

Multi Format LCD MONITOR

Operation Manual

24" Integrated multi format HD Quad input monitors

LQM-241W



TVlogic

Contents

CAUTION	2
FEATURES	4
NAME & FUNCTION OF EACH PART	5
MENU ORGANIZATION & ADJUSTMENT	9
MENU CONTENTS	10
OTHER FUNCTIONS	20
PRODUCT SPECIFICATION	24
PRODUCT LINEUP	25
OPTIONAL ACCESSORIES	29

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 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.

ALWAYS USE SET VOLTAGE. AC 100 ~ 240V (1.6A/50~60HZ), DC 24V (TYP 3.2A) [ONLY LQM-241W]

- 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.
- 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).
- * The screen modes are defined as below:
 - Normal or Single Mode : One input source (including Waveform) in one display.
 - Multi Mode : Two or more input sources in one display.

LQM SERIES HAVE THE FOLLOWING FEATURES:**o Compatible with varied SDI signals**

The product is compatible with varied SDI

Signals - 480i, 576i, 720p, 1080i, 1080p, 1080psF (SDI A, B, C, D 4 channels are compatible)

o Compatible with varied analog signals

The product is compatible with varied analog signals - Composite, S-Video, Component, RGB, etc.

o All-in-one type system

Slim and all-in-one type monitor that requires no other accessory, for optimized space utilization.

o Wide Screen compatible

Wide Screen for easier monitoring conditions.

o AC/DC compatible

The product may be powered by normal AC source, but also 24V DC(LQM-241W)

o Remote control function

Remote-controlled simply with cable connection without additional peripheral equipment attached to unit.

o DVI/HDMI(HDCP) function built-in

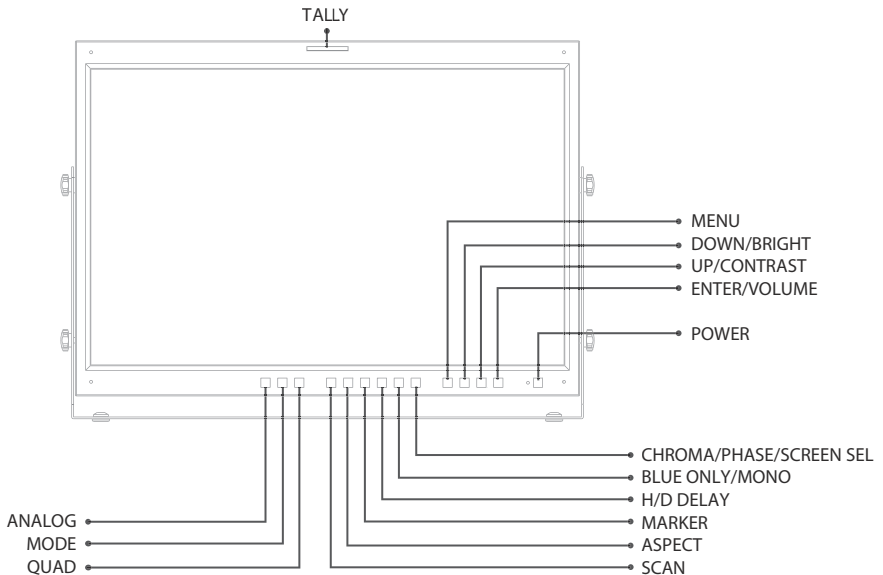
DVI_/HDMI(HDCP) Input is available without any other accessory.

o RS422/UMD feature support

Supports based on attached protocol.

In addition, the product is compatible with Wide Viewing Angle, Through OUT (SDI), VESA Mounting Standard, 800:1 contrast ratio(LQM-241W), 500cd brightness, User Interface and Rack-Mountable.

