz
1600 X 1200	60Hz
1920 X 1080	60Hz
1920 X 1200	60Hz

- DVI DIGITAL Video mode supports the following input signals :

SMPTE-274M	1080i (60 / 59.94)
SMPTE-296M	720i (60 / 59.94)
SMPTE-125M	480i (59.94), 480p (59.94)

- DVI DIGITAL mode is separated into Graphic mode and Video mode.
- In DVI ANALOG/DIGITAL mode, ZERO scan must be selected for normal function.
- If the input image is in non-wide mode, press ASPECT button to change to wide display.

## 8. Product Specifications

LCD	Size	32"	
	Resolution	1920 X 1080	
	Pixel Pitch	0.36375(H) X 0.36375(W) mm	
	Color Depth	1.07B color (10bit)	
	Viewing Angle	R/L, U/D 178degrees	
	Luminance of white	500 cd/ m <sup>2</sup>	
	Contrast Ratio	1300 : 1	
	Display Area	698.4(H) X 392.85(V) mm	
Input Connector	1 X DVI-I	DVI IN	
	3 X BNC	Analog Input	
	2 X BNC	SDI A/B Channel Input	
	1 X HDMI	HDMI Input	
	1 X BNC	EXT SYNC INPUT	
Output	3 X BNC	Analog Output	
	2 X BNC	SDI A/B Channel (Active Through Out)	
	1 X BNC	EXT SYNC OUT(Active Through Out)	
Input Signal	Analog	Composite/ S-Video / Component Video / RGB	
	3G-SDI	2.970Gbps	
	HD-SDI	1.485Gbps	
	SD-SDI	270 Mbps	
	DVI	VESA/IBM Modes	
	HDMI	480i / 480p / 720p / 1080i / 1080p	
Analog Input Spec	Composite	1.0Vpp (with Sync)	
	S-Video	1.0Vpp (Y with Sync), 0.286Vpp(C)	
	Component	1.0Vpp (Y with Sync), 0.7Vpp (Pb,Pr)	
	RGB	1.0Vpp (Y with Sync), 0.7Vpp (Pb,Pr)	
SDI Input Signal Formats	SMPT-425M-A/B	1080p(50/59.94/600)	
	SMPT-372M	Dual HD-SDI YPbPr (4:2:2)	1080p(50/59.94/60)
		Dual HD-SDI YPbPr RGB (4:4:4)	1080p(50/59.94/60)
			1080p/psf(30/29.97/25/24/23.98)
	SMPT-274M	1080i (60/59.94/50)	
		1080p (30/29.97/25/24/24sF/23.98/23.98sF)	
	SMPT-296M	720p (60/59.94/50)	
	SMPT-260M	1035i (60/59.94)	
	SMPT-125M	480i (59.94)	
	ITU-R BT.656	576i (50)	
Audio Out		Analog Stereo (Phone Jack)	
Power		AC100~240V	
Power Consumption (Approx.)		740 Watts(AC/Typ.)	
Operating Temperature		0℃ to 40℃ (32°F to 104°F)	
Storage Temperature		-20℃ to 60℃ (-4°F to 140°F)	
Main Body Dimensions (mm/inch)		769.4 X 485.1 X 102.1 (30.29 X 19.1 X 4.02)	
Main Body Dimensions with stand (mm/inch)		769.4 X 539.3 X 255 (30.29 X 21.23 X 10.03)	
Box Dimensions (mm/inch)		920 X 675 X 350 (36.22 X 26.57 X 13.78)	
Weight		22.25Kg / 49.25 lbs	
Basic Accessories		AC Power Cord, Stand	
Optional Accessories		Carrying Case, Wall Mount	

\* The specification above may be changed without notice.

# 9. Optional Accessories



ND Glass Filter 1.7 2.4



External Acrylic Filter 5.6 7 9



Rack Mountable Kit 7 8.4 9 10.5 11.5 24



Tripod Head 5.6 7 8.4 9



V-Mount 5.5 7 8.4



Hood 5.6 7 9 15 17



Carrying Case 5.6 7 8.4 9 15 17 24 30 40 46 55



## RACK MOUNT ANY DISPLAY UP TO 24"



7 inch



8.4 inch



9 inch



15 inch



17 inch



24 inch











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