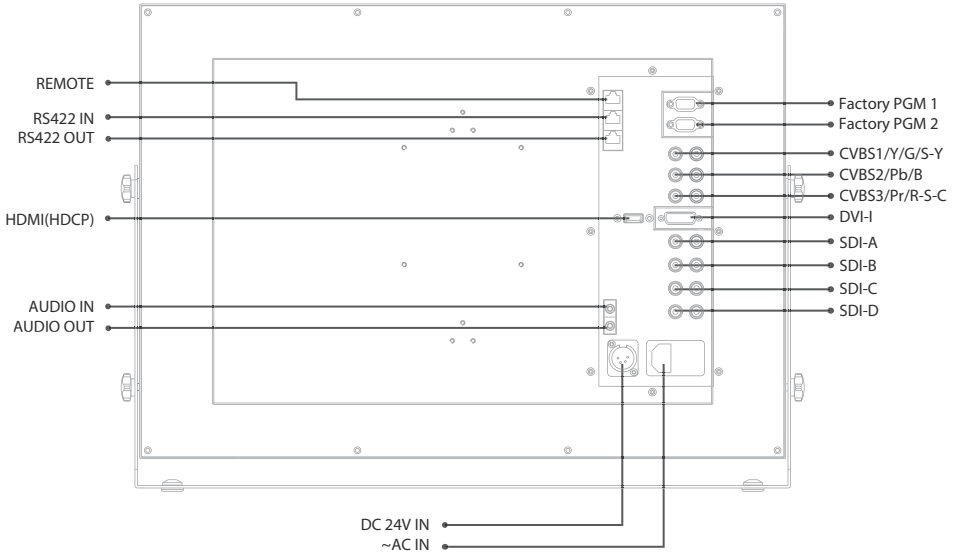
FRONT



- **[ANALOG] button/lamp**
- Used when ANALOG INPUT is selected. Sub Menu for analog input menu-selection appears.
- **[SDI MODE] button/lamp**
- Used when SDI INPUT A -> B -> C -> D is selected.
- **[SDI QUAD] button/lamp**
- Used when QUAD, PBP, 1 by 3, 2 Signal to vector & waveform is selected.
- **[SCAN] button/lamp**
- Used when transferring from OVER SCAN mode to UNDER SCAN mode.
(Compatible up to SD 1:1 SCAN mode.)
- **[ASPECT] button/lamp**
- Used when changing the monitor ratio on SD signal mode to 16:9.
- **[MARKER] button/lamp**
- Used when indicating MARKER on the screen. The type of marker at work may be selected on the main menu.
- **[H/V DELAY] button/lamp**
- Used when checking horizontal sync and vertical sync simultaneously.

- **[BLUE ONLY / MONO] button/lamp**
 - You may remove R(red) and G(green) from the input signal and play the screen only in B(blue) signal. And if the button hit twice, it will turn to MONO mode. (This mode use only luminance value.)
- **[CHROMA/PHASE/SCREEN SEL] (In Single Mode) button**
 - Used when changing the CHROMINCE and PHASE values during menu in-activation. One time of touch of the button will turn the product to CHROMA mode, and if the button is hit twice, to automatic PHASE setting.
(PHASE may be used only ANALOG mode.)
- **[CHROMA/PHASE/SCREEN SEL] (In Multi Mode) button**
 - Used to select a display in Multi Mode.
- **[MENU] button**
 - Used when OSD menu is activated.
- **[DOWN/BRIGHT] button**
 - Used when moving within the menus during OSD menu activation. It may also be used to control the BRIGHT value during OSD menu inactivation.
- **[UP/CONTRAST] button**
 - Used when moving within the menu during OSD menu activation. It may also be used to control the CONTRAST value during OSD menu inactivation.
- **[ENTER] button**
 - Used when confirming a chosen value (or mode) during OSD menu activation or inactivation.
- **[STANDBY] button**
 - 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 when power on and off.
- **[TALLY] lamp**
 - LED indicating monitors current status.

REAR



- **[REMOTE] (RJ-45)**
- It provides connector to build connection with extra equipment for monitor control.
- **[DVI-I IN]**
- When use our product at DVI display mode, DVI IN is input connector
- **[2 FACTORY PGM] (D-SUB 15 pins)**
- FACTORY PGM port can continuously update Firmware.(2 FPGA, 3 Scaler , mcu)
- **[CVBS1/Y/G/S-Y] (BNC)**
- Signal input terminal used to put in COMPOSITE 1, S-VIDEO Y, COMPONENT Y, RGB G signals.
- **[CVBS2/Pb/B] (BNC)**
- Signal input terminal used to put in COMPOSITE 2, RGB B, COMPONENT Pb signals.
- **[CVBS3/Pr/R/S-C] (BNC)**
- Signal input terminal used to put in COMPOSITE 3, S-VIDEO C, COMPONENT Pr, RGB R signals.









- **[SDI-IN A] (BNC)**
- SDI signal input terminal that provides A signal.
- **[SDI-OUT A] (BNC)**
- SDI signal output terminal used for SDI A output.
- **[SDI-IN B] (BNC)**
- SDI signal input terminal that provides B signal.
- **[SDI-OUT B] (BNC)**
- SDI signal output terminal used for SDI B output..
- **[SDI-IN C] (BNC)**
- SDI signal input terminal that provides C signal.
- **[SDI-OUT C] (BNC)**
- SDI signal output terminal used for SDI C output.
- **[SDI-IN D] (BNC)**
- SDI signal input terminal that provides D signal.
- **[SDI-OUT D] (BNC)**
- SDI signal output terminal used for SDI D output.
- **[Audio in & out]**
- Built in Audio Disembedder and Internal Speakers Stereo Audio out using phone jack.
External Audio in for Stereo Speaker out
- **[~ AC IN]**
- Used to supply AC power; 100V~240V input range.
- **[DC 24V IN]**
- Used to supply DC power 24V.
- **[Information]**
- Input VIDEO connection method.

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

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

1) Menu Organization

- Below is the organization of the product's menu.

PICTURE 1/2	LQM-241W	TVLogic
	BRIGHT	0
	CONTRAST	0
	CHROMA	0
	PHASE	0
	APERTURE	0
	NTSC SETUP	7.5 IRE
	FILTER	ON
	DITHERING	ON
SDI A		1080/29.97p

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

- Menu control sequence follows the order below

1. Press MENU button to bring OSD menu on the screen.
2. Display the desired sub menu with the UP/DOWN button.
3. After select a sub menu, press ENTER to select an item with UP/DOWN button.
4. Press ENTER to select the desired item. (Verified by highlighted field returning to default black color.)
5. Press ENTER to save the new value (verified by highlighted field returning to default black color.)
6. Press MENU once to remove OSD menu from the screen.

[1] PICTURE PART









PICTURE 1/2	LQM-241W	TVLogic
	BRIGHT	0
	CONTRAST	0
	CHROMA	0
	PHASE	0
	APERTURE	0
	NTSC SETUP	7.5 IRE
	FILTER	ON
	DITHERING	ON
SDI A		1080/29.97p

PICTURE 2/2	LQM-241W	TVLogic
	ORBITER CIRCUIT	OFF
	INTERNAL PATTERN	OFF
	VGA H POSITION	0
	VGA V POSITION	0
	FORCE psf	OFF
	FILM MODE DETECTION	AUTO
SDI A		1080/29.97p

- **BRIGHT**
This item controls the degree of brightness between MAX(50) and MIN (-50) range.
- **CONTRAST**
This item controls the contrast ratio between MAX(100) and MIN(-100).
- **CHROMA**
This item controls saturation between MAX(50) and MIN(-50).
- **PHASE**
This item controls PHASE value (Tone) between MAX(50) and MIN(-50). However, it is only available on COMPOSITE and S-VIDEO among ANALOG modes.

- **APERTURE**
This item controls the picture sharpness. Sharpness select between MIN(-1) and MAX(5).
- **NTSC SETUP**
This item sets IRE value in NTSC mode between 0 IRE and 7.5 IRE.
- **FILTER**
This item selects set the filter ON for smoother transitions between colors.
- **ORBITER CIRCUIT**
This item prevents 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 per 10 minutes.
* Above function only works in Normal mode (not in Quad mode).
- **INTERNAL PATTERN**
This item generates internal white pattern. The white level select between 0% and 100% (Per 5% increase or decrease)
* Above function only works in Normal mode (not in Quad mode).
- **FAST MODE**
This item minimize de-interlacing processing time delay. If user want to see without 1field time delay, use this mode.
- **VGA H POSITION**
This item controls VGA H position. It is only available on DVI analog mode.
- **VGA V POSITION**
This item controls VGA V position. It is only available on DVI analog mode.
- **DITHERING**
This item enables dithering to 10 bits.
- **FORCE psf**
This item sets psf mode for psf signals.
- **FILM MODE DETECTION**
This item enables film mode or disables.

[2] COLOR PART

COLOR	LQM-241W	TVLogic
 COLOR TEMP		6500K
 GAIN RED		0
 GAIN GREEN		0
 GAIN BLUR		0
 BIAS RED		0
 BIAS GREEN		0
 BIAS BLUE		0
 COLOR COPY		6500K
SDI A		1080/29.97p

- **COLOR TEMP**

- This item controls COLOR TEMPERATURE and is basically compatible with 5000K, 5600K, 6500K, 9300K and USER modes. On user mode, the user may select among R,G and B values.

- **GAIN RED**

- This item controls red color. The value should be within range between MIN(-255) and MAX(255).

- **GAIN GREEN**

- This item controls green color. The value should be within range between MIN(-255) and MAX(255).

- **GAIN BLUE**

- This item controls blue color. The value should be within range between MIN(-255) and MAX(255).

- **BIAS RED**

- This item adjusts black level to control red color. The value should be within range between MIN(-50) and MAX(50).

- **BIAS GREEN**

- This item adjusts black level to control green color. The value should be within range between MIN(-50) and MAX(50).

- **BIAS BLUE**

- This item adjusts black level to control blue color. The value should be within range between MIN(-50) and MAX(50).

- **COLOR COPY**

- This item is used when the user want to adjust only some particular parameters in basic setting color temperature value.

[3] MARKER PART

MARKER	1/2	LQM-241W	TVLogic
MARKER			16:9
CENTER MARKER			OFF
SAFETY MARKER			OFF
FIT MARKER			OFF
MARKER MAT			OFF
MARKER COLOR			WHITE
MARKER THICKNESS			2
SDI A		1080/29.97p	

MARKER	2/2	LQM-241W	TVLogic
USER MARKER H1			MIN
USER MARKER H2			MIN
USER MARKER V1			MIN
USER MARKER V2			MIN
SDI A		1080/29.97p	

- **MARKER**

This selects the marker type when the MARKER is displayed on the screen.

MARKER may only be activated 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,
SD 16:9	1.85:1 & 4:3, USER
SD 4:3	16:9

- **CENTER MARKER**

- This item displays 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**

- This item controls the size of the SAFETY AREA among 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.

- **FIT MARKER**

- This item sets the fit marker. When using the fit marker, safety area is displayed within the marker area.

- **MARKER MAT**

- This item darkens the area of the outside of MARKER setting area. The degrees of darkness are between OFF(0) and (7). The higher the number, the darker MARKER border becomes.

- **MARKER COLOR**

- This item controls the color of MARKER is generated. Settable colors are white, gray, black, red, green and blue.

- **MARKER THICKNESS**

This item controls the width of marker. The degrees of width are between 1 and 7.









- **USER MARKER H1 / H2**

This item controls the marker of horizontal value.

- **USER MARKER V1 / V2**

This item controls the marker of vertical value.

[4] REMOTE PART

REMOTE	LQM-241W	TVLogic
 PIN 1		ANALOG CHANNEL
 PIN 2		MODE CHANNEL
 PIN 3		QUAD CHANNEL
 PIN 4		TALLY R
 PIN 5		TALLY G
 PIN 6		UNDER SCAN
 PIN 7		POWER ON
 PIN 8		GND
SDI A		1080/29.97p






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 user designates function for PIN 1~PIN 6. PIN 7 is POWER ON/OFF use only. The selectable functions are as follows:

Menu Classification	Settable Values
PIN 1~6	NONE, ANALOG CHANNEL, MODE CHANNEL, QUAD CHANNEL, BLUE ONLY, SD 1:1 SCAN, UNDER SCAN, ASPECT, H/V DELAY, 16:9,15:9,14:9,13:9 MARKER, 4:3, 4:3 ON AIR MARKER, 1.85:1, 2.35:1 MARKER, 1.85:1&4:3 MARKER, CENTER MARKER,SAFETY AREA 80% / 88% / 90% / 93%, TALLY RED, TALLY GREEN

On the pin to be used, set the function you desire with the ENTER button and UP/DOWN button. The method of setting the value is the same as that for the MENU function discussed earlier.

[5] LAYOUT PART

LAYOUT	LQM-241W	TVLogic
	SCREEN SELECT	ALL SCREEN
	BORDER COLOR	WHITE
	BORDER THICKNESS	0
	WAVEFORM/VECTOR	WAVEFORM
		
SDI A		1080/29.97p

<Multi Mode>

- **SCREEN SELECT**

- By using Chroma/Phase Hot-Key, user can select and control the individual display in Multi Mode.
- ALL SCREEN -> SCREEN 1 -> SCREEN 2 -> SCREEN 3 -> SCREEN 4.

- **BORDER COLOR**








- This item selects the border line color between the displays in Multi Mode.

- **BORDER THICKNESS**

- This item selects the thickness of the border lines between the displays in Multi Mode.

- **WAVEFOR/VECTOR**

- This item selects the WAVEFROM/VECTOR.

LAYOUT	LQM-241W	TVLogic
	SCREEN SELECT	ALL SCREEN
	BORDER COLOR	WHITE
	BORDER THICKNESS	0
	WAVEFORM/VECTOR	OFF
	WAVEFORM TYPE	NORMAL
	WAVEFORM POSITION	R-B
	WAVEFORM SIZE	LARGE
SDI A		1080/29.97p

<Single Mode>

- **WAVEFORM/VECTOR**

- This item set waveform and vector scope.
- When set the waveform, displays the shape and form of luminance level of a signal. And Vector scope mode, displays an X-Y plot of color signal.

- **WAVEFORM TYPE**

- This item sets display type of waveform(User can't touch this item.)








- **WAVEFORM POSITION(Single Mode Only)**

- This item sets the waveform position.(R-B,C-B,L-B,L-T,C-T,R-T)

- **WAVEFORM SIZE**

- This item sets the waveform size.(Large,Medium,Small)

[6] SYSTEM PART

SYSTEM	1/3	LQM-241W	TVLogic
	SET DEFAULT		
	USER CONFIG SET		USER1
	BACK LIGHT		25
	AUDIO VOLUME		21
	AUDIO CHANNEL		CH1+CH2
	SERIAL NUMBER		YYYYYYYY
	BOARD VER	0100 0A01 0.01	5
SDI A		1080/29.97p	

- **SET DEFAULT**

- User can use the SET DEFAULTS menu to initialize the values of BRIGHT, CONTRAST, PHASE and CHROMA of the monitor.









- **USER CONFIG SET**

- This item saved monitor configuration. If user wants to save particular circumstance, use this mode.
- This mode supports three users.

- **BACK LIGHT**

- This item controls LCD Panel's brightness. The value should be within range between MIN(0) and MAX(50).

- **AUDIO VOLUME**
 - This item controls embedded audio volume between MIN (0) and MAX (30).
- **AUDIO CHANNEL**
 - This item sets embedded audio channel selects CH 1 ~ CH 16 and Off.
 - When multi screen mode, AUDIO outputs for SCREEN 1.
- **SERIAL NUMBER**
 - Product's serial number.
- **BOARD VER**
 - This item is serial number of product main board. (User can't touch this item.)

SYSTEM	2/3	LQM-241W	TVLogic
	KEY LED		ON
	OSD DISPLAY		20S
	OSD POSITION		CENTER
	UMD DISPLAY		OFF
	UMD CHARACTER		CAM 1
	TIME CODE ENABLE		VITC
	CLOSED CAPTION		OFF
	MONITOR ID		0
SDI A		1080/29.97p	

- **KEY LED**
 - This item controls KEY LED ON/OFF.
- **OSD DISPLAY**
 - This item controls OSD DISPLAY time. (20 sec or continue)
- **OSD POSITION**
 - This item controls OSD position. (Left-Top, Left-Bottom, Right-Top, Right-Bottom and Center.)
- **UMD DISPLAY**
 - This item is display input UMD. (UMD, ANC, DYNAMIC UMD)
- **UMD CHARACTER**
 - This item is set input UMD name. (Use Menu, Down, Up and Enter key.)

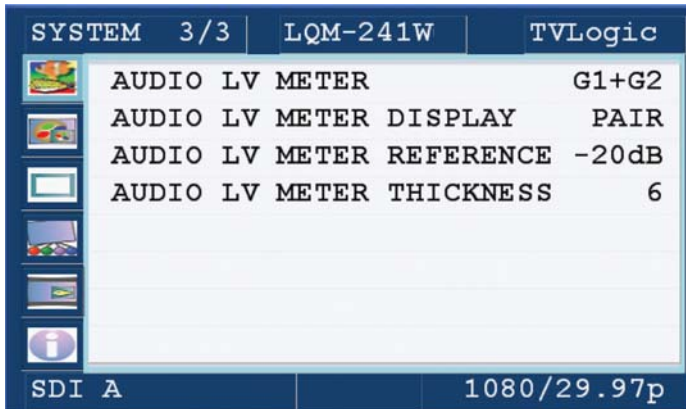
- **CLOSED CAPTION**

- This item controls closed caption ON/OFF. (708, 608(LINE21), 608(ANC))

- **TIME CODE ENABLE**

- This item displays the time code.(VITC, LTC)

- * When multi screen mode, if the same input is displayed onto 2 or more screens, TIME CODE will be only seen on the first screen displaying the same input.
(e.x., If SDI-A input is displayed on SCREEN1 and SCREEN2 in QUAD mode, TIME CODE will be only displayed on SCREEN 1)



- **AUDIO LEVEL METER**

- This item controls audio level meter. If user want to see embedded audio signal, use this mode.
 - Audio level meter can select GROUP1 ~ GROUP4 or OFF.

- * When multi screen mode, if the same input is displayed onto 2 or more screens, TIME CODE will be only seen on the first screen displaying the same input.
(e.x., If SDI-A input is displayed on SCREEN1 and SCREEN2 in QUAD mode, TIME CODE will be only displayed on SCREEN 1)

- **AUDIO LEVEL METER**

- This item sets embedded audio group selects off, G1+G2, G2+G3, G3+G4, G1+G3, G1+G4,G2+G4 to activate audio level meter.

- **AUDIO LEVEL METER DISPLAY**

- When audio level meter is activated, This item controls display method.(Pair, Group)

- **AUDIO LEVEL METER REFERENCE**

- This item sets audio level default.(-18dB, -20dB)

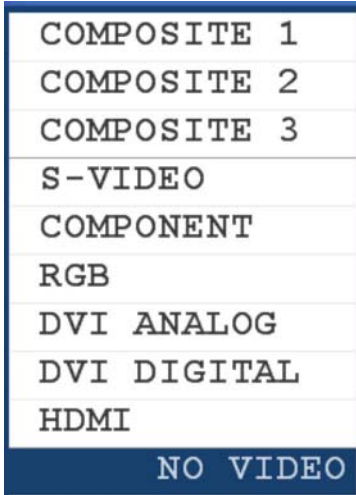
- **AUDIO LV METER THICKNESS**

- This item selects the thickness of the AUDIO LEVEL METER.

[1] ANALOG MODE USAGE

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.



2. Highlight the value you desire by using the UP/DOWN button and press the MENU button to confirm your selection. From this point the OSD menu operates identically to the MENU operations discussed above.

Warning!!

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

[2] SD 1:1 SCAN MODE

Widescreen models provide not only an UNDERSCAN mode but also an SD 1:1 SCAN mode. These modes maybe selected as follows:

1. Transfer to UNDERSCAN by pressing the UNDERSCAN button on the front of the monitor.
2. Press the UNDERSCAN button again after the mode is shifted to UNDERSCAN mode to transfer to SD 1:1 SCAN mode.

[3] DVI SUPPORT RESOLUTION

DVI-ANA mode supports the following modes:

Resolution	Frequency
640 x 480	60Hz, 75Hz, 85Hz
800 x 600	60Hz, 72Hz, 75Hz, 85Hz
1024 x 768	60Hz, 70Hz, 75Hz, 85Hz
720 x 400	70Hz

DVI-DIG mode is separated into Graphic mode and Video mode. Graphic mode supports the below resolutions and frequencies. DVI-DIG Graphic mode supports the following modes:

Resolution	Frequency
640 x 480	60Hz, 75Hz, 85Hz
800 x 600	60Hz, 72Hz, 75Hz, 85Hz
1024 x 768	60Hz, 70Hz, 75Hz, 85Hz
1280 x 1024	60Hz
1600 x 1200	60Hz
1920 x 1200	60Hz

DVI-DIG Video mode supports the following input signals.

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

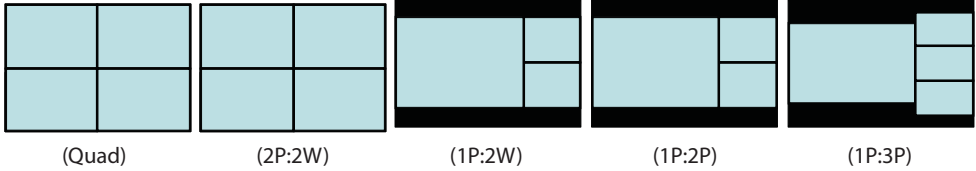
* When use DVI function, User must select Underscan button.

* If use Non-wide resolution, but user want to wide display, then select Aspect button.

[4] MULTI MODE USAGE

1. Use Quad key to change into Multi Screen. Then the last displayed multi screen appears.

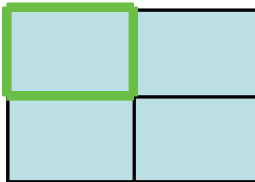
In Normal Screen(when an individual screen is not selected in multi mode), key function and OSD function apply for all display simultaneously.



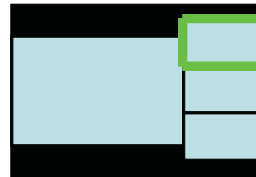
** Quad: 4Picture -P : Picture -W: Waveform or Vector

Five different multi screen formations are available and pressing the Quad key continuously changes the screen formation as shown in the above picture.

2. To control the individual display in multi screen, use the Screen Sel key to select the desired display then control the desired function. Selected display will be highlighted. The basic Key and the OSD controls work the same way as in normal condition except for the waveform/vector screen. User can only control this screen to select waveform/vector.



(Screen 1 selected)



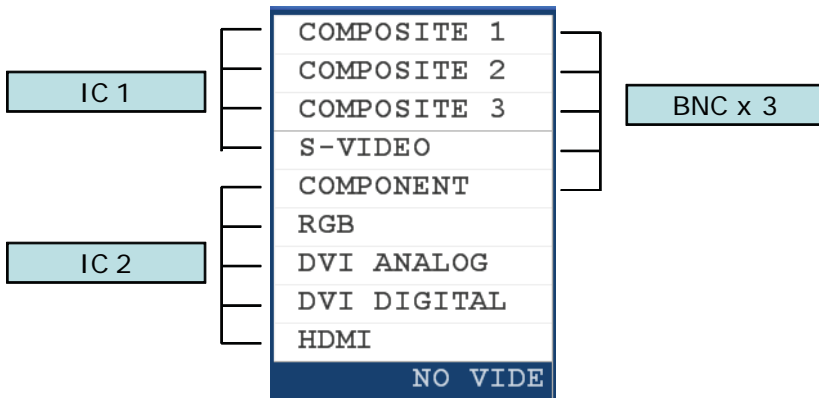
(Screen 2 selected)

3. Waveform control is available only in 1P:1W and 2P:2W. In 2P:2W, picture displays on top position and the corresponding waveform/vector displays on the below position. To control the Waveform, select the desired display and use the Waveform <-> Vector function.

In 1P:2W, a picture displays with both waveform and vector. In this mode, OSD function Waveform <->Vector can be used to switch their position.

[5] INPUT LIMIT FOR ANALOG (MULTI MODE)

1. There is a limitation for Analog input in Multi Mode.
(No limitation for SDI signals)
2. There are 3x BNC for the Analog inputs. So, if the BNCs or one of the BNCs are 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 2x IC used for the signals.
If an IC is already used, another input for the same IC cannot be inputted.



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

3. For example, if a COMPOSITE 1 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.

Input	1 x DVI-I	DVI IN
	3 x BNC	Analog Input
	4 x BNC	SDI A/B/C/D Channel Input
	1 x HDMI	HDMI Input
Output	3 x BNC	Analog Output
	4 x BNC	SDI A/B/C/D Channel (Active Through Out)
Input Signal	Analog	Composite / S - Video / Component / RGB
	HD - SDI	1.458Gpbs
	SD - SDI	270Mbps
	DVI	VESA/IBM Modes
	HDMI	480i/480p/720p/1080i & VESA/IBM Modes
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 (G With Sync), 0.7Vpp (B,R)
SDI Input Signal Formats	SMPTE - 274M	1080i (60/59.94/50)
		1080p (30/29.97/25/24/24sF/23.98/23.98sF)
	SMPTE - 296M	720p (60/59.94/50)
	SMPTE - 260M	1035i (60/59.94)
	SMPTE - 125M	480i (59.94)
ITU - R BT.656	576i (50)	
Audio In	Embedded Audio / Analog Stereo (Phone Jack)	
Audio Out	Analog Stereo (Phone Jack) / SPEAKER (Stereo)	
LCD	Size	24"
	Resolution	1920 x 1200 (16:10)
	Pixel Pitch	0.270(H) x 0.270(W) mm
	Color	16.7M(true 8bit)
	Viewing Angle	H : 178 degrees / V : 178 degrees
	Luminance of white	500 cd / m ² (Center)
	Contrast	800:1
	Display Area	518.4(H) x 324.0(V) mm
Power	24V DC / AC100~240V	
Power Consumption (Approx.)	77 Watts(DC / Typ.)	
Operating Temperature	0°C to 40°C (32°F to 104°F)	
Storage Temperature	-20°C to 60°C (-4°F to 140°F)	
Main Body Dimensions (mm/inch)	552.5 x 389 x 95 (21.73 x 15.31 x 3.74)	
Main Body Dimensions (With Stand)	586 x 417 x 150 (23.07 x 16.41 x 5.90)	
Weight	11Kg / 24.2 lb	
Accessory	AC Power cord, Manual	
Option	Carrying Case, 19" Rack Mountable Kit, ND Filter	

* Above specifications may be changed without notice

** SMPTE-372M mode is an option

**LVM-071W**

1. LCD Resolution : 800 x 480 (15:9)
2. Color : 16.7M(true), 24bit
3. Contrast - 300:1
4. Viewing Angle : H (130) / V (115)
5. Weight : 1Kg (2.2 lb)

**LVM-084**

1. LCD Resolution : 1024 x 768 (4:3)
2. Color : 16.7M(true), 24bit
3. Contrast - 400:1
4. Viewing Angle : 170
5. Weight : 2.1Kg (4.6 lb)

**LVM-091W**

1. LCD Resolution : 800 x 480 (15:9)
2. Color : 16.7M(true), 24bit
3. Contrast - 350:1
4. Viewing Angle : 170
5. Weight : 2.8Kg (6.2 lb)

**LVM-171WP / LVM-172W**

1. LCD Resolution : 1366 x 768 (16:9)
2. Color : 16.7M(true), 24bit
3. Contrast - 900:1
4. Viewing Angle : 178
5. Weight : 7Kg (15.4 lb)

**LVM-241W / LVM-242W**

1. LCD Resolution : 1920 x 1200 (16:10)
2. Color : 16.7M(true), 24bit
3. Contrast - 800:1
4. Viewing Angle : 178
5. Weight : 11Kg (24.2 lb)

**LVM-322W**

1. LCD Resolution : 1366 x 768 (16:9)
2. Color : 1 Billion(true), 30bit
3. Contrast - 1100:1
4. Viewing Angle : 178
5. Weight : 26Kg (57.3 lb)

**LVM-401W**

1. LCD Resolution : 1920 x 1080 (16:9)
2. Color : 16.7M(true), 24bit
3. Contrast - 1000:1
4. Viewing Angle : 178
5. Weight : 35Kg (77.2 lb)

**LVM-461W**

1. LCD Resolution : 1920 x 1080 (16:9)
2. Color : 16.7M(true), 24bit
3. Contrast - 1000:1
4. Viewing Angle : 178
5. Weight : 42Kg (92.6 lb)

**LVM-571W**

1. LCD Resolution : 1920 x 1080 (16:9)
2. Color : 16.7M(true), 24bit
3. Contrast - 1200:1
4. Viewing Angle : 178
5. Weight : 57Kg (125.6 lb)

XVM SERIES**XVM-245W**

1. LCD Resolution : 1920 x 1200 (16:10)
2. Color : 1 Billion(true), 30bit
3. Contrast - 1000:1
4. Viewing Angle : 178
5. Weight : 11Kg (24.2 lb)

LQM SERIES



LQM-071W

1. LCD Resolution : 800 x 480
2. Color : 16.7M(true), 24bit
3. Contrast - 300 : 1
4. Viewing Angle : H (130) / V (115)
5. Weight : 1Kg (2.2 lb)



LQM-241W

1. LCD Resolution : 1920 x 1200 (16:10)
2. Color : 16.7M(true), 24bit
3. Contrast - 800 : 1
4. Viewing Angle : 178
5. Weight : 11Kg (24.2 lb)

LHM SERIES



LHM-400W

1. LCD Resolution : 1920 x 1080 (16:9)
2. Color : 16.7M(true), 24bit
3. Contrast - 1000 : 1
4. Viewing Angle : 178
5. Weight : 35Kg (77.2 lb)



LHM-460W

1. LCD Resolution : 1920 x 1080 (16:9)
2. Color : 16.7M(true), 24bit
3. Contrast - 1000 : 1
4. Viewing Angle : 178
5. Weight : 42Kg (92.6 lb)



LHM-570W

1. LCD Resolution : 1920 x 1080 (16:9)
2. Color : 16.7M(true), 24bit
3. Contrast - 1200 : 1
4. Viewing Angle : 178
5. Weight : 57Kg (125.6 lb)

Optional Accessory



ND Filter 17" 24" 40"
46" 57"



External Filter 7" 9"



Rack-Mountable Kit 7" 9" 17" 24"



Tripod Head 7" 9"



V-Mount 17"



Hood-&-Handle 7" 9" 17"



Carrying Case 17" 24" 32" 40" 46" 57"

RACK MOUNT ANY DISPLAY UP TO 24"



7 inch



9 inch



17 inch



24 inch

Developed by



FOR MORE INFORMATION PLEASE VISIT : <http://www.tvlogic.co.kr>

#914 Ace Techno Tower 9, 345-30 Gasan-dong, Geumcheon-gu, Seoul, 153-782, KOREA

Tel : +82 - 2 - 2026 - 1333 Fax : +82 - 2 - 2026 - 1339 Email: support@tvlogic.co.kr